Material Profile Sheet

geocycle

A. GENERATOR INFORMATION

☐ **Check if Billing Information is same as Generator Information**

Generator Name: US EPA Region 4/ L&R Oil Recovery Site
Billing Company: STC Industrial

Facility Address (No P.O. Box): 61 Forsyth St. SW
Billing Address: 2630 Hwy 15 South

City/State/Zip: Atlanta GA 30303
City/State/Zip: Sumter, SC

Technical Contact: Kevin Eichinger
Billing Contact: PAm Clingera

Phone: 678-897-3759 Fax:
Phone: 803-506-8111 Fax:

Generator Location (If different from Facility Address): 501 Ruth St Shelby NC 28150

NAICS Code: CESQG SQG * US EPA ID # NCR000169185 *State Generating ID #

B. SHIPPING INFORMATION

*US DOT Proper Shipping Name: Waste Flammable Liquid, NOS

*Hazard Class / Division #: 3 *ID # (UN / NA): 1993 *Packing Group (PG): II RQ ? ☒Yes ☐No If yes lbs:100

Non-Bulk Shipping Containers					Bulk Shipping Containers			
Size	Steel	Poly	Fiber	Quantity & Frequency	Container Type	Size,	Quantity,	& Frequency
Gal					Yd.³ Box *or* Super Sack			
Gal					Hard Top *or* Tarped Bin			
Gal					End Dump (Tarped) Trailer			
Gal					Tank *or* Vacuum Trailer	5000	4	once

C. GENERAL MATERIAL & REGULATORY INFORMATION

Name of Waste Material: Bid item #1 UST02 Waste Oil

Process Generating The Material: Site cleanup

Odor: ☒None ☐Mild ☐Strong Describe odor:

Yes	No	Does this waste contain the following:	Yes	No	
☐	☒	Radioactive Waste	☐	☒	Concentrated Mineral Acid
☐	☒	Infectious or Biologically Active Waste	☐	☒	Electronic Waste
☐	☒	Explosives	☐	☒	Batteries
☐	☒	Asbestos	☐	☒	Pesticides/Herbicides
☐	☒	Unsorted Municipal Waste (household refuse, etc.)	☐	☒	CERCLA Regulated (Superfund) Waste
☐	☒	TSCA PCB waste **(List any PCB level in Sec.D)**	☐	☒	Regulated under RMP (Toxic Chemicals Section 112 (r)
☐	☒	Regulated Benzene NESHAP Waste	☐	☒	Exempt Waste; If Yes, list reference 40 CFR
☐	☐	Regulated Subpart CC Waste (VOs ≥ 500 ppm)	☐	☒	State Hazardous Waste Codes:
☐	☒	Regulated Ozone Depleting Substance	☒	☐	EPA Hazardous Waste
☐	☒	Does this waste contain, or is it derived from, dioxin-listed wastes with F020-F023, F026 or F027 waste codes?	EPA Waste Codes (including any LDR subcategories, e.g., D003 Water Reactive): D001 D008 D010 D018		

EPA Haz Waste Only Origin Code: 1☐ 2☐ 3☐ 4☐ 5☐ Source Code: **G** 43 Form Code: **W** 203 System Code: **H**

Waste Minimization Code: A☐ B☐ C☐ D☐ N☒ X☐

D. MATERIAL COMPOSITION

1. Chemical/Physical Constituents: List all detectable components **by chemical name**, including physical materials (e.g., sorbent, debris, etc.)

Material Components & Materials	Typical	☐ wt % ☐ vol % Low High	Material Components & Materials	Typical	☐ wt % ☐ vol % Low High
Waste Oil Contianing , lead, benzne,	100				

Add attachment if necessary.

Range Total ≥ 100 %

MATERIAL COMPOSITION *(Continued)*

1. Elemental Constituents ☐ **Check if this waste contains no detectable elements / metals, unless listed below.**

Check either: ☒ Total Analysis *or* ☐ TCLP Method *or* ☐ Generator Knowledge, and then enter data below.

Constituent	ppm	Constituent	ppm	Constituent	ppm	Constituent	ppm	Constituent	ppm
Aluminum		Cadmium		Fluorine		Nickel		Iron	
Antimony		Chlorine		Lead	22	Phosphorous		Sulfur	
Arsenic		Chromium	0.89	Lithium		Potassium		Thallium	
Barium	44	Cobalt		Manganese		Selenium	1	Titanium	
Beryllium		Copper		Mercury		Silicon		Vanadium	
Bromine		Iodine		Molybdenum		Silver	0.075	Zinc	

E. REACTIVE CHARACTERISTICS

☒ **Check if this waste exhibits no reactive characteristics**

	Yes	No		Yes	No		Yes	No	ppm (if Yes)
Explosive	☐	☐	Oxidizer	☐	☐	Reactive Cyanide	☐	☐	
Shock Sensitive	☐	☐	Water Reactive	☐	☐	Reactive Sulfide	☐	☐	
Pyrophoric	☐	☐	Air Reactive	☐	☐	Polymerizable	☐	☐	Inhibited? Yes:☐ No:☐

Other incompatibles or storage requirements:

F. MATERIAL PHYSICAL CHARACTERISTICS @ 70°F.

# of Phases: 1	Color: Black	Flash Point: <68°F (if < 73°F)	☐ Liquids >20% H_2O *or* ☐ Non-aqueous
Liquid %: 100	Specific Gravity:	73 - <100°F ☐ 100 - 141°F ☐	☐ ≤ 2 pH ☐ 2 - <4 pH ☒ 4 -10 pH
Sludge %:	Viscosity (cps):	142°F - <200°F ☐ >200°F ☐	☐ >10 - 12.5 pH ☐ ≥ 12.5 pH
Solid %:	Density:	Boiling Point (if < 130°F):	BTU's / lb. or Range:
Powder %:	☐ lbs/gal. ☐ lbs./ cu. ft.	Ash % :	
Gas %:	Comments:		

G. GENERATOR PROFILE CERTIFICATION

I hereby certify that I am an authorized agent of the generator, and warrant on behalf of the generator that the information supplied on this form and on any attachments or supplements hereto is complete and accurate, and that all known or suspected hazards of the material(s) described herein have been disclosed. I agree that if the sample test results indicate a discrepancy with any information supplied on this form, that either Geocycle or the generator may initiate further testing and evaluation in accordance with the terms and conditions of the contract between Geocycle and the generator and that this profile certification may be amended accordingly.

Generator's Authorized Signature | Kevin M. Eichinger FOSC | Name & Title (Printed or Typed) | 3 / 6 / 2019 | Date

Once completed, please mail each sample with its respective material profile form and chain of custody to:

Geocycle US
Attn: PRE-QUALIFICATION
2175 Gardner Blvd.
Holly Hill, SC 29059

Geocycle & Laboratory Use Only

PCS Code:

Sales Rep. Name: _____ Phone #: _____ Facility: _____

Material Profile Sheet

geocycle

A. GENERATOR INFORMATION

☐ **Check if Billing Information is same as Generator Information**

Generator Name	US EPA Region 4/ L&R Oil Recovery Site	Billing Company	STC Industrial
Facility Address (No P.O. Box)	61 Forsyth St, SW	Billing Address	2630 Hwy 15 South
City/State/Zip	Atlanta GA 30303	City/State/Zip	Sumter, SC
Technical Contact	Kevin Eichinger	Billing Contact	PAm Clingera
Phone	678-897-3759 Fax	Phone	803-506-8111 Fax

Generator Location (If different from Facility Address) 501 Ruth St Shelby NC 28150

NAICS Code: CESQG SQG * US EPA ID # NCR000169185 *State Generating ID #

B. SHIPPING INFORMATION

*US DOT Proper Shipping Name Waste Flammable Liquid, NOS

*Hazard Class / Division # 3 *ID # (UN / NA) 1993 *Packing Group (PG) II RQ ? ☒Yes ☐No If yes lbs:100

Non-Bulk Shipping Containers					Bulk Shipping Containers			
Size	Steel	Poly	Fiber	Quantity & Frequency	Container Type	Size,	Quantity,	& Frequency
Gal					Yd.³ Box *or* Super Sack			
Gal					Hard Top *or* Tarped Bin			
Gal					End Dump (Tarped) Trailer			
Gal					Tank *or* Vacuum Trailer	5000	4	once

C. GENERAL MATERIAL & REGULATORY INFORMATION

Name of Waste Material: Bid item #1 UST02 Waste Oil

Process Generating The Material: Site cleanup

Odor: ☒None ☐Mild ☐Strong Describe odor:

Yes	No	Does this waste contain the following:	Yes	No	
☐	☒	Radioactive Waste	☐	☒	Concentrated Mineral Acid
☐	☒	Infectious or Biologically Active Waste	☐	☒	Electronic Waste
☐	☒	Explosives	☐	☒	Batteries
☐	☒	Asbestos	☐	☒	Pesticides/Herbicides
☐	☒	Unsorted Municipal Waste (household refuse, etc.)	☐	☒	CERCLA Regulated (Superfund) Waste
☐	☒	TSCA PCB waste **(List any PCB level in Sec.D)**	☐	☒	Regulated under RMP (Toxic Chemicals Section 112 (r)
☐	☒	Regulated Benzene NESHAP Waste	☐	☒	Exempt Waste; If Yes, list reference 40 CFR
☐	☐	Regulated Subpart CC Waste (VOs ≥ 500 ppm)	☐	☒	State Hazardous Waste Codes:
☐	☒	Regulated Ozone Depleting Substance	☒	☐	EPA Hazardous Waste
☐	☒	Does this waste contain, or is it derived from, dioxin-listed wastes with F020-F023, F026 or F027 waste codes?	EPA Waste Codes (including any LDR subcategories, e.g., D003 Water Reactive): D001 D008 D010 D018		

EPA Haz Waste Only Origin Code: 1☐ 2☐ 3☐ 4☐ 5☐ Source Code: **G** 43 Form Code: **W** 203 System Code: **H**

Waste Minimization Code: A☐ B☐ C☐ D☐ N☒ X☐

D. MATERIAL COMPOSITION

1. Chemical/Physical Constituents: List all detectable components by **chemical name**, including physical materials (e.g., sorbent, debris, etc.)

Material Components & Materials	Typical	☐ wt % ☐ vol % Low High	Material Components & Materials	Typical	☐ wt % ☐ vol % Low High
Waste Oil Contianing , lead, benzne,	100				

Add attachment if necessary. **Range Total ≥ 100 %**

D. MATERIAL COMPOSITION *(Continued)*

1. Elemental Constituents ☐ **Check if this waste contains no detectable elements / metals, unless listed below.**

Check either; ☒ Total Analysis *or* ☐ TCLP Method *or* ☐ Generator Knowledge, and then enter data below.

Constituent	ppm	Constituent	ppm	Constituent	ppm	Constituent	ppm	Constituent	ppm
Aluminum		Cadmium		Fluorine		Nickel		Iron	
Antimony		Chlorine		Lead	22	Phosphorous		Sulfur	
Arsenic		Chromium	0.89	Lithium		Potassium		Thallium	
Barium	44	Cobalt		Manganese		Selenium	1	Titanium	
Beryllium		Copper		Mercury		Silicon		Vanadium	
Bromine		Iodine		Molybdenum		Silver	0.075	Zinc	

E. REACTIVE CHARACTERISTICS ☒ Check if this waste exhibits no reactive characteristics

	Yes	No		Yes	No		Yes	No	ppm (if Yes)
Explosive	☐	☐	Oxidizer	☐	☐	Reactive Cyanide	☐	☐	
Shock Sensitive	☐	☐	Water Reactive	☐	☐	Reactive Sulfide	☐	☐	
Pyrophoric	☐	☐	Air Reactive	☐	☐	Polymerizable	☐	☐	Inhibited? Yes:☐ No:☐

Other incompatibles or storage requirements:

F. MATERIAL PHYSICAL CHARACTERISTICS @ 70°F.

# of Phases: 1	Color: Black	Flash Point: <68°F (if < 73°F)	☐ Liquids >20% H_2O *or* ☐ Non-aqueous
Liquid %: 100	Specific Gravity:	73 - <100°F ☐ 100 - 141°F ☐	☐ ≤ 2 pH ☐ 2 - <4 pH ☒ 4 -10 pH
Sludge %:	Viscosity (cps):	142°F - <200°F ☐ >200°F ☐	☐ >10 - 12.5 pH ☐ ≥ 12.5 pH
Solid %:	Density:	Boiling Point (if < 130°F):	BTU's / lb. or Range:
Powder %:	☐ lbs/gal. ☐ lbs./ cu. ft.	Ash % :	
Gas %:	Comments:		

G. GENERATOR PROFILE CERTIFICATION

I hereby certify that I am an authorized agent of the generator, and warrant on behalf of the generator that the information supplied on this form and on any attachments or supplements hereto is complete and accurate, and that all known or suspected hazards of the material(s) described herein have been disclosed. I agree that if the sample test results indicate a discrepancy with any information supplied on this form, that either Geocycle or the generator may initiate further testing and evaluation in accordance with the terms and conditions of the contract between Geocycle and the generator and that this profile certification may be amended accordingly.

[signature] Kevin Eichinger FedOn-Scum Cor 3 / 12 / 19

Generator's Authorized Signature | Name & Title (Printed or Typed) | Date

Once completed, please mail each sample with its respective material profile form and chain of custody to:

Geocycle US
Attn: PRE-QUALIFICATION
2175 Gardner Blvd.
Holly Hill, SC 29059

Geocycle & Laboratory Use Only

PCS Code:

Sales Rep. Name: _____ Phone #: _____ Facility: _____

Material Profile Sheet

geocycle

A. GENERATOR INFORMATION

☐ **Check if Billing Information is same as Generator Information**

Generator Name	US EPA Reg 4/L&R Oil Recovery Site	Billing Company	American Waste Management Services, Inc
Facility Address (No P.O. Box)	501 Ruth Street	Billing Address	One American Way
City/State/Zip	Shelby, NC., 28150	City/State/Zip	Warren, OH., 44484
Technical Contact	Kevin Eichinger	Billing Contact	John Zwahl
Phone	(678) 897-3759 Fax	Phone	(330) 856-8800 Fax

Generator Location (If different from Facility Address) Mailing address – 61 Forsythe St., SW, Atlanta, GA., 30303

NAICS Code: CESQG SQG * US EPA ID # NCR000169185 *State Generating ID #

B. SHIPPING INFORMATION

*US DOT Proper Shipping Name Waste, Flammable Liquid, n.o.s., (Lead, Benzene)

*Hazard Class / Division # 9 *ID # (UN / ~~NA~~) 1993 *Packing Group (PG) II RQ ? X☐Yes ☐No If yes lbs:

Non-Bulk Shipping Containers					Bulk Shipping Containers			
Size	Steel	Poly	Fiber	Quantity & Frequency	Container Type	Size,	Quantity,	& Frequency
Gal					Yd.³ Box *or* Super Sack			
Gal					Hard Top *or* Tarped Bin			
Gal					End Dump (Tarped) Trailer			
Gal					Tank *or* Vacuum Trailer	5000 gal	4	1xo

C. GENERAL MATERIAL & REGULATORY INFORMATION

Name of Waste Material: Waste Oil – UST 01

Process Generating The Material: Remove contents of waste oil from UST at abandoned oil recovery site

Odor: ☐None XMild ☐Strong Describe odor: Oil

Yes	No	Does this waste contain the following:	Yes	No	
☐	☒	Radioactive Waste	☐	☒	Concentrated Mineral Acid
☐	☒	Infectious or Biologically Active Waste	☐	☒	Electronic Waste
☐	☒	Explosives	☐	☒	Batteries
☐	☒	Asbestos	☐	☒	Pesticides/Herbicides
☐	☒	Unsorted Municipal Waste (household refuse, etc.)	☐	☐	CERCLA Regulated (Superfund) Waste
☐	☒	TSCA PCB waste **(List any PCB level in Sec.D)**	☐	☒	Regulated under RMP (Toxic Chemicals Section 112 (r)
☐	☒	Regulated Benzene NESHAP Waste	☐	☒	Exempt Waste; If Yes, list reference 40 CFR
☒	☐	Regulated Subpart CC Waste (VOs ≥ 500 ppm)	☐	☐	State Hazardous Waste Codes:
☐	☒	Regulated Ozone Depleting Substance	☐	☒	EPA Hazardous Waste
☐	☒	Does this waste contain, or is it derived from, dioxin-listed wastes with F020-F023, F026 or F027 waste codes?	EPA Waste Codes (including any LDR subcategories, e.g., D003 Water Reactive): D001, D008, D018		

EPA Haz Waste Only Origin Code: 1☐ 2☐ 3☐ 4☐ 5☐ Source Code: **G** 43 Form Code: **W** 206 System Code: **H**

Waste Minimization Code: A☐ B☐ C☐ D☐ N☐ X☒

D. MATERIAL COMPOSITION

1. Chemical/Physical Constituents: List all detectable components **by chemical name**, including physical materials (e.g., sorbent, debris, etc.)

Material Components & Materials	Typical	☐ wt % ☐ vol % Low	High	Material Components & Materials	Typical	☐ wt % ☐ vol % Low	High
Oil	95	90	100				
Water	5	0	10				
Ref to result for LOR-WS-UST01-111918							
only							

Add attachment if necessary. **Range Total ≥ 100 %**

D. MATERIAL COMPOSITION *(Continued)*

1. Elemental Constituents ☐ **Check if this waste contains no detectable elements / metals, unless listed below.**

Check either; ☒ Total Analysis *or* ☐ TCLP Method *or* ☐ Generator Knowledge, and then enter data below.

Constituent	ppm	Constituent	ppm	Constituent	ppm	Constituent	ppm	Constituent	ppm
Aluminum		Cadmium		Fluorine		Nickel		Iron	
Antimony		Chlorine		Lead	10	Phosphorous		Sulfur	
Arsenic		Chromium	.48	Lithium		Potassium		Thallium	
Barium	13	Cobalt		Manganese		Selenium		Titanium	
Beryllium		Copper		Mercury		Silicon		Vanadium	
Bromine		Iodine		Molybdenum		Silver	.23	Zinc	

E. REACTIVE CHARACTERISTICS ☐ Check if this waste exhibits no reactive characteristics

	Yes	No		Yes	No		Yes	No	ppm (if Yes)
Explosive	☐	☒	Oxidizer	☐	☒	Reactive Cyanide	☐	☒	
Shock Sensitive	☐	☒	Water Reactive	☐	☒	Reactive Sulfide	☐	☒	
Pyrophoric	☐	☒	Air Reactive	☐	☒	Polymerizable	☐	☒	Inhibited? Yes:☐ No:☒

Other incompatibles or storage requirements:

F. MATERIAL PHYSICAL CHARACTERISTICS @ 70°F.

# of Phases: 1	Color: black	Flash Point: 68°F (if < 73°F)	☐ Liquids >20% H_2O *or* ☐ Non-aqueous
Liquid %: 100	Specific Gravity: 1	73 - <100°F ☐ 100 - 141°F ☐	☐ ≤ 2 pH ☐ 2 - <4 pH ☒ 4 -10 pH
Sludge %:	Viscosity (cps):	142°F - <200°F ☐ >200°F ☐	☐ >10 - 12.5 pH ☐ ≥ 12.5 pH
Solid %:	Density:	Boiling Point (if < 130°F):	BTU's / lb. or Range: 17,000
Powder %:	☐ lbs/gal. ☐ lbs./ cu. ft.	Ash % :	
Gas %:	Comments:		

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Generator's Authorized Signature | Kevin Eichinger, Federal On-Scene Coordinator (Name & Title (Printed or Typed)) | 3 / 12 / 2019 (Date)

Once completed, please mail each sample with its respective material profile form and chain of custody to:

Geocycle US
Attn: PRE-QUALIFICATION
2175 Gardner Blvd.
Holly Hill, SC 29059

Geocycle Laboratory Use Only

Sales Rep. Name: _____ **Phone #:** _____ **Facility:** _____

Material Profile Sheet

geocycle

A. GENERATOR INFORMATION

☐ **Check if Billing Information is same as Generator Information**

Generator Name	US EPA Reg 4/L&R Oil Recovery Site	Billing Company	American Waste Management Services, Inc
Facility Address (No P.O. Box)	501 Ruth Street	Billing Address	One American Way
City/State/Zip	Shelby, NC., 28150	City/State/Zip	Warren, OH., 44484
Technical Contact	Kevin Eichinger	Billing Contact	John Zwahl
Phone	(678) 897-3759 Fax	Phone	(330) 856-8800 Fax

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Non-Bulk Shipping Containers					Bulk Shipping Containers			
Size	Steel	Poly	Fiber	Quantity & Frequency	Container Type	Size,	Quantity,	& Frequency
Gal					Yd.³ Box *or* Super Sack			
Gal					Hard Top *or* Tarped Bin			
Gal					End Dump (Tarped) Trailer			
Gal					Tank *or* Vacuum Trailer	5000 gal	4	1xo

C. GENERAL MATERIAL & REGULATORY INFORMATION

Name of Waste Material: Waste Oil – UST 01

Process Generating The Material: Remove contents of waste oil from UST at abandoned oil recovery site

Odor: ☐None XMild ☐Strong Describe odor: Oil

Yes	No	**Does this waste contain the following:**	Yes	No	
☐	☒	Radioactive Waste	☐	☒	Concentrated Mineral Acid
☐	☒	Infectious or Biologically Active Waste	☐	☒	Electronic Waste
☐	☒	Explosives	☐	☒	Batteries
☐	☒	Asbestos	☐	☒	Pesticides/Herbicides
☐	☒	Unsorted Municipal Waste (household refuse, etc.)	☐	☐	CERCLA Regulated (Superfund) Waste
☐	☒	TSCA PCB waste **(List any PCB level in Sec.D)**	☐	☒	Regulated under RMP (Toxic Chemicals Section 112 (r)
☐	☒	Regulated Benzene NESHAP Waste	☐	☒	Exempt Waste; If Yes, list reference 40 CFR
☒	☐	Regulated Subpart CC Waste (VOs ≥ 500 ppm)	☐	☐	State Hazardous Waste Codes:
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Material Components & Materials	Typical	☐ wt % ☐ vol % Low	High	Material Components & Materials	Typical	☐ wt % ☐ vol % Low	High
Oil	95	90	100				
Water	5	0	10				
Ref to result for LOR-WS-UST01-111918							
only							

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D. MATERIAL COMPOSITION *(Continued)*

1. Elemental Constituents ☐ **Check if this waste contains no detectable elements / metals, unless listed below.**

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Antimony		Chlorine		Lead	10	Phosphorous		Sulfur	
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Bromine		Iodine		Molybdenum		Silver	.23	Zinc	

E. REACTIVE CHARACTERISTICS ☐ Check if this waste exhibits no reactive characteristics

	Yes	No		Yes	No		Yes	No	ppm (if Yes)
Explosive	☐	☒	Oxidizer	☐	☒	Reactive Cyanide	☐	☒	
Shock Sensitive	☐	☒	Water Reactive	☐	☒	Reactive Sulfide	☐	☒	
Pyrophoric	☐	☒	Air Reactive	☐	☒	Polymerizable	☐	☒	Inhibited? Yes:☐ No:☒

Other incompatibles or storage requirements:

F. MATERIAL PHYSICAL CHARACTERISTICS @ 70°F.

# of Phases: 1	Color: black	Flash Point: 68°F (if < 73°F)	☐ Liquids >20% H_2O *or* ☐ Non-aqueous
Liquid %: 100	Specific Gravity: 1	73 - <100°F ☐ 100 - 141°F ☐	☐ ≤ 2 pH ☐ 2 - <4 pH ☒ 4 -10 pH
Sludge %:	Viscosity (cps):	142°F - <200°F ☐ >200°F ☐	☐ >10 - 12.5 pH ☐ ≥ 12.5 pH
Solid %:	Density:	Boiling Point (if < 130°F):	BTU's / lb. or Range: 17,000
Powder %:	☐ lbs/gal. ☐ lbs./ cu. ft.	Ash % :	
Gas %:	Comments:		

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Generator's Authorized Signature | Kevin Eichinger, Federal On-Scene Coordinator (Name & Title (Printed or Typed)) | 3 / 12 / 2019 (Date)

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Attn: PRE-QUALIFICATION
2175 Gardner Blvd.
Holly Hill, SC 29059

Geocycle & Laboratory Use Only

PCS Code:

Sales Rep. Name: _____ Phone #: _____ Facility: _____

Pressley, Miriam

From: Prys, Paul <Paul.Prys@tetratech.com>
Sent: Tuesday, July 23, 2019 11:42 PM
To: Eichinger, Kevin; Jessica Vickers
Subject: 20X Language for L&R Oil ER Letter Report
Attachments: TT-01-101_LROR_ER Report_Encl 2_Table 1_Lab Results_072319_Waste.pdf

Here's the language I've come up with for the RCRA/TSCA comparisons for the waste. Give it a look and please feel free to add what you think is needed. I've also attached the new waste summary results table. Please give it a look and let me know if I'm on target with the reporting or off base.

The laboratory analytical results were compared to the Code of Federal Regulation (CFR), Title 40, Protection of Environment, Chapter I, Environmental Protection Agency, Subchapter I, Solid Wastes, Part 261, Identification and Listing of Hazardous Waste (40 CFR 261) and 40 CFR, Subchapter R, Toxic Substances Control Act, Part 761, Polychlorinated Biphenyls Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions (40 CFR 761) to determine which waste streams were to be disposed as hazardous or nonhazardous waste. Since the waste streams were not analyzed by Toxicity Characteristic Leaching Procedure, the analytical results were multiplied by 20 and compared to the regulatory levels associated with 40 CFR 261 and 40 CFR 761. If the multiplied results exceeded the regulatory levels, the waste stream was considered hazardous.

Paul Prys | Senior Environmental Scientist/Project Manager
Direct: 678.775.3106 | Cell: 404.849.7136 | Fax: 678.775.3138
paul.prys@tetratech.com

Tetra Tech | Atlanta Office
1955 Evergreen Blvd. Bldg. 200, Ste. 300, Duluth, GA 30096 www.tetratech.com | NASDAQ:TTEK

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TABLE 1
L&R OIL RECOVERY
MULTIMEDIA LABORATORY ANALYTICAL RESULTS

Analyte	RCRA	LRO-WS-TK01-091918		LRO-WS-TK02-091918		LRO-WS-TK03-091918		LRO-WS-TK04-091918	
		TK01		TK02		TK03		TK04	
		9/19/2018		9/19/2018		9/19/2018		9/19/2018	
		Lab Results	20X Results	Lab Results	20X Results	Lab Results	20X Results	Lab Results	20X Results
Volatile Organic Compounds (mg/kg)									
1,1,2,2-Tetrachloroethane	NL	26 U	520 U	26 U	520 U	27 U	540 U	27 U	540 U
4-Methyl-2-pentanone	NL	52 U	1,040 U	52 U	1,040 U	54 U	1,080 U	53 U	1,060 U
Acetone	NL	260 U	5,200 U	260 U	5,200 U	270 U	5,400 U	270 U	5,400 U
Benzene	1	26 U	520 U	26 U	520 U	27 U	540 U	27 U	540 U
Cyclohexane	NL	26 U	520 U	26 U	520 U	27 U	540 U	27 U	540 U
Ethylbenzene	NL	**34**	**680**	**36**	**720**	**28**	**560**	**35**	**700**
Isopropylbenzene	NL	26 U	520 U	26 U	520 U	27 U	540 U	27 U	540 U
m,p-Xylene	NL	**130**	**2,600**	**130**	**2,600**	**120**	**2,400**	**120**	**2,400**
Methylcyclohexane	NL	26 U	520 U	26 U	520 U	27 U	540 U	27 U	540 U
o-Xylene	NL	**51**	**1,020**	**57**	**1,140**	**54**	**1,080**	**54**	**1,080**
Tetrachloroethene	NL	**61**	**1,220**	**64**	**1,280**	27 U	540 U	**63**	**1,260**
Toluene	NL	**100**	**2,000**	**110**	**2,200**	**170**	**3,400**	**110**	**2,200**
Semivolatile Organic Compounds (mg/kg)									
1,1 Biphenyl	NL	500 U	NA	500 U	NA	500 U	NA	500 U	NA
2-Methylnaphthalene	NL	500 U	NA	500 U	NA	500 U	NA	500 U	NA
Bis(2-ethylhexyl)phthalate	NL	500 U	NA	500 U	NA	500 U	NA	500 U	NA
Napthalene	NL	2,000 U	NA	2,000 U	NA	1 U	NA	2,000 U	NA
Pyrene	NL	500 U	NA	500 U	NA	500 U	NA	500 U	NA
Polychlorinated Biphenyls (mg/kg)									
Aroclor 1016	50[a]	2 U	40 U	2 U	40 U	0.001 U	0.020 U	2 U	40 U
Aroclor 1221	50[a]	2 U	40 U	2 U	40 U	0.001 U	0.020 U	2 U	40 U
Aroclor 1232	50[a]	2 U	40 U	2 U	40 U	0.001 U	0.020 U	2 U	40 U
Aroclor 1242	50[a]	**37**	**740**	**38**	**760**	**0.0023**	**0.046**	**39**	**780**
Aroclor 1248	50[a]	2 U	40 U	2 U	40 U	0.001 U	0.020 U	2 U	40 U
Aroclor 1254	50[a]	**4**	**82**	**4**	**82**	0.001 U	0.020 U	**3.4**	**68**
Aroclor 1260	50[a]	**2**	**40**	**2**	**40**	0.001 U	0.020 U	2 U	40 U
Aroclor 1262	50[a]	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1268	50[a]	NA	NA	NA	NA	NA	NA	NA	NA
RCRA Metals (mg/kg)									
Arsenic	5	0.39 U	NA	0.39 U	NA	0.39 U	NA	0.41 U	NA
Barium	100	**4.7 J**	NA	**5.3**	NA	**0.74 J**	NA	**3.3 J**	NA
Cadmium	1	**0.16 J**	NA	0.16 J	NA	0.048 U	NA	**0.051 J**	NA
Chromium	5	**0.58 J**	NA	0.72 J	NA	0.42 U	NA	0.43 U	NA
Lead	5	**7**	NA	**7.8**	NA	**9.4**	NA	**5.2**	NA
Mercury	0.02	0.0191 U	NA	0.0226 J	NA	0.00863 U	NA	0.0166 J	NA
Selenium	1	0.72 U	NA	0.83 J	NA	0.72 U	NA	0.75 U	NA
Silver	5	**0.036 J**	NA	0.034 J	NA	**0.015 J**	NA	**0.016 J**	NA
Chlorinated Pesticides (mg/kg)	NL	NA	NA	NA	NA	NA	NA	NA	NA
Chlorinated Herbicides (mg/kg)	NL	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability (°F)	<140[b]	**190 >**	NA	**163**	NA	**190 >**	NA	**190 >**	NA
Corrosivity	≤2 or ≥12.5[c]	**7.05 H**	NA	**7.44 H**	NA	**6.97 H**	NA	**7.24 H**	NA
BTU (BTU/lb)	NL	**20,000 N**	NA	**160,000 N**	NA	**20,000 N**	NA	**19,000 N**	NA

TETRA TECH

TABLE 1
L&R OIL RECOVERY
MULTIMEDIA LABORATORY ANALYTICAL RESULTS

Analyte	RCRA	LRO-WS-TT01-091918		LRO-WS-TT02-091918		LRO-WS-TT03-091918		LRO-WS-TT04-091918	
		TT01		TT02		TT03		TT04	
		9/19/2018		9/19/2018		9/19/2018		9/19/2018	
		Lab Results	20X Results	Lab Results	20X Results	Lab Results	20X Results	Lab Results	20X Results
Volatile Organic Compounds (mg/kg)									
1,1,2,2-Tetrachloroethane	NL	27 U	540 U	28 U	560 U	28 U	560 U	27 U	540 U
4-Methyl-2-pentanone	NL	54 U	1,080 U	26 U	520 U	55 U	1,100 U	54 U	1,080 U
Acetone	NL	270 U	5,400 U	280 U	5,600 U	280 U	5,600 U	270 U	5,400 U
Benzene	1	**51**	**1,020**	**590**	**11,800**	**230**	**4,600**	27 U	540 U
Cyclohexane	NL	**46**	**920**	**470**	**9,400**	**180**	**3,600**	27 U	540 U
Ethylbenzene	NL	**170**	**3,400**	**1,600**	**32,000**	**810**	**16,200**	27 U	540 U
Isopropylbenzene	NL	27 U	540 U	**220**	4,400	**100**	2,000	27 U	540 U
m,p-Xylene	NL	**640**	**12,800**	**6,700**	**134,000**	**26,000**	**520,000**	**84**	**1,680**
Methylcyclohexane	NL	**67**	**1,340**	**800**	**16,000**	**310**	**6,200**	27 U	540 U
o-Xylene	NL	**250**	**5,000**	**2,500**	**50,000**	**1,100**	**22,000**	**36**	**720**
Tetrachloroethene	NL	27 U	540 U	28 U	560 U	28 U	560 U	27 U	540 U
Toluene	NL	**560**	**11,200**	**6,200**	**124,000**	**27,000**	**540,000**	**53**	**1,060**
Semivolatile Organic Compounds (mg/kg)									
1,1 Biphenyl	NL	500 U	NA	500 U	NA	500 U	NA	100 U	NA
2-Methylnaphthalene	NL	500 U	NA	**1,400**	NA	**790**	NA	100 U	NA
Bis(2-ethylhexyl)phthalate	NL	500 U	NA	500 U	NA	**830**	NA	100 U	NA
Napthalene	NL	1 U	NA	1 U	NA	1 U	NA	1 U	NA
Pyrene	NL	500 U	NA	500 U	NA	500 U	NA	100 U	NA
Polychlorinated Biphenyls (mg/kg)									
Aroclor 1016	50[a]	0.001 U	0.020 U	0.001 U	0.020 U	0.001 U	0.020 U	0.001 U	0.020 U
Aroclor 1221	50[a]	0.001 U	0.020 U	0.001 U	0.020 U	0.001 U	0.020 U	0.001 U	0.020 U
Aroclor 1232	50[a]	0.001 U	0.020 U	0.001 U	0.020 U	0.001 U	0.020 U	0.001 U	0.020 U
Aroclor 1242	50[a]	**0.001**	**0.020**	0.001 U	0.020 U	0.001 U	0.020 U	0.001 U	0.020 U
Aroclor 1248	50[a]	0.001 U	0.020 U	0.001 U	0.020 U	0.001 U	0.020 U	0.001 U	0.020 U
Aroclor 1254	50[a]	0.001 U	0.020 U	0.001 U	0.020 U	0.001 U	0.020 U	0.001 U	0.020 U
Aroclor 1260	50[a]	0.001 U	0.020 U	0.001 U	0.020 U	0.001 U	0.020 U	0.001 U	0.020 U
Aroclor 1262	50[a]	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1268	50[a]	NA	NA	NA	NA	NA	NA	NA	NA
RCRA Metals (mg/kg)									
Arsenic	5	0.4 U	NA	0.4 U	NA	0.41 U	NA	0.4 U	NA
Barium	100	**15**	NA	**0.66 J**	NA	**8.5**	NA	0.16 U	NA
Cadmium	1	**0.16 J**	NA	0.049 U	NA	**0.17 J**	NA	0.049 U	NA
Chromium	5	**0.96 J**	NA	**0.5 J**	NA	**0.62 J**	NA	0.43 U	NA
Lead	5	**66**	NA	**3.6 J**	NA	**35**	NA	0.18 U	NA
Mercury	0.02	0.00836 U	NA	**0.0198 J**	NA	0.0091 U	NA	0.0863 U	NA
Selenium	1	0.73 U	NA	**1.3 J**	NA	0.76 U	NA	0.74 U	NA
Silver	5	**0.02 J**	NA	0.013 U	NA	**0.015 J**	NA	0.012 U	NA
Chlorinated Pesticides (mg/kg)	NL	NA	NA	NA	NA	NA	NA	NA	NA
Chlorinated Herbicides (mg/kg)	NL	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability (°F)	<140[b]	**78**	NA	**72**	NA	**72**	NA	**190 >**	NA
Corrosivity	≤2 or ≥12.5[c]	**6.68 H**	NA	**3.03 H**	NA	**6.50 H**	NA	**7.03 H**	NA
BTU (BTU/lb)	NL	**23,000 N**	NA	**20,000 N**	NA	**19,000 N**	NA	**3,500 N**	NA

TABLE 1
L&R OIL RECOVERY
MULTIMEDIA LABORATORY ANALYTICAL RESULTS

Analyte	RCRA	LRO-WS-TT05-091918		LRO-WS-DR01-091918		LRO-WS-DR02-091918		LRO-WS-DR03-091918	
		TT05		DR01		DR02		DR03	
		9/19/2018		9/19/2018		9/19/2018		9/19/2018	
		Lab Results	20X Results	Lab Results	20X Results	Lab Results	20X Results	Lab Results	20X Results
Volatile Organic Compounds (mg/kg)									
1,1,2,2-Tetrachloroethane	NL	26 U	520 U	27 U	540 U	26 U	520 U	27 U	540 U
4-Methyl-2-pentanone	NL	52 U	1,040 U	54 U	1,080 U	51 U	1,020 U	55 U	1,100 U
Acetone	NL	260 U	5,200 U	270 U	5,400 U	260 U	5,200 U	270 U	5,400 U
Benzene	1	26 U	520 U	27 U	540 U	26 U	520 U	27 U	540 U
Cyclohexane	NL	26 U	520 U	27 U	540 U	26 U	520 U	27 U	540 U
Ethylbenzene	NL	26 U	520 U	**140**	**2,800**	26 U	520 U	**27**	**540**
Isopropylbenzene	NL	26 U	520 U	27 U	540 U	26 U	520 U	27 U	540 U
m,p-Xylene	NL	26 U	520 U	**620**	**12,400**	26 U	520 U	**120**	**2,400**
Methylcyclohexane	NL	26 U	520 U	27 U	540 U	26 U	520 U	27 U	540 U
o-Xylene	NL	26 U	520 U	**190**	**3,800**	26 U	520 U	**47**	**940**
Tetrachloroethene	NL	26 U	520 U	27 U	540 U	26 U	520 U	**730**	**14,600**
Toluene	NL	26 U	520 U	**30**	**600**	26 U	520 U	**53**	**1,060**
Semivolatile Organic Compounds (mg/kg)									
1,1 Biphenyl	NL	100 U	NA	100 U	NA	100 U	NA	500 U	NA
2-Methylnaphthalene	NL	100 U	NA	100 U	NA	100 U	NA	500 U	NA
Bis(2-ethylhexyl)phthalate	NL	100 U	NA	100 U	NA	100 U	NA	500 U	NA
Napthalene	NL	1 U	NA	100 U	NA	100 U	NA	500 U	NA
Pyrene	NL	100 U	NA	100 U	NA	100 U	NA	500 U	NA
Polychlorinated Biphenyls (mg/kg)									
Aroclor 1016	50[a]	0.001 U	0.020 U	0.001 U	0.020 U	0.001 U	0.020 U	0.001 U	0.020 U
Aroclor 1221	50[a]	0.001 U	0.020 U	0.001 U	0.020 U	0.001 U	0.020 U	0.001 U	0.020 U
Aroclor 1232	50[a]	0.001 U	0.020 U	0.001 U	0.020 U	0.001 U	0.020 U	0.001 U	0.020 U
Aroclor 1242	50[a]	0.001 U	0.020 U	0.001 U	0.020 U	0.001 U	0.020 U	0.001 U	0.020 U
Aroclor 1248	50[a]	0.001 U	0.020 U	0.001 U	0.020 U	0.001 U	0.020 U	0.001 U	0.020 U
Aroclor 1254	50[a]	0.001 U	0.020 U	0.001 U	0.020 U	0.001 U	0.020 U	0.001 U	0.020 U
Aroclor 1260	50[a]	0.001 U	0.020 U	0.001 U	0.020 U	0.001 U	0.020 U	0.001 U	0.020 U
Aroclor 1262	50[a]	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1268	50[a]	NA	NA	NA	NA	NA	NA	NA	NA
RCRA Metals (mg/kg)									
Arsenic	5	0.4 U	NA	0.29 U	NA	0.39 U	NA	0.41 U	NA
Barium	100	**0.26 J**	NA	0.11 U	NA	0.15 U	NA	**21**	NA
Cadmium	1	0.048 U	NA	0.035 U	NA	0.047 U	NA	**0.92 J**	NA
Chromium	5	0.42 U	NA	0.3 U	NA	0.41 U	NA	**9.5**	NA
Lead	5	**0.29 J**	NA	0.13 U	NA	0.18 U	NA	**45**	NA
Mercury	0.02	0.00863 U	NA	0.00917 U	NA	0.00837 U	NA	0.00934 U	NA
Selenium	1	0.73 U	NA	0.53 U	NA	0.71 U	NA	0.75 U	NA
Silver	5	0.012 U	NA	0.0089 U	NA	0.012 U	NA	0.013 U	NA
Chlorinated Pesticides (mg/kg)	NL	NA	NA	NA	NA	NA	NA	NA	NA
Chlorinated Herbicides (mg/kg)	NL	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability (°F)	<140[b]	**190 >**	NA	**190 >**	NA	**190 >**	NA	**190 >**	NA
Corrosivity	≤2 or ≥12.5[c]	**7.87 H**	NA	**7.89 H**	NA	**10.70 H**	NA	**7.10 H**	NA
BTU (BTU/lb)	NL	**4,400 N**	NA	**4,400 N**	NA	**4,000 N**	NA	**4,900 N**	NA

TABLE 1
L&R OIL RECOVERY
MULTIMEDIA LABORATORY ANALYTICAL RESULTS

Analyte	RCRA	LRO-WS-SS-111918		LRO-WS-UST01-111918		LRO-WS-UST02-111918		LRO-WS-UST03-111918	
		SS		UST01		UST02		UST03	
		11/19/2018		11/19/2018		11/19/2018		11/19/2018	
		Lab Results	20X Results	Lab Results	20X Results	Lab Results	20X Results	Lab Results	20X Results
Volatile Organic Compounds (mg/kg)									
1,1,2,2-Tetrachloroethane	NL	**0.54**	10.8	130 U	2,600 U	130 U	2,600 U	130 U	2,600 U
4-Methyl-2-pentanone	NL	0.14 U	2.8 U	**900**	**18,000**	250 U	5,000 U	25 U	500 U
Acetone	NL	0.47 J	9.4 J	1,300 U	26,000 U	1,300 U	26,000 U	130 U	2,600 U
Benzene	1	0.037 J	0.74 J	**2,300**	**46,000**	**190**	**3,800**	13 U	260 U
Cyclohexane	NL	0.060 U	1.2 U	**2,400**	**48,000**	**230**	**4,600**	13 U	260 U
Ethylbenzene	NL	**3**	**60**	**6,800**	**136,000**	**520**	**10,400**	13 U	260 U
Isopropylbenzene	NL	**0.98**	**19.6**	**470**	**9,400**	**130** U	2,600 U	13 U	260 U
m,p-Xylene	NL	**19**	**380**	**26,000**	**520,000**	**2,000**	**40,000**	**21**	**420**
Methylcyclohexane	NL	**0.83**	**16.6**	**3,000**	**60,000**	**300**	**6,000**	13 U	260 U
o-Xylene	NL	**12**	**240**	**9,900**	**198,000**	**770**	**15,400**	13 U	260 U
Tetrachloroethene	NL	**0.27**	**5.4**	130 U	2,600 U	130 U	2,600 U	13 U	260 U
Toluene	NL	**2.4**	**48**	**28,000**	**560,000**	**2,000**	**40,000**	**40**	**800**
Semivolatile Organic Compounds (mg/kg)									
1,1 Biphenyl	NL	**350 J**	NA	1,000 U	NA	1,000 U	NA	1,000 U	NA
2-Methylnaphthalene	NL	**4,500**	NA	**1,500**	NA	**1,300**	NA	1,000 U	NA
Bis(2-ethylhexyl)phthalate	NL	**650**	NA	1,000 U	NA	1,000 U	NA	1,000 U	NA
Napthalene	NL	**2,000**	NA	**1,900**	NA	**1,700**	NA	1,000 U	NA
Pyrene	NL	**350 J**	NA	1,000 U	NA	1,000 U	NA	1,000 U	NA
Polychlorinated Biphenyls (mg/kg)									
Aroclor 1016	50[a]	0.0032 U	0.064 U	0.001 U	0.020 U	0.001 U	0.020 U	0.001 U	0.020 U
Aroclor 1221	50[a]	0.0044 U	0.088 U	0.001 U	0.020 U	0.001 U	0.020 U	0.001 U	0.020 U
Aroclor 1232	50[a]	0.0028 U	0.056 U	0.001 U	0.020 U	0.001 U	0.020 U	0.001 U	0.020 U
Aroclor 1242	50[a]	**0.52**	**10.4**	0.001 U	0.020 U	**0.0048**	0.096	0.001 U	0.020 U
Aroclor 1248	50[a]	0.0047 U	0.094 U	0.001 U	0.020 U	0.001 U	0.020 U	0.001 U	0.020 U
Aroclor 1254	50[a]	**0.07**	**1.4**	0.001 U	0.020 U	0.001 U	0.020 U	0.001 U	0.020 U
Aroclor 1260	50[a]	0.0017 U	0.034 U	0.001 U	0.020 U	0.001 U	0.020 U	0.001 U	0.020 U
Aroclor 1262	50[a]	0.0016 U	0.032 U	NA	NA	NA	NA	NA	NA
Aroclor 1268	50[a]	0.0025 U	0.050 U	NA	NA	NA	NA	NA	NA
RCRA Metals (mg/kg)									
Arsenic	5	**1.92 J**	NA	0.4 U	NA	0.41 U	NA	0.41 U	NA
Barium	100	**22.8**	NA	**13**	NA	**44**	NA	**6.2**	NA
Cadmium	1	**0.163 J**	NA	0.048 U	NA	0.049 U	NA	0.049 U	NA
Chromium	5	**15.3**	NA	**0.48 J**	NA	**0.89 J**	NA	**0.62 J**	NA
Lead	5	**7.3**	NA	**10**	NA	**22**	NA	**2.1 J**	NA
Mercury	0.02	**0.249**	NA	0.00902 U	NA	0.00946 U	NA	0.00872 U	NA
Selenium	1	0.668 U	NA	**1.1 J**	NA	**1 J**	NA	0.75 U	NA
Silver	5	0.0107 U	NA	**0.23 J**	NA	**0.075 J**	NA	**0.053 J**	NA
Chlorinated Pesticides (mg/kg)	NL	None Detected	NA	NA	NA	NA	NA	NA	NA
Chlorinated Herbicides (mg/kg)	NL	None Detected	NA	NA	NA	NA	NA	NA	NA
Ignitability (°F)	<140[b]	NA	NA	**68 <**	NA	**68 <**	NA	**68 <**	NA
Corrosivity	≤2 or ≥12.5[c]	NA	NA	**6.19 H**	NA	**5.42 H**	NA	**6.98 H**	NA
BTU (BTU/lb)	NL	NA	NA	**17,000 N**	NA	**3,500 N**	NA	**0 N**	NA

TETRA TECH

TABLE 1
L&R OIL RECOVERY
MULTIMEDIA LABORATORY ANALYTICAL RESULTS

Analyte	RCRA	LRO-WS-TT06-111918		LRO-WS-DR04-112018		LRO-WS-DR05-112018	
		TT06		DR04		DR05	
		11/19/2018		11/20/2018		11/20/2018	
		Lab Results	20X Results	Lab Results	20X Results	Lab Results	20X Results
Volatile Organic Compounds (mg/kg)							
1,1,2,2-Tetrachloroethane	NL	130 U	2,600 U	130 U	2,600 U	130 U	2,600 U
4-Methyl-2-pentanone	NL	250 U	5,000 U	250 U	5,000 U	250 U	5,000 U
Acetone	NL	1,300 U	26,000 U	1,300 U	26,000 U	1,300 U	26,000 U
Benzene	1	**580**	**11,600**	130 U	2,600 U	130 U	2,600 U
Cyclohexane	NL	**530**	**10,600**	130 U	2,600 U	**130**	**2,600**
Ethylbenzene	NL	**1,400**	**28,000**	130 U	2,600 U	**500**	**10,000**
Isopropylbenzene	NL	**150**	**3,000**	**660**	**13,200**	**800**	**16,000**
m,p-Xylene	NL	**4,900**	**98,000**	**260**	**5,200**	**2,100**	**42,000**
Methylcyclohexane	NL	**650**	**13,000**	130 U	2,600 U	**550**	**11,000**
o-Xylene	NL	**2,000**	**40,000**	**960**	**19,200**	**1,100**	**22,000**
Tetrachloroethene	NL	130 U	2,600 U	130 U	2,600 U	130 U	2,600 U
Toluene	NL	**6,300**	**126,000**	130 U	2,600 U	**440**	**8,800**
Semivolatile Organic Compounds (mg/kg)							
1,1 Biphenyl	NL	1,000 U	NA	1,000 U	NA	1,000 U	NA
2-Methylnaphthalene	NL	1,000 U	NA	1,000 U	NA	**4,400**	NA
Bis(2-ethylhexyl)phthalate	NL	1,000 U	NA	1,000 U	NA	1,000 U	NA
Napthalene	NL	1,000 U	NA	**1,100**	NA	**3,900**	NA
Pyrene	NL	1,000 U	NA	1,000 U	NA	1,000 U	NA
Polychlorinated Biphenyls (mg/kg)							
Aroclor 1016	50[a]	0.001 U	0.020 U	0.001 U	0.020 U	0.005 U	0.10 U
Aroclor 1221	50[a]	0.001 U	0.020 U	0.001 U	0.020 U	0.005 U	0.10 U
Aroclor 1232	50[a]	0.001 U	0.020 U	0.001 U	0.020 U	0.005 U	0.10 U
Aroclor 1242	50[a]	**31**	**620**	0.001 U	0.020 U	0.005 U	0.10 U
Aroclor 1248	50[a]	0.001 U	0.020 U	0.001 U	0.020 U	0.005 U	0.10 U
Aroclor 1254	50[a]	**2.1**	**42**	0.001 U	0.020 U	0.005 U	0.10 U
Aroclor 1260	50[a]	0.005 U	0.10 U	0.001 U	0.020 U	0.005 U	0.10 U
Aroclor 1262	50[a]	NA	NA	NA	NA	NA	NA
Aroclor 1268	50[a]	NA	NA	NA	NA	NA	NA
RCRA Metals (mg/kg)							
Arsenic	5	0.4 U	NA	0.41 U	NA	0.39 U	NA
Barium	100	**1.9 J**	NA	0.16 U	NA	0.15 U	NA
Cadmium	1	0.048 U	NA	0.05 U	NA	0.047 U	NA
Chromium	5	0.42 U	NA	0.44 U	NA	0.41 U	NA
Lead	5	**12**	NA	**0.32 J**	NA	**0.33 J**	NA
Mercury	0.02	0.00918 U	NA	0.00901 U	NA	0.00819 U	NA
Selenium	1	0.73 U	NA	**1.4 J**	NA	**1 J**	NA
Silver	5	**0.035 J**	NA	**0.033 J**	NA	**0.012 J**	NA
Chlorinated Pesticides (mg/kg)	NL	NA	NA	NA	NA	NA	NA
Chlorinated Herbicides (mg/kg)	NL	NA	NA	NA	NA	NA	NA
Ignitability (°F)	<140[b]	**78**	NA	**150 >**	NA	**140**	NA
Corrosivity	≤2 or ≥12.5[c]	**6.65 H**	NA	**6.50 H**	NA	**4.76 H**	NA
BTU (BTU/lb)	NL	**20,000 N**	NA	**17,000 N**	NA	**16,000 N**	NA

TABLE 1
L&R OIL RECOVERY
MULTIMEDIA LABORATORY ANALYTICAL RESULTS

Notes:

[ ] Concentration exceeded the hazardous waste characteristic as defined in 40 CFR 261 or 40 CFR 761.

Bold: Indicates analyte was positively identified at the associated value.

[a]: Comparison value as defined in 40 CFR 761, Polychlorinated Biphenyls Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions

[b]: Comparison value as defined in 40 CFR 261.21, Characteristic of ignitability

[c]: Comparison value as defined in 40 CFR 261.22, Characteristic of corrosivity

>: Greater than

≥: Greater than or equal to

<: Less than

≤: Less than or equal to

BTU: British Thermal Unit

CFR: Code of Federal Regulation

DR: Drum sample

EPA: U.S. Environmental Protection Agency

°F: Degrees Fahrenheit

H: Holding times for preperation or analysis exceeded.

J: Estimated value detected below reporting limit.

lb: Pound

LRO: L&R Oil Recovery

mg/kg: Milligrams per kilogram

N: Analyte not National Environmental Laboratory Accreditation Conference certified

NA: Not analyzed

NL: Not listed

RCRA: Resource Conservation Recovery Act

SD: Sediment sample

SS: Soil sample

TK: Tanker sample

TT: Tote sample

U: The analyte was not detected at or above the associated value reporting limit.

µg/kg: Micrograms per kilogram

UST: Underground storage tank

WS: Waste sample

Stericycle
Environmental Solutions

GENERATOR'S WASTE MATERIAL PROFILE WORKSHEET

Customer Service Representative:
Account Representative:

Requested PSC Code
Profile Number:
Order Number

A: GENERATOR INFORMATION

1. US EPA ID No: NCR000169185
NAICS Code:
2. State ID No:

3 Name: US EPA Reg 4/L&R Oil Recovery Site
4 Site Address: 501 Ruth Street
City: Shelby State: NC Zip: 28150
5 Contact: Kevin Eichinger 6 Title: 7 Phone: (678)897-3759
8 Consultant (if any): 9 Company: 10 Fax:
11 Form Code: 12 Source Code: 13 Origin Code: Phone:

B: MAIL INVOICES TO:

1 ☐ Generating Facility at above address:
2 Company Name: American Waste Management Services, Inc. 3 Phone: (330)856-8860
4 Address: One American Way
City: Warren State: Ohio Zip: 44484
5 Attention: Invoicing Fax:

C: WASTE INFORMATION:

1 Name of Waste: Waste Oil
2 Process generating Waste (be specific): Clean up of abandoned oil recovery site
3 Is this waste an unused commercial product? Yes ☐ No ☑ Is this waste a spill residue? Yes ☐ No ☑
4 Generator has provided the following: ☑ Waste Analysis ☐ Sample ☐ MSDS ☐ Other

D PHYSICAL CHARACTERISTICS OF WASTE

Check all that apply:

1 Color:	2 Physical State @ 70° F:	3 Layers:	4 Specific Gravity:	5 Free Liquids:
Black	☐ Solid ☐ Semi-Solid ☐ Powder ☑ Liquid ☐ Monolithic Solid ☐ Compressed gas/aerosol	☐ Multi-layered ☑ Bi-Layered ☐ Single Phased	☐ < 0.8 ☐ 1.1 - 1.2 ☐ 0.8 - 1.0 ☐ 1.3 -1.4 Exact/Other:	☐ No ☑ Yes 100%

6 Strong Odor: ☐ Yes ☑ No % Ash: % Halogens: BTU/lbs range: Viscosity: ☐ L ☐ M ☐
Pumpable: ☑ Yes ☐ No
7 pH: ☐ N/A ☐ ≤2 ☐ >2 -4 ☐ 4 - 6 ☑ 6 - 8 ☐ 8 - 10 ☐ 10-<12.5 ☐ ≥12.5 ☐ Range:
8 Liquid Flash Point: ☑ <73° F ☐ 73-100° F ☐ 101-141° F ☐ 142-200°F ☐ >200°F ☐ None ☐ Closed Cup ☐ Open Cup

E TOTAL COMPOSITION OF WASTE (all hazardous & non-hazardous):

1 Include Sludge and water as constituents.

	RANGE Min	-	Max
Water	< 0	-	10
Oil	90	-	100
		-	
		-	
		-	
		-	
		-	
		-	

PLEASE NOTE: The TOTAL compositon must be greater than or equal to 100%:

TOTAL: 110 %

2 Indicate if this waste contains any of the following:

Not Present: ☑ Lab Analysis Attached: ☐ Generator Knowledge:

☐ PCB	ppm	☐ Dioxin	ppm	☐ Pesticides	ppm
☐ Cyanides: Amenable	ppm	☐ Benzene	ppm	☐ Ammonia	ppm
☐ Cyanides: Total	ppm	☐ Herbicides	ppm		
☐ Phenolics	ppm	☐ TOC	ppm		

☐ Sulfides _____ ppm ☐ TOC _____ ppm Waste is subject to Subpart CC: ☐ Yes ☐

F METALS: Indicate of this waste contains any of the following metals, and which test method was used :

		TCLP: ☐	TOTAL : ☐		Generator Knowledge : ☐
Arsenic (As)	D004	☐	< 5 ppm	_____ ppm	
Barium (Ba)	D005	☐	< 100ppm	_____ ppm	
Cadmium (Cd)	D006	☐	< 1ppm	_____ ppm	
Chromium (Cr)	D007	☐	< 5ppm	_____ ppm	
Lead (Pb)	D008	☑	< 5ppm	66 ppm	
Mercury (Hg)	D009	☐	< 0.2ppm	_____ ppm	
Selenium (Se)	D010	☐	< 1ppm	_____ ppm	
Silver (Ag)	D011	☐	< 5ppm	_____ ppm	
Zinc (Zn)		☐		_____ ppm	
Copper (Cu)		☐		_____ ppm	
Hexavalent Chrome		☐		_____ ppm	
Antimony (Sb)		☐		_____ ppm	
Beryllium (Be)		☐		_____ ppm	
Nickel (Ni)		☐		_____ ppm	
Thallium ((Tl)		☐		_____ ppm	

G Is this waste any of the following :

☐ Ignitable Solid ☐ Water Reactive ☐ Reactive (other)
☐ Oxidizer ☐ Shock Sensitive ☐ Asbestos

☐ Cyanide Reactive ☐ Radioactive ☐ Infectious ☐ Explosive ☐ CERCLA
☐ Medical ☐ Sulfide Reactive ☐ Regulated Organics ☑ None Apply ☐ Debris

H USEPA / STATE / GENERATOR STATE WASTE IDENTIFICATION:

1 Hazardous Waste : ☑ Yes ☐ No 2 NESHAPS generator?: ☐ Yes ☑ No CESQG ☐ Yes ☐
3 PCB Regulated by TSCA? ☐ Yes ☑ No 4 State Codes: _____
5 List ALL applicable RCRA wste codes: D001 D008 D018
6 List all applicable State waste codes : _____

A. Universal waste? ☐ Yes ☑ No

I ORGANICS

Results based on Generator Knowledge : ☐ Yes ☑ No Analysis : ☑ Yes ☐ No

Results expressed in TCLP (mg/l) Total (mg/kg) :

Endrin	< 0.02		1,2-Dichloroethane	< 0.8	
Lindane	< 0.4		1,1 Dichloroethylene	< 0.7	
Methoxychlor	<10.0		2,4 Dinitrotoluene	< 0.13	
Toxaphene	< 0.5		Heptachlor	< 0.008	
2,4-D	< 10.0		Hexachlorobenzene	<0.13	
Silvex (2,4,5-TP)	< 1.0		Hexachlorobutadiene	< 0.5	
Benzene	< 0.5	51	Hexachloroethane	< 3.0	
Carbon Tetrachloride	< 0.5		Methyl Ethyl Ketone	< 200	
Chlordane	< 0.03		Nitrobenzene	< 2.0	
Chlorobenzene	< 100		Pentachlorophenol	< 100	
Chloroform	< 6.0		Pyridine	< 5.0	
O-Cresol	< 200		Tetrachloroethylene	< 0.7	
M-Cresol	< 200		Trichloroethylene	< 0.5	
P-Cresol	< 200		2,4,5 Trichlorophenol	< 400	
Cresol	< 200		2,4,6 Trichlorophenol	< 2.0	
1,4 Dichlorobenzene	< 7.5		Vinyl Chloride	< 0.2	

GENERATOR KNOWLEDGE:

J IDENTIFY ALL UHC's IN THIS WASTE STREAM :

K SHIPPING INFORMATION :

1 Is this a DOT Hazardous Material? ☑ Yes ☐ No 2 Reportable Quantity (RQ) in pounds: 1

3 Method of Shipment: ☑ Bulk Liquid ☐ Bulk Solid ☐ Container (type/size): 275 Gallon tote

4 Number of Units to Ship Now: 2 5 ☐ Anticipated Volume/Units per Year: _____ OR 6 ☑ One Time

US DOT DESCRIPTION: USE THE FULL BASIC DESCRIPTION ON THE HAZARDOUS WASTE MANIFEST:

7 PROPER SHIPPING NAME : ( ) (If generic "n.o.s.", indcate the two predominant constituents in parenthesis)

Hazardous Waste liquid, n.o.s (Benzene, Lead)

8 HAZARD CLASS 9 9 DOT ID NUMBER NA3082 10 PACKING GROUP NUMBER III 11 ADDITIONAL INFORMATION

L SPECIAL HANDLING INFORMATION:

Prepared by Signature: _____ Title: Federal On-Scene Coordinator Date: 8/1/19

FACILITY PROFILE FORM

Giant Resource Recovery

The Best Solution - Recycling & Resource Recovery

Giant Resource Recovery - Sumter, Inc. • 755 Industrial Road • PO Box 1755 • Sumter, SC 29151
Phone: (803) 773-1400 • Fax: (803) 775-4145 • SCD036275626

Facility Use Only:
PROFILE NUMBER _____
Date: _____ Account #: _____
Sales # / Broker # _____
Classification: ☐ New Customer ☐ New S/A

☑ New ☐ Amendment TREATMENT METHOD _____

A. GENERATOR INFORMATION GENERATOR STATUS: ☐ Conditionally Exempt ☐ Small Quantity ☐ Large Quantity

Generator Name: US EPA Reg 4/L&R Oil Recovery Site EPA ID# NCR000169185
Primary Contact: Kevin Eichinger Phone #: (678) 897-3759 Fax#: _____
Location Address: 501 Ruth Street City: Shelby State: NC Zip: 28150 County: _____
Mailing Address: 61 Forsyth Street, SW City: Atlanta State: GA Zip: 30303 County: _____
Billing Name: American Waste Mgme. Svcs Inc Phone #: 330 856-8800 Contact: John Zwahl
Billing Address: One American Way City: Warren State: OH Zip: 44484 County: _____
E-mail Information: Generator Primary Contact: _____ Billing Contact: jzwahl@awmsi.com

B. WASTE DESCRIPTION

Waste Name: Waste Oil with Low BTU
Description of Process Generating Waste: Clean up of abandoned oil recovery site
EPA Waste Code(s): D007, D008, D039

C. WASTE CHARACTERISTICS (@ 70F)

Physical State: ☐ Solid ☑ Liquid ☐ Sludge Thousands of BTU's/lb: 4900 Halogens (Cl, F, Br): ____ % or ____ ppm
Viscosity: ☐ Low(Thin) ☑ Medium ☐ High Specific Gravity: 1 Flash Point: ☐ None ☐ <140 ☑ >140
Layering: ☐ None ☐ Bilayer ☐ Multilayer Total Solids: ____ % pH: 7 to 8 If solid or no water present, pH of 50/50 aqueous slurry

D. CHEMICAL COMPOSITION

Chemical Constituents:

Water (if present)	<10 %		%
Oil	90 %	100	%
	%		%
See Sample:	%		%
LRO-WS-DR03-091918	%		%
	%		%
	%		%

Toxins Cyanides ____ ppm Pesticides ____ ppm PCB's ____ ppm Beryllium ____ ppm Antimony ____ ppm
Nickel ____ ppm Thallium ____ ppm Zinc ____ ppm Dioxins ____ ppm ☑ (None of the above)

E. SHIPPING INFORMATION

Volume (lbs/yr): 500 Shipping Frequency: ☑ One Time ☐ Weekly ☐ Monthly ☐ Quarterly ☐ Yearly
Container Spec: ☑ Drums (size: 55 gal) ☐ Roll-Off (size: ____) ☐ Tanker ☐ Other: _____
Proper DOT Shipping Name: Hazardous waste, liquid, n.o.s.
Hazard Class: 9 UN / NA #: NA3082 Packaging Group: III N.O.S. Information: Cr, Pb, TCE

PROCEED TO SECTION "I" ON PAGE 3 FOR NON-HAZARDOUS MATERIAL

F. TCLP CERTIFICATION*

Facility Use Only:

PROFILE NUMBER _____

Complete each section

Regulatory Level Above	Regulatory Level Below			Regulatory Level, ppm	Actual Range
☐	☒	D004	Arsenic	5.0	
☐	☒	D005	Barium	100.0	
☐	☒	D006	Cadmium	1.0	
☐	☒	D007	Chromium	5.0	
☒	☐	D008	Lead	5.0	9-10
☐	☒	D009	Mercury	0.2	
☐	☒	D010	Selenium	1.0	
☐	☒	D011	Silver	5.0	
☐	☒	D012	Endrin	0.02	
☐	☒	D013	Lindane	0.4	
☐	☒	D014	Methoxychlor	10.0	
☐	☒	D015	Toxaphene	0.5	
☐	☒	D016	2,4-D	10.0	
☐	☒	D017	2,4,5-TP (Silvex)	1.0	
☐	☒	D018	Benzene	0.5	
☐	☒	D019	Carbon Tetrachlori	0.5	
☐	☒	D020	Chlordane	0.03	
☐	☒	D021	Chlorobenzene	100.0	
☐	☒	D022	Chloroform	6.0	
☐	☒	D023	o-Cresol	200.0	

Regulatory Level Above	Regulatory Level Below			Regulatory Level, ppm	Actual Range
☐	☒	D024	m-Cresol	200.0	
☐	☒	D025	p-Cresol	200.0	
☐	☒	D026	Cresol	200.0	
☐	☒	D027	1,4-Dichlorobenzene	7.5	
☐	☒	D028	1,2-Dichloroethane	0.5	
☐	☒	D029	1,1-Dichloroethylene	0.7	
☐	☒	D030	2,4-Dinitrotoluene	0.13	
☐	☒	D031	Heptachlor	0.008	
☐	☒	D032	Hexachlorobenzene	0.13	
☐	☒	D033	Hexachlorobutadiene	0.5	
☐	☒	D034	Hexachloroethane	3.0	
☐	☒	D035	Methyl Ethyl Ketone	200.0	
☐	☒	D036	Nitrobenzene	2.0	
☐	☒	D037	Pentachlorophenol	100.0	
☐	☒	D038	Pyridine	5.0	
☐	☒	D039	Tetrachloroethylene	0.7	
☐	☒	D040	Trichloroethylene	0.5	
☐	☒	D041	2,4,5-Trichlorophenol	400.0	
☐	☒	D042	2,4,6-Trichlorophenol	2.0	
☐	☒	D043	Vinyl Chloride	0.2	

*The above TCLP is based on: ☑ Actual Testing ☐ Generator Knowledge ☐ Both (Attach all applicable analysis)

G. BENZENE NESHAP QUESTIONNAIRE (Note: If the 1st question is marked "NO," then skip remaining questions in this section)

Does the waste contain benzene? ☐ Yes ☑ No

Is the waste generated by Petroleum Refineries (SIC 2911), Chemical Manufacturing Plants (SIC 2800-2899), Coke By-Product Recovery Plants (SIC 3312), or TSDF (SIC 4953, 4959, 9511, 4214)? ☐ Yes, SIC ☑ No

What is the benzene concentration in the waste? Min value: 0 Max value: ☐ ppm or ☐ %

If the concentration of benzene is based on knowledge provide a description:

If benzne concentration is based on testing, provide date test data was obtained: / /

Has the process generating the waste changed since date of concentration determinatio ☐ Yes ☑ No

Will any shipments of this waste contain greater than 10% water? ☐ Yes ☑ No

What is your facility's Total Annual Benzene (TAB) in mega-grams (10^6 grams) per year Mg/yr.

Is this waste subject to the Benzene Waste Operations NESHAP controls requirements (per 40 CFR Part 61.342(b))? ☐ Yes ☑ No

H. CERTIFICATION FOR HAZARDOUS WASTE

Generator Certification

I certify, under penalty of law, that this document, and all attachments, were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person(s) who manages the systems, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: _____ Date: 2/1/19

Print Name: Kevin Eichinger Title: Federal On-Scene Coordinator

DESIGNATED FACILITY CERTIFICATION (for Giant Resource Recovery use, only)

In compliance with 40 CFR 264.12(b), I certify that, based on the information presented in this document, this facility is permitted to accept the waste stream described hereon, and do hereby inform the generator listed hereon of acceptance of the waste for treatment, storage and/or disposal in the manner designated, and in compliance with the TSDF's standard terms and conditions.

Signature: _____ Date: _____

Print Name: _____ Title: _____

I. TC CERTIFICATION*

Facility Use Only:
PROFILE NUMBER _____

Complete each section

Regulatory Level Above	Regulatory Level Below			Regulatory Level, ppm	Actual Range
☐	X	D004	Arsenic	5.0	
☐	X	D005	Barium	100.0	
☐	X	D006	Cadmium	1.0	
☐	X	D007	Chromium	5.0	
☐	X	D008	Lead	5.0	
☐	X	D009	Mercury	0.2	
☐	X	D010	Selenium	1.0	
☐	X	D011	Silver	5.0	
☐	X	D012	Endrin	0.02	
☐	X	D013	Lindane	0.4	
☐	X	D014	Methoxychlor	10.0	
☐	X	D015	Toxaphene	0.5	
☐	X	D016	2,4-D	10.0	
☐	X	D017	2,4,5-TP (Silvex)	1.0	
☐	X	D018	Benzene	0.5	
☐	X	D019	Carbon Tetrachlori	0.5	
☐	X	D020	Chlordane	0.03	
☐	X	D021	Chlorobenzene	100.0	
☐	X	D022	Chloroform	6.0	
☐	X	D023	o-Cresol	200.0	

Regulatory Level Above	Regulatory Level Below			Regulatory Level, ppm	Actual Range
☐	X	D024	m-Cresol	200.0	
☐	X	D025	p-Cresol	200.0	
☐	X	D026	Cresol	200.0	
☐	X	D027	1,4-Dichlorobenzene	7.5	
☐	X	D028	1,2-Dichloroethane	0.5	
☐	X	D029	1,1-Dichloroethylene	0.7	
☐	X	D030	2,4-Dinitrotoluene	0.13	
☐	X	D031	Heptachlor	0.008	
☐	X	D032	Hexachlorobenzene	0.13	
☐	X	D033	Hexachlorobutadiene	0.5	
☐	X	D034	Hexachloroethane	3.0	
☐	X	D035	Methyl Ethyl Ketone	200.0	
☐	X	D036	Nitrobenzene	2.0	
☐	X	D037	Pentachlorophenol	100.0	
☐	X	D038	Pyridine	5.0	
☐	X	D039	Tetrachloroethylene	0.7	
☐	X	D040	Trichloroethylene	0.5	
☐	X	D041	2,4,5-Trichlorophenol	400.0	
☐	X	D042	2,4,6-Trichlorophenol	2.0	
☐	X	D043	Vinyl Chloride	0.2	

*The above TC is based on: ☐ Actual Testing ☐ Generator Knowledge ☐ Both (Attach all applicable analysis)

J. WASTE DETERMINATION (FOR NON-HAZARDOUS WASTE ONLY)

Please check the appropriate box below and provide GRR Sumter with the necessary documentation supporting the statement.

☐ The waste is an un-used or off-specification non-hazardous product where ingredients are known to the generator. (Please provide material safety data sheets or product specification sheets supporting this finding as an attachment)

☐ The generator has a documented history of the waste to confirm the classification as non-hazardous. (Please provide a detailed written description of the non-hazardous materials that make up the subject waste stream and also provide information regarding how long the waste stream has been managed by your facility)

☐ The generator has current (preferably no more than 2 years old) analytical data that confirms the classification of the subject waste stream as non-hazardous. (Please attach a copy of your current analytical data (TCLP, EPA Method 8260, EPA Method 8270 or equivalent)

K. CERTIFICATION FOR NON-HAZARDOUS WASTE

Generator Certification

I hereby certify that all information submitted in association with this document is true, accurate and complete to the best of my knowledge and belief. In addition, I also certify that I am authorized to provide such certification on behalf of my company and that the provided information is representative of every shipment of this waste stream identified with the indicated profile number that will be sent to GRR from this date forward.

Signature: _____ Title: _____

Print Name _____ Date: _____

DESIGNATED FACILITY CERTIFICATION (for Giant Resource Recovery use, only)

I hereby certify that I have reviewed the information provided on this profile form, including all of the information submitted in association with this profile form, and have determined that the subject material meets applicable acceptance criteria for the Giant Resource Recovery Sumter facility to receive and subsequently manage this material as a nonhazardous waste in accordance with applicable facility permits and regulations.

Signature: _____ Title: _____

Print Name _____ Date: _____

FACILITY PROFILE FORM

Giant Resource Recovery

The Best Solution - Recycling & Resource Recovery

Giant Resource Recovery - Sumter, Inc. • 755 Industrial Road • PO Box 1755 • Sumter, SC 29151
Phone: (803) 773-1400 • Fax: (803) 775-4145 • SCD036275626

Facility Use Only:
PROFILE NUMBER _____
Date: _____ Account #: _____
Sales # / Broker # _____
Classification: ☐ New Customer ☐ New S/A

☑ New ☐ Amendment TREATMENT METHOD _____

A. GENERATOR INFORMATION GENERATOR STATUS: ☐ Conditionally Exempt ☐ Small Quantity ☐ Large Quantity

Generator Name: US EPA Reg 4/L&R Oil Recovery Site EPA ID# NCR000169185
Primary Contact: Kevin Eichinger Phone #: (678) 897-3759 Fax#: _____
Location Address: 501 Ruth Street City: Shelby State: NC Zip: 28150 County: _____
Mailing Address: 61 Forsyth Street, SW City: Atlanta State: GA Zip: 30303 County: _____
Billing Name: American Waste Mgme. Svcs Inc Phone #: 330 856-8800 Contact: John Zwahl
Billing Address: One American Way City: Warren State: OH Zip: 44484 County: _____
E-mail Information: Generator Primary Contact: _____ Billing Contact: jzwahl@awmsi.com

B. WASTE DESCRIPTION

Waste Name: Waste Oil with high BTU
Description of Process Generating Waste: Clean up of abandoned oil recovery site
EPA Waste Code(s): D001, D008, D010, D018

C. WASTE CHARACTERISTICS (@ 70F)

Physical State: ☐ Solid ☑ Liquid ☐ Sludge Thousands of BTU's/lb: 19000 Halogens (Cl, F, Br): ____ % or ____ ppm
Viscosity: ☐ Low(Thin) ☑ Medium ☐ High Specific Gravity: 1 Flash Point: ☐ None ☑ <140 ☐ >140
Layering: ☐ None ☐ Bilayer ☐ Multilayer Total Solids: ____ % pH: 3 to 6 If solid or no water present, pH of 50/50 aqueous slurry

D. CHEMICAL COMPOSITION

Chemical Constituents:

Water (if present)	<1 %		%
Oil	99 %	100	%
	%		%
See Samples:	%		%
LRO-WS-TT02-091918	%		%
LRO-WS-TT03-091918	%		%
	%		%

Toxins Cyanides ____ ppm Pesticides ____ ppm PCB's ____ ppm Beryllium ____ ppm Antimony ____ ppm
Nickel ____ ppm Thallium ____ ppm Zinc ____ ppm Dioxins ____ ppm ☑ (None of the above)

E. SHIPPING INFORMATION

Volume (lbs/yr): 5,000 Shipping Frequency: ☑ One Time ☐ Weekly ☐ Monthly ☐ Quarterly ☐ Yearly
Container Spec: ☐ Drums (size: ____) ☐ Roll-Off (size: ____) ☐ Tanker ☐ Other: Totes
Proper DOT Shipping Name: Hazardous waste, liquid, n.o.s.
Hazard Class: 9 UN / NA #: NA3082 Packaging Group: III N.O.S. Information: Bz, Pb, Se

PROCEED TO SECTION "I" ON PAGE 3 FOR NON-HAZARDOUS MATERIAL

rev6 1/2012-cam

F. TCLP CERTIFICATION*

Facility Use Only:

PROFILE NUMBER _____

Complete each section

Regulatory Level Above	Regulatory Level Below			Regulatory Level, ppm	Actual Range
☐	☒	D004	Arsenic	5.0	
☐	☒	D005	Barium	100.0	
☐	☒	D006	Cadmium	1.0	
☐	☒	D007	Chromium	5.0	
☒	☐	D008	Lead	5.0	3 to 35
☐	☒	D009	Mercury	0.2	
☒	☐	D010	Selenium	1.0	0 to 1.3
☐	☒	D011	Silver	5.0	
☐	☒	D012	Endrin	0.02	
☐	☒	D013	Lindane	0.4	
☐	☒	D014	Methoxychlor	10.0	
☐	☒	D015	Toxaphene	0.5	
☐	☒	D016	2,4-D	10.0	
☐	☒	D017	2,4,5-TP (Silvex)	1.0	
☒	☐	D018	Benzene	0.5	230 - 590
☐	☒	D019	Carbon Tetrachlori	0.5	
☐	☒	D020	Chlordane	0.03	
☐	☒	D021	Chlorobenzene	100.0	
☐	☒	D022	Chloroform	6.0	
☐	☒	D023	o-Cresol	200.0	

Regulatory Level Above	Regulatory Level Below			Regulatory Level, ppm	Actual Range
☐	☒	D024	m-Cresol	200.0	
☐	☒	D025	p-Cresol	200.0	
☐	☒	D026	Cresol	200.0	
☐	☒	D027	1,4-Dichlorobenzene	7.5	
☐	☒	D028	1,2-Dichloroethane	0.5	
☐	☒	D029	1,1-Dichloroethylene	0.7	
☐	☒	D030	2,4-Dinitrotoluene	0.13	
☐	☒	D031	Heptachlor	0.008	
☐	☒	D032	Hexachlorobenzene	0.13	
☐	☒	D033	Hexachlorobutadiene	0.5	
☐	☒	D034	Hexachloroethane	3.0	
☐	☒	D035	Methyl Ethyl Ketone	200.0	
☐	☒	D036	Nitrobenzene	2.0	
☐	☒	D037	Pentachlorophenol	100.0	
☐	☒	D038	Pyridine	5.0	
☐	☒	D039	Tetrachloroethylene	0.7	
☐	☒	D040	Trichloroethylene	0.5	
☐	☒	D041	2,4,5-Trichlorophenol	400.0	
☐	☒	D042	2,4,6-Trichlorophenol	2.0	
☐	☒	D043	Vinyl Chloride	0.2	

*The above TCLP is based on: ☐ Actual Testing ☑ Generator Knowledge ☐ Both (Attach all applicable analysis)

G. BENZENE NESHAP QUESTIONNAIRE (Note: If the 1st question is marked "NO," then skip remaining questions in this section)

Does the waste contain benzene? ☑ Yes ☐ No

Is the waste generated by Petroleum Refineries (SIC 2911), Chemical Manufacturing Plants (SIC 2800-2899), Coke By-Product Recovery Plants (SIC 3312), or TSDF (SIC 4953, 4959, 9511, 4214)? ☐ Yes, SIC ☑ No

What is the benzene concentration in the waste? Min value: 0 Max value: 590 ☑ ppm or ☐ %

If the concentration of benzene is based on knowledge provide a description:

If benzne concentration is based on testing, provide date test data was obtained: 10 / 1 / 18

Has the process generating the waste changed since date of concentration determinatio ☐ Yes ☑ No

Will any shipments of this waste contain greater than 10% water? ☐ Yes ☑ No

What is your facility's Total Annual Benzene (TAB) in mega-grams (10^6 grams) per year Mg/yr.

Is this waste subject to the Benzene Waste Operations NESHAP controls requirements (per 40 CFR Part 61.342(b))? ☐ Yes ☑ No

H. CERTIFICATION FOR HAZARDOUS WASTE

Generator Certification

I certify, under penalty of law, that this document, and all attachments, were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person(s) who manages the systems, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: _____ Date: 02/01/2019

Print Name: Kevin Ehringer Title: Federal On Scene Coordinator

DESIGNATED FACILITY CERTIFICATION (for Giant Resource Recovery use, only)

In compliance with 40 CFR 264.12(b), I certify that, based on the information presented in this document, this facility is permitted to accept the waste stream described hereon, and do hereby inform the generator listed hereon of acceptance of the waste for treatment, storage and/or disposal in the manner designated, and in compliance with the TSDF's standard terms and conditions.

Signature: _____ Date: _____

Print Name: _____ Title: _____

I. TC CERTIFICATION*

Complete each section

Facility Use Only:
PROFILE NUMBER _____

Regulatory Level Above	Below			Regulatory Level, ppm	Actual Range
	X	D004	Arsenic	5.0	
	X	D005	Barium	100.0	
	X	D006	Cadmium	1.0	
	X	D007	Chromium	5.0	
	X	D008	Lead	5.0	
	X	D009	Mercury	0.2	
	X	D010	Selenium	1.0	
	X	D011	Silver	5.0	
	X	D012	Endrin	0.02	
	X	D013	Lindane	0.4	
	X	D014	Methoxychlor	10.0	
	X	D015	Toxaphene	0.5	
	X	D016	2,4-D	10.0	
	X	D017	2,4,5-TP (Silvex)	1.0	
	X	D018	Benzene	0.5	
	X	D019	Carbon Tetrachlori	0.5	
	X	D020	Chlordane	0.03	
	X	D021	Chlorobenzene	100.0	
	X	D022	Chloroform	6.0	
	X	D023	o-Cresol	200.0	

Regulatory Level Above	Below			Regulatory Level, ppm	Actual Range
	X	D024	m-Cresol	200.0	
	X	D025	p-Cresol	200.0	
	X	D026	Cresol	200.0	
	X	D027	1,4-Dichlorobenzene	7.5	
	X	D028	1,2-Dichloroethane	0.5	
	X	D029	1,1-Dichloroethylene	0.7	
	X	D030	2,4-Dinitrotoluene	0.13	
	X	D031	Heptachlor	0.008	
	X	D032	Hexachlorobenzene	0.13	
	X	D033	Hexachlorobutadiene	0.5	
	X	D034	Hexachloroethane	3.0	
	X	D035	Methyl Ethyl Ketone	200.0	
	X	D036	Nitrobenzene	2.0	
	X	D037	Pentachlorophenol	100.0	
	X	D038	Pyridine	5.0	
	X	D039	Tetrachloroethylene	0.7	
	X	D040	Trichloroethylene	0.5	
	X	D041	2,4,5-Trichlorophenol	400.0	
	X	D042	2,4,6-Trichlorophenol	2.0	
	X	D043	Vinyl Chloride	0.2	

*The above TC is based on: ☐ Actual Testing ☐ Generator Knowledge ☐ Both (Attach all applicable analysis)

J. WASTE DETERMINATION (FOR NON-HAZARDOUS WASTE ONLY)

Please check the appropriate box below and provide GRR Sumter with the necessary documentation supporting the statement.

☐ The waste is an un-used or off-specification non-hazardous product where ingredients are known to the generator. (Please provide material safety data sheets or product specification sheets supporting this finding as an attachment)

☐ The generator has a documented history of the waste to confirm the classification as non-hazardous. (Please provide a detailed written description of the non-hazardous materials that make up the subject waste stream and also provide information regarding how long the waste stream has been managed by your facility)

☐ The generator has current (preferably no more than 2 years old) analytical data that confirms the classification of the subject waste stream as non-hazardous. (Please attach a copy of your current analytical data (TCLP, EPA Method 8260, EPA Method 8270 or equivalent)

K. CERTIFICATION FOR NON-HAZARDOUS WASTE

Generator Certification

I hereby certify that all information submitted in association with this document is true, accurate and complete to the best of my knowledge and belief. In addition, I also certify that I am authorized to provide such certification on behalf of my company and that the provided information is representative of every shipment of this waste stream identified with the indicated profile number that will be sent to GRR from this date forward.

Signature: _____ Title: _____

Print Name _____ Date: _____

DESIGNATED FACILITY CERTIFICATION (for Giant Resource Recovery use, only)

I hereby certify that I have reviewed the information provided on this profile form, including all of the information submitted in association with this profile form, and have determined that the subject material meets applicable acceptance criteria for the Giant Resource Recovery Sumter facility to receive and subsequently manage this material as a nonhazardous waste in accordance with applicable facility permits and regulations.

Signature: _____ Title: _____

Print Name _____ Date: _____

FACILITY PROFILE FORM

Giant Resource Recovery

The Best Solution - Recycling & Resource Recovery

Giant Resource Recovery - Sumter, Inc. • 755 Industrial Road • PO Box 1755 • Sumter, SC 29151
Phone: (803) 773-1400 • Fax: (803) 775-4145 • S C D 0 3 6 2 7 5 6 2 6

Facility Use Only:
PROFILE NUMBER _____
Date: _____ Account #: _____
Sales # / Broker # _____
Classification: ☐ New Customer ☐ New S/A

☑ New ☐ Amendment TREATMENT METHOD

A. GENERATOR INFORMATION GENERATOR STATUS: ☐ Conditionally Exempt ☐ Small Quantity ☐ Large Quantity

Generator Name: US EPA Reg 4/L&R Oil Recovery Site EPA ID# NCR000169185
Primary Contact: Kevin Eichinger Phone #: (678) 897-3759 Fax#: _____
Location Address: 501 Ruth Street City: Shelby State: NC Zip: 28150 County: _____
Mailing Address: 61 Forsyth Street, SW City: Atlanta State: GA Zip: 30303 County: _____
Billing Name: American Waste Mgme. Svcs Inc Phone #: 330 856-8800 Contact: John Zwahl
Billing Address: One American Way City: Warren State: OH Zip: 44484 County: _____
E-mail Information: Generator Primary Contact: _____ Billing Contact: jzwahl@awmsi.com

B. WASTE DESCRIPTION

Waste Name: Non Hazardous used oil
Description of Process Generating Waste: Clean up of abandoned oil recycling facility
EPA Waste Code(s): NA

C. WASTE CHARACTERISTICS (@ 70°F)

Physical State: ☐ Solid ☑ Liquid ☐ Sludge Thousands of BTU's/lb: _____ Halogens (Cl, F, Br): _____ % or _____ ppm
Viscosity: ☐ Low(Thin) ☑ Medium ☐ High Specific Gravity: 1 Flash Point: ☐ None ☐ <140 ☐ >140
Layering: ☐ None ☐ Bilayer ☐ Multilayer Total Solids: _____ % pH: _____ to _____ If solid or no water present, pH of 50/50 aqueous slurry

D. CHEMICAL COMPOSITION

Chemical Constituents:

Water (if present)	0 %	10	%
Oil	90 %	100	%
	%		%
See Samples:	%		%
LRO-WS--DR01-091918	%		%
LRO-WS-DR02-091918	%		%
	%		%

Toxins Cyanides _____ ppm Pesticides _____ ppm PCB's _____ ppm Beryllium _____ ppm Antimony _____ ppm
Nickel _____ ppm Thallium _____ ppm Zinc _____ ppm Dioxins _____ ppm ☑ (None of the above)

E. SHIPPING INFORMATION

Volume (lbs/yr): 500 Shipping Frequency: ☑ One Time ☐ Weekly ☐ Monthly ☐ Quarterly ☐ Yearly
Container Spec: ☑ Drums (size: 55) ☐ Roll-Off (size: _____) ☐ Tanker ☐ Other: _____
Proper DOT Shipping Name: Non DOT
Hazard Class: _____ UN / NA #: _____ Packaging Group: _____ N.O.S. Information: _____

PROCEED TO SECTION "I" ON PAGE 3 FOR NON-HAZARDOUS MATERIAL

F. TCLP CERTIFICATION*

Facility Use Only:

PROFILE NUMBER _____

Complete each section

Regulatory Level Above	Below			Regulatory Level, ppm	Actual Range
☐	X	D004	Arsenic	5.0	
☐	X	D005	Barium	100.0	
☐	X	D006	Cadmium	1.0	
☐	X	D007	Chromium	5.0	
☐	X	D008	Lead	5.0	
☐	X	D009	Mercury	0.2	
☐	X	D010	Selenium	1.0	
☐	X	D011	Silver	5.0	
☐	X	D012	Endrin	0.02	
☐	X	D013	Lindane	0.4	
☐	X	D014	Methoxychlor	10.0	
☐	X	D015	Toxaphene	0.5	
☐	X	D016	2,4-D	10.0	
☐	X	D017	2,4,5-TP (Silvex)	1.0	
☐	X	D018	Benzene	0.5	
☐	X	D019	Carbon Tetrachlori	0.5	
☐	X	D020	Chlordane	0.03	
☐	X	D021	Chlorobenzene	100.0	
☐	X	D022	Chloroform	6.0	
☐	X	D023	o-Cresol	200.0	

Regulatory Level Above	Below			Regulatory Level, ppm	Actual Range
☐	X	D024	m-Cresol	200.0	
☐	X	D025	p-Cresol	200.0	
☐	X	D026	Cresol	200.0	
☐	X	D027	1,4-Dichlorobenzene	7.5	
☐	X	D028	1,2-Dichloroethane	0.5	
☐	X	D029	1,1-Dichloroethylene	0.7	
☐	X	D030	2,4-Dinitrotoluene	0.13	
☐	X	D031	Heptachlor	0.008	
☐	X	D032	Hexachlorobenzene	0.13	
☐	X	D033	Hexachlorobutadiene	0.5	
☐	X	D034	Hexachloroethane	3.0	
☐	X	D035	Methyl Ethyl Ketone	200.0	
☐	X	D036	Nitrobenzene	2.0	
☐	X	D037	Pentachlorophenol	100.0	
☐	X	D038	Pyridine	5.0	
☐	X	D039	Tetrachloroethylene	0.7	
☐	X	D040	Trichloroethylene	0.5	
☐	X	D041	2,4,5-Trichlorophenol	400.0	
☐	X	D042	2,4,6-Trichlorophenol	2.0	
☐	X	D043	Vinyl Chloride	0.2	

*The above TCLP is based on: ☑ Actual Testing ☑ Generator Knowledge ☐ Both (Attach all applicable analysis)

G. BENZENE NESHAP QUESTIONNAIRE (Note: If the 1st question is marked "NO," then skip remaining questions in this section)

Does the waste contain benzene? ☐ Yes ☑ No

Is the waste generated by Petroleum Refineries (SIC 2911), Chemical Manufacturing Plants (SIC 2800-2899), Coke By-Product Recovery Plants (SIC 3312), or TSDF (SIC 4953, 4959, 9511, 4214)? ☐ Yes, SIC ☐ No

What is the benzene concentration in the waste? Min value: Max value: ☐ ppm or ☐ %

If the concentration of benzene is based on knowledge provide a description:

If benzne concentration is based on testing, provide date test data was obtained: / /

Has the process generating the waste changed since date of concentration determinatio ☐ Yes ☐ No

Will any shipments of this waste contain greater than 10% water? ☐ Yes ☐ No

What is your facility's Total Annual Benzene (TAB) in mega-grams (10^6 grams) per year Mg/yr.

Is this waste subject to the Benzene Waste Operations NESHAP controls requirements (per 40 CFR Part 61.342(b))? ☐ Yes ☐ No

H. CERTIFICATION FOR HAZARDOUS WASTE

Generator Certification

I certify, under penalty of law, that this document, and all attachments, were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person(s) who manages the systems, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: _____ Date: _____

Print Name: _____ Title: _____

DESIGNATED FACILITY CERTIFICATION (for Giant Resource Recovery use, only)

In compliance with 40 CFR 264.12(b), I certify that, based on the information presented in this document, this facility is permitted to accept the waste stream described hereon, and do hereby inform the generator listed hereon of acceptance of the waste for treatment, storage and/or disposal in the manner designated, and in compliance with the TSDF's standard terms and conditions.

Signature: _____ Date: _____

Print Name: _____ Title: _____

I. TC CERTIFICATION*

Facility Use Only:
PROFILE NUMBER _____

Complete each section

Regulatory Level Above	Regulatory Level Below			Regulatory Level, ppm	Actual Range
☐	X	D004	Arsenic	5.0	
☐	X	D005	Barium	100.0	
☐	X	D006	Cadmium	1.0	
☐	X	D007	Chromium	5.0	
☐	X	D008	Lead	5.0	
☐	X	D009	Mercury	0.2	
☐	X	D010	Selenium	1.0	
☐	X	D011	Silver	5.0	
☐	X	D012	Endrin	0.02	
☐	X	D013	Lindane	0.4	
☐	X	D014	Methoxychlor	10.0	
☐	X	D015	Toxaphene	0.5	
☐	X	D016	2,4-D	10.0	
☐	X	D017	2,4,5-TP (Silvex)	1.0	
☐	X	D018	Benzene	0.5	
☐	X	D019	Carbon Tetrachlori	0.5	
☐	X	D020	Chlordane	0.03	
☐	X	D021	Chlorobenzene	100.0	
☐	X	D022	Chloroform	6.0	
☐	X	D023	o-Cresol	200.0	

Regulatory Level Above	Regulatory Level Below			Regulatory Level, ppm	Actual Range
☐	X	D024	m-Cresol	200.0	
☐	X	D025	p-Cresol	200.0	
☐	X	D026	Cresol	200.0	
☐	X	D027	1,4-Dichlorobenzene	7.5	
☐	X	D028	1,2-Dichloroethane	0.5	
☐	X	D029	1,1-Dichloroethylene	0.7	
☐	X	D030	2,4-Dinitrotoluene	0.13	
☐	X	D031	Heptachlor	0.008	
☐	X	D032	Hexachlorobenzene	0.13	
☐	X	D033	Hexachlorobutadiene	0.5	
☐	X	D034	Hexachloroethane	3.0	
☐	X	D035	Methyl Ethyl Ketone	200.0	
☐	X	D036	Nitrobenzene	2.0	
☐	X	D037	Pentachlorophenol	100.0	
☐	X	D038	Pyridine	5.0	
☐	X	D039	Tetrachloroethylene	0.7	
☐	X	D040	Trichloroethylene	0.5	
☐	X	D041	2,4,5-Trichlorophenol	400.0	
☐	X	D042	2,4,6-Trichlorophenol	2.0	
☐	X	D043	Vinyl Chloride	0.2	

*The above TC is based on: ☐ Actual Testing ☐ Generator Knowledge ☐ Both (Attach all applicable analysis)

J. WASTE DETERMINATION (FOR NON-HAZARDOUS WASTE ONLY)

Please check the appropriate box below and provide GRR Sumter with the necessary documentation supporting the statement.

☐ The waste is an un-used or off-specification non-hazardous product where ingredients are known to the generator. (Please provide material safety data sheets or product specification sheets supporting this finding as an attachment)

☐ The generator has a documented history of the waste to confirm the classification as non-hazardous. (Please provide a detailed written description of the non-hazardous materials that make up the subject waste stream and also provide information regarding how long the waste stream has been managed by your facility)

☐ The generator has current (preferably no more than 2 years old) analytical data that confirms the classification of the subject waste stream as non-hazardous. (Please attach a copy of your current analytical data (TCLP, EPA Method 8260, EPA Method 8270 or equivalent)

K. CERTIFICATION FOR NON-HAZARDOUS WASTE

Generator Certification

I hereby certify that all information submitted in association with this document is true, accurate and complete to the best of my knowledge and belief. In addition, I also certify that I am authorized to provide such certification on behalf of my company and that the provided information is representative of every shipment of this waste stream identified with the indicated profile number that will be sent to GRR from this date forward.

Signature: _____ Title: Federal On-Scene Coordinator

Print Name Kevin Eichinger Date: 08/01/18

DESIGNATED FACILITY CERTIFICATION (for Giant Resource Recovery use, only)

I hereby certify that I have reviewed the information provided on this profile form, including all of the information submitted in association with this profile form, and have determined that the subject material meets applicable acceptance criteria for the Giant Resource Recovery Sumter facility to receive and subsequently manage this material as a nonhazardous waste in accordance with applicable facility permits and regulations.

Signature: _____ Title: _____

Print Name _____ Date: _____

Pressley, Miriam

From: Ken Braig <k.braig@erllc.com>
Sent: Thursday, December 20, 2018 10:46 AM
To: Eichinger, Kevin
Subject: AES data for soil
Attachments: ATT00001.txt

Kevin,
disposal at Republic. AES did not report a value for Pyridine for their results of LRO-WS-SS-111918, the soil sample collected from the rolloffs. I contacted the lab directly and this is something they can provide, but the request will have to come from Tetra Tech, since they are the ones that contracted the analytical work. I'll need a Tetra Tech contact so we can get this.

Thank you,

Ken Braig
Response Manager
Environmental Restoration, LLC
1666 Fabic Drive
Fenton, MO 63026
636-485-0537 (mobile)
k.braig@erllc.com

Confidentiality Warning: This e-mail and any attachments contain information intended only for the use of the individual or entity named above. If the reader of this e-mail is not the intended recipient or the employee or agent responsible for delivering it to the intended recipient, any dissemination, publication or copying of this e-mail is strictly prohibited. Although this email has been scanned for malware, the sender does not accept any responsibility for any loss, disruption or damage to your data or computer system that may occur while using data contained in, or transmitted with, this e-mail. If you have received this e-mail in error, please immediately notify by return e-mail. Thank you.

Pressley, Miriam

From: Prys, Paul <Paul.Prys@tetratech.com>
Sent: Tuesday, March 5, 2019 7:44 AM
To: Eichinger, Kevin
Subject: Also Equipment Request for TT-02-047

If the AirCons are not available, QuikTake high volume pumps would work too.

From: Prys, Paul
Sent: Tuesday, March 05, 2019 7:42 AM
To: 'eichinger.kevin@epa.gov' <eichinger.kevin@epa.gov>
Subject: Equipment Request for TT-02-047

Kevin,

Below is a list of equipment for I'd like to request from the EPA warehouse to support sampling activities from March 11-15 while at the L&R Oil Recovery Assessment site (TT-02-047):

6 Gillian AirCon2 high volume air sampling pumps
1 GNSS attachment for an iPad
1 DryCal with a calibration range of 0.5 lpm to 20 lpm
4 Honda EU1000 or EU2000 generators

If some of these items are not available, please let me know as soon as you can so I can make rental arrangements.

Paul Prys | Senior Environmental Scientist/Project Manager
Direct: 678.775.3106 | Cell: 404.849.7136 | Fax: 678.775.3138
paul.prys@tetratech.com

Tetra Tech | Atlanta Office
1955 Evergreen Blvd. Bldg. 200, Ste. 300, Duluth, GA 30096 www.tetratech.com | NASDAQ:TTEK

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Pressley, Miriam

From: Ken Braig <k.braig@erllc.com>
Sent: Wednesday, December 12, 2018 8:46 AM
To: Eichinger, Kevin
Subject: AWMS bid
Attachments: ATT00001.txt; L4-526 Bids received AWMS award.pdf

Ken Braig
Response Manager
Environmental Restoration, LLC
1666 Fabic Drive
Fenton, MO 63026
636-485-0537 (mobile)
k.braig@erllc.com

Confidentiality Warning: This e-mail and any attachments contain information intended only for the use of the individual or entity named above. If the reader of this e-mail is not the intended recipient or the employee or agent responsible for delivering it to the intended recipient, any dissemination, publication or copying of this e-mail is strictly prohibited. Although this email has been scanned for malware, the sender does not accept any responsibility for any loss, disruption or damage to your data or computer system that may occur while using data contained in, or transmitted with, this e-mail. If you have received this e-mail in error, please immediately notify by return e-mail. Thank you.

① AWMS

ENVIRONMENTAL ER RESTORATION

Environmental Restoration, LLC
Region 4
Job: L4-526 TD Tote and Drum Waste
Due: November 15, 2018 10AM Eastern Time

Request for Quotation

Bidding Vendor: American Waste Management Services Inc

Schedule of Pricing
Attachment A

Item	Description	$ Per Unit	Total Price
1.0	**Bid Item 1.0 –Disposal of Waste Oil (TT01)** Cost per 275-gallon tote, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 9 x 275-gallon totes of Waste Oil (TT01). Final Receiving Facility:	$ (b) (4) [redacted]	
2.0	**Bid Item 2.0 –Disposal of Waste Oil (TT02)** Cost per 275-gallon tote, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 9 x 275-gallon totes of Waste Oil (TT02). Final Receiving Facility:	$ (b) (4) [redacted] tote x 9 totes =	
3.0	**Bid Item 3.0 –Disposal of Waste Oil (TT03)** Cost per 275-gallon tote, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 11 x 275-gallon totes of Waste Oil (TT03). Final Receiving Facility:	(b) (4) [redacted]	
4.0	**Bid Item 4.0 –Disposal of Waste Oil (TT04)** Cost per 275-gallon tote, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 9 x 275-gallon totes of Waste Oil (TT04). Final Receiving Facility:	(b) (4) [redacted]	
5.0	**Bid Item 5.0 –Disposal of Waste Oil (TT05)** Cost per 275-gallon tote, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 1 x 275-gallon totes of Waste Oil (TT05). Final Receiving Facility:	$ (b) (4) [redacted] tote x 1 tote =	
6.0	**Bid Item 6.0 –Disposal of Waste Non-haz Liquids (DR01)** Cost per 55-gallon drum, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 1 x 55-gallon drum of Non-haz Liquids (DR01). Final Receiving Facility:	(b) (4) [redacted]	
7.0	**Bid Item 7.0 –Disposal of Waste Oil (DR03)** Cost per 55-gallon drum, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 2 x 55-gallon drum of waste Oil (DR03). Final Receiving Facility:	(b) (4) [redacted]	

Request for Quotation

8.0	**Bid Item 8.0 –Disposal of Waste Non-haz Liquids (DR02)** Cost per 55-gallon drum, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 1 x 55-gallon drum of Non-haz Liquids (DR02). Final Receiving Facility:	$ (b) (4) [redacted] drum x 1 drum =	
9.0	**Bid Item 9.0 –Disposal of Waste PCB Oil (TK02)** Cost per 275-gallon tote, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 32 x 275-gallon totes of Waste PCB Oil (TK02). Final Receiving Facility: _____	$ (b) (4) [redacted] tote x 32 totes =	
10.0	**Bid Item 9.0 –Transportation/Pick-up Fee** Cost per load including all taxes and fees, including all fuel surcharges and environmental fees, for per load to pick-up the drums and totes.	(b) (4) [redacted] 4 Loads = 2 to Sumter SC	
11.0	**Demurrage per Hour** Cost per hour including all taxes and fees, including all fuel surcharges and environmental fees, for demurrage per hour, after 3 hours free loading.	$ (b) (4) [redacted] x 6 Hours =	
		Grand Total $ ~~128,185.00~~ 126,185.00	

12.0 Please include each intermediate receiving TSDF as well as the final receiving facility.
Need to complete this data for each receiving TSDF to be proposed [attach additional sheets as necessary]

TSDF Name: Giant / Veolia

Address: 755 Industrial Rd / Highway 73

Town: Sumter / Port Arthur State: SC / TX Zip code: 29151/ 77640

County: _____ Phone: 803-773-1400 / 409-736-2821

EPA and/or State ID#: SCD036275626 / TXD000838896

Profile/Waste Approval Period: 7-10 days after all required documents submitted

Additional Information: (i.e., any additional analysis requirements to obtain approval, including testing criteria, and frequency) Spec Items 1 -5 - >5000BTU, Cl<4%, Water<10%, MUST BE PUMPABLE INCLUDING ALL SOLIDS. Item 9 - Solids<15%, Cl<10%

* Analytical Required per Proposed Facility:
Disposal pricing subject to final approval and acceptance by the facilities after review of profiles data and samples when required. All charges from nonconforming wastes will be invoiced. All charges from trans equipment damages will be invoiced

Request for Quotation

13.0	Business Classification: (Check all that apply)	Large Business ☐ Small Business ☒ IF this solicitation carries NAICS 562910 size standard based on number of employees 8(a) Business ☐ Woman Owned Small Business ☐ Small Disadvantage Business ☐ Certified HUBZone Business ☐ Service Disabled Veterans Small Business ☐
14.0	**Acknowledgment and DOT Information** Can bidder meet all requirements, specifications, schedule and loads per day criteria within this RFQ? X Yes ___ No If No: Clarify your schedule requirements when submitting your bid. Will you be self-performing this transportation? ___Yes X No How many trucks do you own that could be available for this work? _____ How many trucks could be available to us at one time? _____ Please submit your DOT # _____ If you will be utilizing subcontractors for the transportation- please submit their DOT # and Legal Company Name / DOT# 190713 Freehold Cartage Each hauler must provide a MCS90 Certificate before work can start.	

Please refer to RFQ#: **L4-526-01AR** regarding correspondence to your quotation. Any other information obtained for bidding purposes or provided herein will not be binding.

Company Name: American Waste Management Services Inc Date: 11/15/18

Submitted By: James E Smith [Signature] Email: jsmith@awmsi.com

Primary Contact: James E Smith [Print Name] Telephone: 330-856-8800

Secondary Contact: John Zwahl [Print Name] Telephone: 973-903-7022

Environmental Restoration, LLC
Region 4
Job: L4-526 TD Tote and Drum Waste
Due: November 15, 2018 10AM Eastern Time

Request for Quotation

RFQ#: L4-526-01AR

T.O.#: 0526

Job #: L4-526

Date: 11/9/18

Site Name: L&R Oil Recovery Site

Location: Shelby, NC

Attachments: ☑ Yes ☐ No

Statement of Work

1.0 Scope of Work

Environmental Restoration LLC (ER) is the Emergency Rapid Response Service Contractor (ERRS) for Region 4 under Contract Number EP-S4-15-03. Environmental Restoration LLC (ER) has been tasked under Task Order Number 0526 to procure the transportation and disposal of tote and drum waste from the L&R Oil Recovery Site located in Shelby, NC.

Process: EPA clean-up of abandoned waste left onsite at an oil facility.

Manifest Information
Mail to Address:
US EPA Region 4/ L&R Oil Recovery Site
61 Forsyth Street, S.W.
Atlanta, GA 30303
Attn: Kevin Eichinger – On Scene Coordinator

Site Address:
US EPA Region 4/ L&R Oil Recovery Site
501 Ruth Street
Shelby, NC 28150

County: Cleveland

EPA ID#: NCR000169185
Generator's Phone number: 678-897-3759
24-hour Emergency Phone #: 888-814-7477

1.1 Definitions

Site – US EPA Region 4/ L&R Oil Recovery Site
501 Ruth Street
Shelby, NC 28150

Generator/EPA - US EPA Region 4/ L&R Oil Recovery Site

Prime Contractor – Environmental Restoration LLC (ER)

Subcontractor – Successful bidder who will perform the scope of work as defined and required by this RFQ and attachments

Tiered Subcontractor - Any Subcontractor that has been hired by the Subcontractor to help perform the scope of work required

ERRS -Emergency and Rapid Response Service Contract

② ACV

Environmental Restoration, LLC
Region 4
Job: L4-526 TD Tote and Drum Waste
Due: November 15, 2018 10AM Eastern Time

Request for Quotation

Bidding Vendor: Cycle Chem, Inc. dba ACV Enviro CC

Schedule of Pricing
Attachment A

Item	Description	$ Per Unit	Total Price
1.0	**Bid Item 1.0 –Disposal of Waste Oil (TT01)** Cost per 275-gallon tote, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 9 x 275-gallon totes of Waste Oil (TT01). Final Receiving Facility: Geocycle	$ (b) (4) [redacted] tote x 9 totes =	
2.0	**Bid Item 2.0 –Disposal of Waste Oil (TT02)** Cost per 275-gallon tote, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 9 x 275-gallon totes of Waste Oil (TT02). Final Receiving Facility: Geocycle	$ (b) (4) [redacted] tote x 9 totes =	
3.0	**Bid Item 3.0 –Disposal of Waste Oil (TT03)** Cost per 275-gallon tote, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 11 x 275-gallon totes of Waste Oil (TT03). Final Receiving Facility: Geocycle	$ (b) (4) [redacted] tote x 11 totes =	
4.0	**Bid Item 4.0 –Disposal of Waste Oil (TT04)** Cost per 275-gallon tote, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 9 x 275-gallon totes of Waste Oil (TT04). Final Receiving Facility: ERC	$ (b) (4) [redacted] tote x 9 totes =	
5.0	**Bid Item 5.0 –Disposal of Waste Oil (TT05)** Cost per 275-gallon tote, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 1 x 275-gallon totes of Waste Oil (TT05). Final Receiving Facility: ERC	$ (b) (4) [redacted] tote x 1 tote =	
6.0	**Bid Item 6.0 –Disposal of Waste Non-haz Liquids (DR01)** Cost per 55-gallon drum, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 1 x 55-gallon drum of Non-haz Liquids (DR01). Final Receiving Facility: Modern Landfill	$ (b) (4) [redacted] drum x 1 drum =	
7.0	**Bid Item 7.0 –Disposal of Waste Oil (DR03)** Cost per 55-gallon drum, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 2 x 55-gallon drum of waste Oil (DR03). Final Receiving Facility: Geocycle	$ (b) (4) [redacted] drum x 2 drums =	

Request for Quotation

8.0	**Bid Item 8.0 –Disposal of Waste Non-haz Liquids (DR02)** Cost per 55-gallon drum, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 1 x 55-gallon drum of Non-haz Liquids (DR02). Final Receiving Facility: Modern Landfill	$ (b) (4) [redacted] **drum x 1 drum =**	
9.0	**Bid Item 9.0 –Disposal of Waste PCB Oil (TK02)** Cost per 275-gallon tote, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 32 x 275-gallon totes of Waste PCB Oil (TK02). Final Receiving Facility: Veolia	$ (b) (4) [redacted] **tote x 32 totes =**	
10.0	**Bid Item 9.0 –Transportation/Pick-up Fee** Cost per load including all taxes and fees, including all fuel surcharges and environmental fees, for per load to pick-up the drums and totes.	$ (b) (4) [redacted] **4 Loads =**	
11.0	**Demurrage per Hour** Cost per hour including all taxes and fees, including all fuel surcharges and environmental fees, for demurrage per hour, after 3 hours free loading.	$ (b) (4) [redacted] **x 6 Hours =**	
		Grand Total $ 152,956.00	

12.0 Please include each intermediate receiving TSDF as well as the final receiving facility.
Need to complete this data for each receiving TSDF to be proposed [attach additional sheets as necessary]

TSDF Name: Cycle Chem, Inc. dba ACV Enviro CC

Address: 550 Industrial Drive

Town: Lewisberry State: PA Zip code: 17339

County: York Phone: 717-938-4700

EPA and/or State ID#: PAD057098822

Profile/Waste Approval Period: Open

Additional Information: (i.e., any additional analysis requirements to obtain approval, including testing criteria, and frequency)

* Analytical Required per Proposed Facility:

Request for Quotation

8.0	**Bid Item 8.0 –Disposal of Waste Non-haz Liquids (DR02)** Cost per 55-gallon drum, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 1 x 55-gallon drum of Non-haz Liquids (DR02). Final Receiving Facility:	$ _____ /55 g drum x 1 drum =	$ _____
9.0	**Bid Item 9.0 –Disposal of Waste PCB Oil (TK02)** Cost per 275-gallon tote, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 32 x 275-gallon totes of Waste PCB Oil (TK02). Final Receiving Facility: _____	$ _____ /275 g tote x 32 totes =	$ _____
10.0	**Bid Item 9.0 –Transportation/Pick-up Fee** Cost per load including all taxes and fees, including all fuel surcharges and environmental fees, for per load to pick-up the drums and totes.	$ _____ /Load x 4 Loads =	$ _____
11.0	**Demurrage per Hour** Cost per hour including all taxes and fees, including all fuel surcharges and environmental fees, for demurrage per hour, after 3 hours free loading.	$ _____ / Hour x 6 Hours =	$ _____
		Grand Total $ _____	

12.0 Please include each intermediate receiving TSDF as well as the final receiving facility.
Need to complete this data for each receiving TSDF to be proposed [attach additional sheets as necessary]

TSDF Name: Geocycle, LLC

Address: 2175 Gardner Boulevard

Town: Holly Hill State: SC Zip code: 29059

County: Orangeburg Phone: 803-496-7303

EPA and/or State ID#: SCD003368891

Profile/Waste Approval Period: Open

Additional Information: (i.e., any additional analysis requirements to obtain approval, including testing criteria, and frequency)

* Analytical Required per Proposed Facility:

8.0	**Bid Item 8.0 –Disposal of Waste Non-haz Liquids (DR02)** Cost per 55-gallon drum, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 1 x 55-gallon drum of Non-haz Liquids (DR02). Final Receiving Facility:	$ _____ /55 g drum x 1 drum =	$ _____
9.0	**Bid Item 9.0 –Disposal of Waste PCB Oil (TK02)** Cost per 275-gallon tote, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 32 x 275-gallon totes of Waste PCB Oil (TK02). Final Receiving Facility: _____	$ _____ /275 g tote x 32 totes =	$ _____
10.0	**Bid Item 9.0 –Transportation/Pick-up Fee** Cost per load including all taxes and fees, including all fuel surcharges and environmental fees, for per load to pick-up the drums and totes.	$ _____ /load x 4 Loads =	$ _____
11.0	**Demurrage per Hour** Cost per hour including all taxes and fees, including all fuel surcharges and environmental fees, for demurrage per hour, after 3 hours free loading.	$ _____ / Hour x 6 Hours =	$ _____
		Grand Total $ _____	

12.0 Please include each intermediate receiving TSDF as well as the final receiving facility.
Need to complete this data for each receiving TSDF to be proposed [attach additional sheets as necessary]

TSDF Name: Modern Landfill

Address: 4400 Mt. Pizgah Road

Town: York State: PA Zip code: 17402

County: York Phone: 717-246-4640

EPA and/or State ID#: PAD987395803

Profile/Waste Approval Period: Open

Additional Information: (i.e., any additional analysis requirements to obtain approval, including testing criteria, and frequency)

* Analytical Required per Proposed Facility:

8.0	**Bid Item 8.0 –Disposal of Waste Non-haz Liquids (DR02)** Cost per 55-gallon drum, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 1 x 55-gallon drum of Non-haz Liquids (DR02). Final Receiving Facility:	$ _____ /55 g drum x 1 drum =	$ _____
9.0	**Bid Item 9.0 –Disposal of Waste PCB Oil (TK02)** Cost per 275-gallon tote, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 32 x 275-gallon totes of Waste PCB Oil (TK02). Final Receiving Facility: _____	$ _____ /275 g tote x 32 totes =	$ _____
10.0	**Bid Item 9.0 –Transportation/Pick-up Fee** Cost per load including all taxes and fees, including all fuel surcharges and environmental fees, for per load to pick-up the drums and totes.	$ _____ /Load x 4 Loads =	$ _____
11.0	**Demurrage per Hour** Cost per hour including all taxes and fees, including all fuel surcharges and environmental fees, for demurrage per hour, after 3 hours free loading.	$ _____ / Hour x 6 Hours =	$ _____
		Grand Total $ _____	

12.0 Please include each intermediate receiving TSDF as well as the final receiving facility. Need to complete this data for each receiving TSDF to be proposed [attach additional sheets as necessary]

TSDF Name: Environmental Recovery Corp. (ERC)

Address: 1076 Old Manheim Pike

Town: Lancaster State: PA Zip code: 17601

County: Lancaster Phone: 717-393-2626

EPA and/or State ID#: PAD987266749

Profile/Waste Approval Period: Open

Additional Information: (i.e., any additional analysis requirements to obtain approval, including testing criteria, and frequency)

* Analytical Required per Proposed Facility:

Request for Quotation

8.0	**Bid Item 8.0 - Disposal of Waste Non-haz Liquids (DR02)** Cost per 55-gallon drum, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 1 x 55-gallon drum of Non-haz Liquids (DR02). Final Receiving Facility:	$ _____ /55 g drum x 1 drum =	$ _____
9.0	**Bid Item 9.0 – Disposal of Waste PCB Oil (TK02)** Cost per 275-gallon tote, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 32 x 275-gallon totes of Waste PCB Oil (TK02). Final Receiving Facility: _____	$ _____ /275 g tote x 32 totes =	$ _____
10.0	**Bid Item 9.0 – Transportation/Pick-up Fee** Cost per load including all taxes and fees, including all fuel surcharges and environmental fees, for per load to pick-up the drums and totes.	$ _____ /Load x 4 Loads =	$ _____
11.0	**Demurrage per Hour** Cost per hour including all taxes and fees, including all fuel surcharges and environmental fees, for demurrage per hour, after 3 hours free loading.	$ _____ / Hour x 6 Hours =	$ _____
		Grand Total $ _____	

12.0 Please include each intermediate receiving TSDF as well as the final receiving facility. Need to complete this data for each receiving TSDF to be proposed [attach additional sheets as necessary]

TSDF Name: Veolia ES Technical Solutions

Address: Highway 73 3.5 miles W of Taylor's Bayou

Town: Port Arthur State: TX Zip code: 77640

County: Jefferson Phone: 409-736-2821

EPA and/or State ID#: TXD000838896

Profile/Waste Approval Period: Open

Additional Information: (i.e., any additional analysis requirements to obtain approval, including testing criteria, and frequency)

* Analytical Required per Proposed Facility:

13.0	Business Classification: (Check all that apply)	Large Business ☒ Small Business ☐ 8(a) Business ☐ Woman Owned Small Business ☐ Small Disadvantage Business ☐ Certified HUBZone Business ☐ Service Disabled Veterans Small Business ☐
14.0	**Acknowledgment and DOT Information** Can bidder meet all requirements, specifications, schedule and loads per day criteria within this RFQ? _X_ Yes ___ No If No: Clarify your schedule requirements when submitting your bid. _____ _____ Will you be self-performing this transportation? ___Yes _X_No How many trucks do you own that could be available for this work? _____ How many trucks could be available to us at one time? _____ Please submit your DOT # _____ If you will be utilizing subcontractors for the transportation- please submit their DOT # and Legal Company Name / DOT# Allstate Power Vac, Inc. 0345921 _____ _____ Each hauler must provide a MCS90 Certificate before work can start.	

Please refer to RFQ#: **L4-526-01AR** regarding correspondence to your quotation. Any other information obtained for bidding purposes or provided herein will not be binding.

Company Name: Cycle Chem, Inc. dba ACV Enviro CC Date: 11/15/18

Submitted By: _____ Email: aregan@acvenviro.com
[Signature] Dan Coon

Primary Contact: Ashley Regan Telephone: 717-398-4700
[Print Name]

Secondary Contact: Anthony Campitella Telephone: 717-398-4700
[Print Name]

ENVIRONMENTAL RESTORATION

BUSINESS CLASSIFICATION CERTIFICATION

USEPA ERRS Region 4

Please review the business classifications defined on the attachment and complete the certification below. Check all categories, which apply to your business, sign, and date the certification.

Please return the completed certification (This page and the IRS Form W-9 attached) as soon as possible.

Today's Date: 11/15/18

Complete Company Name: Cycle Chem, Inc. dba ACV Enviro CC

Company Address: 217 South First Street, Elizabeth, NJ 07206

Phone: 908-355-5800 Fax: 908-355-3495

Completed By: Ted Piotrowski Title: Contracts Administrator

Federal Taxpayer ID #: 22-1723327 DUNS #: 622-435-014

Social Security #: *(if you do not have Taxpayer ID #)*

CHECK ALL THAT APPLY

Large Business	☒	Veteran-Owned Small Business	☐
Small Business	☐	Service-Disabled Veteran Owned	☐
Women Owned Small Business	☐	Small Disadvantaged Business	☐
Certified HUBZone Small Business *(Please provide certification)*	☐		

If Small Disadvantaged Business, has it been certified as such be the SBA? YES ☐ NO ☐

If Small Business, please list NAICS codes that apply:

(3) Clean Mgmt.

ENVIRONMENTAL RESTORATION

Environmental Restoration, LLC
Region 4
Job: L4-526 TD Tote and Drum Waste
Due: November 15, 2018 10AM Eastern Time

Request for Quotation

Bidding Vendor: Clean management

Schedule of Pricing
Attachment A

Item	Description	$ Per Unit	Total Price
1.0	**Bid Item 1.0 –Disposal of Waste Oil (TT01)** Cost per 275-gallon tote, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 9 x 275-gallon totes of Waste Oil (TT01). Final Receiving Facility: Grl	[redacted]	[redacted]
2.0	**Bid Item 2.0 –Disposal of Waste Oil (TT02)** Cost per 275-gallon tote, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 9 x 275-gallon totes of Waste Oil (TT02). Final Receiving Facility: Grl	[redacted]	[redacted]
3.0	**Bid Item 3.0 –Disposal of Waste Oil (TT03)** Cost per 275-gallon tote, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 11 x 275-gallon totes of Waste Oil (TT03). Final Receiving Facility: Grl	[redacted]	[redacted]
4.0	**Bid Item 4.0 –Disposal of Waste Oil (TT04)** Cost per 275-gallon tote, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 9 x 275-gallon totes of Waste Oil (TT04). Final Receiving Facility: WM Oakridge LF	[redacted]	[redacted]
5.0	**Bid Item 5.0 –Disposal of Waste Oil (TT05)** Cost per 275-gallon tote, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 1 x 275-gallon totes of Waste Oil (TT05). Final Receiving Facility: Oakridge LF	[redacted]	[redacted]
6.0	**Bid Item 6.0 –Disposal of Waste Non-haz Liquids (DR01)** Cost per 55-gallon drum, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 1 x 55-gallon drum of Non-haz Liquids (DR01). Final Receiving Facility: Oakridge LF	[redacted]	[redacted]
7.0	**Bid Item 7.0 –Disposal of Waste Oil (DR03)** Cost per 55-gallon drum, including all taxes and fees, including all fuel surcharges and environmental fees. to dispose of 0 to 2 x 55-gallon drum of waste Oil (DR03). Final Receiving Facility: Grr	[redacted]	[redacted]

(b) (4)

ENVIRONMENTAL ER RESTORATION

Environmental Restoration, LLC
Region 4
Job: L4-526 TD Tote and Drum Waste
Due: November 15, 2018 10AM Eastern Time

Request for Quotation

8.0	**Bid Item 8.0 –Disposal of Waste Non-haz Liquids (DR02)** Cost per 55-gallon drum, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 1 x 55-gallon drum of Non-haz Liquids (DR02). Final Receiving Facility: Oakridge Lowell	(b) (4) [redacted]	
9.0	**Bid Item 9.0 –Disposal of Waste PCB Oil (TK02)** Cost per 275-gallon tote, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 32 x 275-gallon totes of Waste PCB Oil (TK02). Final Receiving Facility: Veolia Port Arthur TX		
10.0	**Bid Item 9.0 –Transportation/Pick-up Fee** Cost per load including all taxes and fees, including all fuel surcharges and environmental fees, for per load to pick-up the drums and totes.		
11.0	**Demurrage per Hour** Cost per hour including all taxes and fees, including all fuel surcharges and environmental fees, for demurrage per hour, after 3 hours free loading.		
		Grand Total $ 110,252.00	

12.0 Please include each intermediate receiving TSDF as well as the final receiving facility.
Need to complete this data for each receiving TSDF to be proposed [attach additional sheets as necessary]

TSDF Name: Grr Item 1, 2, 3, 7

Address: 755 Industrial Rd

Town: Sumter State: SC Zip code: 29150

County: _____ Phone: 877-473-6664

EPA and/or State ID#: SCD036275626

Profile/Waste Approval Period: 24 hours.

Additional Information: (i.e., any additional analysis requirements to obtain approval, including testing criteria, and frequency)

* Analytical Required per Proposed Facility: NA

ENVIRONMENTAL RESTORATION

Environmental Restoration, LLC
Region 4
Job: L4-526 TD Tote and Drum Waste
Due: November 15, 2018 10AM Eastern Time

Request for Quotation

13.0	Business Classification: (Check all that apply)	Large Business ☐ Small Business ☑ 8(a) Business ☐ Woman Owned Small Business ☐ Small Disadvantage Business ☐ Certified HUBZone Business ☐ Service Disabled Veterans Small Business ☐
14.0	**Acknowledgment and DOT Information** Can bidder meet all requirements, specifications, schedule and loads per day criteria within this RFQ? ✓ Yes ___ No If No: Clarify your schedule requirements when submitting your bid. _____ _____ Will you be self-performing this transportation? ___Yes X No How many trucks do you own that could be available for this work? 2 How many trucks could be available to us at one time? 2 Please submit your DOT # _____ If you will be utilizing subcontractors for the transportation- please submit their DOT # and Legal Company Name / DOT# _____ _____ _____ _____ Each hauler must provide a MCS90 Certificate before work can start.	

Please refer to RFQ#: **L4-526-01AR** regarding correspondence to your quotation. Any other information obtained for bidding purposes or provided herein will not be binding.

Company Name: Clean Management Environmental Group Date: 11/15/18

Submitted By: _____ [Signature] Email: S Bridgeman @ Cleanmanagement.

Primary Contact: SCOTT D Bridgeman [Print Name] Telephone: 800538 8131

Secondary Contact: Holden Smith [Print Name] Telephone: 843538 8131

Veolia Item 9#

Hwy 73 3.5 miles west of Taylors Bayou

Port Arthur TX 77640

approval 72 hours

409-963-0151

TXD008388896

CMEG Item 4*, 5*, 6*, 8*

915 Industrial Rd
Walterboro SC 29488

Collenton 800 538 8131
SCR 000003442

24 hour approval process

to
WM Oakridge Land Fill
2183 Hiway 78
Dorchester SC 29437
SCD 000221973 1
843-563-4587

④ US Ecology

ENVIRONMENTAL ER RESTORATION

Environmental Restoration, LLC
Region 4
Job: L4-526 TD Tote and Drum Waste
Due: November 15, 2018 10AM Eastern Time

Request for Quotation

Bidding Vendor: US Ecology

Schedule of Pricing
Attachment A

Item	Description	$ Per Unit	Total Price
1.0	**Bid Item 1.0 –Disposal of Waste Oil (TT01)** Cost per 275-gallon tote, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 9 x 275-gallon totes of Waste Oil (TT01). Final Receiving Facility: DETROIT - USE	(b) (4) [redacted]	QUOTED AS RECYCLABLE OIL
2.0	**Bid Item 2.0 –Disposal of Waste Oil (TT02)** Cost per 275-gallon tote, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 9 x 275-gallon totes of Waste Oil (TT02). Final Receiving Facility: DETROIT - USE		
3.0	**Bid Item 3.0 –Disposal of Waste Oil (TT03)** Cost per 275-gallon tote, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 11 x 275-gallon totes of Waste Oil (TT03). Final Receiving Facility: DETROIT - USE		
4.0	**Bid Item 4.0 –Disposal of Waste Oil (TT04)** Cost per 275-gallon tote, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 9 x 275-gallon totes of Waste Oil (TT04). Final Receiving Facility: DETROIT - USE		QUOTED AS RECYCLABLE OIL
5.0	**Bid Item 5.0 –Disposal of Waste Oil (TT05)** Cost per 275-gallon tote, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 1 x 275-gallon totes of Waste Oil (TT05). Final Receiving Facility: DETROIT - USE		QUOTED AS RECYCLABLE OIL
6.0	**Bid Item 6.0 –Disposal of Waste Non-haz Liquids (DR01)** Cost per 55-gallon drum, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 1 x 55-gallon drum of Non-haz Liquids (DR01). Final Receiving Facility: DETROIT - USE		
7.0	**Bid Item 7.0 –Disposal of Waste Oil (DR03)** Cost per 55-gallon drum, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 2 x 55-gallon drum of waste Oil (DR03). Final Receiving Facility: DETROIT - USE		

8.0	**Bid Item 8.0 –Disposal of Waste Non-haz Liquids (DR02)** Cost per 55-gallon drum, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 1 x 55-gallon drum of Non-haz Liquids (DR02). Final Receiving Facility: DETROIT – USF	(b) (4) [redacted]
9.0	**Bid Item 9.0 –Disposal of Waste PCB Oil (TK02)** Cost per 275-gallon tote, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 32 x 275-gallon totes of Waste PCB Oil (TK02). Final Receiving Facility: UELLA – TX	[redacted]
10.0	**Bid Item 9.0 –Transportation/Pick-up Fee** Cost per load including all taxes and fees, including all fuel surcharges and environmental fees, for per load to pick-up the drums and totes.	[redacted]
11.0	**Demurrage per Hour** Cost per hour including all taxes and fees, including all fuel surcharges and environmental fees, for demurrage per hour, after 3 hours free loading.	[redacted]
		Grand Total $ 176,920.90

12.0 Please include each intermediate receiving TSDF as well as the final receiving facility. Need to complete this data for each receiving TSDF to be proposed [attach additional sheets as necessary]

TSDF Name: US Ecology DETROIT

Address: 1923 FREDERICK ST.

Town: DETROIT State: MI Zip code: 48211

County: WAYNE Phone: 800-435-6059

EPA and/or State ID#: MID980991566

Profile/Waste Approval Period: 3 days

Additional Information: (i.e., any additional analysis requirements to obtain approval, including testing criteria, and frequency)

* Analytical Required per Proposed Facility:

FULL ANALYSIS ON ALL STREAMS

8.0	**Bid Item 8.0 –Disposal of Waste Non-haz Liquids (DR02)** Cost per 55-gallon drum, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 1 x 55-gallon drum of Non-haz Liquids (DR02). Final Receiving Facility: _____	$ _____ /55 g drum x 1 drum =	$ _____
9.0	**Bid Item 9.0 –Disposal of Waste PCB Oil (TK02)** Cost per 275-gallon tote, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 32 x 275-gallon totes of Waste PCB Oil (TK02). Final Receiving Facility: _____	$ _____ /275 g tote x 32 totes =	$ _____
10.0	**Bid Item 9.0 –Transportation/Pick-up Fee** Cost per load including all taxes and fees, including all fuel surcharges and environmental fees, for per load to pick-up the drums and totes.	$ _____ /Load x 4 Loads =	$ _____
11.0	**Demurrage per Hour** Cost per hour including all taxes and fees, including all fuel surcharges and environmental fees, for demurrage per hour, after 3 hours free loading.	$ _____ / Hour x 6 Hours =	$ _____
		Grand Total $ _____	

12.0 Please include each intermediate receiving TSDF as well as the final receiving facility.
Need to complete this data for each receiving TSDF to be proposed [attach additional sheets as necessary]

TSDF Name: VEOLIA

Address: 7665 Hwy 73

Town: PORT ARTHUR State: TX Zip code: 77640

County: JEFFERSON Phone 409-963-0151

EPA and/or State ID#: TXD 000838896

Profile/Waste Approval Period: 1 WEEK

Additional Information: (i.e., any additional analysis requirements to obtain approval, including testing criteria, and frequency)

* Analytical Required per Proposed Facility:

FULL ANALYSIS ON ALL STREAMS

ENVIRONMENTAL ER RESTORATION

Environmental Restoration, LLC
Region 4
Job: L4-526 TD Tote and Drum Waste
Due: November 15, 2018 10AM Eastern Time

Request for Quotation

13.0	Business Classification: (Check all that apply)	Large Business ☑ Small Business ☐ 8(a) Business ☐ Woman Owned Small Business ☐ Small Disadvantage Business ☐ Certified HUBZone Business ☐ Service Disabled Veterans Small Business ☐
14.0	**Acknowledgment and DOT Information** Can bidder meet all requirements, specifications, schedule and loads per day criteria within this RFQ? ✓ Yes ___ No If No: Clarify your schedule requirements when submitting your bid. Will you be self-performing this transportation? ___ Yes ✓ No How many trucks do you own that could be available for this work? 0 How many trucks could be available to us at one time? 0 Please submit your DOT # ___ If you will be utilizing subcontractors for the transportation- please submit their DOT # and Legal Company Name / DOT# 46062 STAT INC Each hauler must provide a MCS90 Certificate before work can start.	

Please refer to RFQ#: **L4-526-01AR** regarding correspondence to your quotation. Any other information obtained for bidding purposes or provided herein will not be binding.

Company Name: US Ecology Date: 11/15/18

Submitted By: [Signature] Email: jodi.gentzinger@usecology.com

Primary Contact: Jodi Gentzinger [Print Name] Telephone: 321-749-6654

Secondary Contact: Hira Gandhi [Print Name] Telephone: 734-521-6027

Pressley, Miriam

From: Ken Braig <k.braig@erllc.com>
Sent: Thursday, November 29, 2018 4:32 PM
To: Eichinger, Kevin
Subject: Bids received
Attachments: ATT00001.txt; BAW.xls; L4-526 Bids received.pdf

Kevin,
Attached are the bids and Bid Analysis Sheet for the first disposal RFQ that Amy sent out. We are currently setting up for line item #9 disposal with American Waste Management Services, there is one lower bid from Clean Management, but as you can see from their bid sheet they hand wrote way to many stipulations on the waste parameters that we cannot agree to. If you have any questions or concerns just let me know.

Ken Braig
Response Manager
Environmental Restoration, LLC
1666 Fabic Drive
Fenton, MO 63026
636-485-0537 (mobile)
k.braig@erllc.com

Confidentiality Warning: This e-mail and any attachments contain information intended only for the use of the individual or entity named above. If the reader of this e-mail is not the intended recipient or the employee or agent responsible for delivering it to the intended recipient, any dissemination, publication or copying of this e-mail is strictly prohibited. Although this email has been scanned for malware, the sender does not accept any responsibility for any loss, disruption or damage to your data or computer system that may occur while using data contained in, or transmitted with, this e-mail. If you have received this e-mail in error, please immediately notify by return e-mail. Thank you.

ENVIRONMENTAL ER RESTORATION

BID ANALYSIS WORKSHEET

DATE: 11/15/2018

PROJECT NUMBER: L4-526

PREPARED BY: Amy Riggott

PROJECT NAME: L&R Oil Recovery

ITEM: T&D Drums and Tote Waste

ORDER REQUIRED ON SITE BY:

Manager: Bicksler

FCA: Strenghth

Consent Required: No / Yes

		1		2		3		4	
	Vendor	American Waste Mgmt. Services, Inc.		Cycle Chem, Inc. bdba ACV Enviro CC		Clean Management		US Ecology	
	Vendor Rep.	Jim Smith		Ashley Regan		Scott Bridgeman		Jodi Gentzlinger	
	Phone	330-856-8800		717-398-4700		800-538-8131		321-749-6894	
	City, ST	Warren, OH		Elizabeth, NJ		North Carolina		North Carolina	
	Date Bid Rec'd	11/15/18		11/15/18		11/15/18		11/15/18	
	Terms	Net 60		Net 60		Net 60		Net 60	
	Quantity	Unit Price	Extended	Unit Price	Extended	Unit Price	Extended	Unit Price	Extended
Lump Sum for T&D per RFQ# L4-526-01AR dayed 11/10/18	LS	$ [redacted] (b)(4)	$ 126,185.00	$ [redacted] (b)(4)	$ 152,956.00	$ [redacted] (b)(4)	$ 110,252.00	$ [redacted] (b)(4)	$ 176,920.90
			$ -		$ -		$ -		$ -
Proposed Facility(s)		Veolia / Giant Cement		CycleChem (Lewisberry), Geocycle, Modern LF, ERC, Veolia,		GRR, Veolia, CMEG, WM Oakridge LF		US Ecology (Detroit), Veolia,	
Approval period once all required docuemnts are submitted		7-10 days		not given		24 hours		3 days	
Transporter		Freehold		Allstate Power Vac (ACV)		not given		STAT Inc.	
			$ -		$ -		$ -		$ -
Total			$ 126,185.00		$ 152,956.00		$ 110,252.00		$ 176,920.90

Recomended Vendor:

OSC Approval: _____ Date: _____

Basis For Recomendation: *(check all that apply)* __Best Value per RFP __Lowest Cost __Sole Source __Best Technically Accepted Supplier __Other(explain)

Justification / Explanation for Award: *(Must Complete)*

Pressley, Miriam

From: Webster, James
Sent: Friday, January 18, 2019 10:35 AM
To: Patel, Subash; Booth, Jason; Huyser, Matthew; Eichinger, Kevin
Subject: Burn rates for your removal sites

Can I get a daily or weekly estimate for below (separate estimate for disposal if known) and do you have enough to finish (I know the answer is no for 35th).

35th ($1.7 M remaining on TO)
Welch Belton ($344 K remaining on TO)
Cheraw Flood site ($157K remaining on TO)
L&R Oil ($170 K on TO)

Pressley, Miriam

From: Eichinger, Kevin
Sent: Monday, July 15, 2019 8:59 AM
To: taylor.matt@epa.gov; Moore, Tony
Cc: webster.james@epa.gov
Subject: Ceiling_Increase_Action_Memo_L_R_Oil_Recovery_KME_Draft_07152019.docx
Attachments: Ceiling_Increase_Action_Memo_L_R_Oil_Recovery_KME_Draft_07152019.docx

I hate to do this, but I need additional funding for L&R Oil. The PCB waste previously sent offsite cost more than I estimated and I have had issues find disposal options for the remaining waste in the tanks. The remaining waste onsite is hazardous (flammable) but also has a high water content. We are treating on site to reduce the cost, but I need to increase my ceiling by $250K. See the attached ceiling increase action memo.

Thanks,
Kevin

ACTION MEMORANDUM

DATE: December 3, 2018

SUBJECT: Request Ceiling Increase at Emergency Response Removal Action at the L&R Oil Recovery Facility pursuant to the Federal On-Scene Coordinator's delegated authority under CERCLA Section 104

FROM: Kevin Eichinger, Federal On-Scene Coordinator
Emergency Response, Removal and Prevention Branch

THRU: James W. Webster, Ph.D., Chief
Emergency Response, Removal and Prevention Branch

TO: Franklin E. Hill, Director
Superfund Division

I. PURPOSE

The purpose of this Action Memorandum is to request and document additional funding to continue the emergency response actions described herein for the L&R Oil Recovery Facility (the Site) located at 501 Ruth Street, Shelby, Cleveland County, North Carolina. The Site continues to pose a threat to public health and the environment that meets the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) section 300.415(b) criteria for removal actions. Site activities were commenced under the attached Emergency Action Memorandum signed October 4, 2018. A ceiling increase is needed to transport and dispose of hazardous substances, including approximately 25,000 gallons of hazardous waste and 25,000 gallons of waste oil contaminated water contained on site in totes and underground storage tanks. If approved, this ceiling increase will bring the total project ceiling to $822,000 of which $777,000 will be funded through the Regional Removal Allowance.

II. SITE INFORMATION

A. Site Description

Site Name: L&R Oil Recovery
Superfund Site ID (SSID): C466
NRC Case Number: 1224615
CERCLIS Number: NCR000169185
Site Location: 501 Ruth Street, Shelby, Cleveland County, North Carolina 28150
Lat/Long: 35.29957, -81.5287140
Potentially Responsible Party (PRP): L&R Oil Recovery LLC.

NPL Status: Non-NPL
Removal Start Date: September 14, 2018

B. Site Background

1. Removal Site Evaluation

On September 14, the North Carolina Department of Environmental Quality (NCDEQ), the City of Shelby and Cleveland County officials responded to a report of an approximately 3,000-gallon spill of used/waste oil. A 6,500-gallon tanker-trailer used to store used/waste oil had been positioned behind the building and discharged its contents into the building via a hose placed through a window. The oil filled the building, ran out onto the property and onto Ruth Street. A nearby storm drain and several sections of the sanitary sewer system were impacted by the spill. The storm drain led to Hickory Creek which is a tributary of the Broad River. The facility is located directly adjacent to occupied residential structures. One residential property was impacted by the spill. Two samples of the spilled oil were obtained and sent to a laboratory for analytical testing. The analytical results indicated that the oil contained PCBs (Aroclor 1242) at 20.9 ppm and 18.3 ppm. The Site experienced significant rain from the outer rain bands of Hurricane Florence and is not located in a natural disaster declared county.

In addition to the 3,000-gallon PCB-contaminated oil release, the following threats exist on the Site:

- 42 - 275 and 330-gallon intermediate bulk containers (IBC) containing flammable and combustible material,
- 12 - 55-gallon drums containing flammable and combustible material,
- 1 - DOT 306AL tanker containing approximately 8,600-gallons of PCB containing waste oil (Note: The PRP provided analytical results for the material. The results indicated that the oil contained 25,613 ppm Aroclor 1242. The tanker is leaking from behind the shutoff valves. The leak cannot be secured.); and
- 1 - 6,500-gallon tanker used to store, used oil (Note: The tanker still contains approximately 1,000 gallons of PCB contaminated used oil at 20.9 ppm.).
- 3 – Underground storage tanks, containing 44,000 gallons of used oil and water mixture.

2. Physical Location and Site Characteristics

The Site is located at 501 Ruth Street in Shelby, North Carolina. The geographical coordinates are 35.29957, -81.5287140. The 1.14-acre site was originally an oil trans-load facility. It is currently used as an used oil and spent oil filter recovery center. The Site consists of a 6,500-square foot single story building and a two-bay covered loading rack. The main building is dilapidated. The roof is not intact, and a section of the concrete floor is missing. The used oil is stored in tankers and then transported to a used oil recycling facility. The oil filters are drained into containers inside the building and then stored for disposal in a covered roll-off dumpster. Multiple IBCs and 55-gallon drums are stored inside and outside the building. Seven 20,000-gallon underground

storage tanks (UST) are on the property. The PRP reports that two of the USTs contain an unknown amount of diesel fuel and water. One oil recovery truck is stored in the loading rack. The Site is located directly adjacent to a residential community. The Site is fenced; however, there is evidence of trespassing and vandalism

III. THREATS TO PUBLIC HEALTH, WELFARE OR THE ENVIRONMENT

A. Nature of Actual or Threatened Release of Hazardous Substances, Pollutants or Contaminants

PCBs are hazardous substances as defined by Section 101(14) of CERCLA. The large volume of PCB containing used oil at the Site along with releases of PCB contaminated used oil to the environment constitute a threat to public health and the environment.

Actual or threatened releases of hazardous substances from this site may present an imminent and substantial endangerment to public health, or welfare, or the environment.

B. Applicable factors which were considered in determining the appropriateness of a removal action (40 CFR 30.415)

Actual or potential exposure to nearby human populations, animals or the food chain from hazardous substances or pollutants or contaminants [300.415(b)(2)(i)].

3,000 gallons of PCB contaminated used oil was released to the environment from the Site. This spill migrated off-site and onto a residential property. A tanker containing 8,600 gallons of PCB containing used oil (25,613 ppm) is leaking onsite. Unsecured drums, ICBs of hazardous substances and an additional tanker are stored onsite. A residential community is located directly across the street from the Site. These conditions represent an actual exposure to nearby human population, animals and the food chain from hazardous substances.

Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that pose a threat of release [300.415(b)(2)(iii)].

Multiple tankers, IBCs and 55-gallon drums are located on the site. Initial hazard categorization testing has determined that these materials are flammable and combustible. Multiple containers are unsecured and subject the release of hazardous substances.

Weather conditions that may cause hazardous substances or pollutants to migrate or to be released [300.315(b)(2)(v)]

3,000 gallons of PCB contaminated used oil was released to the environment from the Site. This spill migrated off-site and onto a residential property. A tanker storing 8,600 gallons of PCB containing used oil (25,613 ppm) is leaking onsite. An additional tanker, drums and IBCs of hazardous substances are located onsite and are not secured. The roof is not intact. A weather event may cause the hazardous substances to be release or migrate off-site and impact the nearby residential community.

Threat of fire o · explosion [300.415(b)(2)(vi)]

Initial hazard c ıtegorization testing has determined that these materials are flammable and combustible. T ıe tankers and containers are unsecured and subject to a fire or explosion. Two tankers, II ıCs, 55-gallon drums and other containers of unknown hazardous substances are located onsı ·e and are not secured.

The availability of other appropriate federal or state response mechanisms to respond to the release [300.415(b)(2)(vii)]

The Potential Responsible Party (PRP) has stated that he did not have the funds available to respond to the spill or perform any of the required cleanups. The NCDEQ requested EPA assistance.

Other situations or factors that may pose threats to the public health or welfare of the United States or the environment [300.415(b)(2)(viii)].

The facility is located near residential structures, and the PRP does not have the funding available to perform the necessary remedial actions needed to prevent further environmental harm, or to remove the PCB contaminated waste oil. Substantial remediation of the Site may be necessary as oil may have contaminated the soil underneath the building pad. There is also a concern that historical contamination has occurred.

IV. SELECTED REMOVAL ACTIONS AND ESTIMATED COSTS

A. Situation and Removal Activities to Date

1. Current Situation

On September 14, 2018, the NCDEQ, local officials, and the local fire department responded to secure the release. Sand and oil dry were spread to absorb and contain the spill. The City of Shelby contracted with an environmental services company and removed the oil from the storm drain. The NCDEQ's staff assessed the outfall to Hickory Creek and did not observe an oil sheen.

2. Removal Activities to Date

a. Federal Government/Private Party

Due to the urgency of the response, impending weather and travel time to the Site, the EPA utilized a contracting provision (Basic Ordering Agreement) to hire a local response contractor for initial site stabilization. The contractor was mobilized on September 14. The response contractor arrived on scene with personnel, a vacuum truck and other response equipment to address the spill. FOSC Englert coordinated the initial stabilization efforts from the Regional Operations Center (REOC). FOSC Eichinger responded and took over the Site on September 18. EPA's Superfund Emergency Response and Response Training (START) contractors were mobilized.

FOSC Eichinger arrived on scene and met with the property owner and the response contractor. Response operations from the previous operations were reviewed. The property owner provided FOSC Eichinger with written access to perform the necessary response operations to stabilize the Site. During the previous and current operational periods, the response contractor performed or will perform the following operations:

1. Cleaned the road surface,
2. Excavated contaminated soil from the Site and one nearby residential property,
3. Removed bulked oil spilled inside the building and collected by earthen berms,
4. Used absorbent media to remove residual oil inside the building, and
5. Installed hay bales and oil absorbent boom around the perimeter fence line of the building to contain any residual oils.

START contractors conducted hazard categorization (HAZCAT) testing on the drums and the IBCs. Samples were obtained from the IBCs, drums and the two tankers and sent offsite for analysis (list tests). Soil samples were collected around the property and the nearby residential property impacted by the spill.

The EPA's Emergency and Rapid Removal Services (ERRS) contractors were mobilized on September 18 to address the leaking tanker of PCB containing oil. The PCB oil was transferred to IBCs and staged inside a secured storage container (CONEX box) pending approval of the waste profile and completion of disposal arrangements.

The waste generated by the emergency response operations is staged pending on-site approval of the waste profile and completion of disposal arrangements.

b. State/Local

State and Local Agencies responded and took initial emergency defensive actions to contain the spill.

3. Enforcement

(b) (7)(A) [redacted]

B. Planned Removal Actions

1. The site management will be transitioned to a potential time-critical removal action. The Potential Responsible Party (PRP) stated that he did not have the funds available to respond to the spill or perform any of the required cleanups. On September 17, the NCDEQ Hazardous Waste Section formally referred the Site to the EPA Emergency Response, Removal and Prevention Branch for Time-Critical Removal Action

consideration. The facility is located near residential structures and does not have the funding available to perform the necessary remedial actions needed to prevent further environmental harm, or to remove the PCB contaminated waste oil. Substantial remediation of the Site may be necessary as oil may have contaminated the soil underneath the building pad and historical contamination may have occurred.

2. Anticipated immediate removal activities for the Site include, but are not limited to, the following:

   a. Ship waste generated for the response offsite for proper waste disposal.

   b. Implement removal actions to abate the threat to human health and the environment based on the results of the further investigation.

3. Contribution to Remedial Performance

   Any potential long-term remedial actions will be coordinated with the appropriate state and federal programs and will be consistent with the Remedial Design for the Site.

4. ARARs

   Removal actions conducted under CERCLA are required to attain ARARs to the extent practicable. In determining whether compliance with ARARs is practicable, the FOSC may consider appropriate factors, including the urgency of the situation and the scope of the removal action to be conducted.

C. Estimated Costs

Extramural costs:	Current Ceiling	Proposed Increase	Proposed Ceiling
Contractor costs (ERRS)	$577,000	$200,000	$777,000
Contractor costs (START)	$45,000	$0	$45,000
Contingency costs	$0.0	$50,000	$50,000
Total Removal Project Ceiling	**$ 622,000**	**$250,000**	**$872,000**

EPA direct and indirect costs, although cost recoverable, do not count toward the Removal Ceiling for this removal action. Liable parties may be held financially responsible for costs incurred by the EPA as set forth in Section 107 of CERCLA.

V. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

A delay in action or no action at this Site would have increased the actual or potential threats to the public health and/or environment.

VI. OUTSTANDING POLICY ISSUES

None.

VII. RECOMMENDATION

This decision document represents the selected removal action for the L & R Oil Recovery Site in Shelby, North Carolina developed in accordance with CERCLA as amended, and not inconsistent with the NCP. This decision is based on the Administrative Record for the Site.

Conditions at the Site continue to meet the NCP Section 300.415(b) criteria for a removal action. I recommend your approval for the proposed action to allow continued removal response. The total projected ceiling, if approved, will be $622,000 of which an estimated $510,000 comes from the Regional Removal Allowance.

APPROVED: _____ DATE: _____

Franklin E. Hill, Director
Superfund Division

DISAPPROVED: _____ DATE: _____

Franklin E. Hill, Director
Superfund Division

Attachment: September 19, 2018 Emer ;ency Action Memo

Pressley, Miriam

From: Eichinger, Kevin
Sent: Saturday, November 17, 2018 1:22 PM
To: Moore, Tony
Subject: Ceiling_Increase_Action_Memo_L_R_Oil_Recovery_KME_Draft.docx
Attachments: Ceiling_Increase_Action_Memo_L_R_Oil_Recovery_KME_Draft.docx

For your review...

ACTION MEMORANDUM

DATE: November 17, 2018

SUBJECT: Request Ceiling Increase at Emergency Response Removal Action at the L&R Oil Recovery Facility pursuant to the Federal On-Scene Coordinator's delegated authority under CERCLA Section 104

FROM: Kevin Eichinger, Federal On-Scene Coordinator
Emergency Response, Removal and Prevention Branch

THRU: James W. Webster, Ph.D., Chief
Emergency Response, Removal and Prevention Branch

TO: Franklin E. Hill, Director
Superfund Director

I. PURPOSE

The purpose of this Action Memorandum is to request and document additional funding to continue the emergency response actions described herein for the L&R Oil Recovery Facility (the Site) located at 501 Ruth Street, Shelby, Cleveland County, North Carolina. The Site continues to pose a threat to public health and the environment that meets the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) section 300.415(b) criteria for removal actions. Site activities were commenced under the attached Emergency Action Memorandum signed October 4, 2018. A ceiling increase is needed in order to disposal of hazardous substances, including PCB containing wastes with a PCB concentration of approximately 37,000 parts per million (PPM), generated during the emergency cleanup operations. If approved, this ceiling increase will bring the total project ceiling to $426,000 of which $332,000 will be funded through the Regional Removal Allowance.

II. SITE INFORMATION

A. Site Description

Site Name: L&R Oil Recovery
Superfund Site ID (SSID): C466
NRC Case Number: 1224615
CERCLIS Number: NCR000169185
Site Location: 501 Ruth Street, Shelby, Cleveland County, North Carolina 28150
Lat/Long: 35.29957, -81.5287140
Potentially Responsible Party (PRP): L&R Oil Recovery LLC.

NPL Status: Non-NPL
Removal Start Date: September 14, 2018

B. Site Background

1. Removal Site Evaluation

On September 14, the North Carolina Department of Environmental Quality (NCDEQ), the City of Shelby and Cleveland County officials responded to a report of an approximately 3,000-gallon spill of used/waste oil. A 6,500-gallon tanker-trailer used to store used/waste oil had been positioned behind the building and discharged its contents into the building via a hose placed through a window. The oil filled the building, ran out onto the property and onto Ruth Street. A nearby storm drain and several sections of the sanitary sewer system were impacted by the spill. The storm drain led to Hickory Creek which is a tributary of the Broad River. The facility is located directly adjacent to occupied residential structures. One residential property was impacted by the spill. Two samples of the spilled oil were obtained and sent to a laboratory for analytical testing. The analytical results indicated that the oil contained PCBs (Aroclor 1242) at 20.9 ppm and 18.3 ppm. The Site experienced significant rain from the outer rain bands of Hurricane Florence and is not located in a natural disaster declared county.

In addition to the 3,000-gallon PCB-contaminated oil release, the following threats exist on the Site:

- 42 - 275 and 330-gallon intermediate bulk containers (IBC) containing flammable and combustible material,
- 12 - 55-gallon drums containing flammable and combustible material,
- 1 - DOT 306AL tanker containing approximately 8,600-gallons of PCB containing waste oil (Note: The PRP provided analytical results for the material. The results indicated that the oil contained 25,613 ppm Aroclor 1242. The tanker is leaking from behind the shutoff valves. The leak cannot be secured.); and
- 1 - 6,500-gallon tanker used to store, used oil (Note: The tanker still contains approximately 1,000 gallons of PCB contaminated used oil at 20.9 ppm.).

2. Physical Location and Site Characteristics

The Site is located at 501 Ruth Street in Shelby, North Carolina. The geographical coordinates are 35.29957, -81.5287140. The 1.14-acre site was originally an oil trans-load facility. It is currently used as an used oil and spent oil filter recovery center. The Site consists of a 6,500-square foot single story building and a two-bay covered loading rack. The main building is dilapidated. The roof is not intact, and a section of the concrete floor is missing. The used oil is stored in tankers and then transported to a used oil recycling facility. The oil filters are drained into containers inside the building and then stored for disposal in a covered roll-off dumpster. Multiple IBCs and 55-gallon drums are stored inside and outside the building. There are seven 20,000-gallon underground storage tanks (UST) on the property. The PRP reports that two of the USTs contain an unknown amount of diesel fuel and water. One oil recovery truck is stored in the loading rack. The Site is located directly adjacent to a residential community. The

Site is fenced; however, there is evidence of trespassing and vandalism

III. THREATS TO PUBLIC HEALTH, WELFARE OR THE ENVIRONMENT

A. Nature of Actual or Threatened Release of Hazardous Substances, Pollutants or Contaminants

PCBs are hazardous substances as defined by Section 101(14) of CERCLA. The large volume of PCB containing used oil at the Site along with releases of PCB contaminated used oil to the environment constitute a threat to public health and the environment.

B. Applicable factors which were considered in determining the appropriateness of a removal action (40 CFR 30.415)

Actual or potential exposure to nearby human populations, animals or the food chain from hazardous substances or pollutants or contaminants [300.415(b)(2)(i)].

3,000 gallons of PCB contaminated used oil was released to the environment from the Site. This spill migrated off-site and onto a residential property. A tanker containing 8,600 gallons of PCB containing used oil (25,613 ppm) is leaking onsite. Unsecured drums, ICBs of hazardous substances and an additional tanker are stored onsite. A residential community is located directly across the street from the Site. These conditions represent an actual exposure to nearby human population, animals and the food chain from hazardous substances.

Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that pose a threat of release [300.415(b)(2)(iii)].

Multiple tankers, IBCs and 55-gallon drums are located on the site. Initial hazard categorization testing has determined that these materials are flammable and combustible. Multiple containers are unsecured and subject the release of hazardous substances.

Weather conditions that may cause hazardous substances or pollutants to migrate or to be released [300.315(b)(2)(v)]

3,000 gallons of PCB contaminated used oil was released to the environment from the Site. This spill migrated off-site and onto a residential property. A tanker storing 8,600 gallons of PCB containing used oil (25,613 ppm) is leaking onsite. An additional tanker, drums and IBCs of hazardous substances are located onsite and are not secured. The roof is not intact. A weather event may cause the hazardous substances to be release or migrate off-site and impact the nearby residential community.

Threat of fire or explosion [300.415(b)(2)(vi)]

Initial hazard categorization testing has determined that these materials are flammable and combustible. The tankers and containers are unsecured and subject to a fire or explosion. Two tankers, IBCs, 55-gallon drums and other containers of unknown hazardous substances are located onsite and are not secured.

The availability of other appropriate federal or state response mechanisms to respond to the release [300.415(b)(2)(vii)]

The Potential Responsible Party (PRP) has stated that he did not have the funds available to respond to the spill or perform any of the required cleanups. The NCDEQ requested EPA assistance.

Other situations or factors that may pose threats to the public health or welfare of the United States or the environment [300.415(b)(2)(viii)].

The facility is located near residential structures, and the PRP does not have the funding available to perform the necessary remedial actions needed to prevent further environmental harm, or to remove the PCB contaminated waste oil. Substantial remediation of the Site may be necessary as oil may have contaminated the soil underneath the building pad. There is also a concern that historical contamination has occurred.

IV. SELECTED REMOVAL ACTIONS AND ESTIMATED COSTS

A. Situation and Removal Activities to Date

1. Current Situation

On September 14, 2018, the NCDEQ, local officials, and the local fire department responded to secure the release. Sand and oil dry were spread to absorb and contain the spill. The City of Shelby contracted with an environmental services company and removed the oil from the storm drain. The NCDEQ's staff assessed the outfall to Hickory Creek and did not observe an oil sheen.

2. Removal Activities to Date

a. Federal Government/Private Party

Due to the urgency of the response, impending weather and travel time to the Site, the EPA utilized a contracting provision (Basic Ordering Agreement) to hire a local response contractor for initial site stabilization. The contractor was mobilized on September 14. The response contractor arrived on scene with personnel, a vacuum truck and other response equipment to address the spill. FOSC Englert coordinated the initial stabilization efforts from the Regional Operations Center (REOC). FOSC Eichinger responded and took over the Site on September 18. EPA's Superfund Emergency Response and Response Training (START) contractors were mobilized. FOSC Eichinger arrived on scene and met with the property owner and the response contractor. Response operations from the previous operations were reviewed. The property owner provided FOSC Eichinger with written access to perform the necessary response operations to stabilize the Site. During the previous and current operational periods, the response contractor performed or will perform the following operations:

1. Cleaned the road surface,
2. Excavated contaminated soil from the Site and one nearby residential property,
3. Removed bulked oil spilled inside the building and collected by earthen berms,
4. Used absorbent media to remove residual oil inside the building, and
5. Installed hay bales and oil absorbent boom around the perimeter fence line of the building to contain any residual oils.

START contractors conducted hazard categorization (HAZCAT) testing on the drums and the IBCs. Samples were obtained from the IBCs, drums and the two tankers and sent offsite for analysis (list tests). Soil samples were collected around the property and the nearby residential property impacted by the spill.

The EPA's Emergency and Rapid Removal Services (ERRS) contractors were mobilized on September 18 to address the leaking tanker of PCB containing oil. The PCB oil was transferred to IBCs and staged inside a secured storage container (CONEX box) pending approval of the waste profile and completion of disposal arrangements.

The waste generated by the emergency response operations will be staged pending on-site approval of the waste profile and completion of disposal arrangements.

b. State/Local

State and Local Agencies responded and took initial emergency defensive actions to contain the spill.

3. Enforcement

(b) (7)(A)

[redacted]

B. Planned Removal Actions

1. The site management will be transitioned to a time-critical removal action. The Potential Responsible Party (PRP) stated that he did not have the funds available to respond to the spill or perform any of the required cleanups. On September 17, the NCDEQ Hazardous Waste Section formally referred the Site to the EPA Emergency Response, Removal and Prevention Branch for Time-Critical Removal Action consideration. The facility is located near residential structures and does not have the funding available to perform the necessary remedial actions needed to prevent further environmental harm, or to remove the PCB contaminated waste oil. Substantial remediation of the Site may be necessary as oil may have contaminated the soil underneath the building pad and historical contamination may have occurred.

2. Anticipated immediate removal activities for the Site include, but are not limited to, the following:

a. Ship waste generated for the response offsite for proper waste disposal.

b. Collect and replace oil absorbent materials used to collect residual oils that may be released from the Site after each rain event,

c. Implement removal actions to abate the threat to human health and the environment based on the results of the further studies.

3. Contribution to Remedial Performance

Any potential long-term remedial actions will be coordinated with the appropriate state and federal programs and will be consistent with the Remedial Design for the Site.

4. ARARs

Removal actions conducted under CERCLA are required to attain ARARs to the extent practicable. In determining whether compliance with ARARs is practicable, the FOSC may consider appropriate factors, including the urgency of the situation and the scope of the removal action to be conducted.

C. Estimated Costs

Extramural costs:	Current Ceiling	Proposed Increase	Proposed Ceiling
Contractor costs (ERRS)	$200,000	$132.000	$332,000
Contractor costs (START)	$30,000	$10,000	$40,000
Contingency costs	$20,000	$34,400	$54,000
Total Removal Project Ceiling	**$ 250,000**	**$176,000**	**$426,000**

EPA direct and indirect costs, although cost recoverable, do not count toward the Removal Ceiling for this removal action. Liable parties may be held financially responsible for costs incurred by the EPA as set forth in Section 107 of CERCLA.

V. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

A delay in action or no action at this Site would have increased the actual or potential threats to the public health and/or environment.

VI. OUTSTANDING POLICY ISSUES

None.

VII. RECOMMENDATION

This decision document represents the selected removal action for the L & R Oil Recovery Site in Shelby, North Carolina developed in accordance with CERCLA as amended, and not inconsistent with the NCP. This decision is based on the Administrative Record for the Site.

Conditions at the Site continue to meet the NCP Section 300.415(b) criteria for a removal action. I recommend your approval for the proposed action to allow continued removal response. The total projected ceiling, if approved, will be $426,000 of which an estimated $332,000 comes from the Regional Removal Allowance.

APPROVED: _____ DATE: _____

Franklin E. Hill, Director
Superfund Division

DISAPPROVED: _____ DATE: _____

Franklin E. Hill, Director
Superfund Division

Attachment: September 9, 2018 Emergency Action Memo

Pressley, Miriam

From: Tanner, Terry
Sent: Thursday, September 20, 2018 8:30 AM
To: Moore, Tony
Cc: Eichinger, Kevin
Subject: CIC support for Eichinger's Emergency Response

Tony,

Kevin ERNS update (see below) notes that he will be requesting CIC support. As I recall the process you will contact Larry to arrange. Is this correct?

NRC 1224615, Cleveland County Oil Spill (aka L&R Oil Recovery), Shelby, Cleveland County, North Carolina (Non-Storm Related)
On September 14th, EPA Region 4 received a non-storm related NRC report of a spill of 7,000 gallons of used oil from a facility in Shelby North Carolina as the result of vandalism. The oil had impacted a ditch and road side immediately outside of the facility and was threatening Hickory Creek which leads to the Broad River. Due to incoming inclement weather, EPA contracted with a local contractor for quick response to prevent release of oil during incoming inclement weather and is coordinating with NC DEQ Division of Waste Management. Preliminary laboratory results indicate the waste oil contains concentrations of PCB Aroclor 1242 around 20 ppm which is below the TSCA level but is still deemed a hazardous substance. **Update:** All drums, totes and tanks have been sampled and categorized for disposal. The remaining contaminated soil was staged in a temporary stock pile and sampled for disposal. Oil absorbent boom and hay bales were placed around the perimeter fence.
Equipment and supplies needed to off load the tankers were delivered yesterday. The PCB oils will be off loaded into 330-gallon totes and staged inside of locked CONEX boxes while responders work through the disposal approval process. OSC Eichinger met with representatives from the City of Shelby and discussed response actions to date as well as future response actions. **OSC Eichinger will request a Community Involvement Coordinator to assist with press inquiries and community needs.** Contact OSC Kevin Eichinger for more information.

Terry L. Tanner
On-Scene Coordinator
US Environmental Protection Agency
61 Forsyth Street, 11th Floor
Atlanta, GA 30303
404.562.8797 (Office)
404.434.5379 (Cell)
tanner.terry@epa.gov

Pressley, Miriam

From: McCullough, Rachel
Sent: Tuesday, March 5, 2019 12:22 PM
To: Taylor, Matt; McGuire, Jim; Webster, James
Cc: Horsey, Maurice; Eichinger, Kevin; Miller, Angela
Subject: CIC support for L&R Oil Recovery

Kevin Eichinger has requested Angela Miller assist him with obtaining access agreements for the L&R Oil Recovery site in Shelby, NC on March 11-13th. The cost of the travel is about $400. Please let me know if you approve this travel and I will approve her TA.

Thank you,

Rachel C. McCullough, Chief
Investigations and Community Engagement Section
Enforcement and Community Engagement Branch
Superfund Division, EPA Region 4
(404) 562-8549 office
(404) 955-4470 cell

Pressley, Miriam

From: Poon, Kimmy
Sent: Thursday, September 27, 2018 2:30 PM
To: Eichinger, Kevin
Subject: Contact

Kevin,

I'm follow up on the Cleveland County Oil Spill, L&R Oil Recovery, NRC 1224615. Will you be in the office tomorrow to discuss? I'm in the field today but would like to follow up with you when you are available. Feel free to give me a call on my cell at 305 240 5306. Thanks.

Kimmy Poon

Special Agent

Environmental Protection Agency

Criminal Investigation Division

6324 Fairview Road

Suite 525

Charlotte, NC 28210

(704) 366-3249 (office)

(704) 366-3157 (fax)

Pressley, Miriam

From: Krieger, Geoffrey
Sent: Saturday, September 29, 2018 4:24 PM
To: Mark Bicksler
Cc: Group DDC-Customer; Eichinger, Kevin; Johnson, Dora Ann; Bates, Lloyd
Subject: DOTO_EP-S4-15-03_68HE0418F0526 L&R Oil Recovery
Attachments: DOTO_EP-S4-15-03_68HE0418F0526.pdf

Please see the attached task order for the L&R Oil Recovery Site.

Geoffrey Krieger
Contracting Officer
US EPA Region 4
Atlanta, GA 30303-8960
Office: (404) 562-8058

*** The U.S. EPA has implemented a policy where documents will be shared electronically through a system called FedConnect. This includes future opportunities for purchasing and contracting with the EPA, and sharing documents (including new awards, task orders and modifications). EPA policy now requires any company that wishes to do business with the EPA to register in the FedConnect system. Registration is free and only takes a few minutes. Please register at https://www.fedconnect.net/FedConnect/Default.htm

THIS EMAIL MAY CONTAIN CONFIDENTIAL BUSINESS INFORMATION (CBI) AND/OR SOURCE SELECTION INFORMATION. USE OF THE INFORMATION AND ATTACHMENTS IS RESTRICTED IN ACCORDANCE WITH FAR 3.104-4

ORDER FOR SUPPLIES OR SERVICES

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

1. DATE OF ORDER: 09/28/2018

2. CONTRACT NO. (If any): EP-S4-15-03

3. ORDER NO.: 68HE0418F0526

4. REQUISITION/REFERENCE NO.: PR-R4-18-01049

5. ISSUING OFFICE (Address correspondence to):
Region 4
US Environmental Protection Agency
Atlanta Federal Center
61 Forsyth Street, SW
Atlanta GA 30303-3104

6. SHIP TO:
a. NAME OF CONSIGNEE: Region 4
b. STREET ADDRESS: US Environmental Protection Agency, Atlanta Federal Center, 61 Forsyth Street, SW
c. CITY: Atlanta
d. STATE: GA
e. ZIP CODE: 30303-3104
f. SHIP VIA

7. TO: DENNIS GREANEY
a. NAME OF CONTRACTOR: ENVIRONMENTAL RESTORATION, L.L.C.
b. COMPANY NAME
c. STREET ADDRESS: 1666 FABICK DRIVE
d. CITY: FENTON
e. STATE: MO
f. ZIP CODE: 63026

8. TYPE OF ORDER
☐ a. PURCHASE
REFERENCE YOUR:
Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheet, if any, including delivery as indicated.
☒ b. DELIVERY
Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.

9. ACCOUNTING AND APPROPRIATION DATA: See Schedule

10. REQUISITIONING OFFICE: R4 Acquisition Management Section

11. BUSINESS CLASSIFICATION (Check appropriate box(es))
☒ a. SMALL ☐ b. OTHER THAN SMALL ☐ c. DISADVANTAGED ☐ d. WOMEN-OWNED ☐ e. HUBZone
☐ f. SERVICE-DISABLED VETERAN-OWNED ☐ g. WOMEN-OWNED SMALL BUSINESS (WOSB) ELIGIBLE UNDER THE WOSB PROGRAM ☐ h. EDWOSB

12. F.O.B. POINT

13. PLACE OF
a. INSPECTION: Destination
b. ACCEPTANCE: Destination

14. GOVERNMENT B/L NO.

15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date)

16. DISCOUNT TERMS

17. SCHEDULE (See reverse for Rejections)

ITEM NO. (a)	SUPPLIES OR SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	DUNS Number: 008198421 L&R Oil Recovery OSC: Kevin Eichinger This is a new task order for the L&R Oil Recovery site in Shelby, NC. The order Continued ...					

18. SHIPPING POINT

19. GROSS SHIPPING WEIGHT

20. INVOICE NO.

17(h) TOTAL (Cont. pages): $50,000.00

21. MAIL INVOICE TO:
a. NAME: RTP Finance Center
b. STREET ADDRESS (or P.O. Box): US Environmental Protection Agency, RTP-Finance Center (AA216-01), 109 TW Alexander Drive, www2.epa.gov/financial/contracts
c. CITY: Durham
d. STATE: NC
e. ZIP CODE: 27711

SEE BILLING INSTRUCTIONS ON REVERSE

17(i) GRAND TOTAL: $50,000.00

22. UNITED STATES OF AMERICA BY (Signature): 09/28/2018 Geoffrey Krieger
ELECTRONIC SIGNATURE

23. NAME (Typed): Geoffrey Krieger
TITLE: CONTRACTING/ORDERING OFFICER

ORDER FOR SUPPLIES OR SERVICES
SCHEDULE - CONTINUATION

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

DATE OF ORDER	CONTRACT NO.	ORDER NO.
09/28/2018	EP-S4-15-03	68HE0418F0526

ITEM NO. (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	confirms the verbal notice to proceed give 9/18/18 by the phone duty OSC. See attached statement of work for details. TOCOR: Kevin Eichinger Max Expire Date: 03/19/2019 InvoiceApprover: Dora Ann Johnson Alt Invoice App: Katrina Jones Admin Office: Region 4 US Environmental Protection Agency Atlanta Federal Center 61 Forsyth Street, SW Atlanta GA 30303-3104 Accounting Info: 18-T-4AD0E-000DC6-2505-C001-184ADZ8068-001 BFY: 18 Fund: T Budget Org: 4AD0E Program (PRC): 000DC6 Budget (BOC): 2505 Job #: C466RV00 Cost: C001 DCN - Line ID: 184ADZ8068-001 Period of Performance: 09/18/2018 to 03/19/2019					
0001	Emergency Response: L&R Oil Recovery, 501 Ruth Street, Shelby, Cleveland County, NC 28150; SiteID: C466. See attached statement of work for details.				50,000.00	

TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H)) $50,000.00

Pressley, Miriam

From: Eichinger, Kevin
Sent: Tuesday, April 9, 2019 2:45 PM
To: Prys, Paul
Subject: draft
Attachments: TT-01-101_LROR_ER Report_020819_WORKING DRAFT.docx; Copy of TT-01-101 _LROR_Inventory Log_04092019.xlsx

Made a bunch of edits and additions in the document. Will need to make sure the waste disposal section lines up with the excel sheet.

Kevin Eichinger, CHMM - Federal On-Scene Coordinator and Industrial Hygienist
U.S. Environmental Protection Agency, Region 4 | 61 Forsyth St SW | Atlanta, Georgia | 30303
Emergency Response, Removal and Prevention Branch (ERRB)
office: **404-562-8268** | cell: **678-897-3759** | response.epa.gov

CONTAINER INVENTORY LOG - DRUMS

Container ID	Date	Container Information						Associated Sample ID	Additional Info	Disposal Information	AW Quote Line Item #
		Type	Lid	Capacity (gal)	Amount (gal)	Contents Type	Percent Contents				
DR003	9/19/1918	Steel	Ring-top	55	55	Liquid	100	LRO-WS-DR01-091918		Shipped on 02/14/2019 to Cycle Chem (ACV Environemental) in Lewisberry, PA. Manifest # 019877209JJK	6
DR005	9/19/1918	Steel	Ring-top	25	25	Liquid	100	LRO-WS-DR03-091918			
DR004	9/19/1918	Poly	Closed-top	55	5	Liquid	9	LRO-WS-DR03-091918			7
DR006	9/19/1918	Steel	Closed-top	55	55	Liquid	100	LRO-WS-DR02-091918			8
DR054	9/20/2018	Steel	Closed-top	55	30	Liquid	30	LRO-WS-DR04-112018	Drums were identified on 9/20/18 and sample on 11/20/18. Drums DR054 and DR055 contain the same contents. DR055 was consolidated in DR054 on 2/14/2019		
DR056	9/20/2018	Steel	Closed-top	55	55	Liquid	100	LRO-WS-DR05-112018			
DR057	11/20/2018	Steel	Closed-top	55	55	Liquid	100		Contains PCB-containing oil released from the tanker located of the north end of the building collected by HEPACO during cleanup activities conducted inside and outside of the building. Drums are located upside of the building. Drum DR068 is marked as containing solid materials, but all other drums are assumed to contain liquids. Drums DR057 to DR121 and tanks TT048 to TT053 are considered homogenous in nature.		
DR058	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR060	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR061	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR062	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR063	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR064	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR065	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR066	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR067	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR068	11/20/2018	Steel	Closed-top	55	55	Solid	100				
DR069	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR070	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR071	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR072	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR073	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR074	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR075	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR076	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR077	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR078	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR079	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR080	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR081	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR082	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR083	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR084	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR085	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR086	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR087	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR088	11/20/2018	Steel	Closed-top	55	55	Liquid	100				

CONTAINER INVENTORY LOG - DRUMS

Container ID	Date	Container Information						Associated Sample ID	Additional Info	Disposal Information	AW Quote Line Item #
		Type	Lid	Capacity (gal)	Amount (gal)	Contents Type	Percent Contents				
DR089	11/20/2018	Steel	Closed-top	55	55	Liquid	100	LRO-WS-TT06-112018	Contains PCB-containing oil released from the tanker located at the north end of the building collected by HEPACO during cleanup activities conducted inside and outside of the building. Drums are located inside of the building. Drum DR068 is marked as containing solid materials, but all other drums are assumed to contain liquids. Drums DR057 to DR121 and totes TT048 to TT053 are considered homogenous in nature.	Shipped on 02/14/2019 to Cycle Chem (ACV Environmental) in Lewisberry, PA. Manifest # 019875327JJK	
DR090	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR091	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR092	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR093	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR094	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR095	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR096	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR097	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR098	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR099	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR100	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR101	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR102	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR103	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR104	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR105	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR106	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR107	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR108	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR109	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR110	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR111	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR112	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR113	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR114	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR115	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR116	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR117	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR118	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR119	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR120	11/20/2018	Steel	Closed-top	55	55	Liquid	100				
DR121	11/20/2018	Steel	Closed-top	55	55	Liquid	100		Associated with the PCB-containing oil spilled from tanker located at north end of the building. Drum is located outside on the north end of the building.		
DR122	11/20/2018	Steel	Open-top	55	55	Solid	100	LRO-WS-TK01-091918, LRO-WS-TK02-091918, LRO-WS-TK03-091918, LRO-WS-TK04-091918	Contains PPE and oil debris generated by ER while transferring PCB-contaminated oil from the tanker located at north, central portion of the site into totes		
DR123	11/20/2018	Steel	Open-top	55	55	Solid	100				
DR124	11/20/2018	Steel	Open-top	55	55	Solid	100				
DR125	11/20/2018	Steel	Open-top	55	55	Solid	100				
DR126	11/20/2018	Steel	Open-top	55	55	Solid	100				
DR127	11/20/2018	Steel	Open-top	55	55	Solid	100				
DR128	11/20/2018	Steel	Open-top	55	55	Solid	100				
DR129	11/20/2018	Steel	Open-top	55	55	Solid	100				

CONTAINER INVENTORY LOG - DRUMS

Container ID	Date	Container Information						Associated Sample ID	Additional Info	Disposal Information	AW Quote Line Item #
		Type	Lid	Capacity (gal)	Amount (gal)	Contents Type	Percent Contents				
DR130	2/14/2019	Steel	Open-top	55	55	Solid	100		Contains cut-up tote that was damaged when offloading the large tanker, poly and PPE		
DR033	9/20/2018	Poly	Ring-top	55	55	Solid	100		Used oil filters	Shipped on 03/13/19 to Southern Logistics and Environmental in Greensboro, NC. Manifest # 612151	
DR034	9/20/2018	Steel	Ring-top	55	55	Solid	100		Used oil filters		
DR035	9/20/2018	Steel	Ring-top	55	55	Solid	100		Used oil filters		
DR036	9/20/2018	Steel	Ring-top	55	55	Solid	100		Used oil filters		
DR037	9/20/2018	Poly	Closed-top	55	55	Solid	100		Used oil filters		
DR039	9/20/2018	Steel	Ring-top	55	55	Solid	100		Used oil filters		
DR043	9/20/2018	Poly	Ring-top	55	55	Solid	100		Used oil filters		
DR044	9/20/2018	Poly	Ring-top	55	55	Solid	100		Used oil filters		
DR048	9/20/2018	Poly	Ring-top	55	55	Solid	100		Used oil filters		

Notes

- <: Less than
- C: Combustible
- DR: Totes
- gal: Gallons
- Id: Identification
- NA: Not applicable
- Poly: High density polyethlyene
- XF: Extremely flammable
- Shipped offsite for disposal

TETRA TECH

February 8, 2019

Mr. Kevin Eichinger
On-Scene Coordinator
U.S. Environmental Protection Agency, Region 4
61 Forsyth Street, SW
Atlanta, Georgia 30303

Subject: **Emergency Response Letter Report – WORKING DRAFT**
L&R Oil Recovery
Shelby, Cleveland County, North Carolina
Contract Number: EP-S4-14-03
Technical Directive Document Number: TT-01-101

Dear Mr. Eichinger:

The Tetra Tech, Inc. (Tetra Tech) Superfund Technical Assessment and Response Team (START) submits this letter report to summarize the emergency response activities conducted from September 18 through September 20, 2018 and additional waste sampling activities conducted from November 19 through November 20, 2018 at the L&R Oil Recovery emergency response in Shelby, Cleveland County, North Carolina. This report includes five enclosures and one attachment. Enclosure 1 contains figures illustrating the site location, site layout, and waste and sediment sampling locations. Enclosure 2 contains summary tables of waste and sediment sampling results and waste container inventory logs. Enclosure 3 contains a photographic log of the response activities. Enclosure 4 contains a copy of the Tetra Tech START logbook notes. Enclosure 5 contains a copy of the Tetra Tech Stage 2A data validation report. Attachment 1 contains the laboratory analytical data packages.

BACKGROUND

On September 14, 2018, the North Carolina Department of Environmental Quality (NCDEQ), the City of Shelby, and Cleveland County officials responded to an emergency request involving the release of approximately 3,000 gallons of used oil from a 6,500-gallon storage tanker at the L&R Oil Recovery facility (the site) located at 501 Ruth Street in Shelby, Cleveland County, North Carolina (see Figure 1 in Enclosure 1). The geographic coordinates of the site are 35.299578 degrees north latitude and 81.528714 degrees west longitude. Due to an act of vandalism, the contents of the 6,500-gallon storage tanker was discharged into the building via a connected hose placed through a window in the northwestern portion of the building. The used oil filled and exited the building through the eastern rollup door impacting parking and vegetative areas, the southern office door impacting Ruth Street and a nearby storm drain, and the western foundation affecting a ditch along the side of the building. The ~~City of Shelby and the Cleveland County Fire Department (CCFD)~~Local Emergency Officials initially responded to the discharge and deployed emergency defensive measures to prevent migration beyond Ruth Street. The site experienced rains from Hurricane Florence which impacted a nearby storm drain and several sections of the sanitary sewer system. The storm drain lead to Hickory Creek which is a tributary of the Broad River. After the discharge area was contained, ~~NCDEQ~~ the City of Shelby contracted Clean Harbors, Inc. to decontaminate the storm drain located to the southwest of the building on Ruth Street. Waste from decontamination activities was stored in 250-gallon totes for disposal.

1955 Evergreen Blvd., Suite 300, Duluth, GA 30096
Tel 678.775.3080 Fax 678.775.3138
www.tetratech.com

On September 14, 2018, NCDEQ notified Region 4 U.S. Environmental Protection Agency (EPA) of the spill. The EPA contracted with a local response contractor, HEPACO, to conduct the site stabilization activities while rains from Hurricane Florence were in the area. Site stabilization activities included installing earthen berms along the southeastern parking area and fence line, installing absorbent booms along the southern entrance and Ruth Street to the southwestern storm drain, using a vacuum truck to remove the free liquid from inside of the building and the southeastern parking area, and removal of impacted soil from the southeastern fence line.

On September 17, 2018, EPA On-Scene Coordinator (OSC) Kevin Eichinger and the Tetra Tech Superfund Technical Assessment and Response Team (START) mobilized to conduct emergency response activities.

RESPONSE ACTIVITIES

On the morning of September 18, 2018, EPA and Tetra Tech START arrived at the site, conducted a visual inspection, and discussed site activities with the Potentially Responsible Party (PRP). The site is a 1.14-acre facility originally operated as an oil transportation and loading business and currently operates as a used oil and used oil filter recovery center. The visual inspection indicated the following conditions (see Figure 2 in Enclosure 1):

- A 6,500 square foot, single-story building located on the western side of the site. The building was in poor condition with a deteriorated roof and a section of the concrete floor missing. Numerous drums were staged inside the eastern side of the building that were either empty, filled with waste oil filters, filled with contents unknown, or filled with waste generated by HEPACO during site stabilization activities.
- A two-bay covered loading rack located on the northern portion of the site with one oil recovery truck parked inside.
- Multiple 250-gallon and 330-gallon totes ranging from empty to full, with unknown contents, were located in the northwestern portion of the site. The totes were placed in rows except for two totes randomly located in the area.
- One 9,000-gallon tanker located on the northern side of the two-bay loading rack used as an above ground storage tank (AST). According to analytical results provided by the PRP, the PCB concentration (Aroclor 1242) of the oil was approximately 37,000 parts per million (ppm).
- One 6,500-gallon tanker located on the northern end of the single-story building used as an AST. According to analytical results provided by the PRP, the PCB concentrations (Aroclor 1242) of the oil were 18.3 ppm and 20.9 ppm.
- Seven underground storage tanks (USTs) along the northern portion of the property.
- HEPACO installed an earthen berm in the southeastern portion of the site in the parking lot and along the fence line and absorbent boom along the southern entrance of the building, Ruth Street, and the southwestern storm drain on Ruth Street.
- The site is fenced; however, there was visual evidence of trespassing and vandalism.

The PRP informed EPA that three~~two~~ of the USTs may contain water and used oil ~~contents unknown~~ and the valves on the 9,000-gallon tanker could not be secured to prevent another act of vandalism from releasing the PCB-contaminated oil inside. EPA mobilized the Emergency and Rapid Removal Services (ERRS) contractor, Environmental Restoration (ER), Inc., to the site to transfer the PCB-contaminated oil from the tanker into totes and to secure them inside metal storage containers.

From September 18 through September 20, 2018, Tetra Tech START conducted the following activities (see Figure 2 in Enclosure 1 and Tables 2 and 3 in Enclosure 2):

- Identified and inventoried 42 waste totes located at the northwestern portion of the site and 56 waste drums located inside of the building.
- Conducted hazard categorization of waste totes and drums and separated the waste containers into like materials based on visual inspection, categorization results, and product information.
- Collected grab samples from each compartment of the 9,000 gallon tanker and grab or composite samples, based on identified waste streams, from the waste containers for disposal activities.

EPA and Tetra Tech START visually inspected three outfall locations associated with the storm drain leading to Hickory Creek, a tributary of the Broad River. The visual inspections indicated the following (see Figure X in Enclosure 1):

- A small amount of sheen was visible on the water and a slight oil odor was detected at the Airline Street location.
- Absorbent boom was installed at the Oak Street location.
- A small amount of sheen was visible at the Suttle Street location.

From September 18 through September 19, 2018, HEPACO completed the following site stabilization activities:

- Removed the remaining free liquid inside of the earthen berm located in the southeastern parking lot using a vacuum truck.
- Removed approximately 20 square feet (ft^2) of impacted soil from a residence located at the intersection of Ruth Street and Truman Street and staged it onsite.
- Removed the earthen berm and impacted soil from the southwestern portion of the site. The soil was staged on and covered with plastic sheeting with absorbent boom around the waste pile.
- Removed residual liquid from the floors of the building storage areas using an absorbent powder.
- **Placed bales of hay and new absorbent boom along the southeastern portions of the building to along the fence line, at the southern entrance of the building and Ruth Street, and around the southwestern storm drain located on Ruth Street.**
- **Decontaminated their vacuum truck and equipment onsite. All liquids, soils, absorbents, and personnel protective equipment (PPE) impacted by the oil release were placed in 55-gallons drums for disposal as PCB-containing waste. HEPACO staged the drums inside of the building for disposal (see Figure 2 in Enclosure 1).**
- **Segregated LROR site drums that were empty, contained waste oil filters, and contained unknown contents from waste drums generated during site stabilization activities.**

From September 19 through September 21, 2018, ER conducted the following activities (see Figure 2 in Enclosure 1):

- Prepared for and transferred approximately 6,750 gallons of PCB-contaminated oil from the 9,000-gallon tanker into 27, 250-gallon totes. The totes were placed into two enclosed containers for secure storage until disposal was arranged. ER also generated eight, 55-gallon drums of personal protective equipment (PPE) and oil debris contaminated with the PCB-contaminated oil during the transfer.

- Placed the staged soil from site stabilization activities into five plastic-lined roll off containers for disposal.
- Placed the remaining PCB-containing oil from the 6,500-gallon tanker into four, 250-gallon totes and staged them inside of the building.

From November 19 through November 20, 2018, EPA and Tetra Tech START returned to the site and conducted the following activities (see Figures 2 and 3 in Enclosure 1):

- Inspected the seven USTs located at the northern end of the site to determine their size, volume, and content. EPA was informed by the PRP the USTs may contain a mixture of diesel fuel and water. EPA and Tetra Tech START accessed four of the USTs, which appeared to have a capacity of 20,000 gallons each. The other three USTs were inaccessible since the 9,000-gallon tanker was staged over the access portals. Of the four USTs accessed, two contained approximately 20,000 gallons each of the mixture, one contained approximately 4,000 gallons of the mixture, and one contained approximately 200 gallons of the mixture.
- Identified and inventoried and additional 38 waste totes and 73 waste drums associated with site stabilization and PCB-contaminated oil transfer activities not inventoried during the initial emergency response. Tetra Tech START also added the USTs and the roll off containers to the waste container inventory. See Tables 2 through 5 in Enclosure 2 for site inventory logs.
- Collected three waste grab samples from the accessible USTs, one composite waste sample from the totes staged inside of the building, and two waste grab samples from drums identified during emergency response activities, but not sampled.
- Collected one composite sediment sample and one field duplicate sample from the Airline Street outfall location downstream of the site and one composite sediment sample from Hickory Creek upstream of the site.

From December 10 through December 14, 2018, EPA and ERRS contractors returned to the site and conducted the following activities:

- Water that had accumulated in the roll-off dumpsters was removed and containerized into IBCs. Oil absorbent was added to absorb the remaining oil.
- A tote that was damaged and rendered unsuitable for shipment during the 9000-gallon tanker offloading operations was transferred to a new IBC.
- 27 totes of PCB oil were prepared and shipped offsite for disposal at the Veolia Port Arthur, TX facility.
- TSCA decontamination requirements were provided to the owner of the over the road tanker, and a signed agreement to decontaminate it was obtained. The owner will decontaminate it offsite and provide EPA with proof of waste disposal. The tanker owner removed the tanker from the site.

From February 14 through February 22, 2019, EPA and ERRS contractors returned to the site and conducted the following activities:

- A tote that was damaged during the 9000-gallon tanker offloading operations was cutup and containerized into one 55-gallon drum.
- 9 275-gallon totes, 66 55-gallon drums of hazardous waste and 9 55-gallons drums of PCB solid waste was prepared and shipped to the Cycle Chem Facility in Lewisberry, PA.

- Five roll-off dumpsters containing low level PCB contaminated oil absorbant material and soil was shipped to Republic Services, Foothills Landfill in Lenoir, NC.
- Oil absorbant booms previously placed around the perimeter of the site was inspected and replaced with new absorbant booms.
- Assessed the four USTs (UST04, UST05, UST06 and UST07) that were previously unaccessible due to the tanker locations. Each UST gauged between 2" and 3" of product. Material appears to be consistent with waste oil found onsite in other drums and totes. For a 20,000-gallon UST, 2" to 3" is approximately 64 to 133 gallons depending on tank dimension.

During the week of March 11, 2019, EPA and ERRS contractors returned to the site and prepared and shipped nine (9) 55-gallon drums of waste oil contaminated debris, ten (10) 275-gallon totes and three (3) 55-gallon drums of hazardous waste to the CycleChem Facility in Lewisberry, PA.

During the week of April 8, 2019, EPA, ERRS and START contractors returned to the site and conducted the following operations:

- Approximately 20,000 gallons of hazardous waste was removed from UST #1 and shipped for disposal to the Geocycle Facility in Holy Hill, SC.
- Asbestos containing building materials were removed from the structure and shipped for disposal to XXX. The main building was demolished due the PCB contaminated building materials. All wastes were shipped for disposal to XXX.

WASTE SAMPLING AND ANALYTICAL RESULTS

During emergency response activities conducted from September 18 through September 20, 2018 and additional waste sampling and sediment sampling activities conducted from November 19 through November 20, 2018, Analytical Environmental Services, Inc. (AES), located in Atlanta, Georgia, provided laboratory services for the analysis of waste drums, waste totes, waste soil, waste oil associated with storage tankers, waste diesel fuel and water mixtures associated with USTs at the site, and sediment from off site locations. The samples were analyzed for the analytes listed below using the following analytical methods:

- Target compound list (TCL) volatile organic compounds (VOC) using the EPA Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846) Method 8260B, *Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)*.
- TCL semivolatile organic compounds (SVOC) using SW-846 Method 8270D, *Semivolatile Organic Compounds by GC/MS*.
- Total mercury using SW-846 Method 7471B, *Mercury in Solid or Semisolid Waste (Manual Vapor Control Technique)* and SW-848 Method 7473, *Mercury in Solids and Solutions by Thermal Decomposition, Amalgamation, and Atomic Absorption Spectrophotometry*.
- Resource, Conservation, Recovery Act (RCRA) metals using SW-846 Methods 6010D, *Inductively Coupled Plasma – Atomic Emission Spectrometry*.
- Polychlorinated biphenyls (PCB) using SW-846 Method 8082A, *PCBs by GC Guidance*.
- Herbicides using SW-846 Method 8151A, *Chlorinated Herbicides by GC Using Methylation or Pentafluorobenzylation Derivatization*.
- Pesticides using SW-846 Method 8081B, *Organochlorine Pesticides by GC*.
- pH using Standard Methods (SM) 4500 H+B, *pH Value in Water by Potentiometry Using a Standard Hydrogen Electrode*.

- Flash point using SW-846 Method 1010A, *Test Methods for Flash Point by Pensky-Martens Closed-Cup Tester.*
- Ignitability using SW-846 Method 1030, *Ignitability of Solids.*
- British thermal unit (BTU) using American Society for Testing and Materials (ASTM) Method D240, *Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter.*

The laboratory analytical results were compared to the EPA Removal Management Levels (RML) for Residential Soil, May 2018, and Code of Federal Regulation (CFR), Title 40, Protection of Environment, Chapter I, Environmental Protection Agency, Subchapter I, Solid Wastes, Part 261, Identification and Listing of Hazardous Waste (40 CFR 261) to determine which waste streams were to be disposed as hazardous or nonhazardous waste.

Waste Oil Sampling from Storage Tankers

On September 19, 2018, Tetra Tech START collected waste oil samples from the 9,000 gallon storage tanker containing PCB-contaminated oil to confirm the laboratory analytical results of samples collected by the PRP. Tetra Tech START collected grab samples LRO-WS-TK01-091918, LRO-WS-TK02-091918, LRO-WS-TK03-091918, LRO-WS-TK04-091918 from each of four compartments associated with the storage tanker. Each sample was analyzed for VOC, SVOC, PCB, RCRA metals, flash point, corrosivity, and BTU. Laboratory analysis indicated the following results:

- PCB concentrations ranged from 2.3 to 39,000 micrograms per kilogram (µg/kg) for Aroclor 1242 and non-detect to 4,100 µg/kg for Aroclor 1254. PCB concentrations of Aroclor 1242 and Aroclor 1254 exceeded the EPA RML for residential soil.
- Ignitability ranged from 160 degrees Fahrenheit (°F) to greater than 190 °F. Ignitability levels exceeded those described in 40 CFR 261.21, Characteristics of ignitability.
- Analytical results also indicated the presence of VOCs, PCBs, and RCRA metals, but not at concentrations above the EPA RML for residential soil.

Analytical results indicated the PCB-contaminated oil located in the storage tanker and waste materials associated with the transfer of the oil into totes could disposed as hazardous waste. See Figure 3 in Enclosure 1 for sample locations, Table 1 of Enclosure 2 for a summary of the analytical results, and Tables 2 and 3 in Enclosure 2 for a summary of waste containers impacted by these results.

Waste Tote Sampling

On September 19, 2018, Tetra Tech START collected two grab and three composite samples from five waste streams associated with the totes located in the northwestern portion of the site. Each sample set was analyzed for VOC, SVOC, PCB, RCRA metals, flash point, corrosivity, and BTU. Laboratory results indicated the following analysis:

- Waste sample LRO-WS-TT01-091918 was collected as a 2-point composite sample from totes TT001 and TT002. Analytical results indicated the presence of VOCs and RCRA metals, but not at concentrations above the EPA RML for residential soil. The analytical results indicated this waste stream could be disposed as non-hazardous waste.
- Waste sample LRO-WS-TT02-091918 was collected as a 3-point composite sample from totes TT010 through and TT012. Analytical results indicated VOC (benzene, m,p-xylene, and o-xylene) and SVOC (2-methylnaphthalene) concentrations exceeded EPA RML for residential soil. Results also indicated the presence of VOCs and RCRA metals, but not at concentrations

above the EPA RML for residential soil. The analytical results indicated this waste stream could be disposed as hazardous waste.

- Waste sample LRO-WS-TT03-091918 was collected as a 5-point composite sample from totes TT021 through TT025. Analytical results indicated VOC (benzene, m,p-xylene, and toluene) and SVOC (2-methylnaphthalene) concentrations exceeded EPA RML for residential soil. Results also indicated the presence of VOCs, SVOCs, and RCRA metals, but not at concentrations above the EPA RML for residential soil. The analytical results indicated this waste stream could be disposed as hazardous waste.
- Waste sample LRO-WS-TT04-091918 was collected as a grab sample from tote TT036. Analytical results indicated the ignitability level exceeded those described in 40 CFR 261.21. Results also indicated the presence of VOCs, but not at concentrations above the EPA RML for residential soil. The analytical results indicated this waste stream could be disposed as hazardous waste.
- Waste sample LRO-WS-TT05-091918 was collected as a grab sample from tote TT042. Analytical results indicated the ignitability level exceeded those described in 40 CFR 261.21. Results also indicated the presence of VOCs, but not at concentrations above the EPA RML for residential soil. The analytical results indicated this waste stream could be disposed as hazardous waste.

On November 19, 2018, Tetra Tech START collected waste sample LRO-WS-TT06-111918 as a 5-point composite sample from totes TT048 and TT050 through TT053. The waste stream sampled was composed of the remaining PCB-containing oil removed from the 6,500 gallon storage tanker and the waste generated by Clean Harbors during the storm drain cleanup activities. This waste stream also represented the waste drums generated by HEPACO during cleanup activities. The sample was analyzed for VOC, SVOC, PCB, RCRA metals, flash point, corrosivity, and BTU. Laboratory analytical results indicated PCB (31,000 µg/kg for Aroclor 1242) and VOC (benzene, m,p-xylene, and o-xylene) concentrations exceeded EPA RML for residential soil. Results also indicated the presence of VOCs and RCRA metals, but not at concentrations above the EPA RML for industrial soil. The analytical results indicated this waste stream could be disposed as hazardous waste.

See Figure 3 in Enclosure 1 for sample locations, Table 1 of Enclosure 2 for a summary of the analytical results, and Tables 2 and 3 for a summary of waste containers impacted by these results.

Waste Drum Sampling

On September 19, 2018, Tetra Tech START collected two grab samples and one composite sample from three waste streams associated with the drums located inside of the building. Each sample set was analyzed for VOC, SVOC, PCB, RCRA metals, flash point, corrosivity, and BTU. Laboratory results indicated the following analysis:

- Waste sample LRO-WS-DR01-091918 was collected as a grab sample from drum DR003. Analytical results indicated the ignitability level exceeded those described in 40 CFR 261.21. Results also indicated the presence of VOCs, but not at concentrations above the EPA RML for residential soil. The analytical results indicated this waste stream could be disposed as hazardous waste.
- Waste sample LRO-WS-DR02-091918 was collected as a grab sample from drum DR006. Analytical results indicated the ignitability level exceeded those described in 40 CFR 261.21. The analytical results indicated this waste stream could be disposed as hazardous waste.

- Waste sample LRO-WS-DR03-091918 was collected as a 2-point composite sample from drums DR004 and DR005. Analytical results indicated VOC (tetrachloroethene) concentrations exceeded EPA RML for residential soil and the ignitability level exceeded those described in 40 CFR 261.21. Results also indicated the presence of VOCs and RCRA metals, but not at concentrations above the EPA RML for residential soil. The analytical results indicated this waste stream could be disposed as hazardous waste.

On November 20, 2018, Tetra Tech START collected two grab samples from two waste streams associated with the drums, previously identified during emergency response activities, located inside of the building. Each sample set was analyzed for VOC, SVOC, PCB, RCRA metals, flashpoint, corrosivity, and BTU. Laboratory results indicated the following analysis:

- Waste sample LRO-WS-DR04-112018 was collected as a grab sample from drum DR054. Analytical results indicated SVOC (naphthalene) concentrations exceeded EPA RML for residential soil and the ignitability level exceeded those described in 40 CFR 261.21. Results also indicated the presence of VOCs and RCRA metals, but not at concentrations above the EPA RML for residential soil. The analytical results indicated this waste stream could be disposed as hazardous waste.
- Waste sample LRO-WS-DR05-112018 was collected as a grab sample from drum DR056. Analytical results indicated VOC (m,p-xylene) and SVOC (2-methylnapthalene and naphthalene) concentrations exceeded EPA RML for residential soil and the ignitability level exceeded those described in 40 CFR 261.21. Results also indicated the presence of VOCs and RCRA metals, but not at concentrations above the EPA RML for residential soil. The analytical results indicated this waste stream could be disposed as hazardous waste.

See Figure 3 in Enclosure 1 for sample locations, Table 1 of Enclosure 2 for a summary of the analytical results, and Table 3 for a summary of waste containers impacted by these results.

Waste Soil Sampling

On November 19, 2018, Tetra Tech START collected waste sample LRO-WS-SS01-111918 as a 16-point composite sample from four of the five rolloff containers located in the northeastern portion of the site. The waste stream sampled was composed waste soil generated by HEPACO during cleanup activities associated with the release of the PCB-containing oil from the 6,500-gallon storage tanker. The sample was analyzed for VOC, SVOC, PCB, RCRA metals, herbicides, and pesticides. Laboratory analytical results indicated SVOC (2-methylnapthalene and naphthalene) concentrations exceeded EPA RML for residential soil. Results also indicated the presence of VOCs, SVOCs, PCBs, and RCRA metals, but not at concentrations above the EPA RML for industrial soil. The analytical results indicated this waste stream could be disposed as hazardous waste. See Figure 3 in Enclosure 1 for sample locations, Table 1 of Enclosure 2 for a summary of the analytical results, and Table 4 for a summary of waste containers impacted by these results.

Waste Diesel Fuel and Water Mixture from USTs

On November 19, 2018, Tetra Tech START collected waste diesel fuel and water mixture samples from three of the seven USTs located in the northern portion of the site. Each sample was analyzed for VOC, SVOC, PCB, RCRA metals, herbicides, and pesticides. Laboratory results indicated the following analysis:

- Waste sample LRO-WS-UST01-111918 was collected as a grab sample from UST01. Analytical results indicated VOC (benzene, ethylbenzene, m,p-xylene, o-xylene, and toluene) and SVOC (2-methylnapthalene and naphthalene) concentrations exceeded EPA RML for residential soil. Results also indicated the presence of VOCs and RCRA metals, but not at concentrations above the EPA RML for residential soil. The analytical results indicated this waste stream could be disposed as hazardous waste.
- Waste sample LRO-WS-UST02-111918 was collected as a grab sample from UST02. Analytical results indicated VOC (benzene and m,p-xylene) and SVOC (2-methylnapthalene and naphthalene) concentrations exceeded EPA RML for residential soil. Results also indicated the presence of VOCs, PCBs, and RCRA metals, but not at concentrations above the EPA RML for residential soil. The analytical results indicated this waste stream could be disposed as hazardous waste.
- Waste sample LRO-WS-UST03-111918 was collected as a grab sample from UST03. Analytical results indicated the presence of VOCs and RCRA metals, but not at concentrations above the EPA RML for residential soil. The analytical results indicated this waste stream could be disposed as hazardous waste.

See Figure 3 in Enclosure 1 for sample locations, Table 1 of Enclosure 2 for a summary of the analytical results, and Table 5 for a summary of waste containers impacted by these results.

SEDIMENT SAMPLING AND ANALYTICAL RESULTS

On November 20, 2018, EPA and Tetra Tech START collected sediment samples at locations upstream and downstream of the site. One upstream sediment sample (LRO-SD01-112018) and one field duplicate sample (LRO-SD02-112018-DUP) were collected from Hickory Creek to establish PCB background levels. One downstream sediment sample (LRO-SD02-112018) was collected from the Airline Avenue outfall location to determine if PCB contamination migrated from the site after it entered the storm drain. Each sample was collected as a 5-point composite sample and submitted to AES for PCB analysis via SW-846 Method 8082A. Analytical results indicated no PCB concentrations were detected in any of the samples. See Figure 4 in Enclosure 1 for sample locations and Table 1 of Enclosure 2 for a summary of the analytical results.

WASTE DISPOSAL

On between December 10, 2018 and April XX~~February XX~~, 2019, ER shipped the quantities of hazardous and non-hazardous waste listed below to the following facilities for disposal:

- 6,750 gallons of PCB oil ~~and eight, 55-gallon drums of PCB-contaminated PPE and debris associated~~ with the 9,000-gallon storage tanker was shipped to Veolia ES Technical Solutions ~~(facility name)~~ located in Port Arthur, TX ~~(location)~~ as hazardous waste.
- Nine, 55-gallon drums of PCB-contaminated PPE and debris associated with the 9,000-gallon storage tanker was shipped to Cycle Chem, INC. located in Lewisberry, PA as hazardous waste.
- 2250~~1,400~~ gallons of PCB oil and liquid waste and 65~~5~~, 55-gallon drums of PCB oil and contaminated waste associated with the 6,500-gallon storage tanker was shipped to Cycle Chem INC.~~(facility name)~~ located in Lewisberry, PA~~(location)~~ as hazardous waste.
- 150 cubic yards of contaminated soil and debris associated with the 6,500-gallon storage tanker was shipped to Republic Services, Foothills Landfill~~(facility name)~~ located in Lenoir, NC~~(location)~~ as non-hazardous waste.

- 2,400 gallons of unknown waste chemicals stored in totes located in the northwestern portion of the site and 55-gallon drums stored inside of the building was shipped to (facility name) located in (location) as hazardous waste.
- 40,000 gallons of diesel fuel and water mixture from USTs located at the northern end of the site was shipped to (facility name) located in (location) as hazardous waste
- 360 gallons of unknown waste chemicals stored in totes located in the northwestern portion of the site and **nine, 55-gallon drums of waste oil filters stored inside of the building was shipped to (facility name) located in (location) as non-hazardous waste.**
- 44~~20~~,000 gallons of diesel fuel and water mixture from USTs located at the northern end of the site was shipped to (facility name) located in (location) as non-hazardous waste

Commented [EK1]: Need to figure out the oil filter disposition.

If you have any questions or need additional copies of this report, please call me at (678) 775-3106.

Sincerely,

Paul Prys
START IV Project Manager

Andrew F. Johnson
START IV Program Manager

Enclosures (5)
Attachments (1)

cc: Katrina Jones, EPA Project Officer
Angel Reed, START IV Document Control Coordinator

ENCLOSURE 1

FIGURES
(Five Pages)

ENCLOSURE 2

SUMMARY TABLES
(13 Pages)

ENCLOSURE 3

PHOTOGRAPHIC LOG
(Eight Pages)

ENCLOSURE 4

LOGBOOK NOTES
(12 Pages)

ENCLOSURE 5

TETRA TECH STAGE 2A DATA VALIDATION REPORT

(XX Pages)

ATTACHMENT 1

LABORATORY ANALYTICAL DATA PACKAGES
(2074 Sheets)

Pressley, Miriam

From: Art Slayton <a.slayton@erllc.com>
Sent: Monday, September 24, 2018 10:47 AM
To: Eichinger, Kevin
Cc: Christina Strength
Subject: DWO for L&R Oil Recovery
Attachments: DWO 9-21 & 9-22.pdf

Kevin,
plan is to go out tomorrow for the silt fence and boom. I put in an emergency utility locate.

Christina will get a 1900 out asap.

Thanks

Art

ART SLAYTON
RESPONSE MANAGER
ENVIRONMENTAL RESTORATION, LLC.
6940 Commercial Dr.
Morrow, GA 30260
770-961-9272 ext. 2204 office
636-680-2551 fax
912-656-7211 mobile
http://www.erllc.com

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ENVIRONMENTAL RESTORATION LLC.

Daily Work Order No ____
U.S. EPA, Region 4

DAILY WORK ORDER

DATE: 9-21-18	TASK ORDER: 4-LROR	PAGE 1 OF 1	
WORK SITE NAME: L&R OIL RECOVERY	MONITOR(S) START: TT	OTHER:	
LOCATION (CITY, STATE): SHELBY, NC	SHIFT 1 2 3	START TIME:0700	STOP TIME:1830
CONTRACTOR: ENVIRONMENTAL RESTORATION LLC	OSC: KEVIN EICHINGER	TO COMPLETION DATE: 3-19-19	

1. WORK AUTHORIZED

1. Set up for transfer small truck and pump into totes
2. Complete transferring from all 4 compartments using air to push product.
3. Moved full existing totes to covered area.
4. Drum all PPE, polly & buckets
5. Place totes and drums in connex

WORK ACCOMPLISHED

1. Complete filled 4.5 totes – 1125 gallons
2. Complete 8 totes today- 2000 gal
3. Complete
   - Total Gallons Tanker -6,750
   - Total Gallons Truck -1125
4. Complete
5. Complete

WEATHER CONDITIONS ENCOUNTERED: 91 SUNNY

OSC INITIALS: RM INITIALS: OSC INITIALS: RM INITIALS:

2. NUMBER OF PERSONNEL AUTHORIZED

1	RESPONSE MANAGER		TRUCK DRIVER		FOREMAN	1	OPERATORS		OTHER (SPECIFY)
3	LABOR		ACCOUNTANT		H&S TECH.		TECH		

3. EQUIPMENT AND EXPENDABLE MATERIALS AUTHORIZED

ITEM	QTY	USED	NOT USED / OR DOWN	ITEM	QTY	USED	NOT USED / OR DOWN
PU 1336-93	1	1		250-gallon totes expended	30	30	
SB 1747-73	1	1		Total Totes Tanker	27		Info only
Trailer 0815-34	1	1		Total Totes Truck	4.5		Info only
PU 1730-104	1	1		55- Gal Polly Drums – Open top	2	2	
Generator 0703-43	1	1		55- Gallon steel- open top	4	4	
Air compressor	1	1		Bag 3" Boom	2	2	
Skid Steer Rental arrive 9-20	1	1		Oil pads- bag	3	3	
5 Gallon Buckets	3	3		Oil Dry 40-Lb bag	1	1	
Drum Liners	8	8		Roll Polly 20X100 6 mil	1	1	

4. AMENDMENTS (INCLUDE TIME)

SIGNATURE OF OSC	SIGNATURE OF RESPONSE MANAGER

Environmental Restoration

ENVIRONMENTAL RESTORATION LLC.

Daily Work Order No. ____
U.S. EPA, Region 4

DAILY WORK ORDER

DATE: 9-22-18	TASK ORDER: 4-LROR	PAGE 1 OF 1
WORK SITE NAME: L&R OIL RECOVERY	MONITOR(S) START: TT	OTHER:
LOCATION (CITY, STATE): SHELBY, NC	SHIFT 1 2 3	START TIME: 0930 / STOP TIME: 1430
CONTRACTOR: ENVIRONMENTAL RESTORATION LLC	OSC: KEVIN EICHINGER	TO COMPLETION DATE: 3-19-19

1. WORK AUTHORIZED	WORK ACCOMPLISHED
1. Crew Demob to ATL	1. Complete* *note RM time in section 4.

WEATHER CONDITIONS ENCOUNTERED:

OSC INITIALS:	RM INITIALS:	OSC INITIALS:	RM INITIALS:

2. NUMBER OF PERSONNEL AUTHORIZED

1	RESPONSE MANAGER		TRUCK DRIVER		FOREMAN	1	OPERATORS		OTHER (SPECIFY)
3	LABOR		ACCOUNTANT		H&S TECH.		TECH		

3. EQUIPMENT AND EXPENDABLE MATERIALS AUTHORIZED

ITEM	QTY	USED	NOT USED / OR DOWN	ITEM	QTY	USED	NOT USED / OR DOWN
PU 1336-93	1	1					
SB 1747-73	1	1					
Trailer 0815-34	1	1					
PU 1730-104	1	1					

4. AMENDMENTS (INCLUDE TIME)

RM DEMOBED HOURS 0630 TO 1100

SIGNATURE OF OSC	SIGNATURE OF RESPONSE MANAGER

Pressley, Miriam

From: EAS.System@epamail.epa.gov
Sent: Monday, November 5, 2018 6:10 PM
To: Eichinger, Kevin
Subject: EAS Document Notification: Courtesy Copy-TDD: SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TRAINING (START) IV (EP-S4-14-03/0002)/TT-02-047

TDD: SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TRAINING (START) IV (EP-S4-14-03/0002)/TT-02-047 is sent as a courtesy copy to you in EAS.

You may access the document at https://eas.epa.gov/ Project Title: SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TRAINING (START) IV
Description: START is tasked to conduct removal assessment activities on additional properties related to the existing L&R Oil Recovery emergency action. Coordinate with OSC regard specific separation of tasks. The following tasks are anticipated:
1.Update HASP, QAPP and SAP as specified by the OSC based on site activities; 2.Produce 1900-55s to document and confirm costs; 3.Conduct field monitoring as necessary based on site conditions; 4.Conduct multi-media sampling; 5.Produce draft report based on OSC instruction for approval; 6.A cost estimate is required. Detail information regarding specific tasks such as field activities and the report are required.
Coordinate all activities with OSC Kevin Eichinger at 404-562-8268 (work) or 678-897-3759 (cell).

Vendor: TETRA TECH, INC.
TDD Owner: Katrina Jones
Project Officer: Katrina Jones
Contracting Officer Representative: Kevin Eichinger Contract Specialist: Stacy Hill Contracting Officer: Stacy Hill Other Agency Officer: Stacy Hill
Site: R4 PROGRAM OFFICES

Pressley, Miriam

From: Cathy McBride <cmcbride@hepaco.com>
Sent: Monday, October 14, 2019 5:16 PM
To: Eichinger, Kevin
Cc: Chad B Edwards; James B. Kessler; Adrian T. Simmons
Subject: Enviro Restoration-L&R Oil-SHELBY, NC HEPACO PAST DUE INVOICE FY19-000541
Attachments: 1843.1226 FY19-000541 .pdf

Importance: High

Good Afternoon Kevin:

I hope this finds you well. The purpose of this email is to follow-up with you regarding the attached extremely past due invoice which you agreed to pay on 8/28/19, see below email. It is now over a month later and we have yet to receive payment.

It is imperative that you communicate with me regarding the status of payment, as this is now 208 days past due.

I hope to hear from you soon regarding this matter.

Thank you.

Sincerely,

HEPACO
Serious experience for serious times.
Cathy McBride
Corporate Collections Specialist
HEPACO, LLC | Corporate Office
9335 Harris Corners Parkway, Suite 220 | Charlotte, NC 28269
Main: 704.598.9782 | Cell: 704.578.6410
www.hepaco.com
24 Hour Emergency Response
1-800-888-7689

From: Eichinger, Kevin <Eichinger.Kevin@epa.gov>
Sent: Wednesday, August 28, 2019 2:46 PM
To: Chad B Edwards <cedwards@hepaco.com>
Subject: RE: [EXT]FW: Enviro Restoration-L&R Oil-SHELBY, NC

I have not heard back from my Contracting Officer. I am going to tell ER to go ahead and pay it. Sorry for the delay.

Kevin

From: Chad B Edwards <cedwards@hepaco.com>
Sent: Wednesday, August 28, 2019 2:41 PM
To: Eichinger, Kevin <Eichinger.Kevin@epa.gov>
Cc: James B. Kessler <jkessler@hepaco.com>; Cathy McBride <cmcbride@hepaco.com>
Subject: RE: [EXT]FW: Enviro Restoration-L&R Oil-SHELBY, NC

Kevin,

I wanted to touch base and see if you had an update on the remaining balance of this invoice.

Thanks again,

HEPACO
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Chad Edwards

Branch Manager-Carolinas Region
HEPACO, LLC | Charlotte Office
2711 Burch Drive | Charlotte, NC 28269
Main: 704.598.9787 | Direct: 980.312.5359 | Cell: 704.564.8851

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From: Eichinger, Kevin <Eichinger.Kevin@epa.gov>
Sent: Wednesday, August 14, 2019 9:01 AM
To: Chad B Edwards <cedwards@hepaco.com>
Subject: Re: [EXT]FW: Enviro Restoration-L&R Oil-SHELBY, NC

While the Contracting Officers figure this out, I am going to authorize ER to pay for the track replacement and the analytical charges. I just need confirmation on the subcontracted boxes and whether we pay your day rate or the subcontracted rate. I need to assure the costs are inline with the contract or I violate the Federal Regs.

From: Chad B Edwards <cedwards@hepaco.com>
Sent: Wednesday, August 14, 2019 7:44 AM
To: Eichinger, Kevin <Eichinger.Kevin@epa.gov>
Subject: RE: [EXT]FW: Enviro Restoration-L&R Oil-SHELBY, NC

It was not. It was the oil, but I was under the understanding that the contained in policy applied to anything contaminated that is porous is considered the same concentration as the oil itself because it cannot be effectively decontaminated.

Thanks again,

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Chad Edwards
Branch Manager-Carolinas Region
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2711 Burch Drive | Charlotte, NC 28269
Main: 704.598.9787 | Direct: 980.312.5359 | Cell: 704.564.8851
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From: Eichinger, Kevin <Eichinger.Kevin@epa.gov>
Sent: Wednesday, August 14, 2019 7:33 AM
To: Chad B Edwards <cedwards@hepaco.com>
Subject: Re: [EXT]FW: Enviro Restoration-L&R Oil-SHELBY, NC

Is this a wipe sample result? Also, this is still typical covered under the overhead, but we are checking.

From: Chad B Edwards <cedwards@hepaco.com>
Sent: Wednesday, August 14, 2019 7:30 AM
To: Eichinger, Kevin <Eichinger.Kevin@epa.gov>
Cc: Krieger, Geoffrey <krieger.geoffrey@epa.gov>; Moore, Tony <moore.tony@epa.gov>; James B. Kessler <jkessler@hepaco.com>; Cathy McBride <cmcbride@hepaco.com>
Subject: RE: [EXT]FW: Enviro Restoration-L&R Oil-SHELBY, NC

Thanks for checking into this. I have attached the analytical that we had that would have required the rubber tracks to be replaced since they were unable to be decontaminated due to being pourous.

Thanks again,

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Chad Edwards
Branch Manager-Carolinas Region
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From: Eichinger, Kevin <Eichinger.Kevin@epa.gov>
Sent: Wednesday, August 14, 2019 6:52 AM
To: Chad B Edwards <cedwards@hepaco.com>
Cc: Krieger, Geoffrey <krieger.geoffrey@epa.gov>; Moore, Tony <moore.tony@epa.gov>
Subject: Re: [EXT]FW: Enviro Restoration-L&R Oil-SHELBY, NC

Typical that is covered by the loaded rate, we are double checking. Also, I did not request the tracks to be replace. I am not sure why this was done. The concentrations of PCBs were working with did not require the replacement.

Kevin

From: Chad B Edwards <cedwards@hepaco.com>
Sent: Wednesday, August 14, 2019 6:36 AM
To: Eichinger, Kevin <Eichinger.Kevin@epa.gov>
Cc: Krieger, Geoffrey <krieger.geoffrey@epa.gov>; Moore, Tony <moore.tony@epa.gov>
Subject: Re: [EXT]FW: Enviro Restoration-L&R Oil-SHELBY, NC

Thank you. The maintenance on the skid steer was the replacement of the rubber tracks that you requested onsite.

Thank you.

Get Outlook for iOS

From: Eichinger, Kevin <Eichinger.Kevin@epa.gov>
Sent: Wednesday, August 14, 2019 3:06:58 AM
To: Chad B Edwards <cedwards@hepaco.com>
Cc: Krieger, Geoffrey <krieger.geoffrey@epa.gov>; Moore, Tony <moore.tony@epa.gov>
Subject: Re: [EXT]FW: Enviro Restoration-L&R Oil-SHELBY, NC

Chad,

I am aware of the issue and I am working with our Contracting Officer to make sure the submitted invoice is in line with the terms of the BOA contract. Three of the dumpsters were subcontracted and the subcontracted rate is less then what HEPACO charged. Also, there is a charge for maintenance activities on the skid steer. We want to make sure that the terms of the BOA contract permit these charges. I copied the Contracting Officer on this email. He has been working on this. Once Geoff gets clarification, I will get back with you.

Kevin

Kevin Eichinger, CHMM - On-Scene Coordinator and Industrial Hygienist
U.S. Environmental Protection Agency, Region 4 | 61 Forsyth St SW | Atlanta, Georgia | 30303
Emergency Response, Removal and Prevention Branch (ERRB)
office: **404-562-8268** | cell: **678-897-3759** | **response.epa.gov**

From: Chad B Edwards <cedwards@hepaco.com>
Sent: Tuesday, August 13, 2019 7:14 PM
To: Eichinger, Kevin <Eichinger.Kevin@epa.gov>
Cc: James B. Kessler <jkessler@hepaco.com>; Cathy McBride <cmcbride@hepaco.com>
Subject: FW: [EXT]FW: Enviro Restoration-L&R Oil-SHELBY, NC

Kevin,

We are trying to resolve an outstanding invoice with ERLLC in reference to the above listed site. Last fall, when ER, LLC took over the rolloff containers and waste onsite, Ken Braig, yourself and I met onsite to discuss the transfer of the containers over to ERLLC and how we would process the invoicing. At that time you wanted us to Invoice ERLLC on our rates and they would bill you under their current contract. Until everything was transferred over to ERLLC including the disposal of our rolloff container and we were able to pick it up we invoiced ERLLC the contracted BOA rates that we have.

We are still trying to get ERLLC to pay us for these services and keep getting pushed off every time we contact them. The last email correspondence below indicated that you would be reaching out to us regarding invoice questions.

We submitted this invoice to Ken Braig on January 21, 2019 and have gotten no resolution.

Thank you,

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Chad Edwards

Branch Manager-Carolinas Region
HEPACO, LLC | Charlotte Office
2711 Burch Drive | Charlotte, NC 28269
Main: 704.598.9787 | Direct: 980.312.5359 | Cell: 704.564.8851

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From: Christina Strength <c.strength@erllc.com>
Sent: Tuesday, July 23, 2019 10:21 AM
To: Chad B Edwards <cedwards@hepaco.com>
Cc: Cathy McBride <cmcbride@hepaco.com>; James B. Kessler <jkessler@hepaco.com>
Subject: RE: [EXT]FW: Enviro Restoration

I was told the EPA coordinator was contacting your company with some questions before we could approve. I will check back in on this today.

From: Chad B Edwards [mailto:cedwards@hepaco.com]
Sent: Tuesday, July 23, 2019 10:05 AM
To: Christina Strength <c.strength@erllc.com>
Cc: Cathy McBride <cmcbride@hepaco.com>; James B. Kessler <jkessler@hepaco.com>
Subject: RE: [EXT]FW: Enviro Restoration

Christina,

Can you let us know the status of this invoice please?

Thanks,

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Chad Edwards

Branch Manager-Carolinas Region
HEPACO, LLC | Charlotte Office
2711 Burch Drive | Charlotte, NC 28269
Main: 704.598.9787 | Direct: 980.312.5359 | Cell: 704.564.8851

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From: Chad B Edwards <cedwards@hepaco.com>
Sent: Friday, July 12, 2019 4:20 PM
To: Christina Strength <c.strength@erllc.com>
Cc: Cathy McBride <cmcbride@hepaco.com>; James B. Kessler <jkessler@hepaco.com>
Subject: Re: [EXT]FW: Enviro Restoration

EPA instructed us to replace the tracks and the rate for the boxes is the contracted rate per the EPA contract that everything was billed off of.

Thanks,

Chad Edwards
Branch Manager
HEPACO, LLC
Mobile: 704-564-8851
Office: 704-598-9787 ext 1015
Fax: 704-598-9224
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HEPACO is excited to celebrate our 33 year anniversary (1984-2017)!

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Please consider the environment before printing this mail.

Sent from my iPhone

On Jul 12, 2019, at 16:12, Christina Strength <c.strength@erllc.com> wrote:

Hi Chad,

A few questions for you. I do know that I had trouble getting Rain for Rent and United to transfer the 4 roll offs over to us, but Rain for Rent eventually did and theirs were only $12/day. The project managers said we should only be paying the (b) (4)/day rate on one roll off that was yours. Could you look into that and update the invoice to charge us the correct rates for the 2 Rain for Rent and 2 United roll offs?

Also, they are saying that we are not responsible for the analytical and track replacement invoices that were attached.

Please let me know if you need anything from me. The project manager was originally Ken Braig and has transferred over to Paul Pilgrim if you need to talk with someone from our company.

Thank you,

Christina Strength
Field Cost Accountant
Environmental Restoration
Cell: 407-557-4086
Fax: 636-680-2584
c.strength@erllc.com

From: Chad B Edwards [mailto:cedwards@hepaco.com]
Sent: Thursday, July 11, 2019 11:49 AM
To: Christina Strength <c.strength@erllc.com>
Cc: Cathy McBride <cmcbride@hepaco.com>; James B. Kessler <jkessler@hepaco.com>
Subject: [EXT]FW: Enviro Restoration
Importance: High

*****CAUTION*** This email originates from a source outside the company. Please use caution when opening attachments, clicking on links, or following the senders request.**

Christina,

I have attached the invoice you requested. I have also sent the copy of the invoice that we submitted to Ken on January 21st.

Can you please let me know when we can expect payment?

Thanks,

<image002.jpg>

Chad Edwards
Branch Manager-Carolinas Region
HEPACO, LLC | Charlotte Office

2711 Burch Drive | Charlotte, NC 28269
Main: 704.598.9787 | Direct: 980.312.5359 | Cell: 704.564.8851

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From: Cathy McBride <cmcbride@hepaco.com>
Sent: Thursday, July 11, 2019 11:08 AM
To: Chad B Edwards <cedwards@hepaco.com>
Subject: Enviro Restoration
Importance: High

Hi Chad:

Here is the invoice you requested, as well as, a copy of the submission email to K Braig.

Thank you.
Cathy

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INVOICE

P. O. Box 26308
Charlotte, NC 28221-6308

INVOICE NO: FY19-000541
DATE: January 19, 2019

To: **ERLLC**
1666 Fabic Drive
Fenton, MO 63026
Attn: Ken Braig

Project Location: US EPA L&R Oil Site
501 Ruth Street
Shelby, NC 28105

PROJECT MANAGER	HEPACO JOB #	CUSTOMER #	BILLED THROUGH	PO #	TERMS
Chad Edwards	1843.1226	ENV0015	January 17, 2019	L4-526	NET 14

QUANTITY	DESCRIPTION	UNIT	UNIT PRICE	AMOUNT
	Environmental services to clean up oil spill.			$ 19,847.48
	This invoice includes the following enclosures: Billing Summary Applicable Vendor Invoices/Receipts			
			SUBTOTAL	$ 19,847.48
			SALES TAX	
			SHIPPING & HANDLING	
			TOTAL DUE	**$ 19,847.48**

Make all checks payable to: HEPACO, LLC
Please remit payment to: P. O. Box 26308
Charlotte, NC 28221-6308

EIN # 56-1428449

If you have any questions concerning this invoice, contact: Accounts Receivable @ 1-800-888-7689 ext.1030
HEPACO is not responsible for filing claims with your insurance company.
For your convenience we gladly accept Visa, MasterCard or American Express.
Please reference our invoice number on your check and mail to the address above.
Accounts which remain unpaid past due date from billing date are subject to a late charge of 1 1/2 % per month.
Customer shall pay, or reimburse HEPACO, LLC if it elects to pay, all costs incurred in collecting any past due amounts, including without limitation court and collection costs and reasonable attorneys' fees.

THANK YOU FOR YOUR BUSINESS !!

Billing Summary

L& R Oil Spill Site; Shelby, NC
HEPACO Project #: 1843.1226
Project Date: 9/26/2018 - 1/17/2019

Quantity	Description	Unit Price	Units	Line Total
112	Equipment: 25 Yd Rolloff Box	(b) (4) [redacted]	Day	(b) (4) [redacted]
112	Equipment: 25 Yd Rolloff Box	[redacted]	Day	[redacted]
112	Equipment: 25 Yd Rolloff Box	[redacted]	Day	[redacted]
112	Equipment: 25 Yd Rolloff Box	[redacted]	Day	[redacted]
112	Equipment: 25 Yd Rolloff Box	[redacted]	Day	[redacted]
1	Other Expense: United Rentals-Track Replacement	[redacted]	Each	[redacted]
1	Other Expense: Pace Analytical-sample analysis	[redacted]	Each	[redacted]
1	Other Expense: Pace Analytical-sample analysis	[redacted]	Each	[redacted]
1	Other Expense: Pace Analytical-sample analysis	[redacted]	Each	[redacted]
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
			TOTAL	$19,347.48

INVOICE

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
Phone: (704)875-9092

Pace Analytical™
www.pacelabs.com

Invoice Number: 1892164081
Date: 09/21/2018
Total Amount Due: $342.00

Sold To:
HEPACO Inc.

P.O.Box 26308
Charlotte, NC 28221
(800)888-7689

Please Remit To:
Pace Analytical Services, LLC
P.O. Box 684056
Chicago, IL 60695-4056

Client Number/Client ID	Purchase Order No	Pace Project Mgr	Terms**	Page
92-616820 / 92-HEPACO	1843.1226	Taylor Ezell	Net 30 Days	1

Client Project: EPA
Pace Project No: 92399574
Report Sent To: Chase Furr, Hepaco
Comments:

Client Name: HEPACO Charlotte
Sample Received: 9/17/2018

ANALYTICAL CHARGES

Quantity	Unit	Description	Method	Matrix	Price	Total
(b)	Ea	6010 ICP Metals	EPA 6010D	Solid	(b) (4)	$247.50
(4)	Ea	7471 Mercury	EPA 7471B	Solid		$85.50
[redacted]	Ea	Environmental Impact Fee	Miscellaneous Charges	Solid		$9.00
					Analytical Subtotal	$342.00

Total Number of Charges 5

Total Invoice Amount **$342.00**

Samples Received for analysis:

Lab ID	Client Sample ID	Received
92399574001	SAMPLE 1	9/17/2018
92399574002	SAMPLE 2	9/17/2018

If you have any questions, please contact Taylor Ezell at Pace.
Phone: (704)875-9092 Email: taylor.ezell@pacelabs.com

****1.5% MONTHLY FINANCE CHARGE ASSESSED AFTER 30 DAYS OR TERMS OF CONTRACT.**
PLEASE REFERENCE THE INVOICE NUMBER ON ALL REMITTANCE ADVICE.

AN EQUAL OPPORTUNITY EMPLOYER

Please complete and return copy of invoice with your payment.

INVOICE TOTAL **$342.00**

Amount Paid: $ _____

Check No: _____

Customer No: 92-616820 Invoice No: 1892164081

INVOICE

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
Phone: (704)875-9092

Pace Analytical™
www.pacelabs.com

Invoice Number: 1892164082
Date: 09/21/2018
Total Amount Due: $369.00

Sold To:

HEPACO Inc.

P.O.Box 26308
Charlotte, NC 28221
(800)888-7689

Please Remit To:

Pace Analytical Services, LLC
P.O. Box 684056
Chicago, IL 60695-4056

Client Number/Client ID	Purchase Order No	Pace Project Mgr	Terms**	Page
92-616820 / 92-HEPACO	1843.1226	Taylor Ezell	Net 30 Days	1

Client Project: EPA
Pace Project No: 92399573
Report Sent To: Chase Furr, Hepaco
Comments:

Client Name: HEPACO Charlotte
Sample Received: 9/17/2018

ANALYTICAL CHARGES

Quantity	Unit	Description	Method	Matrix	Price	Total
(b) (4)	Ea	8082 GCS PCB Oil	EPA 8082A	Non Aqueous Liquid	(b) (4)	$360.00
(b) (4)	Ea	Environmental Impact Fee	Miscellaneous Charges	Non Aqueous Liquid		$9.00
					Analytical Subtotal	$369.00

Total Number of Charges 3

Total Invoice Amount **$369.00**

Samples Received for analysis:

Lab ID	Client Sample ID	Received
92399573001	SAMPLE 1	9/17/2018
92399573002	SAMPLE 2	9/17/2018

If you have any questions, please contact Taylor Ezell at Pace.
Phone: (704)875-9092 Email: taylor.ezell@pacelabs.com

****1.5% MONTHLY FINANCE CHARGE ASSESSED AFTER 30 DAYS OR TERMS OF CONTRACT.**
PLEASE REFERENCE THE INVOICE NUMBER ON ALL REMITTANCE ADVICE.

AN EQUAL OPPORTUNITY EMPLOYER

Please complete and return copy of invoice with your payment.

INVOICE TOTAL **$369.00**

Amount Paid: $ _____

Check No: _____

Customer No: 92-616820 Invoice No: 1892164082

INVOICE

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
Phone: (704)875-9092

Pace Analytical™
www.pacelabs.com

Invoice Number: 1892165821
Date: 10/04/2018
Total Amount Due: $1,934.00

Sold To:

HEPACO Inc.

P.O.Box 26308
Charlotte, NC 28221
(800)888-7689

Please Remit To:

Pace Analytical Services, LLC
P.O. Box 684056
Chicago, IL 60695-4056

Client Number/Client ID	Purchase Order No	Pace Project Mgr	Terms**	Page
92-616820 / 92-HEPACO	1843.1226	Taylor Ezell	Net 30 Days	1

Client Project: 1843.1226
Pace Project No: 92401018
Report Sent To: Chase Furr, Hepaco
Comments:

Client Name: HEPACO Charlotte
Sample Received: 9/26/2018

ANALYTICAL CHARGES

Quantity	Unit	Description	Method	Matrix	Price	Total
(b)	Ea	8082 GCS PCB Wipe	EPA 8082A	Wipe	(b) (4)	$1,925.00
(4)	Ea	Environmental Impact Fee	Miscellaneous Charges	Wipe		$9.00
					Analytical Subtotal	$1,934.00

Total Number of Charges 11

Total Invoice Amount **$1,934.00**

Samples Received for analysis:

Lab ID	Client Sample ID	Received
92401018001	Left TT	9/26/2018 3:53:00
92401018002	Right TT	9/26/2018 3:53:00
92401018003	Top TT	9/26/2018 3:53:00
92401018004	Bottom TT	9/26/2018 3:53:00
92401018005	Front TT	9/26/2018 3:53:00
92401018006	Rear TT	9/26/2018 3:53:00
92401018007	Right Under Carraige	9/26/2018 3:53:00
92401018008	Left Under Carraige	9/26/2018 3:53:00
92401018009	Top Bucket	9/26/2018 3:53:00
92401018010	Bottom Bucket	9/26/2018 3:53:00

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PLEASE REFERENCE THE INVOICE NUMBER ON ALL REMITTANCE ADVICE.

AN EQUAL OPPORTUNITY EMPLOYER

Please complete and return copy of invoice with your payment.

INVOICE TOTAL **$1,934.00**

Amount Paid: $ _____

Check No: _____

Customer No: 92-616820 Invoice No: 1892165821

INVOICE

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
Phone: (704)875-9092

Pace Analytical™
www.pacelabs.com

Invoice Number: 1892165821
Date: 10/04/2018
Total Amount Due: $1,934.00

Sold To:

HEPACO Inc.

P.O.Box 26308
Charlotte, NC 28221
(800)888-7689

Please Remit To:

Pace Analytical Services, LLC
P.O. Box 684056
Chicago, IL 60695-4056

Client Number/Client ID	Purchasing Order No	Pace Project Mgr	Terms**	Page
92-616820 / 92-HEPACO	1843.1226	Taylor Ezell	Net 30 Days	2

Client Project: 1843.1226
Pace Project No: 92401018
Report Sent To: Chase Furr, Hepaco
Comments:

Client Name: HEPACO Charlotte
Sample Received: 9/26/2018

If you have any questions, please contact Taylor Ezell at Pace.
Phone: (704)875-9092 Email: taylor.ezell@pacelabs.com

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AN EQUAL OPPORTUNITY EMPLOYER

United Rentals

BRANCH 146
10524 OLD NATIONS FORD RD.
CHARLOTTE NC 28273
704-523-4980
704-523-4948 FAX

WORK ORDER INVOICE

163924367-001

Customer # : 297902
Work Order Date: 12/04/18
Invoice date : 12/11/18
UR Job Loc : 501 RUTH ST, SHELBY
UR Job # : 414
Customer Job ID:
P.O. # : 41-100254
Authorized : CHAD EDWARDS
Written by : MICHAEL SAYERS

Job Site

TANKER SPILL
501 RUTH ST
SHELBY NC 28150

Office: 704-598-9782 **Cell:** 704-564-8849

4.1.1228 1 MB 0.421 89370S11.p01 259978 1-2 0

HEPACO LLC
PO BOX 26308
CHARLOTTE NC 28221-6308

Invoice Amount: $1802.48

Terms: Due Upon Receipt
Payment options: Contact our credit office 704-916-4155
REMIT TO: UNITED RENTALS (NORTH AMERICA),INC.
PO BOX 100711
ATLANTA GA 30384-0711

EQUIP #	Make	Model	Serial #	Description
10028084	BOBCAT	T180	H3LL37043	SKID STEER TRACK LOA Cat/Class 903-0570

Hr Meter: 2235.039

Work To Be Done
REPLACED BOTH TRACKS (CONTAMINATED)

PARTS:

Qty	Part Number	Description	StkCl	Bin Loc	Unit of Measure	Price	Extended
(b)	B320X86X49	TRACK,RUBBER	DOMEQ		EACH	(b) (4)	1,018.50

LABOR:

Mechanic	Hours	Work	Rate	Extended
MICHAEL SAYERS	2.00	TRAVEL	(b) (4)	(b) (4)
MICHAEL SAYERS	3.00	LABOR-REPAIR		

COMPLAINT:
customer states tracks contaminated
requires track replacement
CAUSE:
found tracks contaminated from spill
CORRECTION:
replaced both tracks
customer kept contaminated tracks for proper
disposal
checked operation
verified correction

Total Parts & Materials	1,018.50
Total Labor	(b) (4)
Tax	113.98
Total Amount	1,802.48

THIS INVOICE IS ISSUED SUBJECT TO THE TERMS AND CONDITIONS OF THE WORK ORDER, WHICH ARE INCORPORATED HEREIN BY REFERENCE.

A COPY OF THE WORK ORDER IS AVAILABLE UPON REQUEST.

Pressley, Miriam

From: Patty Pegg <ppegg@ecoflo.com>
Sent: Monday, October 21, 2019 12:40 PM
To: Eichinger, Kevin; p.pilgrim@erllc.com
Cc: John Klein; jzwahl@awmsi.com
Subject: Ecoflo Response - L&R Oil--Executed Haz Waste Manifest
Attachments: US EPA REG 4 019757833JJK.pdf

Hello Kevin,

Manifest 019757834JJK attached.

Please let me know if I can assist further.

Thanks!
Patty

Patty Pegg
Lead Client Services Representative
336.617.2715 Direct
336.855.7925 Ext. 212
855.620.3932 Fax

The information transmitted is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon, this information by persons or entities other than the intended recipient is prohibited. If you received this in error, please contact ECOFLO IT Department at 336.617.2702 and delete the material from any computer.

-----Original Message-----
From: Eichinger, Kevin <Eichinger.Kevin@epa.gov>
Sent: Monday, October 21, 2019 11:46 AM
To: Patty Pegg <ppegg@ecoflo.com>; p.pilgrim@erllc.com
Cc: John Klein <j.klein@erllc.com>; jzwahl@awmsi.com
Subject: RE: Ecoflo Response - L&R Oil--Executed Haz Waste Manifest

Thanks Patty. Sorry for the confusion. I actually need 019757834JJK. I do have the manifest that ends in 33JJK.

Thanks,
Kevin

Kevin Eichinger, CHMM - Federal On-Scene Coordinator and Industrial Hygienist U.S. Environmental Protection Agency, Region 4 | 61 Forsyth St SW | Atlanta, Georgia | 30303 Superfund and Emergency Management Division Emergency Response, Removal, Prevention and Prepardness Branch (ERRPPB)
office: 404-562-8268 | cell: 678-897-3759 | response.epa.gov

-----Original Message-----
From: Patty Pegg <ppegg@ecoflo.com>
Sent: Monday, October 21, 2019 11:44 AM
To: p.pilgrim@erllc.com; Eichinger, Kevin <Eichinger.Kevin@epa.gov>
Cc: John Klein <j.klein@erllc.com>; jzwahl@awmsi.com
Subject: Ecoflo Response - L&R Oil--Executed Haz Waste Manifest
Importance: High

Good Morning Paul,

I have attached the manifest you requested from Shamrock....Shamrock did not manage this shipment and has forwarded your request to me.

The Broker you had mange this shipment was American Waste Management and would be your contact for this request....I have included John Zwahl on the email. That's your contact for needs regarding this shipment.

Patty

Patty Pegg
Lead Client Services Representative
336.617.2715 Direct
336.855.7925 Ext. 212
855.620.3932 Fax

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-----Original Message-----
From: Beth Mcelveen <bmcelveen@shamrockenviro.com>
Sent: Monday, October 21, 2019 11:35 AM
To: Patty Pegg <ppegg@ecoflo.com>
Subject: FW: [EXTERNAL] L&R Oil--Executed Haz Waste Manifest
Importance: High

Thanks Patty!

Beth

Beth McElveen
Shamrock Environmental Corp.
Toll Free: 1-800-881-1098
Direct/Fax: 336-478-1224
Fax: 336-282-2499

This message and any attachment are privileged and confidential. If you are not the intended recipient, please telephone or email the sender and delete the message and any attachment from your system. If you are not the intended recipient you may not copy this message or attachment or disclose the contents to any other person.

-----Original Message-----
From: Paul Pilgrim <p.pilgrim@erllc.com>
Sent: Monday, October 21, 2019 10:43 AM
To: Beth Mcelveen <bmcelveen@shamrockenviro.com>
Cc: Eichinger, Kevin <Eichinger.Kevin@epa.gov>
Subject: [EXTERNAL] L&R Oil--Executed Haz Waste Manifest
Importance: High

Hi Beth, can you send me and Kevin Eichinger a copy of the executed manifest for the waste that went to EcoFlo? I have reached out to them but can't seem to get the correct person on the phone.

Manifest # 019757833JJK dated 09/13/19

Thanks,

Paul A. Pilgrim
Response Manager
Environmental Restoration, LLC.
6940 Commercial Drive
Morrow, GA 30260
Office: 770-961-9272
Cell: 615-498-4223
p.pilgrim@erllc.com

Confidentiality Warning: This e-mail and any attachments contain information intended only for the use of the individual or entity named above. If the reader of this e-mail is not the intended recipient or the employee or agent responsible for delivering it to the intended recipient, any dissemination, publication or copying of this e-mail is strictly prohibited. Although this email has been scanned for malware, the sender does not accept any responsibility for any loss, disruption or damage to your data or computer system that may occur while using data contained in, or transmitted with, this e-mail. If you have received this e-mail in error, please immediately notify by return e-mail. Thank you.

Please print or type.

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NCR000169185
2. Page 1 of: 1
3. Emergency Response Phone: (888) 814-7477
4. Manifest Tracking Number: 019757833 JJK

5. Generator's Name and Mailing Address
US EPA REG 4
61 FORSYTHE STREET, SW ATLANTA, GA 30303
Generator's Phone: (678) 897-3759

Generator's Site Address (if different than mailing address)
L&R OIL RECOVERY SITE
501 RUTH STREET
SHELBY NC 28150

6. Transporter 1 Company Name: ECO FLO
U.S. EPA ID Number: NCD980842132

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
ECOFLO, INC.
2750 PATTERSON STREET GREENSBORO NC 27407
Facility's Phone: (336) 855-7925
U.S. EPA ID Number: NCD980842132

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN1993, Waste Flammable liquid, n.o.s., (Benzene, toluene), 3, PGII	019	TP	4,750	G	D001 D008 D010 D018
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1. 556AAE-001 WID: 62846 ERG #128
TRUCK # 3097 TRAILER # 3053
204155
L4-526

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: KEVIN EICHINGER EPA OSC
Signature: For
Month 09 Day 12 Year 19

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Colby Newberne
Signature: Colby Newberne
Month 09 Day 12 Year 19
Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

18. Discrepancy
18a. Discrepancy indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H061 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Benjamin Light
Signature:
Month 9 Day 12 Year 19

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

ECOFLO LAND DISPOSAL NOTIFICATION AND CERTIFICATION FORM

ECOFLO

Generator Name: US EPA REG 4/L& R OIL RECOVERYSITE

Manifest Tracking No: 019757833JJK

Identify ALL USEPA hazardous waste codes that apply to this waste shipment, as defined by 40 CFR 261.
For each waste code, identify the corresponding subcategory, or write NONE if the waste code has no subcategory. Spent solvent treatment standards are listed on the following page. If F039, multi-source applies, those constituents must be listed and attached by generator. If D001-D043 requires treatment of the characteristic and meet 268.48 standards, then the underlying hazardous constituent(s) present in the waste must be listed and attached.

To identify F039 or D001-D043, underlying hazardous constituent(s), use the "F039/Underlying Hazardous Constituent Form" provided.
To list additional USEPA waste code(s) and subcategory(s), use the supplemental sheet provided
HOW MUST THE WASTE BE MANAGED? In column 5 enter the letter (A, B1, B3, B4, B5, B6, C, D or E) below that describes how the waste must be managed to comply with the land disposal regulations (40 CFR 268.7) Please understand that if you enter the letter B1, B3, B4, B5, B6, or D you are making the appropriate certification as provided below. States authorized by EPA to manage the LDR program may have regulatory citations different from the 40 CFR citations listed below. Where these regulatory citations differ your certification will be deemed to refer to those state citations instead of the 40 CFR citations.

Line Item / Profile Number	USA EPA EPA Code(s)	WW or NWW	Subcategory Description or None	Waste Management A, B1, B3, C, D, E, F
1 556AAB-001	D001	WW	HIGH TOC IGNITABLE CHARACTERISTIC LIQUID BASED ON 261.21(A)(1) GREATER THAN 10% TOC	A
1 556AAB-001	D008	WW	WASTE THAT EXHIBIT CHARACTERISTIC BASED ON TCLP IN SW846	A
1 556AAB-001	D010	WW	WASTES THAT EXHIBIT CHARACTERISTIC BASED ON TCLP IN SW846.	A
1 556AAB-001	D018	WW	NONE	A

I hereby certify that all information submitted in this and all associated documents is complete and accurate, to the best of my knowledge and information.

Signature KEVIN EICHINGER Digitally signed by KEVIN EICHINGER Date: 2019.09.13 16:16:31 -04'00' Title Date

Pressley, Miriam

From: EAS.System@epamail.epa.gov
Sent: Monday, February 11, 2019 4:23 PM
To: Eichinger, Kevin
Subject: EAS TDD Package Notification for TDD - (EP-S4-14-03/0001/TT-01-106 - 001)

Dear Kevin Eichinger,

EP-S4-14-03/0001/TT-01-106(001) Package to Vendor TETRA TECH, INC. has been sent to FedConnect via EAS.

Pressley, Miriam

From:	Bates, Lloyd
Sent:	Tuesday, September 18, 2018 1:26 PM
To:	R4_SiteSetup; Painter, Paula; Armstrong, Gregory; Johnson, Roderick; Wright, Marie; Johnson, Kathie
Cc:	Eichinger, Kevin
Subject:	Emergency Response Site Setup Request: L&R Oil Recovery C466
Attachments:	SF Work Code L R Oil Recovery C466.xlsx

Please establish the Site Code and Action Codes reflected on the attached sheet in Compass.

L Monty Bates
Sr. Site Administrative Officer
ERRP Budget/Finance Lead
EAS Liaison
Resource/Scientific Integrity Branch
Superfund Division
(Office) 404-562-8354
(Cell) 404-310-9897

SITE CODE CREATION

Check (X) All that Apply: **New Site** X **New Assignment** _____

Site Name: L&R Oil Recovery
EPA ID: NCN000407089
Site ID: C466
Street Address: 501 Ruth Street
City: Shelby
State: NC
Zip Code: 28150
County: Cleveland

Site Contact: Kevin Eichinger
Branch: ERRP
Phone: 404-562-8775
Fax:
Email: eichinger.kevin@epa.gov
Latitude:
Longitude:

Fiscal Year: 2018
Comments:
Emergency Response Date: 9/18/2018

Time-Critical Removal:
Lead: EPA
Remedial:

Superfund Response Contracts	Appropriation	Org Code	PRC Prefix	PRC Suffix	Site Code	Action Code	OpUnit
Removal Assessment	T	4AD0E	000	DC6	C466	RS	00
Removal	T	4AD0E	000	DC6	C466	RV	00
PRP Removal	T	4AD0E	000	DC6		BB	00
PRP Voluntary Removal	T	4AD0E	000	DC6		PJ	00
Community Involvement	T	4AD0E	000	DC6	C466	CR	00
Laboratory Support	T	4AD0E	000	DC6		LA	00

Superfund Response Payroll & Travel	Appropriation	Org Code	PRC Prefix	PRC Suffix	Site Code	Action Code	OpUnit
Removal Assessment	T	04D	000	DC6	C466	RS	00
Removal	T	04D	000	DC6	C466	RV	00
PRP Removal	T	04D	000	DC6		BB	00
PRP Voluntary Removal	T	04D	000	DC6		PJ	00
Community Involvement	T	04D	000	DC6	C466	CR	00
Laboratory Support	T	04D	000	DC6		LA	00
Laboratory Support	T	04D	000	DD2		LA	00
Laboratory Support	T	04S	000	DC6		LA	00
Laboratory Support	T	04S	000	DD2		LA	00
Generic PA/SI	T	04D	000	DD2		QB	00
Site Security and Maintenance	T	04D	000	DD2		PD	00
PRP Search	T	04D	000	EC7	C466	QV	00
Negotiation - Generic	T	04D	000	EC7	C466	NG	00
PPA Assessment	T	04D	000	EC7		QX	00

Litigation	T	04D	000	EC7	C466	LT	00
Negotiation - Generic	T	04L	000	EC7	C466	NG	00
Legal Review and Analysis	T	04L	000	EC7	C466	PS	00
PRP Search	T	04L	000	EC7	C466	QV	00
PPA Assessment	T	04L	000	EC7		QX	00
Litigation	T	04L	000	EC7	C466	LT	00
Information Management Support	T	04D	000	EC7		IJ	00
Records Management	T	04D	000	DC6	C466	SW	00
Records Management	T	04D	000	DD2		SW	00
Records Management	T	04D	000	EC7	C466	SW	00
Records Management	T	04L	000	EC7	C466	SW	00
Preparation of Cost Documentation	T	04D	000	EC7	C466	PC	00
Preparation of Cost Documentation	T	04J	000	EC7		PC	00
Preparation of Cost Documentation	T	04L	000	EC7	C466	PC	00
Compliance Enforcement	T	04D	000	EC7		UZ	00
Compliance Enforcement	T	04L	000	EC7		UZ	00
Contract Management - Removal	T	04D	000	DC6	C466	JU	00
Contract Management - Federal Facilities	T	04D	000	DC9		JU	00
Contract Management - Remedial	T	04D	000	DD2		JU	00
Contract Management - Enforcement	T	04D	000	EC7	C466	JU	00
Fund Lead RI/FS	T	04D	000	DD2		CO	00
Fund Lead Remedial Design	T	04D	000	DD2		RD	00
Fund Lead Remedial Action	T	04D	000	DD2		RA	00
Fund Lead Long Term Remedial Action	T	04D	000	DD2		LT	00
PRP Lead RI/FS	T	04D	000	DD2		BD	00
PRP Lead Remedial Design	T	04D	000	DD2		BE	00
PRP Lead Remedial Action	T	04D	000	DD2		BF	00
PRP Lead Long Term Remedial Action	T	04D	000	DD2		ME	00
Five Year Review	T	04D	000	DD2		FE	00
Federal Facilities Oversight	T	04D	000	DC9		OX	00
Site Specific Oil Response	HR	04RAXHR	000	D91			

Pressley, Miriam

From: Patty Pegg <ppegg@ecoflo.com>
Sent: Monday, October 21, 2019 12:40 PM
To: Eichinger, Kevin; p.pilgrim@erllc.com
Cc: John Klein; jzwahl@awmsi.com
Subject: Ecoflo Response - L&R Oil--Executed Haz Waste Manifest
Attachments: US EPA REG 4 019757833JJK.pdf

Hello Kevin,

Manifest 019757834JJK attached.

Please let me know if I can assist further.

Thanks!
Patty

Patty Pegg
Lead Client Services Representative
336.617.2715 Direct
336.855.7925 Ext. 212
855.620.3932 Fax

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Sent: Monday, October 21, 2019 11:46 AM
To: Patty Pegg <ppegg@ecoflo.com>; p.pilgrim@erllc.com
Cc: John Klein <j.klein@erllc.com>; jzwahl@awmsi.com
Subject: RE: Ecoflo Response - L&R Oil--Executed Haz Waste Manifest

Thanks Patty. Sorry for the confusion. I actually need 019757834JJK. I do have the manifest that ends in 33JJK.

Thanks,
Kevin

Kevin Eichinger, CHMM - Federal On-Scene Coordinator and Industrial Hygienist U.S. Environmental Protection Agency, Region 4 | 61 Forsyth St SW | Atlanta, Georgia | 30303 Superfund and Emergency Management Division Emergency Response, Removal, Prevention and Prepardness Branch (ERRPPB)
office: 404-562-8268 | cell: 678-897-3759 | response.epa.gov

-----Original Message-----
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Sent: Monday, October 21, 2019 11:44 AM
To: p.pilgrim@erllc.com; Eichinger, Kevin <Eichinger.Kevin@epa.gov>
Cc: John Klein <j.klein@erllc.com>; jzwahl@awmsi.com
Subject: Ecoflo Response - L&R Oil--Executed Haz Waste Manifest
Importance: High

Good Morning Paul,

I have attached the manifest you requested from Shamrock....Shamrock did not manage this shipment and has forwarded your request to me.

The Broker you had mange this shipment was American Waste Management and would be your contact for this request....I have included John Zwahl on the email. That's your contact for needs regarding this shipment.

Patty

Patty Pegg
Lead Client Services Representative
336.617.2715 Direct
336.855.7925 Ext. 212
855.620.3932 Fax

The information transmitted is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon, this information by persons or entities other than the intended recipient is prohibited. If you received this in error, please contact ECOFLO IT Department at 336.617.2702 and delete the material from any computer.

-----Original Message-----
From: Beth Mcelveen <bmcelveen@shamrockenviro.com>
Sent: Monday, October 21, 2019 11:35 AM
To: Patty Pegg <ppegg@ecoflo.com>
Subject: FW: [EXTERNAL] L&R Oil--Executed Haz Waste Manifest
Importance: High

Thanks Patty!

Beth

Beth McElveen
Shamrock Environmental Corp.
Toll Free: 1-800-881-1098
Direct/Fax: 336-478-1224
Fax: 336-282-2499

This message and any attachment are privileged and confidential. If you are not the intended recipient, please telephone or email the sender and delete the message and any attachment from your system. If you are not the intended recipient you may not copy this message or attachment or disclose the contents to any other person.

-----Original Message-----
From: Paul Pilgrim <p.pilgrim@erllc.com>
Sent: Monday, October 21, 2019 10:43 AM
To: Beth Mcelveen <bmcelveen@shamrockenviro.com>
Cc: Eichinger, Kevin <Eichinger.Kevin@epa.gov>
Subject: [EXTERNAL] L&R Oil--Executed Haz Waste Manifest
Importance: High

Hi Beth, can you send me and Kevin Eichinger a copy of the executed manifest for the waste that went to EcoFlo? I have reached out to them but can't seem to get the correct person on the phone.

Manifest # 019757833JJK dated 09/13/19

Thanks,

Paul A. Pilgrim
Response Manager
Environmental Restoration, LLC.
6940 Commercial Drive
Morrow, GA 30260
Office: 770-961-9272
Cell: 615-498-4223
p.pilgrim@erllc.com

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Please print or type.

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NCR000169185
2. Page 1 of 1
3. Emergency Response Phone: (888) 814-7477
4. Manifest Tracking Number: 019757833 JJK

5. Generator's Name and Mailing Address
US EPA REG 4
61 FORSYTHE STREET, SW ATLANTA, GA 30303
Generator's Phone: (678) 897-3759

Generator's Site Address (if different than mailing address)
L&R OIL RECOVERY SITE
501 RUTH STREET
SHELBY NC 28150

6. Transporter 1 Company Name: ECO FLO — U.S. EPA ID Number: NCD980842132
7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
ECOFLO, INC.
2750 PATTERSON STREET GREENSBORO NC 27407
Facility's Phone: (336) 855-7925
U.S. EPA ID Number: NCD980842132

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, UN1993, Waste Flammable liquid, n.o.s., (Benzene, toluene), 3, PGII	019	TP	4,750	G	D001 D008 D010 D018
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1. 556AAB-001 WID: 62846 ERG #128
204155
L4-526
TRUCK # 3097 TRAILER # 7053

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: KEVIN EICHINGER EPA OSC — Signature: — Month 09 Day 12 Year 19

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: Date leaving U.S.:
Transporter signature (for exports only):

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Colby Newsome — Signature: Colby Newsome — Month 09 Day 12 Year 19
Transporter 2 Printed/Typed Name — Signature — Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number: U.S. EPA ID Number
18b. Alternate Facility (or Generator)
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H061 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Benjamin L Sh[illegible] — Signature: — Month 9 Day 12 Year 19

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

ECOFLO LAND DISPOSAL NOTIFICATION AND CERTIFICATION FORM

ECOFLO

Generator Name: US EPA REG 4/L& R OIL RECOVERYSITE

Manifest Tracking No: 019757833JJK

Identify ALL USEPA hazardous waste codes that apply to this waste shipment, as defined by 40 CFR 261.
For each waste code, identify the corresponding subcategory, or write NONE if the waste code has no subcategory. Spent solvent treatment standards are listed on the following page. If F039, multi-source applies, those constituents must be listed and attached by generator. If D001-D043 requires treatment of the characteristic and meet 268.48 standards, then the underlying hazardous constituent(s) present in the waste must be listed and attached.

To identify F039 or D001-D043, underlying hazardous constituent(s), use the "F039/Underlying Hazardous Constituent Form" provided.
To list additional USEPA waste code(s) and subcategory(s), use the supplemental sheet provided
HOW MUST THE WASTE BE MANAGED? In column 5 enter the letter (A, B1, B3, B4, B5, B6, C, D or E) below that describes how the waste must be managed to comply with the land disposal regulations (40 CFR 268.7) Please understand that if you enter the letter B1, B3, B4, B5, B6, or D you are making the appropriate certification as provided below. States authorized by EPA to manage the LDR program may have regulatory citations different from the 40 CFR citations listed below. Where these regulatory citations differ your certification will be deemed to refer to those state citations instead of the 40 CFR citations.

Line Item / Profile Number	USA EPA EPA Code(s)	WW or NWW	Subcategory Description or None	Waste Management A, B1, B3, C, D, E, F
1 556AAB-001	D001	WW	HIGH TOC IGNITABLE CHARACTERISTIC LIQUID BASED ON 261.21(A)(1) GREATER THAN 10% TOC	A
1 556AAB-001	D008	WW	WASTE THAT EXHIBIT CHARACTERISTIC BASED ON TCLP IN SW846	A
1 556AAB-001	D010	WW	WASTES THAT EXHIBIT CHARACTERISTIC BASED ON TCLP IN SW846.	A
1 556AAB-001	D018	WW	NONE	A

I hereby certify that all information submitted in this and all associated documents is complete and accurate, to the best of my knowledge and information.

Signature KEVIN EICHINGER Digitally signed by KEVIN EICHINGER Date: 2019.09.13 16:16:31 -04'00' Title Date

Pressley, Miriam

From: Patty Pegg <ppegg@ecoflo.com>
Sent: Monday, October 21, 2019 11:44 AM
To: p.pilgrim@erllc.com; Eichinger, Kevin
Cc: John Klein; jzwahl@awmsi.com
Subject: Ecoflo Response - L&R Oil--Executed Haz Waste Manifest
Attachments: US EPA REG 4 019757833JJK.pdf

Importance: High

Good Morning Paul,

I have attached the manifest you requested from Shamrock....Shamrock did not manage this shipment and has forwarded your request to me.

The Broker you had mange this shipment was American Waste Management and would be your contact for this request....I have included John Zwahl on the email. That's your contact for needs regarding this shipment.

Patty

Patty Pegg
Lead Client Services Representative
336.617.2715 Direct
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Thanks Patty!

Beth

Beth McElveen
Shamrock Environmental Corp.
Toll Free: 1-800-881-1098

Direct/Fax: 336-478-1224
Fax: 336-282-2499

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Manifest # 019757833JJK dated 09/13/19

Thanks,

Paul A. Pilgrim
Response Manager
Environmental Restoration, LLC.
6940 Commercial Drive
Morrow, GA 30260
Office: 770-961-9272
Cell: 615-498-4223
p.pilgrim@erllc.com

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Please print or type.

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

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2. Page 1 of 1
3. Emergency Response Phone: (888) 814-7477
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Generator's Site Address (if different than mailing address)
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501 RUTH STREET
SHELBY NC 28150

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7. Transporter 2 Company Name — U.S. EPA ID Number:
8. Designated Facility Name and Site Address — U.S. EPA ID Number:
ECOFLO, INC.
2750 PATTERSON STREET GREENSBORO NC 27407
Facility's Phone: (336) 855-7925
NCD980842132

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X	RQ, UN1993, Waste Flammable liquid, n.o.s., (Benzene, toluene), 3, PGII	019	TP	4,750	G	D001 D008 D010 D018
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1. 556AAB-001 WID: 62846 ERG #128
204155
TRUCK # 3097 TRAILER # 7053 L4-526

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18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number
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1. H061 2. 3. 4.

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Printed/Typed Name: Benjamin L Shf — Signature: — Month 9 Day 12 Year 19

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EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

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ECOFLO LAN D DISPOSAL NOTIFICATION AND CERTIFICATION FORM

ECOFLO

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1 556AAB-001	D008	WW	WASTE THAT EXHIBIT CHARACTERISTIC BASED ON TCLP IN SW846	A
1 556AAB-001	D010	WW	WASTES THAT EXHIBIT CHARACTERISTIC BASED ON TCLP IN SW846.	A
1 556AAB-001	D018	WW	NONE	A

I hereby certify that all information submitted in this and all associated documents is complete and accurate, to the best of my knowledge and information.

Signature KEVIN EICHINGER Digitally signed by KEVIN EICHINGER Date: 2019.09.13 16:16:31 -04'00' Title Date

Pressley, Miriam

From: Bates, Lloyd
Sent: Tuesday, September 18, 2018 1:26 PM
To: R4_SiteSetup; Painter, Paula; Armstrong, Gregory; Johnson, Roderick; Wright, Marie; Johnson, Kathie
Cc: Eichinger, Kevin
Subject: Emergency Response Site Setup Request: L&R Oil Recovery C466
Attachments: SF Work Code L R Oil Recovery C466.xlsx

Please establish the Site Code and Action Codes reflected on the attached sheet in Compass.

L Monty Bates
Sr. Site Administrative Officer
ERRP Budget/Finance Lead
EAS Liaison
Resource/Scientific Integrity Branch
Superfund Division
(Office) 404-562-8354
(Cell) 404-310-9897

SITE CODE CREATION

Check (X) All that Apply: **New Site** X **New Assignment** _____

Site Name: L&R Oil Recovery
EPA ID: NCN000407089
Site ID: C466
Street Address: 501 Ruth Street
City: Shelby
State: NC
Zip Code: 28150
County: Cleveland

Site Contact: Kevin Eichinger
Branch: ERRP
Phone: 404-562-8775
Fax:
Email: eichinger.kevin@epa.gov
Latitude:
Longitude:

Fiscal Year: 2018
Comments:
Emergency Response Date: 9/18/2018

Time-Critical Removal:
Lead: EPA
Remedial:

Superfund Response Contracts	Appropriation	Org Code	PRC Prefix	PRC Suffix	Site Code	Action Code	OpUnit
Removal Assessment	T	4AD0E	000	DC6	C466	RS	00
Removal	T	4AD0E	000	DC6	C466	RV	00
PRP Removal	T	4AD0E	000	DC6		BB	00
PRP Voluntary Removal	T	4AD0E	000	DC6		PJ	00
Community Involvement	T	4AD0E	000	DC6	C466	CR	00
Laboratory Support	T	4AD0E	000	DC6		LA	00

Superfund Response Payroll & Travel	Appropriation	Org Code	PRC Prefix	PRC Suffix	Site Code	Action Code	OpUnit
Removal Assessment	T	04D	000	DC6	C466	RS	00
Removal	T	04D	000	DC6	C466	RV	00
PRP Removal	T	04D	000	DC6		BB	00
PRP Voluntary Removal	T	04D	000	DC6		PJ	00
Community Involvement	T	04D	000	DC6	C466	CR	00
Laboratory Support	T	04D	000	DC6		LA	00
Laboratory Support	T	04D	000	DD2		LA	00
Laboratory Support	T	04S	000	DC6		LA	00
Laboratory Support	T	04S	000	DD2		LA	00
Generic PA/SI	T	04D	000	DD2		QB	00
Site Security and Maintenance	T	04D	000	DD2		PD	00
PRP Search	T	04D	000	EC7	C466	QV	00
Negotiation - Generic	T	04D	000	EC7	C466	NG	00
PPA Assessment	T	04D	000	EC7		QX	00

Litigation	T	04D	000	EC7	C466	LT	00
Negotiation - Generic	T	04L	000	EC7	C466	NG	00
Legal Review and Analysis	T	04L	000	EC7	C466	PS	00
PRP Search	T	04L	000	EC7	C466	QV	00
PPA Assessment	T	04L	000	EC7		QX	00
Litigation	T	04L	000	EC7	C466	LT	00
Information Management Support	T	04D	000	EC7		IJ	00
Records Management	T	04D	000	DC6	C466	SW	00
Records Management	T	04D	000	DD2		SW	00
Records Management	T	04D	000	EC7	C466	SW	00
Records Management	T	04L	000	EC7	C466	SW	00
Preparation of Cost Documentation	T	04D	000	EC7	C466	PC	00
Preparation of Cost Documentation	T	04J	000	EC7		PC	00
Preparation of Cost Documentation	T	04L	000	EC7	C466	PC	00
Compliance Enforcement	T	04D	000	EC7		UZ	00
Compliance Enforcement	T	04L	000	EC7		UZ	00
Contract Management - Removal	T	04D	000	DC6	C466	JU	00
Contract Management - Federal Facilities	T	04D	000	DC9		JU	00
Contract Management - Remedial	T	04D	000	DD2		JU	00
Contract Management - Enforcement	T	04D	000	EC7	C466	JU	00
Fund Lead RI/FS	T	04D	000	DD2		CO	00
Fund Lead Remedial Design	T	04D	000	DD2		RD	00
Fund Lead Remedial Action	T	04D	000	DD2		RA	00
Fund Lead Long Term Remedial Action	T	04D	000	DD2		LT	00
PRP Lead RI/FS	T	04D	000	DD2		BD	00
PRP Lead Remedial Design	T	04D	000	DD2		BE	00
PRP Lead Remedial Action	T	04D	000	DD2		BF	00
PRP Lead Long Term Remedial Action	T	04D	000	DD2		ME	00
Five Year Review	T	04D	000	DD2		FE	00
Federal Facilities Oversight	T	04D	000	DC9		OX	00
Site Specific Oil Response	HR	04RAXHR	000	D91			

Pressley, Miriam

From: Cathy McBride <cmcbride@hepaco.com>
Sent: Monday, October 14, 2019 5:16 PM
To: Eichinger, Kevin
Cc: Chad B Edwards; James B. Kessler; Adrian T. Simmons
Subject: Enviro Restoration-L&R Oil-SHELBY, NC HEPACO PAST DUE INVOICE FY19-000541
Attachments: 1843.1226 FY19-000541 .pdf

Importance: High

Good Afternoon Kevin:

I hope this finds you well. The purpose of this email is to follow-up with you regarding the attached extremely past due invoice which you agreed to pay on 8/28/19, see below email. It is now over a month later and we have yet to receive payment.

It is imperative that you communicate with me regarding the status of payment, as this is now 208 days past due.

I hope to hear from you soon regarding this matter.

Thank you.

Sincerely,

HEPACO
Serious experience for serious times.

Cathy McBride

Corporate Collections Specialist
HEPACO, LLC | Corporate Office
9335 Harris Corners Parkway, Suite 220 | Charlotte, NC 28269
Main: 704.598.9782 | Cell: 704.578.6410

www.hepaco.com

24 Hour Emergency Response
1-800-888-7689

From: Eichinger, Kevin <Eichinger.Kevin@epa.gov>
Sent: Wednesday, August 28, 2019 2:46 PM
To: Chad B Edwards <cedwards@hepaco.com>
Subject: RE: [EXT]FW: Enviro Restoration-L&R Oil-SHELBY, NC

I have not heard back from my Contracting Officer. I am going to tell ER to go ahead and pay it. Sorry for the delay.

Kevin

From: Chad B Edwards <cedwards@hepaco.com>
Sent: Wednesday, August 28, 2019 2:41 PM
To: Eichinger, Kevin <Eichinger.Kevin@epa.gov>
Cc: James B. Kessler <jkessler@hepaco.com>; Cathy McBride <cmcbride@hepaco.com>
Subject: RE: [EXT]FW: Enviro Restoration-L&R Oil-SHELBY, NC

Kevin,

I wanted to touch base and see if you had an update on the remaining balance of this invoice.

Thanks again,

HEPACO
Serious experience for serious times.

Chad Edwards

Branch Manager-Carolinas Region
HEPACO, LLC | Charlotte Office
2711 Burch Drive | Charlotte, NC 28269
Main: 704.598.9787 | Direct: 980.312.5359 | Cell: 704.564.8851

www.hepaco.com

24 Hour Emergency Response
1-800-888-7689

From: Eichinger, Kevin <Eichinger.Kevin@epa.gov>
Sent: Wednesday, August 14, 2019 9:01 AM
To: Chad B Edwards <cedwards@hepaco.com>
Subject: Re: [EXT]FW: Enviro Restoration-L&R Oil-SHELBY, NC

While the Contracting Officers figure this out, I am going to authorize ER to pay for the track replacement and the analytical charges. I just need confirmation on the subcontracted boxes and whether we pay your day rate or the subcontracted rate. I need to assure the costs are inline with the contract or I violate the Federal Regs.

From: Chad B Edwards <cedwards@hepaco.com>
Sent: Wednesday, August 14, 2019 7:44 AM
To: Eichinger, Kevin <Eichinger.Kevin@epa.gov>
Subject: RE: [EXT]FW: Enviro Restoration-L&R Oil-SHELBY, NC

It was not. It was the oil, but I was under the understanding that the contained in policy applied to anything contaminated that is porous is considered the same concentration as the oil itself because it cannot be effectively decontaminated.

Thanks again,

HEPACO
Serious experience for serious times.
Chad Edwards
Branch Manager-Carolinas Region
HEPACO, LLC | Charlotte Office
2711 Burch Drive | Charlotte, NC 28269
Main: 704.598.9787 | Direct: 980.312.5359 | Cell: 704.564.8851
www.hepaco.com
24 Hour Emergency Response
1-800-888-7689

From: Eichinger, Kevin <Eichinger.Kevin@epa.gov>
Sent: Wednesday, August 14, 2019 7:33 AM
To: Chad B Edwards <cedwards@hepaco.com>
Subject: Re: [EXT]FW: Enviro Restoration-L&R Oil-SHELBY, NC

Is this a wipe sample result? Also, this is still typical covered under the overhead, but we are checking.

From: Chad B Edwards <cedwards@hepaco.com>
Sent: Wednesday, August 14, 2019 7:30 AM
To: Eichinger, Kevin <Eichinger.Kevin@epa.gov>
Cc: Krieger, Geoffrey <krieger.geoffrey@epa.gov>; Moore, Tony <moore.tony@epa.gov>; James B. Kessler <jkessler@hepaco.com>; Cathy McBride <cmcbride@hepaco.com>
Subject: RE: [EXT]FW: Enviro Restoration-L&R Oil-SHELBY, NC

Thanks for checking into this. I have attached the analytical that we had that would have required the rubber tracks to be replaced since they were unable to be decontaminated due to being pourous.

Thanks again,

HEPACO
Serious experience for serious times.
Chad Edwards
Branch Manager-Carolinas Region
HEPACO, LLC | Charlotte Office
2711 Burch Drive | Charlotte, NC 28269
Main: 704.598.9787 | Direct: 980.312.5359 | Cell: 704.564.8851
www.hepaco.com

The HEPACO Difference

www.hepaco.com

HEPACO is the premier environmental and emergency services company in the Eastern United States with coverage across 40+ regional offices. We specialize in emergency response, industrial services, remediation, marine services, and waste services. HEPACO serves a multitude of customers including transportation companies, energy companies, environmental consultants, industrial facilities, terminals, environmental service companies, general contractors, property owners, and the public sector.

24 Hour Emergency Response
1-800-888-7689

From: Eichinger, Kevin <Eichinger.Kevin@epa.gov>
Sent: Wednesday, August 14, 2019 6:52 AM
To: Chad B Edwards <cedwards@hepaco.com>
Cc: Krieger, Geoffrey <krieger.geoffrey@epa.gov>; Moore, Tony <moore.tony@epa.gov>
Subject: Re: [EXT]FW: Enviro Restoration-L&R Oil-SHELBY, NC

Typical that is covered by the loaded rate, we are double checking. Also, I did not request the tracks to be replace. I am not sure why this was done. The concentrations of PCBs were working with did not require the replacement.

Kevin

From: Chad B Edwards <cedwards@hepaco.com>
Sent: Wednesday, August 14, 2019 6:36 AM
To: Eichinger, Kevin <Eichinger.Kevin@epa.gov>
Cc: Krieger, Geoffrey <krieger.geoffrey@epa.gov>; Moore, Tony <moore.tony@epa.gov>
Subject: Re: [EXT]FW: Enviro Restoration-L&R Oil-SHELBY, NC

Thank you. The maintenance on the skid steer was the replacement of the rubber tracks that you requested onsite.

Thank you.

Get Outlook for iOS

From: Eichinger, Kevin <Eichinger.Kevin@epa.gov>
Sent: Wednesday, August 14, 2019 3:06:58 AM
To: Chad B Edwards <cedwards@hepaco.com>
Cc: Krieger, Geoffrey <krieger.geoffrey@epa.gov>; Moore, Tony <moore.tony@epa.gov>
Subject: Re: [EXT]FW: Enviro Restoration-L&R Oil-SHELBY, NC

Chad,

I am aware of the issue and I am working with our Contracting Officer to make sure the submitted invoice is in line with the terms of the BOA contract. Three of the dumpsters were subcontracted and the subcontracted rate is less then what HEPACO charged. Also, there is a charge for maintenance activities on the skid steer. We want to make sure that the terms of the BOA contract permit these charges. I copied the Contracting Officer on this email. He has been working on this. Once Geoff gets clarification, I will get back with you.

Kevin

Kevin Eichinger, CHMM - On-Scene Coordinator and Industrial Hygienist
U.S. Environmental Protection Agency, Region 4 | 61 Forsyth St SW | Atlanta, Georgia | 30303
Emergency Response, Removal and Prevention Branch (ERRB)
office: **404-562-8268** | cell: **678-897-3759** | **response.epa.gov**

From: Chad B Edwards <cedwards@hepaco.com>
Sent: Tuesday, August 13, 2019 7:14 PM
To: Eichinger, Kevin <Eichinger.Kevin@epa.gov>
Cc: James B. Kessler <jkessler@hepaco.com>; Cathy McBride <cmcbride@hepaco.com>
Subject: FW: [EXT]FW: Enviro Restoration-L&R Oil-SHELBY, NC

Kevin,

We are trying to resolve an outstanding invoice with ERLLC in reference to the above listed site. Last fall, when ER, LLC took over the rolloff containers and waste onsite, Ken Braig, yourself and I met onsite to discuss the transfer of the containers over to ERLLC and how we would process the invoicing. At that time you wanted us to Invoice ERLLC on our rates and they would bill you under their current contract. Until everything was transferred over to ERLLC including the disposal of our rolloff container and we were able to pick it up we invoiced ERLLC the contracted BOA rates that we have.

We are still trying to get ERLLC to pay us for these services and keep getting pushed off every time we contact them. The last email correspondence below indicated that you would be reaching out to us regarding invoice questions.

We submitted this invoice to Ken Braig on January 21, 2019 and have gotten no resolution.

Thank you,

HEPACO
Serious experience for serious times.

Chad Edwards

Branch Manager-Carolinas Region
HEPACO, LLC | Charlotte Office
2711 Burch Drive | Charlotte, NC 28269
Main: 704.598.9787 | Direct: 980.312.5359 | Cell: 704.564.8851

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24 Hour Emergency Response
1-800-888-7689

From: Christina Strength <c.strength@erllc.com>
Sent: Tuesday, July 23, 2019 10:21 AM
To: Chad B Edwards <cedwards@hepaco.com>
Cc: Cathy McBride <cmcbride@hepaco.com>; James B. Kessler <jkessler@hepaco.com>
Subject: RE: [EXT]FW: Enviro Restoration

I was told the EPA coordinator was contacting your company with some questions before we could approve. I will check back in on this today.

From: Chad B Edwards [mailto:cedwards@hepaco.com]
Sent: Tuesday, July 23, 2019 10:05 AM
To: Christina Strength <c.strength@erllc.com>
Cc: Cathy McBride <cmcbride@hepaco.com>; James B. Kessler <jkessler@hepaco.com>
Subject: RE: [EXT]FW: Enviro Restoration

Christina,

Can you let us know the status of this invoice please?

Thanks,

HEPACO
Serious experience for serious times.

Chad Edwards

Branch Manager-Carolinas Region
HEPACO, LLC | Charlotte Office
2711 Burch Drive | Charlotte, NC 28269
Main: 704.598.9787 | Direct: 980.312.5359 | Cell: 704.564.8851

www.hepaco.com

24 Hour Emergency Response
1-800-888-7689

From: Chad B Edwards <cedwards@hepaco.com>
Sent: Friday, July 12, 2019 4:20 PM
To: Christina Strength <c.strength@erllc.com>
Cc: Cathy McBride <cmcbride@hepaco.com>; James B. Kessler <jkessler@hepaco.com>
Subject: Re: [EXT]FW: Enviro Restoration

EPA instructed us to replace the tracks and the rate for the boxes is the contracted rate per the EPA contract that everything was billed off of.

Thanks,

Chad Edwards
Branch Manager
HEPACO, LLC
Mobile: 704-564-8851
Office: 704-598-9787 ext 1015
Fax: 704-598-9224
www.hepaco.com
24 Hour Emergency Response
1-800-888-7689

HEPACO is excited to celebrate our 33 year anniversary (1984-2017)!

This communication may contain privileged or other confidential information. If you are not the intended recipient, or believe that you may have received this communication in error, please do not print, copy, retransmit, disseminate, or otherwise use the information. Also, please indicate to the sender that you have received this communication in error and delete the copy you received. Thank you.
Please consider the environment before printing this mail.

Sent from my iPhone

On Jul 12, 2019, at 16:12, Christina Strength <c.strength@erllc.com> wrote:

Hi Chad,

A few questions for you. I do know that I had trouble getting Rain for Rent and United to transfer the 4 roll offs over to us, but Rain for Rent eventually did and theirs were only $12/day. The project managers said we should only be paying the (b) (4)/day rate on one roll off that was yours. Could you look into that and update the invoice to charge us the correct rates for the 2 Rain for Rent and 2 United roll offs?

Also, they are saying that we are not responsible for the analytical and track replacement invoices that were attached.

Please let me know if you need anything from me. The project manager was originally Ken Braig and has transferred over to Paul Pilgrim if you need to talk with someone from our company.

Thank you,

Christina Strength
Field Cost Accountant
Environmental Restoration
Cell: 407-557-4086
Fax: 636-680-2584
c.strength@erllc.com

From: Chad B Edwards [mailto:cedwards@hepaco.com]
Sent: Thursday, July 11, 2019 11:49 AM
To: Christina Strength <c.strength@erllc.com>
Cc: Cathy McBride <cmcbride@hepaco.com>; James B. Kessler <jkessler@hepaco.com>
Subject: [EXT]FW: Enviro Restoration
Importance: High

*****CAUTION*** This email originates from a source outside the company. Please use caution when opening attachments, clicking on links, or following the senders request.**

Christina,

I have attached the invoice you requested. I have also sent the copy of the invoice that we submitted to Ken on January 21st.

Can you please let me know when we can expect payment?

Thanks,

<image002.jpg>

Chad Edwards
Branch Manager-Carolinas Region
HEPACO, LLC | Charlotte Office

2711 Burch Drive | Charlotte, NC 28269
Main: 704.598.9787 | Direct: 980.312.5359 | Cell: 704.564.8851

www.hepaco.com

24 Hour Emergency Response
1-800-888-7689

From: Cathy McBride <cmcbride@hepaco.com>
Sent: Thursday, July 11, 2019 11:08 AM
To: Chad B Edwards <cedwards@hepaco.com>
Subject: Enviro Restoration
Importance: High

Hi Chad:

Here is the invoice you requested, as well as, a copy of the submission email to K Braig.

Thank you.
Cathy

HEPACO is pleased to announce the acquisition of Environmental Management Specialists, Inc. (EMS), strengthening our footprint in the Midwest and allowing us to better serve our clients with expanded service, expertise and reach.

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INVOICE

P. O. Box 26308
Charlotte, NC 28221-6308

INVOICE NO: **FY19-000541**
DATE: January 19, 2019

To: **ERLLC**
1666 Fabic Drive
Fenton, MO 63026
Attn: Ken Braig

Project Location: US EPA L&R Oil Site
501 Ruth Street
Shelby, NC 28105

PROJECT MANAGER	HEPACO JOB #	CUSTOMER #	BILLED THROUGH	PO #	TERMS
Chad Edwards	**1843.1226**	**ENV0015**	**January 17, 2019**	**L4-526**	**NET 14**

QUANTITY	DESCRIPTION	UNIT	UNIT PRICE	AMOUNT
	Environmental services to clean up oil spill.			$ 19,847.48
	This invoice includes the following enclosures: Billing Summary Applicable Vendor Invoices/Receipts			
			SUBTOTAL	$ 19,847.48
			SALES TAX	
			SHIPPING & HANDLING	
			TOTAL DUE	**$ 19,847.48**

Make all checks payable to: HEPACO, LLC
Please remit payment to: P. O. Box 26308
Charlotte, NC 28221-6308

EIN # 56-1428449

If you have any questions concerning this invoice, contact: Accounts Receivable @ 1-800-888-7689 ext.1030
HEPACO is not responsible for filing claims with your insurance company.
For your convenience we gladly accept Visa, MasterCard or American Express.
Please reference our invoice number on your check and mail to the address above.
Accounts which remain unpaid past due date from billing date are subject to a late charge of 1 1/2 % per month.
Customer shall pay, or reimburse HEPACO, LLC if it elects to pay, all costs incurred in collecting any past due amounts, including without limitation court and collection costs and reasonable attorneys' fees.

THANK YOU FOR YOUR BUSINESS !!

Billing Summary

L& R Oil Spill Site; Shelby, NC
HEPACO Project #: 1843.1226
Project Date: 9/26/2018 - 1/17/2019

Quantity	Description	Unit Price	Units	Line Total
112	Equipment: 25 Yd Rolloff Box	(b) (4) [redacted]	Day	(b) (4) [redacted]
112	Equipment: 25 Yd Rolloff Box		Day	
112	Equipment: 25 Yd Rolloff Box		Day	
112	Equipment: 25 Yd Rolloff Box		Day	
112	Equipment: 25 Yd Rolloff Box		Day	
1	Other Expense: United Rentals-Track Replacement		Each	
1	Other Expense: Pace Analytical-sample analysis		Each	
1	Other Expense: Pace Analytical-sample analysis		Each	
1	Other Expense: Pace Analytical-sample analysis		Each	
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
			TOTAL	$19,[illegible]

INVOICE

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
Phone: (704)875-9092

Pace Analytical™
www.pacelabs.com

Invoice Number: 1892164081
Date: 09/21/2018
Total Amount Due: $342.00

Sold To:

HEPACO Inc.

P.O.Box 26308
Charlotte, NC 28221
(800)888-7689

Please Remit To:

Pace Analytical Services, LLC
P.O. Box 684056
Chicago, IL 60695-4056

Client Number/Client ID	Purchase Order No	Pace Project Mgr	Terms**	Page
92-616820 / 92-HEPACO	1843.1226	Taylor Ezell	Net 30 Days	1

Client Project: EPA
Client Name: HEPACO Charlotte
Pace Project No: 92399574
Sample Received: 9/17/2018
Report Sent To: Chase Furr, Hepaco
Comments:

ANALYTICAL CHARGES

Quantity	Unit	Description	Method	Matrix	Price	Total
(b)	Ea	6010 ICP Metals	EPA 6010D	Solid	(b) (4)	$247.50
(4)	Ea	7471 Mercury	EPA 7471B	Solid		$85.50
[redacted]	Ea	Environmental Impact Fee	Miscellaneous Charges	Solid		$9.00
					Analytical Subtotal	$342.00

Total Number of Charges 5

Total Invoice Amount **$342.00**

Samples Received for analysis:

Lab ID	Client Sample ID	Received
92399574001	SAMPLE 1	9/17/2018
92399574002	SAMPLE 2	9/17/2018

If you have any questions, please contact Taylor Ezell at Pace.
Phone: (704)875-9092 Email: taylor.ezell@pacelabs.com

****1.5% MONTHLY FINANCE CHARGE ASSESSED AFTER 30 DAYS OR TERMS OF CONTRACT.**
PLEASE REFERENCE THE INVOICE NUMBER ON ALL REMITTANCE ADVICE.

AN EQUAL OPPORTUNITY EMPLOYER

Please complete and return copy of invoice with your payment.

INVOICE TOTAL **$342.00**

Amount Paid: $ _____

Check No: _____

Customer No: 92-616820 Invoice No: 1892164081

INVOICE

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
Phone: (704)875-9092

Pace Analytical™
www.pacelabs.com

Invoice Number: 1892164082
Date: 09/21/2018
Total Amount Due: $369.00

Sold To:

HEPACO Inc.

P.O.Box 26308
Charlotte, NC 28221
(800)888-7689

Please Remit To:

Pace Analytical Services, LLC
P.O. Box 684056
Chicago, IL 60695-4056

Client Number/Client ID	Purchase Order No	Pace Project Mgr	Terms**	Page
92-616820 / 92-HEPACO	1843.1226	Taylor Ezell	Net 30 Days	1

Client Project: EPA
Pace Project No: 92399573
Report Sent To: Chase Furr, Hepaco
Comments:

Client Name: HEPACO Charlotte
Sample Received: 9/17/2018

ANALYTICAL CHARGES

Quantity	Unit	Description	Method	Matrix	Price	Total
(b)	Ea	8082 GCS PCB Oil	EPA 8082A	Non Aqueous Liquid	(b) (4)	$360.00
(4)	Ea	Environmental Impact Fee	Miscellaneous Charges	Non Aqueous Liquid		$9.00
					Analytical Subtotal	$369.00

Total Number of Charges 3

Total Invoice Amount **$369.00**

Samples Received for analysis:

Lab ID	Client Sample ID	Received
92399573001	SAMPLE 1	9/17/2018
92399573002	SAMPLE 2	9/17/2018

If you have any questions, please contact Taylor Ezell at Pace.
Phone: (704)875-9092 Email: taylor.ezell@pacelabs.com

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Please complete and return copy of invoice with your payment.

INVOICE TOTAL **$369.00**

Amount Paid: $ _____

Check No: _____

Customer No: 92-616820 Invoice No: 1892164082

INVOICE

Pace Analytical™
www.pacelabs.com

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
Phone: (704)875-9092

Invoice Number: 1892165821
Date: 10/04/2018
Total Amount Due: $1,934.00

Sold To:

HEPACO Inc.

P.O.Box 26308
Charlotte, NC 28221
(800)888-7689

Please Remit To:

Pace Analytical Services, LLC
P.O. Box 684056
Chicago, IL 60695-4056

Client Number/Client ID	Purchase Order No	Pace Project Mgr	Terms**	Page
92-616820 / 92-HEPACO	1843.1226	Taylor Ezell	Net 30 Days	1

Client Project: 1843.1226
Pace Project No: 92401018
Report Sent To: Chase Furr, Hepaco
Comments:

Client Name: HEPACO Charlotte
Sample Received: 9/26/2018

ANALYTICAL CHARGES

Quantity	Unit	Description	Method	Matrix	Price	Total
(b)	Ea	8082 GCS PCB Wipe	EPA 8082A	Wipe	(b) (4)	$1,925.00
(4)	Ea	Environmental Impact Fee	Miscellaneous Charges	Wipe		$9.00
					Analytical Subtotal	$1,934.00

Total Number of Charges 11

Total Invoice Amount **$1,934.00**

Samples Received for analysis:

Lab ID	Client Sample ID	Received
92401018001	Left TT	9/26/2018 3:53:00
92401018002	Right TT	9/26/2018 3:53:00
92401018003	Top TT	9/26/2018 3:53:00
92401018004	Bottom TT	9/26/2018 3:53:00
92401018005	Front TT	9/26/2018 3:53:00
92401018006	Rear TT	9/26/2018 3:53:00
92401018007	Right Under Carraige	9/26/2018 3:53:00
92401018008	Left Under Carraige	9/26/2018 3:53:00
92401018009	Top Bucket	9/26/2018 3:53:00
92401018010	Bottom Bucket	9/26/2018 3:53:00

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Please complete and return copy of invoice with your payment.

INVOICE TOTAL **$1,934.00**

Amount Paid: $ _____

Check No: _____

Customer No: 92-616820 Invoice No: 1892165821

INVOICE

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
Phone: (704)875-9092

Pace Analytical™
www.pacelabs.com

Invoice Number: 1892165821
Date: 10/04/2018
Total Amount Due: $1,934.00

Sold To:

HEPACO Inc.

P.O.Box 26308
Charlotte, NC 28221
(800)888-7689

Please Remit To:

Pace Analytical Services, LLC
P.O. Box 684056
Chicago, IL 60695-4056

Client Number/Client ID	Purchase Order No	Pace Project Mgr	Terms**	Page
92-616820 / 92-HEPACO	1843.1226	Taylor Ezell	Net 30 Days	2

Client Project: 1843.1226
Pace Project No: 92401018
Report Sent To: Chase Furr, Hepaco
Comments:

Client Name: HEPACO Charlotte
Sample Received: 9/26/2018

If you have any questions, please contact Taylor Ezell at Pace.
Phone: (704)875-9092 Email: taylor.ezell@pacelabs.com

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United Rentals

BRANCH 146
10524 OLD NATIONS FORD RD.
CHARLOTTE NC 28273
704-523-4980
704-523-4948 FAX

WORK ORDER INVOICE

163924367-001

Customer # : 297902
Work Order Date: 12/04/18
Invoice date : 12/11/18
UR Job Loc : 501 RUTH ST, SHELBY
UR Job # : 414
Customer Job ID:
P.O. # : 41-100254
Authorized : CHAD EDWARDS
Written by : MICHAEL SAYERS

Job Site

TANKER SPILL
501 RUTH ST
SHELBY NC 28150

Office: 704-598-9782 **Cell:** 704-564-8849

4.1.1226 1 MB 0.421 89370S11.p01 259978 1-2 0

HEPACO LLC
PO BOX 26308
CHARLOTTE NC 28221-6308

Invoice Amount: $1802.48

Terms: Due Upon Receipt
Payment options: Contact our credit office 704-916-4155
REMIT TO: UNITED RENTALS (NORTH AMERICA),INC.
PO BOX 100711
ATLANTA GA 30384-0711

EQUIP #	Make	Model	Serial #	Description
10028084	BOBCAT	T180	H3LL37043	SKID STEER TRACK LOA Cat/Class 903-0570

Hr Meter: 2235.039

Work To Be Done
REPLACED BOTH TRACKS (CONTAMINATED)

PARTS:

Qty	Part Number	Description	StkCl	Bin Loc	Unit of Measure	Price	Extended
[redacted]	B320X86X49	TRACK,RUBBER	DOMEQ		EACH	[redacted]	1,018.50

LABOR:

Mechanic	Hours	Work	Rate	Extended
MICHAEL SAYERS	2.00	TRAVEL	[redacted]	[redacted]
MICHAEL SAYERS	3.00	LABOR-REPAIR		

COMPLAINT:
customer states tracks contaminated
requires track replacement
CAUSE:
found tracks contaminated from spill
CORRECTION:
replaced both tracks
customer kept contaminated tracks for proper
disposal
checked operation
verified correction

Total Parts & Materials	1,018.50
Total Labor	[redacted]
Tax	113.98
Total Amount	1,802.48

THIS INVOICE IS ISSUED SUBJECT TO THE TERMS AND CONDITIONS OF THE WORK ORDER, WHICH ARE INCORPORATED HEREIN BY REFERENCE.

A COPY OF THE WORK ORDER IS AVAILABLE UPON REQUEST.

Pressley, Miriam

From: Gail Lacy <g.lacy@erllc.com>
Sent: Friday, April 5, 2019 11:15 AM
To: Krieger, Geoffrey
Cc: Mark Bicksler; Ken Braig; Christina Strength; Johnson, Dora Ann; Eichinger, Kevin; Laura Lang
Subject: EP-S4-15-03; ERLLC 85% Notification for TO 0526 L & R Oil Recovery
Attachments: EP-S4-15-03; ERLLC 85 Notification for TO 0526 L R Oil Recovery 4-5-19.pdf

Geoff,

Attached please find ER's notification for 85% of the ceiling for the L&R Oil Recovery Site (TO 0526).

ER may need additional funding to complete the current Statement of Work.

Thank you,

Gail Lacy
Contract Administrator
Environmental Restoration, LLC
1666 Fabick Drive
Fenton, Missouri 63026
Phone 636-680-8157
Fax 636-680-2459
g.lacy@erllc.com

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ENVIRONMENTAL RESTORATION, LLC

1666 Fabick Drive
St. Louis, MO 63026
(636) 227-7477
Fax (636) 227-6447

4/5/2019

Mr. Geoff Krieger
Contracting Officer
U.S. Environmental Protection Agency
61 Forsyth Street
Atlanta, GA 30303

RE: *Contract #: EP-S4-15-03*
Task Order #: 0526
Task Order Name: L & R Oil Recovery

Dear Mr. Krieger,

Environmental Restoration, LLC is providing notification in accordance with the above referenced contract that accrued costs for the L & R Oil Recovery Site, Task Order No. 0526, will exceed 85% of the current ceiling within the next 30 days. The current task order ceiling is $455,000.00 and costs to date are approximately $379,021.57. Additional funding may be required to complete the Statement of Work issued under this Task Order.

If you require any additional information, please call me at 607-658-6204.

Sincerely,

Mark Bicksler

Mark Bicksler
Program Manager

cc: *Dora Ann Johnson, PO, EPA*
Kevin Eichinger, OSC, EPA
Ken Braig, RM, ER
Christina Strength, FCA, ER

Pressley, Miriam

From: Laura Lang <l.lang@erllc.com>
Sent: Wednesday, July 10, 2019 10:23 AM
To: Krieger, Geoffrey
Cc: Johnson, Dora Ann; Eichinger, Kevin; Mark Bicksler; Paul Pilgrim; Christina Strength
Subject: EP-S4-15-03; ERLLC 85% Notification for TO 0526 L & R Oil Recovery
Attachments: ATT00001.txt; EP-S4-15-03 ERLLC 85 Notification for TO 0526 L R Oil Recovery.pdf

Geoff,

Attached please find ER's notification for 85% of the ceiling for the L&R Oil Recovery Site (TO 0526).

ER may need additional funding to complete the current Statement of Work.

Thank you,

Laura Lang
Contract Administrator
Environmental Restoration, LLC

1666 Fabick Drive St. Louis, MO 63026
P: (636)680-2432 ♦ F: (636)227-6447 ♦ l.lang@erllc.com

Visit our website at www.erllc.com

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ENVIRONMENTAL RESTORATION

ENVIRONMENTAL RESTORATION, LLC

1666 Fabick Drive
St. Louis, MO 63026
(636) 227-7477
Fax (636) 227-6447

7/10/2019

Mr. Geoff Krieger
Contracting Officer
U.S. Environmental Protection Agency
61 Forsyth Street
Atlanta, GA 30303

RE: *Contract #: EP-S4-15-03*
Task Order #: 0526
Task Order Name: L & R Oil Recovery

Dear Mr. Krieger,

Environmental Restoration, LLC is providing notification in accordance with the above referenced contract that accrued costs for the L & R Oil Recovery Site, Task Order No. 0526, will exceed 85% of the current ceiling within the next 30 days. The current task order ceiling is $522,000.00 and costs to date are approximately $428,055.31. Additional funding may be required to complete the Statement of Work issued under this Task Order.

If you require any additional information, please call me at 607-729-2270.

Sincerely,

Mark Bicksler

Mark Bicksler
Program Manager

cc: *Dora Ann Johnson, PO, EPA*
Kevin Eichinger, OSC, EPA
Paul Pilgrim, RM, ER
Christina Strength, FCA, ER

Pressley, Miriam

From: Gail Lacy <g.lacy@erllc.com>
Sent: Wednesday, December 12, 2018 2:23 PM
To: Krieger, Geoffrey
Cc: Mark Bicksler; Johnson, Dora Ann; Ken Braig; Christina Strength; Eichinger, Kevin
Subject: EP-S4-15-03; ERLLC 85% Notification for TO 0526 L&R Oil Recovery
Attachments: EP-S4-15-03 ERLLC 85 Notification for TO 0526 L and R Oil Recovery.pdf

Geoff,

Attached please find ER's notification for 85% of the ceiling for the L&R Oil Recovery Site (TO 0526).

ER will need additional funding to complete the current Statement of Work.

Thank you,

Gail Lacy
Contract Administrator
Environmental Restoration, LLC
1666 Fabick Drive
Fenton, Missouri 63026
Phone 636-680-8157
Fax 636-680-2459
g.lacy@erllc.com

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ENVIRONMENTAL RESTORATION

ENVIRONMENTAL RESTORATION, LLC

1666 Fabick Drive
St. Louis, MO 63026
(636) 227-7477
Fax (636) 227-6447

12/12/2018

Mr. Geoff Krieger
Contracting Officer
U.S. Environmental Protection Agency
61 Forsyth Street
Atlanta, GA 30303

RE: Contract #: EP-S4-15-03
Task Order #: 0526
Task Order Name: L&R Oil Recovery

Dear Mr. Krieger,

Environmental Restoration, LLC is providing notification in accordance with the above referenced contract that accrued costs for the L & R Oil Recovery Site, Task Order No. 0526, will exceed 85% of the current ceiling within the next 30 days. The current task order ceiling is $145,000.00 and costs to date are approximately $143,072.61. Additional funding will be required to complete the Statement of Work issued under this Task Order.

If you require any additional information, please call me at 607-658-6204.

Sincerely,

Mark Bicksler

Mark Bicksler
Program Manager

cc: Dora Ann Johnson, PO, EPA
Kevin Eichinger, OSC, EPA
Ken Braig, RM, ER
Christina Strength, FCA, ER

Pressley, Miriam

From: Krieger.Geoffrey@epa.gov
Sent: Monday, February 11, 2019 4:40 PM
Subject: EP-S4-15-03/68HE0418F0526 (P00002) Has Been Released
Attachments: DOTO_EP-S4-15-03_68HE0418F0526_Mod_P00002.pdf

EP-S4-15-03/68HE0418F0526 (P00002) has been released to Environmental Restoration, L.L.C.. Please see attached for more details.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE

PAGE 1 OF PAGES 2

2. AMENDMENT/MODIFICATION NO. P00002

3. EFFECTIVE DATE See Block 16C

4. REQUISITION/PURCHASE REQ. NO. PR-R4-19-00090

5. PROJECT NO. (If applicable) C466RV00

6. ISSUED BY CODE R4

Region 4
US Environmental Protection Agency
Atlanta Federal Center
61 Forsyth Street, SW
Atlanta GA 30303-3104

7. ADMINISTERED BY (If other than Item 6) CODE

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)

ENVIRONMENTAL RESTORATION, L.L.C.
Attn: DENNIS GREANEY
1666 FABICK DRIVE
FENTON MO 63026

CODE 008198421 FACILITY CODE

(x) 9A. AMENDMENT OF SOLICITATION NO.

9B. DATED (SEE ITEM 11)

x 10A. MODIFICATION OF CONTRACT/ORDER NO. EP-S4-15-03
68HE0418F0526

10B. DATED (SEE ITEM 13) 09/28/2018

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or electronic communication which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by letter or electronic communication, provided each letter or electronic communication makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
See Schedule Net Increase: $200,000.00

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	
	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) EPA-B-32-103 Limitation of Government's Obligation

E. IMPORTANT: Contractor ☒ is not ☐ is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

DUNS Number: 008198421
L&R Oil
TOCOR: Kevin Eichinger Max Expire Date: 03/19/2019 InvoiceApprover: Dora Ann Johnson Alt Invoice App: Katrina Jones
The purpose of this modification is to:

a) Add $200,000.00 in additional funding for work at the site. The funded ceiling has increased from $145,000.00 to $345,000.00.

END
Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)

16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Geoffrey Krieger

15B. CONTRACTOR/OFFEROR
(Signature of person authorized to sign)

15C. DATE SIGNED

16B. UNITED STATES OF AMERICA
Geoffrey Krieger ELECTRONIC SIGNATURE
(Signature of Contracting Officer)

16C. DATE SIGNED 01/30/2019

Previous edition unusable

STANDARD FORM 30 (REV. 11/2016)
Prescribed by GSA FAR (48 CFR) 53.243

NAME OF OFFEROR OR CONTRACTOR
ENVIRONMENTAL RESTORATION, L.L.C.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)

	LIST OF CHANGES: Reason for Modification: Funding Only Action Total Amount for this Modification: $200,000.00 New Total Amount for this Version: $345,000.00 New Total Amount for this Award: $345,000.00 Obligated Amount for this Modification: $200,000.00 New Total Obligated Amount for this Award: $345,000.00 CHANGES FOR LINE ITEM NUMBER: 1 Total Amount changed from $145,000.00 to $345,000.00 Obligated Amount for this Modification: $200,000.00				
	CHANGES FOR DELIVERY LOCATION: R4 Amount changed from $145,000.00 to $345,000.00				
	NEW ACCOUNTING CODE ADDED: Account code: 19-T-4AD0E-000DC6-2505-C001-194ADZ9007-001 Beginning FiscalYear 19 Ending Fiscal Year Fund (Appropriation) T Budget Organization 4AD0E Program (PRC) 000DC6 Budget (BOC) 2505 Job # (Site/Project) C466RV00 Cost Organization C001 DCN-LineID 194ADZ9007-001 Quantity: 0 Amount: $200,000.00 Delivery Location Code: R4 Region 4 US Environmental Protection Agency Atlanta Federal Center 61 Forsyth Street, SW Atlanta GA 30303-3104 USA				
	Payment: RTP Finance Center US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts Durham NC 27711 Period of Performance: 09/18/2018 to 03/19/2019				

Pressley, Miriam

From: Krieger.Geoffrey@epa.gov
Sent: Monday, March 18, 2019 4:36 PM
Subject: EP-S4-15-03/68HE0418F0526 (P00003) Has Been Released
Attachments: DOTO_EP-S4-15-03_68HE0418F0526_Mod_P00003.pdf

EP-S4-15-03/68HE0418F0526 (P00003) has been released to Environmental Restoration, L.L.C.. Please see attached for more details.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
61 Forsyth St. SW
Atlanta, GA 30303-8909

March 15, 2019

Mr. Mark Bicksler, CHMM
Program Manager
Environmental Restoration
1666 Fabrick Drive
St. Louis, MO 63026-2926

Subject:	Contract Number:	EP-S4-15-03
	Task Order:	68HE0418F0526
	Site Name:	L&R Oil Site

Dear Mr. Bicksler:

Enclosed you will find a copy of modification 3 for task order 526.

If you have any questions or need more information regarding this matter, please feel free to contact me at (404) 562-8058.

Sincerely,

Geoffrey Krieger
Contracting Officer

Enclosures

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE

PAGE 1 OF 3 PAGES

2. AMENDMENT/MODIFICATION NO. P00003

3. EFFECTIVE DATE See Block 6C

4. REQUISITION/PURCHASE REQ. NO. PR-R4-19-00176

5. PROJECT NO. (If applicable) C466RV00

6. ISSUED BY CODE R4

Region 4
US Environmental Protection Agency
Atlanta Federal Center
61 Forsyth Street, SW
Atlanta GA 30303-3104

7. ADMINISTERED BY (If other than Item 6) CODE

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)

ENVIRONMENTAL RESTORATION, L.L.C.
Attn: DENNIS GREANEY
1666 FABICK DRIVE
FENTON MO 63026

CODE 008198421 FACILITY CODE

(x) 9A. AMENDMENT OF SOLICITATION NO.

9B. DATED (SEE ITEM 11)

x 10A. MODIFICATION OF CONTRACT/ORDER NO. EP-S4-15-03 68HE0418F0526

10B. DATED (SEE ITEM 13) 09/28/2018

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or electronic communication which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by letter or electronic communication, provided each letter or electronic communication makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) Net Increase: $110,000.00
See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	
	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) EPA-B-32-103 Limitation of Government's Obligation

E. IMPORTANT: Contractor ☒ is not ☐ is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

DUNS Number: 008198421
L&R Oil
TOCOR: Kevin Eichinger Max Expire Date: 07/31/2019 InvoiceApprover: Dora Ann Johnson Alt Invoice App: Katrina Jones
The purpose of this modification is to:

a) Change the end date of performance to July 31, 2019.

b) Add $110,000.00 in additional funding, raising the obligated total of this order to $455,000.00.

Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)

16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Geoffrey Krieger

15B. CONTRACTOR/OFFEROR
(Signature of person authorized to sign)

15C. DATE SIGNED

16B. UNITED STATES OF AMERICA
Geoffrey Krieger ELECTRONIC SIGNATURE
(Signature of Contracting Officer)

16C. DATE SIGNED 03/18/2019

NAME OF OFFEROR OR CONTRACTOR
ENVIRONMENTAL RESTORATION, L.L.C.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)

	END				

	LIST OF CHANGES:				
	Reason for Modification: Other Administrative Action				
	Period Of Performance End Date changed from 19-MAR-19 to 31-JUL-19				
	Total Amount for this Modification: $110,000.00				
	New Total Amount for this Version: $455,000.00				
	New Total Amount for this Award: $455,000.00				
	Obligated Amount for this Modification: $110,000.00				
	New Total Obligated Amount for this Award: $455,000.00				
	Maximum Potential Expiration Date changed to : 07/31/2019				
	CHANGES FOR LINE ITEM NUMBER: 1				
	Total Amount changed from $345,000.00 to $455,000.00				
	Obligated Amount for this Modification: $110,000.00				
	FOB changed from Destination to				
	CHANGES FOR DELIVERY LOCATION: R4				
	Amount changed from $345,000.00 to $455,000.00				
	NEW ACCOUNTING CODE ADDED:				
	Account code: 19-T-4AD0E-000DC6-2505-C001-194ADZ9018-001				
	Beginning FiscalYear 19				
	Ending Fiscal Year				
	Fund (Appropriation) T				
	Budget Organization 4AD0E				
	Program (PRC) 000DC6				
	Budget (BOC) 2505				
	Job # (Site/Project) C466RV00				
	Cost Organization C001				
	DCN-LineID 194ADZ9018-001				
	Quantity: 0				
	Amount: $110,000.00				
	Delivery Location Code: R4				
	Region 4				
	US Environmental Protection Agency				
	Atlanta Federal Center				
	61 Forsyth Street, SW				
	Atlanta GA 30303-3104 USA				
	Continued ...				

NAME OF OFFEROR OR CONTRACTOR
ENVIRONMENTAL RESTORATION, L.L.C.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	Payment: RTP Finance Center US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts Durham NC 27711 Period of Performance: 09/18/2018 to 07/31/2019				

Pressley, Miriam

From: Krieger.Geoffrey@epa.gov
Sent: Wednesday, April 17, 2019 8:08 AM
Subject: EP-S4-15-03/68HE0418F0526 (P00004) Has Been Released
Attachments: DOTO_EP-S4-15-03_68HE0418F0526_Mod_P00004.pdf

EP-S4-15-03/68HE0418F0526 (P00004) has been released to Environmental Restoration, L.L.C.. Please see attached for more details.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
61 Forsyth St. SW Atlanta,
GA 30303-8909

April 16, 2019

Mr. Mark Bicksler, CHMM
Program Manager
Environmental Restoration 1666
Fabrick Drive
St. Louis, MO 63026-2926

Subject:	Contract Number:	EP-S4-15-03
	Task Order:	68HE0418F0526
	Site Name:	L&R Oil Site

Dear Mr. Bicksler:

Enclosed you will find a copy of modification 4 for task order 526.

If you have any questions or need more information regarding this matter, please feel free to contact me at (404) 562-8058.

Sincerely,

Geoffrey Krieger
Contracting Officer

Enclosures

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE

PAGE 1 OF PAGES 2

2. AMENDMENT/MODIFICATION NO. P00004

3. EFFECTIVE DATE See Block 16C

4. REQUISITION/PURCHASE REQ. NO. PR-R4-19-00261

5. PROJECT NO. (If applicable) C466RV00

6. ISSUED BY CODE R4

Region 4
US Environmental Protection Agency
Atlanta Federal Center
61 Forsyth Street, SW
Atlanta GA 30303-3104

7. ADMINISTERED BY (If other than Item 6) CODE

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)

ENVIRONMENTAL RESTORATION, L.L.C.
Attn: DENNIS GREANEY
1666 FABICK DRIVE
FENTON MO 63026

CODE 008198421 FACILITY CODE

(x) 9A. AMENDMENT OF SOLICITATION NO.

9B. DATED (SEE ITEM 11)

x 10A. MODIFICATION OF CONTRACT/ORDER NO. EP-S4-15-03
68HE0418F0526

10B. DATED (SEE ITEM 13) 09/28/2018

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or electronic communication which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by letter or electronic communication, provided each letter or electronic communication makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) Net Increase: $50,000.00
See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	
	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) EPA-B-32-103 Limitation of Government's Obligation

E. IMPORTANT: Contractor ☒ is not ☐ is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

DUNS Number: 008198421
L&R Oil
TOCOR: Kevin Eichinger Max Expire Date: 07/31/2019 InvoiceApprover: Dora Ann Johnson Alt Invoice App: Katrina Jones
The purpose of this modification is to:

a) Add $50,000.00 in additional funding. The new ceiling for this order is $505,000.00.

END

Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)

16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Geoffrey Krieger

15B. CONTRACTOR/OFFEROR
(Signature of person authorized to sign)

15C. DATE SIGNED

16B. UNITED STATES OF AMERICA
Geoffrey Krieger ELECTRONIC SIGNATURE
(Signature of Contracting Officer)

16C. DATE SIGNED 04/17/2019

Previous edition unusable

STANDARD FORM 30 (REV. 11/2016)
Prescribed by GSA FAR (48 CFR) 53.243

NAME OF OFFEROR OR CONTRACTOR
ENVIRONMENTAL RESTORATION, L.L.C.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	LIST OF CHANGES: Reason for Modification: Funding Only Action Total Amount for this Modification: $50,000.00 New Total Amount for this Version: $505,000.00 New Total Amount for this Award: $505,000.00 Obligated Amount for this Modification: $50,000.00 New Total Obligated Amount for this Award: $505,000.00 CHANGES FOR LINE ITEM NUMBER: 1 Total Amount changed from $455,000.00 to $505,000.00 Obligated Amount for this Modification: $50,000.00 FOB changed from Destination to CHANGES FOR DELIVERY LOCATION: R4 Amount changed from $455,000.00 to $505,000.00 NEW ACCOUNTING CODE ADDED: Account code: 19-T-4AD0E-000DC6-2505-C001-194ADZ9028-001 Beginning FiscalYear 19 Ending Fiscal Year Fund (Appropriation) T Budget Organization 4AD0E Program (PRC) 000DC6 Budget (BOC) 2505 Job # (Site/Project) C466RV00 Cost Organization C001 DCN-LineID 194ADZ9028-001 Quantity: 0 Amount: $50,000.00 Delivery Location Code: R4 Region 4 US Environmental Protection Agency Atlanta Federal Center 61 Forsyth Street, SW Atlanta GA 30303-3104 USA Payment: RTP Finance Center US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts Durham NC 27711 Period of Performance: 09/18/2018 to 07/31/2019				

Pressley, Miriam

From: Krieger.Geoffrey@epa.gov
Sent: Friday, May 31, 2019 8:32 AM
Subject: EP-S4-15-03/68HE0418F0526 (P00005) Has Been Released
Attachments: DOTO_EP-S4-15-03_68HE0418F0526_Mod_P00005.pdf

EP-S4-15-03/68HE0418F0526 (P00005) has been released to Environmental Restoration, L.L.C.. Please see attached for more details.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
61 Forsyth St. SW Atlanta,
GA 30303-8909

May 28, 2019

Mr. Mark Bicksler, CHMM
Program Manager
Environmental Restoration 1666
Fabrick Drive
St. Louis, MO 63026-2926

Subject:	Contract Number:	EP-S4-15-03
	Task Order:	68HE0418F0526
	Site Name:	L&R Oil Site

Dear Mr. Bicksler:

Enclosed you will find a copy of modification 5 for task order 526.

If you have any questions or need more information regarding this matter, please feel free to contact me at (404) 562-8058.

Sincerely,

Geoffrey Krieger
Contracting Officer

Enclosures

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE

PAGE 1 OF 2

2. AMENDMENT/MODIFICATION NO. P00005

3. EFFECTIVE DATE See Block 16C

4. REQUISITION/PURCHASE REQ. NO. PR-R4-19-00361

5. PROJECT NO. (If applicable) C466RV00

6. ISSUED BY CODE R4

Region 4
US Environmental Protection Agency
Atlanta Federal Center
61 Forsyth Street, SW
Atlanta GA 30303-3104

7. ADMINISTERED BY (If other than Item 6) CODE

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)

ENVIRONMENTAL RESTORATION, L.L.C.
Attn: DENNIS GREANEY
1666 FABICK DRIVE
FENTON MO 63026

CODE 008198421 FACILITY CODE

(x) 9A. AMENDMENT OF SOLICITATION NO.

9B. DATED (SEE ITEM 11)

x 10A. MODIFICATION OF CONTRACT/ORDER NO. EP-S4-15-03
68HE0418F0526

10B. DATED (SEE ITEM 13) 09/28/2018

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or electronic communication which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by letter or electronic communication, provided each letter or electronic communication makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) Net Increase: $17,000.00
See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	
	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) EPA-B-32-103 Limitation of Government's Obligation

E. IMPORTANT: Contractor ☒ is not ☐ is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

DUNS Number: 008198421
L&R Oil
TOCOR: Kevin Eichinger Max Expire Date: 07/31/2019 InvoiceApprover: Dora Ann Johnson Alt Invoice App: Katrina Jones
The purpose of this modification is to:

a) Add $17,000.00 in additional funding. The new ceiling for this order is $522,000.00.

END

Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)

16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Geoffrey Krieger

15B. CONTRACTOR/OFFEROR
(Signature of person authorized to sign)

15C. DATE SIGNED

16B. UNITED STATES OF AMERICA
Geoffrey Krieger ELECTRONIC SIGNATURE
(Signature of Contracting Officer)

16C. DATE SIGNED 05/28/2019

Previous edition unusable

STANDARD FORM 30 (REV. 11/2016)
Prescribed by GSA FAR (48 CFR) 53.243

NAME OF OFFEROR OR CONTRACTOR
ENVIRONMENTAL RESTORATION, L.L.C.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	LIST OF CHANGES: Reason for Modification: Funding Only Action Total Amount for this Modification: $17,000.00 New Total Amount for this Version: $522,000.00 New Total Amount for this Award: $522,000.00 Obligated Amount for this Modification: $17,000.00 New Total Obligated Amount for this Award: $522,000.00 CHANGES FOR LINE ITEM NUMBER: 1 Total Amount changed from $505,000.00 to $522,000.00 Obligated Amount for this Modification: $17,000.00 CHANGES FOR DELIVERY LOCATION: R4 Amount changed from $505,000.00 to $522,000.00 NEW ACCOUNTING CODE ADDED: Account code: 19-T-4AD0E-000DC6-2505-C001-194ADZ9038-001 Beginning FiscalYear 19 Ending Fiscal Year Fund (Appropriation) T Budget Organization 4AD0E Program (PRC) 000DC6 Budget (BOC) 2505 Job # (Site/Project) C466RV00 Cost Organization C001 DCN-LineID 194ADZ9038-001 Quantity: 0 Amount: $17,000.00 Payment: RTP Finance Center US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts Durham NC 27711 Period of Performance: 09/18/2018 to 07/31/2019				

Pressley, Miriam

From: barbee.melisa@epa.gov
Sent: Friday, July 26, 2019 4:22 PM
Subject: EP-S4-15-03/68HE0418F0526 (P00006) Has Been Released
Attachments: DOTO_EP-S4-15-03_68HE0418F0526_Mod_P00006.pdf

EP-S4-15-03/68HE0418F0526 (P00006) has been released to Environmental Restoration, L.L.C.. Please see attached for more details.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE

PAGE 1 OF PAGES 2

2. AMENDMENT/MODIFICATION NO. P00006

3. EFFECTIVE DATE See Block 16C

4. REQUISITION/PURCHASE REQ. NO. PR-R4-19-00561

5. PROJECT NO. (If applicable) C466RV00

6. ISSUED BY CODE R4

Region 4
US Environmental Protection Agency
Atlanta Federal Center
61 Forsyth Street, SW
Atlanta GA 30303-3104

7. ADMINISTERED BY (If other than Item 6) CODE

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)

ENVIRONMENTAL RESTORATION, L.L.C.
Attn: DENNIS GREANEY
1666 FABICK DRIVE
FENTON MO 63026

CODE 008198421 FACILITY CODE

(x) 9A. AMENDMENT OF SOLICITATION NO.

9B. DATED (SEE ITEM 11)

x 10A. MODIFICATION OF CONTRACT/ORDER NO. EP-S4-15-03
68HE0418F0526

10B. DATED (SEE ITEM 13) 09/28/2018

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or electronic communication which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by letter or electronic communication, provided each letter or electronic communication makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	
X	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A. 52.243-3 Changes Time and Materials or Labor Hours (SEP 2000)
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor ☒ is not ☐ is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

DUNS Number: 008198421
L&R Oil
TOCOR: Kevin Eichinger Max Expire Date: 10/01/2019 InvoiceApprover: Dora Ann Johnson Alt Invoice App: Katrina Jones

a) Modification is issued to extend the period of performance end date from July 31, 2019 to October 1, 2019. The L&R Oil Recovery Site continues to require response activity support.

b) All other terms and conditions remain the same.

LIST OF CHANGES:
Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)

16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)
Melisa M. Barbee

15B. CONTRACTOR/OFFEROR
(Signature of person authorized to sign)

15C. DATE SIGNED

16B. UNITED STATES OF AMERICA
Melisa M. Barbee ELECTRONIC SIGNATURE
(Signature of Contracting Officer)

16C. DATE SIGNED 07/26/2019

Previous edition unusable

STANDARD FORM 30 (REV. 11/2016)
Prescribed by GSA FAR (48 CFR) 53.243

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	EP-S4-15-03/68HE0418F0526/P00006	2	2

NAME OF OFFEROR OR CONTRACTOR
ENVIRONMENTAL RESTORATION, L.L.C.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	Reason for Modification: Change Order Period Of Performance End Date changed from 31-JUL-19 to 01-OCT-19 Total Amount for this Modification: $0.00 New Total Amount for this Version: $0.00 New Total Amount for this Award: $522,000.00 Maximum Potential Expiration Date changed to : 10/01/2019 Payment: RTP Finance Center US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts Durham NC 27711 Period of Performance: 09/18/2018 to 10/01/2019				

Pressley, Miriam

From: Krieger.Geoffrey@epa.gov
Sent: Friday, September 20, 2019 9:01 AM
Subject: EP-S4-15-03/68HE0418F0526 (P00007) Has Been Released
Attachments: DOTO_EP-S4-15-03_68HE0418F0526_Mod_P00007.pdf

EP-S4-15-03/68HE0418F0526 (P00007) has been released to Environmental Restoration, L.L.C.. Please see attached for more details.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE

PAGE 1 OF PAGES 2

2. AMENDMENT/MODIFICATION NO. P00007

3. EFFECTIVE DATE See Block 16C

4. REQUISITION/PURCHASE REQ. NO. PR-R4-19-00719

5. PROJECT NO. (If applicable) C466RV00

6. ISSUED BY CODE R4

Region 4
US Environmental Protection Agency
Atlanta Federal Center
61 Forsyth Street, SW
Atlanta GA 30303-3104

7. ADMINISTERED BY (If other than Item 6) CODE

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)

ENVIRONMENTAL RESTORATION, L.L.C.
Attn: DENNIS GREANEY
1666 FABICK DRIVE
FENTON MO 63026

CODE 008198421 FACILITY CODE

(x) 9A. AMENDMENT OF SOLICITATION NO.

9B. DATED (SEE ITEM 11)

x 10A. MODIFICATION OF CONTRACT/ORDER NO. EP-S4-15-03
68HE0418F0526

10B. DATED (SEE ITEM 13) 09/28/2018

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or electronic communication which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by letter or electronic communication, provided each letter or electronic communication makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
See Schedule Net Increase: $20,000.00

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	
	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) B-4. EPA-B-32-103 Limitiation of the Government's Obligation

E. IMPORTANT: Contractor ☒ is not ☐ is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

DUNS Number: 008198421
L&R Oil
TOCOR: Kevin Eichinger Max Expire Date: 10/31/2019 InvoiceApprover: Dora Ann Johnson Alt Invoice App: Katrina Jones
The purpose of this modification is to:

a) Add $20,000.00 in additional funding to the order, raising the obligated ceiling to $542,000.00.

END
Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)

16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)
Geoffrey Krieger

15B. CONTRACTOR/OFFEROR
(Signature of person authorized to sign)

15C. DATE SIGNED

16B. UNITED STATES OF AMERICA
Geoffrey Krieger ELECTRONIC SIGNATURE
(Signature of Contracting Officer)

16C. DATE SIGNED 09/20/2019

Previous edition unusable

STANDARD FORM 30 (REV. 11/2016)
Prescribed by GSA FAR (48 CFR) 53.243

NAME OF OFFEROR OR CONTRACTOR
ENVIRONMENTAL RESTORATION, L.L.C.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)

	LIST OF CHANGES: Reason for Modification: Funding Only Action Period Of Performance End Date changed from 01-OCT-19 to 31-OCT-19 Total Amount for this Modification: $20,000.00 New Total Amount for this Version: $542,000.00 New Total Amount for this Award: $542,000.00 Obligated Amount for this Modification: $20,000.00 New Total Obligated Amount for this Award: $542,000.00 Maximum Potential Expiration Date changed to : 10/31/2019 CHANGES FOR LINE ITEM NUMBER: 1 Total Amount changed from $522,000.00 to $542,000.00 Obligated Amount for this Modification: $20,000.00 CHANGES FOR DELIVERY LOCATION: R4 Amount changed from $522,000.00 to $542,000.00 NEW ACCOUNTING CODE ADDED: Account code: 19-T-4AD0E-000DC6-2505-C001-194ADZ9079-001 Beginning FiscalYear 19 Ending Fiscal Year Fund (Appropriation) T Budget Organization 4AD0E Program (PRC) 000DC6 Budget (BOC) 2505 Job # (Site/Project) C466RV00 Cost Organization C001 DCN-LineID 194ADZ9079-001 Quantity: 0 Amount: $20,000.00 Payment: RTP Finance Center US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts Durham NC 27711 Period of Performance: 09/18/2018 to 10/31/2019				

Pressley, Miriam

From: Krieger, Geoffrey
Sent: Friday, September 20, 2019 9:04 AM
To: Mark Bicksler
Cc: Laura Lang; Group DDC-Customer; Eichinger, Kevin; Johnson, Dora Ann; Bates, Lloyd; Pigram, Michael
Subject: EP-S4-15-03/68HE0418F0526_7 L&R Oil
Attachments: DOTO_EP-S4-15-03_68HE0418F0526_Mod_P00007.pdf

Mark,
Please see the attached modification to task order 68HE0418F0526 with additional funding for L&R Oil. Any questions, let me know.

Geoffrey Krieger
US EPA Region 4
Atlanta, GA 30303-8960
Office: (404) 562-8058

THIS EMAIL MAY CONTAIN CONFIDENTIAL BUSINESS INFORMATION (CBI) AND/OR SOURCE SELECTION INFORMATION. USE OF THE INFORMATION AND ATTACHMENTS IS RESTRICTED IN ACCORDANCE WITH FAR 3.104-4

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE

PAGE 1 OF PAGES 2

2. AMENDMENT/MODIFICATION NO. P00007

3. EFFECTIVE DATE See Block 16C

4. REQUISITION/PURCHASE REQ. NO. PR-R4-19-00719

5. PROJECT NO. (If applicable) C466RV00

6. ISSUED BY CODE R4

Region 4
US Environmental Protection Agency
Atlanta Federal Center
61 Forsyth Street, SW
Atlanta GA 30303-3104

7. ADMINISTERED BY (If other than Item 6) CODE

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)

ENVIRONMENTAL RESTORATION, L.L.C.
Attn: DENNIS GREANEY
1666 FABICK DRIVE
FENTON MO 63026

CODE 008198421 FACILITY CODE

(x) 9A. AMENDMENT OF SOLICITATION NO.

9B. DATED (SEE ITEM 11)

x 10A. MODIFICATION OF CONTRACT/ORDER NO. EP-S4-15-03
68HE0418F0526

10B. DATED (SEE ITEM 13) 09/28/2018

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or electronic communication which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by letter or electronic communication, provided each letter or electronic communication makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
See Schedule Net Increase: $20,000.00

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	
	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) B-4. EPA-B-32-103 Limitiation of the Government's Obligation

E. IMPORTANT: Contractor ☒ is not ☐ is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

DUNS Number: 008198421
L&R Oil
TOCOR: Kevin Eichinger Max Expire Date: 10/31/2019 InvoiceApprover: Dora Ann Johnson Alt
Invoice App: Katrina Jones
The purpose of this modification is to:

a) Add $20,000.00 in additional funding to the order, raising the obligated ceiling to $542,000.00.

END

Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)

16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Geoffrey Krieger

15B. CONTRACTOR/OFFEROR
(Signature of person authorized to sign)

15C. DATE SIGNED

16B. UNITED STATES OF AMERICA
Geoffrey Krieger ELECTRONIC SIGNATURE
(Signature of Contracting Officer)

16C. DATE SIGNED 09/20/2019

Previous edition unusable

STANDARD FORM 30 (REV. 11/2016)
Prescribed by GSA FAR (48 CFR) 53.243

NAME OF OFFEROR OR CONTRACTOR
ENVIRONMENTAL RESTORATION, L.L.C.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)

	LIST OF CHANGES: Reason for Modification: Funding Only Action Period Of Performance End Date changed from 01-OCT-19 to 31-OCT-19 Total Amount for this Modification: $20,000.00 New Total Amount for this Version: $542,000.00 New Total Amount for this Award: $542,000.00 Obligated Amount for this Modification: $20,000.00 New Total Obligated Amount for this Award: $542,000.00 Maximum Potential Expiration Date changed to : 10/31/2019 CHANGES FOR LINE ITEM NUMBER: 1 Total Amount changed from $522,000.00 to $542,000.00 Obligated Amount for this Modification: $20,000.00 CHANGES FOR DELIVERY LOCATION: R4 Amount changed from $522,000.00 to $542,000.00 NEW ACCOUNTING CODE ADDED: Account code: 19-T-4AD0E-000DC6-2505-C001-194ADZ9079-001 Beginning FiscalYear 19 Ending Fiscal Year Fund (Appropriation) T Budget Organization 4AD0E Program (PRC) 000DC6 Budget (BOC) 2505 Job # (Site/Project) C466RV00 Cost Organization C001 DCN-LineID 194ADZ9079-001 Quantity: 0 Amount: $20,000.00 Payment: RTP Finance Center US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts Durham NC 27711 Period of Performance: 09/18/2018 to 10/31/2019				

Pressley, Miriam

From: Prys, Paul <Paul.Prys@tetratech.com>
Sent: Tuesday, March 5, 2019 7:42 AM
To: Eichinger, Kevin
Subject: Equipment Request for TT-02-047

Kevin,

Below is a list of equipment for I'd like to request from the EPA warehouse to support sampling activities from March 11-15 while at the L&R Oil Recovery Assessment site (TT-02-047):

6 Gillian AirCon2 high volume air sampling pumps
1 GNSS attachment for an iPad
1 DryCal with a calibration range of 0.5 lpm to 20 lpm
4 Honda EU1000 or EU2000 generators

If some of these items are not available, please let me know as soon as you can so I can make rental arrangements.

Paul Prys | Senior Environmental Scientist/Project Manager
Direct: 678.775.3106 | Cell: 404.849.7136 | Fax: 678.775.3138
paul.prys@tetratech.com

Tetra Tech | Atlanta Office
1955 Evergreen Blvd. Bldg. 200, Ste. 300, Duluth, GA 30096 www.tetratech.com | NASDAQ:TTEK

PLEASE NOTE: This message, including any attachments, may include privileged, confidential and/or inside information. Any distribution or use of this communication by anyone other than the intended recipient is strictly prohibited and may be unlawful. If you are not the intended recipient, please notify the sender by replying to this message and then delete it from your system.

Pressley, Miriam

From: Jones, Katrina
Sent: Tuesday, September 18, 2018 1:32 PM
To: Andrew Johnson
Cc: Eichinger, Kevin
Subject: ER TDD in Process
Attachments: L&R Oil Recovery.pdf

Technical Direction Document

U.S. EPA, Region 4
61 Forsyth Street, SouthWest
Atlanta, GA 30303

Vendor : TETRA TECH, INC.

TDD # : 0001/TT-01-101
Amendment # :
Contract # : EP-S4-14-03

TDD Title : L&R Oil Recovery
Purpose : TDD INITIATION

Verbal Date : 09/17/2018
Start Date : 09/17/2018
Completion Date : 03/17/2019
Effective Date : 09/17/2018

Priority : HIGH
Overtime Authorized : No
Invoice Unit :

SSID : XX
Project/Site Name : L&R Oil Recovery
Project Address : 501 Ruth St.
County : Cleveland
City : Shelby
State : NC
Zip Code : 28150

Work Area : Response / Removal
Work Area Code :
Activity : Emergency Response Action (Site Specific)
Activity Code : RV
Operable Unit :
Emergency Code :
FPN :
Performance Based : No

Authorized TDD Ceiling :

	Amount	LOE (Hours)
Previous Action(s) :	$0.00	0.00
This Action :	$25,000.00	0.00
New Total :	$25,000.00	0.00

Specific Elements :

Description of Work :

See Schedule

Region Specific :

CERCLIS: :

Misc 2 : SSID: C466

Accounting and Appropriation Information:

SFO:

Line	Budget / FY	Approp	Budget Org	Program Element	Object Class	Site Project	Cost Org	DCN Line-ID	Funding Category	TDD Amount
1	17	T	4AD0	303DC6	2505	C466RV00	C001	184ADZ8042-001	CERCLA	$25,000.00

U.S. EPA, Region 4
61 Forsyth Street, SouthWest
Atlanta, GA 30303

Vendor: TETRA TECH, INC.

TDD #: 0001/TT-01-101
Amendment #:
Contract #: EP-S4-14-03

Project Officer: Katrina Jones		**Branch Mail Code:**
		Phone Number: 404-562-8811
(Signature)	(Date)	**Fax Number:**
Contracting Officer Representative Kevin Eichinger		**Branch Mail Code:**
		Phone Number: 404-562-8268
(Signature)	(Date)	**Fax Number:**
Contract Specialist: Stacy Hill		**Branch Mail Code:**
		Phone Number: 404-562-8375
(Signature)	(Date)	**Fax Number:**
Contracting Officer: Stacy Hill		**Branch Mail Code:**
		Phone Number: 404-562-8375
(Signature)	(Date)	**Fax Number:**
Other Agency Official		**Branch Mail Code:**
		Phone Number:
(Signature)	(Date)	**Fax Number:**

Description of Work:START is tasked to respond to a release of waste oil resulting from facility vandalism. Approximately 7,000 gallons of used oil is threatening impact to Hickory Creek.. Multiple responders are necessary. The following activities may be anticipated:

1. Produce HASP and QAPP as specified by the OSC during initial communications;
2. Produce 1900-55s to document and confirm costs;
3. Conduct sampling and hazard categorization as specified by the OSC;
4. Conduct air monitoring including particulates as necessary based on site conditions;
5. Produce draft report of all site activities which will be due 15 days after received analytical results;
6. A cost estimate is required if activities continue beyond the emergency point. Detail information regarding specific tasks such as field activities and the report are required.

All tasks are subject to change as specified by the OSC.
Coordinate all activities with the responding OSC Kevin Eichinger

Pressley, Miriam

From: Moore, Tony
Sent: Tuesday, October 2, 2018 9:34 AM
To: Eichinger, Kevin
Subject: ER_Action_Memo_L_R_Oil_Recovery_KME_Draft (TMedits).docx
Attachments: ER_Action_Memo_L_R_Oil_Recovery_KME_Draft (TMedits).docx

The edited version is ready to go

$250,000 EMERGENCY ACTION MEMORANDUM

DATE: September 19, 2018

SUBJECT: Action Memorandum for an Emergency Response Removal Action at the L&R Oil Recovery Facility pursuant to the Federal On-Scene Coordinator's delegated authority under CERCLA Section 104

FROM: Kevin Eichinger, Federal On-Scene Coordinator
Emergency Response, Removal and Prevention Branch

THRU: James W. Webster, Ph.D., Chief
Emergency Response, Removal and Prevention Branch

TO: Site File

I. PURPOSE

The purpose of this memorandum is to document the decision to initiate the emergency response actions described herein for the L&R Oil Recovery Facility (the Site) located at 501 Ruth Street, Shelby, Cleveland County, North Carolina pursuant to the Federal On-Scene Coordinator's (FOSC) delegated authority under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Section 104.

II. SITE INFORMATION

A. Site Description

Site Name: L&R Oil Recovery
Superfund Site ID (SSID): C466
NRC Case Number: 1224615
CERCLIS Number: NCR000169185
Site Location: 501 Ruth Street, Shelby, Cleveland County, North Carolina 28150
Lat/Long: 35.29957, -81.5287140
Potentially Responsible Party (PRP): L&R Oil Recovery LLC.
NPL Status: Non-NPL
Removal Start Date: September 14, 2018

B. Site Background

1. Removal Site Evaluation

On September 14, the North Carolina Department of Environmental Quality (NCDEQ), the City of Shelby and Cleveland County officials responded to a report of an approximately 3,000-gallon spill of used/waste oil. A 6,500-gallon tanker-trailer used to store used/waste oil had been positioned behind the building and discharged its contents into the building via a hose placed through a window. The oil filled the building, ran out onto the property and onto Ruth Street. A nearby storm drain and several sections of the sanitary sewer system were impacted by the spill. The storm drain led to Hickory Creek which is a tributary of the Broad River. The facility is located directly adjacent to occupied residential structures. One residential property was impacted by the spill. Two samples of the spilled oil were obtained and sent to a laboratory for analytical testing. The analytical results indicated that the oil contained PCBs (Aroclor 1242) at 20.9 ppm and 18.3 ppm. The Site experienced significant rain from the outer rain bands of Hurricane Florence and is not located in a natural disaster declared county.

In addition to the 3,000-gallon PCB-contaminated oil release, the following threats exist on the Site:

- 42 - 275 and 330-gallon intermediate bulk containers (IBC) containing flammable and combustible material,
- 12 - 55-gallon drums containing flammable and combustible material,
- 1 - DOT 306AL tanker containing approximately 8,600-gallons of PCB containing waste oil (Note: The PRP provided analytical results for the material. The results indicated that the oil contained 25,613 ppm Aroclor 1242. The tanker is leaking from behind the shutoff valves. The leak cannot be secured.); and
- 1 - 6,500-gallon tanker used to store, used oil (Note: The tanker still contains approximately 1,000 gallons of PCB contaminated used oil at 20.9 ppm.).

2. Physical Location and Site Characteristics

The Site is located at 501 Ruth Street in Shelby, North Carolina. The geographical coordinates are 35.29957, -81.5287140. The 1.14-acre site was originally an oil trans-load facility. It is currently used as an used oil and spent oil filter recovery center. The Site consists of a 6,500-square foot single story building and a two-bay covered loading rack. The main building is dilapidated. The roof is not intact, and a section of the concrete floor is missing. The used oil is stored in tankers and then transported to a used oil recycling facility. The oil filters are drained into containers inside the building and then stored for disposal in a covered roll-off dumpster. Multiple IBCs and 55-gallon drums are stored inside and outside the building. There are seven 20,000-gallon underground storage tanks (UST) on the property. The PRP reports that two of the USTs contain an unknown amount of diesel fuel and water. One oil recovery truck is stored in the loading rack. The Site is located directly adjacent to a residential community. The Site is fenced; however, there is evidence of trespassing and vandalism.

III. THREATS TO PUBLIC HEALTH, WELFARE OR THE ENVIRONMENT

A. Nature of Actual or Threatened Release of Hazardous Substances, Pollutants or Contaminants

PCBs are hazardous substances as defined by Section 101(14) of CERCLA. The large volume of PCB containing used oil at the Site along with releases of PCB contaminated used oil to the environment constitute a threat to public health and the environment.

B. Applicable factors which were considered in determining the appropriateness of a removal action (40 CFR 30.415)

Actual or potential exposure to nearby human populations, animals or the food chain from hazardous substances or pollutants or contaminants [300.415(b)(2)(i)].

3,000 gallons of PCB contaminated used oil was released to the environment from the Site. This spill migrated off-site and onto a residential property. A tanker containing 8,600 gallons of PCB containing used oil (25,613 ppm) is leaking onsite. Unsecured drums, ICBs of hazardous substances and an additional tanker are stored onsite. A residential community is located directly across the street from the Site. These conditions represent an actual exposure to nearby human population, animals and the food chain from hazardous substances.

Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that pose a threat of release [300.415(b)(2)(iii)].

Multiple tankers, IBCs and 55-gallon drums are located on the site. Initial hazard categorization testing has determined that these materials are flammable and combustible. Multiple containers are unsecured and subject the release of hazardous substances.

Weather conditions that may cause hazardous substances or pollutants to migrate or to be released [300.315(b)(2)(v)]

3,000 gallons of PCB contaminated used oil was released to the environment from the Site. This spill migrated off-site and onto a residential property. A tanker storing 8,600 gallons of PCB containing used oil (25,613 ppm) is leaking onsite. An additional tanker, drums and IBCs of hazardous substances are located onsite and are not secured. The roof is not intact. A weather event may cause the hazardous substances to be release or migrate off-site and impact the nearby residential community.

Threat of fire or explosion [300.415(b)(2)(vi)]

Initial hazard categorization testing has determined that these materials are flammable and combustible. The tankers and containers are unsecured and subject to a fire or explosion. Two tankers, IBCs, 55-gallon drums and other containers of unknown hazardous substances are located onsite and are not secured.

The availability of other appropriate federal or state response mechanisms to respond to the release [300.415(b)(2)(vii)]

The Potential Responsible Party (PRP) has stated that he did not have the funds available to respond to the spill or perform any of the required cleanups. The NCDEQ requested EPA assistance.

Other situations or factors that may pose threats to the public health or welfare of the United States or the environment [300.415(b)(2)(viii)].

The facility is located near residential structures, and the PRP does not have the funding available to perform the necessary remedial actions needed to prevent further environmental harm, or to remove the PCB contaminated waste oil. Substantial remediation of the Site may be necessary as oil may have contaminated the soil underneath the building pad. There is also a concern that historical contamination has occurred.

IV. SELECTED REMOVAL ACTIONS AND ESTIMATED COSTS

A. Situation and Removal Activities to Date

1. Current Situation

On September 14, 2018, the NCDEQ, local officials, and the local fire department responded to secure the release. Sand and oil dry were spread to absorb and contain the spill. The City of Shelby contracted with an environmental services company and removed the oil from the storm drain. The NCDEQ's staff assessed the outfall to Hickory Creek and did not observe an oil sheen.

2. Removal Activities to Date

a. Federal Government/Private Party

Due to the urgency of the response, impending weather and travel time to the Site, the EPA utilized a contracting provision (Basic Ordering Agreement) to hire a local response contractor for initial site stabilization. The contractor was mobilized on September 14. The response contractor arrived on scene with personnel, a vacuum truck and other response equipment to address the spill. FOSC Englert coordinated the initial stabilization efforts from the Regional Operations Center (REOC). FOSC Eichinger responded and took over the Site on September 18. EPA's Superfund Emergency Response and Response Training (START) contractors were mobilized. FOSC Eichinger arrived on scene and met with the property owner and the response contractor. Response operations from the previous operations were reviewed. The property owner provided FOSC Eichinger with written access to perform the necessary response operations to stabilize the Site. During the previous and current operational periods, the response contractor performed or will perform the following operations:

1. Cleaned the road surface,
2. Excavated contaminated soil from the Site and one nearby residential property,
3. Removed bulked oil spilled inside the building and collected by earthen berms,
4. Used absorbent media to remove residual oil inside the building, and
5. Installed hay bales and oil absorbent boom around the perimeter fence line of the building to contain any residual oils.

START contractors conducted hazard categorization (HAZCAT) testing on the drums and the IBCs. Samples were obtained from the IBCs, drums and the two tankers and sent offsite for analysis (list tests). Soil samples were collected around the property and the nearby residential property impacted by the spill.

The EPA's Emergency and Rapid Removal Services (ERRS) contractors were mobilized on September 18 to address the leaking tanker of PCB containing oil. The PCB oil was transferred to IBCs and staged inside a secured storage container (CONEX box) pending approval of the waste profile and completion of disposal arrangements.

The waste generated by the emergency response operations will be staged pending on-site approval of the waste profile and completion of disposal arrangements.

b. State/Local

State and Local Agencies responded and took initial emergency defensive actions to contain the spill.

3. Enforcement

(b) (7)(A)

[redacted]

B. Planned Removal Actions

1. The site management will be transitioned to a time-critical removal action. The Potential Responsible Party (PRP) stated that he did not have the funds available to respond to the spill or perform any of the required cleanups. On September 17, the NCDEQ Hazardous Waste Section formally referred the Site to the EPA Emergency Response, Removal and Prevention Branch for Time-Critical Removal Action consideration. The facility is located near residential structures and does not have the funding available to perform the necessary remedial actions needed to prevent further environmental harm, or to remove the PCB contaminated waste oil. Substantial remediation of the Site may be necessary as oil may have contaminated the soil underneath the building pad and historical contamination may have occurred.

2. Anticipated immediate removal activities for the Site include, but are not limited to, the following:

   a. Continue the disposal approval process for the waste material generated during the initial emergency response. The PCB concentration of this material is less than 50 ppm,

   b. Begin the disposal approval process for the waste material that previously existed on the Site. This process will begin when the analytical sample results are received,

   c. Collect and replace oil absorbent materials used to collect residual oils that may be released from the Site after each rain event,

   d. Conduct further studies to determine additional threats to human health and the environment, and

   e. Implement removal actions to abate the threat to human health and the environment based on the results of the further studies.

3. Contribution to Remedial Performance

   Any potential long-term remedial actions will be coordinated with the appropriate state and federal programs and will be consistent with the Remedial Design for the Site.

4. ARARs

   Removal actions conducted under CERCLA are required to attain ARARs to the extent practicable. In determining whether compliance with ARARs is practicable, the FOSC may consider appropriate factors, including the urgency of the situation and the scope of the removal action to be conducted.

C. Estimated Costs

Contractor costs (ERRS)	$ 200,000
Contractor costs (START)	$ 30,000
Contingency costs	$ 20,000
Total Removal Project Ceiling	**$ 250,000**

EPA direct and indirect costs, although cost recoverable, do not count toward the Removal Ceiling for this removal action. Liable parties may be held financially responsible for costs incurred by the EPA as set forth in Section 107 of CERCLA.

V. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

A delay in action or no action at this Site would have increased the actual or potential threats to the public health and/or environment.

VI. OUTSTANDING POLICY ISSUES

None.

VII. APPROVALS

This decision document represents the selected removal action for this Site, developed in accordance with CERCLA as amended, and not inconsistent with the National Contingency Plan. This decision is based on the administrative record for the Site.

Conditions at the Site meet the NCP section 300.415(b) criteria for a removal action, and through this document, I am approving the proposed removal actions. The total project ceiling is $250,000, and $200,000 of this amount will be funded from the Regional Removal Allowance.

Kevin M. Eichinger Federal On-Scene Coordinator	Date

ENFORCEMENT ADDENDUM

(b) (7)(A)

[redacted]

Pressley, Miriam

From: Englert, Brian
Sent: Monday, September 17, 2018 4:43 PM
To: Williamson, Carter
Cc: Moore, Tony; Eichinger, Kevin
Subject: ERNS Update for L&R Oil Recovery ER

NRC 1224615, Cleveland County Oil Spill, Shelby, Cleveland County, North Carolina
On September 14th, EPA Region 4 received a non-storm related NRC report of a spill of 7,000 gallons of used oil from a facility in Shelby North Carolina as the result of vandalism. The oil has impacted the ditch and road side immediately outside of the facility and is threatening Hickory Creek which leads to the Broad River. Local responders deployed sand in an attempt to stop the oil but it has impacted nearby storm drains leading to Hickory Creek. Neither the PRP or local responders have the resources to respond and prevent further oil from leaving the property. Due to incoming inclement weather, EPA has contracted with a local contractor for quick response to prevent release of oil during incoming inclement weather and is coordinating with NC DEQ Division of Waste Management. **Update**: Preliminary laboratory results indicate the waste oil contains concentrations of PCB Aroclor 1242 around 20 ppm. This is below the TSCA level but is a hazardous substance. The FPN has been canceled and CERCLA money will be used for the response. The majority of pending weather has passed and there are minimal flood impacts in the area. EPA, START and ERRS contactors have remobilized to address the remaining oil at the Site and a nearby residential property with suspected contamination. For more information contact OSC Kevin Eichinger.

Pressley, Miriam

From: Johnson, Dora Ann
Sent: Wednesday, June 19, 2019 2:47 PM
To: Berry, Chuck; Eichinger, Kevin
Subject: ERRS Task Orders
Attachments: TO Spreadsheet ERRS4 June 19 2019.xlsx

Chuck had asked for a listing of the task order names and OSC associated with the task orders. So, I have slightly redacted some of the information on an excel spreadsheet to maybe help in his request.
Column L is R – CERCLA Response; SF – Superfund Remedial; O – OPA Response. There are three tables at the bottom of the spreadsheet. One tab per contract.

Let me know if this is of any value. Otherwise, I will have to look into finding some other way to reflect the sites and the scope of the response activities.

Dora Ann Johnson
Contracts Team/ Senior Project Officer
US EPA, Region IV
SD/RSIB/RMS
Phone: 404-562-8737
Cell: 404-754-6339
Email: Johnson.Dora@epa.gov

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Pressley, Miriam

From: Moore, Tony
Sent: Friday, December 7, 2018 3:51 PM
To: Franco, Benjamin; Eichinger, Kevin; Johnson, Dora Ann
Subject: Florence_EPAR4_SITREP_25_20181129_1700_DRAFT (tm).docx
Attachments: Florence_EPAR4_SITREP_25_20181129_1700_DRAFT (tm).docx

Attached is my review of the draft SitREP for Florence.
Overall, I would like it to summarize the entire response so it can be used to answer the questions and audits I know are coming.
Have START answer the comments I inserted and be more comprehensive. Don't refer to separate documents, especially a POLREP that the recipients don't have access to read. Paste that info this document.

Dora Ann, please update the Finance section so we can finalize the document.

Pressley, Miriam

From: Chad B Edwards <cedwards@hepaco.com>
Sent: Tuesday, August 13, 2019 7:15 PM
To: Eichinger, Kevin
Cc: James B. Kessler; Cathy McBride
Subject: FW: [EXT]FW: Enviro Restoration-L&R Oil-SHELBY, NC

Kevin,

We are trying to resolve an outstanding invoice with ERLLC in reference to the above listed site. Last fall, when ER, LLC took over the rolloff containers and waste onsite, Ken Braig, yourself and I met onsite to discuss the transfer of the containers over to ERLLC and how we would process the invoicing. At that time you wanted us to Invoice ERLLC on our rates and they would bill you under their current contract. Until everything was transferred over to ERLLC including the disposal of our rolloff container and we were able to pick it up we invoiced ERLLC the contracted BOA rates that we have.

We are still trying to get ERLLC to pay us for these services and keep getting pushed off every time we contact them. The last email correspondence below indicated that you would be reaching out to us regarding invoice questions.

We submitted this invoice to Ken Braig on January 21, 2019 and have gotten no resolution.

Thank you,

HEPACO
Serious experience for serious times.
Chad Edwards
Branch Manager-Carolinas Region
HEPACO, LLC | Charlotte Office
2711 Burch Drive | Charlotte, NC 28269
Main: 704.598.9787 | Direct: 980.312.5359 | Cell: 704.564.8851
www.hepaco.com
24 Hour Emergency Response
1-800-888-7689

From: Christina Strength <c.strength@erllc.com>
Sent: Tuesday, July 23, 2019 10:21 AM
To: Chad B Edwards <cedwards@hepaco.com>
Cc: Cathy McBride <cmcbride@hepaco.com>; James B. Kessler <jkessler@hepaco.com>
Subject: RE: [EXT]FW: Enviro Restoration

I was told the EPA coordinator was contacting your company with some questions before we could approve. I will check back in on this today.

From: Chad B Edwards [mailto:cedwards@hepaco.com]
Sent: Tuesday, July 23, 2019 10:05 AM

To: Christina Strength <c.strength@erllc.com>
Cc: Cathy McBride <cmcbride@hepaco.com>; James B. Kessler <jkessler@hepaco.com>
Subject: RE: [EXT]FW: Enviro Restoration

Christina,

Can you let us know the status of this invoice please?

Thanks,

HEPACO
Serious experience for serious times.

Chad Edwards

Branch Manager-Carolinas Region
HEPACO, LLC | Charlotte Office
2711 Burch Drive | Charlotte, NC 28269
Main: 704.598.9787 | Direct: 980.312.5359 | Cell: 704.564.8851

www.hepaco.com

24 Hour Emergency Response
1-800-888-7689

From: Chad B Edwards <cedwards@hepaco.com>
Sent: Friday, July 12, 2019 4:20 PM
To: Christina Strength <c.strength@erllc.com>
Cc: Cathy McBride <cmcbride@hepaco.com>; James B. Kessler <jkessler@hepaco.com>
Subject: Re: [EXT]FW: Enviro Restoration

EPA instructed us to replace the tracks and the rate for the boxes is the contracted rate per the EPA contract that everything was billed off of.

Thanks,

Chad Edwards
Branch Manager
HEPACO, LLC
Mobile: 704-564-8851
Office: 704-598-9787 ext 1015
Fax: 704-598-9224
www.hepaco.com
24 Hour Emergency Response
1-800-888-7689

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Please consider the environment before printing this mail.

Sent from my iPhone

On Jul 12, 2019, at 16:12, Christina Strength <c.strength@erllc.com> wrote:

Hi Chad,

A few questions for you. I do know that I had trouble getting Rain for Rent and United to transfer the 4 roll offs over to us, but Rain for Rent eventually did and theirs were only $12/day. The project managers said we should only be paying the (b) (4)/day rate on one roll off that was yours. Could you look into that and update the invoice to charge us the correct rates for the 2 Rain for Rent and 2 United roll offs?

Also, they are saying that we are not responsible for the analytical and track replacement invoices that were attached.

Please let me know if you need anything from me. The project manager was originally Ken Braig and has transferred over to Paul Pilgrim if you need to talk with someone from our company.

Thank you,

Christina Strength
Field Cost Accountant
Environmental Restoration
Cell: 407-557-4086
Fax: 636-680-2584
c.strength@erllc.com

From: Chad B Edwards [mailto:cedwards@hepaco.com]
Sent: Thursday, July 11, 2019 11:49 AM
To: Christina Strength <c.strength@erllc.com>
Cc: Cathy McBride <cmcbride@hepaco.com>; James B. Kessler <jkessler@hepaco.com>
Subject: [EXT]FW: Enviro Restoration
Importance: High

*****CAUTION*** This email originates from a source outside the company. Please use caution when opening attachments, clicking on links, or following the senders request.**

Christina,

I have attached the invoice you requested. I have also sent the copy of the invoice that we submitted to Ken on January 21st.

Can you please let me know when we can expect payment?

Thanks,

<image002.jpg>

Chad Edwards
Branch Manager-Carolinas Region

HEPACO, LLC | Charlotte Office
2711 Burch Drive | Charlotte, NC 28269
Main: 704.598.9787 | Direct: 980.312.5359 | Cell: 704.564.8851

www.hepaco.com

24 Hour Emergency Response
1-800-888-7689

From: Cathy McBride <cmcbride@hepaco.com>
Sent: Thursday, July 11, 2019 11:08 AM
To: Chad B Edwards <cedwards@hepaco.com>
Subject: Enviro Restoration
Importance: High

Hi Chad:

Here is the invoice you requested, as well as, a copy of the submission email to K Braig.

Thank you.
Cathy

HEPACO is pleased to announce the acquisition of Environmental Management Specialists, Inc. (EMS), strengthening our footprint in the Midwest and allowing us to better serve our clients with expanded service, expertise and reach.

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Pressley, Miriam

From: Ken Braig <k.braig@erllc.com>
Sent: Friday, March 1, 2019 12:27 PM
To: Eichinger, Kevin
Subject: FW: [EXT]FW: Need COI
Attachments: ATT00001.txt

Kevin,
We were just informed this morning from AWMS that Giant Resource Recovery, where we have drums, totes, and UST01 profiled for disposal is not accepting waste from Superfund sites. We are currently seeing what our cost difference is to go to the next bidder on the totes and drums, unfortunately all bidders for UST01 had it going to GRR so were seeing what can be done there. I've forwarded the other notifications of this below.

Ken Braig
Response Manager
Environmental Restoration, LLC
1666 Fabic Drive
Fenton, MO 63026
636-485-0537 (mobile)
k.braig@erllc.com

From: Jim Smith [mailto:jsmith@awmsi.com]
Sent: Friday, March 01, 2019 9:36 AM
To: Amy Riggott <a.riggott@erllc.com>; Mark Bicksler <m.bicksler@erllc.com>; Ken Braig <k.braig@erllc.com>
Cc: Paula Monske <pmonske@awmsi.com>; JOHN ZWAHL(JZWAHL@AWMSI.COM) <JZWAHL@AWMSI.COM>; Jim Smith <jsmith@awmsi.com>; 'Bob Hazen' <bhazen@awmsi.com>
Subject: [EXT]FW: Need COI

*****CAUTION*** This email originates from a source outside the company. Please use caution when opening attachments, clicking on links, or following the senders request.**

Amy,

John Zwahl has informed me of his struggles in dealing with Giant on behalf of ER and the USEPA. John has submitted profiles, back in January, for various waste streams from the L&R Oil site in Shelby NC to Giant Resources (GRR) for bulk and drummed waste. The drummed waste has been approved and the approval for the bulk waste is pending and scheduling has been postponed due to an outage of GRR's kiln. Also, John has been repeatedly trying to obtain a COI from GRR as per your requirements.

We were just notified this mornir g that GRR will not accept waste from Superfund sites (see below). John has identified the waste as being generated fro n Superfund since the onset of discussions with GRR. We are left baffled by this decision from GRR. We apologize for this situation. I am trying to reach someone there in upper management for an explanation as to how and why w re all lead down this path? If ER or the USEPA want to be involved in a conference call/meeting, if I can get one, you are welcome.

Please advise if we should be rea ing out for other options or if you will be shifting this to an alternate bidder. We are fully aware of your time schedule o clear the waste off this site. Please let us know how you would like us to proceed.

Sincerely

Jim Smith
VP Disposal Sales
American Waste Management Services, Inc.
One American Way
Warren, OH 44484
330-856-8800 Office
330-856-8480 Fax
330-283-6584 Cell
jsmith@awmsi.com
www.awmsi.com

From: Carrie Steen <csteen@elementia.com>
Sent: Friday, March 1, 2019 8:25 AM
To: 'John Zwahl' <jzwahl@awmsi.com>
Subject: RE: Need COI

In the process of obtaining the Certificate of Insurance it was brought to our attention that we cannot bring in US EPA waste. In the past we were informed by our attorneys and HR department that we could not comply with US EPA contract requirements associated with the US EPA shipping waste to us directly or through a broker. I apologize for this inconvenience.

Sincerely,

Carrie W Steen
Customer Service Lead Person
603-773-1400 Ext. 8638
csteen@elementia.com
603-773-8107
www.grr-giant.com

Grr!
Giant Resource Recovery, Inc.
elementia

From: John Zwahl [mailto:jzwahl@awmsi.com]
Sent: Thursday, February 28, 2019 10:28 AM
To: Carrie Steen <csteen@elementia.com>
Subject: RE: Need COI

Thank you

John Zwahl
Mid Atlantic Sales Manager
American Waste Management Services, Inc
(757) 689-2471 Office

(973) 903-7022 Cell Phone
(330) 856-8484 Fax
www.awmsi.com

From: Carrie Steen <csteen@elementia.com>
Sent: Thursday, February 28, 2019 10:10 AM
To: 'John Zwahl' <jzwahl@awmsi.com>
Cc: 'Amy Riggott' <a.riggott@erllc.com>; 'Ken Braig' <k.braig@erllc.com>; 'Paula Monske' <pmonske@awmsi.com>
Subject: RE: Need COI

We received notice that as of this morning it has not come back up yet. I will keep you posted.

I did receive an update on the COI last night & you should be hearing from Cynthia Turk today in regards to that.

I apologize for the delay in everything!

Carrie W Steen
Customer Service Lead Person
803-773-1400 Ext. 8638
csteen@elementia.com
803-778-8107
www.grr-giant.com

Grr!
Giant Resource Recovery, Inc.
elementia

From: John Zwahl [mailto:jzwahl@awmsi.com]
Sent: Thursday, February 28, 2019 9:43 AM
To: Carrie Steen <csteen@elementia.com>
Cc: 'Amy Riggott' <a.riggott@erllc.com>; 'Ken Braig' <k.braig@erllc.com>; 'Paula Monske' <pmonske@awmsi.com>
Subject: RE: Need COI

Carrie,

Did your kiln come back up yesterday?

John Zwahl
Mid Atlantic Sales Manager
American Waste Management Services, Inc
(757) 689-2471 Office
(973) 903-7022 Cell Phone
(330) 856-8484 Fax
www.awmsi.com

From: Carrie Steen <csteen@elementia. om>
Sent: Wednesday, February 27, 2019 9:0 9 AM
To: 'John Zwahl' <jzwahl@awmsi.com>
Cc: 'Amy Riggott' <a.riggott@erllc.com> , 'Ken Braig' <k.braig@erllc.com>; Paula Monske <pmonske@awmsi.com>
Subject: RE: Need COI

Good morning John,

The COI is still being worked on. We have not received an update on our kiln as of this morning. Hopefully we will have one this afternoon or tomorrow so I can schedule the bulk load. Also, we do have you on schedule for delivery of the totes & drums for Thursday 3/7 @ 2pm.

Thanks!

Carrie W Steen
Customer Service Lead Person
803-773-1400 Ext. 8638
csteen@elementia.com
803-778-8107
www.grr-giant.com

Grr!
Giant Resource Recovery, Inc.
elementia

From: John Zwahl [mailto:jzwahl@awmsi.com]
Sent: Wednesday, February 27, 2019 8:57 AM
To: Carrie Steen <csteen@elementia.com>
Cc: 'Amy Riggott' <a.riggott@erllc.com>; 'Ken Braig' <k.braig@erllc.com>; Paula Monske <pmonske@awmsi.com>
Subject: RE: Need COI

Carrie,

What is the status of the COI? Is your kiln back up and running? Can you schedule me in next week for the 20K gallons of oil from UST01??

A work schedule is dependent on your answers, please respond today.

John Zwahl
Mid Atlantic Sales Manager
American Waste Management Services, Inc
(757) 689-2471 Office
(973) 903-7022 Cell Phone
(330) 856-8484 Fax
www.awmsi.com

From: John Zwahl <jzwahl@awmsi.com>
Sent: Monday, February 25, 2019 10:03 AM
To: 'Carrie Steen' <csteen@elementia.com>
Cc: 'Amy Riggott' <a.riggott@erllc.com>; 'Ken Braig' <k.braig@erllc.com>; Paula Monske <pmonske@awmsi.com>

Subject: Need COI
Importance: High

Carrie,

Please let me know the status of your COI naming ER and EPA as additionally insured. I am copying Amy Riggott who is the contract administrator from ER and Ken Braig who is the site manager for ER. We need the COI to proceed with the scheduling next week for the drums and totes and the Bulk liquid we are planning to bring to you next week.

Sincerely,

John Zwahl
Mid Atlantic Sales Manager
American Waste Management Services, Inc
(757) 689-2471 Office
(973) 903-7022 Cell Phone
(330) 856-8484 Fax
www.awmsi.com

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Pressley, Miriam

From: Ken Braig <k.braig@erllc.com>
Sent: Wednesday, March 13, 2019 1:37 PM
To: Eichinger, Kevin
Subject: FW: [EXT]Fwd: [Scan] 2019-03-12 15:47
Attachments: Geocycle Benzene Cert.doc

They need a signature on a benzene certification for UST01.

Ken Braig
Response Manager
Environmental Restoration, LLC
1666 Fabic Drive
Fenton, MO 63026
636-485-0537 (mobile)
k.braig@erllc.com

-----Original Message-----
From: John Zwahl [mailto:jzwahl@awmsi.com]
Sent: Wednesday, March 13, 2019 11:08 AM
To: Ken Braig <k.braig@erllc.com>; Amy Riggott <a.riggott@erllc.com>
Cc: Christina Strength <c.strength@erllc.com>
Subject: RE: [EXT]Fwd: [Scan] 2019-03-12 15:47

Ken,

I will need the bz cert signed by Kevin. My understanding is this is NOT subject 40 CFR Part 61 Subpart FF. Scan and send back to me so I can include it when I deliver the sample. Thanks

John Zwahl
Mid Atlantic Sales Manager
American Waste Management Services, Inc
(757) 689-2471 Office
(973) 903-7022 Cell Phone
(330) 856-8484 Fax
www.awmsi.com

-----Original Message-----
From: Ken Braig <k.braig@erllc.com>
Sent: Tuesday, March 12, 2019 4:50 PM
To: John Zwahl <jzwahl@awmsi.com>; Amy Riggott <a.riggott@erllc.com>
Cc: Christina Strength <c.strength@erllc.com>
Subject: Re: [EXT]Fwd: [Scan] 2019-03-12 15:47

Yes, if need be. Is someone coming for the sample?

Sent via the Samsung Galaxy S9+, an AT&T 5G Evolution smartphone

-------- Original message --------
From: John Zwahl <jzwahl@awmsi.com>
Date: 3/12/19 4:44 PM (GMT-05:00)
To: Ken Braig <k.braig@erllc.com>, Amy Riggott <a.riggott@erllc.com>
Cc: Christina Strength <c.strength@erllc.com>
Subject: RE: [EXT]Fwd: [Scan] 2019-03-12 15:47

Got it, thank you. Will you be on the site this Thursday?

John Zwahl
Mid Atlantic Sales Manager
American Waste Management Services, Inc
(757) 689-2471 Office
(973) 903-7022 Cell Phone
(330) 856-8484 Fax
www.awmsi.com<http://www.awmsi.com>

-----Original Message-----
From: Ken Braig <k.braig@erllc.com>
Sent: Tuesday, March 12, 2019 3:58 PM
To: John Zwahl <jzwahl@awmsi.com>; Amy Riggott <a.riggott@erllc.com>
Cc: Christina Strength <c.strength@erllc.com>
Subject: Fwd: [EXT]Fwd: [Scan] 2019-03-12 15:47

Alright, here it is,

The signed UST01 profile, please note, the shipping name has changed to Flammable Liq. With lead and benzene as additional characteristics.. This is a better description than the Class 9 as sent.. If everyone agrees, this is the final signed UST01 profile.

KB

Sent via the Samsung Galaxy S9+, an AT&T 5G Evolution smartphone

-------- Original message --------
From: "Eichinger, Kevin" <Eichinger.Kevin@epa.gov>
Date: 3/12/19 3:48 PM (GMT-05:00)
To: Ken Braig <k.braig@erllc.com>
Subject: [EXT]Fwd: [Scan] 2019-03-12 15:47

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With the corrected DOT Hazard Class

Sent from my iPhone

Begin forwarded message:

From: "Eichinger, Kevin" <Eichinger.Kevin@epa.gov<mailto:Eichinger.Kevin@epa.gov>>
Date: March 12, 2019 at 15:47:48 EDT
To: "Eichinger, Kevin" <Eichinger.Kevin@epa.gov<mailto:Eichinger.Kevin@epa.gov>>
Subject: [Scan] 2019-03-12 15:47

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Sent with Genius Scan for iOS.
https://dl.tglapp.com/genius-scan

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geocycle	Originating Department: Corporate	Classification: Document	E	Q	H&S
			N	N	Y
Date Issued: 10/1/04	Revision Date: 9/17/2007	Control Number: EHQ.10.025	HAC Number: N/A		
Prepared By: Reggie Miller Title: Manager, Service & Systems	Approved By: Rob Davies Title: President	Page 1 of 2			

Distribution: **NAPortal/Public Documents/Holcim-US/Geocycle/Management Systems/Policies and Procedures/10-Customer Service-Sales**

Subject: **Geocycle Benzene Certification**

Manifest # _____

BENZENE WASTE OPERATIONS/NESHAP CERTIFICATION

Please check the box that indicates your status in regards to the reporting requirements under 40 CFR Part 61, Subpart FF[61.342(f)(2)] for Benzene/NESHAPS operations. Unless the third(3) box is applicable to your waste/s, this certification statement must accompany each shipment.

☐ This waste shipment does not contain benzene at a concentration level that requires the waste/s to be controlled and treated in accordance with the provisions of 40 CFR Part 61 Subpart FF.

☐ This waste shipment contains benzene at a concentration level that requires the waste/s to be controlled and treated in accordance with the provisions of 40 CFR Part 61 Subpart FF." The estimated benzene concentration in this shipment is _____ppm.

X This waste stream is not subject to the provisions of 40 CFR Part 61 Subpart FF.

"I certify under penalty of law that the above information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

Facility Name: USEPA REG 4/L&R Oil Recovery Site_____

Facility Address: 501 Ruth Street, Shelby, NC 28150___

Company Representative / Title: _Kevin Eichinger, Federal On-Scene Coordnator

Signature:

_____

Date: _____/_____/_____

Waste Stream: Control No. / Geocycle Approval No. _____

Pressley, Miriam

From: Ken Braig <k.braig@erllc.com>
Sent: Friday, March 8, 2019 11:07 AM
To: Eichinger, Kevin
Subject: FW: [EXT]Geocycle Profile. --L&R Oil

Kevin,

Can you confirm the following EPA ID # for L&R oil NCR000169185 is correct.

Thanks

Ken Braig
Response Manager
Environmental Restoration, LLC
1666 Fabic Drive
Fenton, MO 63026
636-485-0537 (mobile)
k.braig@erllc.com

From: Amy Riggott
Sent: Friday, March 08, 2019 9:34 AM
To: Anthony Campitella <acampitella@acvenviro.com>; Ken Braig <k.braig@erllc.com>
Cc: Mark Bicksler <m.bicksler@erllc.com>; Christina Strength <c.strength@erllc.com>
Subject: RE: [EXT]Geocycle Profile. --L&R Oil

Ken—can you confirm the EPA ID#?
NCR000169185—this is what I have.

Thank you!

From: Anthony Campitella <acampitella@acvenviro.com>
Sent: Friday, March 8, 2019 10:28 AM
To: Ken Braig <k.braig@erllc.com>; Amy Riggott <a.riggott@erllc.com>
Cc: Mark Bicksler <m.bicksler@erllc.com>; Christina Strength <c.strength@erllc.com>
Subject: RE: [EXT]Geocycle Profile.

Sumter brought up a interesting point, we missed. The EPA ID # listed on the Bid is for a different site. Can you confirm this is the correct EPA ID # that is to be used?

BEST PEOPLE. BEST TEAM. GREAT SERVICE.
AnthonyCampitella/Customer Service Representative
550 Industrial Drive,Lewisberry,PA17339
t:717-938-4700e:acampitella@acvenviro.com

-----Original Message-----
From: Ken Braig [mailto:k.braig@erllc.com]
Sent: Wednesday, March 06, 2019 8:36 PM
To: Anthony Campitella; Amy Riggott
Cc: Mark Bicksler; Christina Strength
Subject: Fwd: [EXT]Geocycle Profile.

Signed Geocycle profile.

Sent via the Samsung Galaxy S9+, an AT&T 5G Evolution smartphone

-------- Original message --------
From: "Eichinger, Kevin" <https://urldefense.proofpoint.com/v2/url?u=http-3A__Eichinger.Kevin-40epa.gov&d=DwIFAg&c=euGZstcaTDllvimEN8b7jXrwqOf-v5A_CdpgnVfiiMM&r=kvH9JGOef1rgFw5RfrJuZWZEwx2xt21zc6MEqTI9gcw&m=ZUMAyNt-qbJLAiTYm_9kpecIHza4re6k9Otz79kn9yw&s=xJturfJcFrLhQTcLfqUA-DfNgCQ5GUjq6ReFGAyqIJI&e=>
Date: 3/6/19 7:19 PM (GMT-06:00)
To: Ken Braig <https://urldefense.proofpoint.com/v2/url?u=http-3A__k.braig-40erllc.com&d=DwIFAg&c=euGZstcaTDllvimEN8b7jXrwqOf-v5A_CdpgnVfiiMM&r=kvH9JGOef1rgFw5RfrJuZWZEwx2xt21zc6MEqTI9gcw&m=ZUMAyNt-qbJLAiTYm_9kpecIHza4re6k9Otz79kn9yw&s=xUk5CIn6h-HLyhC-MoljFrQs0o-f8a-HvG8IsK0Xdoc&e=>
Subject: [EXT]Geocycle Profile.

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Sorry for the delay, got wrapped up in this crude oil spill.

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Pressley, Miriam

From: Ken Braig <k.braig@erllc.com>
Sent: Thursday, March 28, 2019 1:04 PM
To: Eichinger, Kevin
Subject: FW: [EXT]L&R site - Shelby, NC
Attachments: ATT00001.txt; L&R site non-friable ACM profile to Republic.pdf; L&R site C&D debris profile to Republic.pdf

Kevin,
Attached are the profiles for the ACM material and the C&D debris. Amy had asked about pricing difference between oil residue and no oil residue debris before sending it out and was told there wouldn't be a price difference since it's all non-haz anyway. Our vendor is also suggesting we submit the profile without the TT06 oil results since there will only be a residue on a small portion of the debris and will not change its non-haz status, but may cause the landfill to ask for additional analyses. See Below:

Ken Braig
Response Manager
Environmental Restoration, LLC
1666 Fabic Drive
Fenton, MO 63026
636-485-0537 (mobile)
k.braig@erllc.com

From: Amy Riggott
Sent: Thursday, March 28, 2019 9:29 AM
To: Ken Braig <k.braig@erllc.com>
Subject: Fwd: [EXT]L&R site - Shelby, NC

Please read email below.

Sent via the Samsung Galaxy S8, an AT&T 5G Evolution smartphone

-------- Original message --------
From: Susan Schult <SSchult@capitolenv.com>
Date: 3/28/19 10:24 AM (GMT-05:00)
To: Amy Riggott <a.riggott@erllc.com>
Subject: [EXT]L&R site - Shelby, NC

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Amy - Attached are the 2 profiles for both of the RFQ's for the L&R site. We have requested the insurance certificates from our haulers and will send them to you as soon as we receive them. Our facility for both of these bids is Republic services. I know that ER has a master agreement with them and therefore, they have named you additionally insured under that so they will not reissue those certificates to us.

Regarding these profiles, I have written them without referencing the oil analysis , TT06. The oil is "trace" amounts at most in either of these streams and the analysis has very high detection limits for the volatiles and would cause more questions and problems in getting the approvals with these elevated detection limits. There is so little oil that I feel it is imprudent to include this analysis with these profiles. IF the site and OSC disagree, let me know, but it is likely that it will make the approval process slow and might cause the facility to ask for TCLP analysis.

Call me if any questions.
Thanks
Susan

Susan M. Schult
Capitol Environmental Services, Inc.
301-218-6607
301-850-4964 e-fax
703-407-2402 mobile
sschult@capitolenv.com

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REPUBLIC SERVICES **SPECIAL WASTE PROFILE**

Requested Disposal Facility: 3115 Union County Regional MSW LF SC

Waste Profile #

Saveable fill-in form. Restricted printing until all required (yellow) fields are completed.

Sales Rep #:

I. Generator Information

Generator Name: USEPA Region 4 - L&R Oil Recovery site			
Generator Site Address: 501 Ruth Street			
City: Shelby	County:	State: New Jersey	Zip: 28150
State ID/Reg No:	State Approval/Waste Code: (if applicable)		NAICS # :
Generator Mailing Address (if different): ☑ 61 Forsyth Street, SW			
City: Atlanta	County: Fulton	State: Georgia	Zip: 30303
Generator Contact Name: Kevin Eichinger		Email:	
Phone Number: (678) 897-3759	Ext:	Fax Number:	

II. Billing Information

Bill To: Capitol Environmental Services, Inc.		Contact Name: Susan Schult	
Billing Address: 200 Biddle Avenue , Suite 205		Email: sschult@capitolenv.com	
City: Newark	State: DE	Zip: 19702	Phone: (301) 218-6607

III. Waste Stream Information

Name of Waste: Non-Friable ACM Debris

Process Generating Waste:

demolition and disposal of a 6500 square foot building onsite at EPA site clean up of abandoned oil facility

Type of Waste:	☐ INDUSTRIAL PROCESS WASTE ☑ POLLUTION CONTROL WASTE
Physical State:	☑ SOLID ☐ SEMI-SOLID ☐ POWDER ☐ LIQUID
Method of Shipment:	☑ BULK ☐ DRUM ☐ BAGGED ☐ OTHER:
Estimated Annual Volume:	200 Tons
Frequency:	☑ ONE TIME ☐ ONGOING
Disposal Consideration:	☑ LANDFILL ☐ SOLIDIFICATION ☐ BIOREMEDIATION

IV. Representative Sample Certification

☐ NO SAMPLE TAKEN

Is the representative sample collected to prepare this profile and laboratory analysis, collected in accordance with U.S. EPA 40 CFR 261.20(c) guidelines or equivalent rules?	☑ YES or ☐ NO

Type of Sample: ☐ COMPOSITE SAMPLE ☑ GRAB SAMPLE

Sample Date: 2/20/19 and 2/21/19

Sample ID Numbers: LRO-ASB-MW-01
LRO-ASB-MW-02
LRO-ASB-RF01 through RF07

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REPUBLIC SERVICES **SPECIAL WASTE PROFILE**

Waste Profile #

V. Physical Characteristics of Waste

Characteristic Components	% by Weight (range)
1. Non-friable asbestos roofing material & windows with asbestos glazing	95-99%
2. Non-friable asbestos floor tiles with oil residue	1-5%
3.	
4.	
5.	

Color	Odor (describe)	Does Waste Contain Free Liquids?	% Solids	pH:	Flash Point
varies	none	☐ YES or ☑ NO	100	NA	NA °F

Attach Laboratory Analytical Report (and/or Material Safety Data Sheet) Including Chain of Custody and Required Parameters Provided for this Profile

Does this waste or generating process contain regulated concentrations of the following Pesticides and/or Herbicides: Chlordane, Endrin, Heptachlor (and its epoxides), Lindane, Methoxychlor, Toxaphene, 2,4-D, or 2,4,5-TP Silvex as defined in 40 CFR 261.33?	☐ Yes or ☑ No
Does this waste contain reactive sulfides (greater than 500 ppm) or reactive cyanide (greater than 250 ppm)[reference 40 CFR 261.23(a)(5)]?	☐ Yes or ☑ No
Does this waste contain regulated concentrations of Polychlorinated Biphenyls (PCBs) as defined in 40 CFR Part 761?	☐ Yes or ☑ No
Does this waste contain concentrations of listed hazardous wastes defined in 40 CFR 261.31, 261.32, 261.33, including RCRA F-Listed Solvents?	☐ Yes or ☑ No
Does this waste exhibit a Hazardous Characteristic as defined by Federal and/or State regulations?	☐ Yes or ☑ No
Does this waste contain regulated concentrations of 2,3,7,8-Tetrachlorodibenzodioxin (2,3,7,8-TCCD), or any other dioxin as defined in 40 CFR 261.31?	☐ Yes or ☑ No
Is this a regulated Radioactive Waste as defined by Federal and/or State regulations?	☐ Yes or ☑ No
Is this a regulated Medical or Infectious Waste as defined by Federal and/or State regulations?	☐ Yes or ☑ No
Is this waste a reactive or heat generating waste?	☐ Yes or ☑ No
Does the waste contain sulfur or sulfur by-products?	☐ Yes or ☑ No
Is this waste generated at a Federal Superfund Clean Up Site?	☑ Yes or ☐ No
Is this waste from a TSD facility, TSD like facility or consolidator?	☐ Yes or ☑ No

VI. Certification

I hereby certify that to the best of my knowledge and belief, the information contained herein is a true, complete and accurate description of the waste material being offered for disposal and all known or suspected hazards have been disclosed. All Analytical Results/Material Safety Data Sheets submitted are truthful and complete and are representative of the waste.

I further certify that by utilizing this profile, neither myself nor any other employee of the company will deliver for disposal or attempt to deliver for disposal any waste which is classified as toxic waste, hazardous waste or infectious waste, or any other waste material this facility is prohibited from accepting by law. I shall immediately give written notice of any change or condition pertaining to the waste not provided herein. Our company hereby agrees to fully indemnify this disposal facility against any damages resulting from this certification being inaccurate or untrue.

I further certify that the company has not altered the form or content of this profile sheet as provided by Republic Services Inc.

Kevin Eichinger, On Scene Coordinator	USEPA Region 4
Authorized Representative Name And Title (Type or Print)	Company Name
Authorized Representative Signature	Date

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REPUBLIC SERVICES **SPECIAL WASTE PROFILE**

Requested Disposal Facility: 3115 Union County Regional MSW LF SC

Waste Profile #

Saveable fill-in form. Restricted printing until all required (yellow) fields are completed.

Sales Rep #:

I. Generator Information

Generator Name: USEPA Region 4 - L&R Oil Recovery site			
Generator Site Address: 501 Ruth Street			
City: Shelby	County:	State: New Jersey	Zip: 28150
State ID/Reg No:	State Approval/Waste Code: (if applicable)		NAICS # :
Generator Mailing Address (if different): ☑ 61 Forsyth Street, SW			
City: Atlanta	County: Fulton	State: Georgia	Zip: 30303
Generator Contact Name: Kevin Eichinger		Email:	
Phone Number: (678) 897-3759	Ext:	Fax Number:	

II. Billing Information

Bill To: Capitol Environmental Services, Inc.		Contact Name: Susan Schult	
Billing Address: 200 Biddle Avenue , Suite 205		Email: sschult@capitolenv.com	
City: Newark	State: DE	Zip: 19702	Phone: (301) 218-6607

III. Waste Stream Information

Name of Waste: Construction and Demolition debris	
Process Generating Waste: demolition and disposal of a 6500 square foot building onsite at EPA site clean up of abandoned oil facility. Material is non-hazardous and non-regulated	
Type of Waste:	☐ INDUSTRIAL PROCESS WASTE ☑ POLLUTION CONTROL WASTE
Physical State:	☑ SOLID ☐ SEMI-SOLID ☐ POWDER ☐ LIQUID
Method of Shipment:	☑ BULK ☐ DRUM ☐ BAGGED ☐ OTHER:
Estimated Annual Volume:	800 Tons
Frequency:	☑ ONE TIME ☐ ONGOING
Disposal Consideration:	☑ LANDFILL ☐ SOLIDIFICATION ☐ BIOREMEDIATION

IV. Representative Sample Certification

☑ NO SAMPLE TAKEN

Is the representative sample collected to prepare this profile and laboratory analysis, collected in accordance with U.S. EPA 40 CFR 261.20(c) guidelines or equivalent rules?	☐ YES or ☐ NO
Type of Sample: ☐ COMPOSITE SAMPLE ☐ GRAB SAMPLE	
Sample Date:	
Sample ID Numbers:	

© Republic Services, April 2013

Waste Profile #

V. Physical Characteristics of Waste

Characteristic Components	% by Weight (range)
1. cinder blocks	75-85%
2. wood debris	5-10%
3. metal pieces	5-10%
4. RCRA Empty crushed steel and cut up poly totes/drums	5-10%
5.	

Color	Odor (describe)	Does Waste Contain Free Liquids?	% Solids	pH:	Flash Point
varies	none	☐ YES or ☑ NO	100	NA	NA °F

Attach Laboratory Analytical Report (and/or Material Safety Data Sheet) Including Chain of Custody and Required Parameters Provided for this Profile

Does this waste or generating process contain regulated concentrations of the following Pesticides and/or Herbicides: Chlordane, Endrin, Heptachlor (and its epoxides), Lindane, Methoxychlor, Toxaphene, 2,4-D, or 2,4,5-TP Silvex as defined in 40 CFR 261.33?	☐ Yes or ☑ No
Does this waste contain reactive sulfides (greater than 500 ppm) or reactive cyanide (greater than 250 ppm)[reference 40 CFR 261.23(a)(5)]?	☐ Yes or ☑ No
Does this waste contain regulated concentrations of Polychlorinated Biphenyls (PCBs) as defined in 40 CFR Part 761?	☐ Yes or ☑ No
Does this waste contain concentrations of listed hazardous wastes defined in 40 CFR 261.31, 261.32, 261.33, including RCRA F-Listed Solvents?	☐ Yes or ☑ No
Does this waste exhibit a Hazardous Characteristic as defined by Federal and/or State regulations?	☐ Yes or ☑ No
Does this waste contain regulated concentrations of 2,3,7,8-Tetrachlorodibenzodioxin (2,3,7,8-TCCD), or any other dioxin as defined in 40 CFR 261.31?	☐ Yes or ☑ No
Is this a regulated Radioactive Waste as defined by Federal and/or State regulations?	☐ Yes or ☑ No
Is this a regulated Medical or Infectious Waste as defined by Federal and/or State regulations?	☐ Yes or ☑ No
Is this waste a reactive or heat generating waste?	☐ Yes or ☑ No
Does the waste contain sulfur or sulfur by-products?	☐ Yes or ☑ No
Is this waste generated at a Federal Superfund Clean Up Site?	☑ Yes or ☐ No
Is this waste from a TSD facility, TSD like facility or consolidator?	☐ Yes or ☑ No

VI. Certification

I hereby certify that to the best of my knowledge and belief, the information contained herein is a true, complete and accurate description of the waste material being offered for disposal and all known or suspected hazards have been disclosed. All Analytical Results/Material Safety Data Sheets submitted are truthful and complete and are representative of the waste.

I further certify that by utilizing this profile, neither myself nor any other employee of the company will deliver for disposal or attempt to deliver for disposal any waste which is classified as toxic waste, hazardous waste or infectious waste, or any other waste material this facility is prohibited from accepting by law. I shall immediately give written notice of any change or condition pertaining to the waste not provided herein. Our company hereby agrees to fully indemnify this disposal facility against any damages resulting from this certification being inaccurate or untrue.

I further certify that the company has not altered the form or content of this profile sheet as provided by Republic Services Inc.

Kevin Eichinger, On Scene Coordinator	USEPA Region 4
Authorized Representative Name And Title (Type or Print)	Company Name
Authorized Representative Signature	Date

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Pressley, Miriam

From:	Paul Pilgrim <p.pilgrim@erllc.com>
Sent:	Wednesday, August 7, 2019 12:26 PM
To:	Eichinger, Kevin
Subject:	FW: [EXT]Pace National Report for L4-526 L&R Oil, 501 Ruth St, Shelby, NC L1120080
Attachments:	ATT00001.txt; L1120080.pdf
Importance:	High

Analytical of the water for your records.

Paul A. Pilgrim
Response Manager
Environmental Restoration, LLC.
6940 Commercial Drive
Morrow, GA 30260
Office: 770-961-9272
Cell: 615-498-4223
p.pilgrim@erllc.com

From: mbeasley@pacenational.com <mbeasley@pacenational.com>
Sent: Monday, July 29, 2019 14:17
To: Paul Pilgrim <p.pilgrim@erllc.com>
Subject: [EXT]Pace National Report for L4-526 L&R Oil, 501 Ruth St, Shelby, NC L1120080
Importance: High

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Mark W. Beasley
Project Manager
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mbeasley@pacenational.com

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ANALYTICAL REPORT

July 29, 2019

Tc
Ss
Cn
Sr
Qc
Gl
Al
Sc

Environmental Restoration L.L.C.

Sample Delivery Group:	L1120080
Samples Received:	07/18/2019
Project Number:	L4-526
Description:	L&R Oil, 501 Ruth St, Shelby, NC

Report To:

Paul Pilgrim
1666 Fabick Drive
St. Louis, MO 63026

Entire Report Reviewed By:

Mark W. Beasley
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

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ONE LAB. NATIONWIDE.

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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.

T-1&T-2 COMP L1120080-01 Waste

Collected by	Collected date/time	Received date/time
P. Pilgrim	07/17/19 10:45	07/18/19 17:54

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1315019	1	07/21/19 11:44	07/21/19 11:44	CGD	Mt. Juliet, TN
Preparation by Method 1311	WG1315021	1	07/21/19 12:27	07/21/19 12:27	CGD	Mt. Juliet, TN
Mercury by Method 7470A	WG1315426	1	07/22/19 13:33	07/22/19 18:26	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1315439	1	07/22/19 14:23	07/23/19 07:15	TRB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1315322	1	07/24/19 16:00	07/24/19 16:00	BMB	Mt. Juliet, TN
Chlorinated Acid Herbicides (GC) by Method 8151A	WG1315626	1	07/23/19 06:23	07/23/19 21:00	LEL	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1316333	1	07/27/19 10:12	07/28/19 10:52	LEL	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1316857	1	07/27/19 15:56	07/28/19 19:06	AO	Mt. Juliet, TN

T-3 L1120080-02 Waste

Collected by	Collected date/time	Received date/time
P. Pilgrim	07/17/19 10:55	07/18/19 17:54

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1315019	1	07/21/19 11:44	07/21/19 11:44	CGD	Mt. Juliet, TN
Preparation by Method 1311	WG1315021	1	07/21/19 12:27	07/21/19 12:27	CGD	Mt. Juliet, TN
Mercury by Method 7470A	WG1315426	1	07/22/19 13:33	07/22/19 18:29	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1315439	1	07/22/19 14:23	07/23/19 07:18	TRB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1315322	1	07/24/19 16:22	07/24/19 16:22	BMB	Mt. Juliet, TN
Chlorinated Acid Herbicides (GC) by Method 8151A	WG1315626	2	07/23/19 06:23	07/23/19 21:13	LEL	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG1316333	1	07/27/19 10:12	07/28/19 11:04	LEL	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1316857	1	07/27/19 15:56	07/28/19 19:28	AO	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Mark W. Beasley
Project Manager

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		7/21/2019 11:44:52 AM	WG1315019
TCLP ZHE Extraction	-		7/21/2019 12:27:19 PM	WG1315021
Fluid	1		7/21/2019 11:44:52 AM	WG1315019
Initial pH	6		7/21/2019 11:44:52 AM	WG1315019
Final pH	5		7/21/2019 11:44:52 AM	WG1315019

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Mercury	ND		0.0100	0.20	1	07/22/2019 18:26	WG1315426

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Arsenic	ND		0.100	5	1	07/23/2019 07:15	WG1315439
Barium	ND		0.100	100	1	07/23/2019 07:15	WG1315439
Cadmium	ND		0.100	1	1	07/23/2019 07:15	WG1315439
Chromium	ND		0.100	5	1	07/23/2019 07:15	WG1315439
Lead	ND		0.100	5	1	07/23/2019 07:15	WG1315439
Selenium	ND		0.100	1	1	07/23/2019 07:15	WG1315439
Silver	ND		0.100	5	1	07/23/2019 07:15	WG1315439

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.0500	0.50	1	07/24/2019 16:00	WG1315322
Carbon tetrachloride	ND		0.0500	0.50	1	07/24/2019 16:00	WG1315322
Chlorobenzene	ND		0.0500	100	1	07/24/2019 16:00	WG1315322
Chloroform	ND		0.250	6	1	07/24/2019 16:00	WG1315322
1,2-Dichloroethane	ND		0.0500	0.50	1	07/24/2019 16:00	WG1315322
1,1-Dichloroethene	ND		0.0500	0.70	1	07/24/2019 16:00	WG1315322
2-Butanone (MEK)	ND		0.500	200	1	07/24/2019 16:00	WG1315322
Tetrachloroethene	ND		0.0500	0.70	1	07/24/2019 16:00	WG1315322
Trichloroethene	ND		0.0500	0.50	1	07/24/2019 16:00	WG1315322
Vinyl chloride	ND		0.0500	0.20	1	07/24/2019 16:00	WG1315322
(S) Toluene-d8	*99.6*		*80.0-120*			*07/24/2019 16:00*	WG1315322
(S) 4-Bromofluorobenzene	*97.5*		*77.0-126*			*07/24/2019 16:00*	WG1315322
(S) 1,2-Dichloroethane-d4	*100*		*70.0-130*			*07/24/2019 16:00*	WG1315322

Chlorinated Acid Herbicides (GC) by Method 8151A

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
2,4,5-TP (Silvex)	ND		0.00200	1	1	07/23/2019 21:00	WG1315626
2,4-D	ND		0.00200	10	1	07/23/2019 21:00	WG1315626
(S) 2,4-Dichlorophenyl Acetic Acid	*56.4*		*14.0-158*			*07/23/2019 21:00*	WG1315626

Pesticides (GC) by Method 8081B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Chlordane	ND		0.00500	0.03	1	07/28/2019 10:52	WG1316333
Endrin	ND		0.00500	0.02	1	07/28/2019 10:52	WG1316333
Heptachlor	ND		0.00500	0.0080	1	07/28/2019 10:52	WG1316333
Lindane	ND		0.00500	0.40	1	07/28/2019 10:52	WG1316333

Pesticides (GC) by Method 8081B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Methoxychlor	ND		0.00500	10	1	07/28/2019 10:52	WG1316333
Toxaphene	ND		0.0100	0.50	1	07/28/2019 10:52	WG1316333
(S) Decachlorobiphenyl	*104*		*10.0-128*			*07/28/2019 10:52*	WG1316333
(S) Tetrachloro-m-xylene	*69.8*		*10.0-127*			*07/28/2019 10:52*	WG1316333

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
1,4-Dichlorobenzene	ND		0.100	7.50	1	07/28/2019 19:06	WG1316857
2,4-Dinitrotoluene	ND		0.100	0.13	1	07/28/2019 19:06	WG1316857
Hexachlorobenzene	ND		0.100	0.13	1	07/28/2019 19:06	WG1316857
Hexachloro-1,3-butadiene	ND		0.100	0.50	1	07/28/2019 19:06	WG1316857
Hexachloroethane	ND		0.100	3	1	07/28/2019 19:06	WG1316857
Nitrobenzene	ND		0.100	2	1	07/28/2019 19:06	WG1316857
Pyridine	ND		0.100	5	1	07/28/2019 19:06	WG1316857
3&4-Methyl Phenol	ND		0.100	400	1	07/28/2019 19:06	WG1316857
2-Methylphenol	ND		0.100	200	1	07/28/2019 19:06	WG1316857
Pentachlorophenol	ND		0.100	100	1	07/28/2019 19:06	WG1316857
2,4,5-Trichlorophenol	ND		0.100	400	1	07/28/2019 19:06	WG1316857
2,4,6-Trichlorophenol	ND		0.100	2	1	07/28/2019 19:06	WG1316857
(S) 2-Fluorophenol	*36.4*		*10.0-120*			*07/28/2019 19:06*	WG1316857
(S) Phenol-d5	*25.1*		*10.0-120*			*07/28/2019 19:06*	WG1316857
(S) Nitrobenzene-d5	*52.3*		*10.0-127*			*07/28/2019 19:06*	WG1316857
(S) 2-Fluorobiphenyl	*61.0*		*10.0-130*			*07/28/2019 19:06*	WG1316857
(S) 2,4,6-Tribromophenol	*63.5*		*10.0-155*			*07/28/2019 19:06*	WG1316857
(S) p-Terphenyl-d14	*66.9*		*10.0-128*			*07/28/2019 19:06*	WG1316857

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		7/21/2019 11:44:52 AM	WG1315019
TCLP ZHE Extraction	-		7/21/2019 12:27:19 PM	WG1315021
Fluid	1		7/21/2019 11:44:52 AM	WG1315019
Initial pH	6		7/21/2019 11:44:52 AM	WG1315019
Final pH	5		7/21/2019 11:44:52 AM	WG1315019

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Mercury	ND		0.0100	0.20	1	07/22/2019 18:29	WG1315426

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Arsenic	ND		0.100	5	1	07/23/2019 07:18	WG1315439
Barium	0.272		0.100	100	1	07/23/2019 07:18	WG1315439
Cadmium	ND		0.100	1	1	07/23/2019 07:18	WG1315439
Chromium	ND		0.100	5	1	07/23/2019 07:18	WG1315439
Lead	ND		0.100	5	1	07/23/2019 07:18	WG1315439
Selenium	ND		0.100	1	1	07/23/2019 07:18	WG1315439
Silver	ND		0.100	5	1	07/23/2019 07:18	WG1315439

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Benzene	0.169		0.0500	0.50	1	07/24/2019 16:22	WG1315322
Carbon tetrachloride	ND		0.0500	0.50	1	07/24/2019 16:22	WG1315322
Chlorobenzene	ND		0.0500	100	1	07/24/2019 16:22	WG1315322
Chloroform	ND		0.250	6	1	07/24/2019 16:22	WG1315322
1,2-Dichloroethane	ND		0.0500	0.50	1	07/24/2019 16:22	WG1315322
1,1-Dichloroethene	ND		0.0500	0.70	1	07/24/2019 16:22	WG1315322
2-Butanone (MEK)	ND		0.500	200	1	07/24/2019 16:22	WG1315322
Tetrachloroethene	ND		0.0500	0.70	1	07/24/2019 16:22	WG1315322
Trichloroethene	ND		0.0500	0.50	1	07/24/2019 16:22	WG1315322
Vinyl chloride	ND		0.0500	0.20	1	07/24/2019 16:22	WG1315322
(S) Toluene-d8	*96.7*		*80.0-120*			*07/24/2019 16:22*	WG1315322
(S) 4-Bromofluorobenzene	*101*		*77.0-126*			*07/24/2019 16:22*	WG1315322
(S) 1,2-Dichloroethane-d4	*101*		*70.0-130*			*07/24/2019 16:22*	WG1315322

Chlorinated Acid Herbicides (GC) by Method 8151A

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
2,4,5-TP (Silvex)	ND		0.00400	1	2	07/23/2019 21:13	WG1315626
2,4-D	ND		0.00400	10	2	07/23/2019 21:13	WG1315626
(S) 2,4-Dichlorophenyl Acetic Acid	*50.9*		*14.0-158*			*07/23/2019 21:13*	WG1315626

Pesticides (GC) by Method 8081B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Chlordane	ND		0.00500	0.03	1	07/28/2019 11:04	WG1316333
Endrin	ND		0.00500	0.02	1	07/28/2019 11:04	WG1316333
Heptachlor	ND		0.00500	0.0080	1	07/28/2019 11:04	WG1316333
Lindane	ND		0.00500	0.40	1	07/28/2019 11:04	WG1316333

Pesticides (GC) by Method 8081B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Methoxychlor	ND		0.00500	10	1	07/28/2019 11:04	WG1316333
Toxaphene	ND		0.0100	0.50	1	07/28/2019 11:04	WG1316333
(S) Decachlorobiphenyl	*105*		*10.0-128*			*07/28/2019 11:04*	WG1316333
(S) Tetrachloro-m-xylene	*95.7*		*10.0-127*			*07/28/2019 11:04*	WG1316333

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
1,4-Dichlorobenzene	ND		0.100	7.50	1	07/28/2019 19:28	WG1316857
2,4-Dinitrotoluene	ND		0.100	0.13	1	07/28/2019 19:28	WG1316857
Hexachlorobenzene	ND		0.100	0.13	1	07/28/2019 19:28	WG1316857
Hexachloro-1,3-butadiene	ND		0.100	0.50	1	07/28/2019 19:28	WG1316857
Hexachloroethane	ND		0.100	3	1	07/28/2019 19:28	WG1316857
Nitrobenzene	ND		0.100	2	1	07/28/2019 19:28	WG1316857
Pyridine	ND		0.100	5	1	07/28/2019 19:28	WG1316857
3&4-Methyl Phenol	ND		0.100	400	1	07/28/2019 19:28	WG1316857
2-Methylphenol	ND		0.100	200	1	07/28/2019 19:28	WG1316857
Pentachlorophenol	ND		0.100	100	1	07/28/2019 19:28	WG1316857
2,4,5-Trichlorophenol	ND		0.100	400	1	07/28/2019 19:28	WG1316857
2,4,6-Trichlorophenol	ND		0.100	2	1	07/28/2019 19:28	WG1316857
(S) 2-Fluorophenol	*40.2*		*10.0-120*			*07/28/2019 19:28*	WG1316857
(S) Phenol-d5	*0.000*	J2	*10.0-120*			*07/28/2019 19:28*	WG1316857
(S) Nitrobenzene-d5	*52.3*		*10.0-127*			*07/28/2019 19:28*	WG1316857
(S) 2-Fluorobiphenyl	*61.1*		*10.0-130*			*07/28/2019 19:28*	WG1316857
(S) 2,4,6-Tribromophenol	*62.0*		*10.0-155*			*07/28/2019 19:28*	WG1316857
(S) p-Terphenyl-d14	*58.6*		*10.0-128*			*07/28/2019 19:28*	WG1316857

WG1315426

Mercury by Method 7470A

QUALITY CONTROL SUMMARY

L1120080-01,02

ONE LAB. NATIONWIDE.

Method Blank (MB)

(MB) R3433051-4 07/22/19 18:53

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury	U		0.00330	0.0100

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3433051-5 07/22/19 18:57 • (LCSD) R3433051-1 07/22/19 18:01

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Mercury	0.0300	0.0282	0.0285	94.0	95.0	80.0-120			1.05	20

L1119516-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1119516-01 07/22/19 18:08 • (MS) R3433051-2 07/22/19 18:10 • (MSD) R3433051-3 07/22/19 18:13

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.0300	ND	0.0286	0.0282	95.2	93.9	1	75.0-125			1.35	20

QUALITY CONTROL SUMMARY

L1120080-01,02

Method Blank (MB)

(MB) R3433187-1 07/23/19 06:22

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic	U		0.0333	0.100
Barium	U		0.0333	0.100
Cadmium	U		0.0333	0.100
Chromium	U		0.0333	0.100
Lead	U		0.0333	0.100
Selenium	U		0.0333	0.100
Silver	U		0.0333	0.100

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3433187-2 07/23/19 06:24 • (LCSD) R3433187-3 07/23/19 06:27

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Arsenic	10.0	9.52	9.54	95.2	95.4	80.0-120			0.226	20
Barium	10.0	9.98	9.95	99.8	99.5	80.0-120			0.235	20
Cadmium	10.0	9.77	9.77	97.7	97.7	80.0-120			0.0153	20
Chromium	10.0	9.71	9.59	97.1	95.9	80.0-120			1.19	20
Lead	10.0	9.82	9.81	98.2	98.1	80.0-120			0.0853	20
Selenium	10.0	9.63	9.64	96.3	96.4	80.0-120			0.0963	20
Silver	2.00	2.05	2.04	103	102	80.0-120			0.563	20

L1119516-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1119516-01 07/23/19 06:30 • (MS) R3433187-5 07/23/19 06:35 • (MSD) R3433187-6 07/23/19 06:38

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	10.0	ND	9.80	9.65	97.6	96.1	1	75.0-125			1.49	20
Barium	10.0	1.13	11.0	10.9	98.3	98.0	1	75.0-125			0.334	20
Cadmium	10.0	ND	9.92	9.83	99.2	98.3	1	75.0-125			0.919	20
Chromium	10.0	ND	9.50	9.54	95.0	95.4	1	75.0-125			0.388	20
Lead	10.0	ND	9.88	9.82	98.8	98.2	1	75.0-125			0.574	20
Selenium	10.0	ND	9.87	9.77	98.7	97.7	1	75.0-125			0.969	20
Silver	2.00	ND	2.06	2.05	103	103	1	75.0-125			0.575	20

Method Blank (MB)

(MB) R3433833-3 07/24/19 11:06

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.0165	0.0500
Carbon tetrachloride	U		0.0165	0.0500
Chlorobenzene	U		0.0165	0.0500
Chloroform	U		0.0825	0.250
1,2-Dichloroethane	U		0.0165	0.0500
1,1-Dichloroethene	U		0.0165	0.0500
2-Butanone (MEK)	U		0.165	0.500
Tetrachloroethene	U		0.0165	0.0500
Trichloroethene	U		0.0165	0.0500
Vinyl chloride	U		0.0165	0.0500
(S) Toluene-d8	*103*			*80.0-120*
(S) 4-Bromofluorobenzene	*102*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3433833-1 07/24/19 09:21 • (LCSD) R3433833-2 07/24/19 09:42

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0269	0.0267	108	107	70.0-123			0.896	20
Carbon tetrachloride	0.0250	0.0264	0.0258	106	103	68.0-126			2.16	20
Chlorobenzene	0.0250	0.0234	0.0237	93.6	94.8	80.0-121			1.26	20
Chloroform	0.0250	0.0258	0.0255	103	102	73.0-120			1.27	20
1,2-Dichloroethane	0.0250	0.0241	0.0233	96.4	93.3	70.0-128			3.34	20
1,1-Dichloroethene	0.0250	0.0251	0.0234	101	93.8	71.0-124			7.00	20
2-Butanone (MEK)	0.125	0.120	0.122	95.8	97.7	44.0-160			1.91	20
Tetrachloroethene	0.0250	0.0266	0.0272	106	109	72.0-132			2.15	20
Trichloroethene	0.0250	0.0248	0.0249	99.1	99.7	78.0-124			0.564	20
Vinyl chloride	0.0250	0.0266	0.0252	106	101	67.0-131			5.31	20
(S) Toluene-d8				*96.5*	*98.8*	*80.0-120*				
(S) 4-Bromofluorobenzene				*95.2*	*95.4*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*108*	*108*	*70.0-130*				

L1120741-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1120741-01 07/24/19 18:27 • (MS) R3433833-4 07/24/19 18:48 • (MSD) R3433833-5 07/24/19 19:09

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	1.25	ND	1.27	1.23	101	98.1	1	17.0-158			3.09	27
Carbon tetrachloride	1.25	ND	1.25	1.17	99.9	93.8	1	23.0-159			6.26	28
Chlorobenzene	1.25	ND	1.15	1.13	92.1	90.0	1	33.0-152			2.23	27
Chloroform	1.25	ND	1.22	1.22	97.4	97.6	1	29.0-154			0.252	28
1,2-Dichloroethane	1.25	ND	1.12	1.13	89.8	90.0	1	29.0-151			0.218	27
1,1-Dichloroethene	1.25	ND	1.12	1.05	89.4	84.4	1	11.0-160			5.79	29
2-Butanone (MEK)	6.25	ND	5.90	6.22	93.3	98.4	1	10.0-160			5.27	32
Tetrachloroethene	1.25	ND	1.27	1.17	101	93.3	1	10.0-160			8.23	27
Trichloroethene	1.25	0.0550	1.36	1.34	105	103	1	10.0-160			1.72	25
Vinyl chloride	1.25	ND	1.15	1.13	92.4	90.7	1	10.0-160			1.86	27
(S) Toluene-d8					*99.5*	*96.3*		*80.0-120*				
(S) 4-Bromofluorobenzene					*98.3*	*91.6*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*107*	*106*		*70.0-130*				

WG1315626

Chlorinated Acid Herbicides (GC) by Method 8151A

QUALITY CONTROL SUMMARY

L1120080-01,02

ONE LAB. NATIONWIDE.

Method Blank (MB)

(MB) R3433691-1 07/23/19 19:12

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
2,4-D	U		0.000667	0.00200
2,4,5-TP (Silvex)	U		0.000667	0.00200
(S) 2,4-Dichlorophenyl Acetic Acid	*70.6*			*14.0-158*

Laboratory Control Sample (LCS)

(LCS) R3433691-2 07/23/19 19:25

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
2,4-D	0.0500	0.0364	72.8	50.0-120	P
2,4,5-TP (Silvex)	0.0500	0.0362	72.4	50.0-125	P
(S) 2,4-Dichlorophenyl Acetic Acid			*62.0*	*14.0-158*	

L1119955-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1119955-01 07/23/19 19:52 • (MS) R3433691-3 07/23/19 20:06 • (MSD) R3433691-4 07/23/19 20:19

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
2,4-D	0.0500	ND	0.0424	0.0303	84.8	60.6	1	50.0-120	P	J3 P	33.3	20
2,4,5-TP (Silvex)	0.0500	ND	0.0388	0.0309	77.6	61.8	1	50.0-125	P	J3 P	22.7	20
(S) 2,4-Dichlorophenyl Acetic Acid					*69.8*	*58.6*		*14.0-158*				

QUALITY CONTROL SUMMARY

L1120080-01,02

Method Blank (MB)

(MB) R3435049-3 07/28/19 09:00

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Gamma BHC	U		0.00167	0.00500
Endrin	U		0.00167	0.00500
Heptachlor	U		0.00167	0.00500
Methoxychlor	U		0.00167	0.00500
Chlordane	U		0.00167	0.00500
Toxaphene	U		0.00333	0.0100
(S) Decachlorobiphenyl	*106*			*10.0-128*
(S) Tetrachloro-m-xylene	*71.6*			*10.0-127*

Method Blank (MB)

(MB) R3435049-4 07/28/19 09:13

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Gamma BHC	U		0.00167	0.00500
Endrin	U		0.00167	0.00500
Heptachlor	U		0.00167	0.00500
Methoxychlor	U		0.00167	0.00500
Chlordane	U		0.00167	0.00500
Toxaphene	U		0.00333	0.0100
(S) Decachlorobiphenyl	*92.5*			*10.0-128*
(S) Tetrachloro-m-xylene	*78.1*			*10.0-127*

Laboratory Control Sample (LCS)

(LCS) R3435049-1 07/28/19 08:35

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gamma BHC	0.0100	0.0100	100	55.0-129	
Endrin	0.0100	0.00966	96.6	57.0-134	
Heptachlor	0.0100	0.00885	88.5	27.0-132	
Methoxychlor	0.0100	0.00979	97.9	54.0-155	
(S) Decachlorobiphenyl			*107*	*10.0-128*	
(S) Tetrachloro-m-xylene			*70.6*	*10.0-127*	

QUALITY CONTROL SUMMARY

L1120080-01,02

Laboratory Control Sample (LCS)

(LCS) R3435049-2 07/28/19 08:48

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	mg/l	mg/l	%	%	
Gamma BHC	0.0100	0.00989	98.9	55.0-129	
Endrin	0.0100	0.00937	93.7	57.0-134	
Heptachlor	0.0100	0.00724	72.4	27.0-132	
Methoxychlor	0.0100	0.00953	95.3	54.0-155	
(S) Decachlorobiphenyl			*106*	*10.0-128*	
(S) Tetrachloro-m-xylene			*70.1*	*10.0-127*	

L1118829-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1118829-01 07/28/19 09:25 • (MS) R3435049-5 07/28/19 09:37 • (MSD) R3435049-6 07/28/19 09:50

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Gamma BHC	0.0100	ND	0.00960	0.00929	96.0	92.9	1	14.0-141			3.28	40
Endrin	0.0100	ND	0.00732	0.00712	73.2	71.2	1	10.0-160	P		2.77	39
Heptachlor	0.0100	ND	0.0147	0.0143	147	143	1	16.0-136	J5 P	J5 P	2.76	40
Methoxychlor	0.0100	ND	0.00984	0.00863	98.4	86.3	1	10.0-160			13.1	34
(S) Decachlorobiphenyl					*102*	*100*		*10.0-128*				
(S) Tetrachloro-m-xylene					*64.8*	*67.8*		*10.0-127*				

QUALITY CONTROL SUMMARY

L1120080-01,02

Method Blank (MB)

(MB) R3435172-1 07/28/19 23:44

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
1,4-Dichlorobenzene	U		0.0333	0.100
2,4-Dinitrotoluene	U		0.0333	0.100
Hexachlorobenzene	U		0.0333	0.100
Hexachloro-1,3-butadiene	U		0.0333	0.100
Hexachloroethane	U		0.0333	0.100
Nitrobenzene	U		0.0333	0.100
Pyridine	U		0.0333	0.100
2-Methylphenol	U		0.0333	0.100
3&4-Methyl Phenol	U		0.0333	0.100
Pentachlorophenol	U		0.0333	0.100
2,4,5-Trichlorophenol	U		0.0333	0.100
2,4,6-Trichlorophenol	U		0.0333	0.100
(S) Nitrobenzene-d5	*48.9*			*10.0-127*
(S) 2-Fluorobiphenyl	*61.6*			*10.0-130*
(S) p-Terphenyl-d14	*62.3*			*10.0-128*
(S) Phenol-d5	*19.4*			*10.0-120*
(S) 2-Fluorophenol	*33.2*			*10.0-120*
(S) 2,4,6-Tribromophenol	*57.0*			*10.0-155*

Laboratory Control Sample (LCS)

(LCS) R3435172-2 07/29/19 00:47

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
1,4-Dichlorobenzene	0.500	0.215	43.0	18.0-120	
2,4-Dinitrotoluene	0.500	0.335	67.0	49.0-124	
Hexachlorobenzene	0.500	0.309	61.8	44.0-120	
Hexachloro-1,3-butadiene	0.500	0.175	35.0	19.0-120	
Hexachloroethane	0.500	0.166	33.2	15.0-120	
Nitrobenzene	0.500	0.254	50.8	27.0-120	
Pyridine	0.500	0.142	28.4	10.0-120	
2-Methylphenol	0.500	0.236	47.2	28.0-120	
3&4-Methyl Phenol	0.500	0.231	46.2	31.0-120	
Pentachlorophenol	0.500	0.221	44.2	23.0-120	
2,4,5-Trichlorophenol	0.500	0.350	70.0	44.0-120	
2,4,6-Trichlorophenol	0.500	0.301	60.2	42.0-120	
(S) Nitrobenzene-d5			*45.8*	*10.0-127*	
(S) 2-Fluorobiphenyl			*67.7*	*10.0-130*	
(S) p-Terphenyl-d14			*64.4*	*10.0-128*	

QUALITY CONTROL SUMMARY

L1120080-01,02

Laboratory Control Sample (LCS)

(LCS) R3435172-2 07/29/19 00:47

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
(S) Phenol-d5			*20.8*	*10.0-120*	
(S) 2-Fluorophenol			*34.1*	*10.0-120*	
(S) 2,4,6-Tribromophenol			*64.5*	*10.0-155*	

L1119925-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1119925-01 07/28/19 20:31 • (MS) R3435172-3 07/28/19 20:52 • (MSD) R3435172-4 07/28/19 21:13

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
1,4-Dichlorobenzene	0.500	ND	0.251	0.289	50.2	57.8	1	17.0-120			14.1	40
2,4-Dinitrotoluene	0.500	ND	0.371	0.359	74.2	71.8	1	39.0-125			3.29	25
Hexachlorobenzene	0.500	ND	0.357	0.338	71.4	67.6	1	35.0-122			5.47	24
Hexachloro-1,3-butadiene	0.500	ND	0.225	0.307	45.0	61.4	1	12.0-120			30.8	34
Hexachloroethane	0.500	ND	0.206	0.283	41.2	56.6	1	10.0-120			31.5	40
Nitrobenzene	0.500	ND	0.295	0.279	59.0	55.8	1	12.0-120			5.57	30
Pyridine	0.500	ND	0.179	0.153	35.8	30.6	1	10.0-120			15.7	37
2-Methylphenol	0.500	ND	0.276	0.256	55.2	51.2	1	10.0-120			7.52	30
3&4-Methyl Phenol	0.500	ND	0.277	0.258	55.4	51.6	1	10.0-120			7.10	36
Pentachlorophenol	0.500	ND	0.244	0.230	48.8	46.0	1	10.0-128			5.91	37
2,4,5-Trichlorophenol	0.500	ND	0.387	0.377	77.4	75.4	1	33.0-120			2.62	31
2,4,6-Trichlorophenol	0.500	ND	0.345	0.335	69.0	67.0	1	26.0-120			2.94	31
(S) Nitrobenzene-d5					*73.6*	*51.4*		*10.0-127*				
(S) 2-Fluorobiphenyl					*75.7*	*70.5*		*10.0-130*				
(S) p-Terphenyl-d14					*77.7*	*71.2*		*10.0-128*				
(S) Phenol-d5					*25.9*	*23.8*		*10.0-120*				
(S) 2-Fluorophenol					*42.4*	*38.2*		*10.0-120*				
(S) 2,4,6-Tribromophenol					*72.5*	*71.0*		*10.0-155*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.
J3	The associated batch QC was outside the established quality control range for precision.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
P	RPD between the primary and confirmatory analysis exceeded 40%.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

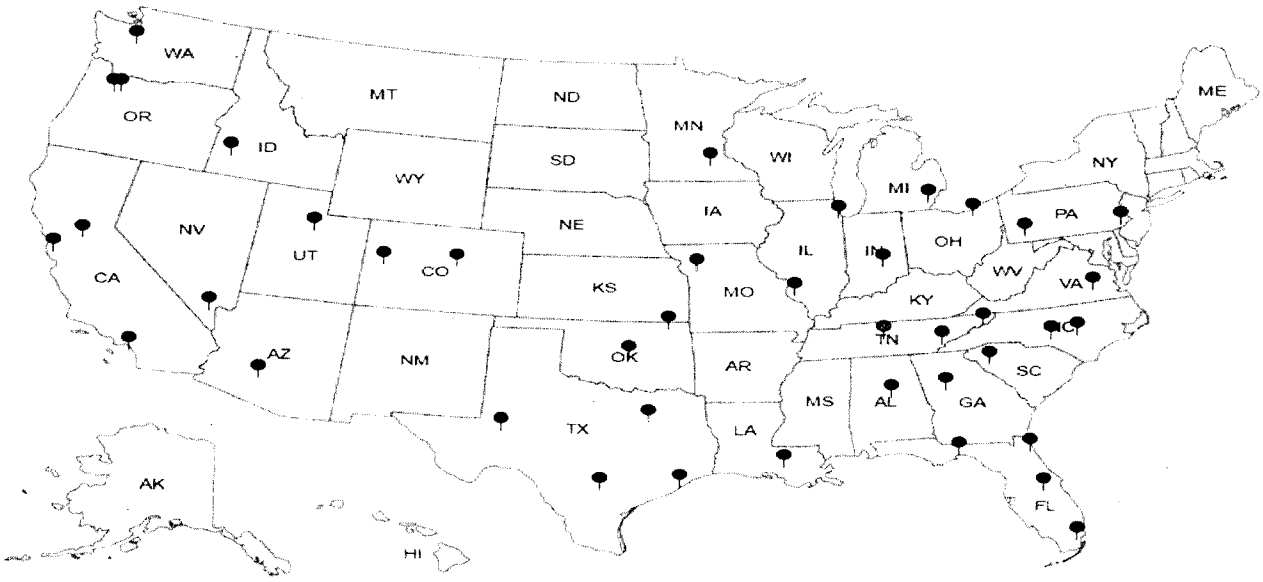
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



ENVIRONMENTAL RESTORATION LLC
1666 Fabick Drive
St. Louis, MO 63026

Billing Information: Acc'ts Payable
1666 Fabick Dr
St. Louis, Mo. 63026

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

Report to: PAUL PILGRIM

Email To: p.pilgrim@erllc.com

Project Description: L+R OIL, RUTH ST, Shelby, NC

City/State Collected: SHELBY, NC

Phone: 615-498-4223
Fax: 636-227-6447

Client Project #: L4-526

Lab Project #: ENVRESMO-PILGRIM

L# L1120080
H038

Collected by (print): P. Pilgrim

Site/Facility ID #: N/A

P.O. #: L4-526

Acctnum: ENVRESMO
Template: T152807
Prelogin: P719052
TSR: 134 Mark Beasley
PB: 7-9-19 AR
Shipped Via: FED-X STD

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day X Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	FULL TCLP K-CLP-NO PRES w/ ICE	Remarks	Sample # (lab only)
T-1 + T-2 COMP	COMP	WW	N/A	07/17/19	1045	1	X		-01
T-3	Grab	WW	N/A	07/17/19	1055	1	X		02
NOTHING FOLLOWS									

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: * 5 DAY TAT

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: __ UPS __ FedEx __ Courier CH 07/18/19

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP __Y __N
COC Signed/Accurate: Y __N
Bottles arrive intact: Y __N
Correct bottles used: Y __N
Sufficient volume sent: Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
Ice

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
Paul Pilgrim	07/18/19	1753			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 0.2-.1=0.1 °C Bottles Received: 2	If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) [signature]	Date: 7/18/19 Time: 1754	Hold: Condition: NCF / OK

Pressley, Miriam

From: Ken Braig <k.braig@erllc.com>
Sent: Tuesday, February 26, 2019 10:18 AM
To: Eichinger, Kevin
Subject: FW: [EXT]RE: Cycle Chem Quote for L4-526-06AR --T&D 72 drums (TT06 & TK02)
Attachments: US EPA Region 4 Profile.pdf; US EPA Region 4 Solids Profile.pdf

Kevin,
Some of our drums and totes didn't spec out to the 20,000 BTU value on the analytical, and 13 drums contained solids and will have to ho for incineration. Please review and sign the attached profiles for these drums and totes.

Thank You,

Ken Braig
Response Manager
Environmental Restoration, LLC
1666 Fabic Drive
Fenton, MO 63026
636-485-0537 (mobile)
k.braig@erllc.com

From: Anthony Campitella [mailto:acampitella@acvenviro.com]
Sent: Tuesday, February 26, 2019 6:15 AM
To: Amy Riggott <a.riggott@erllc.com>
Cc: Christina Strength <c.strength@erllc.com>; Mark Bicksler <m.bicksler@erllc.com>; Ken Braig <k.braig@erllc.com>
Subject: [EXT]RE: Cycle Chem Quote for L4-526-06AR --T&D 72 drums (TT06 & TK02)

*****CAUTION*** This email originates from a source outside the company. Please use caution when opening attachments, clicking on links, or following the senders request.**

I wanted to follow up and see if you have any questions? We want to get moving soon on these pieces. Thanks

BEST PEOPLE. BEST TEAM. GREAT SERVICE.
AnthonyCampitella/Customer Service Representative
550 Industrial Drive,Lewisberry,PA17339
t:717-938-4700e:acampitella@acvenviro.com

From: Anthony Campitella
Sent: Monday, February 25, 2019 10:42 AM
To: 'Amy Riggott'
Cc: Christina Strength; Mark Bicksler; Ken Braig
Subject: RE: Cycle Chem Quote for L4-526-06AR --T&D 72 drums (TT06 & TK02)

After reviewing the results, there was two issues discovered. One is my fault and an easy fix. I should have had on the profiles there was non TSCA PCBs on the liquid and solid profile. I attached 2 new profile, if you can get them signed and returned later today we take care of this issue.

The second is the material did not have enough BTUs as stated in the lab results on paged 55 of the bid. It was supposed to have close to 20,000 BTUs per lb but looking at the results, the material is mostly aqueous based, some drums didn't flash and little to no BTUS on this material. We cannot fuel blend these drums with GeoCycle and have to go to Ross for incineration. There will be a price increase per drum for this. Also 13 of the 65 drums were solid with PPE and Debris, we can send to Ross with the other solid drum. There will be a price increase for the 13 pieces too

(b) (4)

[redacted]

The other liquid drums (12 of them) speced out correctly. Please let me know if you have any questions and if we are oaky to proceed ahead on disposal on these. Thanks

From: Amy Riggott [mailto:a.riggott@erllc.com]
Sent: Tuesday, January 29, 2019 3:39 PM
To: Ted Piotrowski Jr; Todd Meyer, CHMM; Anthony Campitella
Cc: Christina Strength; Mark Bicksler; Ken Braig
Subject: Cycle Chem Quote for L4-526-06AR --T&D 72 drums (TT06 & TK02)

HI,

ER would like to award ACV the T&D of 0-72 drums (please see the attached bid).

Please send me a copy of Allstate Power Vac and ACV-Lewisberry's COI naming ERLLC and USEPA as additionally insured, including the waiver of subrogation.

I will also need completed profiles for generator review and signature.

Waste needs to be offsite before February 15th for all the waste we awarded you for this site. Please confirm that this is possible.

Thank you,
Amy

From: Ted Piotrowski Jr <tpiotrowski@acvenviro.com>
Sent: Tuesday, January 15, 2019 1:41 PM
To: RFQ <rfp@erllc.com>
Subject: [EXTERNAL]Cycle Chem Quote for L4-526-06AR

*****CAUTION*** This email originates from a source outside the company. Please use caution when opening attachments, clicking on links, or following the senders request.**

Attached is Cycle Chem, Inc.'s dba ACV Enviro CC quote for ER Reg 4 RFQ# L4-526-06AR

BEST PEOPLE. BEST TEAM. GREAT SERVICE.
TedPiotrowski Jr/Contracts Administrator
1500 Rahway Ave.,Avenel,NJ07001
t:732-375-9984c:7329047735e:tpiotrowski@acvenviro.com

Confidentiality Warning: This e-mail and any attachments contain information intended only for the use of the individual or entity named above. If the reader of this e-mail is not the intended recipient or the employee or agent responsible for delivering it to the intended recipient, any dissemination, publication or copying of this e-mail is strictly prohibited. Although this email has been scanned for malware, the sender does not accept any responsibility for any loss, disruption or damage to your data or computer system that may occur while using data contained in, or transmitted with, this e-mail. If you have received this e-mail in error, please immediately notify by return e-mail. Thank you.

Cycle Chem, Inc
217 South First Street
Elizabeth, NJ 07206
Phone: (908) 355-5800

550 Industrial Dr.
Lewisberry, PA 17339
Phone: (717) 938-4700
FAx: (717) 938-3301

ACV ENVIRO

Material Profile Sheet

ACCT #18226
PROFILE NUMBER: 60820
APPROVAL CODE: FM1

A. Generator Information

Generator Name US EPA REGION 4/ L&R OIL RECOVERY SITE
Mailing Address 61 FORSYTH ST SW ATLANTA, GA 30303
Site Address 501 RUTH ST SHELBY, NC 28150
Generator Contact Kevin Eichinger

Generator EPA ID NCR000169185
Phone # 678-897-3759 **Fax #**

Billing Company ENVIRONMENTAL RESTORATION, LLC. -LEWISBERRY
Billing Address 1666 FABICK DRIVE FENTON, MO 63026
Billing Contact R. PERKINS

Phone # 3609910117 **Fax #**

Name of Waste Tto6 Waste Oil
Process Generating Waste Site Clean Up

B. Physical Characteristics of Waste

Specific Gravity SP.GR. **pH** 5-9

% Sludge % **% Suspended Solids** % **% Solid/Debris** % **% Liquid** 100

Flash Point <70 **Dumpable** YES **Pumpable** YES **Pourable** YES

Odor None **Color** Brown

C. Shipping Information

Quantity
Container Spec: _

D. Transport Information

- [ ] CCI to Provide Transportation
- [ ] Customer to Deliver to CCI
- [ ] Customer to Deliver to end facility Via CCI

E. Chemical Composition

Description	(Range Total > or = 100%)	or ppm
Benzene	0 - 1	%
Lead	0 - 1	%
Non Tsca Pcbs	30 - 40	PPM
Waste Oil	90 - 100	%

F. Regulatory Information

EPA Hazardous Waste?: YES **USEPA Code(s):** D001; D008; D018

Applicable Subcategories:

State Regulated Waste?: NO **State Code(s):**

D.O.T. Hazardous Waste?: Yes **Proper Shipping Name:** RQ, UN1993, Waste Flammable liquids, n.o.s. (Lead, Benzene), 3 , II, D001, D018, D008

Hazard Class/Division #: 3 **UN / NA #:** UN1993 **Packing Group:** II **RQ:**

G. Other Hazardous Characteristics

- [ ] RCRA Reactive
- [ ] Radioactive
- [ ] Etiological
- [ ] TSCA Regulated
- [ ] Pyrophoric
- [ ] Water Reactive
- [ ] Subject to Subart FF Benzene
- [ ] Oxidizer
- [ ] Explosive
- [ ] PCB's
- [ ] Cyanides
- [ ] Phenolics
- [ ] Sulfides
- [ ] VOC's

- [x] Is this waste characteristically hazardous (EPA Waste Codes D004-D043)
- [ ] Does this waste contain underlying hazardous constituents as defined in 40 CFR 268(2)(I) at concentrations exceeding the UTS treatment standards? If yes , list in Section E

GENERATOR CERTIFICATION: I hereby certify that all information submitted in this and attached documents is complete, contains true and accurate descriptions and is representative of the waste material, and that all relevant information regarding known or suspected hazards in the possession of the generator has been disclosed. If CCI discovers, after having taken delivery of the waste, that any waste does not conform to the identification and description on this MPS then CCI shall provide notice of such condition to the generator and coordinate the return of the non-conforming waste to the point of origin as set forth on the manifest or to such other locations designated in writing by the generator. Generator agrees to reimburse CCI for all handling, packaging, clean-up and transportation costs or charges, damage to equipment, and costs associated with lost time incurred by CCI during the receipt, handling, temporary storage and return of such non-conforming waste to point of origin or to such other location designated by generator. I hereby authorize CCI to amend and/or correct any information on the MPS with the full understanding that if any amendment or correction is performed, I will be contacted as such to issue any approval.

AUTHORIZED SIGNATURE: _____ **TITLE:** _____ **DATE:** _____

ACV Approval: _____ Signature: _____ Date: _____ Form Code: _____
Printed Name

Cycle Chem, Inc
217 South First Street
Elizabeth, NJ 07206
Phone: (908) 355-5800

550 Industrial Dr.
Lewisberry, PA 17339
Phone: (717) 938-4700
FAx: (717) 938-3301

ACV ENVIRO

Material Profile Sheet

ACCT #18226
PROFILE NUMBER:60831
APPROVAL CODE: SSM

A. Generator Information

Generator Name US EPA REGION 4/ L&R OIL RECOVERY SITE
Mailing Address 61 FORSYTH ST SW ATLANTA, GA 30303
Site Address 501 RUTH ST SHELBY, NC 28150
Generator Contact Kevin Eichinger

Generator EPA ID NCR000169185

Phone # 678-897-3759 **Fax #**

Billing Company ENVIRONMENTAL RESTORATION, LLC. -LEWISBERRY
Billing Address 1666 FABICK DRIVE FENTON, MO 63026
Billing Contact R. PERKINS

Phone # 3609910117 **Fax #**

Name of Waste Tto6 Waste Oil Solids

Process Generating Waste Site Cleanup

B. Physical Characteristics of Waste

Specific Gravity SP.GR. **pH** 5-9

% Sludge % **% Suspended Solids** % **% Solid/Debris** 100 **% Liquid** %

Flash Point <70 **Dumpable** YES **Pumpable** NO **Pourable** NO

Odor None **Color** Varies

C. Shipping Information

Quantity
Container Spec: _

D. Transport Information

- [ ] CCI to Provide Transportation
- [ ] Customer to Deliver to CCI
- [ ] Customer to Deliver to end facility Via CCI

E. Chemical Composition

Description	(Range Total > or = 100%)	or ppm
Non Tsca Pcbs	30 - 40	PPM
Poly	40 - 60	%
Ppe	20 - 40	%
Tt06 Waste Oil	0 - 1	%
Wood Debris	5 - 10	%

F. Regulatory Information

EPA Hazardous Waste?: YES **USEPA Code(s):** D001; D008; D018

Applicable Subcategories:

State Regulated Waste?: NO **State Code(s):**

D.O.T. Hazardous Waste?: Yes **Proper Shipping Name:** RQ, UN3175, Waste Solids containing flammable liquid, n.o.s. (Lead, Benzene), 4.1 , II, D0

Hazard Class/Division #: 4.1 **UN / NA #:** UN3175 **Packing Group:** II **RQ:**

G. Other Hazardous Characteristics

- [ ] RCRA Reactive
- [ ] Radioactive
- [ ] Etiological
- [ ] TSCA Regulated
- [ ] Pyrophoric
- [ ] Water Reactive
- [ ] Subject to Subart FF Benzene
- [ ] Oxidizer
- [ ] Explosive
- [ ] PCB's
- [ ] Cyanides
- [ ] Phenolics
- [ ] Sulfides
- [ ] VOC's

- [x] **Is this waste characteristically hazardous (EPA Waste Codes D004-D043)**
- [ ] **Does this waste contain underlying hazardous constituents as defined in 40 CFR 268(2)(I) at concentrations exceeding the UTS treatment standards? If yes , list in Section E**

GENERATOR CERTIFICATION: I hereby certify that all information submitted in this and attached documents is complete, contains true and accurate descriptions and is representative of the waste material, and that all relevant information regarding known or suspected hazards in the possession of the generator has been disclosed. If CCI discovers, after having taken delivery of the waste, that any waste does not conform to the identification and description on this MPS then CCI shall provide notice of such condition to the generator and coordinate the return of the non-conforming waste to the point of origin as set forth on the manifest or to such other locations designated in writing by the generator. Generator agrees to reimburse CCI for all handling, packaging, clean-up and transportation costs or charges, damage to equipment, and costs associated with lost time incurred by CCI during the receipt, handling, temporary storage and return of such non-conforming waste to point of origin or to such other location designated by generator. I hereby authorize CCI to amend and/or correct any information on the MPS with the full understanding that if any amendment or correction is performed, I will be contacted as such to issue any approval.

AUTHORIZED SIGNATURE: _____ **TITLE:** _____ **DATE:** _____

ACV Approval: _____ Signature: _____ Date: _____ Form Code: _____
Printed Name

Pressley, Miriam

From: Ken Braig <k.braig@erllc.com>
Sent: Friday, April 5, 2019 10:12 AM
To: Eichinger, Kevin
Subject: FW: [EXT]RE: UST02
Attachments: ATT00001.txt; US EPARegion 4 LR oil recovery site geocycle profile 3519.doc

Kevin,
Could you resign the attached profile for UST02, we already have ship dates for this along with ship dates for UST01. Monday will be a mobe day, and we will be on site first thing Tuesday.

Ken Braig
Response Manager
Environmental Restoration, LLC
1666 Fabic Drive
Fenton, MO 63026
636-485-0537 (mobile)
k.braig@erllc.com

From: Anthony Campitella [mailto:acampitella@acvenviro.com]
Sent: Friday, April 05, 2019 9:00 AM
To: Ken Braig <k.braig@erllc.com>
Cc: Christina Strength <c.strength@erllc.com>; Amy Riggott <a.riggott@erllc.com>
Subject: RE: [EXT]RE: UST02

GeoCycle is now asking for the profile to be resigned, Can you get the client to sign again, please?

BEST PEOPLE. BEST TEAM. GREAT SERVICE.
AnthonyCampitella/Customer Service Representative
550 Industrial Drive,Lewisberry,PA17339
t:717-938-4700e:acampitella@acvenviro.com

From: Ken Braig [mailto:k.braig@erllc.com]
Sent: Thursday, April 04, 2019 1:56 PM
To: Anthony Campitella
Cc: Christina Strength; Amy Riggott
Subject: RE: [EXT]RE: UST02

Yes, that works fine. Remember to have your transporter bring an 1-1/2" stinger that is around 13' long to suck the tank out.

Ken Braig
Response Manager
Environmental Restoration, LLC

1666 Fabic Drive
Fenton, MO 63026
636-485-0537 (mobile)
k.braig@erllc.com

From: Anthony Campitella [mailto:acampitella@acvenviro.com]
Sent: Thursday, April 04, 2019 11:15 AM
To: Ken Braig <k.braig@erllc.com>
Cc: Christina Strength <c.strength@erllc.com>; Amy Riggott <a.riggott@erllc.com>
Subject: [EXT]RE: UST02

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I have dates!! Let me know if you work for you
4-15-19 @8AM
4-15-19 @10AM
4-16-19 @8AM
4-16-19 @10AM

BEST PEOPLE. BEST TEAM. GREAT SERVICE.
AnthonyCampitella/Customer Service Representative
550 Industrial Drive,Lewisberry,PA17339
t:717-938-4700e:acampitella@acvenviro.com

From: Ken Braig [mailto:k.braig@erllc.com]
Sent: Wednesday, April 03, 2019 2:01 PM
To: Anthony Campitella
Cc: Christina Strength; Amy Riggott
Subject: UST02

Anthony,
Have you heard anything about ship dates on UST02? We are planning to be on site next week for a building demo and load out.

Ken Braig
Response Manager
Environmental Restoration, LLC
1666 Fabic Drive
Fenton, MO 63026
636-485-0537 (mobile)
k.braig@erllc.com

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Material Profile Sheet

geocycle

A. GENERATOR INFORMATION

☐ **Check if Billing Information is same as Generator Information**

Generator Name	US EPA Region 4/ L&R Oil Recovery Site	Billing Company	STC Industrial
Facility Address (No P.O. Box)	61 Forsyth St, SW	Billing Address	2630 Hwy 15 South
City/State/Zip	Atlanta GA 30303	City/State/Zip	Sumter, SC
Technical Contact	Kevin Eichinger	Billing Contact	PAm Clingera
Phone	678-897-3759 Fax	Phone	803-506-8111 Fax

Generator Location (If different from Facility Address) 501 Ruth St Shelby NC 28150

NAICS Code: CESQG SQG * US EPA ID # NCR000169185 *State Generating ID #

B. SHIPPING INFORMATION

*US DOT Proper Shipping Name Waste Flammable Liquid, NOS

*Hazard Class / Division # 3 *ID # (UN / NA) 1993 *Packing Group (PG) II RQ ? ☒Yes ☐No If yes lbs:100

Non-Bulk Shipping Containers					Bulk Shipping Containers		
Size	Steel	Poly	Fiber	Quantity & Frequency	Container Type	Size,	Quantity, & Frequency
Gal					Yd.³ Box *or* Super Sack		
Gal					Hard Top *or* Tarped Bin		
Gal					End Dump (Tarped) Trailer		
Gal					Tank *or* Vacuum Trailer	5000	4 once

C. GENERAL MATERIAL & REGULATORY INFORMATION

Name of Waste Material: Bid item #1 UST02 Waste Oil

Process Generating The Material: Site cleanup

Odor: ☒None ☐Mild ☐Strong Describe odor:

Yes	No	Does this waste contain the following:	Yes	No	
☐	☒	Radioactive Waste	☐	☒	Concentrated Mineral Acid
☐	☒	Infectious or Biologically Active Waste	☐	☒	Electronic Waste
☐	☒	Explosives	☐	☒	Batteries
☐	☒	Asbestos	☐	☒	Pesticides/Herbicides
☐	☒	Unsorted Municipal Waste (household refuse, etc.)	☒	☐	CERCLA Regulated (Superfund) Waste
☐	☒	TSCA PCB waste **(List any PCB level in Sec.D)**	☐	☒	Regulated under RMP (Toxic Chemicals Section 112 (r)
☐	☒	Regulated Benzene NESHAP Waste	☐	☒	Exempt Waste; If Yes, list reference 40 CFR
☐	☐	Regulated Subpart CC Waste (VOs ≥ 500 ppm)	☐	☒	State Hazardous Waste Codes:
☐	☒	Regulated Ozone Depleting Substance	☒	☐	EPA Hazardous Waste
☐	☒	Does this waste contain, or is it derived from, dioxin-listed wastes with F020-F023, F026 or F027 waste codes?	EPA Waste Codes (including any LDR subcategories, e.g., D003 Water Reactive): D001 D008 D010 D018		

EPA Haz Waste Only Origin Code: 1☐ 2☐ 3☐ 4☐ 5☐ Source Code: **G** Form Code: **W** 203 System Code: **H**

Waste Minimization Code: A☐ B☐ C☐ D☐ N☐ X☐

D. MATERIAL COMPOSITION

1. Chemical/Physical Constituents: List all detectable components **by chemical name**, including physical materials (e.g., sorbent, debris, etc.)

Material Components & Materials	Typical	☐ wt % ☐ vol % Low High	Material Components & Materials	Typical	☐ wt % ☐ vol % Low High
Waste Oil Contianing , lead, benzne,	100				

Add attachment if necessary. **Range Total ≥ 100 %**

D. MATERIAL COMPOSITION *(Continued)*

1. Elemental Constituents ☐ **Check if this waste contains no detectable elements / metals, unless listed below.**

Check either; ☒ Total Analysis *or* ☐ TCLP Method *or* ☐ Generator Knowledge, and then enter data below.

Constituent	ppm	Constituent	ppm	Constituent	ppm	Constituent	ppm	Constituent	ppm
Aluminum		Cadmium		Fluorine		Nickel		Iron	
Antimony		Chlorine		Lead	22	Phosphorous		Sulfur	
Arsenic		Chromium	0.89	Lithium		Potassium		Thallium	
Barium	44	Cobalt		Manganese		Selenium	1	Titanium	
Beryllium		Copper		Mercury		Silicon		Vanadium	
Bromine		Iodine		Molybdenum		Silver	0.075	Zinc	

E. REACTIVE CHARACTERISTICS ☒ Check if this waste exhibits no reactive characteristics

	Yes	No		Yes	No		Yes	No	ppm (if Yes)
Explosive	☐	☐	Oxidizer	☐	☐	Reactive Cyanide	☐	☐	
Shock Sensitive	☐	☐	Water Reactive	☐	☐	Reactive Sulfide	☐	☐	
Pyrophoric	☐	☐	Air Reactive	☐	☐	Polymerizable	☐	☐	Inhibited? Yes:☐ No:☐

Other incompatibles or storage requirements:

F. MATERIAL PHYSICAL CHARACTERISTICS @ 70°F.

# of Phases: 1	Color: Black	Flash Point: <68°F (if < 73°F)	☐ Liquids >20% H_2O *or* ☐ Non-aqueous
Liquid %: 100	Specific Gravity:	73 - <100°F ☐ 100 - 141°F ☐	☐ ≤ 2 pH ☐ 2 - <4 pH ☒ 4 -10 pH
Sludge %:	Viscosity (cps):	142°F - <200°F ☐ >200°F ☐	☐ >10 - 12.5 pH ☐ ≥ 12.5 pH
Solid %:	Density:	Boiling Point (if < 130°F):	BTU's / lb. or Range:
Powder %:	☐ lbs/gal. ☐ lbs./ cu. ft.	Ash % :	
Gas %:	Comments:		

G. GENERATOR PROFILE CERTIFICATION

I hereby certify that I am an authorized agent of the generator, and warrant on behalf of the generator that the information supplied on this form and on any attachments or supplements hereto is complete and accurate, and that all known or suspected hazards of the material(s) described herein have been disclosed. I agree that if the sample test results indicate a discrepancy with any information supplied on this form, that either Geocycle or the generator may initiate further testing and evaluation in accordance with the terms and conditions of the contract between Geocycle and the generator and that this profile certification may be amended accordingly.

_____ _____ ____ / ____ / ____

Generator's Authorized Signature | Name & Title (Printed or Typed) | Date

Once completed, please mail each sample with its respective material profile form and chain of custody to:

Geocycle US
Attn: PRE-QUALIFICATION
2175 Gardner Blvd.
Holly Hill, SC 29059

Geocycle & Laboratory Use Only

PCS Code:

Sales Rep. Name: _____ Phone #: _____ Facility: _____

Pressley, Miriam

From: Mark Bicksler <m.bicksler@erllc.com>
Sent: Friday, January 18, 2019 2:38 PM
To: Eichinger, Kevin
Subject: Fw: [EXTERNAL]L&R Oil Increase

Kevin,

See below

Thanks,

Mark Bicksler

From: Johnson, Dora Ann <Johnson.Dora@epa.gov>
Sent: Friday, January 18, 2019 9:30 AM
To: Mark Bicksler
Subject: RE: [EXTERNAL]L&R Oil Increase

Appreciate the update on the numbers.
In about 20 or so minutes, I will be sending out another data dump report need.
Please stand by.
Thanks again.

Dora Ann Johnson
Contracts Team/ Senior Project Officer
US EPA, Region IV
SD/RSIB/RMS
Phone: 404-562-8737
Cell: 404-754-6339
Email: Johnson.Dora@epa.gov

-----Original Message-----
From: Mark Bicksler <m.bicksler@erllc.com>
Sent: Friday, January 18, 2019 10:28 AM
To: Johnson, Dora Ann <Johnson.Dora@epa.gov>
Subject: Re: [EXTERNAL]L&R Oil Increase

Dora Ann,

Ceiling 345,000

Ceiling remaining 175,000

Remaining T&D to occur that is not in pending

72 drums-(b) (4)
UST's 44,000 gallons-(b) (4)
Initial RFQ waste that has not shipped yet- 28,000 Non-haz soils- (b) (4)

Total T&D cost remaining-(b) (4)

So (b) (4)

Burn rate for personnel-(b) (4)daily

(b) (4) daily= about 24 days on site which should be plenty, I'm thinking more like two weeks on site unless additional work from above is required. It will be close but think it can be done for the existing ceiling amount.

Thanks,

Mark Bicksler

Sent from my iPhone

> On Jan 17, 2019, at 12:44 PM, Johnson, Dora Ann <Johnson.Dora@epa.gov> wrote:
>
> Thank you.
>
> Sent from my iPhone
>
>> On Jan 17, 2019, at 12:31 PM, Mark Bicksler <m.bicksler@erllc.com> wrote:
>>
>> Yes
>>
>> Sent from my iPhone
>>
>> On Jan 17, 2019, at 12:27 PM, Johnson, Dora Ann <Johnson.Dora@epa.gov<mailto:Johnson.Dora@epa.gov>> wrote:
>>
>> Great.
>> Now that you can use the $345K number for the 1900-55 then we are at the $170K in the current IOL.
>> I understand that you do not have numbers yet for the RFQ's and the roll-offs from HEPACO due to final invoicing not received.
>> Am I to understand that the invoicing for the roll-offs from HEPACO and the RFQ's may be in this week some time or next week? And then we can get a better number as to where you will be if we are able to return to work. Correct?
>>
>>
>> <image001.png>
>> Dora Ann Johnson
>> Contracts Team/ Senior Project Officer US EPA, Region IV SD/RSIB/RMS
>> Phone: 404-562-8737
>> Cell: 404-754-6339
>> Email: Johnson.Dora@epa.gov<mailto:Johnson.Dora@epa.gov>
>>
>>
>>

>> From: Mark Bicksler
>> <m.bicksler@erllc.com<mailto:m.bicksler@erllc.com>>
>> Sent: Thursday, January 17, 2019 12:24 PM
>> To: Johnson, Dora Ann
>> <Johnson.Dora@epa.gov<mailto:Johnson.Dora@epa.gov>>
>> Cc: Krieger, Geoffrey
>> <krieger.geoffrey@epa.gov<mailto:krieger.geoffrey@epa.gov>>
>> Subject: RE: [EXTERNAL]L&R Oil Increase
>>
>> Dora Ann,
>>
>> Sorry we are at 170K of the 345K
>>
>> Mark Bicksler, CHMM
>> Program Manager
>> Environmental Restoration, LLC.
>> 627 Court Street
>> Binghamton, NY
>> 607-729-2270 office
>> 607-729-2280 fax
>> 607-658-6204 mobile
>> www.erllc.com<http://www.erllc.com/>
>>
>> From: Johnson, Dora Ann [mailto:Johnson.Dora@epa.gov]
>> Sent: Thursday, January 17, 2019 12:15 PM
>> To: Mark Bicksler <m.bicksler@erllc.com<mailto:m.bicksler@erllc.com>>
>> Cc: Krieger, Geoffrey
>> <krieger.geoffrey@epa.gov<mailto:krieger.geoffrey@epa.gov>>
>> Subject: RE: [EXTERNAL]L&R Oil Increase
>>
>> That would be correct. After the shutdown, all processing stopped and we have to give verbals and wait for the final paperwork to make its way after we are opened back up.
>>
>>
>> <image001.png>
>> Dora Ann Johnson
>> Contracts Team/ Senior Project Officer US EPA, Region IV SD/RSIB/RMS
>> Phone: 404-562-8737
>> Cell: 404-754-6339
>> Email: Johnson.Dora@epa.gov<mailto:Johnson.Dora@epa.gov>
>>
>>
>>
>> From: Mark Bicksler
>> <m.bicksler@erllc.com<mailto:m.bicksler@erllc.com>>
>> Sent: Thursday, January 17, 2019 12:11 PM
>> To: Johnson, Dora Ann
>> <Johnson.Dora@epa.gov<mailto:Johnson.Dora@epa.gov>>
>> Subject: FW: [EXTERNAL]L&R Oil Increase
>>
>> This was the last email from Geoff, nothing further from him on this.
>> Let me check others

>>
>> Mark Bicksler, CHMM
>> Program Manager
>> Environmental Restoration, LLC
>> 627 Court Street
>> Binghamton, NY
>> 607-729-2270 office
>> 607-729-2280 fax
>> 607-658-6204 mobile
>> www.erllc.com<http://www.erl c.com/>
>>
>> From: Krieger, Geoffrey [mailto:krieger.geoffrey@epa.gov]
>> Sent: Thursday, January 03, 2019 10:07 AM
>> To: Mark Bicksler <m.bicksler@erllc.com<mailto:m.bicksler@erllc.com>>
>> Cc: Eichinger, Kevin
>> <Eichinger.Kevin@epa.gov<mailto:Eichinger.Kevin@epa.gov>>
>> Subject: [EXTERNAL]L&R Oil Increase
>>
>>
>> ***CAUTION*** This email originates from a source outside the company. Please use caution when opening attachments, clicking on links, or following the senders request.
>> Hi Mark,
>> I wanted to let you know there is a modification in process to L&R to add $200,000.00, raising the ceiling to $345,000.00. As soon as I'm able to release the mod I'll send it out to you.
>>
>> Geoffrey Krieger
>> Contracting Officer
>> US EPA Region 4
>> Atlanta, GA 30303-8960
>> Office: (404) 562-8058
>>
>> *** The U.S. EPA has implemented a policy where documents will be
>> shared electronically through a system called FedConnect. This
>> includes future opportunities for purchasing and contracting with the
>> EPA, and sharing documents (including new awards, task orders and
>> modifications). EPA policy now requires any company that wishes to do
>> business with the EPA to register in the FedConnect system.
>> Registration is free and only takes a few minutes. Please register at
>> https://www.fedconnect.net/FedConnect/Default.htm
>>
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>> AND/OR SOURCE SELECTION INFORMATION. USE OF THE INFORMATION AND
>> ATTACHMENTS IS RESTRICTED IN ACCORDANCE WITH FAR 3.104-4***
>>
>>
>>
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transmitted with, this e-mail. If you have received this e-mail in error, please immediately notify by return e-mail. Thank you.

Pressley, Miriam

From: Eichinger, Kevin
Sent: Friday, December 28, 2018 2:50 PM
To: bates.lloyd@epa.gov; Johnson, Dora Ann
Subject: FW: [EXTERNAL]L&R Oil Waste Disposal

Looks like ER has not received the additional funding yet. Still tied up in an EAS Mailbox?

From: Ken Braig <k.braig@erllc.com>
Sent: Friday, December 28, 2018 2:45 PM
To: Eichinger, Kevin <Eichinger.Kevin@epa.gov>
Subject: RE: [EXTERNAL]L&R Oil Waste Disposal

Kevin,
Attached is a revised profile for the soil, it contains the pyridine result and a revised description of how the waste was generated. If it looks ok please sign with an inked signature and I will forward it on. Also, I know we were told the additional funding was approved in an email, but we have not yet been issued the additional funding, maybe the partial shutdown is causing this.

Ken Braig
Response Manager
Environmental Restoration, LLC
1666 Fabic Drive
Fenton, MO 63026
636-485-0537 (mobile)
k.braig@erllc.com

From: Eichinger, Kevin [mailto:Eichinger.Kevin@epa.gov]
Sent: Thursday, December 27, 2018 12:09 PM
To: Ken Braig <k.braig@erllc.com>
Subject: [EXTERNAL]L&R Oil Waste Disposal

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Ken,

Can you schedule disposal of all of the remaining waste during the week of January 14?

Thanks,
Kevin

Kevin Eichinger, CHMM - On-Scene Coordinator and Industrial Hygienist

U.S. Environmental Protection Agency, Region 4 | 61 Forsyth St SW | Atlanta, Georgia | 30303
Emergency Response, Removal and Prevention Branch (ERRB)
office: **404-562-8268** | cell: **678-897-3759** | **response.epa.gov**

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Pressley, Miriam

From: Johnson, Dora Ann
Sent: Friday, December 28, 2018 3:48 PM
To: Eichinger, Kevin
Subject: FW: [EXTERNAL]RE: Region 4 Sites

FYI. See below.
EAS and CO travel or leave delays.
- Dora Ann

From: Richardson, Samuel
Sent: Friday, December 28, 2018 12:27 PM
To: Johnson, Dora Ann <Johnson.Dora@epa.gov>
Subject: RE: [EXTERNAL]RE: Region 4 Sites

Hello Dora Ann,

I will process PR-R4-19-00107 Brigham Farms $25,165 today. Mayya will forward to me and I will release. It seems like Geoffrey is the CO. Geoffrey will return back in the office on December 31.

Thanks,
Samuel

From: Johnson, Dora Ann
Sent: Friday, December 28, 2018 11:34 AM
To: Richardson, Samuel <Richardson.Samuel@epa.gov>
Subject: FW: [EXTERNAL]RE: Region 4 Sites

Sam,
Can you answer these below?
Dora Ann

From: Johnson, Dora Ann
Sent: Friday, December 28, 2018 10:54 AM
To: Pigram, Michael <pigram.michael@epa.gov>
Cc: Krieger, Geoffrey <krieger.geoffrey@epa.gov>; 'Mark Bicksler' <m.bicksler@erllc.com>
Subject: RE: [EXTERNAL]RE: Region 4 Sites

Michael,
Morning and hope you had a great holiday.

Can you check on the status of these PR's? They have been released to your contract's shop on the dates shown below:

PR-R4-19-00090 L&R Oil Increase $200K 12/13/2018 with CO
PR-R4-19-00093 Welch Belton $350K 12/20/2018 with CO
PR-R4-19-00108 Oak Street Mercury Chattanooga $6K 12/24/2018 with CO
PR-R4-19-00107 Brigham Farms $25,165 12/20/2018 with CO
The contractor has not seen the modifications adding these funds as of this morning.

Thank you.

Dora Ann Johnson
Contracts Team/ Senior Project Officer
US EPA, Region IV
SD/RSIB/RMS
Phone: 404-562-8737
Cell: 404-754-6339
Email: Johnson.Dora@epa.gov

From: Mark Bicksler <m.bicksler@erllc.com>
Sent: Friday, December 28, 2018 10:18 AM
To: Johnson, Dora Ann <Johnson.Dora@epa.gov>; Krieger, Geoffrey <krieger.geoffrey@epa.gov>
Subject: RE: [EXTERNAL]RE: Region 4 Sites

Thanks Dora Ann, I still have not seen the increase for L&R Oil, I've heard there was a 350k increase to Welch Belton however have not seen that? Additionally, Brigham Farms will run out of funds perhaps middle of January.

Thanks again,

MARK BICKSLER, CHMM
PROGRAM MANAGER
ENVIRONMENTAL RESTORATION, LLC.
627 Court Street
Binghamton, NY
607-729-2270 office
607-729-2280 fax
607-658-6204 mobile
www.erllc.com

Pressley, Miriam

From: Ken Braig <k.braig@erllc.com>
Sent: Friday, February 1, 2019 3:14 PM
To: Eichinger, Kevin
Subject: FW: [EXTERNAL]Waste Oil Stericycle Profile
Attachments: ATT00001.txt; Waste Oil Stericycle Profile Completed.pdf

Another profile or review and signature

Ken Braig
Response Manager
Environmental Restoration, LLC
1666 Fabic Drive
Fenton, MO 63026
636-485-0537 (mobile)
k.braig@erllc.com

From: Paula Monske [mailto:pmonske@awmsi.com]
Sent: Friday, February 01, 2019 2:11 PM
To: Ken Braig <k.braig@erllc.com>; Amy Riggott <a.riggott@erllc.com>
Cc: Mark Bicksler <m.bicksler@erllc.com>; Christina Strength <c.strength@erllc.com>; JOHN ZWAHL(JZWAHL@AWMSI.COM) <JZWAHL@AWMSI.COM>
Subject: [EXTERNAL]Waste Oil Stericycle Profile

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Ken and Amy,

Please review the attached profile, have the generator sign and e-mail back to me.

The material will deliver to:

Stericycle/Allworth LLC
500 Medco Road
Birmingham, AL 35217
EPA ID: ALD094476793

Paula Monske
American Waste Management Services, Inc.
One American Way
Warren, OH 44484
Phone: (330)856-8860
Mobile: (330)507-1823

Fax: (330)856-8484

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Stericycle
Environmental Solutions

GENERATOR'S WASTE MATERIAL PROFILE WORKSHEET

Customer Service Representative:
Account Representative:

Requested PSC Code
Profile Number:
Order Number

A: GENERATOR INFORMATION

1. US EPA ID No: NCR000169185
NAICS Code:
2. State ID No:

3 Name: US EPA Reg 4/L&R Oil Recovery Site
4 Site Address: 501 Ruth Street
City: Shelby State: NC Zip: 28150
5 Contact: Kevin Eichinger 6 Title: 7 Phone: (678)897-3759
8 Consultant (if any): 9 Company: 10 Fax:
11 Form Code: 12 Source Code: 13 Origin Code: Phone:

B: MAIL INVOICES TO:

1 ☐ Generating Facility at above address:
2 Company Name: American Waste Management Services, Inc. 3 Phone: (330)856-8860
4 Address: One American Way
City: Warren State: Ohio Zip: 44484
5 Attention: Invoicing Fax:

C: WASTE INFORMATION:

1 Name of Waste: Waste Oil
2 Process generating Waste (be specific): Clean up of abandoned oil recovery site
3 Is this waste an unused commercial product? Yes ☐ No ☑ Is this waste a spill residue? Yes ☐ No ☑
4 Generator has provided the following: ☑ Waste Analysis ☐ Sample ☐ MSDS ☐ Other

D PHYSICAL CHARACTERISTICS OF WASTE

Check all that apply:

1 Color:	2 Physical State @ 70° F:	3 Layers:	4 Specific Gravity:	5 Free Liquids:
Black	☐ Solid ☐ Semi-Solid ☐ Powder ☑ Liquid ☐ Monolithic Solid ☐ Compressed gas/aerosol	☐ Multi-layered ☑ Bi-Layered ☐ Single Phased	☐ < 0.8 ☐ 1.1 - 1.2 ☐ 0.8 - 1.0 ☐ 1.3 -1.4 Exact/Other:	☐ No ☑ Yes 100%

6 Strong Odor: ☐ Yes ☑ No % Ash: % Halogens: BTU/lbs range: Viscosity: ☐ L ☐ M ☐
Pumpable: ☑ Yes ☐ No
7 pH: ☐ N/A ☐ ≤2 ☐ >2 -4 ☐ 4 - 6 ☑ 6 - 8 ☐ 8 - 10 ☐ 10-<12.5 ☐ ≥12.5 ☐ Range:
8 Liquid Flash Point: ☑ <73° F ☐ 73-100° F ☐ 101-141° F ☐ 142-200°F ☐ >200°F ☐ None ☐ Closed Cup ☐ Open Cup

E TOTAL COMPOSITION OF WASTE (all hazardous & non-hazardous):

1 Include Sludge and water as constituents.

	RANGE Min	-	Max
Water	< 0	-	10
Oil	90	-	100
		-	
		-	
		-	
		-	
		-	

PLEASE NOTE: The TOTAL compositon must be greater than or equal to 100%:

TOTAL: 110 %

2 Indicate if this waste contains any of the following:

Not Present:		☑ Lab Analysis Attached:		☐ Generator Knowledge:	
☐ PCB	ppm	☐ Dioxin	ppm	☐ Pesticides	ppm
☐ Cyanides: Amenable	ppm	☐ Benzene	ppm	☐ Ammonia	ppm
☐ Cyanides: Total	ppm	☐ Herbicides	ppm		
☐ Phenolics	ppm	☐ TOC	ppm		

☐ Sulfides _____ ppm ☐ VOC _____ ppm Waste is subject to Subpart CC: ☐ Yes ☐

F METALS: Indicate of this waste contains any of the following metals, and which test method was used :

☐ TCLP:		☐ TOTAL :		☐ Generator Knowledge :
Arsenic (As)	D004	☐	< 5 ppm _____ ppm	
Barium (Ba)	D005	☐	< 100ppm _____ ppm	
Cadmium (Cd)	D006	☐	< 1ppm _____ ppm	
Chromium (Cr)	D007	☐	< 5ppm _____ ppm	
Lead (Pb)	D008	☑	< 5ppm 66 ppm	
Mercury (Hg)	D009	☐	< 0.2ppm _____ ppm	
Selenium (Se)	D010	☐	< 1ppm _____ ppm	
Silver (Ag)	D011	☐	< 5ppm _____ ppm	
Zinc (Zn)		☐	_____ ppm	
Copper (Cu)		☐	_____ ppm	
Hexavalent Chrome		☐	_____ ppm	
Antimony (Sb)		☐	_____ ppm	
Beryllium (Be)		☐	_____ ppm	
Nickel (Ni)		☐	_____ ppm	
Thallium ((Ti)		☐	_____ ppm	

G Is this waste any of the following :

☐ Ignitable Solid ☐ Water Reactive ☐ Reactive (other)
☐ Oxidizer ☐ Shock Sensitive ☐ Asbestos

☐ Cyanide Reactive ☐ Radioactive ☐ Infectious ☐ Explosive ☐ CERCLA
☐ Medical ☐ Sulfide Reactive ☐ Regulated Organics ☑ None Apply ☐ Debris

H USEPA / STATE / GENERATOR STATE WASTE IDENTIFICATION:

1 Hazardous Waste : ☑ Yes ☐ No 2 NESHAPS generator?: ☐ Yes ☑ No CESQG ☐ Yes ☐
3 PCB Regulated by TSCA? ☐ Yes ☑ No 4 State Codes: _____
5 List ALL applicable RCRA wste codes: D001 D008 D018
6 List all applicable State waste codes : _____

A. Universal waste? ☐ Yes ☑ No

I ORGANICS

Results based on Generator Knowledge : ☐ Yes ☑ No Analysis : ☑ Yes ☐ No

Results expressed in TCLP (mg/l) Total (mg/kg) :

Endrin	< 0.02		1,2-Dichloroethane	< 0.8	
Lindane	< 0.4		1,1 Dichloroethylene	< 0.7	
Methoxychlor	<10.0		2,4 Dinitrotoluene	< 0.13	
Toxaphene	< 0.5		Heptachlor	< 0.008	
2,4-D	< 10.0		Hexachlorobenzene	<0.13	
Silvex (2,4,5-TP)	< 1.0		Hexachlorobutadiene	< 0.5	
Benzene	< 0.5	51	Hexachloroethane	< 3.0	
Carbon Tetrachloride	< 0.5		Methyl Ethyl Ketone	< 200	
Chlordane	< 0.03		Nitrobenzene	< 2.0	
Chlorobenzene	< 100		Pentachlorophenol	< 100	
Chloroform	< 6.0		Pyridine	< 5.0	
O-Cresol	< 200		Tetrachloroethylene	< 0.7	
M-Cresol	< 200		Trichloroethylene	< 0.5	
P-Cresol	< 200		2,4,5 Trichlorophenol	< 400	
Cresol	< 200		2,4,6 Trichlorophenol	< 2.0	
1,4 Dichlorobenzene	< 7.5		Vinyl Chloride	< 0.2	

GENERATOR KNOWLEDGE:

J IDENTIFY ALL UHC's IN THIS WASTE STREAM :

K SHIPPING INFORMATION :

1 Is this a DOT Hazardous Material? ☑ Yes ☐ No

2 Reportable Quantity (RQ) in pounds: 1

3 Method of Shipment: ☑ Bulk Liquid ☐ Bulk Solid ☐ Container (type/size): 275 Gallon tote

4 Number of Units to Ship Now: 2

5 ☐ Anticipated Volume/Units per Year: _____ OR 6 ☑ One Time

US DOT DESCRIPTION: USE THE FULL BASIC DESCRIPTION ON THE HAZARDOUS WASTE MANIFEST:

7 PROPER SHIPPING NAME : Hazardous Waste liquid, n.o.s (Benzene, Lead)

(if generic "n.o.s.", indcate the two predominant constituents in parenthesis)

8 HAZARD CLASS 9 9 DOT ID NUMBER NA3082 10 PACKING GROUP NUMBER III 11 ADDITIONAL INFORMATION

L SPECIAL HANDLING INFORMATION:

Prepared by

Signature: _____ Title: _____ Date: _____

Pressley, Miriam

From: Art Slayton <a.slayton@erllc.com>
Sent: Friday, September 28, 2018 3:17 PM
To: Eichinger, Kevin
Subject: Fw: 4-LROR; Draft
Attachments: 4-LROR 1900-55 9-23-18 Draft.pdf

got lost in emails. Dont have task order yet so cant finalize

Art Slayton
Response Manager
Environmental Restoration, LLC.
6940 Commercial Dr.
Morrow, GA, 30260
F: 636-680-2551<tel:636-680-2551>
M: 912-656-7222<tel:912-656-7222>

------ Original message------
From: Christina Strength
Date: Tue, Sep 25, 2018 12:09 PM
To: Art Slayton;
Cc:
Subject:4-LROR; Draft

Hi Art,

Please see attached. Let me know if you need any changes before sending to the OSC. This puts us through Sunday 9/23.

We don't have the official TO yet, so I can't finalize yet.

Thank you,

Christina Strength
Field Cost Accountant
Environmental Restoration
Cell: 407-557-4086
Fax: 636-680-2584
c.strength@erllc.com

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EPA STANDARD FORM 1900-55
Personnel Report

US ENVIRONMENTAL PROTECTION AGENCY
HAZARDOUS SUBSTANCE RESPONSE FUND CONTRACTOR RECEIVING REPORT

Date: 09/23/2018

Site: EPS41503 L and R Oil Recovery Site #:C466
Contractor: ERLLC, Ref# 4-LROR

** DRAFT **

Delivery Order #: TBD
Contract #: EP-S4-15-03

EMPLOYEE	EMPLOYEE ID	WORK CLASSIFICATION	RCMS #	DAILY HOURS REG	DAILY HOURS OT	RATES REG	RATES OT	LABOR COST	G&A COST	PERSONNEL COST	Cmt	REF #
				ADJUSTMENTS								
ERLLC:												
09/22/18:												
Figeroa, Xavier	(b) (6)	Laborer	S2-15-01	0.0	5.0	(b) (4)					N	21
Myers, Marcus		Laborer	S2-15-01	0.0	5.0						N	17
Pellegrino, Louis		Equipment Operator	S2-05-01	0.0	5.0						N	13
Slayton, Art		Project Manager	S1-30-02	0.0	4.5						N	9
Strength, Christina		Field Clerk/Typist	S2-10-01	2.0	0.0						N	26
Taylor, Fred		Laborer	S2-15-01	0.0	5.0						N	4
09/21/18:												
Figeroa, Xavier		Laborer	S2-15-01	4.0	7.0						N	20
Myers, Marcus		Laborer	S2-15-01	4.0	7.0						N	16
Pellegrino, Louis		Equipment Operator	S2-05-01	4.0	7.0						N	12
Slayton, Art		Project Manager	S1-30-02	4.0	7.0						N	8
Strength, Christina		Field Clerk/Typist	S2-10-01	3.0	0.0						N	25
Taylor, Fred		Laborer	S2-15-01	4.0	7.0						N	3
09/20/18:												
Figeroa, Xavier		Laborer	S2-15-01	11.0	0.0						N	19
Myers, Marcus		Laborer	S2-15-01	11.0	0.0						N	15
Pellegrino, Louis		Equipment Operator	S2-05-01	11.0	0.0						N	11
Slayton, Art		Project Manager	S1-30-02	11.0	0.0						N	7
Strength, Christina		Field Clerk/Typist	S2-10-01	2.0	0.0						N	24
Taylor, Fred		Laborer	S2-15-01	11.0	0.0						N	2
09/19/18:												
Figeroa, Xavier		Laborer	S2-15-01	7.5	0.0						N	18
Myers, Marcus		Laborer	S2-15-01	7.5	0.0						N	14
Pellegrino, Louis		Equipment Operator	S2-05-01	7.5	0.0						N	10
Slayton, Art		Project Manager	S1-30-02	7.5	0.0						N	6
Strength, Christina		Field Clerk/Typist	S2-10-01	7.0	0.0						N	23
Taylor, Fred		Laborer	S2-15-01	7.5	0.0						N	1
09/18/18:												
Slayton, Art		Project Manager	S1-30-02	3.0	0.0						N	5
Strength, Christina		Field Clerk/Typist	S2-10-01	2.0	0.0						N	22
TOTAL PERSONNEL COST FOR TODAY:								$10,267.13	$0.00	$10,267.13		
TOTAL PERSONNEL COST TO DATE:										$10,267.13		

EPA STANDARD FORM 1900-55 Equipment Report	US ENVIRONMENTAL PROTECTION AGENCY HAZARDOUS SUBSTANCE RESPONSE FUND CONTRACTOR RECEIVING REPORT	Page: 2 Date: 09/23/2018

Site: EPS41503 L and R Oil Recovery Site #:C466
Contractor: ERLLC, Ref# 4-LROR

** DRAFT **

Delivery Order #: TBD
Contract #: EP-S4-15-03

EQUIPMENT ITEM	EQUIP ID	RCMS#	SERVICE DATE	HRS	DAILY RATE	RATE TYPE	RATE %	G&A COSTS	TODAY'S COSTS	TOTAL TO DATE	Cmt	REF #
					RENTALS							
ERLLC:												
Storage/Box-=>40 ft.	PAC001	02-160-040	09/23/18	8.0	$0.00	Rent	0.00%	$0.00	$0.00	$0.00	N	24
Storage/Box-=>40 ft.	PAC002	02-160-040	09/23/18	8.0	$0.00	Rent	0.00%	$0.00	$0.00	$0.00	N	25
					ADJUSTMENTS							
ERLLC:					(b) (4) [redacted]				(b) (4) [redacted]			
Pickup-1/2 ton	1336-93	01-230-050	09/22/18	8.0		Reg	100.00%	$0.00			N	8
Pickup-1/2 ton	1730-104	01-230-050	09/22/18	8.0		Reg	100.00%	$0.00			N	12
Stake/Flatbed/Liftga-12 < 16 ft	1747-73	01-285-012	09/22/18	8.0		Reg	100.00%	$0.00			N	16
Lowboy/Eqp-6 <10 tons	0815-34	02-140-006	09/22/18	8.0		Reg	100.00%	$0.00			N	20
Pickup-1/2 ton	1336-93	01-230-050	09/21/18	8.0		Reg	100.00%	$0.00			N	7
Pickup-1/2 ton	1730-104	01-230-050	09/21/18	8.0		Reg	100.00%	$0.00			N	11
Stake/Flatbed/Liftga-12 < 16 ft	1747-73	01-285-012	09/21/18	8.0		Reg	100.00%	$0.00			N	15
Lowboy/Eqp-6 <10 tons	0815-34	02-140-006	09/21/18	8.0		Reg	100.00%	$0.00			N	19
Generator-5 < 10KW	0703-43	07-300-005	09/21/18	8.0		Reg	100.00%	$0.00			N	4
Pickup-1/2 ton	1336-93	01-230-050	09/20/18	8.0		Reg	100.00%	$0.00			N	6
Pickup-1/2 ton	1730-104	01-230-050	09/20/18	8.0		Reg	100.00%	$0.00			N	10
Stake/Flatbed/Liftga-12 < 16 ft	1747-73	01-285-012	09/20/18	8.0		Reg	100.00%	$0.00			N	14
Lowboy/Eqp-6 <10 tons	0815-34	02-140-006	09/20/18	8.0		Reg	100.00%	$0.00			N	18
Generator-5 < 10KW	0703-43	07-300-005	09/20/18	8.0		Reg	100.00%	$0.00			N	1
Pickup-1/2 ton	1336-93	01-230-050	09/19/18	8.0		Reg	100.00%	$0.00			N	5
Pickup-1/2 ton	1730-104	01-230-050	09/19/18	8.0		Reg	100.00%	$0.00			N	9
Stake/Flatbed/Liftga-12 < 16 ft	1747-73	01-285-012	09/19/18	8.0		Reg	100.00%	$0.00			N	13
Lowboy/Eqp-6 <10 tons	0815-34	02-140-006	09/19/18	8.0		Reg	100.00%	$0.00			N	17
Storage/Box-=>40 ft.	PAC001	02-160-040	09/22/18	8.0		Rent	0.00%	$0.00			N	23
Storage/Box-=>40 ft.	PAC002	02-160-040	09/22/18	8.0		Rent	0.00%	$0.00			N	27
Storage/Box-=>40 ft.	PAC001	02-160-040	09/21/18	8.0		Rent	0.00%	$0.00			N	22
Storage/Box-=>40 ft.	PAC002	02-160-040	09/21/18	8.0		Rent	0.00%	$0.00			N	26
Skid Steer-Loaders<6K	HER1450	03-250-001	09/21/18	8.0		Rent	0.00%	$0.00			N	3
Storage/Box-=>40 ft.	PAC001	02-160-040	09/20/18	8.0		Rent	0.00%	$0.00			N	21
Storage/Box-=>40 ft.	PAC002	02-160-040	09/20/18	8.0		Rent	0.00%	$0.00			N	28
Skid Steer-Loaders<6K	HER1450	03-250-001	09/20/18	8.0		Rent	0.00%	$0.00			N	2
TOTAL EQUIPMENT COST FOR TODAY:								$0.00	$880.66			
TOTAL EQUIPMENT COST TO DATE:										$880.66		

EPA STANDARD FORM 1900-55
Other Field Costs

US ENVIRONMENTAL PROTECTION AGENCY
HAZARDOUS SUBSTANCE RESPONSE FUND CONTRACTOR RECEIVING REPORT

Date: 09/23/2018

Site: EPS41503 L and R Oil Recovery Site #:C466
Contractor: ERLLC, Ref# 4-LROR

** DRAFT **

Delivery Order #: TBD
Contract #: EP-S4-15-03

ITEM DESCRIPTION	SERVICE DATE	COST STATUS	COST TYPE	VENDOR	INVOICE #	QTY	UNITS	COST	G&A COST	TOTAL COST	Cmt	REF #
ERLLC:												
PD-Figueroa, X	09/23/18	Final	PerDiem	PD-Figueroa,	XF092318 PD	4	days	(b) (4) [redacted]			Y	5
PD-Myers	09/23/18	Final	PerDiem	PD-Myers, M	MM092318PD	4	days				Y	4
PD-Pellegrino	09/23/18	Final	PerDiem	PD-Pellegrino	LP092318 PD	4	days				Y	2
PD-Slayton	09/23/18	Final	PerDiem	PD-Slayton, A	AS092318 PD	4	days				Y	1
PD-Taylor	09/23/18	Final	PerDiem	PD-Taylor, F 4	FT092318 PD	4	days				Y	3
Fuel-1747-73	09/22/18	Final	Fuel	EFS	468751	35.4	gal				Y	8
Kwik Mart-Fuel	09/22/18	Final	Fuel	Visa-Slayton,	54	1	LS				Y	6
LD-Figueroa	09/22/18	Final	Lodging	Visa-Slayton,	160644	3	days				Y	12
LD-Myers	09/22/18	Final	Lodging	Visa-Slayton,	160642	3	days				Y	11
LD-Pellegrino	09/22/18	Final	Lodging	Visa-Slayton,	160643	3	days				Y	13
LD-Slayton	09/22/18	Final	Lodging	Visa-Slayton,	160639	3	days				Y	9
LD-Taylor	09/22/18	Final	Lodging	Visa-Slayton,	160641	3	days				Y	10
Fuel-1747-73	09/21/18	Final	Fuel	EFS	561044	45.6	gal				Y	7
Totes	09/19/18	Final	Materials/S	Visa-Strength,	180678	35	each				Y	16
Supplies	09/23/18	Pending	Materials/S	QSP		1	LS				N	17
Skid Steer-Loaders<6K: HER1450	09/20/18	Pending	Equipment	Herc Rentals		1	Each				N	14
Storage/Box-=>40 ft.: PAC001	09/20/18	Pending	Equipment	PacVan		1	Each				N	19
OTHER FIELD COSTS FOR TODAY (FINAL):								$10,743.50	$322.31	$11,065.81		
PENDING TOTAL (ALL):										$5,282.88		
TOTALS FOR TODAY (including Pending):										$16,348.69		
TOTAL OTHER FIELD COSTS TO DATE (including Pending):										$16,348.69		

EPA STANDARD FORM 1900-55 Comments and Daily Totals	US ENVIRONMENTAL PROTECTION AGENCY HAZARDOUS SUBSTANCE RESPONSE FUND CONTRACTOR RECEIVING REPORT	Page: 4 Date: 09/23/2018

Site: EPS41503 L and R Oil Recovery Site #:C466 Contractor: ERLLC, Ref# 4-LROR	** DRAFT **	Delivery Order #: TBD Contract #: EP-S4-15-03

REF #	COMMENTS
1-O	Service Date: 09/23/18, Vendor: PD-Slayton, A 3288, PD-Slayton: PD @ $51/day, $38.25 for mobe/demobe. At conus.
2-O	Service Date: 09/23/18, Vendor: PD-Pellegrino 4099, PD-Pellegrino: PD @ $51/day, $38.25 for mobe/demobe. At conus.
3-O	Service Date: 09/23/18, Vendor: PD-Taylor, F 4050, PD-Taylor: PD @ $51/day, $38.25 for mobe/demobe. At conus.
4-O	Service Date: 09/23/18, Vendor: PD-Myers, M 3601, PD-Myers: PD @ $51/day, $38.25 for mobe/demobe. At conus.
5-O	Service Date: 09/23/18, Vendor: PD-Figueroa, X 4014, PD-Figueroa, X: PD @ $51/day, $38.25 for mobe/demobe. At conus.
6-O	Service Date: 09/22/18, Vendor: Visa-Slayton, A, Kwik Mart-Fuel: Fuel for 1730-104
7-O	Service Date: 09/21/18, Vendor: EFS, Fuel-1747-73: Fuel expended onsite.
8-O	Service Date: 09/22/18, Vendor: EFS, Fuel-1747-73: Fuel expended onsite.
9-O	Service Date: 09/22/18, Vendor: Visa-Slayton, A, LD-Slayton: LD @ $93/night plus taxes. At conus.
10-O	Service Date: 09/22/18, Vendor: Visa-Slayton, A, LD-Taylor: LD @ $93/night plus taxes. At conus.
11-O	Service Date: 09/22/18, Vendor: Visa-Slayton, A, LD-Myers: LD @ $93/night plus taxes. At conus.
12-O	Service Date: 09/22/18, Vendor: Visa-Slayton, A, LD-Figueroa: LD @ $93/night plus taxes. At conus.
13-O	Service Date: 09/22/18, Vendor: Visa-Slayton, A, LD-Pellegrino: LD @ $93/night plus taxes. At conus.
16-O	Service Date: 09/19/18, Vendor: Visa-Strength, C, Totes: 35 - 275 Gallon rebottled totes, expended onsite.

* IN THE 'CMT' COLUMN DENOTES A DISPUTED ITEM

PERCENTAGE OF CEILING UTILIZED: 54.99%. DO End Date: 03/19/19

TOTAL DAILY COSTS (excluding Pending):	$22,213.59	TOTAL COSTS TO DATE (including Pending)	$27,496.47
** DRAFT **		** DRAFT **	

EPS41503 L and R Oil Recovery

IOL 1900-55 Cost Summary									
RCMS Date	Personnel	Equipment	Final OFCs	Pending	Daily Total	Total	Ceiling	Balance	% Remaining
Prior Total	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00			
09/23/2018	$10,267.13	$880.66	$11,065.81	$5,282.88	$27,496.47	$27,496.47	$50,000.00	$22,503.53	45.01%
Detail Total	$10,267.13	$880.66	$11,065.81	$5,282.88	$27,496.47				
TTD:	$10,267.13	$880.66	$11,065.81	$5,282.88	$27,496.47	$27,496.47	$50,000.00	$22,503.53	45.01%

ENVIRONMENTAL RESTORATION

ERRS / Site Entry & Exit Log

Project: 4-LROR

Demob

Date: 9-22-18

Environmental Restoration [Printed Name]	ID#	IN	OUT	Lunch	Total Hours Worked	Did you work under different labor categories including both SCA/DBA? [If Yes, must fill out supplement labor task distribution form]	Hurt on Job today? Yes/No	Signature
Art Slayton	(b) (6) [redacted]	0630	1100	N	4.5	N	N	[signature]
Marcus Myers	[redacted]	09:30	2:30	N	5.0	N	N	[signature]
Xavier Figueroa	[redacted]	0930	2:30	N	5.0	N	N	[signature]
Fred Taylor	[redacted]	0930	1430	N	5	N	N	
Louis Pollesmo	[redacted]	0930	1430	N	5	N	N	

USEPA	IN	OUT	IN	OUT			Signature

START	IN	OUT	IN	OUT			Signature

VISITORS	IN	OUT	IN	OUT			Signature

ENVIRONMENTAL RESTORATION LLC

Daily Work Order No. ____
U.S. EPA, Region 4

DAILY WORK ORDER

DATE: 9-22-18	TASK ORDER: 4-LROR	PAGE 1 OF 1
WORK SITE NAME: L&R OIL RECOVERY	MONITOR(S) START: TT OTHER:	
LOCATION (CITY, STATE): SHELBY, NC	SHIFT 1 2 3 / START TIME: 0930	STOP TIME: 1430
CONTRACTOR: ENVIRONMENTAL RESTORATION LLC	OSC: KEVIN EICHINGER	TO COMPLETION DATE: 3-19-19

1. WORK AUTHORIZED	WORK ACCOMPLISHED
1. Crew Demob to ATL	1. Complete* *note RM time in section 4.

WEATHER CONDITIONS ENCOUNTERED:

OSC INITIALS:	RM INITIALS:	OSC INITIALS:	RM INITIALS:

2. NUMBER OF PERSONNEL AUTHORIZED

1	RESPONSE MANAGER		TRUCK DRIVER		FOREMAN	1	OPERATORS		OTHER (SPECIFY)
3	LABOR		ACCOUNTANT		H&S TECH.		TECH		

3. EQUIPMENT AND EXPENDABLE MATERIALS AUTHORIZED

ITEM	QTY	USED	NOT USED / OR DOWN	ITEM	QTY	USED	NOT USED / OR DOWN
PU 1336-93	1	1					
SB 1747-73	1	1					
Trailer 0815-34	1	1					
PU 1730-104	1	1					

4. AMENDMENTS (INCLUDE TIME)

RM DEMOBED HOURS 0630 TO 1100

SIGNATURE OF OSC	SIGNATURE OF RESPONSE MANAGER

ID # 3108

Name : Strength, Christina

Signature Christina Strength

ENVIRONMENTAL RESTORATION
OFF-SITE TIME ACTIVITY LOG

Week Ending_9/23/18

DATE	JOB CODE	SITE NAME	DESCRIPTION OF OFF-SITE WORK	HOURS
17-Sep	ES2-73	Emmells	Submit timesheets, perdiem. File paperwork.	2
17-Sep	M4-499	Myrick	Work on 1900-55 draft.	1
17-Sep	I2-367	Ithaca	Print paperwork for 1900-55 draft. File paperwork.	2
18-Sep	I2-367	Ithaca	Finish 1900-55 draft; send to RM for review.	4
18-Sep	ES2-73	Emmells	Finish 1900-55 draft; send to RM for review.	4
18-Sep	4-LROR	L&R Oil	Look for companies to call about totes needed. Make calls, updates with RM.	2
19-Sep	RB2-47	Raritan	Finalize 1900-55 draft; send for signatures. Contact Mobile Mini about pickup dates.	1
19-Sep	4-LROR	L&R Oil	Calls with companies about storage containers, totes and equipment needed onsite tomorrow. Calls for payment set up/delivery set up. Emails with quotes, etc. Create and submit Credit Card PO request for McManus Drums.	7
19-Sep	ES2-73	Emmells	Check on payment for Absecon. Emails with STL and RM.	1
20-Sep	ES2-73	Emmells	Finalize 1900-55 draft; send for signatures. File paperwork. Make copies of paperwork for STL; FedEx to ship out paperwork.	4
20-Sep	I2-367	Ithaca	Finalize 1900-55 draft; send for signatures. File paperwork.	2
20-Sep	4-LROR	L&R Oil	Create PacVan PO request; submit to STL. File paperwork. Update files.	2
21-Sep	ES2-73	Emmells	Update 1900-55 draft. Update financials to get up to date costs.	2
21-Sep	4-LROR	L&R Oil	Calls/emails to find decon company for tanker. Emails with info to get quote from Quala.	3
21-Sep	MC2-21	Mackenzie	Work on 1900-55 draft.	1
22-Sep	4-LROR	L&R Oil	Email to equipment rep to call off machine. Print paperwork from site work for 1900-55 draft.	2
				40

Environmental Restoration

ID # 3288

TIME ACTIVITY LOG
ERRS – REGION 4

Name: Art Slayton

Signature: [redacted]

Week Ending: 9-23-18

9-17-18	ATLA		Crew timesheets & Perdiem 4-CHATT, Support commercial, order parts for Hg vac, locate replacement fan.	2
9-17-18	AG4-03	Alaric Groundwater	Develop draft RFQ for Sub Slab vapor ventilation system, send to RPM for review	6
9-18-18	AG4-03	Alaric Groundwater	Make edits per RPM review, send out to internal review and send to bidders	1
9-18-18	ATLA		Send out disposal cost request with info for disposal tabulate sample info support O4-508,	4
9-18-18	4-LROR	L&R Oil Recovery	Locate frac tank or similar tankage for transfer of 8500 gallons of PCB oil. Change direction per OSC, use totes and connex boxes. Set up for project mob tomorrow.	3
9-19-18	4-LROR			

ENVIRONMENTAL ER RESTORATION

ERRS / Site Entry & Exit Log

Project: 4-LROR

Date: 9-21-18

Environmental Restoration [Printed Name]	ID#	IN	OUT	Lunch	Total Hours Worked	Did you work under different labor categories including both BOA/OBA? [If Yes, must fill out supplement labor task distribution form]	Hurt on Job today? Yes/No	Signature
Marcus Myers	(b) (6) [redacted]	0700	1830	Y	11	N	N	Marcus Myers
Xavier Figueroa	[redacted]	0700	1830	Y	11	N	N	Xavier Figueroa
Louis Pellegrino	[redacted]	0700	1830	Y	11	N	N	[illegible]
Fred Taylor	[redacted]	0700	1830	Y	11	N	N	[illegible]
Art Slaytor	[redacted]	0700	1830	Y	11	N	N	[illegible]

USEPA	IN	OUT	IN	OUT			Signature

START	IN	OUT	IN	OUT			Signature

VISITORS	IN	OUT	IN	OUT			Signature

ENVIRONMENTAL RESTORATION LLC.

Daily Work Order No. ____
U.S. EPA, Region 4

DAILY WORK ORDER

DATE: 9-21-18	TASK ORDER: 4-LROR	PAGE 1 OF 1
WORK SITE NAME: L&R OIL RECOVERY	MONITOR(S) START: TT	OTHER:
LOCATION (CITY, STATE): SHELBY, NC	SHIFT 1 2 3	START TIME: 0700 / STOP TIME: 1830
CONTRACTOR: ENVIRONMENTAL RESTORATION LLC	OSC: KEVIN EICHINGER	TO COMPLETION DATE: 3-19-19

1. WORK AUTHORIZED

1. Set up for transfer small truck and pump into totes
2. Complete transferring from all 4 compartments using air to push product.
3. Moved full existing totes to covered area.
4. Drum all PPE, polly & buckets
5. Place totes and drums in connex

WORK ACCOMPLISHED

1. Complete filled 4.5 totes – 1125 gallons
2. Complete 8 totes today- 2000 gal
3. Complete
   - Total Gallons Tanker -6,750
   - Total Gallons Truck -1125
4. Complete
5. Complete

WEATHER CONDITIONS ENCOUNTERED: 91 SUNNY

OSC INITIALS:	RM INITIALS:	OSC INITIALS:	RM INITIALS:

2. NUMBER OF PERSONNEL AUTHORIZED

1	RESPONSE MANAGER		TRUCK DRIVER		FOREMAN	1	OPERATORS		OTHER (SPECIFY)
3	LABOR		ACCOUNTANT		H&S TECH		TECH		

3. EQUIPMENT AND EXPENDABLE MATERIALS AUTHORIZED

ITEM	QTY	USED	NOT USED / OR DOWN	ITEM	QTY	USED	NOT USED / OR DOWN
PU 1336-93	1	1		250-gallon totes expended	30	30	
SB 1747-73	1	1		Total Totes Tanker	27		Info only
Trailer 0815-34	1	1		Total Totes Truck	4.5		Info only
PU 1730-104	1	1		55- Gal Polly Drums – Open top	2	2	
Generator 0703-43	1	1		55- Gallon steel- open top	4	4	
Air compressor	1	1		Bag 3" Boom	2	2	
Skid Steer Rental arrive 9-20	1	1		Oil pads- bag	3	3	
5 Gallon Buckets	3	3		Oil Dry 40-Lb bag	1	1	
Drum Liners	8	8		Roll Polly 20X100 6 mil	1	1	

4. AMENDMENTS (INCLUDE TIME)

SIGNATURE OF OSC	SIGNATURE OF RESPONSE MANAGER

ENVIRONMENTAL RESTORATION

ERRS / Site Entry & Exit Log

Project: 4-LROR

Date: 9-17-18

Environmental Restoration [Printed Name]	Tax	IN	OUT	Lunch	Total Hours Worked	Did you work under different labor categories including both SCA/DBA? If Yes, must fill out supplement labor task distribution form	Hurt on Job today? Yes/No	Signature
Art Slayton	(b) (6) [redacted]	0700	1830	8	11	N	N	[signature]
XAVIER FIGUEROA	[redacted]	0700	1830	8	11	N	N	Xavier Figueroa
FROY Taylor	[redacted]	0700	1830	8	11	N	N	[signature]
Marcus Myers	[redacted]	0700	1830	8	11	N	N	Marcus Myers
LOUIS PELLEGRINO	[redacted]	0700	1830	8	11	N	N	[signature]

USEPA	IN	OUT	IN	OUT			Signature

START	IN	OUT	IN	OUT			Signature

VISITORS	IN	OUT	IN	OUT			Signature

Daily Work Order No. ____
U.S. EPA, Region 4

ENVIRONMENTAL RESTORATION LLC.

DAILY WORK ORDER

DATE: 9-20-18	TASK ORDER: 4-LROR	PAGE 1 OF 1
WORK SITE NAME: L&R OIL RECOVERY	MONITOR(S) START: TT	OTHER:
LOCATION (CITY, STATE): SHELBY, NC	SHIFT 1 2 3	START TIME: 0700 / STOP TIME: ~~1700~~ 1830
CONTRACTOR: ENVIRONMENTAL RESTORATION LLC	OSC: KEVIN EICHINGER	TO COMPLETION DATE: 3-19-19

1. WORK AUTHORIZED	WORK ACCOMPLISHED
1. Set up for transfer 2. 2 40" connex boxes delivered 3. 7 additional totes delivered 4. Skid steer delivered. 5. Transferred from tanker to totes and placed in connex box.	1. Complete 2. Complete 3. Complete 4. Complete 5. Transferred and placed in connex box a total of 19 -250 gallon totes. Total 4,750 Gallons.

WEATHER CONDITIONS ENCOUNTERED:

OSC INITIALS:	RM INITIALS:	OSC INITIALS:	RM INITIALS:

2. NUMBER OF PERSONNEL AUTHORIZED

1	RESPONSE MANAGER	____	TRUCK DRIVER	____	FOREMAN	1	OPERATORS	____	OTHER (SPECIFY)
3	LABOR	____	ACCOUNTANT	____	H&S TECH.	____	TECH	____	

3. EQUIPMENT AND EXPENDABLE MATERIALS AUTHORIZED

ITEM	QTY	USED	NOT USED / OR DOWN	ITEM	QTY	USED	NOT USED / OR DOWN
PU 1336-93	1	1		250-gallon totes	19		
SB 1747-73	1	1					
Trailer 0815-34	1	1					
PU 1730-104	1	1					
Generator 0703-43	1	1					

4. AMENDMENTS (INCLUDE TIME)

SIGNATURE OF OSC	SIGNATURE OF RESPONSE MANAGER
9/21/18	9/21/18

ENVIRONMENTAL ER RESTORATION

ERRS / Site Entry & Exit Log

Project: 4-LROR

Date: 9-19-18

MOB

Environmental Restoration [Printed Name]	ID#	IN	OUT	Lunch	Total Hours Worked	Did you work under different labor categories including both SCA/DBA? If Yes, must fill out supplement labor back distribution form	Hurt on Job today? Yes/No	Signature
Art Slayton	(b) (6) [redacted]	0930	1730	Y	7.5	N	N	
Louis Pellegrino	[redacted]	0930	1730	Y	7.5	N	N	
Fred Taylor	[redacted]	0930	1730	Y	7.5	N	N	
Marcus Myers	[redacted]	0930	1730	Y	7.5	N	N	
Xavier Figueroa	[redacted]	0930	1730	Y	7.5	N	N	

USEPA	IN	OUT	IN	OUT			Signature

START	IN	OUT	IN	OUT			Signature

VISITORS	IN	OUT	IN	OUT			Signature

Daily Work Order No. ____
U.S. EPA, Region 4

ENVIRONMENTAL RESTORATION LLC.

DAILY WORK ORDER

DATE: 9-19-18	TASK ORDER: 4-LROR	PAGE 1 OF 1
WORK SITE NAME: L&R OIL RECOVERY	MONITOR(S) START: TT	OTHER:
LOCATION (CITY, STATE): SHELBY, NC	SHIFT 1 2 3	START TIME: 0930 / STOP TIME: 1730
CONTRACTOR: ENVIRONMENTAL RESTORATION LLC	OSC: KEVIN EICHINGER	TO COMPLETION DATE: 3-19-19

1. WORK AUTHORIZED

1. Complete HASP
2. Order material and supplies
3. Mob to NC.
4. 28 totes delivered to Site.

WORK ACCOMPLISHED

1. Complete
2. Complete
3. Complete
4. Complete

WEATHER CONDITIONS ENCOUNTERED:

OSC INITIALS:	RM INITIALS:	OSC INITIALS:	RM INITIALS:

2. NUMBER OF PERSONNEL AUTHORIZED

1	RESPONSE MANAGER		TRUCK DRIVER		FOREMAN	1	OPERATORS		OTHER (SPECIFY)
3	LABOR		ACCOUNTANT		H&S TECH.		TECH		

3. EQUIPMENT AND EXPENDABLE MATERIALS AUTHORIZED

ITEM	QTY	USED	NOT USED / OR DOWN	ITEM	QTY	USED	NOT USED / OR DOWN
PU 1336-93	1	1					
SB 1747-73	1	1					
Trailer 0815-34	1	1					
PU 1730-104	1	1					

4. AMENDMENTS (INCLUDE TIME)

SIGNATURE OF OSC	SIGNATURE OF RESPONSE MANAGER
9/21/18	9/21/18

ENVIRONMENTAL RESTORATION LLC

TIME SHEET

ID#: 4014

Name: FIGUEROA,XAVIER

Signature : not available C.Strength

Approved By :

Week Ending 9/23/2018 (Sunday)

Posted to 1900/55:

JOB CODE	Task #	X non-billable	Pay Type	GLC (SCA/DBA)	PLC BILLING	9/17 Mon S.T.	9/17 Mon O.T.	9/18 Tue S.T.	9/18 Tue O.T.	9/19 Wed S.T.	9/19 Wed O.T.	9/20 Thu S.T.	9/20 Thu O.T.	9/21 Fri S.T.	9/21 Fri O.T.	9/22 Sat S.T.	9/22 Sat O.T.	9/23 Sun S.T.	9/23 Sun O.T.	TOTAL HOURS Straight	TOTAL HOURS Overtime
4-LROR			LS	SCAL	LS	[redacted]															
4-LROR			LSO	SCAL	LSO																
4-LROR MOB			LS	SCAL	LS																
4-LROR DEMOB			LSO	SCAL	LSO																
ATLA		X	L	L	L																
Holiday		X	H																		
Vacation		X	V																		
			TOTAL HOURS																		52.00

(b) (4)

WHEN MAKING CORRECTIONS, DRAW A SINGLE LINE THROUGH THE INCORRECT ENTRY, WRITE CORRECTION AND INITIAL EACH CHANGE.

DO NOT USE WHITE OUT OR SCRATCH OUT MISTAKES

ALL STRAIGHT, OVERTIME AND NON BILLABLE TIME MUST BE ON SEPARATE LINES.

ENVIRONMENTAL RESTORATION LLC

TIME SHEET

ID#: 3601

Name: **Marcus Myers** **Week Ending** 9/23/2018 (Sunday)

Signature : Not available c.strength

Approved By : **Posted to 1900/55:**

JOB CODE	Task #	X non-billable	Pay Type	GLC (SCA/DBA)	PLC BILLING	9/17 Mon S.T.	9/17 Mon O.T.	9/18 Tue S.T.	9/18 Tue O.T.	9/19 Wed S.T.	9/19 Wed O.T.	9/20 Thu S.T.	9/20 Thu O.T.	9/21 Fri S.T.	9/21 Fri O.T.	9/22 Sat S.T.	9/22 Sat O.T.	9/23 Sun S.T.	9/23 Sun O.T.	TOTAL HOURS Straight	TOTAL HOURS Overtime
4-LROR			LS	SCAL	LS	[redacted]															
4-LROR			LSO	SCAL	LSO																
4-LROR MOB			LS	SCAL	LS																
4-LROR DEMOB			LSO	SCAL	LSO																
ATLA		X	L	L	L																
Holiday		X	H																		
Vacation		X	V																		
[redacted]			TOTAL HOURS																		52.00

(b) (4)

WHEN MAKING CORRECTIONS, DRAW A SINGLE LINE THROUGH THE INCORRECT ENTRY, WRITE CORRECTION AND INITIAL EACH CHANGE.

DO NOT USE WHITE OUT OR SCRATCH OUT MISTAKES

ALL STRAIGHT, OVERTIME AND NON BILLABLE TIME MUST BE ON SEPARATE LINES.

ENVIRONMENTAL RESTORATION LLC

TIME SHEET

ID#: 4009

Name: **PELLERGRINO, LOUIS** **Week Ending** 9/23/2018 (Sunday)

Signature : not available at this time

Approved By : **Posted to 1900/55:**

JOB CODE	Task #	X non-billable	Pay Type	GLC (SCA/DBA)	PLC BILLING	9/17 Mon S.T.	9/17 Mon O.T.	9/18 Tue S.T.	9/18 Tue O.T.	9/19 Wed S.T.	9/19 Wed O.T.	9/20 Thu S.T.	9/20 Thu O.T.	9/21 Fri S.T.	9/21 Fri O.T.	9/22 Sat S.T.	9/22 Sat O.T.	9/23 Sun S.T.	9/23 Sun O.T.	TOTAL HOURS Straight	TOTAL HOURS Overtime
4-LROR			EQS	SCAEQ	EQS	[redacted]															
4-LROR			ESO	SCAEQ	ESO																
4-LROR MOB			EQS	SCEQS	EQS																
4-LROR DEMOB			ESO	SCAEQ	ESO																
ATLA		X	FR	FR	FR																
Holiday		X	H																		
Vacation		X	V																		
[redacted]			TOTAL HOURS																		52.00

(b) (4)

WHEN MAKING CORRECTIONS, DRAW A SINGLE LINE THROUGH THE INCORRECT ENTRY, WRITE CORRECTION AND INITIAL EACH CHANGE.

DO NOT USE WHITE OUT OR SCRATCH OUT MISTAKES

ALL STRAIGHT, OVERTIME AND NON BILLABLE TIME MUST BE ON SEPARATE LINES.

ENVIRONMENTAL RESTORATION LLC

TIME SHEET

ID#: 3288

Name: **Art Slayton**

Signature :

Approved By :

Week Ending 9/23/2018 (Sunday)

Posted to 1900/55:

JOB CODE	Task #	X non-billable	Pay Type	GLC (SCA/DBA)	PLC BILLING	9/17 Mon S.T.	9/17 Mon O.T.	9/18 Tue S.T.	9/18 Tue O.T.	9/19 Wed S.T.	9/19 Wed O.T.	9/20 Thu S.T.	9/20 Thu O.T.	9/21 Fri S.T.	9/21 Fri O.T.	9/22 Sat S.T.	9/22 Sat O.T.	9/23 Sun S.T.	9/23 Sun O.T.	TOTAL HOURS Straight	TOTAL HOURS Overtime
ATLA		x	RM	RM	RM	[redacted]															
AG4-03 (Alaric)			RM	RM	RM																
AG4-03 (Alaric)			RM	RM	RM																
4-LROR			RM	RM	RM																
4-LROR			RMO	RMO	RMO																
4-LROR MOB			RM	RM	RM																
4-LROR DeMOB			RMO	RMO	RMO																
			RM	RM	RM																
			RMO	RMO	RMO																
			RMO	RMO	RMO																
Comp		X	RM	RM	RM																
Holiday		X	RM	RM	RM																
Vacation		X	RM	RM	RM																
[redacted]			TOTAL HOURS																		51.50

(b) (4)

WHEN MAKING CORRECTIONS, DRAW A SINGLE LINE THROUGH THE INCORRECT ENTRY, WRITE CORRECTION AND INITIAL EACH CHANGE.

DO NOT USE WHITE OUT OR SCRATCH OUT MISTAKES

ALL STRAIGHT, OVERTIME AND NON BILLABLE TIME MUST BE ON SEPARATE LINES.

ENVIRONMENTAL RESTORATION

ENVIRONMENTAL RESTORATION LLC

TIME SHEET

ID#: 3108

Name: Christina Strength **Week Ending** 9/23/2018 (Sunday)

Signature : Christina Strength

Approved By : A. Greathouse

Digitally signed by Amanda Greathouse
DN: dc=local, dc=ERLLCSTL, ou=St. Louis Employees, cn=Amanda Greathouse
Date: 2018.09.24 10:55:23 -05'00'

Posted to 1900/55: _____

JOB CODE	Task #	X non-billable	Pay Type	GLC (SCA/DBA)	PLC BILLING	9/17 Mon S.T.	9/17 Mon O.T.	9/18 Tue S.T.	9/18 Tue O.T.	9/19 Wed S.T.	9/19 Wed O.T.	9/20 Thu S.T.	9/20 Thu O.T.	9/21 Fri S.T.	9/21 Fri O.T.	9/22 Sat S.T.	9/22 Sat O.T.	9/23 Sun S.T.	9/23 Sun O.T.	TOTAL HOURS Straight	TOTAL HOURS Overtime
4-LROR (FL)			FC	SCAFC	FC	[redacted]															
MC2-21 (FL)	21		FC	SCAFC	FC																
CF4-31 (FL)	31		FC	SCAFC	FC																
RB2-38 (FL)	38		FC	SCAFC	FC																
R4-468 (FL)	468		FC	SCAFC	FC																
RB2-47 (FL)	47		FC	SCAFC	FC																
I2-367 (FL)	367		FC	SCAFC	FC																
M4-499 (FL)	499		FC	SCAFC	FC																
ES2-73 (FL)	73		FC	SCAFC	FC																
IL2-48 (FL)	48	X	FC	SCAFC	FC																
Holiday		X	FC																		
Training (HAZWOPER)		X	FC																		
Vacation			V.																		
			TOTAL HOURS																		40.00

(b) (4)

WHEN MAKING CORRECTIONS, DRAW A SINGLE LINE THROUGH THE INCORRECT ENTRY, WRITE CORRECTION AND INITIAL EACH CHANGE.

DO NOT USE WHITE OUT OR SCRATCH OUT MISTAKES

ALL STRAIGHT, OVERTIME AND NON BILLABLE TIME MUST BE ON SEPARATE LINES.

C:\Users\c.strength\Documents\Timesheets\StrengthChristina 9_23_18 TS

ENVIRONMENTAL RESTORATION LLC

TIME SHEET

ID#: 4054

Name: TAYLOR, FREDDIE

Signature : not available C Strength

Approved By :

Week Ending 9/23/2018 (Sunday)

Posted to 1900/55:

JOB CODE	Task #	X non-billable	Pay Type	GLC (SCA/DBA)	PLC BILLING	9/17 Mon S.T.	9/17 Mon O.T.	9/18 Tue S.T.	9/18 Tue O.T.	9/19 Wed S.T.	9/19 Wed O.T.	9/20 Thu S.T.	9/20 Thu O.T.	9/21 Fri S.T.	9/21 Fri O.T.	9/22 Sat S.T.	9/22 Sat O.T.	9/23 Sun S.T.	9/23 Sun O.T.	TOTAL HOURS Straight	TOTAL HOURS Overtime
4-LROR			LS	SCAL	LS	[redacted]															
4-LROR			LSO	SCAL	LSO																
4-LROR MOB			LS	SCAL	LS																
4-LROR DEMOB			LSO	SCAL	LSO																
ATLA		X	L	L	L																
Holiday		X	H																		
Vacation		X	V																		
			TOTAL HOURS																		52.00

(b) (4)

WHEN MAKING CORRECTIONS, DRAW A SINGLE LINE THROUGH THE INCORRECT ENTRY, WRITE CORRECTION AND INITIAL EACH CHANGE.

DO NOT USE WHITE OUT OR SCRATCH OUT MISTAKES

ALL STRAIGHT, OVERTIME AND NON BILLABLE TIME MUST BE ON SEPARATE LINES.

Weekly Equipment Utilization

Job Name: L&R Oil Recovery **W/E Date:** 9/23/2018

Location: Shelby NC **Job #:** 4-LROR

Equipment #	Equipment Description	Owned(O)/Rented®	Daily Rated/OFC	9/17 Mon Hours	9/18 Tue Hours	9/19 Wed Hours	9/20 Thu Hours	9/21 Fri Hours	9/22 Sat Hours	9/23 Sun Hours	Total Days Used on Site	For Office Use Only: Unit Cost	For Office Use Only: Cost Total
1336-93	Truck-Pickup-1/2 ton	O	Daily Rated			8.0	8.0	8.0	8.0				
1747-73	Truck-Stake/Flatbed	O	Daily Rated			8.0	8.0	8.0	8.0				
1730-104	Truck-Pickup-1/2 ton	O	Daily Rated			8.0	8.0	8.0	8.0				
0815-34	Trailer-Lowboy-6K<10K	O	Daily Rated			8.0	8.0	8.0	8.0				
0703-43	Field Equip-Generator-5<10KW	O	Daily Rated				8.0	8.0					
HER1450	Hvy Equip-Skidsteer-Loaders>6K	R	OFC				8.0	8.0					
												TOTAL:	

Submitted By: _____

ENVIRONMENTAL ER RESTORATION

WEEKLY PER DIEM REIMBURSEMENT REQUEST

Project Name: L&R Oil Recovery
Project Location: Shelby, NC
1900/55 Date:

Week Ending: 9/23/2018
Prepared By: A. Slayton
Approved By:

EMPLOYEE NAME	ID #	JOB CODE	"Key #" or "X" if NB	TOTAL	MON 9/17	TUE 9/18	WED 9/19	THU 9/20	FRI 9/21	SAT 9/22	SUN 9/23	EMPLOYEE SIGNATURE	DATE
Art Slayton	[redacted] (b) (6)	4-LROR	1	[redacted] (b) (4)									9/24/18
Louis Pellegrino		4-LROR	2									Not Available	9/24/18
Fred Taylor		4-LROR	3									Not Available	9/24/18
Marcus Myers		4-LROR	4										9/24/18
Xavier Figueroa		4-LROR	5									Xavier Figueroa	9/24/18
				$ -									
				$ -									
				$ -									
				$ -									
				$ -									
				$ -									
				$ -									
				$ -									
				$ -									
				$ -									
			TOTALS	$ 892.50	$ -	$ -	$ 191.25	$ 255.00	$ 255.00	$ 191.25	$ -		

POSTED
V#
Job Code: 4-LROR Team Sub: ☐ Key#: 1-5
Date Posted: 9/23 Posted by: CS Approval:
Billable $ 892.50 GL#: 5200-001
Non-Billable: $ GL#:

Notes: *Per Diem sheets are due Monday at 12:00 cst. Holiday week sheets are due Monday at 9:00 cst.*
Submit to perdiem@erllc.com

Fuel Receipts - EFS - Electronic Funds Source

SEND TO ST. LOUIS ASAP

ENVIRONMENTAL RESTORATION

*** REQUIRED FIELDS**

9/22/18
*** Date of Purchase:**

Xavier Figueroa
*** First/Last Name of Purchaser:**

1747-73
*** Equipment # / Fuel Cell #**
(Use the license plate # for rentals.)

$99 00
*** Total $ Amount**

35.370
Gallons

15122
Odometer

Welcome to Shell

SHELL
1585 MOUNT ZION RD
MORROW, GA
30260
57543951088
09/22/2018 571311699
02:44:12 PM

PUMP# 1
Regular 35.3708
PRICE/GAL $2.799

FUEL TOTAL $ 99.00

CREDIT $ 99.00

XXXX XXXX XXXX 0008
MC FLEET
Swiped
APPROVED
AUTH # 000054
INV # 468751
ODOMETER 15122

COMMENTS

POSTED Invoice #: 468751

***Job Code:** 4LR012 Key #: 8

Date Posted: 9/22/18 Posted By: XF ***Approval:** MS

Billable: $ 99 00 **GL #** ☑ 5300-004 BILLABLE ☐ 5310-004 DAILY RATED

or Non-Billable: $ **GL #** ☐ 5500-004 NON-BILLABLE ☐ 6200-004 OVERHEAD/ADMIN-6200-004

Fuel for > ☐ Equipment ☑ Vehicle ☐ Other

Site Use? ☑ Yes ☐ No

Other > _____

EAST SIDE KWIK MART
501 LINEBERGER STREET
SHELBY, NC 28150
PH# 704-484-2731
TID 003

Term ID: 003 Ref #: 054

Sale

XXXXXXXXXXXX9227
VISA Entry Method: Chip

09/22/18 05:11:43
Inv #: 000054 Appr Code: 098953
Batch#: 264001

Total: $ 60.42

VISA CREDIT
AID: A0000000031010
TSI: F800
TVR: 0080008000

Customer Copy
THANK YOU

POSTED

Job Code: 4-LROR Team Sub: ☐ Key#: 6

Date Posted: 9/23 Posted by: CS Approval: AC

Billable $ 60.42 GL#: 5300.004

Non-Billable $ GL#:

Slayton

Fuel

1730-104

Shelby NC

225 gallons

Holiday Inn Express

Xavier Figueroa 16 09-22-18

[redacted]	Folio No.	160644	Room No.	224
[redacted]	A/R Number		Arrival	09-19-18
[redacted]	Group Code		Departure	09-22-18
United States	Company	Enviornmental Restoration	Conf. No.	47823840
	Membership No.	PC 200850421	Rate Code	IMGOV
	Invoice No.		Page No.	1 of 1

Date	Description	Charges	Credits
09-19-18	*Accommodation	93.00	
09-19-18	State Tax	6.28	
09-19-18	City Tax	2.79	
09-19-18	County Tax	2.79	
09-20-18	*Accommodation	93.00	
09-20-18	State Tax	6.28	
09-20-18	City Tax	2.79	
09-20-18	County Tax	2.79	
09-21-18	*Accommodation	139.00	
09-21-18	State Tax	9.38	
09-21-18	City Tax	4.17	
09-21-18	County Tax	4.17	
09-22-18	Visa		366.44
	XXXXXXXXXXXX9227		

Thank you for staying with us! Qualifying points for this stay will automatically be credited to your account. Please tell us about your stay by writing a review here - www.ihg.com/reviews. We look forward to welcoming you back soon.

Total	**366.44**	**366.44**
Balance	**0.00**	

Guest Signature: _____

I have received the goods and / or services in the amount shown heron. I agree that my liability for this bill is not waived and agree to be held personally liable in the event that the indicated person, company, or associate fails to pay for any part or the full amount of these charges. If a credit card charge, I further agree to perform the obligations set forth in the cardholder's agreement with the issuer.

POSTED

V# _____

Job Code: 4-LR012 Team Sub: ☐ Key#: 12

Date Posted: 9/23 Posted by: CJ Approved: AK

Billable$ 366.44 GL#: 5200.002

Non-Billable$ _____ GL#: _____

Holiday Inn Express Gastonia
[illegible] Broadcast Street
Gastonia, NC 28052
Email: [illegible]@maya-hotels.com
Telephone: (704) 884-3300 Fax: (704) 884-3301

Holiday Inn Express

Moreas Myers

16 09-22-18

[redacted]
United States

Folio No.	160642	Room No.	217
A/R Number		Arrival	09-19-18
Group Code		Departure	09-22-18
Company	Enviornmental Restoration	Conf. No.	27722900
Membership No.	PC 200850421	Rate Code	IMGOV
Invoice No.		Page No.	1 of 2

Date	Description	Charges	Credits
09-19-18	*Accommodation	93.00	
09-19-18	State Tax	6.28	
09-19-18	City Tax	2.79	
09-19-18	County Tax	2.79	
09-20-18	*Accommodation	93.00	
09-20-18	State Tax	6.28	
09-20-18	City Tax	2.79	
09-20-18	County Tax	2.79	
09-21-18	*Accommodation	139.00	
09-21-18	State Tax	9.38	
09-21-18	City Tax	4.17	
09-21-18	County Tax	4.17	
09-22-18	Visa		366.44
	XXXXXXXXXXXX9227		
	Total	366.44	366.44
	Balance	0.00	

POSTED
V#
Job Code: 4-LROR Team Sub: ☐ Key#: 11
Date Posted: 9/23 Posted by: CS Approved: AS
Billable:$ 366.44 GL#: 5200-002
Non-Billable:$ GL#:

Thank you for staying with us! Qualifying points for this stay will automatically be credited to your account. Please tell us about your stay by writing a review here - www.ihg.com/reviews. We look forward to welcoming you back soon.

Thank you for staying with us! Qualifying points for this stay will automatically be credited to your account. Please tell us about your stay by writing a review here - www.ihg.com/reviews. We look forward to welcoming you back soon.

Guest Signature: _____

Holiday Inn Express Gastonia
1911 Broadcast Street
Gastonia, NC 28052
Email: gstnc@maya-hotels.com
Telephone: (704) 884-3300 Fax: (704) 884-3301

Lori's Pellegrino

16 09-22-18

[redacted]
United States

Folio No.	160643	Room No.	215
A/R Number		Arrival	09-19-18
Group Code		Departure	09-22-18
Company	Environmental Restoration	Conf. No.	44662047
Membership No.	PC 200850421	Rate Code	IMGOV
Invoice No.		Page No.	1 of 1

Date	Description	Charges	Credits
09-19-18	*Accommodation	93.00	
09-19-18	State Tax	6.28	
09-19-18	City Tax	2.79	
09-19-18	County Tax	2.79	
09-20-18	*Accommodation	93.00	
09-20-18	State Tax	6.28	
09-20-18	City Tax	2.79	
09-20-18	County Tax	2.79	
09-21-18	*Accommodation	139.00	
09-21-18	State Tax	9.38	
09-21-18	City Tax	4.17	
09-21-18	County Tax	4.17	
09-22-18	Visa		366.44
	XXXXXXXXXXXX9227		
	Total	366.44	366.44
	Balance	0.00	

Thank you for staying with us! Qualifying points for this stay will automatically be credited to your account. Please tell us about your stay by writing a review here - www.ihg.com/reviews. We look forward to welcoming you back soon.

Guest Signature: _____

I have received the goods and / or services in the amount shown heron. I agree that my liability for this bill is not waived and agree to be held personally liable in the event that the indicated person, company, or associate fails to pay for any part or the full amount of these charges. If a credit card charge, I further agree to perform the obligations set forth in the cardholder's agreement with the issuer.

POSTED

V#: _____

Job Code: 4-LRDR Team Sub: ☐ Key#: 13

Date Posted: 9/23 Posted by: CS Approval: ✓

Billable $: 366.44 GL#: 5200.002

Non-Billable $: _____ GL#: _____

Holiday Inn Express Gastonia
1011 Broadcast Street
Gastonia, NC 28052
Email: gstnc@maya-hotels.com
Telephone: (704) 884-3300 Fax: (704) 884-3301

Holiday Inn Express

16 09-22-18

Art Slayton	Folio No. : **160639**	Room No. : **308**	
(b) (6) [redacted]	A/R Number :	Arrival : **09-19-18**	
United States	Group Code :	Departure : **09-22-18**	
	Company : **Enviornmental Restoration**	Conf. No. : **45954210**	
	Membership No. : **PC 200850421**	Rate Code : **IMGOV**	
	Invoice No. :	Page No. : **1 of 1**	

Date	Description	Charges	Credits
09-19-18	*Accommodation	93.00	
09-19-18	State Tax	6.28	
09-19-18	City Tax	2.79	
09-19-18	County Tax	2.79	
09-20-18	*Accommodation	93.00	
09-20-18	State Tax	6.28	
09-20-18	City Tax	2.79	
09-20-18	County Tax	2.79	
09-21-18	*Accommodation	139.00	
09-21-18	State Tax	9.38	
09-21-18	City Tax	4.17	
09-21-18	County Tax	4.17	
09-22-18	Visa		366.44

V# _____ **POSTED**
Job Code: 4-LROR Team Sub: ☐ Key#: 9
Date Posted: 9/23 Posted by: CS Approval: AB
Billable:$ 366.44 GL#: 5200.002
Non-Billable:$ _____ GL#: _____

XXXXXXXXXXXX9227

Thank you for staying with us! Qualifying points for this stay will automatically be credited to your account. Please tell us about your stay by writing a review here - www.ihg.com/reviews. We look forward to welcoming you back soon.

Total	**366.44**	**366.44**
Balance	**0.00**	

Guest Signature: _____

I have received the goods and / or services in the amount shown heron. I agree that my liablity for this bill is not waived and agree to be held personally liable in the event that the indicated person, company, or associate fails to pay for any part or the full amount of these charges. If a credit card charge, I further agree to perform the obligations set forth in the cardholder's agreement with the issuer.

Holiday Inn Express Gastonia
1911 Broadcast Street
Gastonia, NC 28052
Email: gstnc@maya-hotels.com
Telephone: (704) 884-3300 Fax: (704) 884-3301

Fred Taylor

16 09-22-18

[redacted]
United States

Folio No.	160641	Room No.	205
A/R Number		Arrival	09-19-18
Group Code		Departure	09-22-18
Company	Enviornmental Restoration	Conf. No.	29398974
Membership No.		Rate Code	IMGOV
Invoice No.		Page No.	1 of 1

Date	Description	Charges	Credits
09-19-18	*Accommodation	93.00	
09-19-18	State Tax	6.28	
09-19-18	City Tax	2.79	
09-19-18	County Tax	2.79	
09-20-18	*Accommodation	93.00	
09-20-18	State Tax	6.28	
09-20-18	City Tax	2.79	
09-20-18	County Tax	2.79	
09-21-18	*Accommodation	139.00	
09-21-18	State Tax	9.38	
09-21-18	City Tax	4.17	
09-21-18	County Tax	4.17	
09-22-18	Visa		366.44
	XXXXXXXXXXXX9227		

POSTED
V#
Job Code: 4-LROR Team Sub: ☐ Key#: 10
Date Posted: 9/23 Posted by: CS Approval: MD
Billable:$ 366.44 GL#: 5000.002
Non-Billable:$ GL#:

Thank you for staying with us! Qualifying points for this stay will automatically be credited to your account. Please tell us about your stay by writing a review here - www.ihg.com/reviews. We look forward to welcoming you back soon.

Total	**366.44**	**366.44**
Balance	**0.00**	

Guest Signature: _____

I have received the goods and / or services in the amount shown heron. I agree that my liablity for this bill is not waived and agree to be held personally liable in the event that the indicated person, company, or associate fails to pay for any part or the full amount of these charges. If a credit card charge, I further agree to perform the obligations set forth in the cardholder's agreement with the issuer.

Holiday Inn Express Gastonia
1911 Broadcast Street
Gastonia, NC 28052
Email: gstnc@maya-hotels.com
Telephone: (704) 884-3300 Fax: (704) 884-3301

Fuel Receipts - EFS - Electronic Funds Source

SEND TO ST. LOUIS ASAP

ENVIRONMENTAL RESTORATION

*** REQUIRED FIELDS**

9/21/18
*** Date of Purchase:**

XAVIER FIGUEROA
*** First/Last Name of Purchaser:**

1747-73
*** Equipment # / Fuel Cell #**
(Use the license plate # for rentals.)

$120.00 *** Total $ Amount** 45.644 **Gallons** 14832 **Odometer**

9/21/20186:20:44 AM
Order Number: 561044
Circle K/Marathon 3967
2001 N Chester Hwy 321
Gastonia, NC 28052
(704)866-8550
Register:100 ICR
(DUPLICATE RECEIPT)

Pay at Pump Sale
Pump # 3 UNL-REG
45.644 Gallons @ $2.629/Gal $120.00
Sub. Total: $120.00
Tax: $0.00
Total: $120.00
Discount Total: $0.00
TOTAL $120.00
Mastercard Fleet: $120.00
Change $0.00

Mastercar Acct: 8688
AUTH: 00-A19277
STAN: 441154
Batch: 34 Seq: 19
ODOM: 14832
INVOICE: 061955

COMMENTS

POSTED Invoice #: 561044

***Job Code:** 4-LROR Key #: 7

Date Posted: 9/21/18 Posted By: XF *** Approval:** AD

Billable: $ 120.00 GL # ☐ 5800-004 BILLABLE
* ☐ 5310-004 DAILY RATED

or Non-Billable: $ GL # ☐ 5500-004 NON-BILLABLE
☐ 6200-004 OVERHEAD/ADMIN 8800-004

Fuel for > ☐ Equipment ☑ Vehicle ☐ Other

Site Use? ☑ Yes ☐ No

Other > _____

McManus Drum Company, INC.

PO Box 26037 • Charlotte, NC 28221-6037
544 West 32nd Street • Charlotte, NC 28206
Phone • 704-598-2224
Fax • 704-598-8670

Sales Receipt

Date	Sale No.
9/19/2018	180678

Sold To

Environmental Restoration
1666 Fabrick Davis Drive
Fenton, MO 63026

Ship To

501 Ruth St
Shelby, NC 28150
Art Slayton
912-656-7211

Ship Date	Ship Via	PO#/Job #	Ordered by:	Payment Method	Check No./Card No.
9/19/2018	Our Truck		Christina Strength	Visa	----------6945

Qty	Description	Price Each	Amount
35	275 Gallon Rebottled IBC on steel pallet Delivery Charge	(b) (4) [redacted]	(b) (4) [redacted]

POSTED
V#
Job Code: 4-LRIR Team Sub: ☐ Key#: 16
Date Posted: 9/23 Posted by: CS Appr...
Billable:$ 7739.38 GL#: 5300-005
Non-Billable:$ GL#:
Strength

Subtotal	$7,250.00
Sales Tax (6.75%)	$489.38
Total	$7,739.38

E-Mail	Web Site
info@mcmanusdrum.com	www.mcmanusdrum.com

Pressley, Miriam

From: Eichinger, Kevin
Sent: Wednesday, December 26, 2018 8:16 AM
To: Ken Braig
Subject: FW: AES data for soil
Attachments: ATT00001.txt; 1811J25_REPORT_Revision.pdf

Importance: High

From: Prys, Paul <Paul.Prys@tetratech.com>
Sent: Wednesday, December 26, 2018 8:14 AM
To: Eichinger, Kevin <Eichinger.Kevin@epa.gov>
Subject: FW: AES data for soil
Importance: High

Kevin,

Here are the updated soil results that include pyridine. Let me know if you need anything else.

From: Parisa Masoudi <pmasoudi@aesatlanta.com>
Sent: Friday, December 21, 2018 6:43 PM
To: Vickers, Jessica <jessica.vickers@tetratech.com>
Cc: Prys, Paul <Paul.Prys@tetratech.com>
Subject: RE: AES data for soil
Importance: High

Hello,

Report revision attached.

Best Regards,
Paris Masoudi
Project Manager
Analytical Environmental Services, Inc.
3080 Presidential Drive
Atlanta, GA 30340
(770) 457-8177 (ext. 243)
pmasoudi@aesatlanta.com

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From: Parisa Masoudi [mailto:pmasoudi@aesatlanta.com]
Sent: Friday, December 21, 2018 11:07 AM
To: 'Vickers, Jessica'
Cc: 'Prys, Paul'
Subject: RE: AES data for soil

Hello,

Some good news is that the Pyridine data is already included in the raw data included in the data package, so there's no need to update anything on that end. Just replace the final report with the revision, which I should have for you soon.

Just an update!

Best Regards,
Paris Masoudi
Project Manager
Analytical Environmental Services, Inc.
3080 Presidential Drive
Atlanta, GA 30340
(770) 457-8177 (ext. 243)
pmasoudi@aesatlanta.com

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From: Vickers, Jessica [mailto:jessica.vickers@tetratech.com]
Sent: Thursday, December 20, 2018 7:15 PM
To: pmasoudi@aesatlanta.com
Cc: Prys, Paul
Subject: Re: AES data for soil

We will need a revised report. The Level IV packages can be emailed to us instead of shipped, as long as they're not too big.

Sent from my Verizon, Samsung Galaxy smartphone

-------- Original message --------
From: Parisa Masoudi <pmasoudi@aesatlanta.com>
Date: 12/20/18 4:07 PM (GMT-06:00)
To: "Vickers, Jessica" <jessica.vickers@tetratech.com>
Cc: "Prys, Paul" <Paul.Prys@tetratech.com>
Subject: RE: AES data for soil

One more question – we already have the data package for this particular work order shipped out and en route to you. Would you need an updated one mailed out once we have the report revised for Pyridine?

Best Regards,
Paris Masoudi
Project Manager
Analytical Environmental Services, Inc.
3080 Presidential Drive
Atlanta, GA 30340
(770) 457-8177 (ext. 243)
pmasoudi@aesatlanta.com

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From: Parisa Masoudi [mailto:pmasoudi@aesatlanta.com]
Sent: Thursday, December 20, 2018 4:58 PM
To: 'Vickers, Jessica'
Cc: 'Prys, Paul'
Subject: RE: AES data for soil

Hey Jessica,

Would you only need a Pyridine value for "LRO-WS-SS-111918" only or all of the samples? We might not need to fully re-analyze for this one compound since we did run, SVOC's, but I will check and have this updated.

Best Regards,
Paris Masoudi
Project Manager

Analytical Environmental Services, Inc.
3080 Presidential Drive
Atlanta, GA 30340
(770) 457-8177 (ext. 243)
pmasoudi@aesatlanta.com

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From: Vickers, Jessica [mailto:jessica.vickers@tetratech.com]
Sent: Thursday, December 20, 2018 11:41 AM
To: pmasoudi@aesatlanta.com
Cc: Prys, Paul
Subject: Fwd: AES data for soil

Please see below and perform the requested analysis. Contact me if you have any questions.

Sent from my Verizon, Samsung Galaxy smartphone

-------- Original message --------
From: "Prys, Paul" <Paul.Prys@tetratech.com>
Date: 12/20/18 10:19 AM (GMT-06:00)
To: "Vickers, Jessica" <jessica.vickers@tetratech.com>
Subject: FW: AES data for soil

Here you go.

From: Eichinger, Kevin <Eichinger.Kevin@epa.gov>
Sent: Thursday, December 20, 2018 10:47 AM
To: Prys, Paul <Paul.Prys@tetratech.com>
Subject: Fwd: AES data for soil

See below.

Kevin Eichinger, CHMM - On-Scene Coordinator and Industrial Hygienist
U.S. Environmental Protection Agency, Region 4 | 61 Forsyth St SW | Atlanta, Georgia | 30303
Emergency Response, Removal and Prevention Branch (ERRB)

office: 404-562-8268 | cell: 678-897-3759 | response.epa.gov

Begin forwarded message:

From: Ken Braig <k.braig@erllc.com>
Date: December 20, 2018 at 10:45:51 EST
To: "Eichinger, Kevin" <Eichinger.Kevin@epa.gov>
Subject: AES data for soil

Kevin,
disposal at Republic. AES did not report a value for Pyridine for their results of LRO-WS-SS-111918, the soil sample collected from the rolloffs. I contacted the lab directly and this is something they can provide, but the request will have to come from Tetra Tech, since they are the ones that contracted the analytical work. I'll need a Tetra Tech contact so we can get this.

Thank you,

Ken Braig
Response Manager
Environmental Restoration, LLC
1666 Fabic Drive
Fenton, MO 63026
636-485-0537 (mobile)
k.braig@erllc.com

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AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

December 21, 2018

Jessica Vickers
Tetra Tech EM Inc.
1955 Evergreen Blvd.
Duluth GA 30096

RE: L&R Oil Recovery

Dear Jessica Vickers:

Order No: 1811J25

Analytical Environmental Services, Inc. received 12 samples on 11/20/2018 5:55:00 PM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.
AES's accreditations are as follows:
-NELAP/State of Florida Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, Air & Emissions Volatile Organics, and Drinking Water Microbiology & Metals, effective 07/01/18-06/30/19.
State of Georgia, Department of Natural Resources ID #800 for analysis of Drinking Water Metals, effective 07/01/18-06/30/19 and Total Coliforms/ E. coli, effective 04/25/17-04/24/20.
-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Metals, PCM Asbestos, Gravimetric), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 11/01/19.
These results relate only to the items tested. This report may only be reproduced in full.

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

Sincerely,

Paris Masoudi

Paris Masoudi
Project Manager

Revision 12/21/2018

3080 Presidential Drive • Atlanta, Georgia 30340 • Tel: 770.457.8177 • Fax: 770.457.8188 • Toll Free: 800.972.4889
www.aesatlanta.com

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3785 Presidential Parkway, Atlanta GA 30340-3704
TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1811J25

Date: 11/20/2018 Page 1 of 1

COMPANY: Tetra Tech EM, Inc.
ADDRESS: 1955 Evergreen Blvd, Bldg 200, Suite 300, Duluth, GA 30096
PHONE: 404-849-7136
FAX: 678-775-3138
SAMPLED BY: Paul Prys
SIGNATURE:

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

ANALYSIS REQUESTED

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	VOC	SVOC	PCB	Total Metals	Flashpoint	Corrosivity	BTUs	Herbicides	Pesticides	pH				REMARKS	No # of Containers
							PRESERVATION (See codes)														
							I	I	I	I	I	I	I	I	I						
1	LOR-WS-SS-111918	11/19/2018	14:45		X	SO	X	X	X	X				X	X						1
2	LOR-WS-UST01-111918	11/19/2018	15:45	X		O	X	X	X	X	X	X	X			X					3
3	LOR-WS-UST02-111918	11/19/2018	16:00	X		O	X	X	X	X	X	X	X			X					3
4	LOR-WS-UST03-111918	11/19/2018	16:15	X		O	X	X	X	X	X	X	X			X					3
5	LOR-WS-TT06-111918	11/19/2018	16:50		X	O	X	X	X	X	X	X	X			X					3
6	LOR-WS-DR04-112018	11/20/2018	9:20	X		O	X	X	X	X	X	X	X			X					3
7	LOR-WS-DR05-112018	11/20/2018	9:30	X		O	X	X	X	X	X	X	X			X					3
8	LOR-SD01-112018	11/20/2018	10:55		X	SE			X												1
9	LOR-SD01-112018-DUP	11/20/2018	10:55		X	SE			X												1
10	LOR-SD02-112018	11/20/2018	10:15		X	SE			X												3
11	LOR-EB-112018	11/20/2018	16:10	X		W			X												2
12																					
13																					
14																					

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1:	11/20/18@1755	1:	11/20/18 5:55pm
2:		2:	5:55p
3:		3:	

PROJECT INFORMATION
PROJECT NAME: L&R Oil Recovery
PROJECT #: 103X902701101.011F
SITE ADDRESS: 501 Ruth Street, Shelby, North Carolina
SEND REPORT TO: jessica.vickers@tetratech.com
INVOICE TO: (IF DIFFERENT FROM ABOVE)
QUOTE #: PO#:

RECEIPT
Total # of Containers: 26

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

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

SPECIAL INSTRUCTIONS/COMMENTS:
Also, email analytical results to Paul Prys at paul.prys@tetratech.com.

SHIPMENT METHOD
OUT 11/20/18 VIA:
IN / / VIA:
CLIENT FedEx UPS MAIL COURIER
GREYHOUND OTHER

SAMPLES RECEIVED AFTER 3PM OR SATURDAY ARE CONSIDERED AS RECEIVED ON THE NEXT BUSINESS DAY; IF NO TAT IS MARKED ON COC AES WILL PROCEED AS STANDARD TAT.
SAMPLES ARE DISPOSED OF 30 DAYS AFTER COMPLETION OF REPORT UNLESS OTHER ARRANGEMENTS ARE MADE.

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

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc

Date: 29-Nov-18

Client: Tetra Tech EM Inc.
Project: L&R Oil Recovery
Lab ID: 1811J25

Case Narrative

Sample Receiving Nonconformance:

A trip blank was provided but not listed on the Chain of Custody (COC).

At the request of Paul Prys via email on 11/21/18, all sample ID's were corrected to begin with "LRO" instead of "LOR," as listed on the COC.

pH Analysis by Method E9045D:

Sample for pH analysis by method 9045D was received and analyzed outside holding time requirement of "immediate or 15 minutes."

PCB Analysis by Method 8082A:

Due to sample matrix, sample 1811J25-007B required dilution during analysis resulting in elevated reporting limits.

Volatiles Organic Compounds Analysis by Method 8260B:

LCS-270840 recovery for trans-1,2-Dichloroethene was outside control limits biased high. Target analyte was not detected in the analytical samples and data is reportable with high bias.

Due to sample matrix, samples 1811J25--001A, -002A, -003A-004A, ,-005A, -006A, & -007A required dilution during preparation and/or analysis resulting in elevated reporting limits.

LCS/LCSD reported for batch 270772 due to insufficient sample for MS/MSD.

Semi-Volatiles Organic Compounds Analysis by Method 8270:

Due to sample matrix, samples 1811J25-002B, -003B,-004B ,-005B, -006B, & -007B required dilution during analysis resulting in elevated reporting limits.

LCS-270742 recovery for Atrazine was outside control limits biased high. Target analyte was not detected in the analytical samples and data is reportable with high bias.

LCS-270742 recovery for Benzaldehyde was outside control limits biased low.

Analytical Environmental Services, Inc.

Date: *21-Dec-18*

CLIENT: Tetra Tech EM Inc.
Lab Order: 1811J25
Project: L&R Oil Recovery
Lab ID: 1811J25-001

Client Sample ID: LRO-WS-SS-111918
Collection Date: 11/19/2018 2:45:00 PM
Matrix: SOIL

Analyses	Result	Qual	MDL	Rpt. Limit	Units	BatchID	DF	Date Analyzed
METALS, TOTAL SW6010D				**(SW3050B)**			Analyst: **DGR**	
Arsenic	1.92	J	0.345	2.09	mg/Kg-dry	270615	1	11/26/2018 2:29:00 PM
Barium	22.8		0.134	4.19	mg/Kg-dry	270615	1	11/26/2018 2:29:00 PM
Cadmium	0.163	J	0.0417	2.09	mg/Kg-dry	270615	1	11/26/2018 2:29:00 PM
Chromium	15.3		0.368	2.09	mg/Kg-dry	270615	1	11/26/2018 2:29:00 PM
Lead	7.30		0.157	4.19	mg/Kg-dry	270615	1	11/26/2018 2:29:00 PM
Selenium	BRL		0.668	3.09	mg/Kg-dry	270848	1	11/29/2018 3:44:00 PM
Silver	BRL		0.0107	2.09	mg/Kg-dry	270615	1	11/26/2018 2:29:00 PM
TOTAL MERCURY BY SW7473				**(SW7473)**			Analyst: **AJU**	
Mercury	0.249		0.0154	0.108	mg/Kg-dry	270791	1	11/28/2018 3:31:00 PM
CHLORINATED PESTICIDES, TCL SW8081B				**(SW3550C)**			Analyst: **UHA**	
4,4'-DDD	BRL		0.69	3.6	ug/Kg-dry	270688	1	11/27/2018 1:48:00 PM
4,4'-DDE	BRL		0.84	3.6	ug/Kg-dry	270688	1	11/27/2018 1:48:00 PM
4,4'-DDT	BRL		0.81	3.6	ug/Kg-dry	270688	1	11/27/2018 1:48:00 PM
Aldrin	BRL		0.80	1.8	ug/Kg-dry	270688	1	11/27/2018 1:48:00 PM
alpha-BHC	BRL		0.86	1.8	ug/Kg-dry	270688	1	11/27/2018 1:48:00 PM
alpha-Chlordane	BRL		0.77	1.8	ug/Kg-dry	270688	1	11/27/2018 1:48:00 PM
beta-BHC	BRL		0.58	1.8	ug/Kg-dry	270688	1	11/27/2018 1:48:00 PM
delta-BHC	BRL		0.69	1.8	ug/Kg-dry	270688	1	11/27/2018 1:48:00 PM
Dieldrin	BRL		0.75	3.6	ug/Kg-dry	270688	1	11/27/2018 1:48:00 PM
Endosulfan I	BRL		0.79	1.8	ug/Kg-dry	270688	1	11/27/2018 1:48:00 PM
Endosulfan II	BRL		0.80	3.6	ug/Kg-dry	270688	1	11/27/2018 1:48:00 PM
Endosulfan sulfate	BRL		0.80	3.6	ug/Kg-dry	270688	1	11/27/2018 1:48:00 PM
Endrin	BRL		0.83	3.6	ug/Kg-dry	270688	1	11/27/2018 1:48:00 PM
Endrin aldehyde	BRL		0.81	3.6	ug/Kg-dry	270688	1	11/27/2018 1:48:00 PM
Endrin ketone	BRL		0.70	3.6	ug/Kg-dry	270688	1	11/27/2018 1:48:00 PM
gamma-BHC	BRL		0.64	1.8	ug/Kg-dry	270688	1	11/27/2018 1:48:00 PM
gamma-Chlordane	BRL		0.73	1.8	ug/Kg-dry	270688	1	11/27/2018 1:48:00 PM
Heptachlor	BRL		0.79	1.8	ug/Kg-dry	270688	1	11/27/2018 1:48:00 PM
Heptachlor epoxide	BRL		0.79	1.8	ug/Kg-dry	270688	1	11/27/2018 1:48:00 PM
Methoxychlor	BRL		2.4	18	ug/Kg-dry	270688	1	11/27/2018 1:48:00 PM
Toxaphene	BRL		8.9	180	ug/Kg-dry	270688	1	11/27/2018 1:48:00 PM
Surr: Decachlorobiphenyl	36.7	S	0	44.5-124	%REC	270688	1	11/27/2018 1:48:00 PM
Surr: Tetrachloro-m-xylene	34.7	S	0	45.1-120	%REC	270688	1	11/27/2018 1:48:00 PM
POLYCHLORINATED BIPHENYLS SW8082A				**(SW3546)**			Analyst: **UHA**	
Aroclor 1016	BRL		3.2	36	ug/Kg-dry	270468	1	11/21/2018 5:21:00 PM
Aroclor 1221	BRL		4.4	36	ug/Kg-dry	270468	1	11/21/2018 5:21:00 PM
Aroclor 1232	BRL		2.8	36	ug/Kg-dry	270468	1	11/21/2018 5:21:00 PM
Aroclor 1242	520		1.7	36	ug/Kg-dry	270468	1	11/21/2018 5:21:00 PM
Aroclor 1248	BRL		4.7	36	ug/Kg-dry	270468	1	11/21/2018 5:21:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	<	Less than Result value
>	Greater than Result value	B	Analyte detected in the associated Method Blank
E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified

Analytical Environmental Services, Inc.

Date: *21-Dec-18*

CLIENT: Tetra Tech EM Inc.
Lab Order: 1811J25
Project: L&R Oil Recovery
Lab ID: 1811J25-001

Client Sample ID: LRO-WS-SS-111918
Collection Date: 11/19/2018 2:45:00 PM
Matrix: SOIL

Analyses	Result	Qual	MDL	Rpt. Limit	Units	BatchID	DF	Date Analyzed
POLYCHLORINATED BIPHENYLS SW8082A				(SW3546)			Analyst: **UHA**	
Aroclor 1254	70		1.9	36	ug/Kg-dry	270468	1	11/21/2018 5:21:00 PM
Aroclor 1260	BRL		1.7	36	ug/Kg-dry	270468	1	11/21/2018 5:21:00 PM
Aroclor 1262	BRL		1.6	36	ug/Kg-dry	270468	1	11/21/2018 5:21:00 PM
Aroclor 1268	BRL		2.5	36	ug/Kg-dry	270468	1	11/21/2018 5:21:00 PM
Surr: Decachlorobiphenyl	59.3		0	45.7-140	%REC	270468	1	11/21/2018 5:21:00 PM
Surr: Tetrachloro-m-xylene	73.1		0	45.3-126	%REC	270468	1	11/21/2018 5:21:00 PM
CHLORINATED HERBICIDES SW8151A				(SW3550C)			Analyst: **HBR**	
2,4,5-T	BRL		6.4	36	ug/Kg-dry	270681	1	11/26/2018 6:17:00 PM
2,4,5-TP (Silvex)	BRL		5.9	36	ug/Kg-dry	270681	1	11/26/2018 6:17:00 PM
2,4-D	BRL		10	36	ug/Kg-dry	270681	1	11/26/2018 6:17:00 PM
2,4-DB	BRL		6.2	180	ug/Kg-dry	270681	1	11/26/2018 6:17:00 PM
Dalapon	BRL		6.1	360	ug/Kg-dry	270681	1	11/26/2018 6:17:00 PM
Dicamba	BRL		5.8	36	ug/Kg-dry	270681	1	11/26/2018 6:17:00 PM
Dichlorprop	BRL		7.5	36	ug/Kg-dry	270681	1	11/26/2018 6:17:00 PM
Dinoseb	BRL		57	91	ug/Kg-dry	270681	1	11/26/2018 6:17:00 PM
MCPA	BRL		850	3600	ug/Kg-dry	270681	1	11/26/2018 6:17:00 PM
MCPP	BRL		2200	3600	ug/Kg-dry	270681	1	11/26/2018 6:17:00 PM
Surr: DCAA	94.8		0	44-120	%REC	270681	1	11/26/2018 6:17:00 PM
TCL VOLATILE ORGANICS SW8260B				(SW5035)			Analyst: **OMA**	
1,1,1-Trichloroethane	BRL		71	270	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM
1,1,2,2-Tetrachloroethane	540		83	270	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM
1,1,2-Trichloroethane	BRL		83	270	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM
1,1-Dichloroethane	BRL		76	270	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM
1,1-Dichloroethene	BRL		53	270	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM
1,2,4-Trichlorobenzene	BRL		110	270	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM
1,2-Dibromo-3-chloropropane	BRL		110	270	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM
1,2-Dibromoethane	BRL		84	270	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM
1,2-Dichlorobenzene	BRL		87	270	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM
1,2-Dichloroethane	BRL		83	270	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM
1,2-Dichloropropane	BRL		79	270	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM
1,3-Dichlorobenzene	BRL		69	270	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM
1,4-Dichlorobenzene	BRL		96	270	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM
2-Butanone	BRL		340	2700	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM
2-Hexanone	BRL		210	540	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM
4-Methyl-2-pentanone	BRL		140	540	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM
Acetone	470	J	270	5400	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM
Benzene	37	J	32	270	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM
Bromodichloromethane	BRL		73	270	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM
Bromoform	BRL		73	270	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM
Bromomethane	BRL		120	270	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	<	Less than Result value
>	Greater than Result value	B	Analyte detected in the associated Method Blank
E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified

Analytical Environmental Services, Inc.

Date: *21-Dec-18*

CLIENT: Tetra Tech EM Inc.
Lab Order: 1811J25
Project: L&R Oil Recovery
Lab ID: 1811J25-001

Client Sample ID: LRO-WS-SS-111918
Collection Date: 11/19/2018 2:45:00 PM
Matrix: SOIL

Analyses	Result	Qual	MDL	Rpt. Limit	Units	BatchID	DF	Date Analyzed
TCL VOLATILE ORGANICS SW8260B				(SW5035)			Analyst: **OMA**	
Carbon disulfide	BRL		150	540	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM
Carbon tetrachloride	BRL		72	270	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM
Chlorobenzene	BRL		81	270	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM
Chloroethane	BRL		150	540	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM
Chloroform	BRL		65	270	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM
Chloromethane	BRL		100	540	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM
cis-1,2-Dichloroethene	BRL		98	270	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM
cis-1,3-Dichloropropene	BRL		97	270	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM
Cyclohexane	BRL		60	270	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM
Dibromochloromethane	BRL		73	270	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM
Dichlorodifluoromethane	BRL		80	540	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM
Ethylbenzene	3000		27	270	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM
Freon-113	BRL		70	540	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM
Isopropylbenzene	980		76	270	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM
m,p-Xylene	19000		51	270	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM
Methyl acetate	BRL		140	270	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM
Methyl tert-butyl ether	BRL		61	270	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM
Methylcyclohexane	830		87	270	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM
Methylene chloride	BRL		270	1100	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM
o-Xylene	12000		56	540	ug/Kg-dry	270840	100	11/27/2018 3:10:00 PM
Styrene	BRL		71	270	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM
Tetrachloroethene	270		81	270	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM
Toluene	2400		29	270	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM
trans-1,2-Dichloroethene	BRL		93	270	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM
trans-1,3-Dichloropropene	BRL		67	270	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM
Trichloroethene	BRL		74	270	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM
Trichlorofluoromethane	BRL		130	270	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM
Vinyl chloride	BRL		110	540	ug/Kg-dry	270840	50	11/27/2018 2:45:00 PM
Surr: 4-Bromofluorobenzene	106		0	65.1-125	%REC	270840	100	11/27/2018 3:10:00 PM
Surr: 4-Bromofluorobenzene	114		0	65.1-125	%REC	270840	50	11/27/2018 2:45:00 PM
Surr: Dibromofluoromethane	87.2		0	77.7-123	%REC	270840	50	11/27/2018 2:45:00 PM
Surr: Dibromofluoromethane	91.2		0	77.7-123	%REC	270840	100	11/27/2018 3:10:00 PM
Surr: Toluene-d8	104		0	83.2-120	%REC	270840	50	11/27/2018 2:45:00 PM
Surr: Toluene-d8	99.8		0	83.2-120	%REC	270840	100	11/27/2018 3:10:00 PM
TCL-SEMIVOLATILE ORGANICS SW8270D				(SW3550C)			Analyst: **YH**	
1,1'-Biphenyl	350	J	32	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
2,4,5-Trichlorophenol	BRL		65	1800	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
2,4,6-Trichlorophenol	BRL		59	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
2,4-Dichlorophenol	BRL		48	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
2,4-Dimethylphenol	BRL		52	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	<	Less than Result value
>	Greater than Result value	B	Analyte detected in the associated Method Blank
E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified

Analytical Environmental Services, Inc.

Date: *21-Dec-18*

CLIENT: Tetra Tech EM Inc.
Lab Order: 1811J25
Project: L&R Oil Recovery
Lab ID: 1811J25-001

Client Sample ID: LRO-WS-SS-111918
Collection Date: 11/19/2018 2:45:00 PM
Matrix: SOIL

Analyses	Result	Qual	MDL	Rpt. Limit	Units	BatchID	DF	Date Analyzed
TCL-SEMIVOLATILE ORGANICS SW8270D				(SW3550C)			Analyst: YH	
2,4-Dinitrophenol	BRL		150	1800	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
2,4-Dinitrotoluene	BRL		53	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
2,6-Dinitrotoluene	BRL		32	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
2-Chloronaphthalene	BRL		42	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
2-Chlorophenol	BRL		36	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
2-Methylnaphthalene	4500		34	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
2-Methylphenol	BRL		46	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
2-Nitroaniline	BRL		67	1800	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
2-Nitrophenol	BRL		25	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
3,3´-Dichlorobenzidine	BRL		180	720	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
3-Nitroaniline	BRL		64	1800	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
4,6-Dinitro-2-methylphenol	BRL		44	1800	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
4-Bromophenyl phenyl ether	BRL		44	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
4-Chloro-3-methylphenol	BRL		35	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
4-Chloroaniline	BRL		94	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
4-Chlorophenyl phenyl ether	BRL		49	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
4-Methylphenol	BRL		59	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
4-Nitroaniline	BRL		64	1800	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
4-Nitrophenol	BRL		45	1800	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
Acenaphthene	BRL		37	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
Acenaphthylene	BRL		33	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
Acetophenone	BRL		75	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
Anthracene	BRL		36	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
Atrazine	BRL		35	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
Benz(a)anthracene	BRL		170	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
Benzaldehyde	BRL		77	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
Benzo(a)pyrene	BRL		190	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
Benzo(b)fluoranthene	BRL		170	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
Benzo(g,h,i)perylene	BRL		180	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
Benzo(k)fluoranthene	BRL		200	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
Bis(2-chloroethoxy)methane	BRL		43	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
Bis(2-chloroethyl)ether	BRL		35	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
Bis(2-chloroisopropyl)ether	BRL		35	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
Bis(2-ethylhexyl)phthalate	650		180	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
Butyl benzyl phthalate	BRL		150	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
Caprolactam	BRL		55	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
Carbazole	BRL		40	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
Chrysene	BRL		200	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
Dibenz(a,h)anthracene	BRL		190	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
Dibenzofuran	BRL		37	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
Diethyl phthalate	BRL		43	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM

Qualifiers:

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>	Greater than Result value	B	Analyte detected in the associated Method Blank
E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified

Analytical Environmental Services, Inc.

Date: *21-Dec-18*

CLIENT: Tetra Tech EM Inc.
Lab Order: 1811J25
Project: L&R Oil Recovery
Lab ID: 1811J25-001

Client Sample ID: LRO-WS-SS-111918
Collection Date: 11/19/2018 2:45:00 PM
Matrix: SOIL

Analyses	Result	Qual	MDL	Rpt. Limit	Units	BatchID	DF	Date Analyzed
TCL-SEMIVOLATILE ORGANICS SW8270D				(SW3550C)			Analyst: **YH**	
Dimethyl phthalate	BRL		46	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
Di-n-butyl phthalate	BRL		48	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
Di-n-octyl phthalate	BRL		130	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
Fluoranthene	BRL		41	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
Fluorene	BRL		31	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
Hexachlorobenzene	BRL		43	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
Hexachlorobutadiene	BRL		59	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
Hexachlorocyclopentadiene	BRL		34	710	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
Hexachloroethane	BRL		41	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
Indeno(1,2,3-cd)pyrene	BRL		190	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
Isophorone	BRL		35	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
Naphthalene	2000		42	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
Nitrobenzene	BRL		43	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
N-Nitrosodi-n-propylamine	BRL		25	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
N-Nitrosodiphenylamine	BRL		36	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
Pentachlorophenol	BRL		43	1800	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
Phenanthrene	BRL		33	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
Phenol	BRL		27	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
Pyrene	350	J	170	360	ug/Kg-dry	270742	1	11/27/2018 5:18:00 PM
Surr: 2,4,6-Tribromophenol	55.9		0	48.2-133	%REC	270742	1	11/27/2018 5:18:00 PM
Surr: 2-Fluorobiphenyl	44.6	S	0	50.2-120	%REC	270742	1	11/27/2018 5:18:00 PM
Surr: 2-Fluorophenol	39.0	S	0	41.6-120	%REC	270742	1	11/27/2018 5:18:00 PM
Surr: 4-Terphenyl-d14	60.5		0	52.1-122	%REC	270742	1	11/27/2018 5:18:00 PM
Surr: Nitrobenzene-d5	45.4		0	41.4-120	%REC	270742	1	11/27/2018 5:18:00 PM
Surr: Phenol-d5	40.1	S	0	45.7-120	%REC	270742	1	11/27/2018 5:18:00 PM
SEMIVOLATILE ORG. COMP. BY GC/MS SW8270D				(SW3550C)			Analyst: **YH**	
Pyridine	BRL		70	360	ug/Kg-dry	270606	1	11/27/2018 5:18:00 PM
Surr: 2,4,6-Tribromophenol	55.9		0	45.6-120	%REC	270606	1	11/27/2018 5:18:00 PM
Surr: 2-Fluorobiphenyl	44.6	S	0	51.4-120	%REC	270606	1	11/27/2018 5:18:00 PM
Surr: 2-Fluorophenol	39.0	S	0	40.9-120	%REC	270606	1	11/27/2018 5:18:00 PM
Surr: 4-Terphenyl-d14	60.5		0	52.2-129	%REC	270606	1	11/27/2018 5:18:00 PM
Surr: Nitrobenzene-d5	45.4		0	40-120	%REC	270606	1	11/27/2018 5:18:00 PM
Surr: Phenol-d5	40.1	S	0	45-120	%REC	270606	1	11/27/2018 5:18:00 PM
PERCENT MOISTURE D2216							Analyst: **JJW**	
Percent Moisture	7.16		0	0	wt%		1	11/27/2018 2:15:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	<	Less than Result value
>	Greater than Result value	B	Analyte detected in the associated Method Blank
E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified

Analytical Environmental Services, Inc.

Date: *21-Dec-18*

CLIENT: Tetra Tech EM Inc.
Lab Order: 1811J25
Project: L&R Oil Recovery
Lab ID: 1811J25-002

Client Sample ID: LRO-WS-UST01-111918
Collection Date: 11/19/2018 3:45:00 PM
Matrix: WASTE

Analyses	Result	Qual	MDL	Rpt. Limit	Units	BatchID	DF	Date Analyzed
IGNITABILITY SW1010A							Analyst: **SKH**	
Ignitability	68.0	<	0	0	°F		1	11/26/2018 8:00:00 AM
METALS, TOTAL SW6010D				(SW3050B)			Analyst: **DGR**	
Arsenic	BRL		0.40	4.8	mg/Kg	270622	1	11/26/2018 11:47:00 A
Barium	13		0.15	4.8	mg/Kg	270622	1	11/26/2018 11:47:00 A
Cadmium	BRL		0.048	2.4	mg/Kg	270622	1	11/26/2018 11:47:00 A
Chromium	0.48	J	0.42	2.4	mg/Kg	270622	1	11/26/2018 11:47:00 A
Lead	10		0.18	4.8	mg/Kg	270622	1	11/26/2018 11:47:00 A
Selenium	1.1	J	0.73	4.8	mg/Kg	270622	1	11/26/2018 11:47:00 A
Silver	0.23	J	0.012	2.4	mg/Kg	270622	1	11/26/2018 11:47:00 A
TOTAL MERCURY - WASTE SW7471B				(SW7471B)			Analyst: **AJU**	
Mercury	BRL		0.00902	0.0941	mg/Kg	270777	1	11/28/2018 11:49:00 A
POLYCHLORINATED BIPHENYLS SW8082A				(SW3580)			Analyst: **UHA**	
Aroclor 1016	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 4:14:00 PM
Aroclor 1221	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 4:14:00 PM
Aroclor 1232	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 4:14:00 PM
Aroclor 1242	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 4:14:00 PM
Aroclor 1248	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 4:14:00 PM
Aroclor 1254	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 4:14:00 PM
Aroclor 1260	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 4:14:00 PM
Surr: Decachlorobiphenyl	76.6		0	50.5-148	%REC	270611	1	11/23/2018 4:14:00 PM
Surr: Tetrachloro-m-xylene	79.7		0	50.3-148	%REC	270611	1	11/23/2018 4:14:00 PM
TCL VOLATILE ORGANICS SW8260B				(SW5035)			Analyst: **CCH**	
1,1,1-Trichloroethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 6:33:00 PM
1,1,2,2-Tetrachloroethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 6:33:00 PM
1,1,2-Trichloroethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 6:33:00 PM
1,1-Dichloroethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 6:33:00 PM
1,1-Dichloroethene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 6:33:00 PM
1,2,4-Trichlorobenzene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 6:33:00 PM
1,2-Dibromo-3-chloropropane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 6:33:00 PM
1,2-Dibromoethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 6:33:00 PM
1,2-Dichlorobenzene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 6:33:00 PM
1,2-Dichloroethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 6:33:00 PM
1,2-Dichloropropane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 6:33:00 PM
1,3-Dichlorobenzene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 6:33:00 PM
1,4-Dichlorobenzene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 6:33:00 PM
2-Butanone	BRL		1200000	1200000	ug/Kg	270739	5000	11/26/2018 6:33:00 PM
2-Hexanone	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 6:33:00 PM
4-Methyl-2-pentanone	900000		250000	250000	ug/Kg	270739	5000	11/26/2018 6:33:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	<	Less than Result value
>	Greater than Result value	B	Analyte detected in the associated Method Blank
E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified

Analytical Environmental Services, Inc.

Date: *21-Dec-18*

CLIENT: Tetra Tech EM Inc.
Lab Order: 1811J25
Project: L&R Oil Recovery
Lab ID: 1811J25-002

Client Sample ID: LRO-WS-UST01-111918
Collection Date: 11/19/2018 3:45:00 PM
Matrix: WASTE

Analyses	Result	Qual	MDL	Rpt. Limit	Units	BatchID	DF	Date Analyzed
TCL VOLATILE ORGANICS SW8260B				**(SW5035)**			Analyst: **CCH**	
Acetone	BRL		1200000	1200000	ug/Kg	270739	5000	11/26/2018 6:33:00 PM
Benzene	2300000		120000	120000	ug/Kg	270739	5000	11/26/2018 6:33:00 PM
Bromodichloromethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 6:33:00 PM
Bromoform	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 6:33:00 PM
Bromomethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 6:33:00 PM
Carbon disulfide	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 6:33:00 PM
Carbon tetrachloride	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 6:33:00 PM
Chlorobenzene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 6:33:00 PM
Chloroethane	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 6:33:00 PM
Chloroform	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 6:33:00 PM
Chloromethane	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 6:33:00 PM
cis-1,2-Dichloroethene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 6:33:00 PM
cis-1,3-Dichloropropene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 6:33:00 PM
Cyclohexane	2400000		120000	120000	ug/Kg	270739	5000	11/26/2018 6:33:00 PM
Dibromochloromethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 6:33:00 PM
Dichlorodifluoromethane	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 6:33:00 PM
Ethylbenzene	6800000		1200000	1200000	ug/Kg	270739	50000	11/27/2018 1:58:00 PM
Freon-113	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 6:33:00 PM
Isopropylbenzene	460000		120000	120000	ug/Kg	270739	5000	11/26/2018 6:33:00 PM
m,p-Xylene	26000000		1200000	1200000	ug/Kg	270739	50000	11/27/2018 1:58:00 PM
Methyl acetate	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 6:33:00 PM
Methyl tert-butyl ether	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 6:33:00 PM
Methylcyclohexane	3000000		120000	120000	ug/Kg	270739	5000	11/26/2018 6:33:00 PM
Methylene chloride	BRL		120000	500000	ug/Kg	270739	5000	11/26/2018 6:33:00 PM
o-Xylene	9900000		1200000	1200000	ug/Kg	270739	50000	11/27/2018 1:58:00 PM
Styrene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 6:33:00 PM
Tetrachloroethene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 6:33:00 PM
Toluene	28000000		1200000	1200000	ug/Kg	270739	50000	11/27/2018 1:58:00 PM
trans-1,2-Dichloroethene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 6:33:00 PM
trans-1,3-Dichloropropene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 6:33:00 PM
Trichloroethene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 6:33:00 PM
Trichlorofluoromethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 6:33:00 PM
Vinyl chloride	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 6:33:00 PM
Surr: 4-Bromofluorobenzene	105		0	65.1-125	%REC	270739	5000	11/26/2018 6:33:00 PM
Surr: 4-Bromofluorobenzene	102		0	65.1-125	%REC	270739	50000	11/27/2018 1:58:00 PM
Surr: Dibromofluoromethane	86.6		0	77.7-123	%REC	270739	50000	11/27/2018 1:58:00 PM
Surr: Dibromofluoromethane	86.1		0	77.7-123	%REC	270739	5000	11/26/2018 6:33:00 PM
Surr: Toluene-d8	97.2		0	83.2-120	%REC	270739	50000	11/27/2018 1:58:00 PM
Surr: Toluene-d8	97.1		0	83.2-120	%REC	270739	5000	11/26/2018 6:33:00 PM
TCL-SEMIVOLATILE ORGANICS SW8270D				**(SW3580A)**			Analyst: **NWH**	

Qualifiers:

*	Value exceeds Maximum Contaminant Level	<	Less than Result value
>	Greater than Result value	B	Analyte detected in the associated Method Blank
E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified

Analytical Environmental Services, Inc.

Date: *21-Dec-18*

CLIENT: Tetra Tech EM Inc.
Lab Order: 1811J25
Project: L&R Oil Recovery
Lab ID: 1811J25-002

Client Sample ID: LRO-WS-UST01-111918
Collection Date: 11/19/2018 3:45:00 PM
Matrix: WASTE

Analyses	Result	Qual	MDL	Rpt. Limit	Units	BatchID	DF	Date Analyzed
TCL-SEMIVOLATILE ORGANICS SW8270D				(SW3580A)			Analyst: **NWH**	
1,1´-Biphenyl	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
2,4,5-Trichlorophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
2,4,6-Trichlorophenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
2,4-Dichlorophenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
2,4-Dimethylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
2,4-Dinitrophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
2,4-Dinitrotoluene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
2,6-Dinitrotoluene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
2-Chloronaphthalene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
2-Chlorophenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
2-Methylnaphthalene	1500		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
2-Methylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
2-Nitroaniline	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
2-Nitrophenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
3,3´-Dichlorobenzidine	BRL		6700	6700	mg/Kg	270610	10	11/26/2018 6:40:00 PM
3-Nitroaniline	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
4,6-Dinitro-2-methylphenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
4-Bromophenyl phenyl ether	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
4-Chloro-3-methylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
4-Chloroaniline	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
4-Chlorophenyl phenyl ether	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
4-Methylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
4-Nitroaniline	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
4-Nitrophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
Acenaphthene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
Acenaphthylene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
Acetophenone	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
Anthracene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
Atrazine	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
Benz(a)anthracene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
Benzaldehyde	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
Benzo(a)pyrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
Benzo(b)fluoranthene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
Benzo(g,h,i)perylene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
Benzo(k)fluoranthene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
Bis(2-chloroethoxy)methane	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
Bis(2-chloroethyl)ether	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
Bis(2-chloroisopropyl)ether	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
Bis(2-ethylhexyl)phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
Butyl benzyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
Caprolactam	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	<	Less than Result value
>	Greater than Result value	B	Analyte detected in the associated Method Blank
E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified

Analytical Environmental Services, Inc.

Date: *21-Dec-18*

CLIENT: Tetra Tech EM Inc.
Lab Order: 1811J25
Project: L&R Oil Recovery
Lab ID: 1811J25-002

Client Sample ID: LRO-WS-UST01-111918
Collection Date: 11/19/2018 3:45:00 PM
Matrix: WASTE

Analyses	Result	Qual	MDL	Rpt. Limit	Units	BatchID	DF	Date Analyzed
TCL-SEMIVOLATILE ORGANICS SW8270D				**(SW3580A)**			Analyst: **NWH**	
Carbazole	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
Chrysene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
Dibenz(a,h)anthracene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
Dibenzofuran	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
Diethyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
Dimethyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
Di-n-butyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
Di-n-octyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
Fluoranthene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
Fluorene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
Hexachlorobenzene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
Hexachlorobutadiene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
Hexachlorocyclopentadiene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
Hexachloroethane	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
Indeno(1,2,3-cd)pyrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
Isophorone	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
Naphthalene	1900		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
Nitrobenzene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
N-Nitrosodi-n-propylamine	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
N-Nitrosodiphenylamine	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
Pentachlorophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
Phenanthrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
Phenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
Pyrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 6:40:00 PM
Surr: 2,4,6-Tribromophenol	92.2		0	52.8-148	%REC	270610	10	11/26/2018 6:40:00 PM
Surr: 2-Fluorobiphenyl	91.8		0	64.7-137	%REC	270610	10	11/26/2018 6:40:00 PM
Surr: 2-Fluorophenol	88.7		0	57.4-132	%REC	270610	10	11/26/2018 6:40:00 PM
Surr: 4-Terphenyl-d14	110		0	62-138	%REC	270610	10	11/26/2018 6:40:00 PM
Surr: Nitrobenzene-d5	88.0		0	56.1-138	%REC	270610	10	11/26/2018 6:40:00 PM
Surr: Phenol-d5	90.8		0	49.6-133	%REC	270610	10	11/26/2018 6:40:00 PM
LABORATORY HYDROGEN ION (PH) SW9045D				**(SW9045D)**			Analyst: **RHE**	
pH	6.19	H	0.01	0.01	pH Units	270770	1	11/27/2018 2:00:00 PM
BTU ASTM D240							Analyst: **AAT**	
BTU	17000	N	0	0	BTU/lb		1	11/27/2018 9:30:00 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	<	Less than Result value
>	Greater than Result value	B	Analyte detected in the associated Method Blank
E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified

Analytical Environmental Services, Inc.

Date: *21-Dec-18*

CLIENT: Tetra Tech EM Inc.
Lab Order: 1811J25
Project: L&R Oil Recovery
Lab ID: 1811J25-003

Client Sample ID: LRO-WS-UST02-111918
Collection Date: 11/19/2018 4:00:00 PM
Matrix: WASTE

Analyses	Result	Qual	MDL	Rpt. Limit	Units	BatchID	DF	Date Analyzed
IGNITABILITY SW1010A							Analyst: **SKH**	
Ignitability	68.0	<	0	0	°F		1	11/26/2018 8:00:00 AM
METALS, TOTAL SW6010D				(SW3050B)			Analyst: **DGR**	
Arsenic	BRL		0.41	4.9	mg/Kg	270622	1	11/26/2018 12:12:00 P
Barium	44		0.16	4.9	mg/Kg	270622	1	11/26/2018 12:12:00 P
Cadmium	BRL		0.049	2.5	mg/Kg	270622	1	11/26/2018 12:12:00 P
Chromium	0.89	J	0.43	2.5	mg/Kg	270622	1	11/26/2018 12:12:00 P
Lead	22		0.18	4.9	mg/Kg	270622	1	11/26/2018 12:12:00 P
Selenium	1.0	J	0.75	4.9	mg/Kg	270622	1	11/26/2018 12:12:00 P
Silver	0.075	J	0.013	2.5	mg/Kg	270622	1	11/26/2018 12:12:00 P
TOTAL MERCURY - WASTE SW7471B				(SW7471B)			Analyst: **AJU**	
Mercury	BRL		0.00946	0.0987	mg/Kg	270777	1	11/28/2018 12:05:00 P
POLYCHLORINATED BIPHENYLS SW8082A				(SW3580)			Analyst: **UHA**	
Aroclor 1016	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 4:25:00 PM
Aroclor 1221	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 4:25:00 PM
Aroclor 1232	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 4:25:00 PM
Aroclor 1242	4.8		1.0	1.0	mg/Kg	270611	1	11/23/2018 4:25:00 PM
Aroclor 1248	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 4:25:00 PM
Aroclor 1254	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 4:25:00 PM
Aroclor 1260	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 4:25:00 PM
Surr: Decachlorobiphenyl	76.0		0	50.5-148	%REC	270611	1	11/23/2018 4:25:00 PM
Surr: Tetrachloro-m-xylene	80.8		0	50.3-148	%REC	270611	1	11/23/2018 4:25:00 PM
TCL VOLATILE ORGANICS SW8260B				(SW5035)			Analyst: **CCH**	
1,1,1-Trichloroethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
1,1,2,2-Tetrachloroethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
1,1,2-Trichloroethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
1,1-Dichloroethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
1,1-Dichloroethene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
1,2,4-Trichlorobenzene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
1,2-Dibromo-3-chloropropane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
1,2-Dibromoethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
1,2-Dichlorobenzene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
1,2-Dichloroethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
1,2-Dichloropropane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
1,3-Dichlorobenzene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
1,4-Dichlorobenzene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
2-Butanone	BRL		1200000	1200000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
2-Hexanone	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
4-Methyl-2-pentanone	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	<	Less than Result value
>	Greater than Result value	B	Analyte detected in the associated Method Blank
E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified

Analytical Environmental Services, Inc.

Date: *21-Dec-18*

CLIENT: Tetra Tech EM Inc.
Lab Order: 1811J25
Project: L&R Oil Recovery
Lab ID: 1811J25-003

Client Sample ID: LRO-WS-UST02-111918
Collection Date: 11/19/2018 4:00:00 PM
Matrix: WASTE

Analyses	Result	Qual	MDL	Rpt. Limit	Units	BatchID	DF	Date Analyzed
TCL VOLATILE ORGANICS SW8260B				**(SW5035)**			Analyst: **CCH**	
Acetone	BRL		1200000	1200000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
Benzene	190000		120000	120000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
Bromodichloromethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
Bromoform	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
Bromomethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
Carbon disulfide	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
Carbon tetrachloride	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
Chlorobenzene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
Chloroethane	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
Chloroform	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
Chloromethane	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
cis-1,2-Dichloroethene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
cis-1,3-Dichloropropene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
Cyclohexane	230000		120000	120000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
Dibromochloromethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
Dichlorodifluoromethane	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
Ethylbenzene	520000		120000	120000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
Freon-113	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
Isopropylbenzene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
m,p-Xylene	2000000		120000	120000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
Methyl acetate	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
Methyl tert-butyl ether	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
Methylcyclohexane	300000		120000	120000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
Methylene chloride	BRL		120000	500000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
o-Xylene	770000		120000	120000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
Styrene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
Tetrachloroethene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
Toluene	2000000		120000	120000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
trans-1,2-Dichloroethene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
trans-1,3-Dichloropropene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
Trichloroethene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
Trichlorofluoromethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
Vinyl chloride	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 7:00:00 PM
Surr: 4-Bromofluorobenzene	102		0	65.1-125	%REC	270739	5000	11/26/2018 7:00:00 PM
Surr: Dibromofluoromethane	88.7		0	77.7-123	%REC	270739	5000	11/26/2018 7:00:00 PM
Surr: Toluene-d8	97.5		0	83.2-120	%REC	270739	5000	11/26/2018 7:00:00 PM
TCL-SEMIVOLATILE ORGANICS SW8270D				**(SW3580A)**			Analyst: **NWH**	
1,1'-Biphenyl	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
2,4,5-Trichlorophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
2,4,6-Trichlorophenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	<	Less than Result value
>	Greater than Result value	B	Analyte detected in the associated Method Blank
E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified

Analytical Environmental Services, Inc.

Date: *21-Dec-18*

CLIENT: Tetra Tech EM Inc.
Lab Order: 1811J25
Project: L&R Oil Recovery
Lab ID: 1811J25-003

Client Sample ID: LRO-WS-UST02-111918
Collection Date: 11/19/2018 4:00:00 PM
Matrix: WASTE

Analyses	Result	Qual	MDL	Rpt. Limit	Units	BatchID	DF	Date Analyzed
TCL-SEMIVOLATILE ORGANICS SW8270D				(SW3580A)			Analyst: **NWH**	
2,4-Dichlorophenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
2,4-Dimethylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
2,4-Dinitrophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
2,4-Dinitrotoluene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
2,6-Dinitrotoluene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
2-Chloronaphthalene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
2-Chlorophenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
2-Methylnaphthalene	1300		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
2-Methylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
2-Nitroaniline	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
2-Nitrophenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
3,3´-Dichlorobenzidine	BRL		6700	6700	mg/Kg	270610	10	11/26/2018 5:19:00 PM
3-Nitroaniline	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
4,6-Dinitro-2-methylphenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
4-Bromophenyl phenyl ether	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
4-Chloro-3-methylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
4-Chloroaniline	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
4-Chlorophenyl phenyl ether	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
4-Methylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
4-Nitroaniline	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
4-Nitrophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
Acenaphthene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
Acenaphthylene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
Acetophenone	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
Anthracene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
Atrazine	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
Benz(a)anthracene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
Benzaldehyde	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
Benzo(a)pyrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
Benzo(b)fluoranthene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
Benzo(g,h,i)perylene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
Benzo(k)fluoranthene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
Bis(2-chloroethoxy)methane	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
Bis(2-chloroethyl)ether	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
Bis(2-chloroisopropyl)ether	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
Bis(2-ethylhexyl)phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
Butyl benzyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
Caprolactam	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
Carbazole	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
Chrysene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
Dibenz(a,h)anthracene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	<	Less than Result value
>	Greater than Result value	B	Analyte detected in the associated Method Blank
E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified

Analytical Environmental Services, Inc.

Date: *21-Dec-18*

CLIENT: Tetra Tech EM Inc.
Lab Order: 1811J25
Project: L&R Oil Recovery
Lab ID: 1811J25-003

Client Sample ID: LRO-WS-UST02-111918
Collection Date: 11/19/2018 4:00:00 PM
Matrix: WASTE

Analyses	Result	Qual	MDL	Rpt. Limit	Units	BatchID	DF	Date Analyzed
TCL-SEMIVOLATILE ORGANICS SW8270D				**(SW3580A)**			Analyst: **NWH**	
Dibenzofuran	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
Diethyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
Dimethyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
Di-n-butyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
Di-n-octyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
Fluoranthene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
Fluorene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
Hexachlorobenzene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
Hexachlorobutadiene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
Hexachlorocyclopentadiene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
Hexachloroethane	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
Indeno(1,2,3-cd)pyrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
Isophorone	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
Naphthalene	1700		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
Nitrobenzene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
N-Nitrosodi-n-propylamine	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
N-Nitrosodiphenylamine	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
Pentachlorophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
Phenanthrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
Phenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
Pyrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 5:19:00 PM
Surr: 2,4,6-Tribromophenol	99.8		0	52.8-148	%REC	270610	10	11/26/2018 5:19:00 PM
Surr: 2-Fluorobiphenyl	109		0	64.7-137	%REC	270610	10	11/26/2018 5:19:00 PM
Surr: 2-Fluorophenol	102		0	57.4-132	%REC	270610	10	11/26/2018 5:19:00 PM
Surr: 4-Terphenyl-d14	132		0	62-138	%REC	270610	10	11/26/2018 5:19:00 PM
Surr: Nitrobenzene-d5	99.2		0	56.1-138	%REC	270610	10	11/26/2018 5:19:00 PM
Surr: Phenol-d5	103		0	49.6-133	%REC	270610	10	11/26/2018 5:19:00 PM
LABORATORY HYDROGEN ION (PH) SW9045D				**(SW9045D)**			Analyst: **RHE**	
pH	5.42	H	0.01	0.01	pH Units	270770	1	11/27/2018 2:00:00 PM
BTU ASTM D240							Analyst: **AAT**	
BTU	3500	N	0	0	BTU/lb		1	11/27/2018 9:30:00 AM

Qualifiers:

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>	Greater than Result value	B	Analyte detected in the associated Method Blank
E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified

Analytical Environmental Services, Inc.

Date: *21-Dec-18*

CLIENT: Tetra Tech EM Inc.
Lab Order: 1811J25
Project: L&R Oil Recovery
Lab ID: 1811J25-004

Client Sample ID: LRO-WS-UST03-111918
Collection Date: 11/19/2018 4:15:00 PM
Matrix: WASTE

Analyses	Result	Qual	MDL	Rpt. Limit	Units	BatchID	DF	Date Analyzed
IGNITABILITY SW1010A							Analyst: **SKH**	
Ignitability	68.0	<	0	0	°F		1	11/26/2018 8:00:00 AM
METALS, TOTAL SW6010D				(SW3050B)			Analyst: **DGR**	
Arsenic	BRL		0.41	5.0	mg/Kg	270622	1	11/26/2018 12:15:00 P
Barium	6.2		0.16	5.0	mg/Kg	270622	1	11/26/2018 12:15:00 P
Cadmium	BRL		0.049	2.5	mg/Kg	270622	1	11/26/2018 12:15:00 P
Chromium	0.62	J	0.43	2.5	mg/Kg	270622	1	11/26/2018 12:15:00 P
Lead	2.1	J	0.19	5.0	mg/Kg	270622	1	11/26/2018 12:15:00 P
Selenium	BRL		0.75	5.0	mg/Kg	270622	1	11/26/2018 12:15:00 P
Silver	0.053	J	0.013	2.5	mg/Kg	270622	1	11/26/2018 12:15:00 P
TOTAL MERCURY - WASTE SW7471B				(SW7471B)			Analyst: **AJU**	
Mercury	BRL		0.00872	0.0910	mg/Kg	270777	1	11/28/2018 12:09:00 P
POLYCHLORINATED BIPHENYLS SW8082A				(SW3580)			Analyst: **UHA**	
Aroclor 1016	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 4:58:00 PM
Aroclor 1221	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 4:58:00 PM
Aroclor 1232	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 4:58:00 PM
Aroclor 1242	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 4:58:00 PM
Aroclor 1248	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 4:58:00 PM
Aroclor 1254	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 4:58:00 PM
Aroclor 1260	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 4:58:00 PM
Surr: Decachlorobiphenyl	77.8		0	50.5-148	%REC	270611	1	11/23/2018 4:58:00 PM
Surr: Tetrachloro-m-xylene	82.4		0	50.3-148	%REC	270611	1	11/23/2018 4:58:00 PM
TCL VOLATILE ORGANICS SW8260B				(SW5035)			Analyst: **CCH**	
1,1,1-Trichloroethane	BRL		12000	12000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
1,1,2,2-Tetrachloroethane	BRL		12000	12000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
1,1,2-Trichloroethane	BRL		12000	12000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
1,1-Dichloroethane	BRL		12000	12000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
1,1-Dichloroethene	BRL		12000	12000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
1,2,4-Trichlorobenzene	BRL		12000	12000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
1,2-Dibromo-3-chloropropane	BRL		12000	12000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
1,2-Dibromoethane	BRL		12000	12000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
1,2-Dichlorobenzene	BRL		12000	12000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
1,2-Dichloroethane	BRL		12000	12000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
1,2-Dichloropropane	BRL		12000	12000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
1,3-Dichlorobenzene	BRL		12000	12000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
1,4-Dichlorobenzene	BRL		12000	12000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
2-Butanone	BRL		120000	120000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
2-Hexanone	BRL		25000	25000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
4-Methyl-2-pentanone	BRL		25000	25000	ug/Kg	270739	500	11/27/2018 2:53:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	<	Less than Result value
>	Greater than Result value	B	Analyte detected in the associated Method Blank
E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified

Analytical Environmental Services, Inc.

Date: *21-Dec-18*

CLIENT: Tetra Tech EM Inc.
Lab Order: 1811J25
Project: L&R Oil Recovery
Lab ID: 1811J25-004

Client Sample ID: LRO-WS-UST03-111918
Collection Date: 11/19/2018 4:15:00 PM
Matrix: WASTE

Analyses	Result	Qual	MDL	Rpt. Limit	Units	BatchID	DF	Date Analyzed
TCL VOLATILE ORGANICS SW8260B				(SW5035)			Analyst: **CCH**	
Acetone	BRL		120000	120000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
Benzene	BRL		12000	12000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
Bromodichloromethane	BRL		12000	12000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
Bromoform	BRL		12000	12000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
Bromomethane	BRL		12000	12000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
Carbon disulfide	BRL		25000	25000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
Carbon tetrachloride	BRL		12000	12000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
Chlorobenzene	BRL		12000	12000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
Chloroethane	BRL		25000	25000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
Chloroform	BRL		12000	12000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
Chloromethane	BRL		25000	25000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
cis-1,2-Dichloroethene	BRL		12000	12000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
cis-1,3-Dichloropropene	BRL		12000	12000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
Cyclohexane	BRL		12000	12000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
Dibromochloromethane	BRL		12000	12000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
Dichlorodifluoromethane	BRL		25000	25000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
Ethylbenzene	BRL		12000	12000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
Freon-113	BRL		25000	25000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
Isopropylbenzene	BRL		12000	12000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
m,p-Xylene	21000		12000	12000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
Methyl acetate	BRL		12000	12000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
Methyl tert-butyl ether	BRL		12000	12000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
Methylcyclohexane	BRL		12000	12000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
Methylene chloride	BRL		12000	50000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
o-Xylene	BRL		12000	12000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
Styrene	BRL		12000	12000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
Tetrachloroethene	BRL		12000	12000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
Toluene	40000		12000	12000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
trans-1,2-Dichloroethene	BRL		12000	12000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
trans-1,3-Dichloropropene	BRL		12000	12000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
Trichloroethene	BRL		12000	12000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
Trichlorofluoromethane	BRL		12000	12000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
Vinyl chloride	BRL		25000	25000	ug/Kg	270739	500	11/27/2018 2:53:00 PM
Surr: 4-Bromofluorobenzene	103		0	65.1-125	%REC	270739	500	11/27/2018 2:53:00 PM
Surr: Dibromofluoromethane	87.4		0	77.7-123	%REC	270739	500	11/27/2018 2:53:00 PM
Surr: Toluene-d8	96.7		0	83.2-120	%REC	270739	500	11/27/2018 2:53:00 PM
TCL-SEMIVOLATILE ORGANICS SW8270D				(SW3580A)			Analyst: **NWH**	
1,1´-Biphenyl	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
2,4,5-Trichlorophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
2,4,6-Trichlorophenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	<	Less than Result value
>	Greater than Result value	B	Analyte detected in the associated Method Blank
E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified

Analytical Environmental Services, Inc.

Date: *21-Dec-18*

CLIENT: Tetra Tech EM Inc.
Lab Order: 1811J25
Project: L&R Oil Recovery
Lab ID: 1811J25-004

Client Sample ID: LRO-WS-UST03-111918
Collection Date: 11/19/2018 4:15:00 PM
Matrix: WASTE

Analyses	Result	Qual	MDL	Rpt. Limit	Units	BatchID	DF	Date Analyzed
TCL-SEMIVOLATILE ORGANICS SW8270D				(SW3580A)			Analyst: **NWH**	
2,4-Dichlorophenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
2,4-Dimethylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
2,4-Dinitrophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
2,4-Dinitrotoluene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
2,6-Dinitrotoluene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
2-Chloronaphthalene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
2-Chlorophenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
2-Methylnaphthalene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
2-Methylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
2-Nitroaniline	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
2-Nitrophenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
3,3´-Dichlorobenzidine	BRL		6700	6700	mg/Kg	270610	10	11/26/2018 7:06:00 PM
3-Nitroaniline	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
4,6-Dinitro-2-methylphenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
4-Bromophenyl phenyl ether	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
4-Chloro-3-methylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
4-Chloroaniline	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
4-Chlorophenyl phenyl ether	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
4-Methylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
4-Nitroaniline	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
4-Nitrophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
Acenaphthene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
Acenaphthylene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
Acetophenone	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
Anthracene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
Atrazine	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
Benz(a)anthracene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
Benzaldehyde	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
Benzo(a)pyrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
Benzo(b)fluoranthene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
Benzo(g,h,i)perylene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
Benzo(k)fluoranthene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
Bis(2-chloroethoxy)methane	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
Bis(2-chloroethyl)ether	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
Bis(2-chloroisopropyl)ether	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
Bis(2-ethylhexyl)phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
Butyl benzyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
Caprolactam	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
Carbazole	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
Chrysene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
Dibenz(a,h)anthracene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	<	Less than Result value
>	Greater than Result value	B	Analyte detected in the associated Method Blank
E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified

Analytical Environmental Services, Inc.

Date: *21-Dec-18*

CLIENT: Tetra Tech EM Inc.
Lab Order: 1811J25
Project: L&R Oil Recovery
Lab ID: 1811J25-004

Client Sample ID: LRO-WS-UST03-111918
Collection Date: 11/19/2018 4:15:00 PM
Matrix: WASTE

Analyses	Result	Qual	MDL	Rpt. Limit	Units	BatchID	DF	Date Analyzed
TCL-SEMIVOLATILE ORGANICS SW8270D				**(SW3580A)**			Analyst: **NWH**	
Dibenzofuran	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
Diethyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
Dimethyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
Di-n-butyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
Di-n-octyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
Fluoranthene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
Fluorene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
Hexachlorobenzene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
Hexachlorobutadiene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
Hexachlorocyclopentadiene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
Hexachloroethane	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
Indeno(1,2,3-cd)pyrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
Isophorone	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
Naphthalene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
Nitrobenzene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
N-Nitrosodi-n-propylamine	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
N-Nitrosodiphenylamine	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
Pentachlorophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
Phenanthrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
Phenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
Pyrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:06:00 PM
Surr: 2,4,6-Tribromophenol	97.3		0	52.8-148	%REC	270610	10	11/26/2018 7:06:00 PM
Surr: 2-Fluorobiphenyl	102		0	64.7-137	%REC	270610	10	11/26/2018 7:06:00 PM
Surr: 2-Fluorophenol	95.6		0	57.4-132	%REC	270610	10	11/26/2018 7:06:00 PM
Surr: 4-Terphenyl-d14	120		0	62-138	%REC	270610	10	11/26/2018 7:06:00 PM
Surr: Nitrobenzene-d5	91.0		0	56.1-138	%REC	270610	10	11/26/2018 7:06:00 PM
Surr: Phenol-d5	102		0	49.6-133	%REC	270610	10	11/26/2018 7:06:00 PM
LABORATORY HYDROGEN ION (PH) SW9045D				**(SW9045D)**			Analyst: **RHE**	
pH	6.98	H	0.01	0.01	pH Units	270770	1	11/27/2018 2:00:00 PM
BTU ASTM D240							Analyst: **AAT**	
BTU	BRL	N	0	0	BTU/lb		1	11/27/2018 9:30:00 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	<	Less than Result value
>	Greater than Result value	B	Analyte detected in the associated Method Blank
E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified

Analytical Environmental Services, Inc.

Date: *21-Dec-18*

CLIENT: Tetra Tech EM Inc.
Lab Order: 1811J25
Project: L&R Oil Recovery
Lab ID: 1811J25-005

Client Sample ID: LRO-WS-TT06-111918
Collection Date: 11/19/2018 4:50:00 PM
Matrix: WASTE

Analyses	Result	Qual	MDL	Rpt. Limit	Units	BatchID	DF	Date Analyzed
IGNITABILITY SW1010A							Analyst: **SKH**	
Ignitability	78.0		0	0	°F		1	11/26/2018 8:00:00 AM
METALS, TOTAL SW6010D				(SW3050B)			Analyst: **DGR**	
Arsenic	BRL		0.40	4.8	mg/Kg	270622	1	11/26/2018 12:18:00 P
Barium	1.9	J	0.15	4.8	mg/Kg	270622	1	11/26/2018 12:18:00 P
Cadmium	BRL		0.048	2.4	mg/Kg	270622	1	11/26/2018 12:18:00 P
Chromium	BRL		0.42	2.4	mg/Kg	270622	1	11/26/2018 12:18:00 P
Lead	12		0.18	4.8	mg/Kg	270622	1	11/26/2018 12:18:00 P
Selenium	BRL		0.73	4.8	mg/Kg	270622	1	11/26/2018 12:18:00 P
Silver	0.035	J	0.012	2.4	mg/Kg	270622	1	11/26/2018 12:18:00 P
TOTAL MERCURY - WASTE SW7471B				(SW7471B)			Analyst: **AJU**	
Mercury	BRL		0.00918	0.0958	mg/Kg	270777	1	11/28/2018 12:12:00 P
POLYCHLORINATED BIPHENYLS SW8082A				(SW3580)			Analyst: **UHA**	
Aroclor 1016	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 5:09:00 PM
Aroclor 1221	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 5:09:00 PM
Aroclor 1232	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 5:09:00 PM
Aroclor 1242	31		5.0	5.0	mg/Kg	270611	5	11/26/2018 12:22:00 P
Aroclor 1248	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 5:09:00 PM
Aroclor 1254	2.1		1.0	1.0	mg/Kg	270611	1	11/23/2018 5:09:00 PM
Aroclor 1260	BRL		5.0	5.0	mg/Kg	270611	5	11/26/2018 12:22:00 P
Surr: Decachlorobiphenyl	63.7		0	50.5-148	%REC	270611	1	11/23/2018 5:09:00 PM
Surr: Tetrachloro-m-xylene	85.9		0	50.3-148	%REC	270611	1	11/23/2018 5:09:00 PM
TCL VOLATILE ORGANICS SW8260B				(SW5035)			Analyst: **CCH**	
1,1,1-Trichloroethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM
1,1,2,2-Tetrachloroethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM
1,1,2-Trichloroethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM
1,1-Dichloroethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM
1,1-Dichloroethene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM
1,2,4-Trichlorobenzene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM
1,2-Dibromo-3-chloropropane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM
1,2-Dibromoethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM
1,2-Dichlorobenzene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM
1,2-Dichloroethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM
1,2-Dichloropropane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM
1,3-Dichlorobenzene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM
1,4-Dichlorobenzene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM
2-Butanone	BRL		1200000	1200000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM
2-Hexanone	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM
4-Methyl-2-pentanone	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	<	Less than Result value
>	Greater than Result value	B	Analyte detected in the associated Method Blank
E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified

Analytical Environmental Services, Inc.

Date: *21-Dec-18*

CLIENT: Tetra Tech EM Inc.
Lab Order: 1811J25
Project: L&R Oil Recovery
Lab ID: 1811J25-005

Client Sample ID: LRO-WS-TT06-111918
Collection Date: 11/19/2018 4:50:00 PM
Matrix: WASTE

Analyses	Result	Qual	MDL	Rpt. Limit	Units	BatchID	DF	Date Analyzed
TCL VOLATILE ORGANICS SW8260B				**(SW5035)**			Analyst: **CCH**	
Acetone	BRL		1200000	1200000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM
Benzene	580000		120000	120000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM
Bromodichloromethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM
Bromoform	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM
Bromomethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM
Carbon disulfide	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM
Carbon tetrachloride	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM
Chlorobenzene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM
Chloroethane	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM
Chloroform	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM
Chloromethane	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM
cis-1,2-Dichloroethene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM
cis-1,3-Dichloropropene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM
Cyclohexane	530000		120000	120000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM
Dibromochloromethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM
Dichlorodifluoromethane	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM
Ethylbenzene	1400000		120000	120000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM
Freon-113	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM
Isopropylbenzene	150000		120000	120000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM
m,p-Xylene	4900000		120000	120000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM
Methyl acetate	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM
Methyl tert-butyl ether	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM
Methylcyclohexane	650000		120000	120000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM
Methylene chloride	BRL		120000	500000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM
o-Xylene	2000000		120000	120000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM
Styrene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM
Tetrachloroethene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM
Toluene	6300000		1200000	1200000	ug/Kg	270739	50000	11/27/2018 2:26:00 PM
trans-1,2-Dichloroethene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM
trans-1,3-Dichloropropene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM
Trichloroethene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM
Trichlorofluoromethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM
Vinyl chloride	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 7:55:00 PM
Surr: 4-Bromofluorobenzene	102		0	65.1-125	%REC	270739	50000	11/27/2018 2:26:00 PM
Surr: 4-Bromofluorobenzene	104		0	65.1-125	%REC	270739	5000	11/26/2018 7:55:00 PM
Surr: Dibromofluoromethane	88.5		0	77.7-123	%REC	270739	5000	11/26/2018 7:55:00 PM
Surr: Dibromofluoromethane	88.7		0	77.7-123	%REC	270739	50000	11/27/2018 2:26:00 PM
Surr: Toluene-d8	95.9		0	83.2-120	%REC	270739	5000	11/26/2018 7:55:00 PM
Surr: Toluene-d8	97.0		0	83.2-120	%REC	270739	50000	11/27/2018 2:26:00 PM
TCL-SEMIVOLATILE ORGANICS SW8270D				**(SW3580A)**			Analyst: **NWH**	

Qualifiers:

*	Value exceeds Maximum Contaminant Level	<	Less than Result value
>	Greater than Result value	B	Analyte detected in the associated Method Blank
E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified

Analytical Environmental Services, Inc.

Date: *21-Dec-18*

CLIENT: Tetra Tech EM Inc.
Lab Order: 1811J25
Project: L&R Oil Recovery
Lab ID: 1811J25-005

Client Sample ID: LRO-WS-TT06-111918
Collection Date: 11/19/2018 4:50:00 PM
Matrix: WASTE

Analyses	Result	Qual	MDL	Rpt. Limit	Units	BatchID	DF	Date Analyzed
TCL-SEMIVOLATILE ORGANICS SW8270D				**(SW3580A)**			Analyst: **NWH**	
1,1´-Biphenyl	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
2,4,5-Trichlorophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
2,4,6-Trichlorophenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
2,4-Dichlorophenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
2,4-Dimethylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
2,4-Dinitrophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
2,4-Dinitrotoluene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
2,6-Dinitrotoluene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
2-Chloronaphthalene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
2-Chlorophenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
2-Methylnaphthalene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
2-Methylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
2-Nitroaniline	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
2-Nitrophenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
3,3´-Dichlorobenzidine	BRL		6700	6700	mg/Kg	270610	10	11/26/2018 7:35:00 PM
3-Nitroaniline	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
4,6-Dinitro-2-methylphenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
4-Bromophenyl phenyl ether	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
4-Chloro-3-methylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
4-Chloroaniline	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
4-Chlorophenyl phenyl ether	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
4-Methylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
4-Nitroaniline	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
4-Nitrophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
Acenaphthene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
Acenaphthylene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
Acetophenone	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
Anthracene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
Atrazine	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
Benz(a)anthracene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
Benzaldehyde	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
Benzo(a)pyrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
Benzo(b)fluoranthene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
Benzo(g,h,i)perylene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
Benzo(k)fluoranthene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
Bis(2-chloroethoxy)methane	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
Bis(2-chloroethyl)ether	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
Bis(2-chloroisopropyl)ether	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
Bis(2-ethylhexyl)phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
Butyl benzyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
Caprolactam	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	<	Less than Result value
>	Greater than Result value	B	Analyte detected in the associated Method Blank
E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified

Analytical Environmental Services, Inc.

Date: *21-Dec-18*

CLIENT: Tetra Tech EM Inc.
Lab Order: 1811J25
Project: L&R Oil Recovery
Lab ID: 1811J25-005

Client Sample ID: LRO-WS-TT06-111918
Collection Date: 11/19/2018 4:50:00 PM
Matrix: WASTE

Analyses	Result	Qual	MDL	Rpt. Limit	Units	BatchID	DF	Date Analyzed
TCL-SEMIVOLATILE ORGANICS SW8270D				(SW3580A)			Analyst: **NWH**	
Carbazole	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
Chrysene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
Dibenz(a,h)anthracene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
Dibenzofuran	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
Diethyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
Dimethyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
Di-n-butyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
Di-n-octyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
Fluoranthene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
Fluorene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
Hexachlorobenzene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
Hexachlorobutadiene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
Hexachlorocyclopentadiene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
Hexachloroethane	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
Indeno(1,2,3-cd)pyrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
Isophorone	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
Naphthalene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
Nitrobenzene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
N-Nitrosodi-n-propylamine	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
N-Nitrosodiphenylamine	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
Pentachlorophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
Phenanthrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
Phenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
Pyrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 7:35:00 PM
Surr: 2,4,6-Tribromophenol	90.2		0	52.8-148	%REC	270610	10	11/26/2018 7:35:00 PM
Surr: 2-Fluorobiphenyl	93.4		0	64.7-137	%REC	270610	10	11/26/2018 7:35:00 PM
Surr: 2-Fluorophenol	89.4		0	57.4-132	%REC	270610	10	11/26/2018 7:35:00 PM
Surr: 4-Terphenyl-d14	112		0	62-138	%REC	270610	10	11/26/2018 7:35:00 PM
Surr: Nitrobenzene-d5	88.8		0	56.1-138	%REC	270610	10	11/26/2018 7:35:00 PM
Surr: Phenol-d5	94.9		0	49.6-133	%REC	270610	10	11/26/2018 7:35:00 PM
LABORATORY HYDROGEN ION (PH) SW9045D				(SW9045D)			Analyst: **RHE**	
pH	6.65	H	0.01	0.01	pH Units	270770	1	11/27/2018 2:00:00 PM
BTU ASTM D240							Analyst: **AAT**	
BTU	20000	N	0	0	BTU/lb		1	11/27/2018 9:30:00 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	<	Less than Result value
>	Greater than Result value	B	Analyte detected in the associated Method Blank
E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified

Analytical Environmental Services, Inc.

Date: *21-Dec-18*

CLIENT: Tetra Tech EM Inc.
Lab Order: 1811J25
Project: L&R Oil Recovery
Lab ID: 1811J25-006

Client Sample ID: LRO-WS-DR04-112018
Collection Date: 11/20/2018 9:20:00 AM
Matrix: WASTE

Analyses	Result	Qual	MDL	Rpt. Limit	Units	BatchID	DF	Date Analyzed
IGNITABILITY SW1010A							Analyst: **SKH**	
Ignitability	150	>	0	0	°F		1	11/26/2018 8:00:00 AM
METALS, TOTAL SW6010D				(SW3050B)			Analyst: **DGR**	
Arsenic	BRL		0.41	5.0	mg/Kg	270622	1	11/26/2018 12:22:00 P
Barium	BRL		0.16	5.0	mg/Kg	270622	1	11/26/2018 12:22:00 P
Cadmium	BRL		0.050	2.5	mg/Kg	270622	1	11/26/2018 12:22:00 P
Chromium	BRL		0.44	2.5	mg/Kg	270622	1	11/26/2018 12:22:00 P
Lead	0.32	J	0.19	5.0	mg/Kg	270622	1	11/26/2018 12:22:00 P
Selenium	1.4	J	0.75	5.0	mg/Kg	270622	1	11/26/2018 12:22:00 P
Silver	0.033	J	0.013	2.5	mg/Kg	270622	1	11/26/2018 12:22:00 P
TOTAL MERCURY - WASTE SW7471B				(SW7471B)			Analyst: **AJU**	
Mercury	BRL		0.00901	0.0939	mg/Kg	270777	1	11/28/2018 12:15:00 P
POLYCHLORINATED BIPHENYLS SW8082A				(SW3580)			Analyst: **UHA**	
Aroclor 1016	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 5:21:00 PM
Aroclor 1221	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 5:21:00 PM
Aroclor 1232	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 5:21:00 PM
Aroclor 1242	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 5:21:00 PM
Aroclor 1248	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 5:21:00 PM
Aroclor 1254	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 5:21:00 PM
Aroclor 1260	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 5:21:00 PM
Surr: Decachlorobiphenyl	93.3		0	50.5-148	%REC	270611	1	11/23/2018 5:21:00 PM
Surr: Tetrachloro-m-xylene	82.3		0	50.3-148	%REC	270611	1	11/23/2018 5:21:00 PM
TCL VOLATILE ORGANICS SW8260B				(SW5035)			Analyst: **CCH**	
1,1,1-Trichloroethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
1,1,2,2-Tetrachloroethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
1,1,2-Trichloroethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
1,1-Dichloroethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
1,1-Dichloroethene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
1,2,4-Trichlorobenzene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
1,2-Dibromo-3-chloropropane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
1,2-Dibromoethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
1,2-Dichlorobenzene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
1,2-Dichloroethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
1,2-Dichloropropane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
1,3-Dichlorobenzene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
1,4-Dichlorobenzene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
2-Butanone	BRL		1200000	1200000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
2-Hexanone	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
4-Methyl-2-pentanone	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	<	Less than Result value
>	Greater than Result value	B	Analyte detected in the associated Method Blank
E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified

Analytical Environmental Services, Inc.

Date: *21-Dec-18*

CLIENT: Tetra Tech EM Inc.
Lab Order: 1811J25
Project: L&R Oil Recovery
Lab ID: 1811J25-006

Client Sample ID: LRO-WS-DR04-112018
Collection Date: 11/20/2018 9:20:00 AM
Matrix: WASTE

Analyses	Result	Qual	MDL	Rpt. Limit	Units	BatchID	DF	Date Analyzed
TCL VOLATILE ORGANICS SW8260B				(SW5035)			Analyst: **CCH**	
Acetone	BRL		1200000	1200000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
Benzene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
Bromodichloromethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
Bromoform	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
Bromomethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
Carbon disulfide	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
Carbon tetrachloride	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
Chlorobenzene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
Chloroethane	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
Chloroform	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
Chloromethane	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
cis-1,2-Dichloroethene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
cis-1,3-Dichloropropene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
Cyclohexane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
Dibromochloromethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
Dichlorodifluoromethane	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
Ethylbenzene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
Freon-113	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
Isopropylbenzene	660000		120000	120000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
m,p-Xylene	260000		120000	120000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
Methyl acetate	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
Methyl tert-butyl ether	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
Methylcyclohexane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
Methylene chloride	BRL		120000	500000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
o-Xylene	960000		120000	120000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
Styrene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
Tetrachloroethene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
Toluene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
trans-1,2-Dichloroethene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
trans-1,3-Dichloropropene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
Trichloroethene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
Trichlorofluoromethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
Vinyl chloride	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 8:22:00 PM
Surr: 4-Bromofluorobenzene	106		0	65.1-125	%REC	270739	5000	11/26/2018 8:22:00 PM
Surr: Dibromofluoromethane	90.2		0	77.7-123	%REC	270739	5000	11/26/2018 8:22:00 PM
Surr: Toluene-d8	96.5		0	83.2-120	%REC	270739	5000	11/26/2018 8:22:00 PM
TCL-SEMIVOLATILE ORGANICS SW8270D				(SW3580A)			Analyst: **NWH**	
1,1´-Biphenyl	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
2,4,5-Trichlorophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
2,4,6-Trichlorophenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	<	Less than Result value
>	Greater than Result value	B	Analyte detected in the associated Method Blank
E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified

Analytical Environmental Services, Inc.

Date: *21-Dec-18*

CLIENT: Tetra Tech EM Inc.
Lab Order: 1811J25
Project: L&R Oil Recovery
Lab ID: 1811J25-006

Client Sample ID: LRO-WS-DR04-112018
Collection Date: 11/20/2018 9:20:00 AM
Matrix: WASTE

Analyses	Result	Qual	MDL	Rpt. Limit	Units	BatchID	DF	Date Analyzed
TCL-SEMIVOLATILE ORGANICS SW8270D				(SW3580A)			Analyst: **NWH**	
2,4-Dichlorophenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
2,4-Dimethylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
2,4-Dinitrophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
2,4-Dinitrotoluene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
2,6-Dinitrotoluene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
2-Chloronaphthalene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
2-Chlorophenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
2-Methylnaphthalene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
2-Methylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
2-Nitroaniline	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
2-Nitrophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
3,3'-Dichlorobenzidine	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
3-Nitroaniline	BRL		6700	6700	mg/Kg	270610	10	11/26/2018 8:04:00 PM
4,6-Dinitro-2-methylphenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
4-Bromophenyl phenyl ether	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
4-Chloro-3-methylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
4-Chloroaniline	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
4-Chlorophenyl phenyl ether	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
4-Methylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
4-Nitroaniline	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
4-Nitrophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
Acenaphthene	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
Acenaphthylene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
Acetophenone	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
Anthracene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
Atrazine	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
Benz(a)anthracene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
Benzaldehyde	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
Benzo(a)pyrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
Benzo(b)fluoranthene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
Benzo(g,h,i)perylene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
Benzo(k)fluoranthene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
Bis(2-chloroethoxy)methane	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
Bis(2-chloroethyl)ether	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
Bis(2-chloroisopropyl)ether	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
Bis(2-ethylhexyl)phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
Butyl benzyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
Caprolactam	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
Carbazole	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
Chrysene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
Dibenz(a,h)anthracene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	<	Less than Result value
>	Greater than Result value	B	Analyte detected in the associated Method Blank
E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified

Analytical Environmental Services, Inc.

Date: *21-Dec-18*

CLIENT: Tetra Tech EM Inc.
Lab Order: 1811J25
Project: L&R Oil Recovery
Lab ID: 1811J25-006

Client Sample ID: LRO-WS-DR04-112018
Collection Date: 11/20/2018 9:20:00 AM
Matrix: WASTE

Analyses	Result	Qual	MDL	Rpt. Limit	Units	BatchID	DF	Date Analyzed
TCL-SEMIVOLATILE ORGANICS SW8270D				**(SW3580A)**			Analyst: **NWH**	
Dibenzofuran	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
Diethyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
Dimethyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
Di-n-butyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
Di-n-octyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
Fluoranthene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
Fluorene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
Hexachlorobenzene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
Hexachlorobutadiene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
Hexachlorocyclopentadiene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
Hexachloroethane	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
Indeno(1,2,3-cd)pyrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
Isophorone	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
Naphthalene	1100		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
Nitrobenzene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
N-Nitrosodi-n-propylamine	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
N-Nitrosodiphenylamine	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
Pentachlorophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
Phenanthrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
Phenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
Pyrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:04:00 PM
Surr: 2,4,6-Tribromophenol	100		0	52.8-148	%REC	270610	10	11/26/2018 8:04:00 PM
Surr: 2-Fluorobiphenyl	105		0	64.7-137	%REC	270610	10	11/26/2018 8:04:00 PM
Surr: 2-Fluorophenol	94.8		0	57.4-132	%REC	270610	10	11/26/2018 8:04:00 PM
Surr: 4-Terphenyl-d14	100		0	62-138	%REC	270610	10	11/26/2018 8:04:00 PM
Surr: Nitrobenzene-d5	80.4		0	56.1-138	%REC	270610	10	11/26/2018 8:04:00 PM
Surr: Phenol-d5	91.9		0	49.6-133	%REC	270610	10	11/26/2018 8:04:00 PM
LABORATORY HYDROGEN ION (PH) SW9045D				**(SW9045D)**			Analyst: **RHE**	
pH	6.50	H	0.01	0.01	pH Units	270770	1	11/27/2018 2:00:00 PM
BTU ASTM D240							Analyst: **AAT**	
BTU	17000	N	0	0	BTU/lb		1	11/27/2018 9:30:00 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	<	Less than Result value
>	Greater than Result value	B	Analyte detected in the associated Method Blank
E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified

Analytical Environmental Services, Inc.

Date: *21-Dec-18*

CLIENT: Tetra Tech EM Inc.
Lab Order: 1811J25
Project: L&R Oil Recovery
Lab ID: 1811J25-007

Client Sample ID: LRO-WS-DR05-112018
Collection Date: 11/20/2018 9:30:00 AM
Matrix: WASTE

Analyses	Result	Qual	MDL	Rpt. Limit	Units	BatchID	DF	Date Analyzed
IGNITABILITY SW1010A							Analyst: **SKH**	
Ignitability	140		0	0	°F		1	11/26/2018 8:00:00 AM
METALS, TOTAL SW6010D				(SW3050B)			Analyst: **DGR**	
Arsenic	BRL		0.39	4.7	mg/Kg	270622	1	11/26/2018 12:25:00 P
Barium	BRL		0.15	4.7	mg/Kg	270622	1	11/26/2018 12:25:00 P
Cadmium	BRL		0.047	2.3	mg/Kg	270622	1	11/26/2018 12:25:00 P
Chromium	BRL		0.41	2.3	mg/Kg	270622	1	11/26/2018 12:25:00 P
Lead	0.33	J	0.18	4.7	mg/Kg	270622	1	11/26/2018 12:25:00 P
Selenium	1.0	J	0.71	4.7	mg/Kg	270622	1	11/26/2018 12:25:00 P
Silver	0.012	J	0.012	2.3	mg/Kg	270622	1	11/26/2018 12:25:00 P
TOTAL MERCURY - WASTE SW7471B				(SW7471B)			Analyst: **AJU**	
Mercury	BRL		0.00819	0.0854	mg/Kg	270777	1	11/28/2018 12:19:00 P
POLYCHLORINATED BIPHENYLS SW8082A				(SW3580)			Analyst: **UHA**	
Aroclor 1016	BRL		5.0	5.0	mg/Kg	270611	5	11/26/2018 12:34:00 P
Aroclor 1221	BRL		5.0	5.0	mg/Kg	270611	5	11/26/2018 12:34:00 P
Aroclor 1232	BRL		5.0	5.0	mg/Kg	270611	5	11/26/2018 12:34:00 P
Aroclor 1242	BRL		5.0	5.0	mg/Kg	270611	5	11/26/2018 12:34:00 P
Aroclor 1248	BRL		5.0	5.0	mg/Kg	270611	5	11/26/2018 12:34:00 P
Aroclor 1254	BRL		5.0	5.0	mg/Kg	270611	5	11/26/2018 12:34:00 P
Aroclor 1260	BRL		5.0	5.0	mg/Kg	270611	5	11/26/2018 12:34:00 P
Surr: Decachlorobiphenyl	96.7		0	50.5-148	%REC	270611	1	11/23/2018 5:32:00 PM
Surr: Tetrachloro-m-xylene	84.7		0	50.3-148	%REC	270611	1	11/23/2018 5:32:00 PM
TCL VOLATILE ORGANICS SW8260B				(SW5035)			Analyst: **CCH**	
1,1,1-Trichloroethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
1,1,2,2-Tetrachloroethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
1,1,2-Trichloroethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
1,1-Dichloroethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
1,1-Dichloroethene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
1,2,4-Trichlorobenzene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
1,2-Dibromo-3-chloropropane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
1,2-Dibromoethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
1,2-Dichlorobenzene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
1,2-Dichloroethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
1,2-Dichloropropane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
1,3-Dichlorobenzene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
1,4-Dichlorobenzene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
2-Butanone	BRL		1200000	1200000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
2-Hexanone	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
4-Methyl-2-pentanone	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	<	Less than Result value
>	Greater than Result value	B	Analyte detected in the associated Method Blank
E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified

Analytical Environmental Services, Inc.

Date: *21-Dec-18*

CLIENT: Tetra Tech EM Inc.
Lab Order: 1811J25
Project: L&R Oil Recovery
Lab ID: 1811J25-007

Client Sample ID: LRO-WS-DR05-112018
Collection Date: 11/20/2018 9:30:00 AM
Matrix: WASTE

Analyses	Result	Qual	MDL	Rpt. Limit	Units	BatchID	DF	Date Analyzed
TCL VOLATILE ORGANICS SW8260B				(SW5035)			Analyst: **CCH**	
Acetone	BRL		1200000	1200000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
Benzene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
Bromodichloromethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
Bromoform	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
Bromomethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
Carbon disulfide	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
Carbon tetrachloride	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
Chlorobenzene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
Chloroethane	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
Chloroform	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
Chloromethane	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
cis-1,2-Dichloroethene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
cis-1,3-Dichloropropene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
Cyclohexane	130000		120000	120000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
Dibromochloromethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
Dichlorodifluoromethane	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
Ethylbenzene	500000		120000	120000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
Freon-113	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
Isopropylbenzene	800000		120000	120000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
m,p-Xylene	2100000		120000	120000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
Methyl acetate	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
Methyl tert-butyl ether	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
Methylcyclohexane	550000		120000	120000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
Methylene chloride	BRL		120000	500000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
o-Xylene	1100000		120000	120000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
Styrene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
Tetrachloroethene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
Toluene	440000		120000	120000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
trans-1,2-Dichloroethene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
trans-1,3-Dichloropropene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
Trichloroethene	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
Trichlorofluoromethane	BRL		120000	120000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
Vinyl chloride	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 8:48:00 PM
Surr: 4-Bromofluorobenzene	105		0	65.1-125	%REC	270739	5000	11/26/2018 8:48:00 PM
Surr: Dibromofluoromethane	86.9		0	77.7-123	%REC	270739	5000	11/26/2018 8:48:00 PM
Surr: Toluene-d8	99.4		0	83.2-120	%REC	270739	5000	11/26/2018 8:48:00 PM
TCL-SEMIVOLATILE ORGANICS SW8270D				(SW3580A)			Analyst: **NWH**	
1,1'-Biphenyl	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
2,4,5-Trichlorophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
2,4,6-Trichlorophenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	<	Less than Result value
>	Greater than Result value	B	Analyte detected in the associated Method Blank
E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified

Analytical Environmental Services, Inc.

Date: *21-Dec-18*

CLIENT: Tetra Tech EM Inc.
Lab Order: 1811J25
Project: L&R Oil Recovery
Lab ID: 1811J25-007

Client Sample ID: LRO-WS-DR05-112018
Collection Date: 11/20/2018 9:30:00 AM
Matrix: WASTE

Analyses	Result	Qual	MDL	Rpt. Limit	Units	BatchID	DF	Date Analyzed
TCL-SEMIVOLATILE ORGANICS SW8270D				**(SW3580A)**			Analyst: **NWH**	
2,4-Dichlorophenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
2,4-Dimethylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
2,4-Dinitrophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
2,4-Dinitrotoluene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
2,6-Dinitrotoluene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
2-Chloronaphthalene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
2-Chlorophenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
2-Methylnaphthalene	4400		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
2-Methylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
2-Nitroaniline	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
2-Nitrophenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
3,3´-Dichlorobenzidine	BRL		6700	6700	mg/Kg	270610	10	11/26/2018 8:33:00 PM
3-Nitroaniline	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
4,6-Dinitro-2-methylphenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
4-Bromophenyl phenyl ether	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
4-Chloro-3-methylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
4-Chloroaniline	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
4-Chlorophenyl phenyl ether	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
4-Methylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
4-Nitroaniline	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
4-Nitrophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
Acenaphthene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
Acenaphthylene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
Acetophenone	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
Anthracene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
Atrazine	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
Benz(a)anthracene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
Benzaldehyde	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
Benzo(a)pyrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
Benzo(b)fluoranthene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
Benzo(g,h,i)perylene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
Benzo(k)fluoranthene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
Bis(2-chloroethoxy)methane	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
Bis(2-chloroethyl)ether	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
Bis(2-chloroisopropyl)ether	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
Bis(2-ethylhexyl)phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
Butyl benzyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
Caprolactam	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
Carbazole	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
Chrysene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
Dibenz(a,h)anthracene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	<	Less than Result value
>	Greater than Result value	B	Analyte detected in the associated Method Blank
E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified

Analytical Environmental Services, Inc.

Date: *21-Dec-18*

CLIENT: Tetra Tech EM Inc.
Lab Order: 1811J25
Project: L&R Oil Recovery
Lab ID: 1811J25-007

Client Sample ID: LRO-WS-DR05-112018
Collection Date: 11/20/2018 9:30:00 AM
Matrix: WASTE

Analyses	Result	Qual	MDL	Rpt. Limit	Units	BatchID	DF	Date Analyzed
TCL-SEMIVOLATILE ORGANICS SW8270D				(SW3580A)			Analyst: **NWH**	
Dibenzofuran	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
Diethyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
Dimethyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
Di-n-butyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
Di-n-octyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
Fluoranthene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
Fluorene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
Hexachlorobenzene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
Hexachlorobutadiene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
Hexachlorocyclopentadiene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
Hexachloroethane	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
Indeno(1,2,3-cd)pyrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
Isophorone	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
Naphthalene	3900		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
Nitrobenzene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
N-Nitrosodi-n-propylamine	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
N-Nitrosodiphenylamine	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
Pentachlorophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
Phenanthrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
Phenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
Pyrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 8:33:00 PM
Surr: 2,4,6-Tribromophenol	88.5		0	52.8-148	%REC	270610	10	11/26/2018 8:33:00 PM
Surr: 2-Fluorobiphenyl	87.8		0	64.7-137	%REC	270610	10	11/26/2018 8:33:00 PM
Surr: 2-Fluorophenol	89.9		0	57.4-132	%REC	270610	10	11/26/2018 8:33:00 PM
Surr: 4-Terphenyl-d14	109		0	62-138	%REC	270610	10	11/26/2018 8:33:00 PM
Surr: Nitrobenzene-d5	79.0		0	56.1-138	%REC	270610	10	11/26/2018 8:33:00 PM
Surr: Phenol-d5	87.4		0	49.6-133	%REC	270610	10	11/26/2018 8:33:00 PM
LABORATORY HYDROGEN ION (PH) SW9045D				(SW9045D)			Analyst: **RHE**	
pH	4.76	H	0.01	0.01	pH Units	270770	1	11/27/2018 2:00:00 PM
BTU ASTM D240							Analyst: **AAT**	
BTU	16000	N	0	0	BTU/lb		1	11/27/2018 9:30:00 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	<	Less than Result value
>	Greater than Result value	B	Analyte detected in the associated Method Blank
E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified

Analytical Environmental Services, Inc.

Date: *21-Dec-18*

CLIENT: Tetra Tech EM Inc.
Lab Order: 1811J25
Project: L&R Oil Recovery
Lab ID: 1811J25-008

Client Sample ID: LRO-SD01-112018
Collection Date: 11/20/2018 10:55:00 AM
Matrix: SEDIMENT

Analyses	Result	Qual	MDL	Rpt. Limit	Units	BatchID	DF	Date Analyzed
POLYCHLORINATED BIPHENYLS SW8082A				(SW3546)			Analyst: **UHA**	
Aroclor 1016	BRL		4.0	46	ug/Kg-dry	270468	1	11/21/2018 5:32:00 PM
Aroclor 1221	BRL		5.6	46	ug/Kg-dry	270468	1	11/21/2018 5:32:00 PM
Aroclor 1232	BRL		3.6	46	ug/Kg-dry	270468	1	11/21/2018 5:32:00 PM
Aroclor 1242	BRL		2.1	46	ug/Kg-dry	270468	1	11/21/2018 5:32:00 PM
Aroclor 1248	BRL		5.9	46	ug/Kg-dry	270468	1	11/21/2018 5:32:00 PM
Aroclor 1254	BRL		2.5	46	ug/Kg-dry	270468	1	11/21/2018 5:32:00 PM
Aroclor 1260	BRL		2.2	46	ug/Kg-dry	270468	1	11/21/2018 5:32:00 PM
Aroclor 1262	BRL		2.0	46	ug/Kg-dry	270468	1	11/21/2018 5:32:00 PM
Aroclor 1268	BRL		3.1	46	ug/Kg-dry	270468	1	11/21/2018 5:32:00 PM
Surr: Decachlorobiphenyl	24.0	S	0	45.7-140	%REC	270468	1	11/21/2018 5:32:00 PM
Surr: Tetrachloro-m-xylene	61.4		0	45.3-126	%REC	270468	1	11/21/2018 5:32:00 PM
PERCENT MOISTURE D2216							Analyst: **JJW**	
Percent Moisture	26.8		0	0	wt%		1	11/27/2018 2:15:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	<	Less than Result value
>	Greater than Result value	B	Analyte detected in the associated Method Blank
E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified

Analytical Environmental Services, Inc.

Date: *21-Dec-18*

CLIENT: Tetra Tech EM Inc.
Lab Order: 1811J25
Project: L&R Oil Recovery
Lab ID: 1811J25-009

Client Sample ID: LRO-SD01-112018-DUP
Collection Date: 11/20/2018 10:55:00 AM
Matrix: SEDIMENT

Analyses	Result	Qual	MDL	Rpt. Limit	Units	BatchID	DF	Date Analyzed
POLYCHLORINATED BIPHENYLS SW8082A				(SW3546)			Analyst: **UHA**	
Aroclor 1016	BRL		3.8	43	ug/Kg-dry	270468	1	11/23/2018 11:58:00 A
Aroclor 1221	BRL		5.3	43	ug/Kg-dry	270468	1	11/23/2018 11:58:00 A
Aroclor 1232	BRL		3.4	43	ug/Kg-dry	270468	1	11/23/2018 11:58:00 A
Aroclor 1242	BRL		2.0	43	ug/Kg-dry	270468	1	11/23/2018 11:58:00 A
Aroclor 1248	BRL		5.6	43	ug/Kg-dry	270468	1	11/23/2018 11:58:00 A
Aroclor 1254	BRL		2.3	43	ug/Kg-dry	270468	1	11/23/2018 11:58:00 A
Aroclor 1260	BRL		2.1	43	ug/Kg-dry	270468	1	11/23/2018 11:58:00 A
Aroclor 1262	BRL		1.9	43	ug/Kg-dry	270468	1	11/23/2018 11:58:00 A
Aroclor 1268	BRL		3.0	43	ug/Kg-dry	270468	1	11/23/2018 11:58:00 A
Surr: Decachlorobiphenyl	48.8		0	45.7-140	%REC	270468	1	11/23/2018 11:58:00 A
Surr: Tetrachloro-m-xylene	92.3		0	45.3-126	%REC	270468	1	11/23/2018 11:58:00 A
PERCENT MOISTURE D2216							Analyst: **JJW**	
Percent Moisture	22.3		0	0	wt%		1	11/27/2018 2:15:00 PM

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level	<	Less than Result value
	>	Greater than Result value	B	Analyte detected in the associated Method Blank
	E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified

Analytical Environmental Services, Inc.

Date: *21-Dec-18*

CLIENT: Tetra Tech EM Inc.
Lab Order: 1811J25
Project: L&R Oil Recovery
Lab ID: 1811J25-010

Client Sample ID: LRO-SD02-112018
Collection Date: 11/20/2018 10:15:00 AM
Matrix: SEDIMENT

Analyses	Result	Qual	MDL	Rpt. Limit	Units	BatchID	DF	Date Analyzed
POLYCHLORINATED BIPHENYLS SW8082A				(SW3546)			Analyst: **UHA**	
Aroclor 1016	BRL		4.4	49	ug/Kg-dry	270468	1	11/21/2018 5:54:00 PM
Aroclor 1221	BRL		6.1	49	ug/Kg-dry	270468	1	11/21/2018 5:54:00 PM
Aroclor 1232	BRL		3.9	49	ug/Kg-dry	270468	1	11/21/2018 5:54:00 PM
Aroclor 1242	BRL		2.3	49	ug/Kg-dry	270468	1	11/21/2018 5:54:00 PM
Aroclor 1248	BRL		6.4	49	ug/Kg-dry	270468	1	11/21/2018 5:54:00 PM
Aroclor 1254	44	J	2.7	49	ug/Kg-dry	270468	1	11/21/2018 5:54:00 PM
Aroclor 1260	BRL		2.4	49	ug/Kg-dry	270468	1	11/21/2018 5:54:00 PM
Aroclor 1262	29	J	2.2	49	ug/Kg-dry	270468	1	11/21/2018 5:54:00 PM
Aroclor 1268	BRL		3.4	49	ug/Kg-dry	270468	1	11/21/2018 5:54:00 PM
Surr: Decachlorobiphenyl	87.6		0	45.7-140	%REC	270468	1	11/21/2018 5:54:00 PM
Surr: Tetrachloro-m-xylene	70.9		0	45.3-126	%REC	270468	1	11/21/2018 5:54:00 PM
PERCENT MOISTURE D2216							Analyst: **JJW**	
Percent Moisture	32.6		0	0	wt%		1	11/27/2018 2:15:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	<	Less than Result value
>	Greater than Result value	B	Analyte detected in the associated Method Blank
E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified

Analytical Environmental Services, Inc.

Date: *21-Dec-18*

CLIENT: Tetra Tech EM Inc.
Lab Order: 1811J25
Project: L&R Oil Recovery
Lab ID: 1811J25-011

Client Sample ID: LRO-EB-112018
Collection Date: 11/20/2018 4:10:00 PM
Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Rpt. Limit	Units	BatchID	DF	Date Analyzed
POLYCHLORINATED BIPHENYLS	**SW8082A**			**(SW3510C)**			Analyst: **UHA**	
Aroclor 1016	BRL		0.048	0.50	ug/L	270692	1	11/27/2018 4:41:00 PM
Aroclor 1221	BRL		0.049	0.50	ug/L	270692	1	11/27/2018 4:41:00 PM
Aroclor 1232	BRL		0.077	0.50	ug/L	270692	1	11/27/2018 4:41:00 PM
Aroclor 1242	BRL		0.058	0.50	ug/L	270692	1	11/27/2018 4:41:00 PM
Aroclor 1248	BRL		0.086	0.50	ug/L	270692	1	11/27/2018 4:41:00 PM
Aroclor 1254	BRL		0.027	0.50	ug/L	270692	1	11/27/2018 4:41:00 PM
Aroclor 1260	BRL		0.029	0.50	ug/L	270692	1	11/27/2018 4:41:00 PM
Surr: Decachlorobiphenyl	85.2		0	31.2-130	%REC	270692	1	11/27/2018 4:41:00 PM
Surr: Tetrachloro-m-xylene	70.4		0	46.2-120	%REC	270692	1	11/27/2018 4:41:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	<	Less than Result value
>	Greater than Result value	B	Analyte detected in the associated Method Blank
E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified

Analytical Environmental Services, Inc.

Date: *21-Dec-18*

CLIENT: Tetra Tech EM Inc.
Lab Order: 1811J25
Project: L&R Oil Recovery
Lab ID: 1811J25-012

Client Sample ID: TRIP BLANK
Collection Date: 11/19/2018
Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Rpt. Limit	Units	BatchID	DF	Date Analyzed
TCL VOLATILE ORGANICS SW8260B				(SW5030B)			Analyst: **OMA**	
1,1,1-Trichloroethane	BRL		0.30	5.0	ug/L	270772	1	11/27/2018 1:55:00 PM
1,1,2,2-Tetrachloroethane	BRL		0.34	5.0	ug/L	270772	1	11/27/2018 1:55:00 PM
1,1,2-Trichloroethane	BRL		0.43	5.0	ug/L	270772	1	11/27/2018 1:55:00 PM
1,1-Dichloroethane	BRL		0.43	5.0	ug/L	270772	1	11/27/2018 1:55:00 PM
1,1-Dichloroethene	BRL		0.40	5.0	ug/L	270772	1	11/27/2018 1:55:00 PM
1,2,4-Trichlorobenzene	BRL		0.39	5.0	ug/L	270772	1	11/27/2018 1:55:00 PM
1,2-Dibromo-3-chloropropane	BRL		0.68	5.0	ug/L	270772	1	11/27/2018 1:55:00 PM
1,2-Dibromoethane	BRL		0.57	5.0	ug/L	270772	1	11/27/2018 1:55:00 PM
1,2-Dichlorobenzene	BRL		0.45	5.0	ug/L	270772	1	11/27/2018 1:55:00 PM
1,2-Dichloroethane	BRL		0.37	5.0	ug/L	270772	1	11/27/2018 1:55:00 PM
1,2-Dichloropropane	BRL		0.35	5.0	ug/L	270772	1	11/27/2018 1:55:00 PM
1,3-Dichlorobenzene	BRL		0.31	5.0	ug/L	270772	1	11/27/2018 1:55:00 PM
1,4-Dichlorobenzene	BRL		0.33	5.0	ug/L	270772	1	11/27/2018 1:55:00 PM
2-Butanone	BRL		2.5	50	ug/L	270772	1	11/27/2018 1:55:00 PM
2-Hexanone	BRL		0.67	10	ug/L	270772	1	11/27/2018 1:55:00 PM
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	270772	1	11/27/2018 1:55:00 PM
Acetone	BRL		3.6	50	ug/L	270772	1	11/27/2018 1:55:00 PM
Benzene	BRL		0.37	5.0	ug/L	270772	1	11/27/2018 1:55:00 PM
Bromodichloromethane	BRL		0.25	5.0	ug/L	270772	1	11/27/2018 1:55:00 PM
Bromoform	BRL		0.19	5.0	ug/L	270772	1	11/27/2018 1:55:00 PM
Bromomethane	BRL		0.39	5.0	ug/L	270772	1	11/27/2018 1:55:00 PM
Carbon disulfide	BRL		0.74	5.0	ug/L	270772	1	11/27/2018 1:55:00 PM
Carbon tetrachloride	BRL		0.29	5.0	ug/L	270772	1	11/27/2018 1:55:00 PM
Chlorobenzene	BRL		0.42	5.0	ug/L	270772	1	11/27/2018 1:55:00 PM
Chloroethane	BRL		0.31	10	ug/L	270772	1	11/27/2018 1:55:00 PM
Chloroform	BRL		0.20	5.0	ug/L	270772	1	11/27/2018 1:55:00 PM
Chloromethane	BRL		0.21	10	ug/L	270772	1	11/27/2018 1:55:00 PM
cis-1,2-Dichloroethene	BRL		0.28	5.0	ug/L	270772	1	11/27/2018 1:55:00 PM
cis-1,3-Dichloropropene	BRL		0.31	5.0	ug/L	270772	1	11/27/2018 1:55:00 PM
Cyclohexane	BRL		1.0	5.0	ug/L	270772	1	11/27/2018 1:55:00 PM
Dibromochloromethane	BRL		0.43	5.0	ug/L	270772	1	11/27/2018 1:55:00 PM
Dichlorodifluoromethane	BRL		0.15	10	ug/L	270772	1	11/27/2018 1:55:00 PM
Ethylbenzene	BRL		0.26	5.0	ug/L	270772	1	11/27/2018 1:55:00 PM
Freon-113	BRL		0.32	10	ug/L	270772	1	11/27/2018 1:55:00 PM
Isopropylbenzene	BRL		0.43	5.0	ug/L	270772	1	11/27/2018 1:55:00 PM
m,p-Xylene	BRL		0.60	5.0	ug/L	270772	1	11/27/2018 1:55:00 PM
Methyl acetate	BRL		0.42	5.0	ug/L	270772	1	11/27/2018 1:55:00 PM
Methyl tert-butyl ether	BRL		0.45	5.0	ug/L	270772	1	11/27/2018 1:55:00 PM
Methylcyclohexane	BRL		0.39	5.0	ug/L	270772	1	11/27/2018 1:55:00 PM
Methylene chloride	BRL		1.2	5.0	ug/L	270772	1	11/27/2018 1:55:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	<	Less than Result value
>	Greater than Result value	B	Analyte detected in the associated Method Blank
E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified

Analytical Environmental Services, Inc.

Date: *21-Dec-18*

CLIENT: Tetra Tech EM Inc.
Lab Order: 1811J25
Project: L&R Oil Recovery
Lab ID: 1811J25-012

Client Sample ID: TRIP BLANK
Collection Date: 11/19/2018
Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Rpt. Limit	Units	BatchID	DF	Date Analyzed
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**			Analyst: **OMA**	
o-Xylene	BRL		0.18	5.0	ug/L	270772	1	11/27/2018 1:55:00 PM
Styrene	BRL		0.15	5.0	ug/L	270772	1	11/27/2018 1:55:00 PM
Tetrachloroethene	BRL		0.46	5.0	ug/L	270772	1	11/27/2018 1:55:00 PM
Toluene	BRL		0.39	5.0	ug/L	270772	1	11/27/2018 1:55:00 PM
trans-1,2-Dichloroethene	BRL		0.30	5.0	ug/L	270772	1	11/27/2018 1:55:00 PM
trans-1,3-Dichloropropene	BRL		0.32	5.0	ug/L	270772	1	11/27/2018 1:55:00 PM
Trichloroethene	BRL		0.30	5.0	ug/L	270772	1	11/27/2018 1:55:00 PM
Trichlorofluoromethane	BRL		0.18	5.0	ug/L	270772	1	11/27/2018 1:55:00 PM
Vinyl chloride	BRL		0.30	2.0	ug/L	270772	1	11/27/2018 1:55:00 PM
Surr: 4-Bromofluorobenzene	95.4		0	68-127	%REC	270772	1	11/27/2018 1:55:00 PM
Surr: Dibromofluoromethane	94.3		0	84.4-122	%REC	270772	1	11/27/2018 1:55:00 PM
Surr: Toluene-d8	98.2		0	80.1-116	%REC	270772	1	11/27/2018 1:55:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	<	Less than Result value
>	Greater than Result value	B	Analyte detected in the associated Method Blank
E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified

Clear Save as

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

SAMPLE/COOLER RECEIPT CHECKLIST

1. Client Name: Tetra Tech.Inc. AES Work Order Number: 1811J25

2. Carrier: FedEx ☐ UPS ☐ USPS ☐ Client ■ Courier ☐ Other _____

		Yes	No	N/A	Details	Comments
3.	Shipping container/cooler received in good condition?	●	○	○	damaged ☐ leaking ☐ other ☐	
4.	Custody seals present on shipping container?	○	●	○		
5.	Custody seals intact on shipping container?	○	○	●		
6.	Temperature blanks present?	○	○	○		
7.	Cooler temperature(s) within limits of 0-6°C? [See item 13 and 14 for temperature recordings.]	●	○	○	Cooling initiated for recently collected samples / ice present ☐	
8.	Chain of Custody (COC) present?	●	○	○		
9.	Chain of Custody signed, dated, and timed when relinquished and received?	●	○	○		
10.	Sampler name and/or signature on COC?	●	○	○		
11.	Were all samples received within holding time?	○	●	○		
12.	TAT marked on the COC?	●	○	○	If no TAT indicated, proceeded with standard TAT per Terms & Conditions. ☐	

13. Cooler 1 Temperature 3.9 °C Cooler 2 Temperature 1.3 °C Cooler 3 Temperature _____ °C Cooler 4 Temperature _____ °C

14. Cooler 5 Temperature _____ °C Cooler 6 Temperature _____ °C Cooler 7 Temperature _____ °C Cooler 8 Temperature _____ °C

15. Comments: _____

I certify that I have completed sections 1-15 (dated initials). MH 11/20/18

		Yes	No	N/A	Details	Comments
16.	Were sample containers intact upon receipt?	●	○	○		
17.	Custody seals present on sample containers?	○	●	○		
18.	Custody seals intact on sample containers?	○	○	●		
19.	Do sample container labels match the COC?	●	○	○	incomplete info ☐ illegible ☐ no label ☐ other ☐	
20.	Are analyses requested indicated on the COC?	●	○	○		
21.	Were all of the samples listed on the COC received?	●	○	○	samples received but not listed on COC ☐ samples listed on COC not received ☐	
22.	Was the sample collection date/time noted?	●	○	○		
23.	Did we receive sufficient sample volume for indicated analyses?	●	○	○		
24.	Were samples received in appropriate containers?	●	○	○		
25.	Were VOA samples received without headspace (< 1/4" bubble)?	●	○	○		
26.	Were trip blanks submitted?	●	○	○	listed on COC ☐ not listed on COC ■	

27. Comments: _____

I certify that I have completed sections 16-27 (dated initials). MJ 11/21/18

This section only applies to samples where pH can be checked at Sample Receipt.

		Yes	No	N/A	Details	Comments
28.	Have containers needing chemical preservation been checked? *	○	○	●		
29.	Containers meet preservation guidelines?	○	○	●		
30.	Was pH adjusted at Sample Receipt?	○	○	●		

* Note: Certain analyses require chemical preservation but must be checked in the laboratory and not upon Sample Receipt such as Coliforms, VOCs and Oil & Grease/TPH.

I certify that I have completed sections 28-30 (dated initials). MJ 11/21/18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Lab Order: 1811J25

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1811J25-001A	LRO-WS-SS-111918	11/19/2018 2:45:00PM	Soil	TCL VOLATILE ORGANICS		11/29/2018 8:40:00AM	11/27/2018
1811J25-001B	LRO-WS-SS-111918	11/19/2018 2:45:00PM	Soil	TOTAL METALS BY ICP		11/26/2018 8:15:00AM	11/26/2018
1811J25-001B	LRO-WS-SS-111918	11/19/2018 2:45:00PM	Soil	TOTAL METALS BY ICP		11/29/2018 11:31:00AM	11/29/2018
1811J25-001B	LRO-WS-SS-111918	11/19/2018 2:45:00PM	Soil	Mercury by SW7473		11/28/2018 1:15:00PM	11/28/2018
1811J25-001B	LRO-WS-SS-111918	11/19/2018 2:45:00PM	Soil	TCL-CHLORINATED PESTICIDES		11/27/2018 10:00:00AM	11/27/2018
1811J25-001B	LRO-WS-SS-111918	11/19/2018 2:45:00PM	Soil	POLYCHLORINATED BIPHENYLS		11/20/2018 2:00:00PM	11/21/2018
1811J25-001B	LRO-WS-SS-111918	11/19/2018 2:45:00PM	Soil	CHLORINATED HERBICIDES		11/26/2018 11:00:00AM	11/26/2018
1811J25-001B	LRO-WS-SS-111918	11/19/2018 2:45:00PM	Soil	TCL-SEMIVOLATILE ORGANICS		11/27/2018 11:00:00AM	11/27/2018
1811J25-001B	LRO-WS-SS-111918	11/19/2018 2:45:00PM	Soil	Semivolatile Org. Comp. by GC/MS		11/23/2018 10:00:00AM	11/27/2018
1811J25-001B	LRO-WS-SS-111918	11/19/2018 2:45:00PM	Soil	PERCENT MOISTURE			11/27/2018
1811J25-002A	LRO-WS-UST01-111918	11/19/2018 3:45:00PM	Waste	TCL VOLATILE ORGANICS		11/26/2018 11:18:00AM	11/26/2018
1811J25-002A	LRO-WS-UST01-111918	11/19/2018 3:45:00PM	Waste	TCL VOLATILE ORGANICS		11/26/2018 11:18:00AM	11/27/2018
1811J25-002B	LRO-WS-UST01-111918	11/19/2018 3:45:00PM	Waste	IGNITABILITY			11/26/2018
1811J25-002B	LRO-WS-UST01-111918	11/19/2018 3:45:00PM	Waste	TOTAL METALS BY ICP		11/23/2018 1:57:00PM	11/26/2018
1811J25-002B	LRO-WS-UST01-111918	11/19/2018 3:45:00PM	Waste	Total Mercury - Waste		11/28/2018 9:34:00AM	11/28/2018
1811J25-002B	LRO-WS-UST01-111918	11/19/2018 3:45:00PM	Waste	POLYCHLORINATED BIPHENYLS		11/23/2018 10:30:00AM	11/23/2018
1811J25-002B	LRO-WS-UST01-111918	11/19/2018 3:45:00PM	Waste	TCL-SEMIVOLATILE ORGANICS		11/23/2018 10:30:00AM	11/26/2018
1811J25-002B	LRO-WS-UST01-111918	11/19/2018 3:45:00PM	Waste	Laboratory Hydrogen Ion (pH)		11/27/2018 2:00:00PM	11/27/2018
1811J25-002B	LRO-WS-UST01-111918	11/19/2018 3:45:00PM	Waste	BTU			11/27/2018
1811J25-003A	LRO-WS-UST02-111918	11/19/2018 4:00:00PM	Waste	TCL VOLATILE ORGANICS		11/26/2018 11:18:00AM	11/26/2018
1811J25-003B	LRO-WS-UST02-111918	11/19/2018 4:00:00PM	Waste	IGNITABILITY			11/26/2018
1811J25-003B	LRO-WS-UST02-111918	11/19/2018 4:00:00PM	Waste	TOTAL METALS BY ICP		11/23/2018 1:57:00PM	11/26/2018
1811J25-003B	LRO-WS-UST02-111918	11/19/2018 4:00:00PM	Waste	Total Mercury - Waste		11/28/2018 9:34:00AM	11/28/2018
1811J25-003B	LRO-WS-UST02-111918	11/19/2018 4:00:00PM	Waste	POLYCHLORINATED BIPHENYLS		11/23/2018 10:30:00AM	11/23/2018
1811J25-003B	LRO-WS-UST02-111918	11/19/2018 4:00:00PM	Waste	TCL-SEMIVOLATILE ORGANICS		11/23/2018 10:30:00AM	11/26/2018
1811J25-003B	LRO-WS-UST02-111918	11/19/2018 4:00:00PM	Waste	Laboratory Hydrogen Ion (pH)		11/27/2018 2:00:00PM	11/27/2018
1811J25-003B	LRO-WS-UST02-111918	11/19/2018 4:00:00PM	Waste	BTU			11/27/2018
1811J25-004A	LRO-WS-UST03-111918	11/19/2018 4:15:00PM	Waste	TCL VOLATILE ORGANICS		11/26/2018 11:18:00AM	11/27/2018
1811J25-004B	LRO-WS-UST03-111918	11/19/2018 4:15:00PM	Waste	IGNITABILITY			11/26/2018

Analytical Environmental Services, Inc

Date: 21-Dec-18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Lab Order: 1811J25

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1811J25-004B	LRO-WS-UST03-111918	11/19/2018 4:15:00PM	Waste	TOTAL METALS BY ICP		11/23/2018 1:57:00PM	11/26/2018
1811J25-004B	LRO-WS-UST03-111918	11/19/2018 4:15:00PM	Waste	Total Mercury - Waste		11/28/2018 9:34:00AM	11/28/2018
1811J25-004B	LRO-WS-UST03-111918	11/19/2018 4:15:00PM	Waste	POLYCHLORINATED BIPHENYLS		11/23/2018 10:30:00AM	11/23/2018
1811J25-004B	LRO-WS-UST03-111918	11/19/2018 4:15:00PM	Waste	TCL-SEMIVOLATILE ORGANICS		11/23/2018 10:30:00AM	11/26/2018
1811J25-004B	LRO-WS-UST03-111918	11/19/2018 4:15:00PM	Waste	Laboratory Hydrogen Ion (pH)		11/27/2018 2:00:00PM	11/27/2018
1811J25-004B	LRO-WS-UST03-111918	11/19/2018 4:15:00PM	Waste	BTU			11/27/2018
1811J25-005A	LRO-WS-TT06-111918	11/19/2018 4:50:00PM	Waste	TCL VOLATILE ORGANICS		11/26/2018 11:18:00AM	11/26/2018
1811J25-005A	LRO-WS-TT06-111918	11/19/2018 4:50:00PM	Waste	TCL VOLATILE ORGANICS		11/26/2018 11:18:00AM	11/27/2018
1811J25-005B	LRO-WS-TT06-111918	11/19/2018 4:50:00PM	Waste	IGNITABILITY			11/26/2018
1811J25-005B	LRO-WS-TT06-111918	11/19/2018 4:50:00PM	Waste	TOTAL METALS BY ICP		11/23/2018 1:57:00PM	11/26/2018
1811J25-005B	LRO-WS-TT06-111918	11/19/2018 4:50:00PM	Waste	Total Mercury - Waste		11/28/2018 9:34:00AM	11/28/2018
1811J25-005B	LRO-WS-TT06-111918	11/19/2018 4:50:00PM	Waste	POLYCHLORINATED BIPHENYLS		11/23/2018 10:30:00AM	11/23/2018
1811J25-005B	LRO-WS-TT06-111918	11/19/2018 4:50:00PM	Waste	POLYCHLORINATED BIPHENYLS		11/23/2018 10:30:00AM	11/26/2018
1811J25-005B	LRO-WS-TT06-111918	11/19/2018 4:50:00PM	Waste	TCL-SEMIVOLATILE ORGANICS		11/23/2018 10:30:00AM	11/26/2018
1811J25-005B	LRO-WS-TT06-111918	11/19/2018 4:50:00PM	Waste	Laboratory Hydrogen Ion (pH)		11/27/2018 2:00:00PM	11/27/2018
1811J25-005B	LRO-WS-TT06-111918	11/19/2018 4:50:00PM	Waste	BTU			11/27/2018
1811J25-006A	LRO-WS-DR04-112018	11/20/2018 9:20:00AM	Waste	TCL VOLATILE ORGANICS		11/26/2018 11:18:00AM	11/26/2018
1811J25-006B	LRO-WS-DR04-112018	11/20/2018 9:20:00AM	Waste	IGNITABILITY			11/26/2018
1811J25-006B	LRO-WS-DR04-112018	11/20/2018 9:20:00AM	Waste	TOTAL METALS BY ICP		11/23/2018 1:57:00PM	11/26/2018
1811J25-006B	LRO-WS-DR04-112018	11/20/2018 9:20:00AM	Waste	Total Mercury - Waste		11/28/2018 9:34:00AM	11/28/2018
1811J25-006B	LRO-WS-DR04-112018	11/20/2018 9:20:00AM	Waste	POLYCHLORINATED BIPHENYLS		11/23/2018 10:30:00AM	11/23/2018
1811J25-006B	LRO-WS-DR04-112018	11/20/2018 9:20:00AM	Waste	TCL-SEMIVOLATILE ORGANICS		11/23/2018 10:30:00AM	11/26/2018
1811J25-006B	LRO-WS-DR04-112018	11/20/2018 9:20:00AM	Waste	Laboratory Hydrogen Ion (pH)		11/27/2018 2:00:00PM	11/27/2018
1811J25-006B	LRO-WS-DR04-112018	11/20/2018 9:20:00AM	Waste	BTU			11/27/2018
1811J25-007A	LRO-WS-DR05-112018	11/20/2018 9:30:00AM	Waste	TCL VOLATILE ORGANICS		11/26/2018 11:18:00AM	11/26/2018
1811J25-007B	LRO-WS-DR05-112018	11/20/2018 9:30:00AM	Waste	IGNITABILITY			11/26/2018
1811J25-007B	LRO-WS-DR05-112018	11/20/2018 9:30:00AM	Waste	TOTAL METALS BY ICP		11/23/2018 1:57:00PM	11/26/2018
1811J25-007B	LRO-WS-DR05-112018	11/20/2018 9:30:00AM	Waste	Total Mercury - Waste		11/28/2018 9:34:00AM	11/28/2018
1811J25-007B	LRO-WS-DR05-112018	11/20/2018 9:30:00AM	Waste	POLYCHLORINATED BIPHENYLS		11/23/2018 10:30:00AM	11/23/2018

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Lab Order: 1811J25

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1811J25-007B	LRO-WS-DR05-112018	11/20/2018 9:30:00AM	Waste	POLYCHLORINATED BIPHENYLS		11/23/2018 10:30:00AM	11/26/2018
1811J25-007B	LRO-WS-DR05-112018	11/20/2018 9:30:00AM	Waste	TCL-SEMIVOLATILE ORGANICS		11/23/2018 10:30:00AM	11/26/2018
1811J25-007B	LRO-WS-DR05-112018	11/20/2018 9:30:00AM	Waste	Laboratory Hydrogen Ion (pH)		11/27/2018 2:00:00PM	11/27/2018
1811J25-007B	LRO-WS-DR05-112018	11/20/2018 9:30:00AM	Waste	BTU			11/27/2018
1811J25-008A	LRO-SD01-112018	11/20/2018 10:55:00AM	Sediment	POLYCHLORINATED BIPHENYLS		11/20/2018 2:00:00PM	11/21/2018
1811J25-008A	LRO-SD01-112018	11/20/2018 10:55:00AM	Sediment	PERCENT MOISTURE			11/27/2018
1811J25-009A	LRO-SD01-112018-DUP	11/20/2018 10:55:00AM	Sediment	POLYCHLORINATED BIPHENYLS		11/20/2018 2:00:00PM	11/23/2018
1811J25-009A	LRO-SD01-112018-DUP	11/20/2018 10:55:00AM	Sediment	PERCENT MOISTURE			11/27/2018
1811J25-010A	LRO-SD02-112018	11/20/2018 10:15:00AM	Sediment	POLYCHLORINATED BIPHENYLS		11/20/2018 2:00:00PM	11/21/2018
1811J25-010B	LRO-SD02-112018	11/20/2018 10:15:00AM	Sediment	PERCENT MOISTURE			11/27/2018
1811J25-011A	LRO-EB-112018	11/20/2018 4:10:00PM	Aqueous	POLYCHLORINATED BIPHENYLS		11/27/2018 9:00:00AM	11/27/2018
1811J25-012A	TRIP BLANK	11/19/2018 12:00:00AM	Aqueous	TCL VOLATILE ORGANICS		11/27/2018 9:30:00AM	11/27/2018

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270468

Sample ID: **MB-270468** Client ID: Units: **ug/Kg** Prep Date: **11/20/2018** Run No: **385115**
SampleType: **MBLK** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A** BatchID: **270468** Analysis Date: **11/21/2018** Seq No: **8600816**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	BRL	33									
Aroclor 1221	BRL	33									
Aroclor 1232	BRL	33									
Aroclor 1242	BRL	33									
Aroclor 1248	BRL	33									
Aroclor 1254	BRL	33									
Aroclor 1260	BRL	33									
Aroclor 1262	BRL	33									
Aroclor 1268	BRL	33									
Surr: Decachlorobiphenyl	19.23	0	16.67		115	45.7	140				
Surr: Tetrachloro-m-xylene	17.03	0	16.67		102	45.3	126				

Sample ID: **LCS-270468** Client ID: Units: **ug/Kg** Prep Date: **11/20/2018** Run No: **385115**
SampleType: **LCS** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A** BatchID: **270468** Analysis Date: **11/21/2018** Seq No: **8600817**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	162.5	33	166.7		97.5	67	128				
Aroclor 1260	175.2	33	166.7		105	66.5	126				
Surr: Decachlorobiphenyl	20.24	0	16.67		121	45.7	140				
Surr: Tetrachloro-m-xylene	17.84	0	16.67		107	45.3	126				

Sample ID: **1811H57-006AMS** Client ID: Units: **ug/Kg-dry** Prep Date: **11/20/2018** Run No: **385115**
SampleType: **MS** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A** BatchID: **270468** Analysis Date: **11/21/2018** Seq No: **8600820**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	201.9	42	208.9		96.6	50.7	129				
Aroclor 1260	201.5	42	208.9		96.4	52.2	129				
Surr: Decachlorobiphenyl	22.39	0	20.90		107	45.7	140				

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270468

Sample ID: **1811H57-006AMS** Client ID:
SampleType: **MS** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A**
Units: **ug/Kg-dry** Prep Date: **11/20/2018** Run No: **385115**
BatchID: **270468** Analysis Date: **11/21/2018** Seq No: **8600820**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: Tetrachloro-m-xylene	20.38	0	20.90		97.5	45.3	126				

Sample ID: **1811H57-006AMSD** Client ID:
SampleType: **MSD** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A**
Units: **ug/Kg-dry** Prep Date: **11/20/2018** Run No: **385115**
BatchID: **270468** Analysis Date: **11/21/2018** Seq No: **8600822**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aróclor 1016	190.4	42	208.9		91.1	50.7	129	201.9	5.86	17	
Aroclor 1260	192.5	42	208.9		92.1	52.2	129	201.5	4.53	18.7	
Surr: Decachlorobiphenyl	21.23	0	20.90		102	45.7	140	22.39	0	0	
Surr: Tetrachloro-m-xylene	18.89	0	20.90		90.4	45.3	126	20.38	0	0	

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 29-Nov-18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270610

Sample ID: **MB-270610**	Client ID:	Units: **mg/Kg**	Prep Date: **11/23/2018**	Run No: **385435**
SampleType: **MBLK**	TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D**	BatchID: **270610**	Analysis Date: **11/26/2018**	Seq No: **8609529**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1′-Biphenyl	BRL	100									
2,4,5-Trichlorophenol	BRL	500									
2,4,6-Trichlorophenol	BRL	100									
2,4-Dichlorophenol	BRL	100									
2,4-Dimethylphenol	BRL	100									
2,4-Dinitrophenol	BRL	500									
2,4-Dinitrotoluene	BRL	100									
2,6-Dinitrotoluene	BRL	100									
2-Chloronaphthalene	BRL	100									
2-Chlorophenol	BRL	100									
2-Methylnaphthalene	BRL	100									
2-Methylphenol	BRL	100									
2-Nitroaniline	BRL	500									
2-Nitrophenol	BRL	100									
3,3′-Dichlorobenzidine	BRL	670									
3-Nitroaniline	BRL	500									
4,6-Dinitro-2-methylphenol	BRL	500									
4-Bromophenyl phenyl ether	BRL	100									
4-Chloro-3-methylphenol	BRL	100									
4-Chloroaniline	BRL	100									
4-Chlorophenyl phenyl ether	BRL	100									
4-Methylphenol	BRL	100									
4-Nitroaniline	BRL	500									
4-Nitrophenol	BRL	500									
Acenaphthene	BRL	100									
Acenaphthylene	BRL	100									
Acetophenone	BRL	100									

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270610

Sample ID: **MB-270610** Client ID: Units: **mg/Kg** Prep Date: **11/23/2018** Run No: **385435**
SampleType: **MBLK** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **270610** Analysis Date: **11/26/2018** Seq No: **8609529**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Anthracene	BRL	100									
Atrazine	BRL	100									
Benz(a)anthracene	BRL	100									
Benzaldehyde	BRL	100									
Benzo(a)pyrene	BRL	100									
Benzo(b)fluoranthene	BRL	100									
Benzo(g,h,i)perylene	BRL	100									
Benzo(k)fluoranthene	BRL	100									
Bis(2-chloroethoxy)methane	BRL	100									
Bis(2-chloroethyl)ether	BRL	100									
Bis(2-chloroisopropyl)ether	BRL	100									
Bis(2-ethylhexyl)phthalate	BRL	100									
Butyl benzyl phthalate	BRL	100									
Caprolactam	BRL	100									
Carbazole	BRL	100									
Chrysene	BRL	100									
Di-n-butyl phthalate	BRL	100									
Di-n-octyl phthalate	BRL	100									
Dibenz(a,h)anthracene	BRL	100									
Dibenzofuran	BRL	100									
Diethyl phthalate	BRL	100									
Dimethyl phthalate	BRL	100									
Fluoranthene	BRL	100									
Fluorene	BRL	100									
Hexachlorobenzene	BRL	100									
Hexachlorobutadiene	BRL	100									
Hexachlorocyclopentadiene	BRL	100									

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270610

Sample ID: **MB-270610** Client ID: Units: **mg/Kg** Prep Date: **11/23/2018** Run No: **385435**
SampleType: **MBLK** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **270610** Analysis Date: **11/26/2018** Seq No: **8609529**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Hexachloroethane	BRL	100									
Indeno(1,2,3-cd)pyrene	BRL	100									
Isophorone	BRL	100									
N-Nitrosodi-n-propylamine	BRL	100									
N-Nitrosodiphenylamine	BRL	100									
Naphthalene	BRL	100									
Nitrobenzene	BRL	100									
Pentachlorophenol	BRL	500									
Phenanthrene	BRL	100									
Phenol	BRL	100									
Pyrene	BRL	100									
Surr: 2,4,6-Tribromophenol	943.2	0	1000		94.3	52.8	148				
Surr: 2-Fluorobiphenyl	437.9	0	500.0		87.6	64.7	137				
Surr: 2-Fluorophenol	921.8	0	1000		92.2	57.4	132				
Surr: 4-Terphenyl-d14	493.9	0	500.0		98.8	62	138				
Surr: Nitrobenzene-d5	445.2	0	500.0		89.0	56.1	138				
Surr: Phenol-d5	988.7	0	1000		98.9	49.6	133				

Sample ID: **LCS-270610** Client ID: Units: **mg/Kg** Prep Date: **11/23/2018** Run No: **385435**
SampleType: **LCS** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **270610** Analysis Date: **11/26/2018** Seq No: **8609530**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
2,4-Dinitrotoluene	839.7	100	1000		84.0	71.3	132				
2-Chlorophenol	1005	100	1000		101	78.6	120				
4-Chloro-3-methylphenol	943.9	100	1000		94.4	79.1	122				
4-Nitrophenol	623.5	500	1000		62.4	52.1	120				
Acenaphthene	799.8	100	1000		80.0	77.2	127				
N-Nitrosodi-n-propylamine	1011	100	1000		101	75.2	137				

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270610

Sample ID: **LCS-270610** Client ID:
SampleType: **LCS** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D**
Units: **mg/Kg** BatchID: **270610**
Prep Date: **11/23/2018** Analysis Date: **11/26/2018**
Run No: **385435** Seq No: **8609530**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Pentachlorophenol	548.2	500	1000		54.8	45	120				
Phenol	882.4	100	1000		88.2	63.1	120				
Pyrene	854.3	100	1000		85.4	71.6	139				
Surr: 2,4,6-Tribromophenol	1020	0	1000		102	52.8	148				
Surr: 2-Fluorobiphenyl	459.1	0	500.0		91.8	64.7	137				
Surr: 2-Fluorophenol	1002	0	1000		100	57.4	132				
Surr: 4-Terphenyl-d14	513.0	0	500.0		103	62	138				
Surr: Nitrobenzene-d5	491.0	0	500.0		98.2	56.1	138				
Surr: Phenol-d5	1004	0	1000		100	49.6	133				

Sample ID: **1811J25-003BMS** Client ID: **LRO-WS-UST02-111918**
SampleType: **MS** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D**
Units: **mg/Kg** BatchID: **270610**
Prep Date: **11/23/2018** Analysis Date: **11/26/2018**
Run No: **385435** Seq No: **8609532**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
2,4-Dinitrotoluene	642.0	1000	1000		64.2	46.1	120				J
2-Chlorophenol	919.0	1000	1000		91.9	63.2	129				J
4-Chloro-3-methylphenol	906.0	1000	1000		90.6	57.3	146				J
4-Nitrophenol	438.0	5000	1000		43.8	33.5	120				J
Acenaphthene	880.0	1000	1000		88.0	62.2	139				J
N-Nitrosodi-n-propylamine	1034	1000	1000		103	77.8	139				
Pentachlorophenol	BRL	5000	1000		0	33	120				S
Phenol	904.0	1000	1000		90.4	60.3	121				J
Pyrene	954.0	1000	1000		95.4	64.5	139				J
Surr: 2,4,6-Tribromophenol	914.0	0	1000		91.4	52.8	148				
Surr: 2-Fluorobiphenyl	485.0	0	500.0		97.0	64.7	137				
Surr: 2-Fluorophenol	932.0	0	1000		93.2	57.4	132				
Surr: 4-Terphenyl-d14	567.0	0	500.0		113	62	138				
Surr: Nitrobenzene-d5	465.0	0	500.0		93.0	56.1	138				

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

Analytical Environmental Services, Inc

Date: 29-Nov-18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270610

Sample ID: **1811J25-003BMS** Client ID: **LRO-WS-UST02-111918** Units: **mg/Kg** Prep Date: **11/23/2018** Run No: **385435**
SampleType: **MS** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **270610** Analysis Date: **11/26/2018** Seq No: **8609532**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: Phenol-d5	954.0	0	1000		95.4	49.6	133				

Sample ID: **1811J25-003BMSD** Client ID: **LRO-WS-UST02-111918** Units: **mg/Kg** Prep Date: **11/23/2018** Run No: **385435**
SampleType: **MSD** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **270610** Analysis Date: **11/26/2018** Seq No: **8609533**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
2,4-Dinitrotoluene	605.0	1000	1000		60.5	46.1	120	642.0	0	26.8	J
2-Chlorophenol	935.0	1000	1000		93.5	63.2	129	919.0	0	22.3	J
4-Chloro-3-methylphenol	893.0	1000	1000		89.3	57.3	146	906.0	0	25.9	J
4-Nitrophenol	421.0	5000	1000		42.1	33.5	120	438.0	0	21.3	J
Acenaphthene	868.0	1000	1000		86.8	62.2	139	880.0	0	24	J
N-Nitrosodi-n-propylamine	989.0	1000	1000		98.9	77.8	139	1034	0	17.5	J
Pentachlorophenol	BRL	5000	1000		0	33	120	0	0	21	S
Phenol	878.0	1000	1000		87.8	60.3	121	904.0	0	21.6	J
Pyrene	956.0	1000	1000		95.6	64.5	139	954.0	0	25.1	J
Surr: 2,4,6-Tribromophenol	932.0	0	1000		93.2	52.8	148	914.0	0	0	
Surr: 2-Fluorobiphenyl	465.0	0	500.0		93.0	64.7	137	485.0	0	0	
Surr: 2-Fluorophenol	890.0	0	1000		89.0	57.4	132	932.0	0	0	
Surr: 4-Terphenyl-d14	550.0	0	500.0		110	62	138	567.0	0	0	
Surr: Nitrobenzene-d5	445.0	0	500.0		89.0	56.1	138	465.0	0	0	
Surr: Phenol-d5	940.0	0	1000		94.0	49.6	133	954.0	0	0	

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270611

Sample ID: **MB-270611** Client ID: Units: **mg/Kg** Prep Date: **11/23/2018** Run No: **385310**
SampleType: **MBLK** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A** BatchID: **270611** Analysis Date: **11/23/2018** Seq No: **8605306**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	BRL	1.0									
Aroclor 1221	BRL	1.0									
Aroclor 1232	BRL	1.0									
Aroclor 1242	BRL	1.0									
Aroclor 1248	BRL	1.0									
Aroclor 1254	BRL	1.0									
Aroclor 1260	BRL	1.0									
Surr: Decachlorobiphenyl	0.6542	0	0.5000		131	50.5	148				
Surr: Tetrachloro-m-xylene	0.5097	0	0.5000		102	50.3	148				

Sample ID: **LCS-270611** Client ID: Units: **mg/Kg** Prep Date: **11/23/2018** Run No: **385310**
SampleType: **LCS** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A** BatchID: **270611** Analysis Date: **11/23/2018** Seq No: **8605307**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	5.234	1.0	5.000		105	80.4	130				
Aroclor 1260	5.319	1.0	5.000		106	80.5	136				
Surr: Decachlorobiphenyl	0.7000	0	0.5000		140	50.5	148				
Surr: Tetrachloro-m-xylene	0.5605	0	0.5000		112	50.3	148				

Sample ID: **1811J25-003BMS** Client ID: **LRO-WS-UST02-111918** Units: **mg/Kg** Prep Date: **11/23/2018** Run No: **385310**
SampleType: **MS** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A** BatchID: **270611** Analysis Date: **11/23/2018** Seq No: **8605313**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	9.338	1.0	5.000		187	70	139				S
Aroclor 1260	4.446	1.0	5.000		88.9	71.9	130				
Surr: Decachlorobiphenyl	0.4226	0	0.5000		84.5	50.5	148				
Surr: Tetrachloro-m-xylene	0.4830	0	0.5000		96.6	50.3	148				

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 29-Nov-18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270611

Sample ID: **1811J25-003BMSD** Client ID: **LRO-WS-UST02-111918** Units: **mg/Kg** Prep Date: **11/23/2018** Run No: **385310**
SampleType: **MSD** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A** BatchID: **270611** Analysis Date: **11/23/2018** Seq No: **8605315**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	9.159	1.0	5.000		183	70	139	9.338	1.94	17.8	S
Aroclor 1260	4.340	1.0	5.000		86.8	71.9	130	4.446	2.43	20	
Surr: Decachlorobiphenyl	0.3965	0	0.5000		79.3	50.5	148	0.4226	0	0	
Surr: Tetrachloro-m-xylene	0.4708	0	0.5000		94.2	50.3	148	0.4830	0	0	

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270615

Sample ID: **MB-270615** Client ID:
SampleType: **MBLK** TestCode: **METALS, TOTAL SW6010D**
Units: **mg/Kg** BatchID: **270615**
Prep Date: **11/26/2018** Analysis Date: **11/26/2018**
Run No: **385403** Seq No: **8608534**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	BRL	2.50									
Barium	BRL	5.00									
Cadmium	BRL	2.50									
Chromium	BRL	2.50									
Lead	0.2140	5.00									J
Selenium	BRL	3.50									
Silver	BRL	2.50									

Sample ID: **LCS-270615** Client ID:
SampleType: **LCS** TestCode: **METALS, TOTAL SW6010D**
Units: **mg/Kg** BatchID: **270615**
Prep Date: **11/26/2018** Analysis Date: **11/26/2018**
Run No: **385403** Seq No: **8608537**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	42.54	2.50	50.00		85.1	80	120				
Barium	45.03	5.00	50.00		90.1	80	120				
Cadmium	43.65	2.50	50.00		87.3	80	120				
Chromium	44.84	2.50	50.00		89.7	80	120				
Lead	44.67	5.00	50.00	0.2140	88.9	80	120				
Silver	4.431	2.50	5.000		88.6	80	120				

Sample ID: **1811H62-002AMS** Client ID:
SampleType: **MS** TestCode: **METALS, TOTAL SW6010D**
Units: **mg/Kg-dry** BatchID: **270615**
Prep Date: **11/26/2018** Analysis Date: **11/26/2018**
Run No: **385403** Seq No: **8608539**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	36.82	2.38	47.60	2.225	72.7	75	125				S
Barium	141.8	4.76	47.60	112.2	62.2	75	125				S
Cadmium	41.06	2.38	47.60		86.3	75	125				
Chromium	49.90	2.38	47.60	12.66	78.2	75	125				
Lead	61.68	4.76	47.60	25.22	76.6	75	125				

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

Analytical Environmental Services, Inc

Date: 29-Nov-18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270615

Sample ID: **1811H62-002AMS** Client ID: Units: **mg/Kg-dry** Prep Date: **11/26/2018** Run No: **385403**
SampleType: **MS** TestCode: **METALS, TOTAL** **SW6010D** BatchID: **270615** Analysis Date: **11/26/2018** Seq No: **8608539**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Selenium	34.59	3.33	47.60		72.7	75	125				S
Silver	4.242	2.38	4.760	0.05191	88.0	75	125				

Sample ID: **1811H62-002AMSD** Client ID: Units: **mg/Kg-dry** Prep Date: **11/26/2018** Run No: **385403**
SampleType: **MSD** TestCode: **METALS, TOTAL** **SW6010D** BatchID: **270615** Analysis Date: **11/26/2018** Seq No: **8608541**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	37.23	2.38	47.65	2.225	73.5	75	125	36.82	1.10	20	S
Barium	146.5	4.76	47.65	112.2	72.0	75	125	141.8	3.25	20	S
Cadmium	42.32	2.38	47.65		88.8	75	125	41.06	3.02	20	
Chromium	51.34	2.38	47.65	12.66	81.2	75	125	49.90	2.86	20	
Lead	62.85	4.76	47.65	25.22	79.0	75	125	61.68	1.89	20	
Selenium	36.45	3.34	47.65		76.5	75	125	34.59	5.21	20	
Silver	4.393	2.38	4.765	0.05191	91.1	75	125	4.242	3.49	20	

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270622

Sample ID: **MB-270622** Client ID: Units: **mg/Kg** Prep Date: **11/23/2018** Run No: **385402**
SampleType: **MBLK** TestCode: **METALS, TOTAL SW6010D** BatchID: **270622** Analysis Date: **11/26/2018** Seq No: **8608466**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	0.4770	5.0									J
Barium	BRL	5.0									
Cadmium	BRL	2.5									
Chromium	BRL	2.5									
Lead	1.606	5.0									J
Selenium	BRL	5.0									
Silver	0.1545	2.5									J

Sample ID: **LCS-270622** Client ID: Units: **mg/Kg** Prep Date: **11/23/2018** Run No: **385402**
SampleType: **LCS** TestCode: **METALS, TOTAL SW6010D** BatchID: **270622** Analysis Date: **11/26/2018** Seq No: **8608467**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	45.60	5.0	50.00	0.4770	90.2	80	120				
Barium	48.27	5.0	50.00		96.5	80	120				
Cadmium	46.75	2.5	50.00		93.5	80	120				
Chromium	48.21	2.5	50.00		96.4	80	120				
Lead	48.55	5.0	50.00	1.606	93.9	80	120				
Selenium	42.94	5.0	50.00		85.9	80	120				
Silver	4.936	2.5	5.000	0.1545	95.6	80	120				

Sample ID: **1811J25-002BMS** Client ID: **LRO-WS-UST01-111918** Units: **mg/Kg** Prep Date: **11/23/2018** Run No: **385402**
SampleType: **MS** TestCode: **METALS, TOTAL SW6010D** BatchID: **270622** Analysis Date: **11/26/2018** Seq No: **8608472**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	40.29	4.8	48.47		83.1	75	125				
Barium	47.85	4.8	48.47	12.95	72.0	75	125				S
Cadmium	40.65	2.4	48.47		83.9	75	125				
Chromium	40.68	2.4	48.47	0.4813	82.9	75	125				

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 29-Nov-18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270622

Sample ID: **1811J25-002BMS** Client ID: **LRO-WS-UST01-111918** Units: **mg/Kg** Prep Date: **11/23/2018** Run No: **385402**
SampleType: **MS** TestCode: **METALS, TOTAL SW6010D** BatchID: **270622** Analysis Date: **11/26/2018** Seq No: **8608472**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Lead	48.29	4.8	48.47	10.37	78.2	75	125				
Selenium	41.27	4.8	48.47	1.134	82.8	75	125				
Silver	4.193	2.4	4.847	0.2273	81.8	75	125				

Sample ID: **1811J25-002BMSD** Client ID: **LRO-WS-UST01-111918** Units: **mg/Kg** Prep Date: **11/23/2018** Run No: **385402**
SampleType: **MSD** TestCode: **METALS, TOTAL SW6010D** BatchID: **270622** Analysis Date: **11/26/2018** Seq No: **8608473**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	41.31	4.8	48.46		85.2	75	125	40.29	2.50	20	
Barium	50.48	4.8	48.46	12.95	77.4	75	125	47.85	5.35	20	
Cadmium	42.75	2.4	48.46		88.2	75	125	40.65	5.03	20	
Chromium	43.22	2.4	48.46	0.4813	88.2	75	125	40.68	6.05	20	
Lead	50.28	4.8	48.46	10.37	82.4	75	125	48.29	4.03	20	
Selenium	42.87	4.8	48.46	1.134	86.1	75	125	41.27	3.80	20	
Silver	4.387	2.4	4.846	0.2273	85.8	75	125	4.193	4.51	20	

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270681

Sample ID: **MB-270681** Client ID: Units: **ug/Kg** Prep Date: **11/26/2018** Run No: **385483**
SampleType: **MBLK** TestCode: **CHLORINATED HERBICIDES SW8151A** BatchID: **270681** Analysis Date: **11/26/2018** Seq No: **8610832**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
2,4,5-T	BRL	33									
2,4,5-TP (Silvex)	BRL	33									
2,4-D	BRL	33									
2,4-DB	BRL	170									
Dalapon	BRL	330									
Dicamba	BRL	33									
Dichlorprop	BRL	33									
Dinoseb	BRL	85									
MCPA	BRL	3300									
MCPP	BRL	3300									
Surr: DCAA	141.6	0	166.7		84.9	44	120				

Sample ID: **LCS-270681** Client ID: Units: **ug/Kg** Prep Date: **11/26/2018** Run No: **385483**
SampleType: **LCS** TestCode: **CHLORINATED HERBICIDES SW8151A** BatchID: **270681** Analysis Date: **11/26/2018** Seq No: **8610834**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
2,4,5-T	139.6	33	166.7		83.7	51.9	120				
2,4,5-TP (Silvex)	128.8	33	166.7		77.2	52.6	120				
2,4-D	134.0	33	166.7		80.4	50	120				
Dicamba	136.4	33	166.7		81.8	50.4	120				
Dichlorprop	151.1	33	166.7		90.6	50.6	121				
Surr: DCAA	144.9	0	166.7		86.9	44	120				

Sample ID: **1811J25-001BMS** Client ID: **LRO-WS-SS-111918** Units: **ug/Kg-dry** Prep Date: **11/26/2018** Run No: **385483**
SampleType: **MS** TestCode: **CHLORINATED HERBICIDES SW8151A** BatchID: **270681** Analysis Date: **11/26/2018** Seq No: **8610841**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
2,4,5-T	203.8	35	179.3		114	43.8	121				

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 29-Nov-18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270681

Sample ID: **1811J25-001BMS** Client ID: **LRO-WS-SS-111918** Units: **ug/Kg-dry** Prep Date: **11/26/2018** Run No: **385483**
SampleType: **MS** TestCode: **CHLORINATED HERBICIDES SW8151A** BatchID: **270681** Analysis Date: **11/26/2018** Seq No: **8610841**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
2,4,5-TP (Silvex)	165.7	35	179.3		92.4	49.1	120				
2,4-D	169.4	35	179.3		94.5	40.2	130				
Dicamba	141.6	35	179.3		79.0	46.9	120				
Dichlorprop	184.2	35	179.3		103	41	120				
Surr: DCAA	184.9	0	179.3		103	44	120				

Sample ID: **1811J25-001BMSD** Client ID: **LRO-WS-SS-111918** Units: **ug/Kg-dry** Prep Date: **11/26/2018** Run No: **385483**
SampleType: **MSD** TestCode: **CHLORINATED HERBICIDES SW8151A** BatchID: **270681** Analysis Date: **11/26/2018** Seq No: **8610845**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
2,4,5-T	202.0	36	179.6		113	43.8	121	203.8	0.859	41.6	
2,4,5-TP (Silvex)	159.0	36	179.6		88.6	49.1	120	165.7	4.11	21.6	
2,4-D	173.2	36	179.6		96.4	40.2	130	169.4	2.19	25.4	
Dicamba	135.3	36	179.6		75.3	46.9	120	141.6	4.56	38.3	
Dichlorprop	178.4	36	179.6		99.4	41	120	184.2	3.21	41.3	
Surr: DCAA	175.8	0	179.6		97.9	44	120	184.9	0	0	

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270688

Sample ID: **MB-270688** Client ID: Units: **ug/Kg** Prep Date: **11/27/2018** Run No: **385447**
SampleType: **MBLK** TestCode: **CHLORINATED PESTICIDES, TCL SW8081B** BatchID: **270688** Analysis Date: **11/27/2018** Seq No: **8609807**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
4,4'-DDD	BRL	3.3									
4,4'-DDE	BRL	3.3									
4,4'-DDT	BRL	3.3									
Aldrin	BRL	1.7									
alpha-BHC	BRL	1.7									
alpha-Chlordane	BRL	1.7									
beta-BHC	BRL	1.7									
delta-BHC	BRL	1.7									
Dieldrin	BRL	3.3									
Endosulfan I	BRL	1.7									
Endosulfan II	BRL	3.3									
Endosulfan sulfate	BRL	3.3									
Endrin	BRL	3.3									
Endrin aldehyde	BRL	3.3									
Endrin ketone	BRL	3.3									
gamma-BHC	BRL	1.7									
gamma-Chlordane	BRL	1.7									
Heptachlor	BRL	1.7									
Heptachlor epoxide	BRL	1.7									
Methoxychlor	BRL	17									
Toxaphene	BRL	170									
Surr: Decachlorobiphenyl	13.46	0	16.67		80.7	44.5	124				
Surr: Tetrachloro-m-xylene	11.64	0	16.67		69.8	45.1	120				

Sample ID: **LCS-270688** Client ID: Units: **ug/Kg** Prep Date: **11/27/2018** Run No: **385447**
SampleType: **LCS** TestCode: **CHLORINATED PESTICIDES, TCL SW8081B** BatchID: **270688** Analysis Date: **11/27/2018** Seq No: **8609808**

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

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 29-Nov-18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270688

Sample ID: **LCS-270688** Client ID: Units: **ug/Kg** Prep Date: **11/27/2018** Run No: **385447**
SampleType: **LCS** TestCode: **CHLORINATED PESTICIDES, TCL SW8081B** BatchID: **270688** Analysis Date: **11/27/2018** Seq No: **8609808**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
4,4′-DDT	28.50	3.3	33.33		85.5	69	128				
Aldrin	24.24	1.7	33.33		72.7	66	109				
Dieldrin	26.10	3.3	33.33		78.3	67.8	120				
Endrin	27.92	3.3	33.33		83.8	70.9	121				
gamma-BHC	26.29	1.7	33.33		78.9	66.7	121				
Heptachlor	26.75	1.7	33.33		80.3	61.1	120				
Surr: Decachlorobiphenyl	12.70	0	16.67		76.2	44.5	124				
Surr: Tetrachloro-m-xylene	10.94	0	16.67		65.6	45.1	120				

Sample ID: **1811J25-001BMS** Client ID: **LRO-WS-SS-111918** Units: **ug/Kg-dry** Prep Date: **11/27/2018** Run No: **385447**
SampleType: **MS** TestCode: **CHLORINATED PESTICIDES, TCL SW8081B** BatchID: **270688** Analysis Date: **11/27/2018** Seq No: **8609812**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
4,4′-DDT	28.21	3.6	35.90		78.6	42.5	125				
Aldrin	21.30	1.8	35.90		59.3	45	120				
Dieldrin	24.80	3.6	35.90		69.1	50	122				
Endrin	25.47	3.6	35.90		71.0	57	129				
gamma-BHC	23.77	1.8	35.90		66.2	50	122				
Heptachlor	35.76	1.8	35.90		99.6	50.6	120				
Surr: Decachlorobiphenyl	12.14	0	17.96		67.6	44.5	124				
Surr: Tetrachloro-m-xylene	10.04	0	17.96		55.9	45.1	120				

Sample ID: **1811J25-001BMSD** Client ID: **LRO-WS-SS-111918** Units: **ug/Kg-dry** Prep Date: **11/27/2018** Run No: **385447**
SampleType: **MSD** TestCode: **CHLORINATED PESTICIDES, TCL SW8081B** BatchID: **270688** Analysis Date: **11/27/2018** Seq No: **8609814**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
4,4′-DDT	25.87	3.6	35.90		72.1	42.5	125	28.21	8.64	26.4	
Aldrin	19.51	1.8	35.90		54.4	45	120	21.30	8.74	26.2	

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270688

Sample ID: **1811J25-001BMSD** Client ID: **LRO-WS-SS-111918** Units: **ug/Kg-dry** Prep Date: **11/27/2018** Run No: **385447**
SampleType: **MSD** TestCode: **CHLORINATED PESTICIDES, TCL SW8081B** BatchID: **270688** Analysis Date: **11/27/2018** Seq No: **8609814**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Dieldrin	22.48	3.6	35.90		62.6	50	122	24.80	9.78	39.2	
Endrin	23.34	3.6	35.90		65.0	57	129	25.47	8.74	24.8	
gamma-BHC	21.38	1.8	35.90		59.5	50	122	23.77	10.6	25.8	
Heptachlor	32.15	1.8	35.90		89.6	50.6	120	35.76	10.6	28	
Surr: Decachlorobiphenyl	10.51	0	17.96		58.5	44.5	124	12.14	0	0	
Surr: Tetrachloro-m-xylene	9.201	0	17.96		51.2	45.1	120	10.04	0	0	

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 29-Nov-18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270692

Sample ID: **MB-270692** Client ID: Units: **ug/L** Prep Date: **11/27/2018** Run No: **385445**
SampleType: **MBLK** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A** BatchID: **270692** Analysis Date: **11/27/2018** Seq No: **8610837**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	BRL	0.50									
Aroclor 1221	BRL	0.50									
Aroclor 1232	BRL	0.50									
Aroclor 1242	BRL	0.50									
Aroclor 1248	BRL	0.50									
Aroclor 1254	BRL	0.50									
Aroclor 1260	BRL	0.50									
Surr: Decachlorobiphenyl	0.4618	0	0.5000		92.4	31.2	130				
Surr: Tetrachloro-m-xylene	0.4255	0	0.5000		85.1	46.2	120				

Sample ID: **MB-270692** Client ID: Units: **ug/L** Prep Date: **11/27/2018** Run No: **385445**
SampleType: **MBLK** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A** BatchID: **270692** Analysis Date: **11/27/2018** Seq No: **8610859**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	BRL	0.50									
Aroclor 1221	BRL	0.50									
Aroclor 1232	BRL	0.50									
Aroclor 1242	BRL	0.50									
Aroclor 1248	BRL	0.50									
Aroclor 1254	BRL	0.50									
Aroclor 1260	BRL	0.50									
Surr: Decachlorobiphenyl	0.3772	0	0.5000		75.4	31.2	130				
Surr: Tetrachloro-m-xylene	0.3553	0	0.5000		71.1	46.2	120				

Sample ID: **LCS-270692** Client ID: Units: **ug/L** Prep Date: **11/27/2018** Run No: **385445**
SampleType: **LCS** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A** BatchID: **270692** Analysis Date: **11/27/2018** Seq No: **8610844**

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

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270692

Sample ID: **LCS-270692** Client ID: Units: **ug/L** Prep Date: **11/27/2018** Run No: **385445**
SampleType: **LCS** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A** BatchID: **270692** Analysis Date: **11/27/2018** Seq No: **8610844**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	4.080	0.50	5.000		81.6	67.7	121				
Aroclor 1260	4.254	0.50	5.000		85.1	63.1	124				
Surr: Decachlorobiphenyl	0.4854	0	0.5000		97.1	31.2	130				
Surr: Tetrachloro-m-xylene	0.3550	0	0.5000		71.0	46.2	120				

Sample ID: **1811J25-011AMS** Client ID: **LRO-EB-112018** Units: **ug/L** Prep Date: **11/27/2018** Run No: **385445**
SampleType: **MS** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A** BatchID: **270692** Analysis Date: **11/27/2018** Seq No: **8610849**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	3.907	0.50	5.000		78.1	62.7	129				
Aroclor 1260	3.907	0.50	5.000		78.1	51.6	127				
Surr: Decachlorobiphenyl	0.3530	0	0.5000		70.6	31.2	130				
Surr: Tetrachloro-m-xylene	0.3645	0	0.5000		72.9	46.2	120				

Sample ID: **1811J25-011AMSD** Client ID: **LRO-EB-112018** Units: **ug/L** Prep Date: **11/27/2018** Run No: **385445**
SampleType: **MSD** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A** BatchID: **270692** Analysis Date: **11/27/2018** Seq No: **8610851**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	3.826	0.50	5.000		76.5	62.7	129	3.907	2.10	19	
Aroclor 1260	4.049	0.50	5.000		81.0	51.6	127	3.907	3.59	20.1	
Surr: Decachlorobiphenyl	0.4275	0	0.5000		85.5	31.2	130	0.3530	0	0	
Surr: Tetrachloro-m-xylene	0.3794	0	0.5000		75.9	46.2	120	0.3645	0	0	

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 29-Nov-18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270739

Sample ID: **MB-270739** Client ID: Units: **ug/Kg** Prep Date: **11/26/2018** Run No: **385297**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **270739** Analysis Date: **11/26/2018** Seq No: **8607769**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	250									
1,1,2,2-Tetrachloroethane	BRL	250									
1,1,2-Trichloroethane	BRL	250									
1,1-Dichloroethane	BRL	250									
1,1-Dichloroethene	BRL	250									
1,2,4-Trichlorobenzene	BRL	250									
1,2-Dibromo-3-chloropropane	BRL	250									
1,2-Dibromoethane	BRL	250									
1,2-Dichlorobenzene	BRL	250									
1,2-Dichloroethane	BRL	250									
1,2-Dichloropropane	BRL	250									
1,3-Dichlorobenzene	BRL	250									
1,4-Dichlorobenzene	BRL	250									
2-Butanone	BRL	2500									
2-Hexanone	BRL	500									
4-Methyl-2-pentanone	BRL	500									
Acetone	BRL	2500									
Benzene	BRL	250									
Bromodichloromethane	BRL	250									
Bromoform	BRL	250									
Bromomethane	BRL	250									
Carbon disulfide	BRL	500									
Carbon tetrachloride	BRL	250									
Chlorobenzene	BRL	250									
Chloroethane	BRL	500									
Chloroform	BRL	250									
Chloromethane	BRL	500									

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270739

Sample ID: **MB-270739** Client ID: Units: **ug/Kg** Prep Date: **11/26/2018** Run No: **385297**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **270739** Analysis Date: **11/26/2018** Seq No: **8607769**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	250									
cis-1,3-Dichloropropene	BRL	250									
Cyclohexane	BRL	250									
Dibromochloromethane	BRL	250									
Dichlorodifluoromethane	BRL	500									
Ethylbenzene	BRL	250									
Freon-113	BRL	500									
Isopropylbenzene	BRL	250									
m,p-Xylene	BRL	250									
Methyl acetate	BRL	250									
Methyl tert-butyl ether	BRL	250									
Methylcyclohexane	BRL	250									
Methylene chloride	BRL	1000									
o-Xylene	BRL	250									
Styrene	BRL	250									
Tetrachloroethene	BRL	250									
Toluene	BRL	250									
trans-1,2-Dichloroethene	BRL	250									
trans-1,3-Dichloropropene	BRL	250									
Trichloroethene	BRL	250									
Trichlorofluoromethane	BRL	250									
Vinyl chloride	BRL	500									
Surr: 4-Bromofluorobenzene	2516	0	2500		101	65.1	125				
Surr: Dibromofluoromethane	2334	0	2500		93.4	77.7	123				
Surr: Toluene-d8	2442	0	2500		97.7	83.2	120				

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 29-Nov-18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270739

Sample ID: **1811J25-005AMS** Client ID: **LRO-WS-TT06-111918** Units: **ug/Kg** Prep Date: **11/26/2018** Run No: **385378**
SampleType: **MS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **270739** Analysis Date: **11/27/2018** Seq No: **8610133**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	1018000	250000	1e+006		102	61.8	140				
Benzene	1261000	250000	1e+006		126	69	131				
Chlorobenzene	1097000	250000	1e+006		110	69.5	133				
Toluene	2397000	250000	1e+006	6345000	-395	65.9	133				S
Trichloroethene	1195000	250000	1e+006		119	65.9	135				
Surr: 4-Bromofluorobenzene	2607000	0	2.5e+006		104	65.1	125				
Surr: Dibromofluoromethane	2213000	0	2.5e+006		88.5	77.7	123				
Surr: Toluene-d8	2442000	0	2.5e+006		97.7	83.2	120				

Sample ID: **1811J25-005AMSD** Client ID: **LRO-WS-TT06-111918** Units: **ug/Kg** Prep Date: **11/26/2018** Run No: **385378**
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **270739** Analysis Date: **11/27/2018** Seq No: **8610134**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	1029000	250000	1e+006		103	61.8	140	1018000	1.07	18.5	
Benzene	1228000	250000	1e+006		123	69	131	1261000	2.65	20	
Chlorobenzene	1063000	250000	1e+006		106	69.5	133	1097000	3.15	20	
Toluene	2333000	250000	1e+006	6345000	-401	65.9	133	2397000	2.71	20	S
Trichloroethene	1158000	250000	1e+006		116	65.9	135	1195000	3.15	20	
Surr: 4-Bromofluorobenzene	2604000	0	2.5e+006		104	65.1	125	2607000	0	0	
Surr: Dibromofluoromethane	2218000	0	2.5e+006		88.7	77.7	123	2213000	0	0	
Surr: Toluene-d8	2409000	0	2.5e+006		96.4	83.2	120	2442000	0	0	

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270742

Sample ID: **MB-270742** Client ID: Units: **ug/Kg** Prep Date: **11/27/2018** Run No: **385457**
SampleType: **MBLK** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **270742** Analysis Date: **11/27/2018** Seq No: **8610205**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1′-Biphenyl	BRL	330									
2,4,5-Trichlorophenol	BRL	1700									
2,4,6-Trichlorophenol	BRL	330									
2,4-Dichlorophenol	BRL	330									
2,4-Dimethylphenol	BRL	330									
2,4-Dinitrophenol	BRL	1700									
2,4-Dinitrotoluene	BRL	330									
2,6-Dinitrotoluene	BRL	330									
2-Chloronaphthalene	BRL	330									
2-Chlorophenol	BRL	330									
2-Methylnaphthalene	BRL	330									
2-Methylphenol	BRL	330									
2-Nitroaniline	BRL	1700									
2-Nitrophenol	BRL	330									
3,3′-Dichlorobenzidine	BRL	670									
3-Nitroaniline	BRL	1700									
4,6-Dinitro-2-methylphenol	BRL	1700									
4-Bromophenyl phenyl ether	BRL	330									
4-Chloro-3-methylphenol	BRL	330									
4-Chloroaniline	BRL	330									
4-Chlorophenyl phenyl ether	BRL	330									
4-Methylphenol	BRL	330									
4-Nitroaniline	BRL	1700									
4-Nitrophenol	BRL	1700									
Acenaphthene	BRL	330									
Acenaphthylene	BRL	330									
Acetophenone	BRL	330									

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 29-Nov-18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270742

Sample ID: **MB-270742** Client ID: Units: **ug/Kg** Prep Date: **11/27/2018** Run No: **385457**
SampleType: **MBLK** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **270742** Analysis Date: **11/27/2018** Seq No: **8610205**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Anthracene	BRL	330									
Atrazine	BRL	330									
Benz(a)anthracene	BRL	330									
Benzaldehyde	BRL	330									
Benzo(a)pyrene	BRL	330									
Benzo(b)fluoranthene	BRL	330									
Benzo(g,h,i)perylene	BRL	330									
Benzo(k)fluoranthene	BRL	330									
Bis(2-chloroethoxy)methane	BRL	330									
Bis(2-chloroethyl)ether	BRL	330									
Bis(2-chloroisopropyl)ether	BRL	330									
Bis(2-ethylhexyl)phthalate	BRL	330									
Butyl benzyl phthalate	BRL	330									
Caprolactam	BRL	330									
Carbazole	BRL	330									
Chrysene	BRL	330									
Di-n-butyl phthalate	BRL	330									
Di-n-octyl phthalate	BRL	330									
Dibenz(a,h)anthracene	BRL	330									
Dibenzofuran	BRL	330									
Diethyl phthalate	BRL	330									
Dimethyl phthalate	BRL	330									
Fluoranthene	BRL	330									
Fluorene	BRL	330									
Hexachlorobenzene	BRL	330									
Hexachlorobutadiene	BRL	330									
Hexachlorocyclopentadiene	BRL	660									

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270742

Sample ID: **MB-270742** Client ID: Units: **ug/Kg** Prep Date: **11/27/2018** Run No: **385457**
SampleType: **MBLK** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **270742** Analysis Date: **11/27/2018** Seq No: **8610205**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Hexachloroethane	BRL	330									
Indeno(1,2,3-cd)pyrene	BRL	330									
Isophorone	BRL	330									
N-Nitrosodi-n-propylamine	BRL	330									
N-Nitrosodiphenylamine	BRL	330									
Naphthalene	BRL	330									
Nitrobenzene	BRL	330									
Pentachlorophenol	BRL	1700									
Phenanthrene	BRL	330									
Phenol	BRL	330									
Pyrene	BRL	330									
Surr: 2,4,6-Tribromophenol	3488	0	3333		105	48.2	133				
Surr: 2-Fluorobiphenyl	1473	0	1667		88.4	50.2	120				
Surr: 2-Fluorophenol	2398	0	3333		72.0	41.6	120				
Surr: 4-Terphenyl-d14	1675	0	1667		100	52.1	122				
Surr: Nitrobenzene-d5	1377	0	1667		82.6	41.4	120				
Surr: Phenol-d5	2470	0	3333		74.1	45.7	120				

Sample ID: **LCS-270742** Client ID: Units: **ug/Kg** Prep Date: **11/27/2018** Run No: **385457**
SampleType: **LCS** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **270742** Analysis Date: **11/27/2018** Seq No: **8613379**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
2,4-Dinitrotoluene	3260	330	3333		97.8	53.9	120				
2-Chlorophenol	2710	330	3333		81.3	58.4	120				
4-Chloro-3-methylphenol	3163	330	3333		94.9	62.7	120				
4-Nitrophenol	3302	1700	3333		99.1	45.9	120				
Acenaphthene	3059	330	3333		91.8	59.5	120				
N-Nitrosodi-n-propylamine	2874	330	3333		86.2	62.7	120				

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

Analytical Environmental Services, Inc

Date: 29-Nov-18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270742

Sample ID: **LCS-270742** Client ID: Units: **ug/Kg** Prep Date: **11/27/2018** Run No: **385457**
SampleType: **LCS** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **270742** Analysis Date: **11/27/2018** Seq No: **8613379**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Pentachlorophenol	2683	1700	3333		80.5	43.1	120				
Phenol	2441	330	3333		73.2	52	120				
Pyrene	3099	330	3333		93.0	63.2	126				
Surr: 2,4,6-Tribromophenol	3805	0	3333		114	48.2	133				
Surr: 2-Fluorobiphenyl	1693	0	1667		102	50.2	120				
Surr: 2-Fluorophenol	2533	0	3333		76.0	41.6	120				
Surr: 4-Terphenyl-d14	1739	0	1667		104	52.1	122				
Surr: Nitrobenzene-d5	1519	0	1667		91.1	41.4	120				
Surr: Phenol-d5	2753	0	3333		82.6	45.7	120				

Sample ID: **1811J25-001BMS** Client ID: **LRO-WS-SS-111918** Units: **ug/Kg-dry** Prep Date: **11/27/2018** Run No: **385457**
SampleType: **MS** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **270742** Analysis Date: **11/27/2018** Seq No: **8613381**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
2,4-Dinitrotoluene	2043	360	3590		56.9	40.4	120				
2-Chlorophenol	1830	360	3590		51.0	43.4	120				
4-Chloro-3-methylphenol	1843	360	3590		51.3	47.2	120				
4-Nitrophenol	834.0	1800	3590		23.2	30.3	120				JS
Acenaphthene	1943	360	3590		54.1	43.9	120				
N-Nitrosodi-n-propylamine	2214	360	3590		61.7	44.8	120				
Pentachlorophenol	1493	1800	3590		41.6	40.4	120				J
Phenol	1598	360	3590		44.5	40.2	120				
Pyrene	2407	360	3590	347.6	57.4	44.4	119				
Surr: 2,4,6-Tribromophenol	2420	0	3590		67.4	48.2	133				
Surr: 2-Fluorobiphenyl	953.2	0	1795		53.1	50.2	120				
Surr: 2-Fluorophenol	1765	0	3590		49.2	41.6	120				
Surr: 4-Terphenyl-d14	1219	0	1795		67.9	52.1	122				
Surr: Nitrobenzene-d5	1033	0	1795		57.5	41.4	120				

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270742

Sample ID: **1811J25-001BMS** Client ID: **LRO-WS-SS-111918** Units: **ug/Kg-dry** Prep Date: **11/27/2018** Run No: **385457**
SampleType: **MS** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **270742** Analysis Date: **11/27/2018** Seq No: **8613381**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: Phenol-d5	1805	0	3590		50.3	45.7	120				

Sample ID: **1811J25-001BMSD** Client ID: **LRO-WS-SS-111918** Units: **ug/Kg-dry** Prep Date: **11/27/2018** Run No: **385457**
SampleType: **MSD** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **270742** Analysis Date: **11/27/2018** Seq No: **8613382**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
2,4-Dinitrotoluene	1998	360	3590		55.7	40.4	120	2043	2.24	33.9	
2-Chlorophenol	1759	360	3590		49.0	43.4	120	1830	3.98	31.1	
4-Chloro-3-methylphenol	1862	360	3590		51.9	47.2	120	1843	1.01	36.7	
4-Nitrophenol	885.7	1800	3590		24.7	30.3	120	834.0	0	38.9	JS
Acenaphthene	1870	360	3590		52.1	43.9	120	1943	3.84	32.7	
N-Nitrosodi-n-propylamine	2115	360	3590		58.9	44.8	120	2214	4.54	34.6	
Pentachlorophenol	1625	1800	3590		45.3	40.4	120	1493	0	27.6	J
Phenol	1565	360	3590		43.6	40.2	120	1598	2.04	26	
Pyrene	2194	360	3590	347.6	51.4	44.4	119	2407	9.24	37.2	
Surr: 2,4,6-Tribromophenol	2432	0	3590		67.8	48.2	133	2420	0	0	
Surr: 2-Fluorobiphenyl	923.1	0	1795		51.4	50.2	120	953.2	0	0	
Surr: 2-Fluorophenol	1673	0	3590		46.6	41.6	120	1765	0	0	
Surr: 4-Terphenyl-d14	1099	0	1795		61.2	52.1	122	1219	0	0	
Surr: Nitrobenzene-d5	980.2	0	1795		54.6	41.4	120	1033	0	0	
Surr: Phenol-d5	1693	0	3590		47.2	45.7	120	1805	0	0	

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 29-Nov-18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270770

Sample ID: **LCS-270770** Client ID:
SampleType: **LCS** TestCode: **Laboratory Hydrogen Ion (pH) SW9045D**
Units: **pH Units** Prep Date: **11/27/2018** Run No: **385438**
BatchID: **270770** Analysis Date: **11/27/2018** Seq No: **8609608**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
pH	7.050	0.01	7.000		101	90	110				

Sample ID: **1811J25-002BDUP** Client ID: **LRO-WS-UST01-111918**
SampleType: **DUP** TestCode: **Laboratory Hydrogen Ion (pH) SW9045D**
Units: **pH Units** Prep Date: **11/27/2018** Run No: **385438**
BatchID: **270770** Analysis Date: **11/27/2018** Seq No: **8609610**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
pH	6.170	0.01						6.190	0.324	20	H

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270772

Sample ID: **MB-270772** Client ID: Units: **ug/L** Prep Date: **11/27/2018** Run No: **385415**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **270772** Analysis Date: **11/27/2018** Seq No: **8610001**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,4-Trichlorobenzene	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,3-Dichlorobenzene	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
2-Butanone	BRL	50									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	50									
Benzene	BRL	5.0									
Bromodichloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									
Chloroform	BRL	5.0									
Chloromethane	BRL	10									

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 29-Nov-18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270772

Sample ID: **MB-270772** Client ID:
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B**
Units: **ug/L** BatchID: **270772**
Prep Date: **11/27/2018** Analysis Date: **11/27/2018**
Run No: **385415** Seq No: **8610001**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Isopropylbenzene	BRL	5.0									
m,p-Xylene	BRL	5.0									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	5.0									
o-Xylene	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl chloride	BRL	2.0									
Surr: 4-Bromofluorobenzene	48.17	0	50.00		96.3	68	127				
Surr: Dibromofluoromethane	47.48	0	50.00		95.0	84.4	122				
Surr: Toluene-d8	49.30	0	50.00		98.6	80.1	116				

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270772

Sample ID: **LCS-270772** Client ID: Units: **ug/L** Prep Date: **11/27/2018** Run No: **385415**
SampleType: **LCS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **270772** Analysis Date: **11/27/2018** Seq No: **8611237**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	53.45	5.0	50.00		107	69	136				
Benzene	51.23	5.0	50.00		102	73.7	126				
Chlorobenzene	48.36	5.0	50.00		96.7	73.5	124				
Toluene	52.17	5.0	50.00		104	76.8	125				
Trichloroethene	52.70	5.0	50.00		105	70.9	124				
Surr: 4-Bromofluorobenzene	52.45	0	50.00		105	68	127				
Surr: Dibromofluoromethane	48.86	0	50.00		97.7	84.4	122				
Surr: Toluene-d8	49.93	0	50.00		99.9	80.1	116				

Sample ID: **LCSD-270772** Client ID: Units: **ug/L** Prep Date: **11/27/2018** Run No: **385415**
SampleType: **LCSD** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **270772** Analysis Date: **11/27/2018** Seq No: **8611238**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	50.04	5.0	50.00		100	69	136	53.45	6.59	20	
Benzene	50.01	5.0	50.00		100	73.7	126	51.23	2.41	20	
Chlorobenzene	46.95	5.0	50.00		93.9	73.5	124	48.36	2.96	20	
Toluene	50.89	5.0	50.00		102	76.8	125	52.17	2.48	20	
Trichloroethene	51.70	5.0	50.00		103	70.9	124	52.70	1.92	20	
Surr: 4-Bromofluorobenzene	51.01	0	50.00		102	68	127	52.45	0	0	
Surr: Dibromofluoromethane	49.74	0	50.00		99.5	84.4	122	48.86	0	0	
Surr: Toluene-d8	50.05	0	50.00		100	80.1	116	49.93	0	0	

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 29-Nov-18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270777

Sample ID: **MB-270777** Client ID: Units: **mg/Kg** Prep Date: **11/28/2018** Run No: **385504**
SampleType: **MBLK** TestCode: **Total Mercury - Waste SW7471B** BatchID: **270777** Analysis Date: **11/28/2018** Seq No: **8611330**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	BRL	0.100									

Sample ID: **LCS-270777** Client ID: Units: **mg/Kg** Prep Date: **11/28/2018** Run No: **385504**
SampleType: **LCS** TestCode: **Total Mercury - Waste SW7471B** BatchID: **270777** Analysis Date: **11/28/2018** Seq No: **8611331**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.4129	0.100	0.4000		103	80	120				

Sample ID: **1811J25-002BMS** Client ID: **LRO-WS-UST01-111918** Units: **mg/Kg** Prep Date: **11/28/2018** Run No: **385504**
SampleType: **MS** TestCode: **Total Mercury - Waste SW7471B** BatchID: **270777** Analysis Date: **11/28/2018** Seq No: **8611333**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.2927	0.0949	0.3797		77.1	80	120				S

Sample ID: **1811J25-002BMSD** Client ID: **LRO-WS-UST01-111918** Units: **mg/Kg** Prep Date: **11/28/2018** Run No: **385504**
SampleType: **MSD** TestCode: **Total Mercury - Waste SW7471B** BatchID: **270777** Analysis Date: **11/28/2018** Seq No: **8611357**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.3118	0.0946	0.3785		82.4	80	120	0.2927	6.34	20	

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 29-Nov-18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270791

Sample ID: **MB-270791** Client ID:
SampleType: **MBLK** TestCode: **Total Mercury by SW7473**
Units: **mg/Kg** Prep Date: **11/28/2018** Run No: **385522**
BatchID: **270791** Analysis Date: **11/28/2018** Seq No: **8611971**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.02150	0.100									J

Sample ID: **LCS-270791** Client ID:
SampleType: **LCS** TestCode: **Total Mercury by SW7473**
Units: **mg/Kg** Prep Date: **11/28/2018** Run No: **385522**
BatchID: **270791** Analysis Date: **11/28/2018** Seq No: **8611973**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	1.005	0.100	1.000	0.02150	98.4	80	120				

Sample ID: **1811N43-001CMS** Client ID:
SampleType: **MS** TestCode: **Total Mercury by SW7473**
Units: **mg/Kg-dry** Prep Date: **11/28/2018** Run No: **385522**
BatchID: **270791** Analysis Date: **11/28/2018** Seq No: **8611977**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.8266	0.108	1.020	0.04053	77.1	80	120				S

Sample ID: **1811N43-001CMSD** Client ID:
SampleType: **MSD** TestCode: **Total Mercury by SW7473**
Units: **mg/Kg-dry** Prep Date: **11/28/2018** Run No: **385522**
BatchID: **270791** Analysis Date: **11/28/2018** Seq No: **8611979**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.9730	0.108	1.008	0.04053	92.5	80	120	0.8266	16.3	20	

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 29-Nov-18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270840

Sample ID: **MB-**	Client ID:	Units: **ug/Kg**	Prep Date: **11/29/2018**	Run No: **385574**
SampleType: **MBLK**	TestCode: **TCL VOLATILE ORGANICS SW8260B**	BatchID: **270840**	Analysis Date: **11/29/2018**	Seq No: **8613137**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,4-Trichlorobenzene	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,3-Dichlorobenzene	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
2-Butanone	BRL	50									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	100									
Benzene	BRL	5.0									
Bromodichloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	10									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									
Chloroform	BRL	5.0									
Chloromethane	BRL	10									

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270840

Sample ID: **MB-** Client ID: Units: **ug/Kg** Prep Date: **11/29/2018** Run No: **385574**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **270840** Analysis Date: **11/29/2018** Seq No: **8613137**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Isopropylbenzene	BRL	5.0									
m,p-Xylene	BRL	5.0									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	20									
o-Xylene	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl chloride	BRL	10									
Surr: 4-Bromofluorobenzene	51.01	0	50.00		102	65.1	125				
Surr: Dibromofluoromethane	46.61	0	50.00		93.2	77.7	123				
Surr: Toluene-d8	49.54	0	50.00		99.1	83.2	120				

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 29-Nov-18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270840

Sample ID: **MB-270840** Client ID: Units: **ug/Kg** Prep Date: **11/29/2018** Run No: **385415**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **270840** Analysis Date: **11/27/2018** Seq No: **8613480**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	250									
1,1,2,2-Tetrachloroethane	BRL	250									
1,1,2-Trichloroethane	BRL	250									
1,1-Dichloroethane	BRL	250									
1,1-Dichloroethene	BRL	250									
1,2,4-Trichlorobenzene	BRL	250									
1,2-Dibromo-3-chloropropane	BRL	250									
1,2-Dibromoethane	BRL	250									
1,2-Dichlorobenzene	BRL	250									
1,2-Dichloroethane	BRL	250									
1,2-Dichloropropane	BRL	250									
1,3-Dichlorobenzene	BRL	250									
1,4-Dichlorobenzene	BRL	250									
2-Butanone	BRL	2500									
2-Hexanone	BRL	500									
4-Methyl-2-pentanone	BRL	500									
Acetone	BRL	5000									
Benzene	BRL	250									
Bromodichloromethane	BRL	250									
Bromoform	BRL	250									
Bromomethane	BRL	250									
Carbon disulfide	BRL	500									
Carbon tetrachloride	BRL	250									
Chlorobenzene	BRL	250									
Chloroethane	BRL	500									
Chloroform	BRL	250									
Chloromethane	BRL	500									

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270840

Sample ID: **MB-270840** Client ID: Units: **ug/Kg** Prep Date: **11/29/2018** Run No: **385415**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **270840** Analysis Date: **11/27/2018** Seq No: **8613480**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	250									
cis-1,3-Dichloropropene	BRL	250									
Cyclohexane	BRL	250									
Dibromochloromethane	BRL	250									
Dichlorodifluoromethane	BRL	500									
Ethylbenzene	BRL	250									
Freon-113	BRL	500									
Isopropylbenzene	BRL	250									
m,p-Xylene	BRL	250									
Methyl acetate	BRL	250									
Methyl tert-butyl ether	BRL	250									
Methylcyclohexane	BRL	250									
Methylene chloride	BRL	1000									
o-Xylene	BRL	250									
Styrene	BRL	250									
Tetrachloroethene	BRL	250									
Toluene	BRL	250									
trans-1,2-Dichloroethene	BRL	250									
trans-1,3-Dichloropropene	BRL	250									
Trichloroethene	BRL	250									
Trichlorofluoromethane	BRL	250									
Vinyl chloride	BRL	500									
Surr: 4-Bromofluorobenzene	2462	0	2500		98.5	65.1	125				
Surr: Dibromofluoromethane	2406	0	2500		96.2	77.7	123				
Surr: Toluene-d8	2488	0	2500		99.5	83.2	120				

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 29-Nov-18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270840

Sample ID: **LCS-270840** Client ID: Units: **ug/Kg** Prep Date: **11/29/2018** Run No: **385574**
SampleType: **LCS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **270840** Analysis Date: **11/29/2018** Seq No: **8614204**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	1052	250	1000		105	67.6	140				
Benzene	1052	250	1000		105	71.3	130				
Chlorobenzene	975.5	250	1000		97.6	70.6	135				
Toluene	1048	250	1000		105	70.4	127				
Trichloroethene	1060	250	1000		106	68.6	138				
Surr: 4-Bromofluorobenzene	2558	0	2500		102	65.1	125				
Surr: Dibromofluoromethane	2490	0	2500		99.6	77.7	123				
Surr: Toluene-d8	2491	0	2500		99.6	83.2	120				

Sample ID: **1811J25-001AMS** Client ID: **LRO-WS-SS-111918** Units: **ug/Kg-dry** Prep Date: **11/29/2018** Run No: **385574**
SampleType: **MS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **270840** Analysis Date: **11/29/2018** Seq No: **8614205**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	2250	540	2154		104	61.8	140				
Benzene	2386	540	2154	36.62	109	69	131				
Chlorobenzene	2215	540	2154		103	69.5	133				
Toluene	4849	540	2154	2424	113	65.9	133				
Trichloroethene	2453	540	2154		114	65.9	135				
Surr: 4-Bromofluorobenzene	5656	0	5386		105	65.1	125				
Surr: Dibromofluoromethane	5193	0	5386		96.4	77.7	123				
Surr: Toluene-d8	5392	0	5386		100	83.2	120				

Sample ID: **1811J25-001AMSD** Client ID: **LRO-WS-SS-111918** Units: **ug/Kg-dry** Prep Date: **11/29/2018** Run No: **385574**
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **270840** Analysis Date: **11/29/2018** Seq No: **8614206**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	2222	540	2154		103	61.8	140	2250	1.25	18.5	
Benzene	2361	540	2154	36.62	108	69	131	2386	1.04	20	

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270840

Sample ID: **1811J25-001AMSD** Client ID: **LRO-WS-SS-111918** Units: **ug/Kg-dry** Prep Date: **11/29/2018** Run No: **385574**
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **270840** Analysis Date: **11/29/2018** Seq No: **8614206**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chlorobenzene	2205	540	2154		102	69.5	133	2215	0.439	20	
Toluene	4725	540	2154	2424	107	65.9	133	4849	2.59	20	
Trichloroethene	2426	540	2154		113	65.9	135	2453	1.10	20	
Surr: 4-Bromofluorobenzene	5668	0	5386		105	65.1	125	5656	0	0	
Surr: Dibromofluoromethane	5224	0	5386		97.0	77.7	123	5193	0	0	
Surr: Toluene-d8	5355	0	5386		99.4	83.2	120	5392	0	0	

Qualifiers:

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

Analytical Environmental Services, Inc

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

Date: 29-Nov-18

ANALYTICAL QC SUMMARY REPORT

BatchID: 270848

Sample ID: **MB-270848** Client ID:
SampleType: **MBLK** TestCode: **METALS, TOTAL SW6010D**
Units: **mg/Kg** BatchID: **270848**
Prep Date: **11/29/2018** Analysis Date: **11/29/2018**
Run No: **385639** Seq No: **8614550**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Lead	BRL	5.00									
Selenium	BRL	3.50									

Sample ID: **LCS-270848** Client ID:
SampleType: **LCS** TestCode: **METALS, TOTAL SW6010D**
Units: **mg/Kg** BatchID: **270848**
Prep Date: **11/29/2018** Analysis Date: **11/29/2018**
Run No: **385639** Seq No: **8614551**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Lead	46.72	5.00	50.00		93.4	80	120				
Selenium	41.17	3.50	50.00		82.3	80	120				

Sample ID: **1811J25-001BMS** Client ID: **LRO-WS-SS-111918**
SampleType: **MS** TestCode: **METALS, TOTAL SW6010D**
Units: **mg/Kg-dry** BatchID: **270848**
Prep Date: **11/29/2018** Analysis Date: **11/29/2018**
Run No: **385639** Seq No: **8614555**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Lead	46.08	4.40	43.97	8.292	85.9	75	125				
Selenium	34.00	3.08	43.97		77.3	75	125				

Sample ID: **1811J25-001BMSD** Client ID: **LRO-WS-SS-111918**
SampleType: **MSD** TestCode: **METALS, TOTAL SW6010D**
Units: **mg/Kg-dry** BatchID: **270848**
Prep Date: **11/29/2018** Analysis Date: **11/29/2018**
Run No: **385639** Seq No: **8614557**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Lead	45.75	4.40	44.04	8.292	85.0	75	125	46.08	0.727	20	
Selenium	32.52	3.08	44.04		73.8	75	125	34.00	4.44	20	S

Qualifiers:

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

ANALYTICAL QC SUMMARY REPORT

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

BatchID: R385339

Sample ID: **LCS-R385339** Client ID:
SampleType: **LCS** TestCode: **Ignitability SW1010A**
Units: **°F** BatchID: **R385339**
Prep Date: Analysis Date: **11/26/2018**
Run No: **385339** Seq No: **8606953**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ignitability	80.00	0	81.00		98.8	93.8	106.2				

Sample ID: **1811K25-001ADUP** Client ID:
SampleType: **DUP** TestCode: **Ignitability SW1010A**
Units: **°F** BatchID: **R385339**
Prep Date: Analysis Date: **11/26/2018**
Run No: **385339** Seq No: **8606962**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ignitability	150.0	0						150.0	0	20	>

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 29-Nov-18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: R385474

Sample ID: **1811J25-002BDUP** Client ID: **LRO-WS-UST01-111918** Units: **BTU/lb** Prep Date: Run No: **385474**
SampleType: **DUP** TestCode: **BTU ASTM D240** BatchID: **R385474** Analysis Date: **11/27/2018** Seq No: **8610473**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
BTU	16760	0						16760	0	20	N

Qualifiers:

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

Pressley, Miriam

From: Prys, Paul <Paul.Prys@tetratech.com>
Sent: Wednesday, December 26, 2018 8:14 AM
To: Eichinger, Kevin
Subject: FW: AES data for soil
Attachments: ATT00001.txt; 1811J25_REPORT_Revision.pdf

Importance: High

Kevin,

Here are the updated soil results that include pyridine. Let me know if you need anything else.

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Cc: Prys, Paul <Paul.Prys@tetratech.com>
Subject: RE: AES data for soil
Importance: High

Hello,

Report revision attached.

Best Regards,
Paris Masoudi
Project Manager
Analytical Environmental Services, Inc.
3080 Presidential Drive
Atlanta, GA 30340
(770) 457-8177 (ext. 243)
pmasoudi@aesatlanta.com

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Kevin Eichinger, CHMM - On-Scene Coordinator and Industrial Hygienist
U.S. Environmental Protection Agency, Region 4 | 61 Forsyth St SW | Atlanta, Georgia | 30303
Emergency Response, Removal and Prevention Branch (ERRB)
office: **404-562-8268** | cell: **678-897-3759** | **response.epa.gov**

Begin forwarded message:

> **From:** Ken Braig <k.braig@erllc.com>
> **Date:** December 20, 2018 at 10:45:51 EST

To: "Eichinger, Kevin" <Eichinger.Kevin@epa.gov>
Subject: AES data for soil

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Thank you,

Ken Braig
Response Manager
Environmental Restoration, LLC
1666 Fabic Drive
Fenton, MO 63026
636-485-0537 (mobile)
k.braig@erllc.com

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Pressley, Miriam

From: Eichinger, Kevin
Sent: Tuesday, February 26, 2019 12:10 PM
To: Hanks, Joshua M
Subject: FW: AES data for soil
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Importance: High

The sediment samples are in the attached report.

SD01 and SD02

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>
> Thank you,
>
> Ken Braig
> Response Manager
> Environmental Restoration, LLC
> 1666 Fabic Drive
> Fenton, MO 63026
> 636-485-0537 (mobile)
> k.braig@erllc.com

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Pressley, Miriam

From: Eichinger, Kevin
Sent: Tuesday, February 19, 2019 1:10 PM
To: bates.lloyd@epa.gov
Subject: FW: Attached Image from Canon 5065
Attachments: 1340_001.pdf

Monty,

Attached is a memo moving funds from contingency to START for the L&R Oil Site.

Thanks,
Kevin

From: r4dutyosc@epa.gov <r4dutyosc@epa.gov>
Sent: Tuesday, February 19, 2019 12:33 PM
To: Eichinger, Kevin <Eichinger.Kevin@epa.gov>
Subject: Attached Image from Canon 5065

Pressley, Miriam

From: CINWD Oilspill
Sent: Tuesday, September 18, 2018 7:13 AM
To: Englert, Brian
Cc: Cochran, Mark; Bates, Lloyd; Masterson, Chris; R4DutyOSC; Webster, James
Subject: FW: CANAPS Message

Site cancelled,

Thanks, David

P 172344Z SEP 18
FM COMCOGARD NPFC WASHINGTON DC//CANAPS// TO RHMCSUU/HQ EPA WASHINGTON DC//EOC/CINWD OILSPILL/REGION FOUR// INFO CCGDEIGHT NEW ORLEANS LA//DR/DRM// CCGDFIVE PORTSMOUTH VA//DR/DRM// CCGDSEVEN MIAMI FL//DR/DRM// COGARD GST MOBILE AL COGARD SILC NORFOLK VA//PCB-1// COMDT COGARD WASHINGTON DC//CG-533// BT UNCLAS //N16465//
SUBJ: CANCEL FPN AND CEILING FOR L&R OIL RECOVERY - E18442.

1. FPN E18442 ISSUED FOR THIS RESPONSE IS CANCELLED.
2. AUTHORIZED CEILING IS CHANGED FROM $50,000.00 TO $0.00.
3. DATE CASE CANCELLED: 17 SEP 2018.
4. EPA FOSC POINT OF CONTACT:
   A. NAME: BRIAN ENGLERT.
   B. PHONE: (404)263-8775.
   C. FAX: (404)263-8775.
   D. EMAIL: N/A.
5. FOSC CERTIFIES NO FEDERAL FUNDS EXPENDED ON THIS CASE.
6. THIS MESSAGE WAS AUTOMATICALLY GENERATED BY THE CANAPS SYSTEM.
7. CIMS_EMAIL FPN: E18442 TYPE: CEILING CANCELLATION 8. CANAPS ID 172344Z SEP 18 BT NNNN

Pressley, Miriam

From:	Crownover, Becki
Sent:	Monday, January 28, 2019 11:47 AM
To:	Chaffins, Randall; Webster, James; Patel, Subash; Eichinger, Kevin; Masterson, Chris; Bates, Lloyd; Clark, Meredith; Saskowski, Ronald; Terrell, Tina; Armstrong, Gregory; McCullough, Rachel; Painter, Paula; Jones, Katrina; Johnson, Dora Ann; Whitley, Charlotte
Cc:	Crownover, Becki
Subject:	FW: Ceiling Inc Action Memo Ltr. for L&R Oil Recovery Facility in NC
Attachments:	Scanned from a Xerox Multifunction Device.pdf

-----Original Message-----
From: XeroxMFD@epa.gov <XeroxMFD@epa.gov>
Sent: Monday, January 28, 2019 11:41 AM
To: Crownover, Becki <Crownover.Rebecca@epa.gov>
Subject: Scanned from a Xerox Multifunction Device

Please open the attached document. It was scanned and sent to you using a Xerox Multifunction Device.

Attachment File Type: pdf, Multi-Page

Multifunction Device Location: Room 11T35, 11th Floor, 61 Forsyth St, Atlanta, GA
Device Name: r4-1101-xerox265

For more information on Xerox products and solutions, please visit http://www.xerox.com

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

JAN 28 2019

Mr. Jim Bateson
Division of Waste Management
North Carolina Department of Environmental Quality
1646 Mail Service Center
Raleigh, NC 27699-1646

Dear Mr. Bateson:

We are pleased to provide a copy of the Ceiling Increase Action Memorandum for the L&R Oil Recovery Facility Site (the Site) located in Shelby, Cleveland County, North Carolina. If you have any questions or comments concerning this document or the continuation of the removal activities at this Site, please contact the On-Scene Coordinator at the following address:

Kevin Eichinger
U.S. Environmental Protection Agency
ERRPB
61 Forsyth Street
Atlanta, Georgia 30303

1/28/2019

Sincerely,

James W. Webster, Ph.D., Chief
Emergency Response, Removal and Prevention Branch

Enclosure

cc:	Randall Chaffins	Tina Terrell
	James Webster	Ronald Saskowski
	Matt Taylor	Rachel McCullough
	Chris Masterson	Paula Painter
	Subash Patel	Katrina Jones
	Kevin Eichinger	Dora Ann Johnson
	Lloyd Bates	Charlotte Whitley
	Meredith Clark	Greg Armstrong

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

DEC 04 2018

ACTION MEMORANDUM

DATE: December 3, 2018

SUBJECT: Request Ceiling Increase at Emergency Response Removal Action at the L&R Oil Recovery Facility pursuant to the Federal On-Scene Coordinator's delegated authority under CERCLA Section 104

FROM: Kevin Eichinger, Federal On-Scene Coordinator
Emergency Response, Removal and Prevention Branch KME 12/3/2018

THRU: James W. Webster, Ph.D., Chief
Emergency Response, Removal and Prevention Branch 12/4/18

TO: Franklin E. Hill, Director
Superfund Division

I. PURPOSE

The purpose of this Action Memorandum is to request and document additional funding to continue the emergency response actions described herein for the L&R Oil Recovery Facility (the Site) located at 501 Ruth Street, Shelby, Cleveland County, North Carolina. The Site continues to pose a threat to public health and the environment that meets the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) section 300.415(b) criteria for removal actions. Site activities were commenced under the attached Emergency Action Memorandum signed October 4, 2018. A ceiling increase is needed to transport and dispose of hazardous substances, including PCB containing wastes with a PCB concentration of approximately 37,000 parts per million (PPM), generated during the emergency cleanup operations. If approved, this ceiling increase will bring the total project ceiling to $622,000 of which $510,000 will be funded through the Regional Removal Allowance.

II. SITE INFORMATION

A. Site Description

Site Name: L&R Oil Recovery
Superfund Site ID (SSID): C466
NRC Case Number: 1224615
CERCLIS Number: NCR000169185
Site Location: 501 Ruth Street, Shelby, Cleveland County, North Carolina 28150
Lat/Long: 35.29957, -81.5287140
Potentially Responsible Party (PRP): L&R Oil Recovery LLC.

NPL Status: Non-NPL
Removal Start Date: September 14, 2018

B. Site Background

1. Removal Site Evaluation

On September 14, the North Carolina Department of Environmental Quality (NCDEQ), the City of Shelby and Cleveland County officials responded to a report of an approximately 3,000-gallon spill of used/waste oil. A 6,500-gallon tanker-trailer used to store used/waste oil had been positioned behind the building and discharged its contents into the building via a hose placed through a window. The oil filled the building, ran out onto the property and onto Ruth Street. A nearby storm drain and several sections of the sanitary sewer system were impacted by the spill. The storm drain led to Hickory Creek which is a tributary of the Broad River. The facility is located directly adjacent to occupied residential structures. One residential property was impacted by the spill. Two samples of the spilled oil were obtained and sent to a laboratory for analytical testing. The analytical results indicated that the oil contained PCBs (Aroclor 1242) at 20.9 ppm and 18.3 ppm. The Site experienced significant rain from the outer rain bands of Hurricane Florence and is not located in a natural disaster declared county.

In addition to the 3,000-gallon PCB-contaminated oil release, the following threats exist on the Site:

- 42 - 275 and 330-gallon intermediate bulk containers (IBC) containing flammable and combustible material,
- 12 - 55-gallon drums containing flammable and combustible material,
- 1 - DOT 306AL tanker containing approximately 8,600-gallons of PCB containing waste oil (Note: The PRP provided analytical results for the material. The results indicated that the oil contained 25,613 ppm Aroclor 1242. The tanker is leaking from behind the shutoff valves. The leak cannot be secured.); and
- 1 - 6,500-gallon tanker used to store, used oil (Note: The tanker still contains approximately 1,000 gallons of PCB contaminated used oil at 20.9 ppm.).
- 3 – Underground storage tanks, containing 44,000 gallons of used oil and water mixture.

2. Physical Location and Site Characteristics

The Site is located at 501 Ruth Street in Shelby, North Carolina. The geographical coordinates are 35.29957, -81.5287140. The 1.14-acre site was originally an oil trans-load facility. It is currently used as an used oil and spent oil filter recovery center. The Site consists of a 6,500-square foot single story building and a two-bay covered loading rack. The main building is dilapidated. The roof is not intact, and a section of the concrete floor is missing. The used oil is stored in tankers and then transported to a used oil recycling facility. The oil filters are drained into containers inside the building and then stored for disposal in a covered roll-off dumpster. Multiple IBCs and 55-gallon drums are stored inside and outside the building. Seven 20,000-gallon underground

storage tanks (UST) are on the property. The PRP reports that two of the USTs contain an unknown amount of diesel fuel and water. One oil recovery truck is stored in the loading rack. The Site is located directly adjacent to a residential community. The Site is fenced; however, there is evidence of trespassing and vandalism

III. THREATS TO PUBLIC HEALTH, WELFARE OR THE ENVIRONMENT

A. Nature of Actual or Threatened Release of Hazardous Substances, Pollutants or Contaminants

PCBs are hazardous substances as defined by Section 101(14) of CERCLA. The large volume of PCB containing used oil at the Site along with releases of PCB contaminated used oil to the environment constitute a threat to public health and the environment.

Actual or threatened releases of hazardous substances from this site may present an imminent and substantial endangerment to public health, or welfare, or the environment.

B. Applicable factors which were considered in determining the appropriateness of a removal action (40 CFR 30.415)

Actual or potential exposure to nearby human populations, animals or the food chain from hazardous substances or pollutants or contaminants [300.415(b)(2)(i)].

3,000 gallons of PCB contaminated used oil was released to the environment from the Site. This spill migrated off-site and onto a residential property. A tanker containing 8,600 gallons of PCB containing used oil (25,613 ppm) is leaking onsite. Unsecured drums, ICBs of hazardous substances and an additional tanker are stored onsite. A residential community is located directly across the street from the Site. These conditions represent an actual exposure to nearby human population, animals and the food chain from hazardous substances.

Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that pose a threat of release [300.415(b)(2)(iii)].

Multiple tankers, IBCs and 55-gallon drums are located on the site. Initial hazard categorization testing has determined that these materials are flammable and combustible. Multiple containers are unsecured and subject the release of hazardous substances.

Weather conditions that may cause hazardous substances or pollutants to migrate or to be released [300.315(b)(2)(v)]

3,000 gallons of PCB contaminated used oil was released to the environment from the Site. This spill migrated off-site and onto a residential property. A tanker storing 8,600 gallons of PCB containing used oil (25,613 ppm) is leaking onsite. An additional tanker, drums and IBCs of hazardous substances are located onsite and are not secured. The roof is not intact. A weather event may cause the hazardous substances to be release or migrate off-site and impact the nearby residential community.

Threat of fire or explosion [300.415(b)(2)(vi)]

Initial hazard categorization testing has determined that these materials are flammable and combustible. The tankers and containers are unsecured and subject to a fire or explosion. Two tankers, IBCs, 55-gallon drums and other containers of unknown hazardous substances are located onsite and are not secured.

The availability of other appropriate federal or state response mechanisms to respond to the release [300.415(b)(2)(vii)]

The Potential Responsible Party (PRP) has stated that he did not have the funds available to respond to the spill or perform any of the required cleanups. The NCDEQ requested EPA assistance.

Other situations or factors that may pose threats to the public health or welfare of the United States or the environment [300.415(b)(2)(viii)].

The facility is located near residential structures, and the PRP does not have the funding available to perform the necessary remedial actions needed to prevent further environmental harm, or to remove the PCB contaminated waste oil. Substantial remediation of the Site may be necessary as oil may have contaminated the soil underneath the building pad. There is also a concern that historical contamination has occurred.

IV. SELECTED REMOVAL ACTIONS AND ESTIMATED COSTS

A. Situation and Removal Activities to Date

1. Current Situation

On September 14, 2018, the NCDEQ, local officials, and the local fire department responded to secure the release. Sand and oil dry were spread to absorb and contain the spill. The City of Shelby contracted with an environmental services company and removed the oil from the storm drain. The NCDEQ's staff assessed the outfall to Hickory Creek and did not observe an oil sheen.

2. Removal Activities to Date

a. Federal Government/Private Party

Due to the urgency of the response, impending weather and travel time to the Site, the EPA utilized a contracting provision (Basic Ordering Agreement) to hire a local response contractor for initial site stabilization. The contractor was mobilized on September 14. The response contractor arrived on scene with personnel, a vacuum truck and other response equipment to address the spill. FOSC Englert coordinated the initial stabilization efforts from the Regional Operations Center (REOC). FOSC Eichinger responded and took over the Site on September 18. EPA's Superfund Emergency Response and Response Training (START) contractors were mobilized.

FOSC Eichinger arrived on scene and met with the property owner and the response contractor. Response operations from the previous operations were reviewed. The property owner provided FOSC Eichinger with written access to perform the necessary response operations to stabilize the Site. During the previous and current operational periods, the response contractor performed or will perform the following operations:

1. Cleaned the road surface,
2. Excavated contaminated soil from the Site and one nearby residential property,
3. Removed bulked oil spilled inside the building and collected by earthen berms,
4. Used absorbent media to remove residual oil inside the building, and
5. Installed hay bales and oil absorbent boom around the perimeter fence line of the building to contain any residual oils.

START contractors conducted hazard categorization (HAZCAT) testing on the drums and the IBCs. Samples were obtained from the IBCs, drums and the two tankers and sent offsite for analysis (list tests). Soil samples were collected around the property and the nearby residential property impacted by the spill.

The EPA's Emergency and Rapid Removal Services (ERRS) contractors were mobilized on September 18 to address the leaking tanker of PCB containing oil. The PCB oil was transferred to IBCs and staged inside a secured storage container (CONEX box) pending approval of the waste profile and completion of disposal arrangements.

The waste generated by the emergency response operations is staged pending on-site approval of the waste profile and completion of disposal arrangements.

b. State/Local

State and Local Agencies responded and took initial emergency defensive actions to contain the spill.

3. Enforcement

(b) (7)(A)

[redacted]

B. Planned Removal Actions

1. The site management will be transitioned to a potential time-critical removal action. The Potential Responsible Party (PRP) stated that he did not have the funds available to respond to the spill or perform any of the required cleanups. On September 17, the NCDEQ Hazardous Waste Section formally referred the Site to the EPA Emergency Response, Removal and Prevention Branch for Time-Critical Removal Action consideration. The facility is located near residential structures and does not have the

funding available to perform the necessary remedial actions needed to prevent further environmental harm, or to remove the PCB contaminated waste oil. Substantial remediation of the Site may be necessary as oil may have contaminated the soil underneath the building pad and historical contamination may have occurred.

2. Anticipated immediate removal activities for the Site include, but are not limited to, the following:

   a. Ship waste generated for the response offsite for proper waste disposal.

   b. Collect and replace oil absorbent materials used to collect residual oils that may be released from the Site after each rain event.

   c. Implement removal actions to abate the threat to human health and the environment based on the results of the further investigation.

3. Contribution to Remedial Performance

   Any potential long-term remedial actions will be coordinated with the appropriate state and federal programs and will be consistent with the Remedial Design for the Site.

4. ARARs

   Removal actions conducted under CERCLA are required to attain ARARs to the extent practicable. In determining whether compliance with ARARs is practicable, the FOSC may consider appropriate factors, including the urgency of the situation and the scope of the removal action to be conducted.

C. Estimated Costs

Extramural costs:	Current Ceiling	Proposed Increase	Proposed Ceiling
Contractor costs (ERRS)	$200,000	$310.000	$510,000
Contractor costs (START)	$40,000	$0	$40,000
Contingency costs	$10,000	$62,000	$72,000
Total Removal Project Ceiling	**$ 250,000**	**$372,000**	**$622,000**

EPA direct and indirect costs, although cost recoverable, do not count toward the Removal Ceiling for this removal action. Liable parties may be held financially responsible for costs incurred by the EPA as set forth in Section 107 of CERCLA.

V. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

A delay in action or no action at this Site would have increased the actual or potential threats to the public health and/or environment.

VI. OUTSTANDING POLICY ISSUES

None.

VII. RECOMMENDATION

This decision document represents the selected removal action for the L & R Oil Recovery Site in Shelby, North Carolina developed in accordance with CERCLA as amended, and not inconsistent with the NCP. This decision is based on the Administrative Record for the Site.

Conditions at the Site continue to meet the NCP Section 300.415(b) criteria for a removal action. I recommend your approval for the proposed action to allow continued removal response. The total projected ceiling, if approved, will be $622,000 of which an estimated $510,000 comes from the Regional Removal Allowance.

APPROVED: _____ DATE: 12/4/2018

Franklin E. Hill, Director
Superfund Division

DISAPPROVED: _____ DATE: _____

Franklin E. Hill, Director
Superfund Division

Attachment: September 19, 2018 Emergency Action Memo

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

$250,000 EMERGENCY ACTION MEMORANDUM

DATE: September 19, 2018

SUBJECT: Action Memorandum for an Emergency Response Removal Action at the L&R Oil Recovery Facility pursuant to the Federal On-Scene Coordinator's delegated authority under CERCLA Section 104

FROM: Kevin Eichinger, Federal On-Scene Coordinator
Emergency Response, Removal and Prevention Branch

THRU: James W. Webster, Ph.D., Chief
Emergency Response, Removal and Prevention Branch 10/04/2018

TO: Site File

I. PURPOSE

The purpose of this memorandum is to document the decision to initiate the emergency response actions described herein for the L&R Oil Recovery Facility (the Site) located at 501 Ruth Street, Shelby, Cleveland County, North Carolina pursuant to the Federal On-Scene Coordinator's (FOSC) delegated authority under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Section 104.

II. SITE INFORMATION

A. Site Description

Site Name: L&R Oil Recovery
Superfund Site ID (SSID): C466
NRC Case Number: 1224615
CERCLIS Number: NCR000169185
Site Location: 501 Ruth Street, Shelby, Cleveland County, North Carolina 28150
Lat/Long: 35.29957, -81.5287140
Potentially Responsible Party (PRP): L&R Oil Recovery LLC.
NPL Status: Non-NPL
Removal Start Date: September 14, 2018

B. Site Background

1. Removal Site Evaluation

On September 14, the North Carolina Department of Environmental Quality (NCDEQ), the City of Shelby and Cleveland County officials responded to a report of an approximately 3,000-gallon spill of used waste oil. A 6,500-gallon tanker-trailer used to store used waste oil had been positioned behind the building and discharged its contents into the building via a hose placed through a window. The oil filled the building, ran out onto the property and onto Ruth Street. A nearby storm drain and several sections of the sanitary sewer system were impacted by the spill. The storm drain led to Hickory Creek which is a tributary of the Broad River. The facility is located directly adjacent to occupied residential structures. One residential property was impacted by the spill. Two samples of the spilled oil were obtained and sent to a laboratory for analytical testing. The analytical results indicated that the oil contained PCBs (Aroclor 1242) at 20.9 ppm and 18.3 ppm. The Site experienced significant rain from the outer rain bands of Hurricane Florence and is not located in a natural disaster declared county.

In addition to the 3,000-gallon PCB-contaminated oil release, the following threats exist on the Site:

- 42 - 275 and 330-gallon intermediate bulk containers (IBC) containing flammable and combustible material,
- 12 - 55-gallon drums containing flammable and combustible material,
- 1 - DOT 306AL tanker containing approximately 8,600-gallons of PCB containing waste oil (Note: The PRP provided analytical results for the material. The results indicated that the oil contained 25,613 ppm Aroclor 1242. The tanker is leaking from behind the shutoff valves. The leak cannot be secured.); and
- 1 - 6,500-gallon tanker used to store used oil (Note: The tanker still contains approximately 1,000 gallons of PCB contaminated used oil at 20.9 ppm.).

2. Physical Location and Site Characteristics

The Site is located at 501 Ruth Street in Shelby, North Carolina. The geographical coordinates are 35.29957, -81.5287140. The 1.14-acre site was originally an oil trans-load facility. It is currently used as an used oil and spent oil filter recovery center. The Site consists of a 6,500-square foot single story building and a two-bay covered loading rack. The main building is dilapidated. The roof is not intact, and a section of the concrete floor is missing. The used oil is stored in tankers and then transported to a used oil recycling facility. The oil filters are drained into containers inside the building and then stored for disposal in a covered roll-off dumpster. Multiple IBCs and 55-gallon drums are stored inside and outside the building. There are seven 20,000-gallon underground storage tanks (UST) on the property. The PRP reports that two of the USTs contain an unknown amount of diesel fuel and water. One oil recovery truck is stored in the loading rack. The Site is located directly adjacent to a residential community. The Site is fenced; however, there is evidence of trespassing and vandalism.

III. THREATS TO PUBLIC HEALTH, WELFARE OR THE ENVIRONMENT

A. Nature of Actual or Threatened Release of Hazardous Substances, Pollutants or Contaminants

PCBs are hazardous substances as defined by Section 101(14) of CERCLA. The large volume of PCB containing used oil at the Site along with releases of PCB contaminated used oil to the environment constitute a threat to public health and the environment.

B. Applicable factors which were considered in determining the appropriateness of a removal action (40 CFR 30.415)

Actual or potential exposure to nearby human populations, animals or the food chain from hazardous substances or pollutants or contaminants [300.415(b)(2)(i)].

3,000 gallons of PCB contaminated used oil was released to the environment from the Site. This spill migrated off-site and onto a residential property. A tanker containing 8,600 gallons of PCB containing used oil (25,613 ppm) is leaking onsite. Unsecured drums, ICBs of hazardous substances and an additional tanker are stored onsite. A residential community is located directly across the street from the Site. These conditions represent an actual exposure to nearby human population, animals and the food chain from hazardous substances.

Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that pose a threat of release [300.415(b)(2)(iii)].

Multiple tankers, IBCs and 55-gallon drums are located on the site. Initial hazard categorization testing has determined that these materials are flammable and combustible. Multiple containers are unsecured and subject the release of hazardous substances.

Weather conditions that may cause hazardous substances or pollutants to migrate or to be released [300.315(b)(2)(v)]

3,000 gallons of PCB contaminated used oil was released to the environment from the Site. This spill migrated off-site and onto a residential property. A tanker storing 8,600 gallons of PCB containing used oil (25,613 ppm) is leaking onsite. An additional tanker, drums and IBCs of hazardous substances are located onsite and are not secured. The roof is not intact. A weather event may cause the hazardous substances to be release or migrate off-site and impact the nearby residential community.

Threat of fire or explosion [300.415(b)(2)(vi)]

Initial hazard categorization testing has determined that these materials are flammable and combustible. The tankers and containers are unsecured and subject to a fire or explosion. Two tankers, IBCs, 55-gallon drums and other containers of unknown hazardous substances are located onsite and are not secured.

The availability of other appropriate federal or state response mechanisms to respond to the release [300.415(b)(2)(vii)]

The Potential Responsible Party (PRP) has stated that he did not have the funds available to respond to the spill or perform any of the required cleanups. The NCDEQ requested EPA assistance.

Other situations or factors that may pose threats to the public health or welfare of the United States or the environment [300.415(b)(2)(viii)].

The facility is located near residential structures, and the PRP does not have the funding available to perform the necessary remedial actions needed to prevent further environmental harm, or to remove the PCB contaminated waste oil. Substantial remediation of the Site may be necessary as oil may have contaminated the soil underneath the building pad. There is also a concern that historical contamination has occurred.

IV. SELECTED REMOVAL ACTIONS AND ESTIMATED COSTS

A. Situation and Removal Activities to Date

1. Current Situation

On September 14, 2018, the NCDEQ, local officials, and the local fire department responded to secure the release. Sand and oil dry were spread to absorb and contain the spill. The City of Shelby contracted with an environmental services company and removed the oil from the storm drain. The NCDEQ's staff assessed the outfall to Hickory Creek and did not observe an oil sheen.

2. Removal Activities to Date

a. Federal Government/Private Party

Due to the urgency of the response, impending weather and travel time to the Site, the EPA utilized a contracting provision (Basic Ordering Agreement) to hire a local response contractor for initial site stabilization. The contractor was mobilized on September 14. The response contractor arrived on scene with personnel, a vacuum truck and other response equipment to address the spill. FOSC Englert coordinated the initial stabilization efforts from the Regional Operations Center (REOC). FOSC Eichinger responded and took over the Site on September 18. EPA's Superfund Emergency Response and Response Training (START) contractors were mobilized. FOSC Eichinger arrived on scene and met with the property owner and the response contractor. Response operations from the previous operations were reviewed. The property owner provided FOSC Eichinger with written access to perform the necessary response operations to stabilize the Site. During the previous and current operational periods, the response contractor performed or will perform the following operations:

1. Cleaned the road surface.
2. Excavated contaminated soil from the Site and one nearby residential property.
3. Removed bulked oil spilled inside the building and collected by earthen berms.
4. Used absorbent media to remove residual oil inside the building. and
5. Installed hay bales and oil absorbent boom around the perimeter fence line of the building to contain any residual oils.

START contractors conducted hazard categorization (HAZCAT) testing on the drums and the IBCs. Samples were obtained from the IBCs. drums and the two tankers and sent offsite for analysis (list tests). Soil samples were collected around the property and the nearby residential property impacted by the spill.

The LPA's Emergency and Rapid Removal Services (ERRS) contractors were mobilized on September 18 to address the leaking tanker of PCB containing oil. The PCB oil was transferred to IBCs and staged inside a secured storage container (CONEX box) pending approval of the waste profile and completion of disposal arrangements.

The waste generated by the emergency response operations will be staged pending on-site approval of the waste profile and completion of disposal arrangements.

b. State Local

State and Local Agencies responded and took initial emergency defensive actions to contain the spill.

3. Enforcement

The Potential Responsible Party (PRP) stated that he did not have the funds available to respond to the spill or perform any of the required cleanups. NCDEQ requested EPA assistance. FOSC Eichinger will work with EPA Enforcement to identify PRPs. The current property owner is identified in the attached enforcement addendum.

B. Planned Removal Actions

1. The site management will be transitioned to a time-critical removal action. The Potential Responsible Party (PRP) stated that he did not have the funds available to respond to the spill or perform any of the required cleanups. On September 17. the NCDEQ Hazardous Waste Section formally referred the Site to the EPA Emergency Response, Removal and Prevention Branch for Time-Critical Removal Action consideration. The facility is located near residential structures and does not have the funding available to perform the necessary remedial actions needed to prevent further environmental harm. or to remove the PCB contaminated waste oil. Substantial remediation of the Site may be necessary as oil may have contaminated the soil underneath the building pad and historical contamination may have occurred.

2. Anticipated immediate removal activities for the Site include, but are not limited to, the following:

   a. Continue the disposal approval process for the waste material generated during the initial emergency response. The PCB concentration of this material is less than 50 ppm.

   b. Begin the disposal approval process for the waste material that previously existed on the Site. This process will begin when the analytical sample results are received,

   c. Collect and replace oil absorbent materials used to collect residual oils that may be released from the Site after each rain event.

   d. Conduct further studies to determine additional threats to human health and the environment, and

   e. Implement removal actions to abate the threat to human health and the environment based on the results of the further studies.

3. Contribution to Remedial Performance

   Any potential long-term remedial actions will be coordinated with the appropriate state and federal programs and will be consistent with the Remedial Design for the Site.

4. ARARs

   Removal actions conducted under CERCLA are required to attain ARARs to the extent practicable. In determining whether compliance with ARARs is practicable, the FOSC may consider appropriate factors, including the urgency of the situation and the scope of the removal action to be conducted.

C. Estimated Costs

Contractor costs (ERRS)	$ 200,000
Contractor costs (START)	$ 30,000
Contingency costs	$ 20,000
Total Removal Project Ceiling	**$ 250,000**

EPA direct and indirect costs, although cost recoverable, do not count toward the Removal Ceiling for this removal action. Liable parties may be held financially responsible for costs incurred by the EPA as set forth in Section 107 of CERCLA.

V. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

A delay in action or no action at this Site would have increased the actual or potential threats to the public health and/or environment.

VI. OUTSTANDING POLICY ISSUES

None.

VII. APPROVALS

This decision document represents the selected removal action for this Site, developed in accordance with CERCLA as amended, and not inconsistent with the National Contingency Plan. This decision is based on the administrative record for the Site.

Conditions at the Site meet the NCP section 300.415(b) criteria for a removal action, and through this document, I am approving the proposed removal actions. The total project ceiling is $250,000, and $200,000 of this amount will be funded from the Regional Removal Allowance.

Kevin M. Eichinger
Federal On-Scene Coordinator

October 4, 2018
Date

Pressley, Miriam

From: Painter, Paula
Sent: Wednesday, January 30, 2019 7:22 AM
To: Eichinger, Kevin
Cc: Terrell, Tina; Saskowski, Ronald
Subject: FW: Ceiling Inc Action Memo Ltr. for L&R Oil Recovery Facility in NC
Attachments: Scanned from a Xerox Multifunction Device.pdf

Kevin,

Please make sure that Ron receives the original. You keep a copy.

Thank you

Paula

-----Original Message-----
From: Crownover, Becki
Sent: Monday, January 28, 2019 11:47 AM
To: Chaffins, Randall <Chaffins.Randall@epa.gov>; Webster, James <Webster.James@epa.gov>; Patel, Subash <Patel.Subash@epa.gov>; Eichinger, Kevin <Eichinger.Kevin@epa.gov>; Masterson, Chris <Masterson.Christopher@epa.gov>; Bates, Lloyd <Bates.Lloyd@epa.gov>; Clark, Meredith <Clark.Meredith@epa.gov>; Saskowski, Ronald <Saskowski.Ronald@epa.gov>; Terrell, Tina <Terrell.Tina@epa.gov>; Armstrong, Gregory <Armstrong.Greg@epa.gov>; McCullough, Rachel <McCullough.Rachel@epa.gov>; Painter, Paula <Painter.Paula@epa.gov>; Jones, Katrina <Jones.Katrina@epa.gov>; Johnson, Dora Ann <Johnson.Dora@epa.gov>; Whitley, Charlotte <whitley.charlotte@epa.gov>
Cc: Crownover, Becki <Crownover.Rebecca@epa.gov>
Subject: FW: Ceiling Inc Action Memo Ltr. for L&R Oil Recovery Facility in NC

-----Original Message-----
From: XeroxMFD@epa.gov <XeroxMFD@epa.gov>
Sent: Monday, January 28, 2019 11:41 AM
To: Crownover, Becki <Crownover.Rebecca@epa.gov>
Subject: Scanned from a Xerox Multifunction Device

Please open the attached document. It was scanned and sent to you using a Xerox Multifunction Device.

Attachment File Type: pdf, Multi-Page

Multifunction Device Location: Room 11T35, 11th Floor, 61 Forsyth St, Atlanta, GA
Device Name: r4-1101-xerox265

For more information on Xerox products and solutions, please visit http://www.xerox.com

Pressley, Miriam

From: Painter, Paula
Sent: Tuesday, August 6, 2019 5:08 PM
To: Eichinger, Kevin
Cc: Terrell, Tina; Saskowski, Ronald
Subject: FW: Ceiling Inc. Action Memo Ltr. for L&R Oil Recovery Facility in NC
Attachments: Scanned from a Xerox Multifunction Device.pdf

Kevin,

Please see that the original gets to Tina or Ron.

You keep a copy.

Thank you

Paula

-----Original Message-----
From: Crownover, Becki <Crownover.Rebecca@epa.gov>
Sent: Tuesday, August 6, 2019 4:55 PM
To: Chaffins, Randall <Chaffins.Randall@epa.gov>; Webster, James <Webster.James@epa.gov>; Eichinger, Kevin <Eichinger.Kevin@epa.gov>; Patel, Subash <Patel.Subash@epa.gov>; Masterson, Chris <Masterson.Christopher@epa.gov>; Bates, Lloyd <Bates.Lloyd@epa.gov>; Terrell, Tina <Terrell.Tina@epa.gov>; Saskowski, Ronald <Saskowski.Ronald@epa.gov>; McCullough, Rachel <McCullough.Rachel@epa.gov>; Armstrong, Gregory <Armstrong.Greg@epa.gov>; Clark, Meredith <Clark.Meredith@epa.gov>; Painter, Paula <Painter.Paula@epa.gov>; Jones, Katrina <Jones.Katrina@epa.gov>; Johnson, Dora Ann <Johnson.Dora@epa.gov>; Whitley, Charlotte <whitley.charlotte@epa.gov>
Cc: Crownover, Becki <Crownover.Rebecca@epa.gov>
Subject: FW: Ceiling Inc. Action Memo Ltr. for L&R Oil Recovery Facility in NC

-----Original Message-----
From: XeroxMFD@epa.gov <XeroxMFD@epa.gov>
Sent: Tuesday, August 6, 2019 4:51 PM
To: Crownover, Becki <Crownover.Rebecca@epa.gov>
Subject: Scanned from a Xerox Multifunction Device

Please open the attached document. It was scanned and sent to you using a Xerox Multifunction Device.

Attachment File Type: pdf, Multi-Page

Multifunction Device Location: Room 11T35, 11th Floor, 61 Forsyth St, Atlanta, GA
Device Name: r4-1101-xerox265

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

AUG 06 2019

Mr. Jim Bateson
Division of Waste Management
North Carolina Department of Environmental Quality
1646 Mail Service Center
Raleigh, NC 27699-1646

Dear Mr. Bateson:

We are pleased to provide a copy of the Ceiling Increase Action Memorandum for the L&R Oil Recovery Facility Site (the Site) located in Shelby, Cleveland County, North Carolina. If you have any questions or comments concerning this document or the continuation of the removal activities at this Site, please contact the On-Scene Coordinator at the following address:

Kevin Eichinger
U.S. Environmental Protection Agency
ERRPPB
61 Forsyth Street
Atlanta, Georgia 30303

Sincerely,

James W. Webster, Ph.D., Chief
Emergency Response, Removal, Prevention and Preparedness Branch

Enclosure

cc:	Randall Chaffins	Tina Terrell
	James Webster	Ronald Saskowski
	Matt Taylor	Rachel McCullough
	Chris Masterson	Paula Painter
	Subash Patel	Katrina Jones
	Kevin Eichinger	Dora Ann Johnson
	Lloyd Bates	Charlotte Whitley
	Meredith Clark	Greg Armstrong

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

ACTION MEMORANDUM

SUBJECT: Request Ceiling Increase at the Removal Action at the L&R Oil Recovery Facility

FROM: Kevin Eichinger, Federal On-Scene Coordinator
Emergency Response, Removal, Prevention, and Preparedness Branch

THRU: James W. Webster, Ph.D., Chief
Emergency Response, Removal. Prevention, and Preparedness Branch 8/6/19

TO: Franklin E. Hill, Director
Superfund and Emergency Management Division

I. PURPOSE

The purpose of this Action Memorandum is to request and document additional funding to complete the emergency response actions described herein for the L&R Oil Recovery Facility (the Site) located at 501 Ruth Street, Shelby, Cleveland County, North Carolina. The Site continues to pose a threat to public health and the environment that meets the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) section 300.415(b) criteria for removal actions. Site activities were commenced under the attached Emergency Action Memorandum signed October 4, 2018. A ceiling increase is needed to transport and dispose of hazardous substances, including approximately 25,000 gallons of hazardous waste and 25,000 gallons of waste oil contaminated water contained on-site in totes and underground storage tanks. If approved, this ceiling increase will bring the total project ceiling to $872,000 which will be funded through the Regional Removal Allowance.

II. SITE INFORMATION

A. Site Description

Site Name: L&R Oil Recovery
Superfund Site ID (SSID): C466
NRC Case Number: 1224615
CERCLIS Number: NCR000169185
Site Location: 501 Ruth Street, Shelby. Cleveland County, North Carolina 28150
Lat/Long: 35.29957, -81.5287140
Potentially Responsible Party (PRP): L&R Oil Recovery LLC
NPL Status: Non-NPL
Removal Start Date: September 14, 2018

B. Site Background

1. Removal Site Evaluation

On September 14, 2018, the North Carolina Department of Environmental Quality (NCDEQ), the City of Shelby and Cleveland County officials responded to a report of an approximately 3,000-gallon spill of used/waste oil. A 6,500-gallon tanker-trailer used to store used/waste oil had been positioned behind the building and discharged its contents into the building via a hose placed through a window. The oil filled the building, ran out onto the property and onto Ruth Street. A nearby storm drain and several sections of the sanitary sewer system were impacted by the spill. The storm drain led to Hickory Creek which is a tributary of the Broad River. The facility is located directly adjacent to occupied residential structures. One residential property was impacted by the spill. Two samples of the spilled oil were obtained and sent to a laboratory for analytical testing. The analytical results indicated that the oil contained PCBs (Aroclor 1242) at 20.9 parts per million (ppm) and 18.3 ppm. The Site experienced significant rain from the outer rain bands of Hurricane Florence and is not located in a natural disaster declared county.

In addition to the 3,000-gallon PCB-contaminated oil release, the following threats exist on the Site:

- 42 - 275 and 330-gallon intermediate bulk containers (IBC) containing flammable and combustible material,
- 12 - 55-gallon drums containing flammable and combustible material,
- 1 - DOT 306AL tanker containing approximately 8,600 gallons of PCB containing waste oil (Note: The PRP provided analytical results for the material. The results indicated that the oil contained 25,613 ppm Aroclor 1242. The tanker is leaking from behind the shutoff valves. The leak cannot be secured.); and
- 1 - 6,500-gallon tanker used to store, used oil (Note: The tanker still contains approximately 1,000 gallons of PCB-contaminated used oil at 20.9 ppm.).
- 3 Underground storage tanks (UST), containing 44,000 gallons of used oil and water mixture.

2. Physical Location and Site Characteristics

The Site is located at 501 Ruth Street in Shelby, North Carolina. The geographical coordinates are 35.29957, -81.5287140. The 1.14-acre Site was originally an oil trans-load facility. It is currently used as an used oil and spent oil filter recovery center. The Site consists of a 6,500-square foot single story building and a two-bay covered loading rack. The main building is dilapidated. The roof is not intact, and a section of the concrete floor is missing. The used oil is stored in tankers and then transported to a used oil recycling facility. The oil filters are drained into containers inside the building and then stored for disposal in a covered roll-off dumpster. Multiple IBCs and 55-gallon drums are stored inside and outside the building. Seven 20,000-gallon USTs are on the property. The PRP reports that two of the USTs contain an unknown amount of diesel

fuel and water. One oil recovery truck is stored in the loading rack. The Site is located directly adjacent to a residential community. The Site is fenced; however, there is evidence of trespassing and vandalism.

III. THREATS TO PUBLIC HEALTH, WELFARE OR THE ENVIRONMENT

A. Nature of Actual or Threatened Release of Hazardous Substances, Pollutants or Contaminants

PCBs are hazardous substances as defined by Section 101(14) of CERCLA. The large volume of PCB containing used oil at the Site along with releases of PCB-contaminated used oil to the environment constitute a threat to public health and the environment.

Actual or threatened releases of hazardous substances from this Site may present an imminent and substantial endangerment to public health, welfare or the environment.

B. Applicable factors which were considered in determining the appropriateness of a removal action (40 CFR 30.415)

Actual or potential exposure to nearby human populations, animals or the food chain from hazardous substances or pollutants or contaminants [300.415(b)(2)(i)]

Three thousand (3,000) gallons of PCB-contaminated used oil was released to the environment from the Site. This spill migrated off-site and onto a residential property. A tanker containing 8,600 gallons of PCB containing used oil (25,613 ppm) is leaking on-site. Unsecured drums, ICBs of hazardous substances and an additional tanker are stored on-site. A residential community is located directly across the street from the Site. These conditions represent an actual exposure to nearby human population, animals and the food chain from hazardous substances.

Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that pose a threat of release [300.415(b)(2)(iii)]

Multiple tankers, IBCs and 55-gallon drums are located on-site. Initial hazard categorization testing has determined that these materials are flammable and combustible. Multiple containers are unsecured and subject the release of hazardous substances.

Weather conditions that may cause hazardous substances or pollutants to migrate or to be released [300.315(b)(2)(v)]

Three thousand (3,000) gallons of PCB-contaminated used oil was released to the environment from the Site. This spill migrated off-site and onto a residential property. A tanker storing 8,600 gallons of PCB containing used oil (25,613 ppm) is leaking on-site. An additional tanker, drums and IBCs of hazardous substances are located on-site and are not secured. The roof is not intact. A weather event may cause the hazardous substances to be released or migrate off-site and impact the nearby residential community.

Threat of fire or explosion [300.415(b)(2)(vi)]

Initial hazard categorization testing has determined that these materials are flammable and combustible. The tankers and containers are unsecured and subject to a fire or explosion. Two tankers, IBCs, 55-gallon drums and other containers of unknown hazardous substances are located on-site and are not secured.

The availability of other appropriate federal or state response mechanisms to respond to the release [300.415(b)(2)(vii)]

The PRP has stated that he did not have the funds available to respond to the spill or perform any of the required cleanups. The NCDEQ requested EPA assistance.

Other situations or factors that may pose threats to the public health or welfare of the United States or the environment [300.415(b)(2)(viii)]

The facility is located near residential structures, and the PRP does not have the funding available to perform the necessary remedial actions needed to prevent further environmental harm, or to remove the PCB-contaminated waste oil. Substantial remediation of the Site may be necessary as oil may have contaminated the soil underneath the building pad. There is also a concern that historical contamination has occurred.

IV. SELECTED REMOVAL ACTIONS AND ESTIMATED COSTS

A. Situation and Removal Activities to Date

1. Current Situation

On September 14, 2018, the NCDEQ, local officials and the local fire department responded to secure the release. Sand and oil dry were spread to absorb and contain the spill. The City of Shelby contracted with an environmental services company and removed the oil from the storm drain. The NCDEQ's staff assessed the outfall to Hickory Creek and did not observe an oil sheen.

2. Removal Activities to Date

a. Federal Government/Private Party

Due to the urgency of the response, impending weather and travel time to the Site, the EPA utilized a contracting provision (Basic Ordering Agreement) to hire a local response contractor for initial site stabilization. The contractor was mobilized on September 14, 2018. The response contractor arrived on-scene with personnel, a vacuum truck and other response equipment to address the spill. Federal On-Scene Coordinator (FOSC) Englert coordinated the initial stabilization efforts from the Regional Operations Center. FOSC Eichinger responded and took over the Site on September 18, 2018. The EPA's Superfund Technical Assessment and Response Team (START) contractors were mobilized. FOSC Eichinger arrived on-scene and

met with the property owner and the response contractor. Response operations from the previous operations were reviewed. The property owner provided FOSC Eichinger with written access to perform the necessary response operations to stabilize the Site. During the previous and current operational periods, the response contractor performed or will perform the following operations:

1. Cleaned the road surface,
2. Excavated contaminated soil from the Site and one nearby residential property,
3. Removed bulked oil spilled inside the building and collected by earthen berms,
4. Used absorbent media to remove residual oil inside the building, and
5. Installed hay bales and oil absorbent boom around the perimeter fence line of the building to contain any residual oils.

START contractors conducted hazard categorization (HAZCAT) testing on the drums and the IBCs. Samples were obtained from the IBCs, drums and the two tankers and sent offsite for analysis (list tests). Soil samples were collected around the property and the nearby residential property impacted by the spill.

The EPA's Emergency and Rapid Response Services (ERRS) contractors were mobilized on September 18, 2018, to address the leaking tanker of PCB-containing oil. The PCB oil was transferred to IBCs and staged inside a secured storage container (CONEX box) pending approval of the waste profile and completion of disposal arrangements.

The waste generated by the emergency response operations is staged pending on-site approval of the waste profile and completion of disposal arrangements.

b. State/Local

State and local agencies responded and took initial emergency defensive actions to contain the spill.

3. Enforcement

The PRP stated that he did not have the funds available to respond to the spill or perform any of the required cleanups. NCDEQ requested EPA assistance. FOSC Eichinger will work with EPA Enforcement to identify PRPs. The current property owner is identified in the attached enforcement addendum.

B. Planned Removal Actions

1. The site management will be transitioned to a potential time-critical removal action. The PRP stated that he did not have the funds available to respond to the spill or perform any of the required cleanups. On September 17, 2018, the NCDEQ Hazardous Waste Section formally referred the Site to the EPA Emergency Response, Removal and Prevention Branch for Time-Critical Removal Action consideration. The facility is located near residential structures and does not have the funding available to perform the necessary

remedial actions needed to prevent further environmental harm, or to remove the PCB-contaminated waste oil. Substantial remediation of the Site may be necessary as oil may have contaminated the soil underneath the building pad and historical contamination may have occurred.

2. Anticipated immediate removal activities for the Site include, but are not limited to, the following:

   a. Ship waste generated for the response off-site for proper waste disposal.

   b. Implement removal actions to abate the threat to human health and the environment based on the results of the further investigation.

3. Contribution to Remedial Performance

   Any potential long-term remedial actions will be coordinated with the appropriate state and federal programs and will be consistent with the Remedial Design for the Site.

4. ARARs

   In accordance with the NCP at 40 CFR 300.415(j), on-site removal actions conducted under the CERCLA are required to attain ARARs to the extent practicable considering the exigencies of the situation or provide grounds for invoking a CERCLA waiver under Section 121(d)(4). In determining whether compliance with ARARs is practicable, the lead agency may consider appropriate factors, including (1) the urgency of the situation; and (2) scope of the removal action to be conducted. Additionally, under 40 CFR 300.405(g)(3), other advisories, criteria or guidance may also be considered when conducting the removal action. ARARs include only federal and state environmental or facility siting laws regulations and do not include occupational safety or worker protection requirements. Compliance with OSHA standards is required by 40 CFR 300.150. ARARs are typically divided into three categories: (1) chemical-specific; (2) location-specific; and (3) action-specific.

   Under CERCLA Section 121(e)(1), federal, state or local permits are not required for the portion of any removal or remedial action conducted entirely on-site as defined in 40 CFR § 300.5. See also 40 CFR §§ 300.400(e)(1) & (2). On-site means the areal extent of contamination and all suitable areas in very close proximity to the contamination necessary for implementation of the response action. On-site response actions must comply, to the extent practicable, with substantive but not administrative requirements of ARARs. Off-site activities such as transportation and disposal of wastes are required to comply with all applicable requirements, including the administrative portions.

   As provided in CERCLA Section 121(d)(3) and the Off-site Rule at 40 CFR 300.440 *et seq.* the off-site transfer of any hazardous substance, pollutant or contaminant generated during the response action will be sent to a treatment, storage or disposal facility that is in compliance with applicable federal and state laws and has been approved by the EPA for acceptance of CERCLA waste.

C. Estimated Costs

Extramural costs:	Current Ceiling	Proposed Increase	Proposed Ceiling
Contractor costs (ERRS)	$577,000	$200,000	$777,000
Contractor costs (START)	$ 45,000	$ 0	$ 45,000
Contingency costs	$ 0	$ 50,000	$ 50,000
Total Removal Project Ceiling	**$622,000**	**$250,000**	**$872,000**

EPA direct and indirect costs, although cost recoverable, do not count toward the Removal Ceiling for this removal action. Liable parties may be held financially responsible for costs incurred by the EPA as set forth in Section 107 of CERCLA.

V. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

A delay in action or no action at this Site would have increased the actual or potential threats to the public health and/or environment.

VI. OUTSTANDING POLICY ISSUES

None.

VII. RECOMMENDATION

This decision document represents the selected removal action for the L & R Oil Recovery Site in Shelby, North Carolina developed in accordance with CERCLA as amended, and not inconsistent with the NCP. This decision is based on the Administrative Record for the Site.

Conditions at the Site continue to meet the NCP Section 300.415(b) criteria for a removal action. I recommend your approval for the proposed action to allow continued removal response. The total projected ceiling, if approved, will be $872,000.

APPROVED: _____ DATE: 8/6/19
Franklin E. Hill, Director
Superfund & Emergency Management Division

DISAPPROVED: _____ DATE: _____
Franklin E. Hill, Director
Superfund & Emergency Management Division

Attachments: September 19, 2018 Emergency Action Memo
December 4, 2018 Ceiling Increase Action Memo

Pressley, Miriam

From: Eichinger, Kevin
Sent: Tuesday, April 9, 2019 8:38 AM
To: Moore, Tony; taylor.matt@epa.gov
Cc: Geoffrey Krieger (krieger.geoffrey@epa.gov); Johnson, Dora Ann; bates.lloyd@epa.gov
Subject: FW: EP-S4-15-03; ERLLC 85% Notification for TO 0526 L & R Oil Recovery
Attachments: EP-S4-15-03; ERLLC 85 Notification for TO 0526 L R Oil Recovery 4-5-19.pdf

Tony and Matt,

I need to add additional funds to the ERRS TO for L&R Oil. We are running into disposal difficulties with the waste in the underground storage tanks. Cost are hirer due to access and facility costs. Can we please add $50,000 to ER's TO for the Site. The new ceilings will be as follows. I am drafting the ceiling reallocation memo for Monty and the File; I will still be within the scope of the current Action Memo.

	Current Ceiling	New Ceiling
ERRS Ceiling	$510,000	$560,000
START Ceiling	$90,000	$50,000
Contingency	$22,000	$12,000
TOTAL	$622,000	$622,000

Kevin

From: Gail Lacy <g.lacy@erllc.com>
Sent: Friday, April 5, 2019 11:15 AM
To: Krieger, Geoffrey <krieger.geoffrey@epa.gov>
Cc: Mark Bicksler <m.bicksler@erllc.com>; Ken Braig <k.braig@erllc.com>; Christina Strength <c.strength@erllc.com>; Johnson, Dora Ann <Johnson.Dora@epa.gov>; Eichinger, Kevin <Eichinger.Kevin@epa.gov>; Laura Lang <l.lang@erllc.com>
Subject: EP-S4-15-03; ERLLC 85% Notification for TO 0526 L & R Oil Recovery

Geoff,

Attached please find ER's notification for 85% of the ceiling for the L&R Oil Recovery Site (TO 0526).

ER may need additional funding to complete the current Statement of Work.

Thank you,

Gail Lacy
Contract Administrator
Environmental Restoration, LLC
1666 Fabick Drive
Fenton, Missouri 63026
Phone 636-680-8157
Fax 636-680-2459

g.lacy@erllc.com

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ENVIRONMENTAL RESTORATION, LLC

1666 Fabick Drive
St. Louis, MO 63026
(636) 227-7477
Fax (636) 227-6447

4/5/2019

Mr. Geoff Krieger
Contracting Officer
U.S. Environmental Protection Agency
61 Forsyth Street
Atlanta, GA 30303

RE: Contract #: EP-S4-15-03
Task Order #: 0526
Task Order Name: L & R Oil Recovery

Dear Mr. Krieger,

Environmental Restoration, LLC is providing notification in accordance with the above referenced contract that accrued costs for the L & R Oil Recovery Site, Task Order No. 0526, will exceed 85% of the current ceiling within the next 30 days. The current task order ceiling is $455,000.00 and costs to date are approximately $379,021.57. Additional funding may be required to complete the Statement of Work issued under this Task Order.

If you require any additional information, please call me at 607-658-6204.

Sincerely,

Mark Bicksler

Mark Bicksler
Program Manager

cc: Dora Ann Johnson, PO, EPA
Kevin Eichinger, OSC, EPA
Ken Braig, RM, ER
Christina Strength, FCA, ER

Pressley, Miriam

From: Ken Braig <k.braig@erllc.com>
Sent: Monday, April 29, 2019 2:19 PM
To: Eichinger, Kevin
Subject: FW: Eurofins TestAmerica report files from 490-172322-1 L&R Oil Shelby, NC
Attachments: ATT00001.txt; J172322-1 UDS Level 2 Report Final Report.pdf

Attached are the results for the composite sample taken from UST's 1,2, and 3. I have forwarded this to Amy for a T&D RFQ. It looks to me like it's just going to be D001 flammable from the toluene and Xylene. The sample turned in was a water sample with approximately 5-10% oil on top. It has a small amount of PCB-1242 at 142 ppb.

Ken Braig
Response Manager
Environmental Restoration, LLC
1666 Fabic Drive
Fenton, MO 63026
636-485-0537 (mobile)
k.braig@erllc.com

From: Ken Hayes [mailto:ken.hayes@testamericainc.com]
Sent: Monday, April 29, 2019 12:15 PM
To: Candace Bonham <candace.bonham@testamericainc.com>; Ken Braig <k.braig@erllc.com>
Subject: Eurofins TestAmerica report files from 490-172322-1 L&R Oil Shelby, NC

Hello,

Attached please find the report files for job 490-172322-1; L&R Oil Shelby, NC

Please feel free to contact me if you have any questions.

Thank you.

Ken Hayes
Project Manager

Eurofins TestAmerica, Nashville
Phone: 615-301-5035

E-mail: ken.hayes@testamericainc.com
www.eurofinsus.com | www.testamericainc.com

Reference: [490-522046]
Attachments: 1

Please let us know if we met your expectations by rating the service you received from Eurofins TestAmerica on this project by visiting our website at: Project Feedback

Confidentiality Warning: This e-mail and any attachments contain information intended only for the use of the individual or entity named above. If the reader of this e-mail is not the intended recipient or the employee or agent responsible for delivering it to the intended recipient, any dissemination, publication or copying of this e-mail is strictly prohibited. Although this email has been scanned for malware, the sender does not accept any responsibility for any loss, disruption or damage to your data or computer system that may occur while using data contained in, or transmitted with, this e-mail. If you have received this e-mail in error, please immediately notify by return e-mail. Thank you.

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

Eurofins TestAmerica, Nashville
2960 Foster Creighton Drive
Nashville, TN 37204
Tel: (615)726-0177

Laboratory Job ID: 490-172322-1
Laboratory Sample Delivery Group: L4-526
Client Project/Site: L&R Oil Shelby, NC

For:
Environmental Restoration LLC
1666 Fabick Dr.
Fenton, Missouri 63026

Attn: Ken Braig

Authorized for release by:
4/29/2019 12:12:35 PM

Ken Hayes, Project Manager II
(615)301-5035
ken.hayes@testamericainc.com

LINKS

Review your project results through
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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Sample Summary

Client: Environmental Restoration LLC
Project/Site: L&R Oil Shelby, NC

Job ID: 490-172322-1
SDG: L4-526

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-172322-1	LRUST-1-2-3	Water	04/17/19 09:00	04/18/19 09:25
490-172322-4	LRUST-1-2-3	Waste	04/17/19 09:00	04/18/19 09:25

Case Narrative

Client: Environmental Restoration LLC
Project/Site: L&R Oil Shelby, NC

Job ID: 490-172322-1
SDG: L4-526

Job ID: 490-172322-1

Laboratory: Eurofins TestAmerica, Nashvi le

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Narrative

Job Narrative
490-172322-1

Comments
No additional comments.

Receipt
The samples were received on 4/18/2019 9:25 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was -0.3° C.

GC/MS VOA
Method(s) 8260C, 8260D: The continuing calibration verification (CCV) analyzed in batch 180-276362 was outside the method criteria for the following analyte(s): 1,2,3-Trichlorobenzene,1,2,4-Trichlorobenzene and Acetone. (HIGH). As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method(s) 8260C, 8260D: The continuing calibration verification (CCV) analyzed in batch 180-276362 was outside the method criteria for the following analyte(s): 2-Hexanone, 4-Methyl-2-pentanone, Chloromethane, Methyl acetate and Vinyl chloride.(LOW). A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method(s) 8260C, 8260D: The continuing calibration verification (CCV) analyzed in batch 180-276362 was outside the method criteria for the following analyte(s): 2-Butanone , Acetone and Methyl acetate. (LOW MINIMUM RRF). A low-level LCS (LLCS), spiked at the reporting limit (RL), was prepared with this batch. The affected target analytes recovered within acceptance limits; therefore, the LLCS demonstrates the analytical system had sufficient sensitivity to detect the compounds. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method(s) 8260C, 8260D: The laboratory control sample (LCS) for analytical batch 180-276362 recovered outside control limits for the following analytes: 4-Methyl-2-pentanone . A low-level LCS (LLCS), spiked at the reporting limit (RL), was prepared with this batch. The affected target analytes recovered within acceptance limits; therefore, the LLCS demonstrates the analytical system had sufficient sensitivity to detect the compounds had they been present. Since the affected target compounds were not detected in the samples, the data have been reported and qualified.

Method(s) 8260C, 8260D: The following sample was diluted to bring the concentration of target analytes within the calibration range: LRUST-1-2-3 (490-172322-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method(s) 8270E: The following sample was diluted due to an abundance of target analytes: LRUST-1-2-3 (490-172322-1). As such, surrogate recoveries are below the calibration range or are not reported, and elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
Method(s) 8082A: The continuing calibration verification (CCV) associated with batch 490-589479 recovered above the upper control limit for PCB-1221. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following sample is impacted: LRUST-1-2-3 (490-172322-4).

Method(s) 8082A: The following sample was diluted due to the nature of the sample matrix: LRUST-1-2-3 (490-172322-4). Elevated reporting limits (RLs) are provided.

Method(s) 8082A: Surrogate recovery for the following sample was outside control limits: LRUST-1-2-3 (490-172322-4). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8082A: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with

Job ID: 490-172322-1 (Continued)

Laboratory: Eurofins TestAmerica, Nashville (Continued)

490-589451.

Method(s) 8082A: The following sample required a dilution due to the nature of the sample matrix: LRUST-1-2-3 (490-172322-1). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method(s) 8082A: The following sample was diluted due to the nature of the sample matrix: LRUST-1-2-3 (490-172322-1). Elevated reporting limits (RLs) are provided.

Method(s) 8082A: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with 490-589623.

Method(s) 8082A: The %RPD between the primary and confirmation column exceeded 40% for Tetrachloro-m-xylene for the following sample: LRUST-1-2-3 (490-172322-1). The lower value(s) has been reported and qualified in accordance with the laboratory's SOP.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Method(s) 3510C: Dilutions were performed for the following samples: LRUST-1-2-3 (490-172322-1). These dilutions were prepared as follows:
100ml of sample made up to 1000ml
Sample contains two layers- organic and water.

Method(s) 9070A: A reduced volume for the following sample was used due to a suspected high concentration of HEM: LRUST-1-2-3 (490-172322-1). Elevated reporting limits (RL) are provided.

Sample contained an organic and inorganic layer.

Method(s) 9070A: Due to the high concentration of HEM the matrix spike / matrix spike duplicate (MS/MSD) for preparation batch 490-590842 and analytical batch 490-590847 could not be evaluated for accuracy and precision. The associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) met acceptance criteria.

Method(s) 3520C: Due to the matrix, the following sample could not be concentrated to the final method required volume: LRUST-1-2-3 (490-172322-1). The reporting limits (RLs) are elevated proportionately.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Definitions/Glossary

Client: Environmental Restoration LLC
Project/Site: L&R Oil Shelby, NC

Job ID: 490-172322-1
SDG: L4-526

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
X	Surrogate is outside control limits

GC Semi VOA

Qualifier	Qualifier Description
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
X	Surrogate is outside control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample Results

Client: Environmental Restoration LLC
Project/Site: L&R Oil Shelby, NC

Job ID: 490-172322-1
SDG: L4-526

Client Sample ID: LRUST-1-2-3

Lab Sample ID: 490-172322-1

Date Collected: 04/17/19 09:00
Date Received: 04/18/19 09:25

Matrix: Water

Method: EPA 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		1000000		ug/L			04/22/19 13:57	50000
Benzene	ND		250000		ug/L			04/22/19 13:57	50000
Bromochloromethane	ND		250000		ug/L			04/22/19 13:57	50000
Bromodichloromethane	ND		250000		ug/L			04/22/19 13:57	50000
Bromoform	ND		250000		ug/L			04/22/19 13:57	50000
Bromomethane	ND		250000		ug/L			04/22/19 13:57	50000
2-Butanone (MEK)	ND		250000		ug/L			04/22/19 13:57	50000
Carbon disulfide	ND		250000		ug/L			04/22/19 13:57	50000
Carbon tetrachloride	ND		250000		ug/L			04/22/19 13:57	50000
Chlorobenzene	ND		250000		ug/L			04/22/19 13:57	50000
Chlorodibromomethane	ND		250000		ug/L			04/22/19 13:57	50000
Chloroethane	ND		250000		ug/L			04/22/19 13:57	50000
Chloroform	ND		250000		ug/L			04/22/19 13:57	50000
Chloromethane	ND		250000		ug/L			04/22/19 13:57	50000
cis-1,2-Dichloroethene	ND		250000		ug/L			04/22/19 13:57	50000
cis-1,3-Dichloropropene	ND		250000		ug/L			04/22/19 13:57	50000
Cyclohexane	ND		250000		ug/L			04/22/19 13:57	50000
1,2-Dibromo-3-Chloropropane	ND		250000		ug/L			04/22/19 13:57	50000
1,2-Dibromoethane (EDB)	ND		250000		ug/L			04/22/19 13:57	50000
1,2-Dichlorobenzene	ND		250000		ug/L			04/22/19 13:57	50000
1,3-Dichlorobenzene	ND		250000		ug/L			04/22/19 13:57	50000
1,4-Dichlorobenzene	ND		250000		ug/L			04/22/19 13:57	50000
Dichlorodifluoromethane	ND		250000		ug/L			04/22/19 13:57	50000
1,1-Dichloroethane	ND		250000		ug/L			04/22/19 13:57	50000
1,2-Dichloroethane	ND		250000		ug/L			04/22/19 13:57	50000
1,1-Dichloroethene	ND		250000		ug/L			04/22/19 13:57	50000
1,2-Dichloropropane	ND		250000		ug/L			04/22/19 13:57	50000
Ethylbenzene	ND		250000		ug/L			04/22/19 13:57	50000
2-Hexanone	ND		250000		ug/L			04/22/19 13:57	50000
Isopropylbenzene	ND		250000		ug/L			04/22/19 13:57	50000
Methyl acetate	ND		1250000		ug/L			04/22/19 13:57	50000
Methylcyclohexane	ND		250000		ug/L			04/22/19 13:57	50000
Methylene Chloride	ND		250000		ug/L			04/22/19 13:57	50000
4-Methyl-2-pentanone (MIBK)	ND	*	250000		ug/L			04/22/19 13:57	50000
Methyl tert-butyl ether	ND		250000		ug/L			04/22/19 13:57	50000
Styrene	ND		250000		ug/L			04/22/19 13:57	50000
1,1,2,2-Tetrachloroethane	ND		250000		ug/L			04/22/19 13:57	50000
Tetrachloroethene	ND		250000		ug/L			04/22/19 13:57	50000
Toluene	**670000**		250000		ug/L			04/22/19 13:57	50000
trans-1,2-Dichloroethene	ND		250000		ug/L			04/22/19 13:57	50000
trans-1,3-Dichloropropene	ND		250000		ug/L			04/22/19 13:57	50000
1,2,3-Trichlorobenzene	ND		250000		ug/L			04/22/19 13:57	50000
1,2,4-Trichlorobenzene	ND		250000		ug/L			04/22/19 13:57	50000
1,1,1-Trichloroethane	ND		250000		ug/L			04/22/19 13:57	50000
1,1,2-Trichloroethane	ND		250000		ug/L			04/22/19 13:57	50000
Trichloroethene	ND		250000		ug/L			04/22/19 13:57	50000
Trichlorofluoromethane	ND		250000		ug/L			04/22/19 13:57	50000
1,1,2-Trichloro-1,2,2-trichfluoroethane	ND		250000		ug/L			04/22/19 13:57	50000
Vinyl chloride	ND		250000		ug/L			04/22/19 13:57	50000

Client Sample Results

Client: Environmental Restoration LLC
Project/Site: L&R Oil Shelby, NC

Job ID: 490-172322-1
SDG: L4-526

Client Sample ID: LRUST-1-2-3

Date Collected: 04/17/19 09:00
Date Received: 04/18/19 09:25

Lab Sample ID: 490-172322-1

Matrix: Water

6

Method: EPA 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	956000		500000		ug/L			04/22/19 13:57	50000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*64 - 122*		*04/22/19 13:57*	*50000*
Dibromofluoromethane (Surr)	*103*		*70 - 127*		*04/22/19 13:57*	*50000*
1,2-Dichloroethane-d4 (Surr)	*96*		*58 - 139*		*04/22/19 13:57*	*50000*
Toluene-d8 (Surr)	*98*		*71 - 125*		*04/22/19 13:57*	*50000*

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
Acenaphthylene	ND		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
Acetophenone	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
Anthracene	ND		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
Atrazine	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
Benzaldehyde	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
Benzidine	ND		143000		ug/L		04/19/19 12:04	04/25/19 19:04	50
Benzo[a]anthracene	ND		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
Benzo[a]pyrene	ND		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
Benzo[b]fluoranthene	ND		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
Benzo[g,h,i]perylene	ND		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
Benzo[k]fluoranthene	ND		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
Benzyl alcohol	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
Biphenyl	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
Bis(2-chloroethoxy)methane	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
Bis(2-chloroethyl)ether	ND		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
bis (2-chloroisopropyl) ether	ND		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
Bis(2-ethylhexyl) phthalate	ND		71700		ug/L		04/19/19 12:04	04/25/19 19:04	50
4-Bromophenyl phenyl ether	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
Butyl benzyl phthalate	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
Caprolactam	ND		35900		ug/L		04/19/19 12:04	04/25/19 19:04	50
Carbazole	ND		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
4-Chloroaniline	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
4-Chloro-3-methylphenol	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
2-Chloronaphthalene	ND		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
2-Chlorophenol	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
4-Chlorophenyl phenyl ether	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
Chrysene	ND		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
Dibenz(a,h)anthracene	ND		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
Dibenzofuran	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
1,2-Dichlorobenzene	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
1,3-Dichlorobenzene	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
1,4-Dichlorobenzene	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
3,3'-Dichlorobenzidine	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
2,4-Dichlorophenol	ND		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
Diethyl phthalate	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
2,4-Dimethylphenol	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
Dimethyl phthalate	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
Di-n-butyl phthalate	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
4,6-Dinitro-2-methylphenol	ND		35900		ug/L		04/19/19 12:04	04/25/19 19:04	50

Client Sample Results

Client: Environmental Restoration LLC
Project/Site: L&R Oil Shelby, NC

Job ID: 490-172322-1
SDG: L4-526

Client Sample ID: LRUST-1-2-3

Date Collected: 04/17/19 09:00
Date Received: 04/18/19 09:25

Lab Sample ID: 490-172322-1

Matrix: Water

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	ND		71700		ug/L		04/19/19 12:04	04/25/19 19:04	50
2,4-Dinitrotoluene	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
2,6-Dinitrotoluene	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
Di-n-octyl phthalate	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
Fluoranthene	ND		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
Fluorene	ND		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
Hexachlorobenzene	ND		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
Hexachlorobutadiene	ND		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
Hexachlorocyclopentadiene	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
Hexachloroethane	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
Indeno[1,2,3-cd]pyrene	ND		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
Isophorone	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
2-Methylnaphthalene	**83200**		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
2-Methylphenol	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
Methylphenol, 3 & 4	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
Naphthalene	**91900**		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
2-Nitroaniline	ND		35900		ug/L		04/19/19 12:04	04/25/19 19:04	50
3-Nitroaniline	ND		35900		ug/L		04/19/19 12:04	04/25/19 19:04	50
4-Nitroaniline	ND		35900		ug/L		04/19/19 12:04	04/25/19 19:04	50
Nitrobenzene	ND		14300		ug/L		04/19/19 12:04	04/25/19 19:04	50
2-Nitrophenol	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
4-Nitrophenol	ND		35900		ug/L		04/19/19 12:04	04/25/19 19:04	50
N-Nitrosodimethylamine	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
N-Nitrosodi-n-propylamine	ND		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
n-Nitrosodiphenylamine(as diphenylamine)	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
Pentachlorophenol	ND		35900		ug/L		04/19/19 12:04	04/25/19 19:04	50
Phenanthrene	ND		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
Phenol	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
Pyrene	ND		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
1,2,4,5-Tetrachlorobenzene	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
2,3,4,6-Tetrachlorophenol	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
1,2,4-Trichlorobenzene	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
2,4,5-Trichlorophenol	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
2,4,6-Trichlorophenol	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*0*	*X D*	*37 - 105*	*04/19/19 12:04*	*04/25/19 19:04*	*50*
2-Fluorophenol (Surr)	*0*	*X D*	*22 - 105*	*04/19/19 12:04*	*04/25/19 19:04*	*50*
Nitrobenzene-d5 (Surr)	*0*	*X D*	*38 - 105*	*04/19/19 12:04*	*04/25/19 19:04*	*50*
Phenol-d5 (Surr)	*0*	*X D*	*26 - 105*	*04/19/19 12:04*	*04/25/19 19:04*	*50*
Terphenyl-d14 (Surr)	*0*	*X D*	*21 - 119*	*04/19/19 12:04*	*04/25/19 19:04*	*50*
2,4,6-Tribromophenol (Surr)	*0*	*X D*	*29 - 105*	*04/19/19 12:04*	*04/25/19 19:04*	*50*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		50.0		ug/L		04/22/19 15:50	04/23/19 20:44	10
PCB-1221	ND		50.0		ug/L		04/22/19 15:50	04/23/19 20:44	10
PCB-1232	ND		50.0		ug/L		04/22/19 15:50	04/23/19 20:44	10
PCB-1242	**146**		50.0		ug/L		04/22/19 15:50	04/23/19 20:44	10

Client Sample Results

Client: Environmental Restoration LLC
Project/Site: L&R Oil Shelby, NC

Job ID: 490-172322-1
SDG: L4-526

Client Sample ID: LRUST-1-2-3
Date Collected: 04/17/19 09:00
Date Received: 04/18/19 09:25

Lab Sample ID: 490-172322-1
Matrix: Water

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Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1248	ND		50.0		ug/L		04/22/19 15:50	04/23/19 20:44	10
PCB-1254	ND		50.0		ug/L		04/22/19 15:50	04/23/19 20:44	10
PCB-1260	ND		50.0		ug/L		04/22/19 15:50	04/23/19 20:44	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*0*	*X*	*10 - 150*	*04/22/19 15:50*	*04/23/19 20:44*	*10*
Tetrachloro-m-xylene	*1*	*X p*	*10 - 150*	*04/22/19 15:50*	*04/23/19 20:44*	*10*

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.00500		mg/L		04/20/19 14:02	04/24/19 18:08	1
Arsenic	ND		0.200		mg/L		04/20/19 14:02	04/24/19 00:01	20
Barium	**0.459**		0.0100		mg/L		04/20/19 14:02	04/23/19 14:31	1
Cadmium	**0.00720**		0.00100		mg/L		04/20/19 14:02	04/23/19 14:31	1
Chromium	**0.0135**		0.00500		mg/L		04/20/19 14:02	04/23/19 14:31	1
Lead	**0.191**		0.00500		mg/L		04/20/19 14:02	04/23/19 14:31	1
Selenium	ND		0.0100		mg/L		04/20/19 14:02	04/23/19 14:31	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0200		mg/L		04/19/19 16:27	04/20/19 16:51	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint	**53.4**		1.00		Degrees F			04/23/19 17:31	1
pH	**5.28**		0.100		SU			04/20/19 13:36	1
Temperature	**19.2**		0.100		Degrees C			04/20/19 13:36	1
HEM (Oil & Grease)	**11500**		36.2		mg/L		04/26/19 12:49	04/26/19 12:49	1
SGT-HEM (Oil & Grease)	**6620**		36.2		mg/L		04/26/19 12:49	04/26/19 12:49	1

Client Sample Results

Client: Environmental Restoration LLC
Project/Site: L&R Oil Shelby, NC

Job ID: 490-172322-1
SDG: L4-526

Client Sample ID: LRUST-1-2-3

Lab Sample ID: 490-172322-4
Matrix: Waste

Date Collected: 04/17/19 09:00
Date Received: 04/18/19 09:25

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		4.95		mg/Kg		04/20/19 22:00	04/22/19 22:12	10
PCB-1221	ND		4.95		mg/Kg		04/20/19 22:00	04/22/19 22:12	10
PCB-1232	ND		4.95		mg/Kg		04/20/19 22:00	04/22/19 22:12	10
PCB-1242	**6.27**	p	4.95		mg/Kg		04/20/19 22:00	04/22/19 22:12	10
PCB-1248	ND		4.95		mg/Kg		04/20/19 22:00	04/22/19 22:12	10
PCB-1254	ND		4.95		mg/Kg		04/20/19 22:00	04/22/19 22:12	10
PCB-1260	ND		4.95		mg/Kg		04/20/19 22:00	04/22/19 22:12	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*177*	*X*	*20 - 150*	*04/20/19 22:00*	*04/22/19 22:12*	*10*
Tetrachloro-m-xylene	*94*		*19 - 147*	*04/20/19 22:00*	*04/22/19 22:12*	*10*

QC Sample Results

Client: Environmental Restoration LLC
Project/Site: L&R Oil Shelby, NC

Job ID: 490-172322-1
SDG: L4-526

Method: EPA 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 180-276362/5
Matrix: Water
Analysis Batch: 276362

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		20.0		ug/L			04/22/19 09:23	1
Benzene	ND		5.00		ug/L			04/22/19 09:23	1
Bromochloromethane	ND		5.00		ug/L			04/22/19 09:23	1
Bromodichloromethane	ND		5.00		ug/L			04/22/19 09:23	1
Bromoform	ND		5.00		ug/L			04/22/19 09:23	1
Bromomethane	ND		5.00		ug/L			04/22/19 09:23	1
2-Butanone (MEK)	ND		5.00		ug/L			04/22/19 09:23	1
Carbon disulfide	ND		5.00		ug/L			04/22/19 09:23	1
Carbon tetrachloride	ND		5.00		ug/L			04/22/19 09:23	1
Chlorobenzene	ND		5.00		ug/L			04/22/19 09:23	1
Chlorodibromomethane	ND		5.00		ug/L			04/22/19 09:23	1
Chloroethane	ND		5.00		ug/L			04/22/19 09:23	1
Chloroform	ND		5.00		ug/L			04/22/19 09:23	1
Chloromethane	ND		5.00		ug/L			04/22/19 09:23	1
cis-1,2-Dichloroethene	ND		5.00		ug/L			04/22/19 09:23	1
cis-1,3-Dichloropropene	ND		5.00		ug/L			04/22/19 09:23	1
Cyclohexane	ND		5.00		ug/L			04/22/19 09:23	1
1,2-Dibromo-3-Chloropropane	ND		5.00		ug/L			04/22/19 09:23	1
1,2-Dibromoethane (EDB)	ND		5.00		ug/L			04/22/19 09:23	1
1,2-Dichlorobenzene	ND		5.00		ug/L			04/22/19 09:23	1
1,3-Dichlorobenzene	ND		5.00		ug/L			04/22/19 09:23	1
1,4-Dichlorobenzene	ND		5.00		ug/L			04/22/19 09:23	1
Dichlorodifluoromethane	ND		5.00		ug/L			04/22/19 09:23	1
1,1-Dichloroethane	ND		5.00		ug/L			04/22/19 09:23	1
1,2-Dichloroethane	ND		5.00		ug/L			04/22/19 09:23	1
1,1-Dichloroethene	ND		5.00		ug/L			04/22/19 09:23	1
1,2-Dichloropropane	ND		5.00		ug/L			04/22/19 09:23	1
Ethylbenzene	ND		5.00		ug/L			04/22/19 09:23	1
2-Hexanone	ND		5.00		ug/L			04/22/19 09:23	1
Isopropylbenzene	ND		5.00		ug/L			04/22/19 09:23	1
Methyl acetate	ND		5.00		ug/L			04/22/19 09:23	1
Methylcyclohexane	ND		25.0		ug/L			04/22/19 09:23	1
Methylene Chloride	ND		5.00		ug/L			04/22/19 09:23	1
4-Methyl-2-pentanone (MIBK)	ND		5.00		ug/L			04/22/19 09:23	1
Methyl tert-butyl ether	ND		5.00		ug/L			04/22/19 09:23	1
Styrene	ND		5.00		ug/L			04/22/19 09:23	1
1,1,2,2-Tetrachloroethane	ND		5.00		ug/L			04/22/19 09:23	1
Tetrachloroethene	ND		5.00		ug/L			04/22/19 09:23	1
Toluene	ND		5.00		ug/L			04/22/19 09:23	1
trans-1,2-Dichloroethene	ND		5.00		ug/L			04/22/19 09:23	1
trans-1,3-Dichloropropene	ND		5.00		ug/L			04/22/19 09:23	1
1,2,3-Trichlorobenzene	ND		5.00		ug/L			04/22/19 09:23	1
1,2,4-Trichlorobenzene	ND		5.00		ug/L			04/22/19 09:23	1
1,1,1-Trichloroethane	ND		5.00		ug/L			04/22/19 09:23	1
1,1,2-Trichloroethane	ND		5.00		ug/L			04/22/19 09:23	1
Trichloroethene	ND		5.00		ug/L			04/22/19 09:23	1
Trichlorofluoromethane	ND		5.00		ug/L			04/22/19 09:23	1
1,1,2-Trichloro-1,2,2-trichfluoroethane	ND		5.00		ug/L			04/22/19 09:23	1

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Method: EPA 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 180-276362/5
Matrix: Water
Analysis Batch: 276362

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		5.00		ug/L			04/22/19 09:23	1
Xylenes, Total	ND		10.0		ug/L			04/22/19 09:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*64 - 122*		*04/22/19 09:23*	*1*
Dibromofluoromethane (Surr)	*109*		*70 - 127*		*04/22/19 09:23*	*1*
1,2-Dichloroethane-d4 (Surr)	*94*		*58 - 139*		*04/22/19 09:23*	*1*
Toluene-d8 (Surr)	*111*		*71 - 125*		*04/22/19 09:23*	*1*

Lab Sample ID: LCS 180-276362/9
Matrix: Water
Analysis Batch: 276362

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	20.0	19.38	J	ug/L		97	14 - 150
Benzene	10.0	8.915		ug/L		89	66 - 124
Bromochloromethane	10.0	9.490		ug/L		95	68 - 122
Bromodichloromethane	10.0	8.952		ug/L		90	65 - 127
Bromoform	10.0	9.117		ug/L		91	58 - 134
Bromomethane	10.0	13.92		ug/L		139	10 - 150
2-Butanone (MEK)	20.0	13.21		ug/L		66	36 - 150
Carbon disulfide	10.0	11.02		ug/L		110	49 - 138
Carbon tetrachloride	10.0	9.331		ug/L		93	69 - 130
Chlorobenzene	10.0	9.237		ug/L		92	72 - 122
Chlorodibromomethane	10.0	8.731		ug/L		87	66 - 129
Chloroethane	10.0	11.08		ug/L		111	10 - 150
Chloroform	10.0	9.307		ug/L		93	69 - 119
Chloromethane	10.0	7.275		ug/L		73	38 - 148
cis-1,2-Dichloroethene	10.0	9.314		ug/L		93	68 - 121
cis-1,3-Dichloropropene	10.0	8.648		ug/L		86	59 - 129
Cyclohexane	10.0	8.736		ug/L		87	59 - 139
1,2-Dibromo-3-Chloropropane	10.0	7.648		ug/L		76	28 - 141
1,2-Dibromoethane (EDB)	10.0	8.002		ug/L		80	71 - 119
1,2-Dichlorobenzene	10.0	9.459		ug/L		95	63 - 124
1,3-Dichlorobenzene	10.0	9.489		ug/L		95	71 - 117
1,4-Dichlorobenzene	10.0	9.253		ug/L		93	72 - 116
Dichlorodifluoromethane	10.0	9.756		ug/L		98	28 - 148
1,1-Dichloroethane	10.0	8.800		ug/L		88	71 - 124
1,2-Dichloroethane	10.0	7.618		ug/L		76	69 - 127
1,1-Dichloroethene	10.0	11.15		ug/L		111	57 - 135
1,2-Dichloropropane	10.0	8.493		ug/L		85	65 - 125
Ethylbenzene	10.0	9.503		ug/L		95	73 - 120
2-Hexanone	20.0	11.11		ug/L		56	43 - 150
Isopropylbenzene	10.0	9.789		ug/L		98	71 - 123
Methyl acetate	20.0	10.52	J	ug/L		53	45 - 150
Methylcyclohexane	10.0	9.242		ug/L		92	68 - 121
Methylene Chloride	10.0	10.01		ug/L		100	55 - 134
4-Methyl-2-pentanone (MIBK)	20.0	8.639	*	ug/L		43	47 - 148

QC Sample Results

Client: Environmental Restoration LLC
Project/Site: L&R Oil Shelby, NC

Job ID: 490-172322-1
SDG: L4-526

Method: EPA 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 180-276362/9
Matrix: Water
Analysis Batch: 276362

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	10.0	7.571		ug/L		76	64 - 126
Styrene	10.0	9.272		ug/L		93	65 - 133
1,1,2,2-Tetrachloroethane	10.0	7.114		ug/L		71	51 - 142
Tetrachloroethene	10.0	11.21		ug/L		112	73 - 129
Toluene	10.0	9.470		ug/L		95	68 - 127
trans-1,2-Dichloroethene	10.0	10.34		ug/L		103	69 - 127
trans-1,3-Dichloropropene	10.0	8.032		ug/L		80	57 - 124
1,2,3-Trichlorobenzene	10.0	12.16		ug/L		122	28 - 150
1,2,4-Trichlorobenzene	10.0	11.68		ug/L		117	33 - 146
1,1,1-Trichloroethane	10.0	9.245		ug/L		92	69 - 128
1,1,2-Trichloroethane	10.0	8.333		ug/L		83	71 - 119
Trichloroethene	10.0	9.887		ug/L		99	75 - 122
Trichlorofluoromethane	10.0	12.80		ug/L		128	13 - 150
1,1,2-Trichloro-1,2,2-trichfluoroethane	10.0	11.41		ug/L		114	56 - 135
Vinyl chloride	10.0	7.559		ug/L		76	57 - 132
Xylenes, Total	20.0	19.04		ug/L		95	74 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*64 - 122*
Dibromofluoromethane (Surr)	*106*		*70 - 127*
1,2-Dichloroethane-d4 (Surr)	*87*		*58 - 139*
Toluene-d8 (Surr)	*109*		*71 - 125*

Lab Sample ID: 180-89137-F-13 MS
Matrix: Water
Analysis Batch: 276362

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	ND		20.0	ND		ug/L		70	14 - 150
Benzene	ND		10.0	9.344		ug/L		93	66 - 124
Bromochloromethane	ND		10.0	9.813		ug/L		98	68 - 122
Bromodichloromethane	ND		10.0	9.136		ug/L		91	65 - 127
Bromoform	ND		10.0	9.534		ug/L		95	58 - 134
Bromomethane	ND	F2	10.0	11.58		ug/L		116	10 - 150
2-Butanone (MEK)	ND		20.0	11.69		ug/L		58	36 - 150
Carbon disulfide	ND		10.0	10.30		ug/L		103	49 - 138
Carbon tetrachloride	ND		10.0	9.135		ug/L		91	69 - 130
Chlorobenzene	ND		10.0	9.405		ug/L		94	72 - 122
Chlorodibromomethane	ND		10.0	8.886		ug/L		89	66 - 129
Chloroethane	ND	F2	10.0	8.603		ug/L		86	10 - 150
Chloroform	ND		10.0	9.758		ug/L		98	69 - 119
Chloromethane	ND		10.0	7.716		ug/L		77	38 - 148
cis-1,2-Dichloroethene	ND		10.0	9.698		ug/L		97	68 - 121
cis-1,3-Dichloropropene	ND		10.0	9.265		ug/L		93	59 - 129
Cyclohexane	ND		10.0	8.612		ug/L		86	59 - 139
1,2-Dibromo-3-Chloropropane	ND		10.0	9.067		ug/L		91	28 - 141
1,2-Dibromoethane (EDB)	ND		10.0	8.427		ug/L		84	71 - 119
1,2-Dichlorobenzene	ND		10.0	9.881		ug/L		99	63 - 124

Method: EPA 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 180-89137-F-13 MS
Matrix: Water
Analysis Batch: 276362

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichlorobenzene	ND		10.0	9.702		ug/L		97	71 - 117
1,4-Dichlorobenzene	ND		10.0	9.529		ug/L		95	72 - 116
Dichlorodifluoromethane	ND		10.0	9.088		ug/L		91	28 - 148
1,1-Dichloroethane	ND		10.0	9.120		ug/L		91	71 - 124
1,2-Dichloroethane	ND		10.0	8.277		ug/L		83	69 - 127
1,1-Dichloroethene	ND		10.0	10.57		ug/L		106	57 - 135
1,2-Dichloropropane	ND		10.0	8.910		ug/L		89	65 - 125
Ethylbenzene	ND		10.0	9.596		ug/L		96	73 - 120
2-Hexanone	ND		20.0	10.08		ug/L		50	43 - 150
Isopropylbenzene	ND		10.0	9.759		ug/L		98	71 - 123
Methyl acetate	ND		20.0	ND		ug/L		61	45 - 150
Methylcyclohexane	ND		10.0	9.296		ug/L		93	68 - 121
Methylene Chloride	ND		10.0	10.36		ug/L		104	55 - 134
4-Methyl-2-pentanone (MIBK)	ND	F1 *	20.0	9.027	F1	ug/L		45	47 - 148
Methyl tert-butyl ether	ND		10.0	8.389		ug/L		84	64 - 126
Styrene	ND		10.0	9.461		ug/L		95	65 - 133
1,1,2,2-Tetrachloroethane	ND		10.0	7.764		ug/L		78	51 - 142
Tetrachloroethene	ND		10.0	11.03		ug/L		110	73 - 129
Toluene	ND		10.0	9.489		ug/L		95	68 - 127
trans-1,2-Dichloroethene	ND		10.0	10.20		ug/L		102	69 - 127
trans-1,3-Dichloropropene	ND		10.0	8.317		ug/L		83	57 - 124
1,2,3-Trichlorobenzene	ND	F1	10.0	13.67		ug/L		137	28 - 150
1,2,4-Trichlorobenzene	ND		10.0	12.70		ug/L		127	33 - 146
1,1,1-Trichloroethane	ND		10.0	9.519		ug/L		95	69 - 128
1,1,2-Trichloroethane	ND		10.0	9.016		ug/L		90	71 - 119
Trichloroethene	ND		10.0	10.19		ug/L		102	75 - 122
Trichlorofluoromethane	ND		10.0	11.47		ug/L		115	13 - 150
1,1,2-Trichloro-1,2,2-trichfluoroethane	ND		10.0	11.15		ug/L		112	56 - 135
Vinyl chloride	ND		10.0	7.686		ug/L		77	57 - 132
Xylenes, Total	ND		20.0	19.03		ug/L		95	74 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*64 - 122*
Dibromofluoromethane (Surr)	*109*		*70 - 127*
1,2-Dichloroethane-d4 (Surr)	*100*		*58 - 139*
Toluene-d8 (Surr)	*105*		*71 - 125*

Lab Sample ID: 180-89137-F-13 MSD
Matrix: Water
Analysis Batch: 276362

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	ND		20.0	ND		ug/L		96	14 - 150	31	35
Benzene	ND		10.0	9.131		ug/L		91	66 - 124	2	16
Bromochloromethane	ND		10.0	10.32		ug/L		103	68 - 122	5	18
Bromodichloromethane	ND		10.0	9.790		ug/L		98	65 - 127	7	16
Bromoform	ND		10.0	10.95		ug/L		110	58 - 134	14	16
Bromomethane	ND	F2	10.0	8.011	F2	ug/L		80	10 - 150	36	35

QC Sample Results

Client: Environmental Restoration LLC
Project/Site: L&R Oil Shelby, NC

Job ID: 490-172322-1
SDG: L4-526

Method: EPA 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 180-89137-F-13 MSD
Matrix: Water
Analysis Batch: 276362

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Butanone (MEK)	ND		20.0	15.38		ug/L		77	36 - 150	27	35
Carbon disulfide	ND		10.0	9.041		ug/L		90	49 - 138	13	35
Carbon tetrachloride	ND		10.0	8.370		ug/L		84	69 - 130	9	17
Chlorobenzene	ND		10.0	9.357		ug/L		94	72 - 122	1	15
Chlorodibromomethane	ND		10.0	9.922		ug/L		99	66 - 129	11	15
Chloroethane	ND	F2	10.0	5.597	F2	ug/L		56	10 - 150	42	35
Chloroform	ND		10.0	9.521		ug/L		95	69 - 119	2	16
Chloromethane	ND		10.0	7.627		ug/L		76	38 - 148	1	35
cis-1,2-Dichloroethene	ND		10.0	9.578		ug/L		96	68 - 121	1	17
cis-1,3-Dichloropropene	ND		10.0	9.543		ug/L		95	59 - 129	3	16
Cyclohexane	ND		10.0	7.571		ug/L		76	59 - 139	13	22
1,2-Dibromo-3-Chloropropane	ND		10.0	11.69		ug/L		117	28 - 141	25	35
1,2-Dibromoethane (EDB)	ND		10.0	9.657		ug/L		97	71 - 119	14	16
1,2-Dichlorobenzene	ND		10.0	10.35		ug/L		103	63 - 124	5	21
1,3-Dichlorobenzene	ND		10.0	9.772		ug/L		98	71 - 117	1	19
1,4-Dichlorobenzene	ND		10.0	9.536		ug/L		95	72 - 116	0	19
Dichlorodifluoromethane	ND		10.0	7.944		ug/L		79	28 - 148	13	25
1,1-Dichloroethane	ND		10.0	8.769		ug/L		88	71 - 124	4	17
1,2-Dichloroethane	ND		10.0	9.116		ug/L		91	69 - 127	10	16
1,1-Dichloroethene	ND		10.0	9.208		ug/L		92	57 - 135	14	35
1,2-Dichloropropane	ND		10.0	9.293		ug/L		93	65 - 125	4	16
Ethylbenzene	ND		10.0	9.019		ug/L		90	73 - 120	6	15
2-Hexanone	ND		20.0	12.85		ug/L		64	43 - 150	24	35
Isopropylbenzene	ND		10.0	9.405		ug/L		94	71 - 123	4	15
Methyl acetate	ND		20.0	ND		ug/L		75	45 - 150	21	35
Methylcyclohexane	ND		10.0	7.914		ug/L		79	68 - 121	16	18
Methylene Chloride	ND		10.0	10.12		ug/L		101	55 - 134	2	25
4-Methyl-2-pentanone (MIBK)	ND	F1 *	20.0	12.27		ug/L		61	47 - 148	30	33
Methyl tert-butyl ether	ND		10.0	9.611		ug/L		96	64 - 126	14	23
Styrene	ND		10.0	9.648		ug/L		96	65 - 133	2	15
1,1,2,2-Tetrachloroethane	ND		10.0	9.320		ug/L		93	51 - 142	18	21
Tetrachloroethene	ND		10.0	10.29		ug/L		103	73 - 129	7	15
Toluene	ND		10.0	9.054		ug/L		91	68 - 127	5	15
trans-1,2-Dichloroethene	ND		10.0	9.524		ug/L		95	69 - 127	7	17
trans-1,3-Dichloropropene	ND		10.0	9.220		ug/L		92	57 - 124	10	15
1,2,3-Trichlorobenzene	ND	F1	10.0	16.73	F1	ug/L		167	28 - 150	20	35
1,2,4-Trichlorobenzene	ND		10.0	14.00		ug/L		140	33 - 146	10	35
1,1,1-Trichloroethane	ND		10.0	8.562		ug/L		86	69 - 128	11	17
1,1,2-Trichloroethane	ND		10.0	9.735		ug/L		97	71 - 119	8	16
Trichloroethene	ND		10.0	9.610		ug/L		96	75 - 122	6	15
Trichlorofluoromethane	ND		10.0	9.511		ug/L		95	13 - 150	19	35
1,1,2-Trichloro-1,2,2-trichfluoroethane	ND		10.0	8.997		ug/L		90	56 - 135	21	35
Vinyl chloride	ND		10.0	7.914		ug/L		79	57 - 132	3	21
Xylenes, Total	ND		20.0	18.71		ug/L		94	74 - 120	2	15

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*88*		*64 - 122*

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Method: EPA 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 180-89137-F-13 MSD
Matrix: Water
Analysis Batch: 276362

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Dibromofluoromethane (Surr)	*99*		*70 - 127*
1,2-Dichloroethane-d4 (Surr)	*93*		*58 - 139*
Toluene-d8 (Surr)	*94*		*71 - 125*

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 180-276253/1-A
Matrix: Water
Analysis Batch: 276762

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 276253

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
Acenaphthylene	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
Acetophenone	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
Anthracene	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
Atrazine	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
Benzaldehyde	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
Benzidine	ND		200		ug/L		04/19/19 09:39	04/25/19 14:18	1
Benzo[a]anthracene	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
Benzo[a]pyrene	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
Benzo[b]fluoranthene	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
Benzo[g,h,i]perylene	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
Benzo[k]fluoranthene	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
Benzyl alcohol	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
Biphenyl	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
Bis(2-chloroethoxy)methane	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
Bis(2-chloroethyl)ether	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
bis (2-chloroisopropyl) ether	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
Bis(2-ethylhexyl) phthalate	ND		100		ug/L		04/19/19 09:39	04/25/19 14:18	1
4-Bromophenyl phenyl ether	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
Butyl benzyl phthalate	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
Caprolactam	ND		50.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
Carbazole	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
4-Chloroaniline	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
4-Chloro-3-methylphenol	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
2-Chloronaphthalene	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
2-Chlorophenol	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
4-Chlorophenyl phenyl ether	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
Chrysene	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
Dibenz(a,h)anthracene	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
Dibenzofuran	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
1,2-Dichlorobenzene	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
1,3-Dichlorobenzene	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
1,4-Dichlorobenzene	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
3,3'-Dichlorobenzidine	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
2,4-Dichlorophenol	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
Diethyl phthalate	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
2,4-Dimethylphenol	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
Dimethyl phthalate	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1

QC Sample Results

Client: Environmental Restoration LLC
Project/Site: L&R Oil Shelby, NC

Job ID: 490-172322-1
SDG: L4-526

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 180-276253/1-A
Matrix: Water
Analysis Batch: 276762

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 276253

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-butyl phthalate	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
4,6-Dinitro-2-methylphenol	ND		50.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
2,4-Dinitrophenol	ND		100		ug/L		04/19/19 09:39	04/25/19 14:18	1
2,4-Dinitrotoluene	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
2,6-Dinitrotoluene	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
Di-n-octyl phthalate	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
Fluoranthene	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
Fluorene	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
Hexachlorobenzene	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
Hexachlorobutadiene	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
Hexachlorocyclopentadiene	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
Hexachloroethane	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
Indeno[1,2,3-cd]pyrene	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
Isophorone	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
2-Methylnaphthalene	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
2-Methylphenol	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
Methylphenol, 3 & 4	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
Naphthalene	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
2-Nitroaniline	ND		50.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
3-Nitroaniline	ND		50.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
4-Nitroaniline	ND		50.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
Nitrobenzene	ND		20.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
2-Nitrophenol	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
4-Nitrophenol	ND		50.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
N-Nitrosodimethylamine	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
N-Nitrosodi-n-propylamine	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
n-Nitrosodiphenylamine(as diphenylamine)	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
Pentachlorophenol	ND		50.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
Phenanthrene	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
Phenol	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
Pyrene	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
1,2,4,5-Tetrachlorobenzene	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
2,3,4,6-Tetrachlorophenol	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
1,2,4-Trichlorobenzene	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
2,4,5-Trichlorophenol	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
2,4,6-Trichlorophenol	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*57*		*37 - 105*	*04/19/19 09:39*	*04/25/19 14:18*	*1*
2-Fluorophenol (Surr)	*58*		*22 - 105*	*04/19/19 09:39*	*04/25/19 14:18*	*1*
Nitrobenzene-d5 (Surr)	*59*		*38 - 105*	*04/19/19 09:39*	*04/25/19 14:18*	*1*
Phenol-d5 (Surr)	*62*		*26 - 105*	*04/19/19 09:39*	*04/25/19 14:18*	*1*
Terphenyl-d14 (Surr)	*74*		*21 - 119*	*04/19/19 09:39*	*04/25/19 14:18*	*1*
2,4,6-Tribromophenol (Surr)	*59*		*29 - 105*	*04/19/19 09:39*	*04/25/19 14:18*	*1*

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Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 180-276253/2-A
Matrix: Water
Analysis Batch: 276762

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 276253

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	200	136.6		ug/L		68	50 - 100
Acenaphthylene	200	138.4		ug/L		69	51 - 100
Acetophenone	200	126.9		ug/L		63	50 - 100
Anthracene	200	144.0		ug/L		72	51 - 100
Atrazine	200	138.1		ug/L		69	11 - 100
Benzaldehyde	200	65.18		ug/L		33	10 - 127
Benzidine	200	ND		ug/L		33	5 - 100
Benzo[a]anthracene	200	141.0		ug/L		70	51 - 100
Benzo[a]pyrene	200	151.3		ug/L		76	52 - 100
Benzo[b]fluoranthene	200	143.2		ug/L		72	49 - 100
Benzo[g,h,i]perylene	200	148.1		ug/L		74	51 - 100
Benzo[k]fluoranthene	200	152.9		ug/L		76	49 - 100
Benzyl alcohol	200	151.5		ug/L		76	39 - 100
Biphenyl	200	130.0		ug/L		65	49 - 100
Bis(2-chloroethoxy)methane	200	142.4		ug/L		71	48 - 100
Bis(2-chloroethyl)ether	200	131.5		ug/L		66	49 - 100
bis (2-chloroisopropyl) ether	200	145.6		ug/L		73	25 - 110
Bis(2-ethylhexyl) phthalate	200	157.5		ug/L		79	49 - 100
4-Bromophenyl phenyl ether	200	138.2		ug/L		69	50 - 100
Butyl benzyl phthalate	200	161.4		ug/L		81	51 - 100
Caprolactam	200	167.2		ug/L		84	51 - 102
Carbazole	200	149.6		ug/L		75	52 - 100
4-Chloroaniline	200	138.4		ug/L		69	52 - 100
4-Chloro-3-methylphenol	200	147.2		ug/L		74	55 - 100
2-Chloronaphthalene	200	132.8		ug/L		66	50 - 100
2-Chlorophenol	200	132.4		ug/L		66	55 - 100
4-Chlorophenyl phenyl ether	200	138.8		ug/L		69	52 - 100
Chrysene	200	138.3		ug/L		69	52 - 100
Dibenz(a,h)anthracene	200	149.9		ug/L		75	50 - 100
Dibenzofuran	200	137.1		ug/L		69	53 - 100
1,2-Dichlorobenzene	200	130.7		ug/L		65	54 - 100
1,3-Dichlorobenzene	200	128.9		ug/L		64	55 - 100
1,4-Dichlorobenzene	200	131.3		ug/L		66	56 - 100
3,3'-Dichlorobenzidine	200	140.9		ug/L		70	47 - 101
2,4-Dichlorophenol	200	137.9		ug/L		69	55 - 100
Diethyl phthalate	200	131.2		ug/L		66	53 - 100
2,4-Dimethylphenol	200	135.0		ug/L		67	52 - 100
Dimethyl phthalate	200	135.5		ug/L		68	54 - 100
Di-n-butyl phthalate	200	156.3		ug/L		78	53 - 100
4,6-Dinitro-2-methylphenol	400	247.7		ug/L		62	48 - 100
2,4-Dinitrophenol	400	197.1		ug/L		49	42 - 100
2,4-Dinitrotoluene	200	149.5		ug/L		75	58 - 100
2,6-Dinitrotoluene	200	148.5		ug/L		74	58 - 100
Di-n-octyl phthalate	200	177.1		ug/L		89	44 - 101
Fluoranthene	200	141.6		ug/L		71	53 - 100
Fluorene	200	140.5		ug/L		70	52 - 100
Hexachlorobenzene	200	131.4		ug/L		66	47 - 100
Hexachlorobutadiene	200	125.6		ug/L		63	46 - 100

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 180-276253/2-A
Matrix: Water
Analysis Batch: 276762

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 276253

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hexachlorocyclopentadiene	200	107.1		ug/L		54	44 - 100
Hexachloroethane	200	154.7		ug/L		77	53 - 100
Indeno[1,2,3-cd]pyrene	200	149.1		ug/L		75	51 - 100
Isophorone	200	134.5		ug/L		67	48 - 100
2-Methylnaphthalene	200	144.0		ug/L		72	55 - 100
2-Methylphenol	200	137.3		ug/L		69	53 - 100
Methylphenol, 3 & 4	200	128.5		ug/L		64	51 - 100
Naphthalene	200	134.5		ug/L		67	53 - 100
2-Nitroaniline	200	147.1		ug/L		74	43 - 100
3-Nitroaniline	200	159.2		ug/L		80	56 - 100
4-Nitroaniline	200	157.6		ug/L		79	53 - 100
Nitrobenzene	200	129.9		ug/L		65	47 - 100
2-Nitrophenol	200	151.0		ug/L		75	56 - 100
4-Nitrophenol	400	252.6		ug/L		63	45 - 102
N-Nitrosodimethylamine	200	132.0		ug/L		66	50 - 100
N-Nitrosodi-n-propylamine	200	131.8		ug/L		66	50 - 100
n-Nitrosodiphenylamine(as diphenylamine)	200	140.9		ug/L		70	48 - 100
Pentachlorophenol	400	241.6		ug/L		60	41 - 100
Phenanthrene	200	143.1		ug/L		72	50 - 100
Phenol	200	127.0		ug/L		63	49 - 100
Pyrene	200	144.1		ug/L		72	48 - 100
1,2,4,5-Tetrachlorobenzene	200	110.5		ug/L		55	45 - 100
2,3,4,6-Tetrachlorophenol	200	127.6		ug/L		64	51 - 100
1,2,4-Trichlorobenzene	200	129.2		ug/L		65	52 - 100
2,4,5-Trichlorophenol	200	127.6		ug/L		64	50 - 100
2,4,6-Trichlorophenol	200	135.0		ug/L		67	51 - 100

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*61*		*37 - 105*
2-Fluorophenol (Surr)	*58*		*22 - 105*
Nitrobenzene-d5 (Surr)	*63*		*38 - 105*
Phenol-d5 (Surr)	*65*		*26 - 105*
Terphenyl-d14 (Surr)	*68*		*21 - 119*
2,4,6-Tribromophenol (Surr)	*65*		*29 - 105*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 490-589451/1-A
Matrix: Waste
Analysis Batch: 589479

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 589451

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.500		mg/Kg		04/20/19 22:00	04/22/19 12:11	1
PCB-1221	ND		0.500		mg/Kg		04/20/19 22:00	04/22/19 12:11	1
PCB-1232	ND		0.500		mg/Kg		04/20/19 22:00	04/22/19 12:11	1
PCB-1242	ND		0.500		mg/Kg		04/20/19 22:00	04/22/19 12:11	1
PCB-1248	ND		0.500		mg/Kg		04/20/19 22:00	04/22/19 12:11	1
PCB-1254	ND		0.500		mg/Kg		04/20/19 22:00	04/22/19 12:11	1

QC Sample Results

Client: Environmental Restoration LLC
Project/Site: L&R Oil Shelby, NC

Job ID: 490-172322-1
SDG: L4-526

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 490-589451/1-A
Matrix: Waste
Analysis Batch: 589479

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 589451

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1260	ND		0.500		mg/Kg		04/20/19 22:00	04/22/19 12:11	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	118		20 - 150	04/20/19 22:00	04/22/19 12:11	1
Tetrachloro-m-xylene	109		19 - 147	04/20/19 22:00	04/22/19 12:11	1

Lab Sample ID: LCS 490-589451/2-A
Matrix: Waste
Analysis Batch: 589479

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 589451

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1248	5.00	4.771		mg/Kg		95	56 - 141

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	107		20 - 150
Tetrachloro-m-xylene	110		19 - 147

Lab Sample ID: LCSD 490-589451/3-A
Matrix: Waste
Analysis Batch: 589479

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 589451

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1248	5.00	4.918		mg/Kg		98	56 - 141	3	50

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	111		20 - 150
Tetrachloro-m-xylene	112		19 - 147

Lab Sample ID: MB 490-589623/1-A
Matrix: Water
Analysis Batch: 589711

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 589623

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.500		ug/L		04/22/19 15:50	04/23/19 17:55	1
PCB-1221	ND		0.500		ug/L		04/22/19 15:50	04/23/19 17:55	1
PCB-1232	ND		0.500		ug/L		04/22/19 15:50	04/23/19 17:55	1
PCB-1242	ND		0.500		ug/L		04/22/19 15:50	04/23/19 17:55	1
PCB-1248	ND		0.500		ug/L		04/22/19 15:50	04/23/19 17:55	1
PCB-1254	ND		0.500		ug/L		04/22/19 15:50	04/23/19 17:55	1
PCB-1260	ND		0.500		ug/L		04/22/19 15:50	04/23/19 17:55	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	45		10 - 150	04/22/19 15:50	04/23/19 17:55	1
Tetrachloro-m-xylene	90		10 - 150	04/22/19 15:50	04/23/19 17:55	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 490-589623/2-A
Matrix: Water
Analysis Batch: 589711

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 589623

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	5.00	4.672		ug/L		93	47 - 144
PCB-1260	5.00	3.843		ug/L		77	45 - 144

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*23*		*10 - 150*
Tetrachloro-m-xylene	*85*		*10 - 150*

Lab Sample ID: LCSD 490-589623/3-A
Matrix: Water
Analysis Batch: 589711

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 589623

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016	5.00	4.811		ug/L		96	47 - 144	3	50
PCB-1260	5.00	3.988		ug/L		80	45 - 144	4	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*33*		*10 - 150*
Tetrachloro-m-xylene	*87*		*10 - 150*

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 490-589370/1-A
Matrix: Water
Analysis Batch: 589974

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 589370

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.00500		mg/L		04/20/19 14:02	04/23/19 13:24	1
Arsenic	ND		0.0100		mg/L		04/20/19 14:02	04/23/19 13:24	1
Barium	ND		0.0100		mg/L		04/20/19 14:02	04/23/19 13:24	1
Cadmium	ND		0.00100		mg/L		04/20/19 14:02	04/23/19 13:24	1
Chromium	ND		0.00500		mg/L		04/20/19 14:02	04/23/19 13:24	1
Lead	ND		0.00500		mg/L		04/20/19 14:02	04/23/19 13:24	1
Selenium	ND		0.0100		mg/L		04/20/19 14:02	04/23/19 13:24	1

Lab Sample ID: MB 490-589370/1-A
Matrix: Water
Analysis Batch: 590003

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 589370

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.0100		mg/L		04/20/19 14:02	04/23/19 22:53	1

Lab Sample ID: LCS 490-589370/2-A
Matrix: Water
Analysis Batch: 589974

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 589370

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	0.100	0.1094		mg/L		109	80 - 120
Arsenic	0.100	0.1059		mg/L		106	80 - 120
Barium	0.100	0.1110		mg/L		111	80 - 120

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LCS 490-589370/2-A
Matrix: Water
Analysis Batch: 589974

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 589370

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	0.100	0.1084		mg/L		108	80 - 120
Chromium	0.100	0.1086		mg/L		109	80 - 120
Lead	0.100	0.1147		mg/L		115	80 - 120
Selenium	0.100	0.1030		mg/L		103	80 - 120

Lab Sample ID: LCS 490-589370/2-A
Matrix: Water
Analysis Batch: 590003

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 589370

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.1075		mg/L		108	80 - 120

Lab Sample ID: LCSD 490-589370/3-A
Matrix: Water
Analysis Batch: 589974

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 589370

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Silver	0.100	0.1079		mg/L		108	80 - 120	1	20
Arsenic	0.100	0.1054		mg/L		105	80 - 120	0	20
Barium	0.100	0.1089		mg/L		109	80 - 120	2	20
Cadmium	0.100	0.1069		mg/L		107	80 - 120	1	20
Chromium	0.100	0.1068		mg/L		107	80 - 120	2	20
Lead	0.100	0.1134		mg/L		113	80 - 120	1	20
Selenium	0.100	0.1016		mg/L		102	80 - 120	1	20

Lab Sample ID: LCSD 490-589370/3-A
Matrix: Water
Analysis Batch: 590003

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 589370

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.100	0.1053		mg/L		105	80 - 120	2	20

Lab Sample ID: 490-172411-D-2-B MS
Matrix: Water
Analysis Batch: 589974

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 589370

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	ND		0.100	0.1126		mg/L		113	75 - 125
Arsenic	ND		0.100	0.1101		mg/L		110	75 - 125
Barium	ND		0.100	0.1137		mg/L		114	75 - 125
Cadmium	ND		0.100	0.1116		mg/L		112	75 - 125
Chromium	ND		0.100	0.1116		mg/L		112	75 - 125
Lead	ND		0.100	0.1165		mg/L		117	75 - 125
Selenium	ND		0.100	0.1060		mg/L		106	75 - 125

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: 490-172411-D-2-B MS
Matrix: Water
Analysis Batch: 590003

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 589370

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Arsenic	ND		0.100	0.1096		mg/L		110	75 - 125		

Lab Sample ID: 490-172411-D-2-C MSD
Matrix: Water
Analysis Batch: 589974

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 589370

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Silver	ND		0.100	0.1043		mg/L		104	75 - 125	8	20
Arsenic	ND		0.100	0.1056		mg/L		106	75 - 125	4	20
Barium	ND		0.100	0.1074		mg/L		107	75 - 125	6	20
Cadmium	ND		0.100	0.1052		mg/L		105	75 - 125	6	20
Chromium	ND		0.100	0.1051		mg/L		105	75 - 125	6	20
Lead	ND		0.100	0.1100		mg/L		110	75 - 125	6	20
Selenium	ND		0.100	0.1047		mg/L		105	75 - 125	1	20

Lab Sample ID: 490-172411-D-2-C MSD
Matrix: Water
Analysis Batch: 590003

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 589370

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	ND		0.100	0.1024		mg/L		102	75 - 125	7	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 490-589232/1-A
Matrix: Water
Analysis Batch: 589432

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 589232

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.000200		mg/L		04/19/19 16:27	04/19/19 22:43	1

Lab Sample ID: LCS 490-589232/2-A
Matrix: Water
Analysis Batch: 589432

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 589232

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	0.00100	0.001005		mg/L		100	80 - 120		

Lab Sample ID: LCSD 490-589232/3-A
Matrix: Water
Analysis Batch: 589432

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 589232

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.00100	0.0009940		mg/L		99	80 - 120	1	20

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 490-172285-D-8-B MS
Matrix: Water
Analysis Batch: 589432

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 589232

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND		0.00100	0.001184		mg/L		118	75 - 125

Lab Sample ID: 490-172285-D-8-C MSD
Matrix: Water
Analysis Batch: 589432

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 589232

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.00100	0.001163		mg/L		116	75 - 125	2	20

Method: 1010A - Ignitability, Pensky-Martens Closed-Cup Method

Lab Sample ID: MB 490-589940/16
Matrix: Water
Analysis Batch: 589940

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint	>200		1.00		Degrees F			04/23/19 17:31	1

Lab Sample ID: LCS 490-589940/17
Matrix: Water
Analysis Batch: 589940

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Flashpoint	81.0	83.20		Degrees F		103	94 - 106

Lab Sample ID: LCSD 490-589940/15
Matrix: Water
Analysis Batch: 589940

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Flashpoint	81.0	81.10		Degrees F		100	94 - 106	2	20

Lab Sample ID: LCSD 490-589940/26
Matrix: Water
Analysis Batch: 589940

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Flashpoint	81.0	81.50		Degrees F		101	94 - 106	2	20

Lab Sample ID: 490-172322-1 DU
Matrix: Water
Analysis Batch: 589940

Client Sample ID: LRUST-1-2-3
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Flashpoint	53.4		54.60		Degrees F		2	10

QC Sample Results

Client: Environmental Restoration LLC
Project/Site: L&R Oil Shelby, NC

Job ID: 490-172322-1
SDG: L4-526

Method: 9040C - pH

Lab Sample ID: LCS 490-589355/1
Matrix: Water
Analysis Batch: 589355

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	7.00	7.030		SU		100	98 - 103

Lab Sample ID: 490-172322-1 DU
Matrix: Water
Analysis Batch: 589355

Client Sample ID: LRUST-1-2-3
Prep Type: Total/NA

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Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	5.28		5.280		SU		0	20
Temperature	19.2		19.20		Degrees C		0	20

Method: 9070A - HEM and SGT-HEM

Lab Sample ID: MB 490-590842/1-A
Matrix: Water
Analysis Batch: 590847

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 590842

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	ND		4.00		mg/L		04/26/19 12:49	04/26/19 12:49	1
SGT-HEM (Oil & Grease)	ND		4.00		mg/L		04/26/19 12:49	04/26/19 12:49	1

Lab Sample ID: LCS 490-590842/2-A
Matrix: Water
Analysis Batch: 590847

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 590842

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM (Oil & Grease)	41.7	39.48		mg/L		95	78 - 114
SGT-HEM (Oil & Grease)	20.8	18.75		mg/L		90	64 - 132

Lab Sample ID: LCSD 490-590842/3-A
Matrix: Water
Analysis Batch: 590847

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 590842

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
HEM (Oil & Grease)	41.7	39.69		mg/L		95	78 - 114	1	18
SGT-HEM (Oil & Grease)	20.8	18.23		mg/L		88	64 - 132	3	34

QC Association Summary

Client: Environmental Restoration LLC
Project/Site: L&R Oil Shelby, NC

Job ID: 490-172322-1
SDG: L4-526

GC/MS VOA

Analysis Batch: 276362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-172322-1	LRUST-1-2-3	Total/NA	Water	EPA 8260D	
MB 180-276362/5	Method Blank	Total/NA	Water	EPA 8260D	
LCS 180-276362/9	Lab Control Sample	Total/NA	Water	EPA 8260D	
180-89137-F-13 MS	Matrix Spike	Total/NA	Water	EPA 8260D	
180-89137-F-13 MSD	Matrix Spike Duplicate	Total/NA	Water	EPA 8260D	

GC/MS Semi VOA

Prep Batch: 276253

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-172322-1	LRUST-1-2-3	Total/NA	Water	3520C	
MB 180-276253/1-A	Method Blank	Total/NA	Water	3520C	
LCS 180-276253/2-A	Lab Control Sample	Total/NA	Water	3520C	

Analysis Batch: 276762

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-172322-1	LRUST-1-2-3	Total/NA	Water	8270E	276253
MB 180-276253/1-A	Method Blank	Total/NA	Water	8270E	276253
LCS 180-276253/2-A	Lab Control Sample	Total/NA	Water	8270E	276253

GC Semi VOA

Prep Batch: 589451

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-172322-4	LRUST-1-2-3	Total/NA	Waste	3580A	
MB 490-589451/1-A	Method Blank	Total/NA	Waste	3580A	
LCS 490-589451/2-A	Lab Control Sample	Total/NA	Waste	3580A	
LCSD 490-589451/3-A	Lab Control Sample Dup	Total/NA	Waste	3580A	

Analysis Batch: 589479

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-172322-4	LRUST-1-2-3	Total/NA	Waste	8082A	589451
MB 490-589451/1-A	Method Blank	Total/NA	Waste	8082A	589451
LCS 490-589451/2-A	Lab Control Sample	Total/NA	Waste	8082A	589451
LCSD 490-589451/3-A	Lab Control Sample Dup	Total/NA	Waste	8082A	589451

Prep Batch: 589623

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-172322-1	LRUST-1-2-3	Total/NA	Water	3510C	
MB 490-589623/1-A	Method Blank	Total/NA	Water	3510C	
LCS 490-589623/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 490-589623/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 589711

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-172322-1	LRUST-1-2-3	Total/NA	Water	8082A	589623
MB 490-589623/1-A	Method Blank	Total/NA	Water	8082A	589623
LCS 490-589623/2-A	Lab Control Sample	Total/NA	Water	8082A	589623
LCSD 490-589623/3-A	Lab Control Sample Dup	Total/NA	Water	8082A	589623

QC Association Summary

Client: Environmental Restoration LLC
Project/Site: L&R Oil Shelby, NC

Job ID: 490-172322-1
SDG: L4-526

Metals

Prep Batch: 589232

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-172322-1	LRUST-1-2-3	Total/NA	Water	7470A	
MB 490-589232/1-A	Method Blank	Total/NA	Water	7470A	
LCS 490-589232/2-A	Lab Control Sample	Total/NA	Water	7470A	
LCSD 490-589232/3-A	Lab Control Sample Dup	Total/NA	Water	7470A	
490-172285-D-8-B MS	Matrix Spike	Total/NA	Water	7470A	
490-172285-D-8-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Prep Batch: 589370

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-172322-1	LRUST-1-2-3	Total/NA	Water	3010A	
MB 490-589370/1-A	Method Blank	Total/NA	Water	3010A	
LCS 490-589370/2-A	Lab Control Sample	Total/NA	Water	3010A	
LCSD 490-589370/3-A	Lab Control Sample Dup	Total/NA	Water	3010A	
490-172411-D-2-B MS	Matrix Spike	Total/NA	Water	3010A	
490-172411-D-2-C MSD	Matrix Spike Duplicate	Total/NA	Water	3010A	

Analysis Batch: 589432

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-172322-1	LRUST-1-2-3	Total/NA	Water	7470A	589232
MB 490-589232/1-A	Method Blank	Total/NA	Water	7470A	589232
LCS 490-589232/2-A	Lab Control Sample	Total/NA	Water	7470A	589232
LCSD 490-589232/3-A	Lab Control Sample Dup	Total/NA	Water	7470A	589232
490-172285-D-8-B MS	Matrix Spike	Total/NA	Water	7470A	589232
490-172285-D-8-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	589232

Analysis Batch: 589974

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-172322-1	LRUST-1-2-3	Total/NA	Water	6010D	589370
MB 490-589370/1-A	Method Blank	Total/NA	Water	6010D	589370
LCS 490-589370/2-A	Lab Control Sample	Total/NA	Water	6010D	589370
LCSD 490-589370/3-A	Lab Control Sample Dup	Total/NA	Water	6010D	589370
490-172411-D-2-B MS	Matrix Spike	Total/NA	Water	6010D	589370
490-172411-D-2-C MSD	Matrix Spike Duplicate	Total/NA	Water	6010D	589370

Analysis Batch: 590003

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-172322-1	LRUST-1-2-3	Total/NA	Water	6010D	589370
MB 490-589370/1-A	Method Blank	Total/NA	Water	6010D	589370
LCS 490-589370/2-A	Lab Control Sample	Total/NA	Water	6010D	589370
LCSD 490-589370/3-A	Lab Control Sample Dup	Total/NA	Water	6010D	589370
490-172411-D-2-B MS	Matrix Spike	Total/NA	Water	6010D	589370
490-172411-D-2-C MSD	Matrix Spike Duplicate	Total/NA	Water	6010D	589370

Analysis Batch: 590318

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-172322-1	LRUST-1-2-3	Total/NA	Water	6010D	589370

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QC Association Summary

Client: Environmental Restoration LLC
Project/Site: L&R Oil Shelby, NC

Job ID: 490-172322-1
SDG: L4-526

General Chemistry

Analysis Batch: 589355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-172322-1	LRUST-1-2-3	Total/NA	Water	9040C	
LCS 490-589355/1	Lab Control Sample	Total/NA	Water	9040C	
490-172322-1 DU	LRUST-1-2-3	Total/NA	Water	9040C	

Analysis Batch: 589940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-172322-1	LRUST-1-2-3	Total/NA	Water	1010A	
MB 490-589940/16	Method Blank	Total/NA	Water	1010A	
LCS 490-589940/17	Lab Control Sample	Total/NA	Water	1010A	
LCSD 490-589940/15	Lab Control Sample Dup	Total/NA	Water	1010A	
LCSD 490-589940/26	Lab Control Sample Dup	Total/NA	Water	1010A	
490-172322-1 DU	LRUST-1-2-3	Total/NA	Water	1010A	

Prep Batch: 590842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-172322-1	LRUST-1-2-3	Total/NA	Water	9070A	
MB 490-590842/1-A	Method Blank	Total/NA	Water	9070A	
LCS 490-590842/2-A	Lab Control Sample	Total/NA	Water	9070A	
LCSD 490-590842/3-A	Lab Control Sample Dup	Total/NA	Water	9070A	

Analysis Batch: 590847

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-172322-1	LRUST-1-2-3	Total/NA	Water	9070A	590842
MB 490-590842/1-A	Method Blank	Total/NA	Water	9070A	590842
LCS 490-590842/2-A	Lab Control Sample	Total/NA	Water	9070A	590842
LCSD 490-590842/3-A	Lab Control Sample Dup	Total/NA	Water	9070A	590842

Lab Chronicle

Client: Environmental Restoration LLC
Project/Site: L&R Oil Shelby, NC

Job ID: 490-172322-1
SDG: L4-526

Client Sample ID: LRUST-1-2-3

Date Collected: 04/17/19 09:00
Date Received: 04/18/19 09:25

Lab Sample ID: 490-172322-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 8260D		50000	5 mL	5 mL	276362	04/22/19 13:57	PJJ	TAL PIT
Total/NA	Prep	3520C			230 mL	33.0 mL	276253	04/19/19 12:04	BJT	TAL PIT
Total/NA	Analysis	8270E		50	1 mL	1 mL	276762	04/25/19 19:04	VVP	TAL PIT
Total/NA	Prep	3510C			100 mL	5 mL	589623	04/22/19 15:50	MCO	TAL NSH
Total/NA	Analysis	8082A		10			589711	04/23/19 20:44	SLA	TAL NSH
Total/NA	Prep	3010A			50 mL	50 mL	589370	04/20/19 14:02	MNC	TAL NSH
Total/NA	Analysis	6010D		1			589974	04/23/19 14:31	RLB	TAL NSH
Total/NA	Prep	3010A			50 mL	50 mL	589370	04/20/19 14:02	MNC	TAL NSH
Total/NA	Analysis	6010D		20			590003	04/24/19 00:01	RDH	TAL NSH
Total/NA	Prep	3010A			50 mL	50 mL	589370	04/20/19 14:02	MNC	TAL NSH
Total/NA	Analysis	6010D		1			590318	04/24/19 18:08	RLB	TAL NSH
Total/NA	Prep	7470A			.300 mL	30 mL	589232	04/19/19 16:27	EHS	TAL NSH
Total/NA	Analysis	7470A		1			589432	04/20/19 16:51	EHS	TAL NSH
Total/NA	Analysis	1010A		1			589940	04/23/19 17:31	VRP	TAL NSH
Total/NA	Analysis	9040C		1			589355	04/20/19 13:36	MXX	TAL NSH
Total/NA	Prep	9070A			106 mL	960 mL	590842	04/26/19 12:49	BAD	TAL NSH
Total/NA	Analysis	9070A		1			590847	04/26/19 12:49	BAD	TAL NSH

Client Sample ID: LRUST-1-2-3

Date Collected: 04/17/19 09:00
Date Received: 04/18/19 09:25

Lab Sample ID: 490-172322-4
Matrix: Waste

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3580A			1.01 g	10 mL	589451	04/20/19 22:00	AMD	TAL NSH
Total/NA	Analysis	8082A		10	1 mL	1.0 mL	589479	04/22/19 22:12	SLA	TAL NSH

Laboratory References:

TAL NSH = Eurofins TestAmerica, Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177
TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

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Method Summary

Client: Environmental Restoration LLC
Project/Site: L&R Oil Shelby, NC

Job ID: 490-172322-1
SDG: L4-526

Method	Method Description	Protocol	Laboratory
EPA 8260D	Volatile Organic Compounds by GC/MS	SW846	TAL PIT
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	TAL PIT
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL NSH
6010D	Metals (ICP)	SW846	TAL NSH
7470A	Mercury (CVAA)	SW846	TAL NSH
1010A	Ignitability, Pensky-Martens Closed-Cup Method	SW846	TAL NSH
9040C	pH	SW846	TAL NSH
9070A	HEM and SGT-HEM	SW846	TAL NSH
3010A	Preparation, Total Metals	SW846	TAL NSH
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL NSH
3520C	Liquid-Liquid Extraction (Continuous)	SW846	TAL PIT
3580A	Waste Dilution	SW846	TAL NSH
5030C	Purge and Trap	SW846	TAL PIT
7470A	Preparation, Mercury	SW846	TAL NSH
9070A	HEM and SGT-HEM (SPE)	SW846	TAL NSH

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL NSH = Eurofins TestAmerica, Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Accreditation/Certification Summary

Client: Environmental Restoration LLC
Project/Site: L&R Oil Shelby, NC

Job ID: 490-172322-1
SDG: L4-526

Laboratory: Eurofins TestAmerica, Nashville

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
North Carolina (WW/SW)	State Program	4	387	12-31-19

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
9040C		Water	Temperature
9070A	9070A	Water	SGT-HEM (Oil & Grease)

Laboratory: Eurofins TestAmerica, Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	88-0690	06-27-19
California	State Program	9	2891	04-30-19 *
Connecticut	State Program	1	PH-0688	09-30-20
Florida	NELAP	4	E871008	06-30-19
Illinois	NELAP	5	200005	06-30-19
Kansas	NELAP	7	E-10350	01-31-20
Louisiana	NELAP	6	04041	06-30-19
Nevada	State Program	9	PA00164	07-31-19
New Hampshire	NELAP	1	2030	04-04-20
New Jersey	NELAP	2	PA005	06-30-19
New York	NELAP	2	11182	03-31-20
North Carolina (WW/SW)	State Program	4	434	12-31-19
Oregon	NELAP	10	PA-2151	02-06-20
Pennsylvania	NELAP	3	02-00416	04-30-19
South Carolina	State Program	4	89014	04-30-19 *
Texas	NELAP	6	T104704528-15-2	03-31-20
US Fish & Wildlife	Federal		LE94312A-1	07-31-19
USDA	Federal		P330-16-00211	06-26-19
Utah	NELAP	8	PA001462015-4	05-31-19 *
Virginia	NELAP	3	460189	09-14-19
West Virginia DEP	State Program	3	142	01-31-20
Wisconsin	State Program	5	998027800	08-31-19

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

490-172322 Chain of Custody

COOLER RECEIPT FORM

Cooler Received/Opened On 4/18/2019 @ 0925

Time Samples Removed From Cooler 1903 Time Samples Placed In Storage 1917 (2 Hour Window)

1. Tracking # 1542 (last 4 digits, FedEx) Courier: FedEx

   IR Gun ID 17960353 pH Strip Lot NA Chlorine Strip Lot NA

2. Temperature of rep. sample or temp blank when opened: -0.3 *Degrees Celsius*

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? YES...NO...NA

   If yes, how many and where: 1 (Front)

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) 2.2

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

   Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry Ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

   b. Was there any observable headspace present in any VOA vial? YES...NO...NA

Larger than this.

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence #_____

I certify that I unloaded the cooler and answered questions 7-14 (intial) GH

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

   b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) GH

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) GH

I certify that I attached a label with the unique LIMS number to each container (intial) GH

21. Were there Non-Conformance issues at login? YES...NO Was a NCM generated? YES...NO...#_____

BIS = Broken in shipment
Cooler Receipt Form.doc

LF-1
End of Form

Revised 8/23/17

4/29/2019

[redacted]

Chain of Custody Record

Charlotte #229

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☑

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client: Environmental Restoration	Project Manager: Ken Braig	Date: 4-17-19	Chain of Custody Number: 282943
Address: 1666 Fabick Dr	Telephone Number (Area Code)/Fax Number: 636-485-0531	Lab Number:	Page 1 of
City: Fenton; State: MO; Zip Code: 63026	Site Contact:	Lab Contact:	
Project Name and Location (State): L&R Oil Shelby, NC	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.: L4-526			

job# 490-15366

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed): TCL VOA	TCL TAL Semi-VOA	PCB's	RCRA metals	Mercury	Flash pt.	pH	Oil & grease					Special Instructions/ Conditions of Receipt
LRUST-1-2-3	4-17-19	0900		X			5		1	5			X	X	X	X	X	X	X	X						5 day TAT
RR-274146	4-17-19	0830													X											3 day TAT 100cm² hexane wipe
RR-280653	4-17-19	0840													X											3 day TAT 100cm² hexane wipe

Loc: 490
172322

Pittsburgh
Pittsburgh

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify): -0.3°C

	Date	Time		Date	Time
1. Relinquished By: [signature]	4-17-19	1600	1. Received By: C. Bonham	4/17/19	1600
2. Relinquished By: C. Bonham	4/17/19	1740	2. Received By: [signature] JA-NAS	4-18-19	0925
3. Relinquished By:			3. Received By:		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

12

4/29/2019

Pressley, Miriam

From: Brittany Davis <CORPTEMP3@hepaco.com>
Sent: Thursday, November 8, 2018 11:58 AM
To: Eichinger, Kevin
Subject: FW: HEPACO Invoice # FY18-009737, Job#1843.1226
Attachments: ATT00001.txt; 1843.1226 FY18-009737.pdf

Good morning,

Attached is HEPACO Invoice # FY18-009737, Job#1843.1226

Please let us know if you need any additional information.

Best Regards,

Brittany Davis
A/R Specialist
HEPACO, LLC
Office: 704-494-2135

www.hepaco.com

24 Hour Emergency Response
1-800-888-7689

HEPACO is pleased to announce the acquisition of Emergency Response & Training Solutions (ERTS), creating a leading national environmental and emergency response service provider.

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Please consider the environment before printing this mail

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Please consider the environment before printing this email.

HEPACO™

Serious experience for serious times.™

INVOICE

P. O. Box 26308
Charlotte, NC 28221-6308

INVOICE NO: FY18-009737
DATE: November 7, 2018

To: **U.S. Environmental Protection Agency**
61 Forsyth Street SW
Atlanta, GA 30303
Attn: Brian Englert
englert.brian@epa.gov

Project Location: US EPA Spill Site
501 Ruth Street
Shelby, NC 28105

PROJECT MANAGER	HEPACO JOB #	CUSTOMER #	BILLED THROUGH	PO #	TERMS
Chase Furr	1843.1226	ENV0034	September 26, 2018		NET 14

QUANTITY	DESCRIPTION	UNIT	UNIT PRICE	AMOUNT
	Environmental emergency response services to clean up oil spill Federal Project Number (FPN): C466RV00 Order Number: 68HE0418F0520 Basic Ordering Agreement (BOA) Number: HSCG84-15-A-P00023 Data Universal Numbering System (DUNS) Number: 11-599-3297 This invoice includes the following enclosures: Order for Supplies or Services with Amendment, Billing Summary			$ 53,500.47
			SUBTOTAL	$ 53,500.47
			SALES TAX	
			SHIPPING & HANDLING	
			TOTAL DUE	**$ 53,500.47**

Make all checks payable to: HEPACO, LLC
Please remit payment to: P. O. Box 26308
Charlotte, NC 28221-6308

EIN # 56-1428449

If you have any questions concerning this invoice, contact: Accounts Receivable @ 1-800-888-7689 ext.1030
HEPACO is not responsible for filing claims with your insurance company.
For your convenience we gladly accept Visa, MasterCard or American Express.
Please reference our invoice number on your check and mail to the address above.
Accounts which remain unpaid past due date from billing date are subject to a late charge of 1 1/2 % per month.
Customer shall pay, or reimburse HEPACO, LLC if it elects to pay, all costs incurred in collecting any past due amounts, including without limitation court and collection costs and reasonable attorneys' fees.

THANK YOU FOR YOUR BUSINESS !!

Billing Summary

HEPACO Project # 1843.1226
US EPA - Oil Recovery - Shelby, NC

Service Date	Description	Cost
9/14/2018	Personnel	$6,405.23
9/14/2018	Equipment	$3,910.75
9/14/2018	Subcontractors & Materials	$2,265.00
9/15/2018	Personnel	$8,629.81
9/15/2018	Equipment	$4,241.50
9/15/2018	Subcontractors & Materials	$0.00
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9/16/2018	Equipment	$620.00
9/16/2018	Subcontractors & Materials	$0.00
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9/17/2018	Equipment	$675.00
9/17/2018	Subcontractors & Materials	$1,606.00
9/18/2018	Personnel	$3,533.17
9/18/2018	Equipment	$1,816.00
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9/19/2018	Personnel	$1,872.00
9/19/2018	Equipment	$1,950.00
9/19/2018	Subcontractors & Materials	$343.94
9/20/2018	Personnel	$0.00
9/20/2018	Equipment	$55.00
9/20/2018	Subcontractors & Materials	$0.00
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9/21/2018	Equipment	$55.00
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9/22/2018	Equipment	$55.00
9/22/2018	Subcontractors & Materials	$0.00
9/23/2018	Personnel	$0.00
9/23/2018	Equipment	$55.00
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9/24/2018	Personnel	$1,778.23
9/24/2018	Equipment	$1,518.50
9/24/2018	Subcontractors & Materials	$0.00
9/25/2018	Personnel	$4,362.32
9/25/2018	Equipment	$2,212.50
9/25/2018	Subcontractors & Materials	$1,493.50
9/26/2018	Personnel	$848.00
9/26/2018	Equipment	$386.50
9/26/2018	Subcontractors & Materials	$0.00
	TOTAL	**$53,500.47**

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE

PAGE 1 OF PAGES 2

2. AMENDMENT/MODIFICATION NO. P00001

3. EFFECTIVE DATE See Block 16C

4. REQUISITION/PURCHASE REQ. NO. PR-R4-19-00005

5. PROJECT NO. (If applicable) C466RV00

6. ISSUED BY CODE R4

Region 4
US Environmental Protection Agency
Atlanta Federal Center
61 Forsyth Street, SW
Atlanta GA 30303-3104

7. ADMINISTERED BY (If other than Item 6) CODE

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)

HEPACO, LLC
Attn: Joe Opatkiewicz
P.O. BOX 26308
CHARLOTTE NC 282216308

CODE 115993297 FACILITY CODE

(x) 9A. AMENDMENT OF SOLICITATION NO.

9B. DATED (SEE ITEM 11)

X 10A. MODIFICATION OF CONTRACT/ORDER NO. HSCG84-15-A-P00023
68HE0418F0530

10B. DATED (SEE ITEM 13) 09/14/2018

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) Net Increase: $15,000.00
See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	
	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) H.4. CEILING PRICE OF ORDERS

E. IMPORTANT: Contractor ☒ is not. ☐ is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

DUNS Number: 115993297
L&R Oil Recovery
Shelby, North Carolina
OSC: Kevin Eichinger
TOCOR: Kevin Eichenger Max Expire Date: 12/31/2018 InvoiceApprover: Dora Ann Johnson Alt
Invoice App: Katrina Jones
The purpose of this modification is to:

a) Add $15,000.00 in additional funds to the order. The new ceiling is $50,000.00.

Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)

16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Geoffrey Krieger

15B. CONTRACTOR/OFFEROR
(Signature of person authorized to sign)

15C. DATE SIGNED

16B. UNITED STATES OF AMERICA
Geoffrey Krieger ELECTRONIC SIGNATURE
(Signature of Contracting Officer)

16C. DATE SIGNED 10/26/2018

NAME OF OFFEROR OR CONTRACTOR
HEPACO, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	END --- LIST OF CHANGES: Reason for Modification: Funding Only Action Total Amount for this Modification: $15,000.00 New Total Amount for this Version: $50,000.00 New Total Amount for this Award: $50,000.00 Obligated Amount for this Modification: $15,000.00 New Total Obligated Amount for this Award: $50,000.00 CHANGES FOR LINE ITEM NUMBER: 1 Total Amount changed from $35,000.00 to $50,000.00 Obligated Amount for this Modification: $15,000.00 CHANGES FOR DELIVERY LOCATION: R4 Amount changed from $35,000.00 to $50,000.00 NEW ACCOUNTING CODE ADDED: Account code: 18-T-4AD0E-000DC6-2505-C001-194ADZ9001-001 Beginning FiscalYear 18 Ending Fiscal Year Fund (Appropriation) T Budget Organization 4AD0E Program (PRC) 000DC6 Budget (BOC) 2505 Job # (Site/Project) C466RV00 Cost Organization C001 DCN-LineID 194ADZ9001-001 Quantity: 0 Amount: $15,000.00 Delivery Location Code: R4 Region 4 US Environmental Protection Agency Atlanta Federal Center 61 Forsyth Street, SW Atlanta GA 30303-3104 USA Payment: RTP Finance Center US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts Durham NC 27711 Period of Performance: 09/14/2018 to 12/31/2018				

ORDER FOR SUPPLIES OR SERVICES

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

1. DATE OF ORDER: 09/14/2018

2. CONTRACT NO. (If any): HSCG84-15-A-P00023

3. ORDER NO.: 68HE0418F0530

4. REQUISITION/REFERENCE NO.: PR-R4-18-01050

5. ISSUING OFFICE (Address correspondence to):
Region 4
US Environmental Protection Agency
Atlanta Federal Center
61 Forsyth Street, SW
Atlanta GA 30303-3104

6. SHIP TO:
a. NAME OF CONSIGNEE: Region 4
b. STREET ADDRESS: US Environmental Protection Agency, Atlanta Federal Center, 61 Forsyth Street, SW
c. CITY: Atlanta
d. STATE: GA
e. ZIP CODE: 30303-3104
f. SHIP VIA:

7. TO: Joe Opatkiewicz
a. NAME OF CONTRACTOR: HEPACO, LLC
b. COMPANY NAME:
c. STREET ADDRESS: P.O. BOX 26308
d. CITY: CHARLOTTE
e. STATE: NC
f. ZIP CODE: 282216308

8. TYPE OF ORDER
☐ a. PURCHASE
REFERENCE YOUR:
Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheet, if any, including delivery as indicated.
☒ b. DELIVERY
Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.

9. ACCOUNTING AND APPROPRIATION DATA: See Schedule

10. REQUISITIONING OFFICE: Region 4

11. BUSINESS CLASSIFICATION (Check appropriate box(es))
☐ a. SMALL ☒ b. OTHER THAN SMALL ☐ c. DISADVANTAGED ☐ d. WOMEN-OWNED ☐ e. HUBZone
☐ f. SERVICE-DISABLED VETERAN-OWNED ☐ g. WOMEN-OWNED SMALL BUSINESS (WOSB) ELIGIBLE UNDER THE WOSB PROGRAM ☐ h. EDWOSB

12. F.O.B. POINT:

13. PLACE OF
a. INSPECTION: Destination
b. ACCEPTANCE: Destination

14. GOVERNMENT B/L NO.:

15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date):

16. DISCOUNT TERMS:

17. SCHEDULE (See reverse for Rejections)

ITEM NO. (a)	SUPPLIES OR SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	DUNS Number: 115993297 L&R Oil Recovery Shelby, North Carolina OSC: Kevin Eichinger This is a task order against the Basic Continued ...					

18. SHIPPING POINT:

19. GROSS SHIPPING WEIGHT:

20. INVOICE NO.:

17(h) TOTAL (Cont. pages): $35,000.00

21. MAIL INVOICE TO:
a. NAME: RTP Finance Center
b. STREET ADDRESS (or P.O. Box): US Environmental Protection Agency, RTP-Finance Center (AA216-01), 109 TW Alexander Drive, www2.epa.gov/financial/contracts
c. CITY: Durham
d. STATE: NC
e. ZIP CODE: 27711

SEE BILLING INSTRUCTIONS ON REVERSE

17(i) GRAND TOTAL: $35,000.00

22. UNITED STATES OF AMERICA BY (Signature): 09/14/2018 Geoffrey Krieger ELECTRONIC SIGNATURE

23. NAME (Typed): Geoffrey Krieger
TITLE: CONTRACTING/ORDERING OFFICER

ORDER FOR SUPPLIES OR SERVICES
SCHEDULE - CONTINUATION

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

DATE OF ORDER	CONTRACT NO.	ORDER NO.
09/14/2018	HSCG84-15-A-P00023	68HE0418F0530

ITEM NO. (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	Ordering Agreement with the US Coast Guard for an oil recovery response in Shelby, NC. Verbal authorization was given by the Contracting Officer on Friday, September 14, 2018. A ceiling of $35,000.00 was given at time of response. TOCOR: Kevin Eichinger Max Expire Date: 12/31/2018 Admin Office: Region 4 US Environmental Protection Agency Atlanta Federal Center 61 Forsyth Street, SW Atlanta GA 30303-3104 Accounting Info: 18-T-4AD0E-000DC6-2505-C001-184ADZ8069-001 BFY: 18 Fund: T Budget Org: 4AD0E Program (PRC): 000DC6 Budget (BOC): 2505 Job #: C466RV00 Cost: C001 DCN - Line ID: 184ADZ8069-001 Period of Performance: 09/14/2018 to 12/31/2018					
0001	Emergency Response: L&R Oil Recovery, 501 Ruth Street, Shelby, Cleveland County, NC 28150; SiteID: C466; Contractor: HEPACO under BOA HSCG84-15-A-P00023. See attached statement of work for additional details.				35,000.00	

TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H)) $35,000.00

Statement of Work
L&R Oil Recovery
501 Ruth Street, Shelby NC 28150
In Cleveland County

1. Mobilize response personnel and response equipment with appropriate materials to respond to oil spill. Contact Site OSC Brian Englert for further information. For any significant changes speak to Jeff Krieger.

2. Coordinate Site activities with OSC Brian Englert (404-463-8775). Provide frequent updates by phone to OSC.

3. Provide necessary equipment and personnel to stabilize, remove and dispose of released oil and impacted vegetation and or soil.

4. Provide for Clor-N-Oil and analytical sampling and testing of oil as necessary (PCB, heavy metals and other as needed).

5. Remove oil from road surrounding storm drain.

6. Pump oil from building.

7. Stabilize building for storm weather. Call OSC to discuss next steps.

8. When weather permits, provide staging, transportation and disposal.

9. Provide for decontamination of personnel and equipment.

10. Contractor authorize for overtime not to exceed 23.5 hours per day per individual. This authorization is subject to revision by OSC through weekly work orders.

11. Contractor shall not charge to the Task Order for any work performed at off-site locations, unless it is approved in advance by the OSC.

12. Contractor shall provide daily cost tracking.

13. Other activities as directed by the OSC.

Pressley, Miriam

From: Eichinger, Kevin
Sent: Thursday, November 8, 2018 12:09 PM
To: bates.lloyd@epa.gov; Geoffrey Krieger (krieger.geoffrey@epa.gov)
Subject: FW: HEPACO Invoice # FY18-009737, Job#1843.1226
Attachments: ATT00001.txt; 1843.1226 FY18-009737.pdf

For your action.

Thanks,
Kevin

From: Brittany Davis <CORPTEMP3@hepaco.com>
Sent: Thursday, November 8, 2018 11:58 AM
To: Eichinger, Kevin <Eichinger.Kevin@epa.gov>
Subject: FW: HEPACO Invoice # FY18-009737, Job#1843.1226

Good morning,

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Please let us know if you need any additional information.

Best Regards,

Brittany Davis
A/R Specialist
HEPACO, LLC
Office: 704-494-2135

www.hepaco.com

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1-800-888-7689

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HEPACO
Serious experience for serious times.

INVOICE

P. O. Box 26308
Charlotte, NC 28221-6308

INVOICE NO: FY18-009737
DATE: November 7, 2018

To: **U.S. Environmental Protection Agency**
61 Forsyth Street SW
Atlanta, GA 30303
Attn: Brian Englert
englert.brian@epa.gov

Project Location: US EPA Spill Site
501 Ruth Street
Shelby, NC 28105

PROJECT MANAGER	HEPACO JOB #	CUSTOMER #	BILLED THROUGH	PO #	TERMS
Chase Furr	1843.1226	ENV0034	September 26, 2018		NET 14

QUANTITY	DESCRIPTION	UNIT	UNIT PRICE	AMOUNT
	Environmental emergency response services to clean up oil spill			$ 53,500.47
	Federal Project Number (FPN): C466RV00 Order Number: 68HE0418F0520 Basic Ordering Agreement (BOA) Number: HSCG84-15-A-P00023 Data Universal Numbering System (DUNS) Number: 11-599-3297			
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			SUBTOTAL	$ 53,500.47
			SALES TAX	
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			TOTAL DUE	**$ 53,500.47**

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Charlotte, NC 28221-6308

EIN # 56-1428449

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Customer shall pay, or reimburse HEPACO, LLC if it elects to pay, all costs incurred in collecting any past due amounts, including without limitation court and collection costs and reasonable attorneys' fees.

THANK YOU FOR YOUR BUSINESS !!

Billing Summary

HEPACO Project # 1843.1226
US EPA - Oil Recovery - Shelby, NC

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9/26/2018	Equipment	$386.50
9/26/2018	Subcontractors & Materials	$0.00
	TOTAL	**$53,500.47**

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE

PAGE 1 OF PAGES 2

2. AMENDMENT/MODIFICATION NO. P00001

3. EFFECTIVE DATE See Block 16C

4. REQUISITION/PURCHASE REQ. NO. PR-R4-19-00005

5. PROJECT NO. (If applicable) C466RV00

6. ISSUED BY CODE R4

Region 4
US Environmental Protection Agency
Atlanta Federal Center
61 Forsyth Street, SW
Atlanta GA 30303-3104

7. ADMINISTERED BY (If other than Item 6) CODE

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)

HEPACO, LLC
Attn: Joe Opatkiewicz
P.O. BOX 26308
CHARLOTTE NC 282216308

CODE 115993297 FACILITY CODE

(x) 9A. AMENDMENT OF SOLICITATION NO.

9B. DATED (SEE ITEM 11)

x 10A. MODIFICATION OF CONTRACT/ORDER NO. HSCG84-15-A-P00023
68HE0418F0530

10B. DATED (SEE ITEM 13) 09/14/2018

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
See Schedule Net Increase: $15,000.00

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	
	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) H.4. CEILING PRICE OF ORDERS

E. IMPORTANT: Contractor ☒ is not. ☐ is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

DUNS Number: 115993297
L&R Oil Recovery
Shelby, North Carolina
OSC: Kevin Eichinger
TOCOR: Kevin Eichenger Max Expire Date: 12/31/2018 InvoiceApprover: Dora Ann Johnson Alt
Invoice App: Katrina Jones
The purpose of this modification is to:

a) Add $15,000.00 in additional funds to the order. The new ceiling is $50,000.00.

Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)

16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Geoffrey Krieger

15B. CONTRACTOR/OFFEROR _____ (Signature of person authorized to sign)

15C. DATE SIGNED

16B. UNITED STATES OF AMERICA Geoffrey Krieger ELECTRONIC SIGNATURE (Signature of Contracting Officer)

16C. DATE SIGNED 10/26/2018

NAME OF OFFEROR OR CONTRACTOR
HEPACO, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	END --- LIST OF CHANGES: Reason for Modification: Funding Only Action Total Amount for this Modification: $15,000.00 New Total Amount for this Version: $50,000.00 New Total Amount for this Award: $50,000.00 Obligated Amount for this Modification: $15,000.00 New Total Obligated Amount for this Award: $50,000.00 CHANGES FOR LINE ITEM NUMBER: 1 Total Amount changed from $35,000.00 to $50,000.00 Obligated Amount for this Modification: $15,000.00 CHANGES FOR DELIVERY LOCATION: R4 Amount changed from $35,000.00 to $50,000.00 NEW ACCOUNTING CODE ADDED: Account code: 18-T-4AD0E-000DC6-2505-C001-194ADZ9001-001 Beginning FiscalYear 18 Ending Fiscal Year Fund (Appropriation) T Budget Organization 4AD0E Program (PRC) 000DC6 Budget (BOC) 2505 Job # (Site/Project) C466RV00 Cost Organization C001 DCN-LineID 194ADZ9001-001 Quantity: 0 Amount: $15,000.00 Delivery Location Code: R4 Region 4 US Environmental Protection Agency Atlanta Federal Center 61 Forsyth Street, SW Atlanta GA 30303-3104 USA Payment: RTP Finance Center US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts Durham NC 27711 Period of Performance: 09/14/2018 to 12/31/2018				

ORDER FOR SUPPLIES OR SERVICES

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

1. DATE OF ORDER: 09/14/2018

2. CONTRACT NO. (If any): HSCG84-15-A-P00023

3. ORDER NO.: 68HE0418F0530

4. REQUISITION/REFERENCE NO.: PR-R4-18-01050

5. ISSUING OFFICE (Address correspondence to):
Region 4
US Environmental Protection Agency
Atlanta Federal Center
61 Forsyth Street, SW
Atlanta GA 30303-3104

6. SHIP TO:
a. NAME OF CONSIGNEE: Region 4
b. STREET ADDRESS: US Environmental Protection Agency, Atlanta Federal Center, 61 Forsyth Street, SW
c. CITY: Atlanta
d. STATE: GA
e. ZIP CODE: 30303-3104
f. SHIP VIA:

7. TO: Joe Opatkiewicz
a. NAME OF CONTRACTOR: HEPACO, LLC
b. COMPANY NAME:
c. STREET ADDRESS: P.O. BOX 26308
d. CITY: CHARLOTTE
e. STATE: NC
f. ZIP CODE: 282216308

8. TYPE OF ORDER
☐ a. PURCHASE
REFERENCE YOUR:
Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheet, if any, including delivery as indicated.
☒ b. DELIVERY
Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.

9. ACCOUNTING AND APPROPRIATION DATA: See Schedule

10. REQUISITIONING OFFICE: Region 4

11. BUSINESS CLASSIFICATION (Check appropriate box(es))
☐ a. SMALL ☒ b. OTHER THAN SMALL ☐ c. DISADVANTAGED ☐ d. WOMEN-OWNED ☐ e. HUBZone
☐ f. SERVICE-DISABLED VETERAN-OWNED ☐ g. WOMEN-OWNED SMALL BUSINESS (WOSB) ELIGIBLE UNDER THE WOSB PROGRAM ☐ h. EDWOSB

12. F.O.B. POINT:

13. PLACE OF
a. INSPECTION: Destination
b. ACCEPTANCE: Destination

14. GOVERNMENT B/L NO.:

15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date):

16. DISCOUNT TERMS:

17. SCHEDULE (See reverse for Rejections)

ITEM NO. (a)	SUPPLIES OR SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	DUNS Number: 115993297 L&R Oil Recovery Shelby, North Carolina OSC: Kevin Eichinger This is a task order against the Basic Continued ...					

18. SHIPPING POINT:

19. GROSS SHIPPING WEIGHT:

20. INVOICE NO.:

17(h) TOTAL (Cont. pages): $35,000.00

21. MAIL INVOICE TO:
a. NAME: RTP Finance Center
b. STREET ADDRESS (or P.O. Box): US Environmental Protection Agency, RTP-Finance Center (AA216-01), 109 TW Alexander Drive, www2.epa.gov/financial/contracts
c. CITY: Durham
d. STATE: NC
e. ZIP CODE: 27711

SEE BILLING INSTRUCTIONS ON REVERSE

17(i) GRAND TOTAL: $35,000.00

22. UNITED STATES OF AMERICA BY (Signature): 09/14/2018 Geoffrey Krieger ELECTRONIC SIGNATURE

23. NAME (Typed): Geoffrey Krieger
TITLE: CONTRACTING/ORDERING OFFICER

AUTHORIZED FOR LOCAL REPRODUCTION
PREVIOUS EDITION NOT USABLE

ORDER FOR SUPPLIES OR SERVICES
SCHEDULE - CONTINUATION

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

DATE OF ORDER	CONTRACT NO.	ORDER NO.
09/14/2018	HSCG84-15-A-P00023	68HE0418F0530

ITEM NO. (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	Ordering Agreement with the US Coast Guard for an oil recovery response in Shelby, NC. Verbal authorization was given by the Contracting Officer on Friday, September 14, 2018. A ceiling of $35,000.00 was given at time of response. TOCOR: Kevin Eichinger Max Expire Date: 12/31/2018 Admin Office: Region 4 US Environmental Protection Agency Atlanta Federal Center 61 Forsyth Street, SW Atlanta GA 30303-3104 Accounting Info: 18-T-4AD0E-000DC6-2505-C001-184ADZ8069-001 BFY: 18 Fund: T Budget Org: 4AD0E Program (PRC): 000DC6 Budget (BOC): 2505 Job #: C466RV00 Cost: C001 DCN - Line ID: 184ADZ8069-001 Period of Performance: 09/14/2018 to 12/31/2018					
0001	Emergency Response: L&R Oil Recovery, 501 Ruth Street, Shelby, Cleveland County, NC 28150; SiteID: C466; Contractor: HEPACO under BOA HSCG84-15-A-P00023. See attached statement of work for additional details.				35,000.00	

TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H)) $35,000.00

Statement of Work
L&R Oil Recovery
501 Ruth Street, Shelby NC 28150
In Cleveland County

1. Mobilize response personnel and response equipment with appropriate materials to respond to oil spill. Contact Site OSC Brian Englert for further information. For any significant changes speak to Jeff Krieger.

2. Coordinate Site activities with OSC Brian Englert (404-463-8775). Provide frequent updates by phone to OSC.

3. Provide necessary equipment and personnel to stabilize, remove and dispose of released oil and impacted vegetation and or soil.

4. Provide for Clor-N-Oil and analytical sampling and testing of oil as necessary (PCB, heavy metals and other as needed).

5. Remove oil from road surrounding storm drain.

6. Pump oil from building.

7. Stabilize building for storm weather. Call OSC to discuss next steps.

8. When weather permits, provide staging, transportation and disposal.

9. Provide for decontamination of personnel and equipment.

10. Contractor authorize for overtime not to exceed 23.5 hours per day per individual. This authorization is subject to revision by OSC through weekly work orders.

11. Contractor shall not charge to the Task Order for any work performed at off-site locations, unless it is approved in advance by the OSC.

12. Contractor shall provide daily cost tracking.

13. Other activities as directed by the OSC.

Pressley, Miriam

From: Englert, Brian
Sent: Friday, February 22, 2019 2:28 PM
To: dschackart@hepaco.com
Cc: Krieger, Geoffrey; Eichinger, Kevin
Subject: FW: HEPACO PAST DUE INVOICE FY18-009737
Attachments: DOTO_HSCG84-15-A-P00023_68HE0418F0530_Mod_P00002.pdf; DOTO_EP-S4-15-03_68HE0418F0526.pdf

Ms. Schackart,

Thanks for the call this evening. Please see the below email.

I'm unsure what the issue is at this point but I believe it may relate to submitting an invoice per the requirements of the task order.

If you have further questions, please feel free to give Geoffrey Krieger a call at 404-562-8056.

From: Eichinger, Kevin
Sent: Thursday, December 27, 2018 1:47 PM
To: Englert, Brian <Englert.Brian@epa.gov>; Cathy McBride <cmcbride@hepaco.com>
Cc: Krieger, Geoffrey <krieger.geoffrey@epa.gov>
Subject: RE: HEPACO PAST DUE INVOICE FY18-009737

Cathy,

You are not submitting the invoice per the requirements of the task order. See the attached. This was sent to rdewitt@hepaco.com on September 29, 2018. Attached is the original task order and modification #1.

Kevin

Kevin Eichinger, CHMM - On-Scene Coordinator and Industrial Hygienist
U.S. Environmental Protection Agency, Region 4 | 61 Forsyth St SW | Atlanta, Georgia | 30303
Emergency Response, Removal and Prevention Branch (ERRB)
office: **404-562-8268** | cell: **678-897-3759** | **response.epa.gov**

From: Englert, Brian
Sent: Thursday, December 27, 2018 1:38 PM
To: Cathy McBride <cmcbride@hepaco.com>
Cc: Krieger, Geoffrey <krieger.geoffrey@epa.gov>; Eichinger, Kevin <Eichinger.Kevin@epa.gov>
Subject: RE: HEPACO PAST DUE INVOICE FY18-009737

Cathy,

I'm the wrong contact for this email.

It sounds like you need to speak to Jeff Krieger (contracting officer) or Kevin Eichinger (OSC). Probably Jeff.

Jeff's office number is 404-562-8058. I've cc'ed them both on this email.

He is probably out for the holidays.

From: Cathy McBride <cmcbride@hepaco.com>
Sent: Thursday, December 27, 2018 12:38 PM
To: Englert, Brian <Englert.Brian@epa.gov>
Subject: HEPACO PAST DUE INVOICE FY18-009737
Importance: High

Good Afternoon Mr. Englert:

The purpose of this email is to follow-up with you regarding the attached past due invoice FY18-009737 submitted to you on 11/8/18 for emergency response work performed by HEPACO. I would greatly appreciate your communicating with regarding the status of payment, as this invoice is now 36 days past due.

I hope to hear from you soon regarding this matter.

Thank you.

Sincerely,

Cathy McBride
Corporate Collections Specialist
HEPACO, LLC
Office: 704-598-9782
Mobile: 704-578-6410
Fax: 704-598-7823

www.hepaco.com

24 Hour Emergency Response
1-800-888-7689

HEPACO is pleased to announce the acquisition of **Emergency Response & Training Solutions (ERTS)**, creating a leading national environmental and emergency response service provider.

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Please consider the environment before printing this email.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE		PAGE OF PAGES	1 / 3
2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. *(If applicable)*
P00002	See Block 16C	PR-R4-19-00019	C466RV00

6. ISSUED BY CODE R4

Region 4
US Environmental Protection Agency
Atlanta Federal Center
61 Forsyth Street, SW
Atlanta GA 30303-3104

7. ADMINISTERED BY *(If other than Item 6)* CODE

8. NAME AND ADDRESS OF CONTRACTOR *(No., street, county, State and ZIP Code)*

HEPACO, LLC
Attn: Joe Opatkiewicz
P.O. BOX 26308
CHARLOTTE NC 282216308

CODE 115993297 FACILITY CODE

(x) 9A. AMENDMENT OF SOLICITATION NO.

9B. DATED *(SEE ITEM 11)*

x 10A. MODIFICATION OF CONTRACT/ORDER NO. HSCG84-15-A-P00023
68HE0418F0530

10B. DATED *(SEE ITEM 13)* 09/14/2018

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or electronic communication which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by letter or electronic communication, provided each letter or electronic communication makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA *(If required)*
See Schedule Net Increase: $5,000.00

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	
	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: *(Specify authority)* THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES *(such as changes in paying office, appropriation data, etc.)* SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER *(Specify type of modification and authority)* H.4. CEILING PRICE OF ORDERS

E. IMPORTANT: Contractor ☒ is not ☐ is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION *(Organized by UCF section headings, including solicitation/contract subject matter where feasible.)*

DUNS Number: 115993297
L&R Oil Recovery
Shelby, North Carolina
OSC: Kevin Eichinger
TOCOR: Kevin Eichenger Max Expire Date: 12/31/2018 InvoiceApprover: Dora Ann Johnson Alt
Invoice App: Katrina Jones
The purpose of this modification is to :

a) add $5,000.00 in additional funding. The new obligated total for this order is $55,000.00.

Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER *(Type or print)*		16A. NAME AND TITLE OF CONTRACTING OFFICER *(Type or print)*	
		Geoffrey Krieger	
15B. CONTRACTOR/OFFEROR *(Signature of person authorized to sign)*	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA ELECTRONIC SIGNATURE *(Signature of Contracting Officer)*	16C. DATE SIGNED 11/08/2018

NAME OF OFFEROR OR CONTRACTOR
HEPACO, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)

	END				

	LIST OF CHANGES:				
	Reason for Modification: Funding Only Action				
	Total Amount for this Modification: $5,000.00				
	New Total Amount for this Version: $55,000.00				
	New Total Amount for this Award: $55,000.00				
	Obligated Amount for this Modification: $5,000.00				
	New Total Obligated Amount for this Award: $55,000.00				
	CHANGES FOR LINE ITEM NUMBER: 1				
	Total Amount changed from $50,000.00 to $55,000.00				
	Obligated Amount for this Modification: $5,000.00				
	FOB changed from Destination to				
	CHANGES FOR DELIVERY LOCATION: R4				
	Amount changed from $50,000.00 to $55,000.00				
	NEW ACCOUNTING CODE ADDED:				
	Account code: 18-T-4AD0E-000DC6-2505-C001-194ADZ9003-001				
	Beginning FiscalYear 18				
	Ending Fiscal Year				
	Fund (Appropriation) T				
	Budget Organization 4AD0E				
	Program (PRC) 000DC6				
	Budget (BOC) 2505				
	Job # (Site/Project) C466RV00				
	Cost Organization C001				
	DCN-LineID 194ADZ9003-001				
	Quantity: 0				
	Amount: $5,000.00				
	Delivery Location Code: R4				
	Region 4				
	US Environmental Protection Agency				
	Atlanta Federal Center				
	61 Forsyth Street, SW				
	Atlanta GA 30303-3104 USA				
	Continued ...				

NAME OF OFFEROR OR CONTRACTOR
HEPACO, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	Payment: RTP Finance Center US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts Durham NC 27711 Period of Performance: 09/14/2018 to 12/31/2018				

ORDER FOR SUPPLIES OR SERVICES

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

1. DATE OF ORDER: 09/28/2018

2. CONTRACT NO. (If any): EP-S4-15-03

3. ORDER NO.: 68HE0418F0526

4. REQUISITION/REFERENCE NO.: PR-R4-18-01049

5. ISSUING OFFICE (Address correspondence to):
Region 4
US Environmental Protection Agency
Atlanta Federal Center
61 Forsyth Street, SW
Atlanta GA 30303-3104

6. SHIP TO:
a. NAME OF CONSIGNEE: Region 4
b. STREET ADDRESS: US Environmental Protection Agency, Atlanta Federal Center, 61 Forsyth Street, SW
c. CITY: Atlanta
d. STATE: GA
e. ZIP CODE: 30303-3104
f. SHIP VIA

7. TO: DENNIS GREANEY
a. NAME OF CONTRACTOR: ENVIRONMENTAL RESTORATION, L.L.C.
b. COMPANY NAME
c. STREET ADDRESS: 1666 FABICK DRIVE
d. CITY: FENTON
e. STATE: MO
f. ZIP CODE: 63026

8. TYPE OF ORDER
☐ a. PURCHASE
REFERENCE YOUR:
Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheet, if any, including delivery as indicated.
☒ b. DELIVERY
Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.

9. ACCOUNTING AND APPROPRIATION DATA: See Schedule

10. REQUISITIONING OFFICE: R4 Acquisition Management Section

11. BUSINESS CLASSIFICATION (Check appropriate box(es))
☒ a. SMALL ☐ b. OTHER THAN SMALL ☐ c. DISADVANTAGED ☐ d. WOMEN-OWNED ☐ e. HUBZone
☐ f. SERVICE-DISABLED VETERAN-OWNED ☐ g. WOMEN-OWNED SMALL BUSINESS (WOSB) ELIGIBLE UNDER THE WOSB PROGRAM ☐ h. EDWOSB

12. F.O.B. POINT

13. PLACE OF
a. INSPECTION: Destination
b. ACCEPTANCE: Destination

14. GOVERNMENT B/L NO.

15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date)

16. DISCOUNT TERMS

17. SCHEDULE (See reverse for Rejections)

ITEM NO. (a)	SUPPLIES OR SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	DUNS Number: 008198421 L&R Oil Recovery OSC: Kevin Eichinger This is a new task order for the L&R Oil Recovery site in Shelby, NC. The order Continued ...					

18. SHIPPING POINT

19. GROSS SHIPPING WEIGHT

20. INVOICE NO.

17(h) TOTAL (Cont. pages): $50,000.00

21. MAIL INVOICE TO:
a. NAME: RTP Finance Center
b. STREET ADDRESS (or P.O. Box): US Environmental Protection Agency, RTP-Finance Center (AA216-01), 109 TW Alexander Drive, www2.epa.gov/financial/contracts
c. CITY: Durham
d. STATE: NC
e. ZIP CODE: 27711

SEE BILLING INSTRUCTIONS ON REVERSE

17(i) GRAND TOTAL: $50,000.00

22. UNITED STATES OF AMERICA BY (Signature): 09/28/2018 Geoffrey Krieger
ELECTRONIC SIGNATURE

23. NAME (Typed): Geoffrey Krieger
TITLE: CONTRACTING/ORDERING OFFICER

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

DATE OF ORDER	CONTRACT NO.	ORDER NO.
09/28/2018	EP-S4-15-03	68HE0418F0526

ITEM NO. (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	confirms the verbal notice to proceed give 9/18/18 by the phone duty OSC. See attached statement of work for details. TOCOR: Kevin Eichinger Max Expire Date: 03/19/2019 InvoiceApprover: Dora Ann Johnson Alt Invoice App: Katrina Jones Admin Office: Region 4 US Environmental Protection Agency Atlanta Federal Center 61 Forsyth Street, SW Atlanta GA 30303-3104 Accounting Info: 18-T-4AD0E-000DC6-2505-C001-184ADZ8068-001 BFY: 18 Fund: T Budget Org: 4AD0E Program (PRC): 000DC6 Budget (BOC): 2505 Job #: C466RV00 Cost: C001 DCN - Line ID: 184ADZ8068-001 Period of Performance: 09/18/2018 to 03/19/2019					
0001	Emergency Response: L&R Oil Recovery, 501 Ruth Street, Shelby, Cleveland County, NC 28150; SiteID: C466. See attached statement of work for details.				50,000.00	

TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H)) $50,000.00

Pressley, Miriam

From: Saskowski, Ronald
Sent: Tuesday, November 13, 2018 2:27 PM
To: Eichinger, Kevin
Subject: FW: L & R Oil Recovery Removal Administrative Record Review
Attachments: L and R Oil Recovery Removal AR Index.pdf

Hi Kevin,

Just touching base to see if you have had an opportunity to review?

Thanks,

Ron Saskowski
Task Order Manager
Arctic Slope Mission Services (ASMS)
Contracted to EPA
404-562-8944
Saskowski.Ronald@epa.gov

From: Saskowski, Ronald
Sent: Monday, October 15, 2018 7:00 AM
To: Eichinger, Kevin <Eichinger.Kevin@epa.gov>; Clay, David <Clay.David@epa.gov>
Cc: Terrell, Tina <Terrell.Tina@epa.gov>
Subject: L & R Oil Recovery Removal Administrative Record Review

Hi Kevin and David,

Attached is a PDF file of the Administrative Record Index for the L & R Oil Recovery Removal Site, Shelby, Cleveland County, North Carolina for your review. **You will need to have the most recent version of the Adobe Reader to be able to view the index.** If your version is not the most current, please contact the CATS help desk. After you have reviewed, please use **reply** and place an X on the appropriate line below:

I have reviewed the Administrative Record Documents and Index and ensured that PII and CBI is not included for the L & R Oil Recovery Removal Site, Shelby, Cleveland County, North Carolina and

_____approve of their being made available for public release

_____do not approve of their being available for public release for the following reasons: (Please list reasons)

The returned email stating your decision will serve as your electronic signature.
If you do not approve and/or have changes, please list them above under the do not approve selection. Once the changes are made, a new index will be submitted via email for your review and approval.

Thanks,
Ron Saskowski
Task Order Manager
Arctic Slope Mission Services (ASMS)
Contracted to EPA
404-562-8944
Saskowski.Ronald@epa.gov

Pressley, Miriam

From: Saskowski, Ronald
Sent: Tuesday, November 13, 2018 2:27 PM
To: Eichinger, Kevin
Subject: FW: L & R Oil Recovery Removal Administrative Record Review
Attachments: L and R Oil Recovery Removal AR Index.pdf

Hi Kevin,

Just touching base to see if you have had an opportunity to review?

Thanks,

Ron Saskowski
Task Order Manager
Arctic Slope Mission Services (ASMS)
Contracted to EPA
404-562-8944
Saskowski.Ronald@epa.gov

From: Saskowski, Ronald
Sent: Monday, October 15, 2018 7:00 AM
To: Eichinger, Kevin <Eichinger.Kevin@epa.gov>; Clay, David <Clay.David@epa.gov>
Cc: Terrell, Tina <Terrell.Tina@epa.gov>
Subject: L & R Oil Recovery Removal Administrative Record Review

Hi Kevin and David,

Attached is a PDF file of the Administrative Record Index for the L & R Oil Recovery Removal Site, Shelby, Cleveland County, North Carolina for your review. **You will need to have the most recent version of the Adobe Reader to be able to view the index.** If your version is not the most current, please contact the CATS help desk. After you have reviewed, please use **reply** and place an X on the appropriate line below:

I have reviewed the Administrative Record Documents and Index and ensured that PII and CBI is not included for the L & R Oil Recovery Removal Site, Shelby, Cleveland County, North Carolina and

_____approve of their being made available for public release

_____do not approve of their being available for public release for the following reasons: (Please list reasons)

The returned email stating your decision will serve as your electronic signature.
If you do not approve and/or have changes, please list them above under the do not approve selection. Once the changes are made, a new index will be submitted via email for your review and approval.

Thanks,

Ron Saskowski
Task Order Manager
Arctic Slope Mission Services (ASMS)
Contracted to EPA
404-562-8944
Saskowski.Ronald@epa.gov

[Draft]

Administrative Record Index for the L & R OIL RECOVERY Removal Site

NCN000407089

2.0 REMOVAL RESPONSE

2. 9 Action Memoranda

1. $250,000 Emergency Action Memorandum from Kevin Eichinger, USEPA to File. Subject: Documenting the Decision to Initiate Emergency Response Actions. (October 04, 2018) [Note: Due to the Confidential nature, the Enforcement Addendum has been withheld. Withheld material is available, for Judicial review only, from EPA Region 4, Atlanta, GA].

2.10 Pollution Reports (POLREPs)

1. Pollution Report (POLREP) No. 1 - Initiation of Emergency Response Actions. (September 19, 2018)

2.17 CERCLA Removal Site Records

1. "Incident Report No. 1224615," National Response Center. (September 14, 2018)

Pressley, Miriam

From: Eichinger, Kevin
Sent: Tuesday, February 26, 2019 12:06 PM
To: Prys, Paul
Subject: FW: L&R Oil draft QAPP and Sediment Sample

From: Hanks, Joshua M <Joshua.Hanks@ncdenr.gov>
Sent: Monday, February 25, 2019 11:31 AM
To: Eichinger, Kevin <Eichinger.Kevin@epa.gov>
Subject: L&R Oil draft QAPP and Sediment Sample

Hey Kevin,

I hope you had a good weekend. I apologize for barraging you with questions but I had 2 follow up questions for you regarding the L&R Oil site:

1) Would it be possible to have your contractors submit soil samples for Metals and VOC analysis in addition to the BTEX/PAH/PCB analysis you have in the QAPP? The PolRep that was forwarded to me reported PCE in the waste oil samples and we will need the soil data for our PASI investigation.
2) You mentioned in an earlier email about sampling sediment in the creek. I just wanted to confirm if a sample was collected and if so, if anything was detected?

Please let me know if you're able to add Metals and VOCs analysis to any of your samples. If you're unable to, I'll check with my supervisor and see if it's possible for us to either split or collect our own samples. Thanks again for your assistance.

Josh

Joshua M. Hanks, LG
Hydrogeologist, Division of Waste Management
Superfund Section, Federal Remediation Branch
North Carolina Department of Environmental Quality
919.707.8342 (Office)
Joshua.Hanks@ncdenr.gov

Mailing Address:
1646 Mail Service Center
Raleigh, NC 27699-1646

Physical Address:
217 West Jones Street
Raleigh, NC 27603

Email correspondence to and from this address is subject to the North Carolina Public Records Law and may be disclosed to third parties.

Pressley, Miriam

From: Prys, Paul <Paul.Prys@tetratech.com>
Sent: Tuesday, October 2, 2018 5:37 AM
To: Eichinger, Kevin
Subject: FW: L&R Oil Recovery
Attachments: 1809G69_REPORT.pdf

Kevin,

Here are the sampling results from L&R Oil Recovery. The samples ids with "TK" are for the tanker, "TT" the totes, and "DR" the drums. Let me know if you need anything else.

-----Original Message-----
From: NoReply@aesatlanta.net <NoReply@aesatlanta.net>
Sent: Monday, October 01, 2018 6:24 PM
To: Vickers, Jessica <jessica.vickers@tetratech.com>; Prys, Paul <Paul.Prys@tetratech.com>
Subject: L&R Oil Recovery

Please see attached. If you have any questions or need further assistance please contact your project manager at 770-457-8177.

AES Reporting System

ANALYTICAL ENVIRONMENTAL SERVICES,INC.
3080 Presidential Drive ATLANTA,GA 30340
Tel:770-457-8177 Fax:770-457-8188
http:\\www.aesatlanta.com

NOTICE OF CONFIDENTIALITY: The information in this email and / or attachments may be legally privileged and is confidential information intended for the use of the individual or entity named in the email address.
If the reader of this message is not the intended recipient, you are hereby notified that any use, dissemination, distribution, or copy of this email and / or attachments is strictly prohibited. If you have received this email in error, please notify Analytical Environmental Services Customer Service by telephone at (770) 457-8177 or by email at info@aesatlanta.com <mailto:info@aesatlanta.com> and delete the message. Thank you

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

October 01, 2018

Jessica Vickers
Tetra Tech EM Inc.

1955 Evergreen Blvd.
Duluth GA 30096

RE: L&R Oil Recovery

Dear Jessica Vickers:

Order No: 1809G69

Analytical Environmental Services, Inc. received 12 samples on 9/20/2018 9:32:00 AM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.
AES's accreditations are as follows:
-NELAP/State of Florida Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, Air & Emissions Volatile Organics, and Drinking Water Microbiology & Metals, effective 07/01/18-06/30/19.
State of Georgia, Department of Natural Resources ID #800 for analysis of Drinking Water Metals, effective 07/01/18-06/30/19 and Total Coliforms/ E. coli, effective 04/25/17-04/24/20.
-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Metals, PCM Asbestos, Gravimetric), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 11/01/19.
These results relate only to the items tested. This report may only be reproduced in full.

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

Sincerely,

Paris Masoudi

Paris Masoudi
Project Manager

3080 Presidential Drive • Atlanta, Georgia 30340 • Tel: 770.457.8177 • Fax: 770.457.8188 • Toll Free: 800.972.4889
www.aesatlanta.com

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3785 Presidential Parkway, Atlanta GA 30340-3704
TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 18096169

Date: 9/19/18 Page 1 of 1

COMPANY: Tetra Tech EM, Inc.
ADDRESS: 1955 Evergreen Blvd, Bldg 200, Suite 300, Duluth, GA 30096
PHONE: 404-849-7136
FAX: 678-775-3138
SAMPLED BY: Paul Prys
SIGNATURE:

ANALYSIS REQUESTED: VOC, SVOC, PCB, RCRA Metals, Flashpoint, Corrosivity, BTUs

PRESERVATION (See codes): I, I, I, I, I, I, I

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

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	VOC	SVOC	PCB	RCRA Metals	Flashpoint	Corrosivity	BTUs	REMARKS	No # of Containers
1	LRO-WS-TK01-091918	9/19/18	0945	X			X	X	X	X	X	X	X		5
2	LRO-WS-TK02-091918		1010	X											5
3	LRO-WS-TK03-091918		1115	X											6
4	LRO-WS-TK04-091918		1030	X											6
5	LRO-WS-TT01-091918		1200		X										6
6	LRO-WS-TT02-091918		1220		X										6
7	LRO-WS-TT03-091918		1240		X										6
8	LRO-WS-TT04-091918		1335	X											6
9	LRO-WS-TT05-091918		1400	X		Sludge									6
10	LRO-WS-DR01-091918		1705	X											6
11	LRO-WS-DR02-091918		1715	X											6
12	LRO-WS-DR03-091918		1730		X									DR004 & 005	6
13															
14															

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: [signature]	9/19/18 1840	1: [signature]	9/19/18 1840
2: [signature]	9/20/18 0932	2: Arneau Johnson	9/20/18 932a
3:		3:	

PROJECT INFORMATION
PROJECT NAME: L&R Oil Recovery
PROJECT #: 103X902701101
SITE ADDRESS: 501 Ruth Street, Shelby, North Carolina
SEND REPORT TO: jessica.vickers@tetratech.com
INVOICE TO: (IF DIFFERENT FROM ABOVE)
QUOTE #: PO#:

RECEIPT
Total # of Containers: 70

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

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

SPECIAL INSTRUCTIONS/COMMENTS:
Also, email analytical results to Paul Prys at paul.prys@tetratech.com.

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

SAMPLES RECEIVED AFTER 3PM OR SATURDAY ARE CONSIDERED AS RECEIVED ON THE NEXT BUSINESS DAY; IF NO TAT IS MARKED ON COC AES WILL PROCEED AS STANDARD TAT.
SAMPLES ARE DISPOSED OF 30 DAYS AFTER COMPLETION OF REPORT UNLESS OTHER ARRANGEMENTS ARE MADE.

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

Analytical Environmental Services, Inc

Date: 1-Oct-18

Client: Tetra Tech EM Inc.
Project: L&R Oil Recovery
Lab ID: 1809G69

Case Narrative

Sample Receiving Nonconformance:

Sample for pH analysis by method SM4500 H+ B were received and analyzed outside method specified holding time of "immediate or 15 minutes."

Due to non-aqueous sample matrix, pH was not checked during log in for all samples received under AES ID 1809G69.

PCB Analysis by Method 8082A:

Due to sample matrix, samples 1809G69-001B, -002B, -004B required dilution during preparation and/or analysis resulting in elevated reporting limits.

Volatiles Organic Compounds Analysis by Method 8260B:

Due to sample matrix, samples 1809G69-001A, -002A, -003A, -004A, -005A, -006A, -007A, -008A, -009A, -010A, - 011A, -012A required dilution during preparation and/or analysis resulting in elevated reporting limits.

RPD value for Chlorobenzene on sample 1809G69-001AMSD was outside advisory control limits due to suspected non-homogeneous sample matrix. All other percent recoveries were within control limits.

Analytical Environmental Services, Inc **Date:** 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-TK01-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 9:45:00 AM
Lab ID:	1809G69-001	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Mercury - Waste SW7471B					**(SW7471B)**				
Mercury	0.0191	J	0.00865	0.0902	mg/Kg	267470	1	09/21/2018 11:16	AJ
TCL-SEMIVOLATILE ORGANICS SW8270D					**(SW3580A)**				
1,1´-Biphenyl	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
2,4,5-Trichlorophenol	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 12:22	YH
2,4,6-Trichlorophenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
2,4-Dichlorophenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
2,4-Dimethylphenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
2,4-Dinitrophenol	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 12:22	YH
2,4-Dinitrotoluene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
2,6-Dinitrotoluene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
2-Chloronaphthalene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
2-Chlorophenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
2-Methylnaphthalene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
2-Methylphenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
2-Nitroaniline	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 12:22	YH
2-Nitrophenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
3,3´-Dichlorobenzidine	BRL		3400	3400	mg/Kg	267492	5	09/28/2018 12:22	YH
3-Nitroaniline	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 12:22	YH
4,6-Dinitro-2-methylphenol	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 12:22	YH
4-Bromophenyl phenyl ether	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
4-Chloro-3-methylphenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
4-Chloroaniline	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
4-Chlorophenyl phenyl ether	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
4-Methylphenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
4-Nitroaniline	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 12:22	YH
4-Nitrophenol	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 12:22	YH
Acenaphthene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
Acenaphthylene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
Acetophenone	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
Anthracene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
Atrazine	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
Benz(a)anthracene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
Benzaldehyde	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
Benzo(a)pyrene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
Benzo(b)fluoranthene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
Benzo(g,h,i)perylene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
Benzo(k)fluoranthene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
Bis(2-chloroethoxy)methane	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-TK01-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 9:45:00 AM
Lab ID:	1809G69-001	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D					**(SW3580A)**				
Bis(2-chloroethyl)ether	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
Bis(2-chloroisopropyl)ether	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
Bis(2-ethylhexyl)phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
Butyl benzyl phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
Caprolactam	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
Carbazole	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
Chrysene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
Di-n-butyl phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
Di-n-octyl phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
Dibenz(a,h)anthracene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
Dibenzofuran	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
Diethyl phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
Dimethyl phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
Fluoranthene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
Fluorene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
Hexachlorobenzene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
Hexachlorobutadiene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
Hexachlorocyclopentadiene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
Hexachloroethane	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
Indeno(1,2,3-cd)pyrene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
Isophorone	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
N-Nitrosodi-n-propylamine	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
N-Nitrosodiphenylamine	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
Naphthalene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
Nitrobenzene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
Pentachlorophenol	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 12:22	YH
Phenanthrene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
Phenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
Pyrene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:22	YH
Surr: 2,4,6-Tribromophenol	82		0	52.8-148	%REC	267492	5	09/28/2018 12:22	YH
Surr: 2-Fluorobiphenyl	95.1		0	64.7-137	%REC	267492	5	09/28/2018 12:22	YH
Surr: 2-Fluorophenol	90.2		0	57.4-132	%REC	267492	5	09/28/2018 12:22	YH
Surr: 4-Terphenyl-d14	104		0	62-138	%REC	267492	5	09/28/2018 12:22	YH
Surr: Nitrobenzene-d5	88.3		0	56.1-138	%REC	267492	5	09/28/2018 12:22	YH
Surr: Phenol-d5	93		0	49.6-133	%REC	267492	5	09/28/2018 12:22	YH
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
1,1,1-Trichloroethane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 00:17	CC
1,1,2,2-Tetrachloroethane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 00:17	CC

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-TK01-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 9:45:00 AM
Lab ID:	1809G69-001	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
1,1,2-Trichloroethane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 00:17	CC
1,1-Dichloroethane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 00:17	CC
1,1-Dichloroethene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 00:17	CC
1,2,4-Trichlorobenzene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 00:17	CC
1,2-Dibromo-3-chloropropane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 00:17	CC
1,2-Dibromoethane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 00:17	CC
1,2-Dichlorobenzene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 00:17	CC
1,2-Dichloroethane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 00:17	CC
1,2-Dichloropropane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 00:17	CC
1,3-Dichlorobenzene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 00:17	CC
1,4-Dichlorobenzene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 00:17	CC
2-Butanone	BRL		260000	260000	ug/Kg	267881	5000	09/28/2018 00:17	CC
2-Hexanone	BRL		52000	52000	ug/Kg	267881	5000	09/28/2018 00:17	CC
4-Methyl-2-pentanone	BRL		52000	52000	ug/Kg	267881	5000	09/28/2018 00:17	CC
Acetone	BRL		260000	260000	ug/Kg	267881	5000	09/28/2018 00:17	CC
Benzene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 00:17	CC
Bromodichloromethane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 00:17	CC
Bromoform	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 00:17	CC
Bromomethane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 00:17	CC
Carbon disulfide	BRL		52000	52000	ug/Kg	267881	5000	09/28/2018 00:17	CC
Carbon tetrachloride	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 00:17	CC
Chlorobenzene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 00:17	CC
Chloroethane	BRL		52000	52000	ug/Kg	267881	5000	09/28/2018 00:17	CC
Chloroform	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 00:17	CC
Chloromethane	BRL		52000	52000	ug/Kg	267881	5000	09/28/2018 00:17	CC
cis-1,2-Dichloroethene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 00:17	CC
cis-1,3-Dichloropropene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 00:17	CC
Cyclohexane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 00:17	CC
Dibromochloromethane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 00:17	CC
Dichlorodifluoromethane	BRL		52000	52000	ug/Kg	267881	5000	09/28/2018 00:17	CC
Ethylbenzene	34000		26000	26000	ug/Kg	267881	5000	09/28/2018 00:17	CC
Freon-113	BRL		52000	52000	ug/Kg	267881	5000	09/28/2018 00:17	CC
Isopropylbenzene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 00:17	CC
m,p-Xylene	130000		26000	26000	ug/Kg	267881	5000	09/28/2018 00:17	CC
Methyl acetate	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 00:17	CC
Methyl tert-butyl ether	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 00:17	CC
Methylcyclohexane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 00:17	CC
Methylene chloride	BRL		26000	100000	ug/Kg	267881	5000	09/28/2018 00:17	CC
o-Xylene	51000		26000	26000	ug/Kg	267881	5000	09/28/2018 00:17	CC

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-TK01-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 9:45:00 AM
Lab ID:	1809G69-001	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
Styrene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 00:17	CC
Tetrachloroethene	61000		26000	26000	ug/Kg	267881	5000	09/28/2018 00:17	CC
Toluene	100000		26000	26000	ug/Kg	267881	5000	09/28/2018 00:17	CC
trans-1,2-Dichloroethene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 00:17	CC
trans-1,3-Dichloropropene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 00:17	CC
Trichloroethene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 00:17	CC
Trichlorofluoromethane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 00:17	CC
Vinyl chloride	BRL		52000	52000	ug/Kg	267881	5000	09/28/2018 00:17	CC
Surr: 4-Bromofluorobenzene	83.2		0	65-133	%REC	267881	5000	09/28/2018 00:17	CC
Surr: Dibromofluoromethane	93.8		0	75.8-119	%REC	267881	5000	09/28/2018 00:17	CC
Surr: Toluene-d8	94		0	78.3-120	%REC	267881	5000	09/28/2018 00:17	CC
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3580)**				
Aroclor 1016	BRL		2000	2000	mg/Kg	267493	2000	09/24/2018 11:00	UH
Aroclor 1221	BRL		2000	2000	mg/Kg	267493	2000	09/24/2018 11:00	UH
Aroclor 1232	BRL		2000	2000	mg/Kg	267493	2000	09/24/2018 11:00	UH
Aroclor 1242	37000		2000	2000	mg/Kg	267493	2000	09/24/2018 11:00	UH
Aroclor 1248	BRL		2000	2000	mg/Kg	267493	2000	09/24/2018 11:00	UH
Aroclor 1254	4100		2000	2000	mg/Kg	267493	2000	09/24/2018 11:00	UH
Aroclor 1260	2000		2000	2000	mg/Kg	267493	2000	09/24/2018 11:00	UH
Surr: Decachlorobiphenyl	197	S	0	50.6-147	%REC	267493	1	09/21/2018 19:51	UH
Surr: Tetrachloro-m-xylene	126		0	51.2-146	%REC	267493	1	09/21/2018 19:51	UH
Ignitability SW1010A									
Ignitability	190	>	0	0	°F	R380872	1	09/25/2018 09:30	SK
Hydrogen Ion (pH) by SM4500 H+ B									
pH	7.05	H	0.0100	0.0100	pH Units	R380583	1	09/21/2018 23:32	RH
BTU ASTM D240									
BTU	20000	N	0	0	BTU/lb	R380877	1	09/24/2018 10:00	AA
METALS, TOTAL SW6010D					**(SW3050B)**				
Arsenic	BRL		0.39	4.8	mg/Kg	267504	1	09/24/2018 11:58	NS
Barium	4.7	J	0.15	4.8	mg/Kg	267504	1	09/24/2018 11:58	NS
Cadmium	0.16	J	0.047	2.4	mg/Kg	267504	1	09/24/2018 11:58	NS
Chromium	0.58	J	0.42	2.4	mg/Kg	267504	1	09/24/2018 11:58	NS
Lead	7.0		0.18	4.8	mg/Kg	267504	1	09/24/2018 11:58	NS
Selenium	BRL		0.72	4.8	mg/Kg	267504	1	09/24/2018 11:58	NS
Silver	0.036	J	0.012	2.4	mg/Kg	267504	1	09/24/2018 11:58	NS

Qualifiers:

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- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-TK02-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 10:10:00 AM
Lab ID:	1809G69-002	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Mercury - Waste SW7471B					**(SW7471B)**				
Mercury	0.0226	J	0.00829	0.0865	mg/Kg	267470	1	09/21/2018 11:19	AJ
TCL-SEMIVOLATILE ORGANICS SW8270D					**(SW3580A)**				
1,1′-Biphenyl	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
2,4,5-Trichlorophenol	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 12:48	YH
2,4,6-Trichlorophenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
2,4-Dichlorophenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
2,4-Dimethylphenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
2,4-Dinitrophenol	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 12:48	YH
2,4-Dinitrotoluene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
2,6-Dinitrotoluene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
2-Chloronaphthalene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
2-Chlorophenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
2-Methylnaphthalene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
2-Methylphenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
2-Nitroaniline	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 12:48	YH
2-Nitrophenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
3,3′-Dichlorobenzidine	BRL		3400	3400	mg/Kg	267492	5	09/28/2018 12:48	YH
3-Nitroaniline	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 12:48	YH
4,6-Dinitro-2-methylphenol	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 12:48	YH
4-Bromophenyl phenyl ether	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
4-Chloro-3-methylphenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
4-Chloroaniline	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
4-Chlorophenyl phenyl ether	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
4-Methylphenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
4-Nitroaniline	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 12:48	YH
4-Nitrophenol	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 12:48	YH
Acenaphthene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
Acenaphthylene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
Acetophenone	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
Anthracene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
Atrazine	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
Benz(a)anthracene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
Benzaldehyde	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
Benzo(a)pyrene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
Benzo(b)fluoranthene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
Benzo(g,h,i)perylene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
Benzo(k)fluoranthene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
Bis(2-chloroethoxy)methane	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
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- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
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- > Greater than Result value
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- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-TK02-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 10:10:00 AM
Lab ID:	1809G69-002	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D					**(SW3580A)**				
Bis(2-chloroethyl)ether	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
Bis(2-chloroisopropyl)ether	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
Bis(2-ethylhexyl)phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
Butyl benzyl phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
Caprolactam	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
Carbazole	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
Chrysene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
Di-n-butyl phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
Di-n-octyl phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
Dibenz(a,h)anthracene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
Dibenzofuran	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
Diethyl phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
Dimethyl phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
Fluoranthene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
Fluorene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
Hexachlorobenzene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
Hexachlorobutadiene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
Hexachlorocyclopentadiene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
Hexachloroethane	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
Indeno(1,2,3-cd)pyrene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
Isophorone	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
N-Nitrosodi-n-propylamine	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
N-Nitrosodiphenylamine	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
Naphthalene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
Nitrobenzene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
Pentachlorophenol	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 12:48	YH
Phenanthrene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
Phenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
Pyrene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:48	YH
Surr: 2,4,6-Tribromophenol	78.2		0	52.8-148	%REC	267492	5	09/28/2018 12:48	YH
Surr: 2-Fluorobiphenyl	92		0	64.7-137	%REC	267492	5	09/28/2018 12:48	YH
Surr: 2-Fluorophenol	93.6		0	57.4-132	%REC	267492	5	09/28/2018 12:48	YH
Surr: 4-Terphenyl-d14	109		0	62-138	%REC	267492	5	09/28/2018 12:48	YH
Surr: Nitrobenzene-d5	85.8		0	56.1-138	%REC	267492	5	09/28/2018 12:48	YH
Surr: Phenol-d5	93.1		0	49.6-133	%REC	267492	5	09/28/2018 12:48	YH
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
1,1,1-Trichloroethane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 01:39	CC
1,1,2,2-Tetrachloroethane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 01:39	CC

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-TK02-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 10:10:00 AM
Lab ID:	1809G69-002	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
1,1,2-Trichloroethane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 01:39	CC
1,1-Dichloroethane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 01:39	CC
1,1-Dichloroethene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 01:39	CC
1,2,4-Trichlorobenzene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 01:39	CC
1,2-Dibromo-3-chloropropane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 01:39	CC
1,2-Dibromoethane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 01:39	CC
1,2-Dichlorobenzene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 01:39	CC
1,2-Dichloroethane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 01:39	CC
1,2-Dichloropropane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 01:39	CC
1,3-Dichlorobenzene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 01:39	CC
1,4-Dichlorobenzene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 01:39	CC
2-Butanone	BRL		260000	260000	ug/Kg	267881	5000	09/28/2018 01:39	CC
2-Hexanone	BRL		52000	52000	ug/Kg	267881	5000	09/28/2018 01:39	CC
4-Methyl-2-pentanone	BRL		52000	52000	ug/Kg	267881	5000	09/28/2018 01:39	CC
Acetone	BRL		260000	260000	ug/Kg	267881	5000	09/28/2018 01:39	CC
Benzene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 01:39	CC
Bromodichloromethane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 01:39	CC
Bromoform	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 01:39	CC
Bromomethane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 01:39	CC
Carbon disulfide	BRL		52000	52000	ug/Kg	267881	5000	09/28/2018 01:39	CC
Carbon tetrachloride	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 01:39	CC
Chlorobenzene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 01:39	CC
Chloroethane	BRL		52000	52000	ug/Kg	267881	5000	09/28/2018 01:39	CC
Chloroform	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 01:39	CC
Chloromethane	BRL		52000	52000	ug/Kg	267881	5000	09/28/2018 01:39	CC
cis-1,2-Dichloroethene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 01:39	CC
cis-1,3-Dichloropropene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 01:39	CC
Cyclohexane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 01:39	CC
Dibromochloromethane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 01:39	CC
Dichlorodifluoromethane	BRL		52000	52000	ug/Kg	267881	5000	09/28/2018 01:39	CC
Ethylbenzene	36000		26000	26000	ug/Kg	267881	5000	09/28/2018 01:39	CC
Freon-113	BRL		52000	52000	ug/Kg	267881	5000	09/28/2018 01:39	CC
Isopropylbenzene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 01:39	CC
m,p-Xylene	130000		26000	26000	ug/Kg	267881	5000	09/28/2018 01:39	CC
Methyl acetate	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 01:39	CC
Methyl tert-butyl ether	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 01:39	CC
Methylcyclohexane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 01:39	CC
Methylene chloride	BRL		26000	100000	ug/Kg	267881	5000	09/28/2018 01:39	CC
o-Xylene	57000		26000	26000	ug/Kg	267881	5000	09/28/2018 01:39	CC

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
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- Narr See case narrative

Analytical Environmental Services, Inc

Date: 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-TK02-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 10:10:00 AM
Lab ID:	1809G69-002	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
Styrene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 01:39	CC
Tetrachloroethene	64000		26000	26000	ug/Kg	267881	5000	09/28/2018 01:39	CC
Toluene	110000		26000	26000	ug/Kg	267881	5000	09/28/2018 01:39	CC
trans-1,2-Dichloroethene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 01:39	CC
trans-1,3-Dichloropropene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 01:39	CC
Trichloroethene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 01:39	CC
Trichlorofluoromethane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 01:39	CC
Vinyl chloride	BRL		52000	52000	ug/Kg	267881	5000	09/28/2018 01:39	CC
Surr: 4-Bromofluorobenzene	82		0	65-133	%REC	267881	5000	09/28/2018 01:39	CC
Surr: Dibromofluoromethane	89.1		0	75.8-119	%REC	267881	5000	09/28/2018 01:39	CC
Surr: Toluene-d8	92.4		0	78.3-120	%REC	267881	5000	09/28/2018 01:39	CC
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3580)**				
Aroclor 1016	BRL		2000	2000	mg/Kg	267493	2000	09/24/2018 11:22	UH
Aroclor 1221	BRL		2000	2000	mg/Kg	267493	2000	09/24/2018 11:22	UH
Aroclor 1232	BRL		2000	2000	mg/Kg	267493	2000	09/24/2018 11:22	UH
Aroclor 1242	38000		2000	2000	mg/Kg	267493	2000	09/24/2018 11:22	UH
Aroclor 1248	BRL		2000	2000	mg/Kg	267493	2000	09/24/2018 11:22	UH
Aroclor 1254	4100		2000	2000	mg/Kg	267493	2000	09/24/2018 11:22	UH
Aroclor 1260	2000		2000	2000	mg/Kg	267493	2000	09/24/2018 11:22	UH
Surr: Decachlorobiphenyl	213	S	0	50.6-147	%REC	267493	1	09/21/2018 20:03	UH
Surr: Tetrachloro-m-xylene	130		0	51.2-146	%REC	267493	1	09/21/2018 20:03	UH
Ignitability SW1010A									
Ignitability	163		0	0	°F	R380872	1	09/25/2018 09:30	SK
Hydrogen Ion (pH) by SM4500 H+ B									
pH	7.44	H	0.0100	0.0100	pH Units	R380583	1	09/21/2018 23:32	RH
BTU ASTM D240									
BTU	16000	N	0	0	BTU/lb	R380877	1	09/24/2018 10:00	AA
METALS, TOTAL SW6010D					**(SW3050B)**				
Arsenic	BRL		0.39	4.7	mg/Kg	267504	1	09/24/2018 12:14	NS
Barium	5.3		0.15	4.7	mg/Kg	267504	1	09/24/2018 12:14	NS
Cadmium	0.16	J	0.047	2.4	mg/Kg	267504	1	09/24/2018 12:14	NS
Chromium	0.72	J	0.41	2.4	mg/Kg	267504	1	09/24/2018 12:14	NS
Lead	7.8		0.18	4.7	mg/Kg	267504	1	09/24/2018 12:14	NS
Selenium	0.83	J	0.71	4.7	mg/Kg	267504	1	09/24/2018 12:14	NS
Silver	0.034	J	0.012	2.4	mg/Kg	267504	1	09/24/2018 12:14	NS

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-TK03-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 11:15:00 AM
Lab ID:	1809G69-003	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Mercury - Waste SW7471B					**(SW7471B)**				
Mercury	BRL		0.00863	0.0900	mg/Kg	267470	1	09/21/2018 11:23	AJ
TCL-SEMIVOLATILE ORGANICS SW8270D					**(SW3580A)**				
1,1′-Biphenyl	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
2,4,5-Trichlorophenol	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 13:16	YH
2,4,6-Trichlorophenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
2,4-Dichlorophenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
2,4-Dimethylphenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
2,4-Dinitrophenol	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 13:16	YH
2,4-Dinitrotoluene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
2,6-Dinitrotoluene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
2-Chloronaphthalene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
2-Chlorophenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
2-Methylnaphthalene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
2-Methylphenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
2-Nitroaniline	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 13:16	YH
2-Nitrophenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
3,3′-Dichlorobenzidine	BRL		3400	3400	mg/Kg	267492	5	09/28/2018 13:16	YH
3-Nitroaniline	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 13:16	YH
4,6-Dinitro-2-methylphenol	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 13:16	YH
4-Bromophenyl phenyl ether	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
4-Chloro-3-methylphenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
4-Chloroaniline	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
4-Chlorophenyl phenyl ether	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
4-Methylphenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
4-Nitroaniline	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 13:16	YH
4-Nitrophenol	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 13:16	YH
Acenaphthene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
Acenaphthylene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
Acetophenone	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
Anthracene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
Atrazine	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
Benz(a)anthracene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
Benzaldehyde	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
Benzo(a)pyrene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
Benzo(b)fluoranthene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
Benzo(g,h,i)perylene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
Benzo(k)fluoranthene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
Bis(2-chloroethoxy)methane	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-TK03-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 11:15:00 AM
Lab ID:	1809G69-003	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D					**(SW3580A)**				
Bis(2-chloroethyl)ether	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
Bis(2-chloroisopropyl)ether	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
Bis(2-ethylhexyl)phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
Butyl benzyl phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
Caprolactam	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
Carbazole	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
Chrysene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
Di-n-butyl phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
Di-n-octyl phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
Dibenz(a,h)anthracene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
Dibenzofuran	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
Diethyl phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
Dimethyl phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
Fluoranthene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
Fluorene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
Hexachlorobenzene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
Hexachlorobutadiene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
Hexachlorocyclopentadiene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
Hexachloroethane	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
Indeno(1,2,3-cd)pyrene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
Isophorone	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
N-Nitrosodi-n-propylamine	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
N-Nitrosodiphenylamine	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
Naphthalene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
Nitrobenzene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
Pentachlorophenol	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 13:16	YH
Phenanthrene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
Phenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
Pyrene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:16	YH
Surr: 2,4,6-Tribromophenol	79.1		0	52.8-148	%REC	267492	5	09/28/2018 13:16	YH
Surr: 2-Fluorobiphenyl	90.9		0	64.7-137	%REC	267492	5	09/28/2018 13:16	YH
Surr: 2-Fluorophenol	88.2		0	57.4-132	%REC	267492	5	09/28/2018 13:16	YH
Surr: 4-Terphenyl-d14	105		0	62-138	%REC	267492	5	09/28/2018 13:16	YH
Surr: Nitrobenzene-d5	72.4		0	56.1-138	%REC	267492	5	09/28/2018 13:16	YH
Surr: Phenol-d5	89.6		0	49.6-133	%REC	267492	5	09/28/2018 13:16	YH
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
1,1,1-Trichloroethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:06	CC
1,1,2,2-Tetrachloroethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:06	CC

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-TK03-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 11:15:00 AM
Lab ID:	1809G69-003	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
1,1,2-Trichloroethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:06	CC
1,1-Dichloroethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:06	CC
1,1-Dichloroethene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:06	CC
1,2,4-Trichlorobenzene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:06	CC
1,2-Dibromo-3-chloropropane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:06	CC
1,2-Dibromoethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:06	CC
1,2-Dichlorobenzene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:06	CC
1,2-Dichloroethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:06	CC
1,2-Dichloropropane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:06	CC
1,3-Dichlorobenzene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:06	CC
1,4-Dichlorobenzene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:06	CC
2-Butanone	BRL		270000	270000	ug/Kg	267881	5000	09/28/2018 02:06	CC
2-Hexanone	BRL		54000	54000	ug/Kg	267881	5000	09/28/2018 02:06	CC
4-Methyl-2-pentanone	BRL		54000	54000	ug/Kg	267881	5000	09/28/2018 02:06	CC
Acetone	BRL		270000	270000	ug/Kg	267881	5000	09/28/2018 02:06	CC
Benzene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:06	CC
Bromodichloromethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:06	CC
Bromoform	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:06	CC
Bromomethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:06	CC
Carbon disulfide	BRL		54000	54000	ug/Kg	267881	5000	09/28/2018 02:06	CC
Carbon tetrachloride	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:06	CC
Chlorobenzene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:06	CC
Chloroethane	BRL		54000	54000	ug/Kg	267881	5000	09/28/2018 02:06	CC
Chloroform	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:06	CC
Chloromethane	BRL		54000	54000	ug/Kg	267881	5000	09/28/2018 02:06	CC
cis-1,2-Dichloroethene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:06	CC
cis-1,3-Dichloropropene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:06	CC
Cyclohexane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:06	CC
Dibromochloromethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:06	CC
Dichlorodifluoromethane	BRL		54000	54000	ug/Kg	267881	5000	09/28/2018 02:06	CC
Ethylbenzene	28000		27000	27000	ug/Kg	267881	5000	09/28/2018 02:06	CC
Freon-113	BRL		54000	54000	ug/Kg	267881	5000	09/28/2018 02:06	CC
Isopropylbenzene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:06	CC
m,p-Xylene	120000		27000	27000	ug/Kg	267881	5000	09/28/2018 02:06	CC
Methyl acetate	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:06	CC
Methyl tert-butyl ether	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:06	CC
Methylcyclohexane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:06	CC
Methylene chloride	BRL		27000	110000	ug/Kg	267881	5000	09/28/2018 02:06	CC
o-Xylene	54000		27000	27000	ug/Kg	267881	5000	09/28/2018 02:06	CC

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-TK03-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 11:15:00 AM
Lab ID:	1809G69-003	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
Styrene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:06	CC
Tetrachloroethene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:06	CC
Toluene	170000		27000	27000	ug/Kg	267881	5000	09/28/2018 02:06	CC
trans-1,2-Dichloroethene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:06	CC
trans-1,3-Dichloropropene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:06	CC
Trichloroethene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:06	CC
Trichlorofluoromethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:06	CC
Vinyl chloride	BRL		54000	54000	ug/Kg	267881	5000	09/28/2018 02:06	CC
Surr: 4-Bromofluorobenzene	85.4		0	65-133	%REC	267881	5000	09/28/2018 02:06	CC
Surr: Dibromofluoromethane	87.2		0	75.8-119	%REC	267881	5000	09/28/2018 02:06	CC
Surr: Toluene-d8	93.1		0	78.3-120	%REC	267881	5000	09/28/2018 02:06	CC
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3580)**				
Aroclor 1016	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 20:14	UH
Aroclor 1221	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 20:14	UH
Aroclor 1232	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 20:14	UH
Aroclor 1242	2.3		1.0	1.0	mg/Kg	267493	1	09/21/2018 20:14	UH
Aroclor 1248	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 20:14	UH
Aroclor 1254	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 20:14	UH
Aroclor 1260	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 20:14	UH
Surr: Decachlorobiphenyl	69.8		0	50.6-147	%REC	267493	1	09/21/2018 20:14	UH
Surr: Tetrachloro-m-xylene	92.8		0	51.2-146	%REC	267493	1	09/21/2018 20:14	UH
Ignitability SW1010A									
Ignitability	190	>	0	0	°F	R380872	1	09/25/2018 09:30	SK
Hydrogen Ion (pH) by SM4500 H+ B									
pH	6.97	H	0.0100	0.0100	pH Units	R380583	1	09/21/2018 23:32	RH
BTU ASTM D240									
BTU	20000	N	0	0	BTU/lb	R380877	1	09/24/2018 10:00	AA
METALS, TOTAL SW6010D					**(SW3050B)**				
Arsenic	BRL		0.39	4.8	mg/Kg	267504	1	09/24/2018 12:17	NS
Barium	0.74	J	0.15	4.8	mg/Kg	267504	1	09/24/2018 12:17	NS
Cadmium	BRL		0.048	2.4	mg/Kg	267504	1	09/24/2018 12:17	NS
Chromium	BRL		0.42	2.4	mg/Kg	267504	1	09/24/2018 12:17	NS
Lead	9.4		0.18	4.8	mg/Kg	267504	1	09/24/2018 12:17	NS
Selenium	BRL		0.72	4.8	mg/Kg	267504	1	09/24/2018 12:17	NS
Silver	0.015	J	0.012	2.4	mg/Kg	267504	1	09/24/2018 12:17	NS

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-TK04-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 10:30:00 AM
Lab ID:	1809G69-004	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Mercury - Waste SW7471B					**(SW7471B)**				
Mercury	0.0166	J	0.00805	0.0839	mg/Kg	267470	1	09/21/2018 11:26	AJ
TCL-SEMIVOLATILE ORGANICS SW8270D					**(SW3580A)**				
1,1′-Biphenyl	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
2,4,5-Trichlorophenol	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 13:42	YH
2,4,6-Trichlorophenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
2,4-Dichlorophenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
2,4-Dimethylphenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
2,4-Dinitrophenol	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 13:42	YH
2,4-Dinitrotoluene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
2,6-Dinitrotoluene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
2-Chloronaphthalene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
2-Chlorophenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
2-Methylnaphthalene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
2-Methylphenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
2-Nitroaniline	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 13:42	YH
2-Nitrophenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
3,3′-Dichlorobenzidine	BRL		3400	3400	mg/Kg	267492	5	09/28/2018 13:42	YH
3-Nitroaniline	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 13:42	YH
4,6-Dinitro-2-methylphenol	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 13:42	YH
4-Bromophenyl phenyl ether	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
4-Chloro-3-methylphenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
4-Chloroaniline	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
4-Chlorophenyl phenyl ether	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
4-Methylphenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
4-Nitroaniline	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 13:42	YH
4-Nitrophenol	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 13:42	YH
Acenaphthene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
Acenaphthylene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
Acetophenone	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
Anthracene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
Atrazine	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
Benz(a)anthracene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
Benzaldehyde	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
Benzo(a)pyrene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
Benzo(b)fluoranthene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
Benzo(g,h,i)perylene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
Benzo(k)fluoranthene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
Bis(2-chloroethoxy)methane	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-TK04-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 10:30:00 AM
Lab ID:	1809G69-004	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D					**(SW3580A)**				
Bis(2-chloroethyl)ether	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
Bis(2-chloroisopropyl)ether	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
Bis(2-ethylhexyl)phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
Butyl benzyl phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
Caprolactam	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
Carbazole	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
Chrysene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
Di-n-butyl phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
Di-n-octyl phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
Dibenz(a,h)anthracene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
Dibenzofuran	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
Diethyl phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
Dimethyl phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
Fluoranthene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
Fluorene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
Hexachlorobenzene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
Hexachlorobutadiene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
Hexachlorocyclopentadiene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
Hexachloroethane	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
Indeno(1,2,3-cd)pyrene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
Isophorone	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
N-Nitrosodi-n-propylamine	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
N-Nitrosodiphenylamine	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
Naphthalene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
Nitrobenzene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
Pentachlorophenol	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 13:42	YH
Phenanthrene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
Phenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
Pyrene	BRL		500	500	mg/Kg	267492	5	09/28/2018 13:42	YH
Surr: 2,4,6-Tribromophenol	82.6		0	52.8-148	%REC	267492	5	09/28/2018 13:42	YH
Surr: 2-Fluorobiphenyl	93.5		0	64.7-137	%REC	267492	5	09/28/2018 13:42	YH
Surr: 2-Fluorophenol	0	S	0	57.4-132	%REC	267492	5	09/28/2018 13:42	YH
Surr: 4-Terphenyl-d14	107		0	62-138	%REC	267492	5	09/28/2018 13:42	YH
Surr: Nitrobenzene-d5	89.8		0	56.1-138	%REC	267492	5	09/28/2018 13:42	YH
Surr: Phenol-d5	90.8		0	49.6-133	%REC	267492	5	09/28/2018 13:42	YH
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
1,1,1-Trichloroethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:33	CC
1,1,2,2-Tetrachloroethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:33	CC

Qualifiers:

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- BRL Not detected at MDL
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- Narr See case narrative

Analytical Environmental Services, Inc

Date: 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-TK04-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 10:30:00 AM
Lab ID:	1809G69-004	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
1,1,2-Trichloroethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:33	CC
1,1-Dichloroethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:33	CC
1,1-Dichloroethene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:33	CC
1,2,4-Trichlorobenzene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:33	CC
1,2-Dibromo-3-chloropropane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:33	CC
1,2-Dibromoethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:33	CC
1,2-Dichlorobenzene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:33	CC
1,2-Dichloroethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:33	CC
1,2-Dichloropropane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:33	CC
1,3-Dichlorobenzene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:33	CC
1,4-Dichlorobenzene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:33	CC
2-Butanone	BRL		270000	270000	ug/Kg	267881	5000	09/28/2018 02:33	CC
2-Hexanone	BRL		53000	53000	ug/Kg	267881	5000	09/28/2018 02:33	CC
4-Methyl-2-pentanone	BRL		53000	53000	ug/Kg	267881	5000	09/28/2018 02:33	CC
Acetone	BRL		270000	270000	ug/Kg	267881	5000	09/28/2018 02:33	CC
Benzene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:33	CC
Bromodichloromethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:33	CC
Bromoform	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:33	CC
Bromomethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:33	CC
Carbon disulfide	BRL		53000	53000	ug/Kg	267881	5000	09/28/2018 02:33	CC
Carbon tetrachloride	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:33	CC
Chlorobenzene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:33	CC
Chloroethane	BRL		53000	53000	ug/Kg	267881	5000	09/28/2018 02:33	CC
Chloroform	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:33	CC
Chloromethane	BRL		53000	53000	ug/Kg	267881	5000	09/28/2018 02:33	CC
cis-1,2-Dichloroethene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:33	CC
cis-1,3-Dichloropropene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:33	CC
Cyclohexane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:33	CC
Dibromochloromethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:33	CC
Dichlorodifluoromethane	BRL		53000	53000	ug/Kg	267881	5000	09/28/2018 02:33	CC
Ethylbenzene	35000		27000	27000	ug/Kg	267881	5000	09/28/2018 02:33	CC
Freon-113	BRL		53000	53000	ug/Kg	267881	5000	09/28/2018 02:33	CC
Isopropylbenzene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:33	CC
m,p-Xylene	120000		27000	27000	ug/Kg	267881	5000	09/28/2018 02:33	CC
Methyl acetate	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:33	CC
Methyl tert-butyl ether	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:33	CC
Methylcyclohexane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:33	CC
Methylene chloride	BRL		27000	110000	ug/Kg	267881	5000	09/28/2018 02:33	CC
o-Xylene	54000		27000	27000	ug/Kg	267881	5000	09/28/2018 02:33	CC

Qualifiers:

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- E Estimated value above quantitation range
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- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-TK04-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 10:30:00 AM
Lab ID:	1809G69-004	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
Styrene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:33	CC
Tetrachloroethene	63000		27000	27000	ug/Kg	267881	5000	09/28/2018 02:33	CC
Toluene	110000		27000	27000	ug/Kg	267881	5000	09/28/2018 02:33	CC
trans-1,2-Dichloroethene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:33	CC
trans-1,3-Dichloropropene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:33	CC
Trichloroethene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:33	CC
Trichlorofluoromethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 02:33	CC
Vinyl chloride	BRL		53000	53000	ug/Kg	267881	5000	09/28/2018 02:33	CC
Surr: 4-Bromofluorobenzene	84.5		0	65-133	%REC	267881	5000	09/28/2018 02:33	CC
Surr: Dibromofluoromethane	89.9		0	75.8-119	%REC	267881	5000	09/28/2018 02:33	CC
Surr: Toluene-d8	94		0	78.3-120	%REC	267881	5000	09/28/2018 02:33	CC
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3580)**				
Aroclor 1016	BRL		2000	2000	mg/Kg	267493	2000	09/24/2018 11:56	UH
Aroclor 1221	BRL		2000	2000	mg/Kg	267493	2000	09/24/2018 11:56	UH
Aroclor 1232	BRL		2000	2000	mg/Kg	267493	2000	09/24/2018 11:56	UH
Aroclor 1242	39000		2000	2000	mg/Kg	267493	2000	09/24/2018 11:56	UH
Aroclor 1248	BRL		2000	2000	mg/Kg	267493	2000	09/24/2018 11:56	UH
Aroclor 1254	3400		2000	2000	mg/Kg	267493	2000	09/24/2018 11:56	UH
Aroclor 1260	BRL		2000	2000	mg/Kg	267493	2000	09/24/2018 11:56	UH
Surr: Decachlorobiphenyl	197	S	0	50.6-147	%REC	267493	1	09/21/2018 20:25	UH
Surr: Tetrachloro-m-xylene	120		0	51.2-146	%REC	267493	1	09/21/2018 20:25	UH
Ignitability SW1010A									
Ignitability	190	>	0	0	°F	R380983	1	09/26/2018 09:45	SK
Hydrogen Ion (pH) by SM4500 H+ B									
pH	7.24	H	0.0100	0.0100	pH Units	R380583	1	09/21/2018 23:32	RH
BTU ASTM D240									
BTU	19000	N	0	0	BTU/lb	R380877	1	09/24/2018 10:00	AA
METALS, TOTAL SW6010D					**(SW3050B)**				
Arsenic	BRL		0.41	4.9	mg/Kg	267504	1	09/24/2018 12:21	NS
Barium	3.3	J	0.16	4.9	mg/Kg	267504	1	09/24/2018 12:21	NS
Cadmium	0.051	J	0.049	2.5	mg/Kg	267504	1	09/24/2018 12:21	NS
Chromium	BRL		0.43	2.5	mg/Kg	267504	1	09/24/2018 12:21	NS
Lead	5.2		0.18	4.9	mg/Kg	267504	1	09/24/2018 12:21	NS
Selenium	BRL		0.75	4.9	mg/Kg	267504	1	09/24/2018 12:21	NS
Silver	0.016	J	0.013	2.5	mg/Kg	267504	1	09/24/2018 12:21	NS

Qualifiers:

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Analytical Environmental Services, Inc

Date: 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-TT01-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 12:00:00 PM
Lab ID:	1809G69-005	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Mercury - Waste SW7471B					**(SW7471B)**				
Mercury	BRL		0.00836	0.0872	mg/Kg	267470	1	09/21/2018 11:29	AJ
TCL-SEMIVOLATILE ORGANICS SW8270D					**(SW3580A)**				
1,1´-Biphenyl	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
2,4,5-Trichlorophenol	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 14:08	YH
2,4,6-Trichlorophenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
2,4-Dichlorophenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
2,4-Dimethylphenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
2,4-Dinitrophenol	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 14:08	YH
2,4-Dinitrotoluene	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
2,6-Dinitrotoluene	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
2-Chloronaphthalene	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
2-Chlorophenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
2-Methylnaphthalene	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
2-Methylphenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
2-Nitroaniline	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 14:08	YH
2-Nitrophenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
3,3´-Dichlorobenzidine	BRL		3400	3400	mg/Kg	267492	5	09/28/2018 14:08	YH
3-Nitroaniline	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 14:08	YH
4,6-Dinitro-2-methylphenol	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 14:08	YH
4-Bromophenyl phenyl ether	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
4-Chloro-3-methylphenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
4-Chloroaniline	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
4-Chlorophenyl phenyl ether	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
4-Methylphenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
4-Nitroaniline	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 14:08	YH
4-Nitrophenol	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 14:08	YH
Acenaphthene	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
Acenaphthylene	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
Acetophenone	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
Anthracene	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
Atrazine	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
Benz(a)anthracene	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
Benzaldehyde	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
Benzo(a)pyrene	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
Benzo(b)fluoranthene	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
Benzo(g,h,i)perylene	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
Benzo(k)fluoranthene	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
Bis(2-chloroethoxy)methane	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-TT01-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 12:00:00 PM
Lab ID:	1809G69-005	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D					**(SW3580A)**				
Bis(2-chloroethyl)ether	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
Bis(2-chloroisopropyl)ether	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
Bis(2-ethylhexyl)phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
Butyl benzyl phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
Caprolactam	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
Carbazole	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
Chrysene	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
Di-n-butyl phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
Di-n-octyl phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
Dibenz(a,h)anthracene	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
Dibenzofuran	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
Diethyl phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
Dimethyl phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
Fluoranthene	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
Fluorene	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
Hexachlorobenzene	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
Hexachlorobutadiene	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
Hexachlorocyclopentadiene	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
Hexachloroethane	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
Indeno(1,2,3-cd)pyrene	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
Isophorone	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
N-Nitrosodi-n-propylamine	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
N-Nitrosodiphenylamine	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
Naphthalene	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
Nitrobenzene	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
Pentachlorophenol	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 14:08	YH
Phenanthrene	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
Phenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
Pyrene	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:08	YH
Surr: 2,4,6-Tribromophenol	81.6		0	52.8-148	%REC	267492	5	09/28/2018 14:08	YH
Surr: 2-Fluorobiphenyl	93.3		0	64.7-137	%REC	267492	5	09/28/2018 14:08	YH
Surr: 2-Fluorophenol	96.6		0	57.4-132	%REC	267492	5	09/28/2018 14:08	YH
Surr: 4-Terphenyl-d14	106		0	62-138	%REC	267492	5	09/28/2018 14:08	YH
Surr: Nitrobenzene-d5	91.2		0	56.1-138	%REC	267492	5	09/28/2018 14:08	YH
Surr: Phenol-d5	97.1		0	49.6-133	%REC	267492	5	09/28/2018 14:08	YH
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
1,1,1-Trichloroethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 03:00	CC
1,1,2,2-Tetrachloroethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 03:00	CC

Qualifiers:

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- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
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Analytical Environmental Services, Inc

Date: 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-TT01-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 12:00:00 PM
Lab ID:	1809G69-005	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
1,1,2-Trichloroethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 03:00	CC
1,1-Dichloroethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 03:00	CC
1,1-Dichloroethene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 03:00	CC
1,2,4-Trichlorobenzene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 03:00	CC
1,2-Dibromo-3-chloropropane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 03:00	CC
1,2-Dibromoethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 03:00	CC
1,2-Dichlorobenzene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 03:00	CC
1,2-Dichloroethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 03:00	CC
1,2-Dichloropropane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 03:00	CC
1,3-Dichlorobenzene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 03:00	CC
1,4-Dichlorobenzene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 03:00	CC
2-Butanone	BRL		270000	270000	ug/Kg	267881	5000	09/28/2018 03:00	CC
2-Hexanone	BRL		54000	54000	ug/Kg	267881	5000	09/28/2018 03:00	CC
4-Methyl-2-pentanone	BRL		54000	54000	ug/Kg	267881	5000	09/28/2018 03:00	CC
Acetone	BRL		270000	270000	ug/Kg	267881	5000	09/28/2018 03:00	CC
Benzene	51000		27000	27000	ug/Kg	267881	5000	09/28/2018 03:00	CC
Bromodichloromethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 03:00	CC
Bromoform	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 03:00	CC
Bromomethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 03:00	CC
Carbon disulfide	BRL		54000	54000	ug/Kg	267881	5000	09/28/2018 03:00	CC
Carbon tetrachloride	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 03:00	CC
Chlorobenzene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 03:00	CC
Chloroethane	BRL		54000	54000	ug/Kg	267881	5000	09/28/2018 03:00	CC
Chloroform	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 03:00	CC
Chloromethane	BRL		54000	54000	ug/Kg	267881	5000	09/28/2018 03:00	CC
cis-1,2-Dichloroethene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 03:00	CC
cis-1,3-Dichloropropene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 03:00	CC
Cyclohexane	46000		27000	27000	ug/Kg	267881	5000	09/28/2018 03:00	CC
Dibromochloromethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 03:00	CC
Dichlorodifluoromethane	BRL		54000	54000	ug/Kg	267881	5000	09/28/2018 03:00	CC
Ethylbenzene	170000		27000	27000	ug/Kg	267881	5000	09/28/2018 03:00	CC
Freon-113	BRL		54000	54000	ug/Kg	267881	5000	09/28/2018 03:00	CC
Isopropylbenzene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 03:00	CC
m,p-Xylene	640000		27000	27000	ug/Kg	267881	5000	09/28/2018 03:00	CC
Methyl acetate	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 03:00	CC
Methyl tert-butyl ether	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 03:00	CC
Methylcyclohexane	67000		27000	27000	ug/Kg	267881	5000	09/28/2018 03:00	CC
Methylene chloride	BRL		27000	110000	ug/Kg	267881	5000	09/28/2018 03:00	CC
o-Xylene	250000		27000	27000	ug/Kg	267881	5000	09/28/2018 03:00	CC

Qualifiers:

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Analytical Environmental Services, Inc **Date:** 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-TT01-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 12:00:00 PM
Lab ID:	1809G69-005	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
Styrene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 03:00	CC
Tetrachloroethene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 03:00	CC
Toluene	560000		27000	27000	ug/Kg	267881	5000	09/28/2018 03:00	CC
trans-1,2-Dichloroethene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 03:00	CC
trans-1,3-Dichloropropene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 03:00	CC
Trichloroethene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 03:00	CC
Trichlorofluoromethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 03:00	CC
Vinyl chloride	BRL		54000	54000	ug/Kg	267881	5000	09/28/2018 03:00	CC
Surr: 4-Bromofluorobenzene	86.4		0	65-133	%REC	267881	5000	09/28/2018 03:00	CC
Surr: Dibromofluoromethane	85.1		0	75.8-119	%REC	267881	5000	09/28/2018 03:00	CC
Surr: Toluene-d8	93.9		0	78.3-120	%REC	267881	5000	09/28/2018 03:00	CC
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3580)**				
Aroclor 1016	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 20:37	UH
Aroclor 1221	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 20:37	UH
Aroclor 1232	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 20:37	UH
Aroclor 1242	1.0		1.0	1.0	mg/Kg	267493	1	09/21/2018 20:37	UH
Aroclor 1248	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 20:37	UH
Aroclor 1254	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 20:37	UH
Aroclor 1260	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 20:37	UH
Surr: Decachlorobiphenyl	69.2		0	50.6-147	%REC	267493	1	09/21/2018 20:37	UH
Surr: Tetrachloro-m-xylene	91.8		0	51.2-146	%REC	267493	1	09/21/2018 20:37	UH
Ignitability SW1010A									
Ignitability	78.0		0	0	°F	R380983	1	09/26/2018 09:45	SK
Hydrogen Ion (pH) by SM4500 H+ B									
pH	6.68	H	0.0100	0.0100	pH Units	R380583	1	09/21/2018 23:32	RH
BTU ASTM D240									
BTU	23000	N	0	0	BTU/lb	R380877	1	09/24/2018 10:00	AA
METALS, TOTAL SW6010D					**(SW3050B)**				
Arsenic	BRL		0.40	4.8	mg/Kg	267504	1	09/24/2018 12:24	NS
Barium	15		0.15	4.8	mg/Kg	267504	1	09/24/2018 12:24	NS
Cadmium	0.16	J	0.048	2.4	mg/Kg	267504	1	09/24/2018 12:24	NS
Chromium	0.96	J	0.42	2.4	mg/Kg	267504	1	09/24/2018 12:24	NS
Lead	66		0.18	4.8	mg/Kg	267504	1	09/24/2018 12:24	NS
Selenium	BRL		0.73	4.8	mg/Kg	267504	1	09/24/2018 12:24	NS
Silver	0.020	J	0.012	2.4	mg/Kg	267504	1	09/24/2018 12:24	NS

Qualifiers:

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Analytical Environmental Services, Inc **Date:** 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-TT02-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 12:20:00 PM
Lab ID:	1809G69-006	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Mercury - Waste SW7471B					**(SW7471B)**				
Mercury	0.0198	J	0.00950	0.0990	mg/Kg	267470	1	09/21/2018 11:33	AJ
TCL-SEMIVOLATILE ORGANICS SW8270D					**(SW3580A)**				
1,1′-Biphenyl	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
2,4,5-Trichlorophenol	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 14:35	YH
2,4,6-Trichlorophenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
2,4-Dichlorophenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
2,4-Dimethylphenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
2,4-Dinitrophenol	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 14:35	YH
2,4-Dinitrotoluene	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
2,6-Dinitrotoluene	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
2-Chloronaphthalene	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
2-Chlorophenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
2-Methylnaphthalene	1400		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
2-Methylphenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
2-Nitroaniline	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 14:35	YH
2-Nitrophenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
3,3′-Dichlorobenzidine	BRL		3400	3400	mg/Kg	267492	5	09/28/2018 14:35	YH
3-Nitroaniline	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 14:35	YH
4,6-Dinitro-2-methylphenol	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 14:35	YH
4-Bromophenyl phenyl ether	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
4-Chloro-3-methylphenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
4-Chloroaniline	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
4-Chlorophenyl phenyl ether	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
4-Methylphenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
4-Nitroaniline	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 14:35	YH
4-Nitrophenol	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 14:35	YH
Acenaphthene	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
Acenaphthylene	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
Acetophenone	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
Anthracene	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
Atrazine	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
Benz(a)anthracene	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
Benzaldehyde	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
Benzo(a)pyrene	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
Benzo(b)fluoranthene	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
Benzo(g,h,i)perylene	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
Benzo(k)fluoranthene	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
Bis(2-chloroethoxy)methane	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH

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Analytical Environmental Services, Inc **Date:** 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-TT02-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 12:20:00 PM
Lab ID:	1809G69-006	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D					**(SW3580A)**				
Bis(2-chloroethyl)ether	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
Bis(2-chloroisopropyl)ether	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
Bis(2-ethylhexyl)phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
Butyl benzyl phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
Caprolactam	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
Carbazole	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
Chrysene	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
Di-n-butyl phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
Di-n-octyl phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
Dibenz(a,h)anthracene	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
Dibenzofuran	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
Diethyl phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
Dimethyl phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
Fluoranthene	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
Fluorene	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
Hexachlorobenzene	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
Hexachlorobutadiene	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
Hexachlorocyclopentadiene	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
Hexachloroethane	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
Indeno(1,2,3-cd)pyrene	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
Isophorone	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
N-Nitrosodi-n-propylamine	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
N-Nitrosodiphenylamine	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
Naphthalene	1400		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
Nitrobenzene	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
Pentachlorophenol	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 14:35	YH
Phenanthrene	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
Phenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
Pyrene	BRL		500	500	mg/Kg	267492	5	09/28/2018 14:35	YH
Surr: 2,4,6-Tribromophenol	77.4		0	52.8-148	%REC	267492	5	09/28/2018 14:35	YH
Surr: 2-Fluorobiphenyl	92.3		0	64.7-137	%REC	267492	5	09/28/2018 14:35	YH
Surr: 2-Fluorophenol	83.3		0	57.4-132	%REC	267492	5	09/28/2018 14:35	YH
Surr: 4-Terphenyl-d14	105		0	62-138	%REC	267492	5	09/28/2018 14:35	YH
Surr: Nitrobenzene-d5	112		0	56.1-138	%REC	267492	5	09/28/2018 14:35	YH
Surr: Phenol-d5	58.7		0	49.6-133	%REC	267492	5	09/28/2018 14:35	YH
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
1,1,1-Trichloroethane	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:27	CC
1,1,2,2-Tetrachloroethane	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:27	CC

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-TT02-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 12:20:00 PM
Lab ID:	1809G69-006	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
1,1,2-Trichloroethane	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:27	CC
1,1-Dichloroethane	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:27	CC
1,1-Dichloroethene	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:27	CC
1,2,4-Trichlorobenzene	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:27	CC
1,2-Dibromo-3-chloropropane	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:27	CC
1,2-Dibromoethane	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:27	CC
1,2-Dichlorobenzene	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:27	CC
1,2-Dichloroethane	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:27	CC
1,2-Dichloropropane	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:27	CC
1,3-Dichlorobenzene	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:27	CC
1,4-Dichlorobenzene	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:27	CC
2-Butanone	BRL		280000	280000	ug/Kg	267881	5000	09/28/2018 03:27	CC
2-Hexanone	BRL		56000	56000	ug/Kg	267881	5000	09/28/2018 03:27	CC
4-Methyl-2-pentanone	BRL		56000	56000	ug/Kg	267881	5000	09/28/2018 03:27	CC
Acetone	BRL		280000	280000	ug/Kg	267881	5000	09/28/2018 03:27	CC
Benzene	590000		28000	28000	ug/Kg	267881	5000	09/28/2018 03:27	CC
Bromodichloromethane	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:27	CC
Bromoform	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:27	CC
Bromomethane	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:27	CC
Carbon disulfide	BRL		56000	56000	ug/Kg	267881	5000	09/28/2018 03:27	CC
Carbon tetrachloride	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:27	CC
Chlorobenzene	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:27	CC
Chloroethane	BRL		56000	56000	ug/Kg	267881	5000	09/28/2018 03:27	CC
Chloroform	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:27	CC
Chloromethane	BRL		56000	56000	ug/Kg	267881	5000	09/28/2018 03:27	CC
cis-1,2-Dichloroethene	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:27	CC
cis-1,3-Dichloropropene	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:27	CC
Cyclohexane	470000		28000	28000	ug/Kg	267881	5000	09/28/2018 03:27	CC
Dibromochloromethane	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:27	CC
Dichlorodifluoromethane	BRL		56000	56000	ug/Kg	267881	5000	09/28/2018 03:27	CC
Ethylbenzene	1600000		280000	280000	ug/Kg	267881	50000	09/28/2018 14:30	CC
Freon-113	BRL		56000	56000	ug/Kg	267881	5000	09/28/2018 03:27	CC
Isopropylbenzene	220000		28000	28000	ug/Kg	267881	5000	09/28/2018 03:27	CC
m,p-Xylene	6700000		280000	280000	ug/Kg	267881	50000	09/28/2018 14:30	CC
Methyl acetate	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:27	CC
Methyl tert-butyl ether	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:27	CC
Methylcyclohexane	800000		28000	28000	ug/Kg	267881	5000	09/28/2018 03:27	CC
Methylene chloride	BRL		28000	110000	ug/Kg	267881	5000	09/28/2018 03:27	CC
o-Xylene	2500000		280000	280000	ug/Kg	267881	50000	09/28/2018 14:30	CC

Qualifiers:

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Analytical Environmental Services, Inc **Date:** 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-TT02-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 12:20:00 PM
Lab ID:	1809G69-006	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
Styrene	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:27	CC
Tetrachloroethene	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:27	CC
Toluene	6200000		280000	280000	ug/Kg	267881	50000	09/28/2018 14:30	CC
trans-1,2-Dichloroethene	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:27	CC
trans-1,3-Dichloropropene	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:27	CC
Trichloroethene	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:27	CC
Trichlorofluoromethane	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:27	CC
Vinyl chloride	BRL		56000	56000	ug/Kg	267881	5000	09/28/2018 03:27	CC
Surr: 4-Bromofluorobenzene	83.1		0	65-133	%REC	267881	50000	09/28/2018 14:30	CC
Surr: 4-Bromofluorobenzene	92.3		0	65-133	%REC	267881	5000	09/28/2018 03:27	CC
Surr: Dibromofluoromethane	88.8		0	75.8-119	%REC	267881	50000	09/28/2018 14:30	CC
Surr: Dibromofluoromethane	78.9		0	75.8-119	%REC	267881	5000	09/28/2018 03:27	CC
Surr: Toluene-d8	92.8		0	78.3-120	%REC	267881	50000	09/28/2018 14:30	CC
Surr: Toluene-d8	95.2		0	78.3-120	%REC	267881	5000	09/28/2018 03:27	CC
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3580)**				
Aroclor 1016	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 20:48	UH
Aroclor 1221	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 20:48	UH
Aroclor 1232	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 20:48	UH
Aroclor 1242	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 20:48	UH
Aroclor 1248	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 20:48	UH
Aroclor 1254	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 20:48	UH
Aroclor 1260	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 20:48	UH
Surr: Decachlorobiphenyl	93		0	50.6-147	%REC	267493	1	09/21/2018 20:48	UH
Surr: Tetrachloro-m-xylene	91.3		0	51.2-146	%REC	267493	1	09/21/2018 20:48	UH
Ignitability SW1010A									
Ignitability	72.0		0	0	°F	R380872	1	09/25/2018 09:30	SK
Hydrogen Ion (pH) by SM4500 H+ B									
pH	3.03	H	0.0100	0.0100	pH Units	R380583	1	09/21/2018 23:32	RH
BTU ASTM D240									
BTU	20000	N	0	0	BTU/lb	R380877	1	09/24/2018 10:00	AA
METALS, TOTAL SW6010D					**(SW3050B)**				
Arsenic	BRL		0.40	4.9	mg/Kg	267504	1	09/24/2018 12:34	NS
Barium	0.66	J	0.16	4.9	mg/Kg	267504	1	09/24/2018 12:34	NS
Cadmium	BRL		0.049	2.5	mg/Kg	267504	1	09/24/2018 12:34	NS
Chromium	0.50	J	0.43	2.5	mg/Kg	267504	1	09/24/2018 12:34	NS

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- E Estimated value above quantitation range
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- Narr See case narrative

Analytical Environmental Services, Inc

Date: 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-TT02-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 12:20:00 PM
Lab ID:	1809G69-006	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
METALS, TOTAL SW6010D					**(SW3050B)**				
Lead	[illegible].6	J	0.18	4.9	mg/Kg	267504	1	09/24/2018 12:34	NS
Selenium	[illegible].3	J	0.74	4.9	mg/Kg	267504	1	09/24/2018 12:34	NS
Silver	BRL		0.013	2.5	mg/Kg	267504	1	09/24/2018 12:34	NS

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Analytical Environmental Services, Inc

Date: 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-TT03-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 12:40:00 PM
Lab ID:	1809G69-007	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Mercury - Waste SW7471B					**(SW7471B)**				
Mercury	BRL		0.00910	0.0948	mg/Kg	267470	1	09/21/2018 11:36	AJ
TCL-SEMIVOLATILE ORGANICS SW8270D					**(SW3580A)**				
1,1´-Biphenyl	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
2,4,5-Trichlorophenol	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 15:01	YH
2,4,6-Trichlorophenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
2,4-Dichlorophenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
2,4-Dimethylphenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
2,4-Dinitrophenol	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 15:01	YH
2,4-Dinitrotoluene	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
2,6-Dinitrotoluene	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
2-Chloronaphthalene	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
2-Chlorophenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
2-Methylnaphthalene	790		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
2-Methylphenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
2-Nitroaniline	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 15:01	YH
2-Nitrophenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
3,3´-Dichlorobenzidine	BRL		3400	3400	mg/Kg	267492	5	09/28/2018 15:01	YH
3-Nitroaniline	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 15:01	YH
4,6-Dinitro-2-methylphenol	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 15:01	YH
4-Bromophenyl phenyl ether	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
4-Chloro-3-methylphenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
4-Chloroaniline	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
4-Chlorophenyl phenyl ether	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
4-Methylphenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
4-Nitroaniline	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 15:01	YH
4-Nitrophenol	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 15:01	YH
Acenaphthene	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
Acenaphthylene	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
Acetophenone	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
Anthracene	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
Atrazine	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
Benz(a)anthracene	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
Benzaldehyde	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
Benzo(a)pyrene	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
Benzo(b)fluoranthene	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
Benzo(g,h,i)perylene	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
Benzo(k)fluoranthene	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
Bis(2-chloroethoxy)methane	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH

Qualifiers:

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Analytical Environmental Services, Inc **Date:** 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-TT03-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 12:40:00 PM
Lab ID:	1809G69-007	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D					**(SW3580A)**				
Bis(2-chloroethyl)ether	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
Bis(2-chloroisopropyl)ether	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
Bis(2-ethylhexyl)phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
Butyl benzyl phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
Caprolactam	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
Carbazole	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
Chrysene	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
Di-n-butyl phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
Di-n-octyl phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
Dibenz(a,h)anthracene	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
Dibenzofuran	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
Diethyl phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
Dimethyl phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
Fluoranthene	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
Fluorene	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
Hexachlorobenzene	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
Hexachlorobutadiene	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
Hexachlorocyclopentadiene	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
Hexachloroethane	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
Indeno(1,2,3-cd)pyrene	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
Isophorone	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
N-Nitrosodi-n-propylamine	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
N-Nitrosodiphenylamine	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
Naphthalene	830		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
Nitrobenzene	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
Pentachlorophenol	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 15:01	YH
Phenanthrene	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
Phenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
Pyrene	BRL		500	500	mg/Kg	267492	5	09/28/2018 15:01	YH
Surr: 2,4,6-Tribromophenol	75.4		0	52.8-148	%REC	267492	5	09/28/2018 15:01	YH
Surr: 2-Fluorobiphenyl	88.5		0	64.7-137	%REC	267492	5	09/28/2018 15:01	YH
Surr: 2-Fluorophenol	92.4		0	57.4-132	%REC	267492	5	09/28/2018 15:01	YH
Surr: 4-Terphenyl-d14	101		0	62-138	%REC	267492	5	09/28/2018 15:01	YH
Surr: Nitrobenzene-d5	87.4		0	56.1-138	%REC	267492	5	09/28/2018 15:01	YH
Surr: Phenol-d5	90.2		0	49.6-133	%REC	267492	5	09/28/2018 15:01	YH
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
1,1,1-Trichloroethane	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:54	CC
1,1,2,2-Tetrachloroethane	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:54	CC

Qualifiers:

- * Value exceeds maximum contaminant level
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Analytical Environmental Services, Inc

Date: 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-TT03-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 12:40:00 PM
Lab ID:	1809G69-007	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
1,1,2-Trichloroethane	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:54	CC
1,1-Dichloroethane	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:54	CC
1,1-Dichloroethene	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:54	CC
1,2,4-Trichlorobenzene	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:54	CC
1,2-Dibromo-3-chloropropane	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:54	CC
1,2-Dibromoethane	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:54	CC
1,2-Dichlorobenzene	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:54	CC
1,2-Dichloroethane	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:54	CC
1,2-Dichloropropane	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:54	CC
1,3-Dichlorobenzene	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:54	CC
1,4-Dichlorobenzene	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:54	CC
2-Butanone	BRL		280000	280000	ug/Kg	267881	5000	09/28/2018 03:54	CC
2-Hexanone	BRL		55000	55000	ug/Kg	267881	5000	09/28/2018 03:54	CC
4-Methyl-2-pentanone	BRL		55000	55000	ug/Kg	267881	5000	09/28/2018 03:54	CC
Acetone	BRL		280000	280000	ug/Kg	267881	5000	09/28/2018 03:54	CC
Benzene	230000		28000	28000	ug/Kg	267881	5000	09/28/2018 03:54	CC
Bromodichloromethane	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:54	CC
Bromoform	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:54	CC
Bromomethane	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:54	CC
Carbon disulfide	BRL		55000	55000	ug/Kg	267881	5000	09/28/2018 03:54	CC
Carbon tetrachloride	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:54	CC
Chlorobenzene	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:54	CC
Chloroethane	BRL		55000	55000	ug/Kg	267881	5000	09/28/2018 03:54	CC
Chloroform	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:54	CC
Chloromethane	BRL		55000	55000	ug/Kg	267881	5000	09/28/2018 03:54	CC
cis-1,2-Dichloroethene	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:54	CC
cis-1,3-Dichloropropene	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:54	CC
Cyclohexane	180000		28000	28000	ug/Kg	267881	5000	09/28/2018 03:54	CC
Dibromochloromethane	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:54	CC
Dichlorodifluoromethane	BRL		55000	55000	ug/Kg	267881	5000	09/28/2018 03:54	CC
Ethylbenzene	810000		28000	28000	ug/Kg	267881	5000	09/28/2018 03:54	CC
Freon-113	BRL		55000	55000	ug/Kg	267881	5000	09/28/2018 03:54	CC
Isopropylbenzene	100000		28000	28000	ug/Kg	267881	5000	09/28/2018 03:54	CC
m,p-Xylene	26000000		2800000	2800000	ug/Kg	267881	500000	09/28/2018 14:03	CC
Methyl acetate	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:54	CC
Methyl tert-butyl ether	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:54	CC
Methylcyclohexane	310000		28000	28000	ug/Kg	267881	5000	09/28/2018 03:54	CC
Methylene chloride	BRL		28000	110000	ug/Kg	267881	5000	09/28/2018 03:54	CC
o-Xylene	1100000		28000	28000	ug/Kg	267881	5000	09/28/2018 03:54	CC

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
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- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-TT03-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 12:40:00 PM
Lab ID:	1809G69-007	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
Styrene	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:54	CC
Tetrachloroethene	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:54	CC
Toluene	27000000		2800000	2800000	ug/Kg	267881	500000	09/28/2018 14:03	CC
trans-1,2-Dichloroethene	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:54	CC
trans-1,3-Dichloropropene	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:54	CC
Trichloroethene	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:54	CC
Trichlorofluoromethane	BRL		28000	28000	ug/Kg	267881	5000	09/28/2018 03:54	CC
Vinyl chloride	BRL		55000	55000	ug/Kg	267881	5000	09/28/2018 03:54	CC
Surr: 4-Bromofluorobenzene	76.7		0	65-133	%REC	267881	500000	09/28/2018 14:03	CC
Surr: 4-Bromofluorobenzene	85.2		0	65-133	%REC	267881	5000	09/28/2018 03:54	CC
Surr: Dibromofluoromethane	93.2		0	75.8-119	%REC	267881	500000	09/28/2018 14:03	CC
Surr: Dibromofluoromethane	80.6		0	75.8-119	%REC	267881	5000	09/28/2018 03:54	CC
Surr: Toluene-d8	89.5		0	78.3-120	%REC	267881	500000	09/28/2018 14:03	CC
Surr: Toluene-d8	91.1		0	78.3-120	%REC	267881	5000	09/28/2018 03:54	CC
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3580)**				
Aroclor 1016	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 20:59	UH
Aroclor 1221	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 20:59	UH
Aroclor 1232	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 20:59	UH
Aroclor 1242	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 20:59	UH
Aroclor 1248	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 20:59	UH
Aroclor 1254	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 20:59	UH
Aroclor 1260	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 20:59	UH
Surr: Decachlorobiphenyl	72.1		0	50.6-147	%REC	267493	1	09/21/2018 20:59	UH
Surr: Tetrachloro-m-xylene	91.1		0	51.2-146	%REC	267493	1	09/21/2018 20:59	UH
Ignitability SW1010A									
Ignitability	72.0		0	0	°F	R380872	1	09/25/2018 09:30	SK
Hydrogen Ion (pH) by SM4500 H+ B									
pH	6.50	H	0.0100	0.0100	pH Units	R380583	1	09/21/2018 23:32	RH
BTU ASTM D240									
BTU	19000	N	0	0	BTU/lb	R380877	1	09/24/2018 10:00	AA
METALS, TOTAL SW6010D					**(SW3050B)**				
Arsenic	BRL		0.41	5.0	mg/Kg	267504	1	09/24/2018 12:37	NS
Barium	8.5		0.16	5.0	mg/Kg	267504	1	09/24/2018 12:37	NS
Cadmium	0.17	J	0.050	2.5	mg/Kg	267504	1	09/24/2018 12:37	NS
Chromium	0.62	J	0.44	2.5	mg/Kg	267504	1	09/24/2018 12:37	NS

Qualifiers:

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- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
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- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-TT03-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 12:40:00 PM
Lab ID:	1809G69-007	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
METALS, TOTAL SW6010D					**(SW3050B)**				
Lead	35		0.19	5.0	mg/Kg	267504	1	09/24/2018 12:37	NS
Selenium	BRL		0.76	5.0	mg/Kg	267504	1	09/24/2018 12:37	NS
Silver	0.015	J	0.013	2.5	mg/Kg	267504	1	09/24/2018 12:37	NS

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Analytical Environmental Services, Inc

Date: 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-TT04-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 1:35:00 PM
Lab ID:	1809G69-008	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Mercury - Waste SW7471B					**(SW7471B)**				
Mercury	BRL		0.00863	0.0900	mg/Kg	267470	1	09/21/2018 11:39	AJ
TCL-SEMIVOLATILE ORGANICS SW8270D					**(SW3580A)**				
1,1´-Biphenyl	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
2,4,5-Trichlorophenol	BRL		500	500	mg/Kg	267492	1	09/28/2018 14:28	YH
2,4,6-Trichlorophenol	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
2,4-Dichlorophenol	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
2,4-Dimethylphenol	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
2,4-Dinitrophenol	BRL		500	500	mg/Kg	267492	1	09/28/2018 14:28	YH
2,4-Dinitrotoluene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
2,6-Dinitrotoluene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
2-Chloronaphthalene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
2-Chlorophenol	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
2-Methylnaphthalene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
2-Methylphenol	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
2-Nitroaniline	BRL		500	500	mg/Kg	267492	1	09/28/2018 14:28	YH
2-Nitrophenol	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
3,3´-Dichlorobenzidine	BRL		670	670	mg/Kg	267492	1	09/28/2018 14:28	YH
3-Nitroaniline	BRL		500	500	mg/Kg	267492	1	09/28/2018 14:28	YH
4,6-Dinitro-2-methylphenol	BRL		500	500	mg/Kg	267492	1	09/28/2018 14:28	YH
4-Bromophenyl phenyl ether	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
4-Chloro-3-methylphenol	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
4-Chloroaniline	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
4-Chlorophenyl phenyl ether	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
4-Methylphenol	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
4-Nitroaniline	BRL		500	500	mg/Kg	267492	1	09/28/2018 14:28	YH
4-Nitrophenol	BRL		500	500	mg/Kg	267492	1	09/28/2018 14:28	YH
Acenaphthene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
Acenaphthylene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
Acetophenone	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
Anthracene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
Atrazine	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
Benz(a)anthracene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
Benzaldehyde	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
Benzo(a)pyrene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
Benzo(b)fluoranthene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
Benzo(g,h,i)perylene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
Benzo(k)fluoranthene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
Bis(2-chloroethoxy)methane	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH

Qualifiers:

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Analytical Environmental Services, Inc

Date: 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-TT04-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 1:35:00 PM
Lab ID:	1809G69-008	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D					**(SW3580A)**				
Bis(2-chloroethyl)ether	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
Bis(2-chloroisopropyl)ether	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
Bis(2-ethylhexyl)phthalate	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
Butyl benzyl phthalate	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
Caprolactam	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
Carbazole	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
Chrysene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
Di-n-butyl phthalate	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
Di-n-octyl phthalate	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
Dibenz(a,h)anthracene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
Dibenzofuran	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
Diethyl phthalate	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
Dimethyl phthalate	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
Fluoranthene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
Fluorene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
Hexachlorobenzene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
Hexachlorobutadiene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
Hexachlorocyclopentadiene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
Hexachloroethane	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
Indeno(1,2,3-cd)pyrene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
Isophorone	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
N-Nitrosodi-n-propylamine	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
N-Nitrosodiphenylamine	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
Naphthalene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
Nitrobenzene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
Pentachlorophenol	BRL		500	500	mg/Kg	267492	1	09/28/2018 14:28	YH
Phenanthrene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
Phenol	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
Pyrene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:28	YH
Surr: 2,4,6-Tribromophenol	92.3		0	52.8-148	%REC	267492	1	09/28/2018 14:28	YH
Surr: 2-Fluorobiphenyl	106		0	64.7-137	%REC	267492	1	09/28/2018 14:28	YH
Surr: 2-Fluorophenol	111		0	57.4-132	%REC	267492	1	09/28/2018 14:28	YH
Surr: 4-Terphenyl-d14	119		0	62-138	%REC	267492	1	09/28/2018 14:28	YH
Surr: Nitrobenzene-d5	119		0	56.1-138	%REC	267492	1	09/28/2018 14:28	YH
Surr: Phenol-d5	119		0	49.6-133	%REC	267492	1	09/28/2018 14:28	YH
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
1,1,1-Trichloroethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 04:21	CC
1,1,2,2-Tetrachloroethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 04:21	CC

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
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Analytical Environmental Services, Inc

Date: 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-TT04-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 1:35:00 PM
Lab ID:	1809G69-008	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
1,1,2-Trichloroethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 04:21	CC
1,1-Dichloroethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 04:21	CC
1,1-Dichloroethene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 04:21	CC
1,2,4-Trichlorobenzene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 04:21	CC
1,2-Dibromo-3-chloropropane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 04:21	CC
1,2-Dibromoethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 04:21	CC
1,2-Dichlorobenzene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 04:21	CC
1,2-Dichloroethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 04:21	CC
1,2-Dichloropropane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 04:21	CC
1,3-Dichlorobenzene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 04:21	CC
1,4-Dichlorobenzene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 04:21	CC
2-Butanone	BRL		270000	270000	ug/Kg	267881	5000	09/28/2018 04:21	CC
2-Hexanone	BRL		54000	54000	ug/Kg	267881	5000	09/28/2018 04:21	CC
4-Methyl-2-pentanone	BRL		54000	54000	ug/Kg	267881	5000	09/28/2018 04:21	CC
Acetone	BRL		270000	270000	ug/Kg	267881	5000	09/28/2018 04:21	CC
Benzene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 04:21	CC
Bromodichloromethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 04:21	CC
Bromoform	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 04:21	CC
Bromomethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 04:21	CC
Carbon disulfide	BRL		54000	54000	ug/Kg	267881	5000	09/28/2018 04:21	CC
Carbon tetrachloride	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 04:21	CC
Chlorobenzene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 04:21	CC
Chloroethane	BRL		54000	54000	ug/Kg	267881	5000	09/28/2018 04:21	CC
Chloroform	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 04:21	CC
Chloromethane	BRL		54000	54000	ug/Kg	267881	5000	09/28/2018 04:21	CC
cis-1,2-Dichloroethene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 04:21	CC
cis-1,3-Dichloropropene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 04:21	CC
Cyclohexane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 04:21	CC
Dibromochloromethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 04:21	CC
Dichlorodifluoromethane	BRL		54000	54000	ug/Kg	267881	5000	09/28/2018 04:21	CC
Ethylbenzene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 04:21	CC
Freon-113	BRL		54000	54000	ug/Kg	267881	5000	09/28/2018 04:21	CC
Isopropylbenzene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 04:21	CC
m,p-Xylene	84000		27000	27000	ug/Kg	267881	5000	09/28/2018 04:21	CC
Methyl acetate	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 04:21	CC
Methyl tert-butyl ether	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 04:21	CC
Methylcyclohexane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 04:21	CC
Methylene chloride	BRL		27000	110000	ug/Kg	267881	5000	09/28/2018 04:21	CC
o-Xylene	36000		27000	27000	ug/Kg	267881	5000	09/28/2018 04:21	CC

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-TT04-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 1:35:00 PM
Lab ID:	1809G69-008	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
Styrene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 04:21	CC
Tetrachloroethene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 04:21	CC
Toluene	53000		27000	27000	ug/Kg	267881	5000	09/28/2018 04:21	CC
trans-1,2-Dichloroethene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 04:21	CC
trans-1,3-Dichloropropene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 04:21	CC
Trichloroethene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 04:21	CC
Trichlorofluoromethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 04:21	CC
Vinyl chloride	BRL		54000	54000	ug/Kg	267881	5000	09/28/2018 04:21	CC
Surr: 4-Bromofluorobenzene	81.4		0	65-133	%REC	267881	5000	09/28/2018 04:21	CC
Surr: Dibromofluoromethane	92.7		0	75.8-119	%REC	267881	5000	09/28/2018 04:21	CC
Surr: Toluene-d8	94.9		0	78.3-120	%REC	267881	5000	09/28/2018 04:21	CC
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3580)**				
Aroclor 1016	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 21:10	UH
Aroclor 1221	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 21:10	UH
Aroclor 1232	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 21:10	UH
Aroclor 1242	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 21:10	UH
Aroclor 1248	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 21:10	UH
Aroclor 1254	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 21:10	UH
Aroclor 1260	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 21:10	UH
Surr: Decachlorobiphenyl	57.5		0	50.6-147	%REC	267493	1	09/21/2018 21:10	UH
Surr: Tetrachloro-m-xylene	116		0	51.2-146	%REC	267493	1	09/21/2018 21:10	UH
Ignitability SW1010A									
Ignitability	190	>	0	0	°F	R380983	1	09/26/2018 09:45	SK
Hydrogen Ion (pH) by SM4500 H+ B									
pH	7.03	H	0.0100	0.0100	pH Units	R380583	1	09/21/2018 23:32	RH
BTU ASTM D240									
BTU	3500	N	0	0	BTU/lb	R380877	1	09/24/2018 10:00	AA
METALS, TOTAL SW6010D					**(SW3050B)**				
Arsenic	BRL		0.40	4.9	mg/Kg	267504	1	09/24/2018 12:40	NS
Barium	BRL		0.16	4.9	mg/Kg	267504	1	09/24/2018 12:40	NS
Cadmium	BRL		0.049	2.4	mg/Kg	267504	1	09/24/2018 12:40	NS
Chromium	BRL		0.43	2.4	mg/Kg	267504	1	09/24/2018 12:40	NS
Lead	BRL		0.18	4.9	mg/Kg	267504	1	09/24/2018 12:40	NS
Selenium	BRL		0.74	4.9	mg/Kg	267504	1	09/24/2018 12:40	NS
Silver	BRL		0.012	2.4	mg/Kg	267504	1	09/24/2018 12:40	NS

Qualifiers:

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- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-TT05-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 2:00:00 PM
Lab ID:	1809G69-009	**Matrix:**	Sludge

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Mercury - Waste SW7471B					**(SW7471B)**				
Mercury	BRL		0.00863	0.0900	mg/Kg	267470	1	09/21/2018 11:42	AJ
TCL-SEMIVOLATILE ORGANICS SW8270D					**(SW3580A)**				
1,1′-Biphenyl	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
2,4,5-Trichlorophenol	BRL		500	500	mg/Kg	267492	1	09/28/2018 14:00	YH
2,4,6-Trichlorophenol	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
2,4-Dichlorophenol	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
2,4-Dimethylphenol	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
2,4-Dinitrophenol	BRL		500	500	mg/Kg	267492	1	09/28/2018 14:00	YH
2,4-Dinitrotoluene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
2,6-Dinitrotoluene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
2-Chloronaphthalene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
2-Chlorophenol	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
2-Methylnaphthalene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
2-Methylphenol	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
2-Nitroaniline	BRL		500	500	mg/Kg	267492	1	09/28/2018 14:00	YH
2-Nitrophenol	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
3,3′-Dichlorobenzidine	BRL		670	670	mg/Kg	267492	1	09/28/2018 14:00	YH
3-Nitroaniline	BRL		500	500	mg/Kg	267492	1	09/28/2018 14:00	YH
4,6-Dinitro-2-methylphenol	BRL		500	500	mg/Kg	267492	1	09/28/2018 14:00	YH
4-Bromophenyl phenyl ether	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
4-Chloro-3-methylphenol	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
4-Chloroaniline	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
4-Chlorophenyl phenyl ether	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
4-Methylphenol	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
4-Nitroaniline	BRL		500	500	mg/Kg	267492	1	09/28/2018 14:00	YH
4-Nitrophenol	BRL		500	500	mg/Kg	267492	1	09/28/2018 14:00	YH
Acenaphthene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
Acenaphthylene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
Acetophenone	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
Anthracene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
Atrazine	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
Benz(a)anthracene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
Benzaldehyde	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
Benzo(a)pyrene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
Benzo(b)fluoranthene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
Benzo(g,h,i)perylene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
Benzo(k)fluoranthene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
Bis(2-chloroethoxy)methane	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH

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Analytical Environmental Services, Inc **Date:** 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-TT05-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 2:00:00 PM
Lab ID:	1809G69-009	**Matrix:**	Sludge

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D					**(SW3580A)**				
Bis(2-chloroethyl)ether	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
Bis(2-chloroisopropyl)ether	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
Bis(2-ethylhexyl)phthalate	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
Butyl benzyl phthalate	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
Caprolactam	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
Carbazole	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
Chrysene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
Di-n-butyl phthalate	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
Di-n-octyl phthalate	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
Dibenz(a,h)anthracene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
Dibenzofuran	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
Diethyl phthalate	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
Dimethyl phthalate	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
Fluoranthene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
Fluorene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
Hexachlorobenzene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
Hexachlorobutadiene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
Hexachlorocyclopentadiene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
Hexachloroethane	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
Indeno(1,2,3-cd)pyrene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
Isophorone	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
N-Nitrosodi-n-propylamine	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
N-Nitrosodiphenylamine	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
Naphthalene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
Nitrobenzene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
Pentachlorophenol	BRL		500	500	mg/Kg	267492	1	09/28/2018 14:00	YH
Phenanthrene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
Phenol	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
Pyrene	BRL		100	100	mg/Kg	267492	1	09/28/2018 14:00	YH
Surr: 2,4,6-Tribromophenol	86.1		0	52.8-148	%REC	267492	1	09/28/2018 14:00	YH
Surr: 2-Fluorobiphenyl	105		0	64.7-137	%REC	267492	1	09/28/2018 14:00	YH
Surr: 2-Fluorophenol	102		0	57.4-132	%REC	267492	1	09/28/2018 14:00	YH
Surr: 4-Terphenyl-d14	113		0	62-138	%REC	267492	1	09/28/2018 14:00	YH
Surr: Nitrobenzene-d5	114		0	56.1-138	%REC	267492	1	09/28/2018 14:00	YH
Surr: Phenol-d5	106		0	49.6-133	%REC	267492	1	09/28/2018 14:00	YH
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
1,1,1-Trichloroethane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 04:48	CC
1,1,2,2-Tetrachloroethane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 04:48	CC

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
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- E Estimated value above quantitation range
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- Narr See case narrative

Analytical Environmental Services, Inc

Date: 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-TT05-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 2:00:00 PM
Lab ID:	1809G69-009	**Matrix:**	Sludge

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
1,1,2-Trichloroethane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 04:48	CC
1,1-Dichloroethane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 04:48	CC
1,1-Dichloroethene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 04:48	CC
1,2,4-Trichlorobenzene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 04:48	CC
1,2-Dibromo-3-chloropropane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 04:48	CC
1,2-Dibromoethane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 04:48	CC
1,2-Dichlorobenzene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 04:48	CC
1,2-Dichloroethane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 04:48	CC
1,2-Dichloropropane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 04:48	CC
1,3-Dichlorobenzene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 04:48	CC
1,4-Dichlorobenzene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 04:48	CC
2-Butanone	BRL		260000	260000	ug/Kg	267881	5000	09/28/2018 04:48	CC
2-Hexanone	BRL		52000	52000	ug/Kg	267881	5000	09/28/2018 04:48	CC
4-Methyl-2-pentanone	BRL		52000	52000	ug/Kg	267881	5000	09/28/2018 04:48	CC
Acetone	BRL		260000	260000	ug/Kg	267881	5000	09/28/2018 04:48	CC
Benzene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 04:48	CC
Bromodichloromethane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 04:48	CC
Bromoform	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 04:48	CC
Bromomethane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 04:48	CC
Carbon disulfide	BRL		52000	52000	ug/Kg	267881	5000	09/28/2018 04:48	CC
Carbon tetrachloride	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 04:48	CC
Chlorobenzene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 04:48	CC
Chloroethane	BRL		52000	52000	ug/Kg	267881	5000	09/28/2018 04:48	CC
Chloroform	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 04:48	CC
Chloromethane	BRL		52000	52000	ug/Kg	267881	5000	09/28/2018 04:48	CC
cis-1,2-Dichloroethene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 04:48	CC
cis-1,3-Dichloropropene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 04:48	CC
Cyclohexane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 04:48	CC
Dibromochloromethane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 04:48	CC
Dichlorodifluoromethane	BRL		52000	52000	ug/Kg	267881	5000	09/28/2018 04:48	CC
Ethylbenzene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 04:48	CC
Freon-113	BRL		52000	52000	ug/Kg	267881	5000	09/28/2018 04:48	CC
Isopropylbenzene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 04:48	CC
m,p-Xylene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 04:48	CC
Methyl acetate	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 04:48	CC
Methyl tert-butyl ether	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 04:48	CC
Methylcyclohexane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 04:48	CC
Methylene chloride	BRL		26000	100000	ug/Kg	267881	5000	09/28/2018 04:48	CC
o-Xylene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 04:48	CC

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
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Analytical Environmental Services, Inc **Date:** 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-TT05-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 2:00:00 PM
Lab ID:	1809G69-009	**Matrix:**	Sludge

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
Styrene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 04:48	CC
Tetrachloroethene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 04:48	CC
Toluene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 04:48	CC
trans-1,2-Dichloroethene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 04:48	CC
trans-1,3-Dichloropropene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 04:48	CC
Trichloroethene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 04:48	CC
Trichlorofluoromethane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 04:48	CC
Vinyl chloride	BRL		52000	52000	ug/Kg	267881	5000	09/28/2018 04:48	CC
Surr: 4-Bromofluorobenzene	78.9		0	65-133	%REC	267881	5000	09/28/2018 04:48	CC
Surr: Dibromofluoromethane	89.2		0	75.8-119	%REC	267881	5000	09/28/2018 04:48	CC
Surr: Toluene-d8	88.4		0	78.3-120	%REC	267881	5000	09/28/2018 04:48	CC
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3580)**				
Aroclor 1016	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 21:21	UH
Aroclor 1221	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 21:21	UH
Aroclor 1232	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 21:21	UH
Aroclor 1242	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 21:21	UH
Aroclor 1248	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 21:21	UH
Aroclor 1254	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 21:21	UH
Aroclor 1260	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 21:21	UH
Surr: Decachlorobiphenyl	105		0	50.6-147	%REC	267493	1	09/21/2018 21:21	UH
Surr: Tetrachloro-m-xylene	116		0	51.2-146	%REC	267493	1	09/21/2018 21:21	UH
Ignitability SW1010A									
Ignitability	190	>	0	0	°F	R380993	1	09/27/2018 09:45	SK
Hydrogen Ion (pH) by SM4500 H+ B									
pH	7.87	H	0.0100	0.0100	pH Units	R380865	1	09/25/2018 15:54	RH
BTU ASTM D240									
BTU	4400	N	0	0	BTU/lb	R380877	1	09/24/2018 10:00	AA
METALS, TOTAL SW6010D					**(SW3050B)**				
Arsenic	BRL		0.40	4.8	mg/Kg	267504	1	09/24/2018 12:43	NS
Barium	0.26	J	0.15	4.8	mg/Kg	267504	1	09/24/2018 12:43	NS
Cadmium	BRL		0.048	2.4	mg/Kg	267504	1	09/24/2018 12:43	NS
Chromium	BRL		0.42	2.4	mg/Kg	267504	1	09/24/2018 12:43	NS
Lead	0.29	J	0.18	4.8	mg/Kg	267504	1	09/24/2018 12:43	NS
Selenium	BRL		0.73	4.8	mg/Kg	267504	1	09/24/2018 12:43	NS
Silver	BRL		0.012	2.4	mg/Kg	267504	1	09/24/2018 12:43	NS

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-DR01-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 5:05:00 PM
Lab ID:	1809G69-010	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Mercury - Waste SW7471B					**(SW7471B)**				
Mercury	BRL		0.00917	0.0956	mg/Kg	267470	1	09/21/2018 11:46	AJ
TCL-SEMIVOLATILE ORGANICS SW8270D					**(SW3580A)**				
1,1′-Biphenyl	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
2,4,5-Trichlorophenol	BRL		500	500	mg/Kg	267492	1	09/28/2018 13:07	YH
2,4,6-Trichlorophenol	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
2,4-Dichlorophenol	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
2,4-Dimethylphenol	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
2,4-Dinitrophenol	BRL		500	500	mg/Kg	267492	1	09/28/2018 13:07	YH
2,4-Dinitrotoluene	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
2,6-Dinitrotoluene	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
2-Chloronaphthalene	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
2-Chlorophenol	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
2-Methylnaphthalene	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
2-Methylphenol	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
2-Nitroaniline	BRL		500	500	mg/Kg	267492	1	09/28/2018 13:07	YH
2-Nitrophenol	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
3,3′-Dichlorobenzidine	BRL		670	670	mg/Kg	267492	1	09/28/2018 13:07	YH
3-Nitroaniline	BRL		500	500	mg/Kg	267492	1	09/28/2018 13:07	YH
4,6-Dinitro-2-methylphenol	BRL		500	500	mg/Kg	267492	1	09/28/2018 13:07	YH
4-Bromophenyl phenyl ether	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
4-Chloro-3-methylphenol	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
4-Chloroaniline	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
4-Chlorophenyl phenyl ether	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
4-Methylphenol	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
4-Nitroaniline	BRL		500	500	mg/Kg	267492	1	09/28/2018 13:07	YH
4-Nitrophenol	BRL		500	500	mg/Kg	267492	1	09/28/2018 13:07	YH
Acenaphthene	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
Acenaphthylene	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
Acetophenone	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
Anthracene	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
Atrazine	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
Benz(a)anthracene	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
Benzaldehyde	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
Benzo(a)pyrene	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
Benzo(b)fluoranthene	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
Benzo(g,h,i)perylene	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
Benzo(k)fluoranthene	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
Bis(2-chloroethoxy)methane	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH

Qualifiers:

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- BRL Not detected at MDL
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- E Estimated value above quantitation range
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Analytical Environmental Services, Inc **Date:** 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-DR01-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 5:05:00 PM
Lab ID:	1809G69-010	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D					**(SW3580A)**				
Bis(2-chloroethyl)ether	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
Bis(2-chloroisopropyl)ether	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
Bis(2-ethylhexyl)phthalate	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
Butyl benzyl phthalate	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
Caprolactam	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
Carbazole	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
Chrysene	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
Di-n-butyl phthalate	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
Di-n-octyl phthalate	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
Dibenz(a,h)anthracene	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
Dibenzofuran	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
Diethyl phthalate	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
Dimethyl phthalate	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
Fluoranthene	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
Fluorene	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
Hexachlorobenzene	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
Hexachlorobutadiene	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
Hexachlorocyclopentadiene	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
Hexachloroethane	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
Indeno(1,2,3-cd)pyrene	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
Isophorone	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
N-Nitrosodi-n-propylamine	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
N-Nitrosodiphenylamine	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
Naphthalene	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
Nitrobenzene	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
Pentachlorophenol	BRL		500	500	mg/Kg	267492	1	09/28/2018 13:07	YH
Phenanthrene	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
Phenol	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
Pyrene	BRL		100	100	mg/Kg	267492	1	09/28/2018 13:07	YH
Surr: 2,4,6-Tribromophenol	79		0	52.8-148	%REC	267492	1	09/28/2018 13:07	YH
Surr: 2-Fluorobiphenyl	107		0	64.7-137	%REC	267492	1	09/28/2018 13:07	YH
Surr: 2-Fluorophenol	103		0	57.4-132	%REC	267492	1	09/28/2018 13:07	YH
Surr: 4-Terphenyl-d14	109		0	62-138	%REC	267492	1	09/28/2018 13:07	YH
Surr: Nitrobenzene-d5	122		0	56.1-138	%REC	267492	1	09/28/2018 13:07	YH
Surr: Phenol-d5	109		0	49.6-133	%REC	267492	1	09/28/2018 13:07	YH
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
1,1,1-Trichloroethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 05:15	CC
1,1,2,2-Tetrachloroethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 05:15	CC

Qualifiers:

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- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-DR01-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 5:05:00 PM
Lab ID:	1809G69-010	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
1,1,2-Trichloroethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 05:15	CC
1,1-Dichloroethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 05:15	CC
1,1-Dichloroethene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 05:15	CC
1,2,4-Trichlorobenzene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 05:15	CC
1,2-Dibromo-3-chloropropane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 05:15	CC
1,2-Dibromoethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 05:15	CC
1,2-Dichlorobenzene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 05:15	CC
1,2-Dichloroethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 05:15	CC
1,2-Dichloropropane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 05:15	CC
1,3-Dichlorobenzene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 05:15	CC
1,4-Dichlorobenzene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 05:15	CC
2-Butanone	BRL		270000	270000	ug/Kg	267881	5000	09/28/2018 05:15	CC
2-Hexanone	BRL		54000	54000	ug/Kg	267881	5000	09/28/2018 05:15	CC
4-Methyl-2-pentanone	BRL		54000	54000	ug/Kg	267881	5000	09/28/2018 05:15	CC
Acetone	BRL		270000	270000	ug/Kg	267881	5000	09/28/2018 05:15	CC
Benzene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 05:15	CC
Bromodichloromethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 05:15	CC
Bromoform	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 05:15	CC
Bromomethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 05:15	CC
Carbon disulfide	BRL		54000	54000	ug/Kg	267881	5000	09/28/2018 05:15	CC
Carbon tetrachloride	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 05:15	CC
Chlorobenzene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 05:15	CC
Chloroethane	BRL		54000	54000	ug/Kg	267881	5000	09/28/2018 05:15	CC
Chloroform	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 05:15	CC
Chloromethane	BRL		54000	54000	ug/Kg	267881	5000	09/28/2018 05:15	CC
cis-1,2-Dichloroethene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 05:15	CC
cis-1,3-Dichloropropene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 05:15	CC
Cyclohexane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 05:15	CC
Dibromochloromethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 05:15	CC
Dichlorodifluoromethane	BRL		54000	54000	ug/Kg	267881	5000	09/28/2018 05:15	CC
Ethylbenzene	140000		27000	27000	ug/Kg	267881	5000	09/28/2018 05:15	CC
Freon-113	BRL		54000	54000	ug/Kg	267881	5000	09/28/2018 05:15	CC
Isopropylbenzene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 05:15	CC
m,p-Xylene	620000		27000	27000	ug/Kg	267881	5000	09/28/2018 05:15	CC
Methyl acetate	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 05:15	CC
Methyl tert-butyl ether	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 05:15	CC
Methylcyclohexane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 05:15	CC
Methylene chloride	BRL		27000	110000	ug/Kg	267881	5000	09/28/2018 05:15	CC
o-Xylene	190000		27000	27000	ug/Kg	267881	5000	09/28/2018 05:15	CC

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-DR01-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 5:05:00 PM
Lab ID:	1809G69-010	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
Styrene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 05:15	CC
Tetrachloroethene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 05:15	CC
Toluene	30000		27000	27000	ug/Kg	267881	5000	09/28/2018 05:15	CC
trans-1,2-Dichloroethene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 05:15	CC
trans-1,3-Dichloropropene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 05:15	CC
Trichloroethene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 05:15	CC
Trichlorofluoromethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 05:15	CC
Vinyl chloride	BRL		54000	54000	ug/Kg	267881	5000	09/28/2018 05:15	CC
Surr: 4-Bromofluorobenzene	85		0	65-133	%REC	267881	5000	09/28/2018 05:15	CC
Surr: Dibromofluoromethane	86.9		0	75.8-119	%REC	267881	5000	09/28/2018 05:15	CC
Surr: Toluene-d8	90		0	78.3-120	%REC	267881	5000	09/28/2018 05:15	CC
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3580)**				
Aroclor 1016	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 21:32	UH
Aroclor 1221	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 21:32	UH
Aroclor 1232	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 21:32	UH
Aroclor 1242	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 21:32	UH
Aroclor 1248	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 21:32	UH
Aroclor 1254	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 21:32	UH
Aroclor 1260	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 21:32	UH
Surr: Decachlorobiphenyl	112		0	50.6-147	%REC	267493	1	09/21/2018 21:32	UH
Surr: Tetrachloro-m-xylene	108		0	51.2-146	%REC	267493	1	09/21/2018 21:32	UH
Ignitability SW1010A									
Ignitability	190	>	0	0	°F	R380983	1	09/26/2018 09:45	SK
Hydrogen Ion (pH) by SM4500 H+ B									
pH	7.89	H	0.0100	0.0100	pH Units	R380583	1	09/21/2018 23:32	RH
BTU ASTM D240									
BTU	4400	N	0	0	BTU/lb	R380877	1	09/24/2018 10:00	AA
METALS, TOTAL SW6010D					**(SW3050B)**				
Arsenic	BRL		0.29	3.5	mg/Kg	267504	1	09/24/2018 12:47	NS
Barium	BRL		0.11	3.5	mg/Kg	267504	1	09/24/2018 12:47	NS
Cadmium	BRL		0.035	1.7	mg/Kg	267504	1	09/24/2018 12:47	NS
Chromium	BRL		0.30	1.7	mg/Kg	267504	1	09/24/2018 12:47	NS
Lead	BRL		0.13	3.5	mg/Kg	267504	1	09/24/2018 12:47	NS
Selenium	BRL		0.53	3.5	mg/Kg	267504	1	09/24/2018 12:47	NS
Silver	BRL		0.0089	1.7	mg/Kg	267504	1	09/24/2018 12:47	NS

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-DR02-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 5:15:00 PM
Lab ID:	1809G69-011	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Mercury - Waste SW7471B					**(SW7471B)**				
Mercury	BRL		0.00837	0.0872	mg/Kg	267470	1	09/21/2018 11:56	AJ
TCL-SEMIVOLATILE ORGANICS SW8270D					**(SW3580A)**				
1,1′-Biphenyl	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
2,4,5-Trichlorophenol	BRL		500	500	mg/Kg	267492	1	09/28/2018 12:40	YH
2,4,6-Trichlorophenol	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
2,4-Dichlorophenol	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
2,4-Dimethylphenol	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
2,4-Dinitrophenol	BRL		500	500	mg/Kg	267492	1	09/28/2018 12:40	YH
2,4-Dinitrotoluene	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
2,6-Dinitrotoluene	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
2-Chloronaphthalene	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
2-Chlorophenol	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
2-Methylnaphthalene	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
2-Methylphenol	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
2-Nitroaniline	BRL		500	500	mg/Kg	267492	1	09/28/2018 12:40	YH
2-Nitrophenol	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
3,3′-Dichlorobenzidine	BRL		670	670	mg/Kg	267492	1	09/28/2018 12:40	YH
3-Nitroaniline	BRL		500	500	mg/Kg	267492	1	09/28/2018 12:40	YH
4,6-Dinitro-2-methylphenol	BRL		500	500	mg/Kg	267492	1	09/28/2018 12:40	YH
4-Bromophenyl phenyl ether	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
4-Chloro-3-methylphenol	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
4-Chloroaniline	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
4-Chlorophenyl phenyl ether	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
4-Methylphenol	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
4-Nitroaniline	BRL		500	500	mg/Kg	267492	1	09/28/2018 12:40	YH
4-Nitrophenol	BRL		500	500	mg/Kg	267492	1	09/28/2018 12:40	YH
Acenaphthene	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
Acenaphthylene	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
Acetophenone	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
Anthracene	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
Atrazine	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
Benz(a)anthracene	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
Benzaldehyde	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
Benzo(a)pyrene	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
Benzo(b)fluoranthene	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
Benzo(g,h,i)perylene	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
Benzo(k)fluoranthene	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
Bis(2-chloroethoxy)methane	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-DR02-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 5:15:00 PM
Lab ID:	1809G69-011	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D					**(SW3580A)**				
Bis(2-chloroethyl)ether	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
Bis(2-chloroisopropyl)ether	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
Bis(2-ethylhexyl)phthalate	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
Butyl benzyl phthalate	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
Caprolactam	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
Carbazole	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
Chrysene	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
Di-n-butyl phthalate	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
Di-n-octyl phthalate	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
Dibenz(a,h)anthracene	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
Dibenzofuran	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
Diethyl phthalate	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
Dimethyl phthalate	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
Fluoranthene	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
Fluorene	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
Hexachlorobenzene	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
Hexachlorobutadiene	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
Hexachlorocyclopentadiene	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
Hexachloroethane	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
Indeno(1,2,3-cd)pyrene	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
Isophorone	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
N-Nitrosodi-n-propylamine	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
N-Nitrosodiphenylamine	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
Naphthalene	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
Nitrobenzene	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
Pentachlorophenol	BRL		500	500	mg/Kg	267492	1	09/28/2018 12:40	YH
Phenanthrene	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
Phenol	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
Pyrene	BRL		100	100	mg/Kg	267492	1	09/28/2018 12:40	YH
Surr: 2,4,6-Tribromophenol	17.6	S	0	52.8-148	%REC	267492	1	09/28/2018 12:40	YH
Surr: 2-Fluorobiphenyl	109		0	64.7-137	%REC	267492	1	09/28/2018 12:40	YH
Surr: 2-Fluorophenol	58.6		0	57.4-132	%REC	267492	1	09/28/2018 12:40	YH
Surr: 4-Terphenyl-d14	111		0	62-138	%REC	267492	1	09/28/2018 12:40	YH
Surr: Nitrobenzene-d5	117		0	56.1-138	%REC	267492	1	09/28/2018 12:40	YH
Surr: Phenol-d5	101		0	49.6-133	%REC	267492	1	09/28/2018 12:40	YH
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
1,1,1-Trichloroethane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 05:43	CC
1,1,2,2-Tetrachloroethane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 05:43	CC

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
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- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-DR02-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 5:15:00 PM
Lab ID:	1809G69-011	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
1,1,2-Trichloroethane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 05:43	CC
1,1-Dichloroethane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 05:43	CC
1,1-Dichloroethene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 05:43	CC
1,2,4-Trichlorobenzene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 05:43	CC
1,2-Dibromo-3-chloropropane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 05:43	CC
1,2-Dibromoethane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 05:43	CC
1,2-Dichlorobenzene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 05:43	CC
1,2-Dichloroethane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 05:43	CC
1,2-Dichloropropane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 05:43	CC
1,3-Dichlorobenzene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 05:43	CC
1,4-Dichlorobenzene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 05:43	CC
2-Butanone	BRL		260000	260000	ug/Kg	267881	5000	09/28/2018 05:43	CC
2-Hexanone	BRL		51000	51000	ug/Kg	267881	5000	09/28/2018 05:43	CC
4-Methyl-2-pentanone	BRL		51000	51000	ug/Kg	267881	5000	09/28/2018 05:43	CC
Acetone	BRL		260000	260000	ug/Kg	267881	5000	09/28/2018 05:43	CC
Benzene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 05:43	CC
Bromodichloromethane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 05:43	CC
Bromoform	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 05:43	CC
Bromomethane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 05:43	CC
Carbon disulfide	BRL		51000	51000	ug/Kg	267881	5000	09/28/2018 05:43	CC
Carbon tetrachloride	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 05:43	CC
Chlorobenzene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 05:43	CC
Chloroethane	BRL		51000	51000	ug/Kg	267881	5000	09/28/2018 05:43	CC
Chloroform	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 05:43	CC
Chloromethane	BRL		51000	51000	ug/Kg	267881	5000	09/28/2018 05:43	CC
cis-1,2-Dichloroethene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 05:43	CC
cis-1,3-Dichloropropene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 05:43	CC
Cyclohexane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 05:43	CC
Dibromochloromethane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 05:43	CC
Dichlorodifluoromethane	BRL		51000	51000	ug/Kg	267881	5000	09/28/2018 05:43	CC
Ethylbenzene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 05:43	CC
Freon-113	BRL		51000	51000	ug/Kg	267881	5000	09/28/2018 05:43	CC
Isopropylbenzene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 05:43	CC
m,p-Xylene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 05:43	CC
Methyl acetate	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 05:43	CC
Methyl tert-butyl ether	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 05:43	CC
Methylcyclohexane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 05:43	CC
Methylene chloride	BRL		26000	100000	ug/Kg	267881	5000	09/28/2018 05:43	CC
o-Xylene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 05:43	CC

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-DR02-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 5:15:00 PM
Lab ID:	1809G69-011	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
Styrene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 05:43	CC
Tetrachloroethene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 05:43	CC
Toluene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 05:43	CC
trans-1,2-Dichloroethene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 05:43	CC
trans-1,3-Dichloropropene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 05:43	CC
Trichloroethene	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 05:43	CC
Trichlorofluoromethane	BRL		26000	26000	ug/Kg	267881	5000	09/28/2018 05:43	CC
Vinyl chloride	BRL		51000	51000	ug/Kg	267881	5000	09/28/2018 05:43	CC
Surr: 4-Bromofluorobenzene	78.9		0	65-133	%REC	267881	5000	09/28/2018 05:43	CC
Surr: Dibromofluoromethane	87.5		0	75.8-119	%REC	267881	5000	09/28/2018 05:43	CC
Surr: Toluene-d8	86.8		0	78.3-120	%REC	267881	5000	09/28/2018 05:43	CC
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3580)**				
Aroclor 1016	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 21:44	UH
Aroclor 1221	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 21:44	UH
Aroclor 1232	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 21:44	UH
Aroclor 1242	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 21:44	UH
Aroclor 1248	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 21:44	UH
Aroclor 1254	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 21:44	UH
Aroclor 1260	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 21:44	UH
Surr: Decachlorobiphenyl	119		0	50.6-147	%REC	267493	1	09/21/2018 21:44	UH
Surr: Tetrachloro-m-xylene	126		0	51.2-146	%REC	267493	1	09/21/2018 21:44	UH
Ignitability SW1010A									
Ignitability	190	>	0	0	°F	R380983	1	09/26/2018 09:45	SK
Hydrogen Ion (pH) by SM4500 H+ B									
pH	10.7	H	0.0100	0.0100	pH Units	R380583	1	09/21/2018 23:32	RH
BTU ASTM D240									
BTU	4000	N	0	0	BTU/lb	R380877	1	09/24/2018 10:00	AA
METALS, TOTAL SW6010D					**(SW3050B)**				
Arsenic	BRL		0.39	4.7	mg/Kg	267504	1	09/24/2018 12:50	NS
Barium	BRL		0.15	4.7	mg/Kg	267504	1	09/24/2018 12:50	NS
Cadmium	BRL		0.047	2.3	mg/Kg	267504	1	09/24/2018 12:50	NS
Chromium	BRL		0.41	2.3	mg/Kg	267504	1	09/24/2018 12:50	NS
Lead	BRL		0.18	4.7	mg/Kg	267504	1	09/24/2018 12:50	NS
Selenium	BRL		0.71	4.7	mg/Kg	267504	1	09/24/2018 12:50	NS
Silver	BRL		0.012	2.3	mg/Kg	267504	1	09/24/2018 12:50	NS

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-DR03-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 5:30:00 PM
Lab ID:	1809G69-012	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Mercury - Waste SW7471B					**(SW7471B)**				
Mercury	BRL		0.00934	0.0974	mg/Kg	267470	1	09/21/2018 11:59	AJ
TCL-SEMIVOLATILE ORGANICS SW8270D					**(SW3580A)**				
1,1′-Biphenyl	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
2,4,5-Trichlorophenol	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 12:13	YH
2,4,6-Trichlorophenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
2,4-Dichlorophenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
2,4-Dimethylphenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
2,4-Dinitrophenol	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 12:13	YH
2,4-Dinitrotoluene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
2,6-Dinitrotoluene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
2-Chloronaphthalene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
2-Chlorophenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
2-Methylnaphthalene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
2-Methylphenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
2-Nitroaniline	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 12:13	YH
2-Nitrophenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
3,3′-Dichlorobenzidine	BRL		3400	3400	mg/Kg	267492	5	09/28/2018 12:13	YH
3-Nitroaniline	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 12:13	YH
4,6-Dinitro-2-methylphenol	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 12:13	YH
4-Bromophenyl phenyl ether	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
4-Chloro-3-methylphenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
4-Chloroaniline	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
4-Chlorophenyl phenyl ether	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
4-Methylphenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
4-Nitroaniline	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 12:13	YH
4-Nitrophenol	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 12:13	YH
Acenaphthene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
Acenaphthylene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
Acetophenone	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
Anthracene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
Atrazine	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
Benz(a)anthracene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
Benzaldehyde	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
Benzo(a)pyrene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
Benzo(b)fluoranthene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
Benzo(g,h,i)perylene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
Benzo(k)fluoranthene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
Bis(2-chloroethoxy)methane	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-DR03-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 5:30:00 PM
Lab ID:	1809G69-012	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D					**(SW3580A)**				
Bis(2-chloroethyl)ether	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
Bis(2-chloroisopropyl)ether	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
Bis(2-ethylhexyl)phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
Butyl benzyl phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
Caprolactam	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
Carbazole	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
Chrysene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
Di-n-butyl phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
Di-n-octyl phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
Dibenz(a,h)anthracene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
Dibenzofuran	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
Diethyl phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
Dimethyl phthalate	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
Fluoranthene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
Fluorene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
Hexachlorobenzene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
Hexachlorobutadiene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
Hexachlorocyclopentadiene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
Hexachloroethane	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
Indeno(1,2,3-cd)pyrene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
Isophorone	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
N-Nitrosodi-n-propylamine	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
N-Nitrosodiphenylamine	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
Naphthalene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
Nitrobenzene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
Pentachlorophenol	BRL		2500	2500	mg/Kg	267492	5	09/28/2018 12:13	YH
Phenanthrene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
Phenol	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
Pyrene	BRL		500	500	mg/Kg	267492	5	09/28/2018 12:13	YH
Surr: 2,4,6-Tribromophenol	77		0	52.8-148	%REC	267492	5	09/28/2018 12:13	YH
Surr: 2-Fluorobiphenyl	94.7		0	64.7-137	%REC	267492	5	09/28/2018 12:13	YH
Surr: 2-Fluorophenol	93.4		0	57.4-132	%REC	267492	5	09/28/2018 12:13	YH
Surr: 4-Terphenyl-d14	98.4		0	62-138	%REC	267492	5	09/28/2018 12:13	YH
Surr: Nitrobenzene-d5	99.6		0	56.1-138	%REC	267492	5	09/28/2018 12:13	YH
Surr: Phenol-d5	98.4		0	49.6-133	%REC	267492	5	09/28/2018 12:13	YH
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
1,1,1-Trichloroethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 06:10	CC
1,1,2,2-Tetrachloroethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 06:10	CC

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
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- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-DR03-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 5:30:00 PM
Lab ID:	1809G69-012	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
1,1,2-Trichloroethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 06:10	CC
1,1-Dichloroethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 06:10	CC
1,1-Dichloroethene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 06:10	CC
1,2,4-Trichlorobenzene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 06:10	CC
1,2-Dibromo-3-chloropropane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 06:10	CC
1,2-Dibromoethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 06:10	CC
1,2-Dichlorobenzene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 06:10	CC
1,2-Dichloroethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 06:10	CC
1,2-Dichloropropane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 06:10	CC
1,3-Dichlorobenzene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 06:10	CC
1,4-Dichlorobenzene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 06:10	CC
2-Butanone	BRL		270000	270000	ug/Kg	267881	5000	09/28/2018 06:10	CC
2-Hexanone	BRL		55000	55000	ug/Kg	267881	5000	09/28/2018 06:10	CC
4-Methyl-2-pentanone	BRL		55000	55000	ug/Kg	267881	5000	09/28/2018 06:10	CC
Acetone	BRL		270000	270000	ug/Kg	267881	5000	09/28/2018 06:10	CC
Benzene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 06:10	CC
Bromodichloromethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 06:10	CC
Bromoform	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 06:10	CC
Bromomethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 06:10	CC
Carbon disulfide	BRL		55000	55000	ug/Kg	267881	5000	09/28/2018 06:10	CC
Carbon tetrachloride	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 06:10	CC
Chlorobenzene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 06:10	CC
Chloroethane	BRL		55000	55000	ug/Kg	267881	5000	09/28/2018 06:10	CC
Chloroform	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 06:10	CC
Chloromethane	BRL		55000	55000	ug/Kg	267881	5000	09/28/2018 06:10	CC
cis-1,2-Dichloroethene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 06:10	CC
cis-1,3-Dichloropropene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 06:10	CC
Cyclohexane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 06:10	CC
Dibromochloromethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 06:10	CC
Dichlorodifluoromethane	BRL		55000	55000	ug/Kg	267881	5000	09/28/2018 06:10	CC
Ethylbenzene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 06:10	CC
Freon-113	BRL		55000	55000	ug/Kg	267881	5000	09/28/2018 06:10	CC
Isopropylbenzene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 06:10	CC
m,p-Xylene	120000		27000	27000	ug/Kg	267881	5000	09/28/2018 06:10	CC
Methyl acetate	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 06:10	CC
Methyl tert-butyl ether	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 06:10	CC
Methylcyclohexane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 06:10	CC
Methylene chloride	BRL		27000	110000	ug/Kg	267881	5000	09/28/2018 06:10	CC
o-Xylene	47000		27000	27000	ug/Kg	267881	5000	09/28/2018 06:10	CC

Qualifiers:

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- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 1-Oct-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-DR03-091918
Project Name:	L&R Oil Recovery	**Collection Date:**	9/19/2018 5:30:00 PM
Lab ID:	1809G69-012	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
Styrene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 06:10	CC
Tetrachloroethene	730000		27000	27000	ug/Kg	267881	5000	09/28/2018 06:10	CC
Toluene	53000		27000	27000	ug/Kg	267881	5000	09/28/2018 06:10	CC
trans-1,2-Dichloroethene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 06:10	CC
trans-1,3-Dichloropropene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 06:10	CC
Trichloroethene	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 06:10	CC
Trichlorofluoromethane	BRL		27000	27000	ug/Kg	267881	5000	09/28/2018 06:10	CC
Vinyl chloride	BRL		55000	55000	ug/Kg	267881	5000	09/28/2018 06:10	CC
Surr: 4-Bromofluorobenzene	83.5		0	65-133	%REC	267881	5000	09/28/2018 06:10	CC
Surr: Dibromofluoromethane	89.8		0	75.8-119	%REC	267881	5000	09/28/2018 06:10	CC
Surr: Toluene-d8	88.8		0	78.3-120	%REC	267881	5000	09/28/2018 06:10	CC
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3580)**				
Aroclor 1016	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 21:55	UH
Aroclor 1221	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 21:55	UH
Aroclor 1232	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 21:55	UH
Aroclor 1242	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 21:55	UH
Aroclor 1248	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 21:55	UH
Aroclor 1254	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 21:55	UH
Aroclor 1260	BRL		1.0	1.0	mg/Kg	267493	1	09/21/2018 21:55	UH
Surr: Decachlorobiphenyl	72.5		0	50.6-147	%REC	267493	1	09/21/2018 21:55	UH
Surr: Tetrachloro-m-xylene	100		0	51.2-146	%REC	267493	1	09/21/2018 21:55	UH
Ignitability SW1010A									
Ignitability	190	>	0	0	°F	R380983	1	09/26/2018 09:45	SK
Hydrogen Ion (pH) by SM4500 H+ B									
pH	7.10	H	0.0100	0.0100	pH Units	R380583	1	09/21/2018 23:32	RH
BTU ASTM D240									
BTU	4900	N	0	0	BTU/lb	R380877	1	09/24/2018 10:00	AA
METALS, TOTAL SW6010D					**(SW3050B)**				
Arsenic	BRL		0.41	4.9	mg/Kg	267504	1	09/24/2018 12:53	NS
Barium	21		0.16	4.9	mg/Kg	267504	1	09/24/2018 12:53	NS
Cadmium	0.92	J	0.049	2.5	mg/Kg	267504	1	09/24/2018 12:53	NS
Chromium	9.5		0.43	2.5	mg/Kg	267504	1	09/24/2018 12:53	NS
Lead	45		0.19	4.9	mg/Kg	267504	1	09/24/2018 12:53	NS
Selenium	BRL		0.75	4.9	mg/Kg	267504	1	09/24/2018 12:53	NS
Silver	BRL		0.013	2.5	mg/Kg	267504	1	09/24/2018 12:53	NS

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
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- B Analyte detected in the associated method blank
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AES ANALYTICAL ENVIRONMENTAL SERVICES, INC.

SAMPLE/COOLER RECEIPT CHECKLIST

1. Client Name: **Tetra Tech, Inc.** AES Work Order Number: **1809G69**

2. Carrier: FedEx ☐ UPS ☐ USPS ☐ Client ■ Courier ☐ Other _____

		Yes	No	N/A	Details	Comments
3.	Shipping container/cooler received in good condition?	●	○	○	damaged ☐ leaking ☐ other ☐	
4.	Custody seals present on shipping container?	○	●	○		
5.	Custody seals intact on shipping container?	○	○	●		
6.	Temperature blanks present?	○	●	○		
7.	Cooler temperature(s) within limits of 0-6°C? [See item 13 and 14 for temperature recordings.]	●	○	○	Cooling initiated for recently collected samples / ice present ☐	
8.	Chain of Custody (COC) present?	●	○	○		
9.	Chain of Custody signed, dated, and timed when relinquished and received?	●	○	○		
10.	Sampler name and/or signature on COC?	●	○	○		
11.	Were all samples received within holding time?	○	●	○		
12.	TAT marked on the COC?	●	○	○	If no TAT indicated, proceeded with standard TAT per Terms & Conditions. ☐	

13. Cooler 1 Temperature 4.9 °C Cooler 2 Temperature _____ °C Cooler 3 Temperature _____ °C Cooler 4 Temperature _____ °C

14. Cooler 5 Temperature _____ °C Cooler 6 Temperature _____ °C Cooler 7 Temperature _____ °C Cooler 8 Temperature _____ °C

15. Comments: _____

I certify that I have completed sections 1-15 (dated initials). AJJ 9/20/18

		Yes	No	N/A	Details	Comments
16.	Were sample containers intact upon receipt?	●	○	○		
17.	Custody seals present on sample containers?	○	●	○		
18.	Custody seals intact on sample containers?	○	○	●		
19.	Do sample container labels match the COC?	●	○	○	incomplete info ☐ illegible ☐ no label ☐ other ☐	
20.	Are analyses requested indicated on the COC?	●	○	○		
21.	Were all of the samples listed on the COC received?	●	○	○	samples received but not listed on COC ☐ samples listed on COC not received ☐	
22.	Was the sample collection date/time noted?	●	○	○		
23.	Did we receive sufficient sample volume for indicated analyses?	●	○	○		
24.	Were samples received in appropriate containers?	●	○	○		
25.	Were VOA samples received without headspace (< 1/4" bubble)?	○	○	●		
26.	Were trip blanks submitted?	○	○	●	listed on COC ☐ not listed on COC ☐	

27. Comments: _____

This section only applies to samples where pH can be checked at Sample Receipt.

I certify that I have completed sections 16-27 (dated initials). AJJ 9/20/18

		Yes	No	N/A	Details	Comments
28.	Have containers needing chemical preservation been checked? *	○	○	●		
29.	Containers meet preservation guidelines?	○	○	●		
30.	Was pH adjusted at Sample Receipt?	○	○	●		

* Note: Certain analyses require chemical preservation but must be checked in the laboratory and not upon Sample Receipt such as Coliforms, VOCs and Oil & Grease/TPH.

I certify that I have completed sections 28-30 (dated initials). AJJ 9/20/18

Analytical Environmental Services, Inc

Date: 1-Oct-18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Lab Order: 1809G69

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1809G69-001A	LRO-WS-TK01-091918	9/19/2018 9:45:00AM	Waste	TCL VOLATILE ORGANICS		9/27/2018 10:55:00 PM	09/28/2018
1809G69-001B	LRO-WS-TK01-091918	9/19/2018 9:45:00AM	Waste	POLYCHLORINATED BIPHENYLS		9/21/2018 11:00:00 AM	09/21/2018
1809G69-001B	LRO-WS-TK01-091918	9/19/2018 9:45:00AM	Waste	POLYCHLORINATED BIPHENYLS		9/21/2018 11:00:00 AM	09/24/2018
1809G69-001B	LRO-WS-TK01-091918	9/19/2018 9:45:00AM	Waste	TCL-SEMIVOLATILE ORGANICS		9/21/2018 9:00:00 AM	09/28/2018
1809G69-001C	LRO-WS-TK01-091918	9/19/2018 9:45:00AM	Waste	IGNITABILITY			09/25/2018
1809G69-001C	LRO-WS-TK01-091918	9/19/2018 9:45:00AM	Waste	BTU			09/24/2018
1809G69-001C	LRO-WS-TK01-091918	9/19/2018 9:45:00AM	Waste	Hydrogen Ion (pH) by SM4500 H+ B			09/21/2018
1809G69-001D	LRO-WS-TK01-091918	9/19/2018 9:45:00AM	Waste	TOTAL METALS BY ICP		9/22/2018 3:30:00 PM	09/24/2018
1809G69-001D	LRO-WS-TK01-091918	9/19/2018 9:45:00AM	Waste	Total Mercury - Waste		9/21/2018 10:00:00 AM	09/21/2018
1809G69-002A	LRO-WS-TK02-091918	9/19/2018 10:10:00AM	Waste	TCL VOLATILE ORGANICS		9/27/2018 10:55:00 PM	09/28/2018
1809G69-002B	LRO-WS-TK02-091918	9/19/2018 10:10:00AM	Waste	POLYCHLORINATED BIPHENYLS		9/21/2018 11:00:00 AM	09/21/2018
1809G69-002B	LRO-WS-TK02-091918	9/19/2018 10:10:00AM	Waste	POLYCHLORINATED BIPHENYLS		9/21/2018 11:00:00 AM	09/24/2018
1809G69-002B	LRO-WS-TK02-091918	9/19/2018 10:10:00AM	Waste	TCL-SEMIVOLATILE ORGANICS		9/21/2018 9:00:00 AM	09/28/2018
1809G69-002C	LRO-WS-TK02-091918	9/19/2018 10:10:00AM	Waste	IGNITABILITY			09/25/2018
1809G69-002C	LRO-WS-TK02-091918	9/19/2018 10:10:00AM	Waste	BTU			09/24/2018
1809G69-002C	LRO-WS-TK02-091918	9/19/2018 10:10:00AM	Waste	Hydrogen Ion (pH) by SM4500 H+ B			09/21/2018
1809G69-002D	LRO-WS-TK02-091918	9/19/2018 10:10:00AM	Waste	TOTAL METALS BY ICP		9/22/2018 3:30:00 PM	09/24/2018
1809G69-002D	LRO-WS-TK02-091918	9/19/2018 10:10:00AM	Waste	Total Mercury - Waste		9/21/2018 10:00:00 AM	09/21/2018
1809G69-003A	LRO-WS-TK03-091918	9/19/2018 11:15:00AM	Waste	TCL VOLATILE ORGANICS		9/27/2018 10:55:00 PM	09/28/2018
1809G69-003B	LRO-WS-TK03-091918	9/19/2018 11:15:00AM	Waste	POLYCHLORINATED BIPHENYLS		9/21/2018 11:00:00 AM	09/21/2018
1809G69-003B	LRO-WS-TK03-091918	9/19/2018 11:15:00AM	Waste	TCL-SEMIVOLATILE ORGANICS		9/21/2018 9:00:00 AM	09/28/2018
1809G69-003C	LRO-WS-TK03-091918	9/19/2018 11:15:00AM	Waste	IGNITABILITY			09/25/2018
1809G69-003C	LRO-WS-TK03-091918	9/19/2018 11:15:00AM	Waste	BTU			09/24/2018
1809G69-003C	LRO-WS-TK03-091918	9/19/2018 11:15:00AM	Waste	Hydrogen Ion (pH) by SM4500 H+ B			09/21/2018
1809G69-003D	LRO-WS-TK03-091918	9/19/2018 11:15:00AM	Waste	TOTAL METALS BY ICP		9/22/2018 3:30:00 PM	09/24/2018
1809G69-003D	LRO-WS-TK03-091918	9/19/2018 11:15:00AM	Waste	Total Mercury - Waste		9/21/2018 10:00:00 AM	09/21/2018
1809G69-004A	LRO-WS-TK04-091918	9/19/2018 10:30:00AM	Waste	TCL VOLATILE ORGANICS		9/27/2018 10:55:00 PM	09/28/2018
1809G69-004B	LRO-WS-TK04-091918	9/19/2018 10:30:00AM	Waste	POLYCHLORINATED BIPHENYLS		9/21/2018 11:00:00 AM	09/21/2018
1809G69-004B	LRO-WS-TK04-091918	9/19/2018 10:30:00AM	Waste	POLYCHLORINATED BIPHENYLS		9/21/2018 11:00:00 AM	09/24/2018

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Lab Order: 1809G69

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1809G69-004B	LRO-WS-TK04-091918	9/19/2018 10:30:00AM	Waste	TCL-SEMIVOLATILE ORGANICS		9/21/2018 9:00:00 AM	09/28/2018
1809G69-004C	LRO-WS-TK04-091918	9/19/2018 10:30:00AM	Waste	IGNITABILITY			09/26/2018
1809G69-004C	LRO-WS-TK04-091918	9/19/2018 10:30:00AM	Waste	BTU			09/24/2018
1809G69-004C	LRO-WS-TK04-091918	9/19/2018 10:30:00AM	Waste	Hydrogen Ion (pH) by SM4500 H+ B			09/21/2018
1809G69-004D	LRO-WS-TK04-091918	9/19/2018 10:30:00AM	Waste	TOTAL METALS BY ICP		9/22/2018 3:30:00 PM	09/24/2018
1809G69-004D	LRO-WS-TK04-091918	9/19/2018 10:30:00AM	Waste	Total Mercury - Waste		9/21/2018 10:00:00 AM	09/21/2018
1809G69-005A	LRO-WS-TT01-091918	9/19/2018 12:00:00PM	Waste	TCL VOLATILE ORGANICS		9/27/2018 10:55:00 PM	09/28/2018
1809G69-005C	LRO-WS-TT01-091918	9/19/2018 12:00:00PM	Waste	POLYCHLORINATED BIPHENYLS		9/21/2018 11:00:00 AM	09/21/2018
1809G69-005C	LRO-WS-TT01-091918	9/19/2018 12:00:00PM	Waste	TCL-SEMIVOLATILE ORGANICS		9/21/2018 9:00:00 AM	09/28/2018
1809G69-005D	LRO-WS-TT01-091918	9/19/2018 12:00:00PM	Waste	IGNITABILITY			09/26/2018
1809G69-005D	LRO-WS-TT01-091918	9/19/2018 12:00:00PM	Waste	TOTAL METALS BY ICP		9/22/2018 3:30:00 PM	09/24/2018
1809G69-005D	LRO-WS-TT01-091918	9/19/2018 12:00:00PM	Waste	Total Mercury - Waste		9/21/2018 10:00:00 AM	09/21/2018
1809G69-005D	LRO-WS-TT01-091918	9/19/2018 12:00:00PM	Waste	BTU			09/24/2018
1809G69-005D	LRO-WS-TT01-091918	9/19/2018 12:00:00PM	Waste	Hydrogen Ion (pH) by SM4500 H+ B			09/21/2018
1809G69-006A	LRO-WS-TT02-091918	9/19/2018 12:20:00PM	Waste	TCL VOLATILE ORGANICS		9/27/2018 10:55:00 PM	09/28/2018
1809G69-006C	LRO-WS-TT02-091918	9/19/2018 12:20:00PM	Waste	POLYCHLORINATED BIPHENYLS		9/21/2018 11:00:00 AM	09/21/2018
1809G69-006C	LRO-WS-TT02-091918	9/19/2018 12:20:00PM	Waste	TCL-SEMIVOLATILE ORGANICS		9/21/2018 9:00:00 AM	09/28/2018
1809G69-006D	LRO-WS-TT02-091918	9/19/2018 12:20:00PM	Waste	IGNITABILITY			09/25/2018
1809G69-006D	LRO-WS-TT02-091918	9/19/2018 12:20:00PM	Waste	TOTAL METALS BY ICP		9/22/2018 3:30:00 PM	09/24/2018
1809G69-006D	LRO-WS-TT02-091918	9/19/2018 12:20:00PM	Waste	Total Mercury - Waste		9/21/2018 10:00:00 AM	09/21/2018
1809G69-006D	LRO-WS-TT02-091918	9/19/2018 12:20:00PM	Waste	BTU			09/24/2018
1809G69-006D	LRO-WS-TT02-091918	9/19/2018 12:20:00PM	Waste	Hydrogen Ion (pH) by SM4500 H+ B			09/21/2018
1809G69-007A	LRO-WS-TT03-091918	9/19/2018 12:40:00PM	Waste	TCL VOLATILE ORGANICS		9/27/2018 10:55:00 PM	09/28/2018
1809G69-007C	LRO-WS-TT03-091918	9/19/2018 12:40:00PM	Waste	POLYCHLORINATED BIPHENYLS		9/21/2018 11:00:00 AM	09/21/2018
1809G69-007C	LRO-WS-TT03-091918	9/19/2018 12:40:00PM	Waste	TCL-SEMIVOLATILE ORGANICS		9/21/2018 9:00:00 AM	09/28/2018
1809G69-007D	LRO-WS-TT03-091918	9/19/2018 12:40:00PM	Waste	IGNITABILITY			09/25/2018
1809G69-007D	LRO-WS-TT03-091918	9/19/2018 12:40:00PM	Waste	TOTAL METALS BY ICP		9/22/2018 3:30:00 PM	09/24/2018
1809G69-007D	LRO-WS-TT03-091918	9/19/2018 12:40:00PM	Waste	Total Mercury - Waste		9/21/2018 10:00:00 AM	09/21/2018
1809G69-007D	LRO-WS-TT03-091918	9/19/2018 12:40:00PM	Waste	BTU			09/24/2018

Analytical Environmental Services, Inc

Date: 1-Oct-18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Lab Order: 1809G69

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1809G69-007D	LRO-WS-TT03-091918	9/19/2018 12:40:00PM	Waste	Hydrogen Ion (pH) by SM4500 H+ B			09/21/2018
1809G69-008A	LRO-WS-TT04-091918	9/19/2018 1:35:00PM	Waste	TCL VOLATILE ORGANICS		9/27/2018 10:55:00 PM	09/28/2018
1809G69-008B	LRO-WS-TT04-091918	9/19/2018 1:35:00PM	Waste	POLYCHLORINATED BIPHENYLS		9/21/2018 11:00:00 AM	09/21/2018
1809G69-008B	LRO-WS-TT04-091918	9/19/2018 1:35:00PM	Waste	TCL-SEMIVOLATILE ORGANICS		9/21/2018 9:00:00 AM	09/28/2018
1809G69-008C	LRO-WS-TT04-091918	9/19/2018 1:35:00PM	Waste	IGNITABILITY			09/26/2018
1809G69-008C	LRO-WS-TT04-091918	9/19/2018 1:35:00PM	Waste	TOTAL METALS BY ICP		9/22/2018 3:30:00 PM	09/24/2018
1809G69-008C	LRO-WS-TT04-091918	9/19/2018 1:35:00PM	Waste	Total Mercury - Waste		9/21/2018 10:00:00 AM	09/21/2018
1809G69-008C	LRO-WS-TT04-091918	9/19/2018 1:35:00PM	Waste	BTU			09/24/2018
1809G69-008C	LRO-WS-TT04-091918	9/19/2018 1:35:00PM	Waste	Hydrogen Ion (pH) by SM4500 H+ B			09/21/2018
1809G69-009A	LRO-WS-TT05-091918	9/19/2018 2:00:00PM	Sludge	TCL VOLATILE ORGANICS		9/27/2018 10:55:00 PM	09/28/2018
1809G69-009B	LRO-WS-TT05-091918	9/19/2018 2:00:00PM	Sludge	POLYCHLORINATED BIPHENYLS		9/21/2018 11:00:00 AM	09/21/2018
1809G69-009B	LRO-WS-TT05-091918	9/19/2018 2:00:00PM	Sludge	TCL-SEMIVOLATILE ORGANICS		9/21/2018 9:00:00 AM	09/28/2018
1809G69-009C	LRO-WS-TT05-091918	9/19/2018 2:00:00PM	Sludge	IGNITABILITY			09/27/2018
1809G69-009C	LRO-WS-TT05-091918	9/19/2018 2:00:00PM	Sludge	BTU			09/24/2018
1809G69-009C	LRO-WS-TT05-091918	9/19/2018 2:00:00PM	Sludge	Hydrogen Ion (pH) by SM4500 H+ B			09/25/2018
1809G69-009D	LRO-WS-TT05-091918	9/19/2018 2:00:00PM	Sludge	TOTAL METALS BY ICP		9/22/2018 3:30:00 PM	09/24/2018
1809G69-009D	LRO-WS-TT05-091918	9/19/2018 2:00:00PM	Sludge	Total Mercury - Waste		9/21/2018 10:00:00 AM	09/21/2018
1809G69-010A	LRO-WS-DR01-091918	9/19/2018 5:05:00PM	Waste	TCL VOLATILE ORGANICS		9/27/2018 10:55:00 PM	09/28/2018
1809G69-010B	LRO-WS-DR01-091918	9/19/2018 5:05:00PM	Waste	TOTAL METALS BY ICP		9/22/2018 3:30:00 PM	09/24/2018
1809G69-010B	LRO-WS-DR01-091918	9/19/2018 5:05:00PM	Waste	Total Mercury - Waste		9/21/2018 10:00:00 AM	09/21/2018
1809G69-010C	LRO-WS-DR01-091918	9/19/2018 5:05:00PM	Waste	POLYCHLORINATED BIPHENYLS		9/21/2018 11:00:00 AM	09/21/2018
1809G69-010C	LRO-WS-DR01-091918	9/19/2018 5:05:00PM	Waste	TCL-SEMIVOLATILE ORGANICS		9/21/2018 9:00:00 AM	09/28/2018
1809G69-010D	LRO-WS-DR01-091918	9/19/2018 5:05:00PM	Waste	IGNITABILITY			09/26/2018
1809G69-010D	LRO-WS-DR01-091918	9/19/2018 5:05:00PM	Waste	BTU			09/24/2018
1809G69-010D	LRO-WS-DR01-091918	9/19/2018 5:05:00PM	Waste	Hydrogen Ion (pH) by SM4500 H+ B			09/21/2018
1809G69-011A	LRO-WS-DR02-091918	9/19/2018 5:15:00PM	Waste	TCL VOLATILE ORGANICS		9/27/2018 10:55:00 PM	09/28/2018
1809G69-011B	LRO-WS-DR02-091918	9/19/2018 5:15:00PM	Waste	TOTAL METALS BY ICP		9/22/2018 3:30:00 PM	09/24/2018
1809G69-011B	LRO-WS-DR02-091918	9/19/2018 5:15:00PM	Waste	Total Mercury - Waste		9/21/2018 10:00:00 AM	09/21/2018
1809G69-011C	LRO-WS-DR02-091918	9/19/2018 5:15:00PM	Waste	POLYCHLORINATED BIPHENYLS		9/21/2018 11:00:00 AM	09/21/2018

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Lab Order: 1809G69

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1809G69-011C	LRO-WS-DR02-091918	9/19/2018 5:15:00PM	Waste	TCL-SEMIVOLATILE ORGANICS		9/21/2018 9:00:00 AM	09/28/2018
1809G69-011D	LRO-WS-DR02-091918	9/19/2018 5:15:00PM	Waste	IGNITABILITY			09/26/2018
1809G69-011D	LRO-WS-DR02-091918	9/19/2018 5:15:00PM	Waste	BTU			09/24/2018
1809G69-011D	LRO-WS-DR02-091918	9/19/2018 5:15:00PM	Waste	Hydrogen Ion (pH) by SM4500 H+ B			09/21/2018
1809G69-012A	LRO-WS-DR03-091918	9/19/2018 5:30:00PM	Waste	TCL VOLATILE ORGANICS		9/27/2018 10:55:00 PM	09/28/2018
1809G69-012B	LRO-WS-DR03-091918	9/19/2018 5:30:00PM	Waste	TOTAL METALS BY ICP		9/22/2018 3:30:00 PM	09/24/2018
1809G69-012B	LRO-WS-DR03-091918	9/19/2018 5:30:00PM	Waste	Total Mercury - Waste		9/21/2018 10:00:00 AM	09/21/2018
1809G69-012C	LRO-WS-DR03-091918	9/19/2018 5:30:00PM	Waste	POLYCHLORINATED BIPHENYLS		9/21/2018 11:00:00 AM	09/21/2018
1809G69-012C	LRO-WS-DR03-091918	9/19/2018 5:30:00PM	Waste	TCL-SEMIVOLATILE ORGANICS		9/21/2018 9:00:00 AM	09/28/2018
1809G69-012D	LRO-WS-DR03-091918	9/19/2018 5:30:00PM	Waste	IGNITABILITY			09/26/2018
1809G69-012D	LRO-WS-DR03-091918	9/19/2018 5:30:00PM	Waste	BTU			09/24/2018
1809G69-012D	LRO-WS-DR03-091918	9/19/2018 5:30:00PM	Waste	Hydrogen Ion (pH) by SM4500 H+ B			09/21/2018

Analytical Environmental Services, Inc

Date: 1-Oct-18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1809G69

ANALYTICAL QC SUMMARY REPORT

BatchID: 267470

Sample ID: **MB-267470** Client ID:
SampleType: **MBLK** TestCode: **Total Mercury - Waste SW7471B**
Units: **mg/Kg** BatchID: **267470**
Prep Date: **09/20/2018** Analysis Date: **09/20/2018**
Run No: **380486** Seq No: **8479489**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	BRL	0.100									

Sample ID: **LCS-267470** Client ID:
SampleType: **LCS** TestCode: **Total Mercury - Waste SW7471B**
Units: **mg/Kg** BatchID: **267470**
Prep Date: **09/20/2018** Analysis Date: **09/20/2018**
Run No: **380486** Seq No: **8479490**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.3923	0.100	0.4000		98.1	80	120				

Sample ID: **1809E84-002AMS** Client ID:
SampleType: **MS** TestCode: **Total Mercury - Waste SW7471B**
Units: **mg/Kg** BatchID: **267470**
Prep Date: **09/20/2018** Analysis Date: **09/20/2018**
Run No: **380486** Seq No: **8479494**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.3729	0.0964	0.3855		96.7	80	120				

Sample ID: **1809E84-002AMSD** Client ID:
SampleType: **MSD** TestCode: **Total Mercury - Waste SW7471B**
Units: **mg/Kg** BatchID: **267470**
Prep Date: **09/20/2018** Analysis Date: **09/20/2018**
Run No: **380486** Seq No: **8479497**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.3410	0.0944	0.3776		90.3	80	120	0.3729	8.93	20	

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1809G69

ANALYTICAL QC SUMMARY REPORT

BatchID: 267492

Sample ID: **MB-267492** Client ID: Units: **mg/Kg** Prep Date: **09/21/2018** Run No: **380587**
SampleType: **MBLK** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **267492** Analysis Date: **09/21/2018** Seq No: **8484976**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1´-Biphenyl	BRL	100									
2,4,5-Trichlorophenol	BRL	500									
2,4,6-Trichlorophenol	BRL	100									
2,4-Dichlorophenol	BRL	100									
2,4-Dimethylphenol	BRL	100									
2,4-Dinitrophenol	BRL	500									
2,4-Dinitrotoluene	BRL	100									
2,6-Dinitrotoluene	BRL	100									
2-Chloronaphthalene	BRL	100									
2-Chlorophenol	BRL	100									
2-Methylnaphthalene	BRL	100									
2-Methylphenol	BRL	100									
2-Nitroaniline	BRL	500									
2-Nitrophenol	BRL	100									
3,3´-Dichlorobenzidine	BRL	670									
3-Nitroaniline	BRL	500									
4,6-Dinitro-2-methylphenol	BRL	500									
4-Bromophenyl phenyl ether	BRL	100									
4-Chloro-3-methylphenol	BRL	100									
4-Chloroaniline	BRL	100									
4-Chlorophenyl phenyl ether	BRL	100									
4-Methylphenol	BRL	100									
4-Nitroaniline	BRL	500									
4-Nitrophenol	BRL	500									
Acenaphthene	BRL	100									
Acenaphthylene	BRL	100									
Acetophenone	BRL	100									

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 1-Oct-18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1809G69

ANALYTICAL QC SUMMARY REPORT

BatchID: 267492

Sample ID: **MB-267492**	Client ID:	Units: **mg/Kg**	Prep Date: **09/21/2018**	Run No: **380587**
SampleType: **MBLK**	TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D**	BatchID: **267492**	Analysis Date: **09/21/2018**	Seq No: **8484976**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Anthracene	BRL	100									
Atrazine	BRL	100									
Benz(a)anthracene	BRL	100									
Benzaldehyde	BRL	100									
Benzo(a)pyrene	BRL	100									
Benzo(b)fluoranthene	BRL	100									
Benzo(g,h,i)perylene	BRL	100									
Benzo(k)fluoranthene	BRL	100									
Bis(2-chloroethoxy)methane	BRL	100									
Bis(2-chloroethyl)ether	BRL	100									
Bis(2-chloroisopropyl)ether	BRL	100									
Bis(2-ethylhexyl)phthalate	BRL	100									
Butyl benzyl phthalate	BRL	100									
Caprolactam	BRL	100									
Carbazole	BRL	100									
Chrysene	BRL	100									
Di-n-butyl phthalate	BRL	100									
Di-n-octyl phthalate	BRL	100									
Dibenz(a,h)anthracene	BRL	100									
Dibenzofuran	BRL	100									
Diethyl phthalate	BRL	100									
Dimethyl phthalate	BRL	100									
Fluoranthene	BRL	100									
Fluorene	BRL	100									
Hexachlorobenzene	BRL	100									
Hexachlorobutadiene	BRL	100									
Hexachlorocyclopentadiene	BRL	100									

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1809G69

ANALYTICAL QC SUMMARY REPORT

BatchID: 267492

Sample ID: **MB-267492** Client ID: Units: **mg/Kg** Prep Date: **09/21/2018** Run No: **380587**
SampleType: **MBLK** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **267492** Analysis Date: **09/21/2018** Seq No: **8484976**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Hexachloroethane	BRL	100									
Indeno(1,2,3-cd)pyrene	BRL	100									
Isophorone	BRL	100									
N-Nitrosodi-n-propylamine	BRL	100									
N-Nitrosodiphenylamine	BRL	100									
Naphthalene	BRL	100									
Nitrobenzene	BRL	100									
Pentachlorophenol	BRL	500									
Phenanthrene	BRL	100									
Phenol	BRL	100									
Pyrene	BRL	100									
Surr: 2,4,6-Tribromophenol	830.1	0	1000		83.0	52.8	148				
Surr: 2-Fluorobiphenyl	469.2	0	500.0		93.8	64.7	137				
Surr: 2-Fluorophenol	984.9	0	1000		98.5	57.4	132				
Surr: 4-Terphenyl-d14	538.7	0	500.0		108	62	138				
Surr: Nitrobenzene-d5	498.0	0	500.0		99.6	56.1	138				
Surr: Phenol-d5	1051	0	1000		105	49.6	133				

Sample ID: **LCS-267492** Client ID: Units: **mg/Kg** Prep Date: **09/21/2018** Run No: **380587**
SampleType: **LCS** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **267492** Analysis Date: **09/21/2018** Seq No: **8484977**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
2,4-Dinitrotoluene	906.1	100	1000		90.6	71.3	132				
2-Chlorophenol	975.6	100	1000		97.6	78.6	120				
4-Chloro-3-methylphenol	1017	100	1000		102	79.1	122				
4-Nitrophenol	650.7	500	1000		65.1	52.1	120				
Acenaphthene	876.1	100	1000		87.6	77.2	127				
N-Nitrosodi-n-propylamine	1075	100	1000		107	75.2	137				

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

Analytical Environmental Services, Inc

Date: 1-Oct-18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1809G69

ANALYTICAL QC SUMMARY REPORT

BatchID: 267492

Sample ID: **LCS-267492** Client ID:
SampleType: **LCS** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D**
Units: **mg/Kg** BatchID: **267492**
Prep Date: **09/21/2018** Analysis Date: **09/21/2018**
Run No: **380587** Seq No: **8484977**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Pentachlorophenol	496.2	500	1000		49.6	45	120				J
Phenol	928.3	100	1000		92.8	63.1	120				
Pyrene	962.5	100	1000		96.2	71.6	139				
Surr: 2,4,6-Tribromophenol	898.9	0	1000		89.9	52.8	148				
Surr: 2-Fluorobiphenyl	490.5	0	500.0		98.1	64.7	137				
Surr: 2-Fluorophenol	1026	0	1000		103	57.4	132				
Surr: 4-Terphenyl-d14	540.6	0	500.0		108	62	138				
Surr: Nitrobenzene-d5	537.0	0	500.0		107	56.1	138				
Surr: Phenol-d5	1086	0	1000		109	49.6	133				

Sample ID: **1809G69-008BMS** Client ID: **LRO-WS-TT04-091918**
SampleType: **MSD** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D**
Units: **mg/Kg** BatchID: **267492**
Prep Date: **09/21/2018** Analysis Date: **09/28/2018**
Run No: **381113** Seq No: **8497802**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
2,4-Dinitrotoluene	915.6	100	1000		91.6	46.1	120	820.0	0	26.8	
2-Chlorophenol	1016	100	1000		102	63.2	129	935.5	0	22.3	
4-Chloro-3-methylphenol	1085	100	1000		108	57.3	146	963.5	0	25.9	
4-Nitrophenol	568.3	500	1000		56.8	33.5	120	636.5	0	21.3	
Acenaphthene	896.9	100	1000		89.7	62.2	139	964.5	0	24	
N-Nitrosodi-n-propylamine	1197	100	1000		120	77.8	139	928.5	0	17.5	
Pentachlorophenol	456.7	500	1000		45.7	33	120	767.0	0	21	J
Phenol	966.1	100	1000		96.6	60.3	121	820.5	0	21.6	
Pyrene	1014	100	1000		101	64.5	139	928.0	0	25.1	
Surr: 2,4,6-Tribromophenol	870.1	0	1000		87.0	52.8	148	989.5	0	0	
Surr: 2-Fluorobiphenyl	504.9	0	500.0		101	64.7	137	529.0	0	0	
Surr: 2-Fluorophenol	1084	0	1000		108	57.4	132	929.0	0	0	
Surr: 4-Terphenyl-d14	513.8	0	500.0		103	62	138	518.0	0	0	
Surr: Nitrobenzene-d5	585.5	0	500.0		117	56.1	138	489.0	0	0	

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1809G69

ANALYTICAL QC SUMMARY REPORT

BatchID: 267492

Sample ID: **1809G69-008BMS** Client ID: **LRO-WS-TT04-091918** Units: **mg/Kg** Prep Date: **09/21/2018** Run No: **381113**
SampleType: **MSD** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **267492** Analysis Date: **09/28/2018** Seq No: **8497802**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: Phenol-d5	1112	0	1000		111	49.6	133	918.5	0	0	

Sample ID: **1809G69-008BMSD** Client ID: **LRO-WS-TT04-091918** Units: **mg/Kg** Prep Date: **09/21/2018** Run No: **381113**
SampleType: **MSD** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **267492** Analysis Date: **09/28/2018** Seq No: **8497546**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
2,4-Dinitrotoluene	938.5	100	1000		93.8	46.1	120	915.6	2.47	26.8	
2-Chlorophenol	1039	100	1000		104	63.2	129	1016	2.22	22.3	
4-Chloro-3-methylphenol	1102	100	1000		110	57.3	146	1085	1.55	25.9	
4-Nitrophenol	621.0	500	1000		62.1	33.5	120	568.3	8.86	21.3	
Acenaphthene	921.5	100	1000		92.2	62.2	139	896.9	2.71	24	
N-Nitrosodi-n-propylamine	1239	100	1000		124	77.8	139	1197	3.49	17.5	
Pentachlorophenol	468.1	500	1000		46.8	33	120	456.7	0	21	J
Phenol	980.9	100	1000		98.1	60.3	121	966.1	1.52	21.6	
Pyrene	1053	100	1000		105	64.5	139	1014	3.79	25.1	
Surr: 2,4,6-Tribromophenol	840.6	0	1000		84.1	52.8	148	870.1	0	0	
Surr: 2-Fluorobiphenyl	496.3	0	500.0		99.3	64.7	137	504.9	0	0	
Surr: 2-Fluorophenol	1050	0	1000		105	57.4	132	1084	0	0	
Surr: 4-Terphenyl-d14	527.2	0	500.0		105	62	138	513.8	0	0	
Surr: Nitrobenzene-d5	577.4	0	500.0		115	56.1	138	585.5	0	0	
Surr: Phenol-d5	1099	0	1000		110	49.6	133	1112	0	0	

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 1-Oct-18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1809G69

ANALYTICAL QC SUMMARY REPORT

BatchID: 267493

Sample ID: **MB-267493** Client ID:
SampleType: **MBLK** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A**
Units: **mg/Kg** BatchID: **267493**
Prep Date: **09/21/2018** Analysis Date: **09/21/2018**
Run No: **380697** Seq No: **8485322**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	BRL	1.0									
Aroclor 1221	BRL	1.0									
Aroclor 1232	BRL	1.0									
Aroclor 1242	BRL	1.0									
Aroclor 1248	BRL	1.0									
Aroclor 1254	BRL	1.0									
Aroclor 1260	BRL	1.0									
Surr: Decachlorobiphenyl	0.5309	0	0.5000		106	50.6	147				
Surr: Tetrachloro-m-xylene	0.5152	0	0.5000		103	51.2	146				

Sample ID: **LCS-267493** Client ID:
SampleType: **LCS** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A**
Units: **mg/Kg** BatchID: **267493**
Prep Date: **09/21/2018** Analysis Date: **09/24/2018**
Run No: **380698** Seq No: **8485337**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	5.754	1.0	5.000		115	82.9	127				
Aroclor 1260	5.106	1.0	5.000		102	80	142				
Surr: Decachlorobiphenyl	0.4265	0	0.5000		85.3	50.6	147				
Surr: Tetrachloro-m-xylene	0.4462	0	0.5000		89.2	51.2	146				

Sample ID: **1809H40-002AMS** Client ID:
SampleType: **MS** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A**
Units: **mg/Kg** BatchID: **267493**
Prep Date: **09/21/2018** Analysis Date: **09/21/2018**
Run No: **380697** Seq No: **8485320**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	5.603	1.0	5.000		112	74.8	143				
Aroclor 1260	4.635	1.0	5.000		92.7	71.5	140				
Surr: Decachlorobiphenyl	0.3356	0	0.5000		67.1	50.6	147				
Surr: Tetrachloro-m-xylene	0.3984	0	0.5000		79.7	51.2	146				

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1809G69

ANALYTICAL QC SUMMARY REPORT

BatchID: 267493

Sample ID: **1809H40-002AMSD** Client ID:
SampleType: **MSD** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A**
Units: **mg/Kg** BatchID: **267493**
Prep Date: **09/21/2018** Analysis Date: **09/21/2018**
Run No: **380697** Seq No: **8485321**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	5.876	1.0	5.000		118	74.8	143	5.603	4.75	20	
Aroclor 1260	4.954	1.0	5.000		99.1	71.5	140	4.635	6.65	20	
Surr: Decachlorobiphenyl	0.3417	0	0.5000		68.3	50.6	147	0.3356	0	0	
Surr: Tetrachloro-m-xylene	0.3996	0	0.5000		79.9	51.2	146	0.3984	0	0	

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 1-Oct-18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1809G69

ANALYTICAL QC SUMMARY REPORT

BatchID: 267504

Sample ID: **MB-267504**	Client ID:		Units: **mg/Kg**	Prep Date: **09/22/2018**	Run No: **380692**
SampleType: **MBLK**	TestCode: **METALS, TOTAL**	**SW6010D**	BatchID: **267504**	Analysis Date: **09/24/2018**	Seq No: **8485228**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	BRL	5.0									
Barium	BRL	5.0									
Cadmium	BRL	2.5									
Chromium	BRL	2.5									
Lead	BRL	5.0									
Selenium	BRL	5.0									
Silver	BRL	2.5									

Sample ID: **LCS-267504**	Client ID:		Units: **mg/Kg**	Prep Date: **09/22/2018**	Run No: **380692**
SampleType: **LCS**	TestCode: **METALS, TOTAL**	**SW6010D**	BatchID: **267504**	Analysis Date: **09/24/2018**	Seq No: **8485231**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	46.50	5.0	50.00		93.0	80	120				
Barium	50.22	5.0	50.00		100	80	120				
Cadmium	48.39	2.5	50.00		96.8	80	120				
Chromium	50.20	2.5	50.00		100	80	120				
Lead	48.77	5.0	50.00		97.5	80	120				
Selenium	42.56	5.0	50.00		85.1	80	120				
Silver	4.918	2.5	5.000		98.4	80	120				

Sample ID: **1809G69-001DMS**	Client ID: **LRO-WS-TK01-091918**		Units: **mg/Kg**	Prep Date: **09/22/2018**	Run No: **380692**
SampleType: **MS**	TestCode: **METALS, TOTAL**	**SW6010D**	BatchID: **267504**	Analysis Date: **09/24/2018**	Seq No: **8485233**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	35.49	4.7	47.30		75.0	75	125				
Barium	40.42	4.7	47.30	4.734	75.4	75	125				
Cadmium	38.54	2.4	47.30	0.1632	81.1	75	125				
Chromium	38.96	2.4	47.30	0.5843	81.1	75	125				

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1809G69

ANALYTICAL QC SUMMARY REPORT

BatchID: 267504

Sample ID: **1809G69-001DMS** Client ID: **LRO-WS-TK01-091918** Units: **mg/Kg** Prep Date: **09/22/2018** Run No: **380692**
SampleType: **MS** TestCode: **METALS, TOTAL SW6010D** BatchID: **267504** Analysis Date: **09/24/2018** Seq No: **8485233**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Lead	39.93	4.7	47.30	6.993	69.6	75	125				S
Selenium	36.01	4.7	47.30		76.1	75	125				
Silver	2.483	2.4	4.730	0.03569	51.7	75	125				S

Sample ID: **1809G69-001DMSD** Client ID: **LRO-WS-TK01-091918** Units: **mg/Kg** Prep Date: **09/22/2018** Run No: **380692**
SampleType: **MSD** TestCode: **METALS, TOTAL SW6010D** BatchID: **267504** Analysis Date: **09/24/2018** Seq No: **8485234**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	33.35	4.8	47.59		70.1	75	125	35.49	6.23	20	S
Barium	37.56	4.8	47.59	4.734	69.0	75	125	40.42	7.32	20	S
Cadmium	35.90	2.4	47.59	0.1632	75.1	75	125	38.54	7.09	20	
Chromium	36.25	2.4	47.59	0.5843	75.0	75	125	38.96	7.21	20	S
Lead	37.29	4.8	47.59	6.993	63.7	75	125	39.93	6.84	20	S
Selenium	34.13	4.8	47.59		71.7	75	125	36.01	5.35	20	S
Silver	2.291	2.4	4.759	0.03569	47.4	75	125	2.483	0	20	JS

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 1-Oct-18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1809G69

ANALYTICAL QC SUMMARY REPORT

BatchID: 267881

Sample ID: **MB-267881** Client ID:
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B**
Units: **ug/Kg** Prep Date: **09/27/2018** Run No: **381074**
BatchID: **267881** Analysis Date: **09/27/2018** Seq No: **8496369**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,4-Trichlorobenzene	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,3-Dichlorobenzene	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
2-Butanone	BRL	50									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	50									
Benzene	BRL	5.0									
Bromodichloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	10									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									
Chloroform	BRL	5.0									
Chloromethane	BRL	10									

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1809G69

ANALYTICAL QC SUMMARY REPORT

BatchID: 267881

Sample ID: **MB-267881** Client ID: Units: **ug/Kg** Prep Date: **09/27/2018** Run No: **381074**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **267881** Analysis Date: **09/27/2018** Seq No: **8496369**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Isopropylbenzene	BRL	5.0									
m,p-Xylene	BRL	5.0									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	20									
o-Xylene	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl chloride	BRL	10									
Surr: 4-Bromofluorobenzene	35.41	0	50.00		70.8	65	133				
Surr: Dibromofluoromethane	48.22	0	50.00		96.4	75.8	119				
Surr: Toluene-d8	44.56	0	50.00		89.1	78.3	120				

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 1-Oct-18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1809G69

ANALYTICAL QC SUMMARY REPORT

BatchID: 267881

Sample ID: **LCS-267881** Client ID: Units: **ug/Kg** Prep Date: **09/27/2018** Run No: **381074**
SampleType: **LCS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **267881** Analysis Date: **09/27/2018** Seq No: **8496368**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	46.00	5.0	50.00		92.0	64.8	138				
Benzene	50.73	5.0	50.00		101	70	126				
Chlorobenzene	53.22	5.0	50.00		106	70	124				
Toluene	56.57	5.0	50.00		113	70.4	127				
Trichloroethene	47.29	5.0	50.00		94.6	70.4	129				
Surr: 4-Bromofluorobenzene	37.42	0	50.00		74.8	65	133				
Surr: Dibromofluoromethane	47.86	0	50.00		95.7	75.8	119				
Surr: Toluene-d8	44.70	0	50.00		89.4	78.3	120				

Sample ID: **1809G69-001AMS** Client ID: **LRO-WS-TK01-091918** Units: **ug/Kg** Prep Date: **09/27/2018** Run No: **381074**
SampleType: **MS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **267881** Analysis Date: **09/28/2018** Seq No: **8496372**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	213700	26000	258300		82.7	58.3	138				
Benzene	246600	26000	258300		95.5	66.2	127				
Chlorobenzene	242700	26000	258300		94.0	66	124				
Toluene	371000	26000	258300	102900	104	67.4	127				
Trichloroethene	224600	26000	258300		87.0	64.9	127				
Surr: 4-Bromofluorobenzene	218800	0	258300		84.7	65	133				
Surr: Dibromofluoromethane	233900	0	258300		90.6	75.8	119				
Surr: Toluene-d8	236700	0	258300		91.7	78.3	120				

Sample ID: **1809G69-001AMSD** Client ID: **LRO-WS-TK01-091918** Units: **ug/Kg** Prep Date: **09/27/2018** Run No: **381074**
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **267881** Analysis Date: **09/28/2018** Seq No: **8496373**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	238100	26000	258300		92.2	58.3	138	213700	10.8	20.2	
Benzene	286900	26000	258300		111	66.2	127	246600	15.1	18.6	

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1809G69

ANALYTICAL QC SUMMARY REPORT

BatchID: 267881

Sample ID: **1809G69-001AMSD** Client ID: **LRO-WS-TK01-091918** Units: **ug/Kg** Prep Date: **09/27/2018** Run No: **381074**
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **267881** Analysis Date: **09/28/2018** Seq No: **8496373**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chlorobenzene	301200	26000	258300		117	66	124	242700	21.5	20	R
Toluene	425800	26000	258300	102900	125	67.4	127	371000	13.8	20	
Trichloroethene	266200	26000	258300		103	64.9	127	224600	16.9	20	
Surr: 4-Bromofluorobenzene	216600	0	258300		83.9	65	133	218800	0	0	
Surr: Dibromofluoromethane	227800	0	258300		88.2	75.8	119	233900	0	0	
Surr: Toluene-d8	234000	0	258300		90.6	78.3	120	236700	0	0	

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1809G69

ANALYTICAL QC SUMMARY REPORT

BatchID: R380583

Sample ID: **LCS-R380583** Client ID: Units: **pH Units** Prep Date: Run No: **380583**
SampleType: **LCS** TestCode: **Hydrogen Ion (pH) by SM4500 H+ B** BatchID: **R380583** Analysis Date: **09/21/2018** Seq No: **8482437**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
pH	7.050	0.0100	7.000		101	90	110				

Sample ID: **1809G69-010DDUP** Client ID: **LRO-WS-DR01-091918** Units: **pH Units** Prep Date: Run No: **380583**
SampleType: **DUP** TestCode: **Hydrogen Ion (pH) by SM4500 H+ B** BatchID: **R380583** Analysis Date: **09/21/2018** Seq No: **8482457**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
pH	7.930	0.0100						7.890	0.506	20	H

Sample ID: **1809H84-001DDUP** Client ID: Units: **pH Units** Prep Date: Run No: **380583**
SampleType: **DUP** TestCode: **Hydrogen Ion (pH) by SM4500 H+ B** BatchID: **R380583** Analysis Date: **09/21/2018** Seq No: **8482456**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
pH	5.340	0.0100						5.330	0.187	20	H

Qualifiers:

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

Date: 1-Oct-18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1809G69

ANALYTICAL QC SUMMARY REPORT

BatchID: R380865

Sample ID: **LCS-R380865** Client ID:
SampleType: **LCS** TestCode: **Hydrogen Ion (pH) by SM4500 H+ B**
Units: **pH Units** Prep Date:
BatchID: **R380865** Analysis Date: **09/25/2018**
Run No: **380865**
Seq No: **8489535**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
pH	7.040	0.0100	7.000		101	90	110				

Sample ID: **1809G69-009CDUP** Client ID: **LRO-WS-TT05-091918**
SampleType: **DUP** TestCode: **Hydrogen Ion (pH) by SM4500 H+ B**
Units: **pH Units** Prep Date:
BatchID: **R380865** Analysis Date: **09/25/2018**
Run No: **380865**
Seq No: **8489590**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
pH	7.810	0.0100						7.870	0.765	20	H

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 1-Oct-18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1809G69

ANALYTICAL QC SUMMARY REPORT

BatchID: R380872

Sample ID: **LCS-R380872** Client ID:
SampleType: **LCS** TestCode: **Ignitability SW1010A**
Units: **°F** Prep Date:
BatchID: **R380872** Analysis Date: **09/25/2018**
Run No: **380872**
Seq No: **8490204**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ignitability	81.00	0	81.00		100	93.8	106.2				

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1809G69

ANALYTICAL QC SUMMARY REPORT

BatchID: R380877

Sample ID: **1809D95-001ADUP** Client ID: Units: **BTU/lb** Prep Date: Run No: **380877**
SampleType: **DUP** TestCode: **BTU ASTM D240** BatchID: **R380877** Analysis Date: **09/24/2018** Seq No: **8489922**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
BTU	5292	0						5292	0	20	N

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 1-Oct-18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1809G69

ANALYTICAL QC SUMMARY REPORT

BatchID: R380983

Sample ID: **LCS-R380983** Client ID: Units: **°F** Prep Date: Run No: **380983**
SampleType: **LCS** TestCode: **Ignitability SW1010A** BatchID: **R380983** Analysis Date: **09/26/2018** Seq No: **8493300**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ignitability	81.00	0	81.00		100	93.8	106.2				

Sample ID: **1809G69-011DDUP** Client ID: **LRO-WS-DR02-091918** Units: **°F** Prep Date: Run No: **380983**
SampleType: **DUP** TestCode: **Ignitability SW1010A** BatchID: **R380983** Analysis Date: **09/26/2018** Seq No: **8493339**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ignitability	190.0	0						190.0	0	20	>

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1809G69

ANALYTICAL QC SUMMARY REPORT

BatchID: R380993

Sample ID: **LCS-R380993** Client ID: Units: **°F** Prep Date: Run No: **380993**
SampleType: **LCS** TestCode: **Ignitability SW1010A** BatchID: **R380993** Analysis Date: **09/27/2018** Seq No: **8493471**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ignitability	81.00	0	81.00		100	93.8	106.2				

Sample ID: **1809J60-004ADUP** Client ID: Units: **°F** Prep Date: Run No: **380993**
SampleType: **DUP** TestCode: **Ignitability SW1010A** BatchID: **R380993** Analysis Date: **09/27/2018** Seq No: **8493672**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ignitability	190.0	0						190.0	0	20	>

Qualifiers:

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

Pressley, Miriam

From: Prys, Paul <Paul.Prys@tetratech.com>
Sent: Tuesday, March 5, 2019 7:39 PM
To: Eichinger, Kevin
Subject: FW: L&R Oil Recovery Assessment
Attachments: 1902M12_REPORT.pdf

Kevin,

Here are the results of the ACM sampling at L&R Oil. As I said earlier, the 9" X 9" floor tile, window glazing, and all of the roofing material reported results containing asbestos >1%. I'll try to get a table together tomorrow breaking down locations and sample results before I leave tomorrow. And, I'll look at the state form for asbestos abatement. Give me a call in the morning if you have any questions.

-----Original Message-----
From: No_Reply@aesatlanta.com <No_Reply@aesatlanta.com>
Sent: Monday, March 04, 2019 4:52 PM
To: Prys, Paul <Paul.Prys@tetratech.com>; Vickers, Jessica <jessica.vickers@tetratech.com>
Subject: L&R Oil Recovery Assessment

Please see attached. If you have any questions or need further assistance please contact your project manager at 770-457-8177.

AES Reporting System

ANALYTICAL ENVIRONMENTAL SERVICES,INC.
3080 Presidential Drive ATLANTA,GA 30340
Tel:770-457-8177 Fax:770-457-8188
http:\\www.aesatlanta.com

NOTICE OF CONFIDENTIALITY: The information in this email and / or attachments may be legally privileged and is confidential information intended for the use of the individual or entity named in the email address.
If the reader of this message is not the intended recipient, you are hereby notified that any use, dissemination, distribution, or copy of this email and / or attachments is strictly prohibited. If you have received this email in error, please notify Analytical Environmental Services Customer Service by telephone at (770) 457-8177 or by email at info@aesatlanta.com <mailto:info@aesatlanta.com> and delete the message. Thank you

Pressley, Miriam

From: Prys, Paul <Paul.Prys@tetratech.com>
Sent: Tuesday, March 5, 2019 7:39 PM
To: Eichinger, Kevin
Subject: FW: L&R Oil Recovery Assessment
Attachments: 1902M12_REPORT.pdf

Kevin,

Here are the results of the ACM sampling at L&R Oil. As I said earlier, the 9" X 9" floor tile, window glazing, and all of the roofing material reported results containing asbestos >1%. I'll try to get a table together tomorrow breaking down locations and sample results before I leave tomorrow. And, I'll look at the state form for asbestos abatement. Give me a call in the morning if you have any questions.

-----Original Message-----
From: No_Reply@aesatlanta.com <No_Reply@aesatlanta.com>
Sent: Monday, March 04, 2019 4:52 PM
To: Prys, Paul <Paul.Prys@tetratech.com>; Vickers, Jessica <jessica.vickers@tetratech.com>
Subject: L&R Oil Recovery Assessment

Please see attached. If you have any questions or need further assistance please contact your project manager at 770-457-8177.

AES Reporting System

ANALYTICAL ENVIRONMENTAL SERVICES,INC.
3080 Presidential Drive ATLANTA,GA 30340
Tel:770-457-8177 Fax:770-457-8188
http:\\www.aesatlanta.com

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If the reader of this message is not the intended recipient, you are hereby notified that any use, dissemination, distribution, or copy of this email and / or attachments is strictly prohibited. If you have received this email in error, please notify Analytical Environmental Services Customer Service by telephone at (770) 457-8177 or by email at info@aesatlanta.com <mailto:info@aesatlanta.com> and delete the message. Thank you

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3785 Presidential Parkway, Atlanta GA 30340-3704
TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: ~~1902M21~~ ~~1902M22~~ 1902M12 HB 2/23

Date: 2/22/2019 Page 1 of 4

COMPANY: **Tetra Tech EM, Inc.**

ADDRESS: **1955 Evergreen Blvd, Bldg 200, Suite 300, Duluth, GA 30096**

PHONE: 404-849-7136

FAX: 678-775-3138

SAMPLED BY: Paul Prys

SIGNATURE: [signature]

ANALYSIS REQUESTED: PLM - ASBESTOS

PRESERVATION (See codes): NA

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

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	PLM - ASBESTOS (NA)	REMARKS	No # of Containers
1	LRO-ASB-C1-01	2/21/2019	NA	X		O	1		1
2	LRO-ASB-C1-02	2/21/2019	NA	X		O	1		1
3	LRO-ASB-C1-03	2/21/2019	NA	X		O	1		1
4	LRO-ASB-C1-04	2/21/2019	NA	X		O	1		1
5	LRO-ASB-C1-05	2/21/2019	NA	X		O	1		1
6	LRO-ASB-C2-01	2/21/2019	NA	X		O	1		1
7	LRO-ASB-C2-02	2/21/2019	NA	X		O	1		1
8	LRO-ASB-C2-03	2/21/2019	NA	X		O	1		1
9	LRO-ASB-F1-01	2/21/2019	NA	X		O	1		1
10	LRO-ASB-F1-02	2/21/2019	NA	X		O	1		1
11	LRO-ASB-F1-03	2/21/2019	NA	X		O	1		1
12	LRO-ASB-MCA1-01	2/21/2019	NA	X		O	1		1
13	LRO-ASB-MCA1-02	2/21/2019	NA	X		O	1		1
14	LRO-ASB-MIB1-01	2/21/2019	NA	X		O	1		1

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: [signature]	2/22/19 @ 1627	1: [signature]	2-22-19 16:27
2:		2:	
3:		3:	

PROJECT INFORMATION

PROJECT NAME: **L&R Oil Recovery Assessment**

PROJECT #: 103X902702047.011F

SITE ADDRESS: 501 Ruth Street, Shelby, North Carolina

SEND REPORT TO: jessica.vickers@tetratech.com

INVOICE TO: (IF DIFFERENT FROM ABOVE)

QUOTE #: PO#:

RECEIPT

Total # of Containers: 14

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

STATE PROGRAM (if any):

E-mail? Y N; Fax? Y N

DATA PACKAGE: I II III IV

SPECIAL INSTRUCTIONS/COMMENTS:
Analyze all samples via PLM for asbestos for a 5-day TAT
Also email results to paul.prys@tetratech.com

SHIPMENT METHOD
OUT 2/22/19 VIA: TE
IN / / VIA:
CLIENT FedEx UPS MAIL COURIER GREYHOUND OTHER

SAMPLES RECEIVED AFTER 3PM OR SATURDAY ARE CONSIDERED AS RECEIVED ON THE NEXT BUSINESS DAY; IF NO TAT IS MARKED ON COC AES WILL PROCEED AS STANDARD TAT.
SAMPLES ARE DISPOSED OF 30 DAYS AFTER COMPLETION OF REPORT UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) O = Other (specify)

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3785 Presidential Parkway, Atlanta GA 30340-3704
TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: ~~1902M22~~ 1902M12 HB2/2

Date: 2/22/2019 Page 2 of 4

COMPANY: Tetra Tech EM, Inc.
ADDRESS: 1955 Evergreen Blvd, Bldg 200, Suite 300, Duluth, GA 30096
PHONE: 404-849-7136
FAX: 678-775-3138
SAMPLED BY: Paul Prys
SIGNATURE:

ANALYSIS REQUESTED: PLM - ASBESTOS

PRESERVATION (See codes): NA

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

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	PLM - ASBESTOS	REMARKS	No # of Containers
1	LRO-ASB-MIB1-02	2/21/2019	NA	X		O	1		1
2	LRO-ASB-MIB1-03	2/21/2019	NA	X		O	1		1
3	LRO-ASB-MIS-01	2/21/2019	NA	X		O	1		1
4	LRO-ASB-MIS-02	2/21/2019	NA	X		O	1		1
5	LRO-ASB-MIS-03	2/21/2019	NA	X		O	1		1
6	LRO-ASB-MRT-01	2/21/2019	NA	X		O	1		1
7	LRO-ASB-MRT-02	2/21/2019	NA	X		O	1		1
8	LRO-ASB-MVDI-01	2/21/2019	NA	X		O	1		1
9	LRO-ASB-MVDI-02	2/21/2019	NA	X		O	1		1
10	LRO-ASB-MW-01	2/21/2019	NA	X		O	1		1
11	LRO-ASB-MW-02	2/21/2019	NA	X		O	1		1
12	LRO-ASB-MW-03	2/21/2019	NA	X		O	1		1
13	LRO-ASB-RF-01	2/20/2019	NA	X		O	1		1
14	LRO-ASB-RF-02	2/20/2019	NA	X		O	1		1

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1:	2/22/19 1627	1: Amen Peterson	2-22-19 16:27
2:		2:	
3:		3:	

PROJECT INFORMATION
PROJECT NAME: L&R Oil Recovery Assessment
PROJECT #: 103X902702047.011F
SITE ADDRESS: 501 Ruth Street, Shelby, North Carolina
SEND REPORT TO: jessica.vickers@tetratech.com
INVOICE TO: (IF DIFFERENT FROM ABOVE)
QUOTE #: PO#:

RECEIPT
Total # of Containers: 14

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

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

SPECIAL INSTRUCTIONS/COMMENTS:
Analyze all samples via PLM for asbestos for a 5-day TAT
Also email results to paul.prys@tetratech.com

SHIPMENT METHOD
OUT 2/22/19 VIA: TT
IN / / VIA:
CLIENT FedEx UPS MAIL COURIER GREYHOUND OTHER

SAMPLES RECEIVED AFTER 3PM OR SATURDAY ARE CONSIDERED AS RECEIVED ON THE NEXT BUSINESS DAY; IF NO TAT IS MARKED ON COC AES WILL PROCEED AS STANDARD TAT.
SAMPLES ARE DISPOSED OF 30 DAYS AFTER COMPLETION OF REPORT UNLESS OTHER ARRANGEMENTS ARE MADE.

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

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3785 Presidential Parkway, Atlanta GA 30340-3704
TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

AES

CHAIN OF CUSTODY

Work Order: ~~1902M22~~ 1902M12 MB 2/2

Date: 2/22/2019 Page 3 of 4

COMPANY: Tetra Tech EM, Inc.

ADDRESS: 1955 Evergreen Blvd, Bldg 200, Suite 300, Duluth, GA 30096

PHONE: 404-849-7136

FAX: 678-775-3138

SAMPLED BY: Paul Prys

SIGNATURE:

ANALYSIS REQUESTED

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

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	PLM - ASBESTOS (PRESERVATION (See codes): NA)	REMARKS	No # of Containers
1	LRO-ASB-RF-03	2/20/2019	NA	X		O	1		1
2	LRO-ASB-RF-04	2/20/2019	NA	X		O	1		1
3	LRO-ASB-RF-05	2/20/2019	NA	X		O	1		1
4	LRO-ASB-RF-06	2/20/2019	NA	X		O	1		1
5	LRO-ASB-RF-07	2/20/2019	NA	X		O	1		1
6	LRO-ASB-RM-01	2/20/2019	NA	X		O	1		1
7	LRO-ASB-RM-02	2/20/2019	NA	X		O	1		1
8	LRO-ASB-RM-03	2/20/2019	NA	X		O	1		1
9	LRO-ASB-RM-04	2/20/2019	NA	X		O	1		1
10	LRO-ASB-RM-05	2/20/2019	NA	X		O	1		1
11	LRO-ASB-RM-06	2/20/2019	NA	X		O	1		1
12	LRO-ASB-RM-07	2/20/2019	NA	X		O	1		1
13	LRO-ASB-RP-01	2/20/2019	NA	X		O	1		1
14	LRO-ASB-RP-02	2/20/2019	NA	X		O	1		1

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1:	2/22/19 @ 1627	1: Andrew Peterson	2-22-19 16:27
2:		2:	
3:		3:	

PROJECT INFORMATION

PROJECT NAME: L&R Oil Recovery Assessment

PROJECT #: 103X902702047.011F

SITE ADDRESS: 501 Ruth Street, Shelby, North Carolina

SEND REPORT TO: jessica.vickers@tetratech.com

INVOICE TO: (IF DIFFERENT FROM ABOVE)

QUOTE #: PO#:

RECEIPT

Total # of Containers: 14

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

STATE PROGRAM (if any):

E-mail? Y N; Fax? Y N

DATA PACKAGE: I II III IV

SPECIAL INSTRUCTIONS/COMMENTS:

Analyze all samples via PLM for asbestos for a 5-day TAT

Also email results to paul.prys@tetratech.com

SHIPMENT METHOD

OUT 2/22/19 VIA: TT

IN VIA:

CLIENT FedEx UPS MAIL COURIER GREYHOUND OTHER

SAMPLES RECEIVED AFTER 3PM OR SATURDAY ARE CONSIDERED AS RECEIVED ON THE NEXT BUSINESS DAY; IF NO TAT IS MARKED ON COC AES WILL PROCEED AS STANDARD TAT.

SAMPLES ARE DISPOSED OF 30 DAYS AFTER COMPLETION OF REPORT UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) O = Other (specify)

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

1902M12

Work Order: ~~1902M22~~ HB 2/23

ANALYTICAL ENVIRONMENTAL SERVICES, INC

3785 Presidential Parkway, Atlanta GA 30340-3704
TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Date: 2/22/2019 Page 4 of 4

COMPANY: Tetra Tech EM, Inc.

ADDRESS: 1955 Evergreen Blvd, Bldg 200, Suite 300, Duluth, GA 30096

PHONE: 404-849-7136

FAX: 678-775-3138

SAMPLED BY: Paul Prys

SIGNATURE: [signature]

ANALYSIS REQUESTED: PLM - ASBESTOS

PRESERVATION (See codes): NA

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

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	PLM - ASBESTOS (NA)	REMARKS	No # of Containers
1	LRO-ASB-RP-03	2/20/2019	NA	X		O	1		1
2	LRO-ASB-RPT-01	2/20/2019	NA	X		O	1		1
3	LRO-ASB-WB-01	2/21/2019	NA	X		O	1		1
4	LRO-ASB-WB-02	2/21/2019	NA	X		O	1		1
5	LRO-ASB-WB-03	2/21/2019	NA	X		O	1		1
6	LRO-ASB-WCB-01	2/21/2019	NA	X		O	1		1
7	LRO-ASB-WCB-02	2/21/2019	NA	X		O	1		1
8	LRO-ASB-WCB-03	2/21/2019	NA	X		O	1		1
9									
10									
11									
12									
13									
14									

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: [signature]	2/21/19 1627	1: [signature]	2-22-19 16:27
2:		2:	
3:		3:	

PROJECT INFORMATION

PROJECT NAME: L&R Oil Recovery Assessment

PROJECT #: 103X902702047.011F

SITE ADDRESS: 501 Ruth Street, Shelby, North Carolina

SEND REPORT TO: jessica.vickers@tetratech.com

INVOICE TO: (IF DIFFERENT FROM ABOVE)

QUOTE #: PO#:

RECEIPT

Total # of Containers: 8

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

STATE PROGRAM (if any):

E-mail? Y / N; Fax? Y N

DATA PACKAGE: I II III IV

SPECIAL INSTRUCTIONS/COMMENTS:

Analyze all samples via PLM for asbestos for a 5-day TAT

Also email results to paul.prys@tetratech.com

SHIPMENT METHOD

OUT 2/22/19 VIA: TT

IN / / VIA:

CLIENT FedEx UPS MAIL COURIER GREYHOUND OTHER

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PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Bulk Sample Summary Report

AES

NVLAP

Lab Code 102082-0

4-Mar-19

Client Name:	**Tetra Tech Inc.**	AES Job Number:	**1902M12**
Project Name:	**L&R Oil Recovery Assessment**	Project Number:	**103X902702047.011F**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
LRO-ASB-C1-01 Layer: 1	1902M12 -001A		ND	ND	ND	ND	ND	ND	Ceiling tile. Paint included as binder
LRO-ASB-C1-02 Layer: 1	1902M12 -002A		ND	ND	ND	ND	ND	ND	Ceiling tile. Paint included as binder
LRO-ASB-C1-03 Layer: 1	1902M12 -003A		ND	ND	ND	ND	ND	ND	Ceiling tile. Paint included as binder
LRO-ASB-C1-04 Layer: 1	1902M12 -004A		ND	ND	ND	ND	ND	ND	Ceiling tile. Paint included as binder
LRO-ASB-C1-05 Layer: 1	1902M12 -005A		ND	ND	ND	ND	ND	ND	Ceiling tile. Paint included as binder
LRO-ASB-C2-01 Layer: 1	1902M12 -006A		ND	ND	ND	ND	ND	ND	Paint included as binder

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

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These test results apply only to those samples actually tested, as submitted by the client. All percentages are reported by visually estimated volume. PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

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Microanalyst: Elena Ivanova

QC Analyst: Yelena Khanina

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Bulk Sample Summary Report

NVLAP

Lab Code 102082-0

4-Mar-19

Client Name:	**Tetra Tech Inc.**	AES Job Number:	**1902M12**
Project Name:	**L&R Oil Recovery Assessment**	Project Number:	**103X902702047.011F**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
LRO-ASB-C2-02 Layer: 1	1902M12 -007A		ND	ND	ND	ND	ND	ND	Paint included as binder
LRO-ASB-C2-03 Layer: 1	1902M12 -008A		ND	ND	ND	ND	ND	ND	Paint included as binder
LRO-ASB-F1-01 Layer: 1	1902M12 -009A		2	ND	ND	ND	ND	ND	Vinyl
LRO-ASB-F1-01 Layer: 2	1902M12 -009A		ND	ND	ND	ND	ND	ND	Glue
LRO-ASB-F1-02 Layer: 1	1902M12 -010A		2	ND	ND	ND	ND	ND	Floor tile
LRO-ASB-F1-02 Layer: 2	1902M12 -010A		ND	ND	ND	ND	ND	ND	Glue

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

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Bulk Sample Summary Report

AES

NVLAP

Lab Code 102082-0

4-Mar-19

Client Name: **Tetra Tech Inc.**

Project Name: **L&R Oil Recovery Assessment**

AES Job Number: **1902M12**

Project Number: **103X902702047.011F**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
LRO-ASB-F1-03 Layer: 1	1902M12 -011A		2	ND	ND	ND	ND	ND	Floor tile
LRO-ASB-F1-03 Layer: 2	1902M12 -011A		ND	ND	ND	ND	ND	ND	Glue
LRO-ASB-MCA1-01 Layer: 1	1902M12 -012A		ND	ND	ND	ND	ND	ND	Glue
LRO-ASB-MCA1-02 Layer: 1	1902M12 -013A		ND	ND	ND	ND	ND	ND	Glue
LRO-ASB-MIB1-01 Layer: 1	1902M12 -014A		ND	ND	ND	ND	ND	ND	Tar
LRO-ASB-MIB1-01 Layer: 2	1902M12 -014A		ND	ND	ND	ND	ND	ND	Felt

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

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Bulk Sample Summary Report

NVLAP

Lab Code 102082-0

4-Mar-19

Client Name: **Tetra Tech Inc.**

Project Name: **L&R Oil Recovery Assessment**

AES Job Number: **1902M12**

Project Number: **103X902702047.011F**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
LRO-ASB-MIB1-01 Layer: 3	1902M12 -014A		ND	ND	ND	ND	ND	ND	Insulation
LRO-ASB-MIB1-02 Layer: 1	1902M12 -015A		ND	ND	ND	ND	ND	ND	Tar
LRO-ASB-MIB1-02 Layer: 2	1902M12 -015A		ND	ND	ND	ND	ND	ND	Insulation
LRO-ASB-MIB1-02 Layer: 3	1902M12 -015A		ND	ND	ND	ND	ND	ND	Insulation
LRO-ASB-MIB1-03 Layer: 1	1902M12 -016A		ND	ND	ND	ND	ND	ND	Tar
LRO-ASB-MIB1-03 Layer: 2	1902M12 -016A		ND	ND	ND	ND	ND	ND	Insulation

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

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Bulk Sample Summary Report

AES

NVLAP

Lab Code 102082-0

4-Mar-19

Client Name:	**Tetra Tech Inc.**	AES Job Number:	**1902M12**
Project Name:	**L&R Oil Recovery Assessment**	Project Number:	**103X902702047.011F**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
LRO-ASB-MIB1-03 Layer: 3	1902M12 -016A		ND	ND	ND	ND	ND	ND	Insulation
LRO-ASB-MIS-01 Layer: 1	1902M12 -017A		ND	ND	ND	ND	ND	ND	Insulations
LRO-ASB-MIS-02 Layer: 1	1902M12 -018A		ND	ND	ND	ND	ND	ND	Insulations
LRO-ASB-MIS-03 Layer: 1	1902M12 -019A		ND	ND	ND	ND	ND	ND	Insulations
LRO-ASB-MRT-01 Layer: 1	1902M12 -020A		10	ND	ND	ND	ND	ND	Tar
LRO-ASB-MRT-02 Layer: 1	1902M12 -021A		10	ND	ND	ND	ND	ND	Tar

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

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Bulk Sample Summary Report

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NVLAP

Lab Code 102082-0

4-Mar-19

Client Name:	**Tetra Tech Inc.**	AES Job Number:	**1902M12**
Project Name:	**L&R Oil Recovery Assessment**	Project Number:	**103X902702047.011F**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
LRO-ASB-MVDI-01 Layer: 1	1902M12 -022A		ND	ND	ND	ND	ND	ND	Insulations
LRO-ASB-MVDI-02 Layer: 1	1902M12 -023A		ND	ND	ND	ND	ND	ND	Insulations
LRO-ASB-MW-01 Layer: 1	1902M12 -024A		3	ND	ND	ND	ND	ND	Gray glazing. Paint included as binder
LRO-ASB-MW-02 Layer: 1	1902M12 -025A		3	ND	ND	ND	ND	ND	Gray glazing. Paint included as binder
LRO-ASB-MW-03 Layer: 1	1902M12 -026A		ND	ND	ND	ND	ND	ND	Dark gray glazing. Paint included as binder
LRO-ASB-RF-01 Layer: 1	1902M12 -027A		10	ND	ND	ND	ND	ND	Tar. Paint included as binder

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

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Bulk Sample Summary Report

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NVLAP

Lab Code 102082-0

4-Mar-19

Client Name:	**Tetra Tech Inc.**	AES Job Number:	**1902M12**
Project Name:	**L&R Oil Recovery Assessment**	Project Number:	**103X902702047.011F**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
LRO-ASB-RF-01 Layer: 2	1902M12 -027A		ND	ND	ND	ND	ND	ND	Felt
LRO-ASB-RF-01 Layer: 3	1902M12 -027A		ND	ND	ND	ND	ND	ND	Tar
LRO-ASB-RF-02 Layer: 1	1902M12 -028A		10	ND	ND	ND	ND	ND	Tar. Paint included as binder
LRO-ASB-RF-02 Layer: 2	1902M12 -028A		ND	ND	ND	ND	ND	ND	Felt
LRO-ASB-RF-02 Layer: 3	1902M12 -028A		ND	ND	ND	ND	ND	ND	Tar
LRO-ASB-RF-03 Layer: 1	1902M12 -029A		3	ND	ND	ND	ND	ND	Silver paint

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

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Bulk Sample Summary Report

AES

NVLAP

Lab Code 102082-0

4-Mar-19

Client Name:	**Tetra Tech Inc.**	AES Job Number:	**1902M12**
Project Name:	**L&R Oil Recovery Assessment**	Project Number:	**103X902702047.011F**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
LRO-ASB-RF-03 Layer: 2	1902M12 -029A		ND	ND	ND	ND	ND	ND	Tar
LRO-ASB-RF-03 Layer: 3	1902M12 -029A		ND	ND	ND	ND	ND	ND	Felt
LRO-ASB-RF-03 Layer: 4	1902M12 -029A		ND	ND	ND	ND	ND	ND	Felt
LRO-ASB-RF-03 Layer: 5	1902M12 -029A		ND	ND	ND	ND	ND	ND	Insulations
LRO-ASB-RF-04 Layer: 1	1902M12 -030A		15	ND	ND	ND	ND	ND	Tar. Paint included as binder
LRO-ASB-RF-04 Layer: 2	1902M12 -030A		ND	ND	ND	ND	ND	ND	Felt

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite
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ND = None Detected

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Bulk Sample Summary Report

AES

NVLAP

Lab Code 102082-0

4-Mar-19

Client Name:	**Tetra Tech Inc.**	AES Job Number:	**1902M12**
Project Name:	**L&R Oil Recovery Assessment**	Project Number:	**103X902702047.011F**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
LRO-ASB-RF-04 Layer: 3	1902M12 -030A		ND	ND	ND	ND	ND	ND	Felt
LRO-ASB-RF-04 Layer: 4	1902M12 -030A		ND	ND	ND	ND	ND	ND	Tar
LRO-ASB-RF-05 Layer: 1	1902M12 -031A		20	ND	ND	ND	ND	ND	Felt. Paint included as binder
LRO-ASB-RF-05 Layer: 2	1902M12 -031A		ND	ND	ND	ND	ND	ND	Tar
LRO-ASB-RF-05 Layer: 3	1902M12 -031A		ND	ND	ND	ND	ND	ND	Felt
LRO-ASB-RF-05 Layer: 4	1902M12 -031A		ND	ND	ND	ND	ND	ND	Felt

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AES

NVLAP

Lab Code 102082-0

4-Mar-19

Client Name:	**Tetra Tech Inc.**	AES Job Number:	**1902M12**
Project Name:	**L&R Oil Recovery Assessment**	Project Number:	**103X902702047.011F**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
LRO-ASB-RF-06 Layer: 1	1902M12 -032A		3	ND	ND	ND	ND	ND	Silver paint
LRO-ASB-RF-06 Layer: 2	1902M12 -032A		ND	ND	ND	ND	ND	ND	Tar
LRO-ASB-RF-06 Layer: 3	1902M12 -032A		ND	ND	ND	ND	ND	ND	Felt
LRO-ASB-RF-06 Layer: 4	1902M12 -032A		ND	ND	ND	ND	ND	ND	Felt
LRO-ASB-RF-06 Layer: 5	1902M12 -032A		ND	ND	ND	ND	ND	ND	Insulations
LRO-ASB-RF-07 Layer: 1	1902M12 -033A		20	ND	ND	ND	ND	ND	Felt. Paint included as binder

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NVLAP

Lab Code 102082-0

4-Mar-19

Client Name: **Tetra Tech Inc.**

Project Name: **L&R Oil Recovery Assessment**

AES Job Number: **1902M12**

Project Number: **103X902702047.011F**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
LRO-ASB-RF-07 Layer: 2	1902M12 -033A		ND	ND	ND	ND	ND	ND	Tar
LRO-ASB-RF-07 Layer: 3	1902M12 -033A		ND	ND	ND	ND	ND	ND	Felt
LRO-ASB-RF-07 Layer: 4	1902M12 -033A		ND	ND	ND	ND	ND	ND	Felt
LRO-ASB-RF-07 Layer: 5	1902M12 -033A		ND	ND	ND	ND	ND	ND	Insulation
LRO-ASB-RM-01 Layer: 1	1902M12 -034A		3	ND	ND	ND	ND	ND	Silver paint
LRO-ASB-RM-01 Layer: 2	1902M12 -034A		ND	ND	ND	ND	ND	ND	Tar

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

AES,Inc. is accredited by NIST's National Voluntary Laboratory Accreditation Program (NVLAP) for Polarized Light Microscopy (PLM) analysis, Lab Code 102082-0. All analyses performed in accordance with EPA "Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (EPA 600/M4-82-020), 1982 as found in 40 CFR, Part 763, Appendix E to Subpart E and "Method for the Determination of Asbestos in Bulk Building Materials" (EPA/600/R-93/116), 1993.

These test results apply only to those samples actually tested, as submitted by the client. All percentages are reported by visually estimated volume. PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

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Microanalyst: Elena Ivanova

QC Analyst: Yelena Khanina

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Bulk Sample Summary Report

AES

NVLAP

Lab Code 102082-0

4-Mar-19

Client Name: **Tetra Tech Inc.** AES Job Number: **1902M12**

Project Name: **L&R Oil Recovery Assessment** Project Number: **103X902702047.011F**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
LRO-ASB-RM-01 Layer: 3	1902M12 -034A		ND	ND	ND	ND	ND	ND	Felt
LRO-ASB-RM-01 Layer: 4	1902M12 -034A		10	ND	ND	ND	ND	ND	Felt
LRO-ASB-RM-01 Layer: 5	1902M12 -034A		ND	ND	ND	ND	ND	ND	Insulation
LRO-ASB-RM-02 Layer: 1	1902M12 -035A		ND	ND	ND	ND	ND	ND	Tar
LRO-ASB-RM-02 Layer: 2	1902M12 -035A		ND	ND	ND	ND	ND	ND	Felt
LRO-ASB-RM-02 Layer: 3	1902M12 -035A		ND	ND	ND	ND	ND	ND	Insulation

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

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ND = None Detected

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Bulk Sample Summary Report

AES

NVLAP

Lab Code 102082-0

4-Mar-19

Client Name: **Tetra Tech Inc.**

Project Name: **L&R Oil Recovery Assessment**

AES Job Number: **1902M12**

Project Number: **103X902702047.011F**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
LRO-ASB-RM-03 Layer: 1	1902M12 -036A		30	ND	ND	ND	ND	ND	Felt
LRO-ASB-RM-03 Layer: 2	1902M12 -036A		ND	ND	ND	ND	ND	ND	Felt
LRO-ASB-RM-03 Layer: 3	1902M12 -036A		ND	ND	ND	ND	ND	ND	Tar
LRO-ASB-RM-03 Layer: 4	1902M12 -036A		ND	ND	ND	ND	ND	ND	Felt
LRO-ASB-RM-04 Layer: 1	1902M12 -037A		ND	ND	ND	ND	ND	ND	Tar
LRO-ASB-RM-04 Layer: 2	1902M12 -037A		ND	ND	ND	ND	ND	ND	Felt

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

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ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Bulk Sample Summary Report

AES

NVLAP

Lab Code 102082-0

4-Mar-19

Client Name:	**Tetra Tech Inc.**	AES Job Number:	**1902M12**
Project Name:	**L&R Oil Recovery Assessment**	Project Number:	**103X902702047.011F**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
LRO-ASB-RM-04 Layer: 3	1902M12 -037A		ND	ND	ND	ND	ND	ND	Insulation
LRO-ASB-RM-05 Layer: 1	1902M12 -038A		20	ND	ND	ND	ND	ND	Felt. Paint included as binder
LRO-ASB-RM-05 Layer: 2	1902M12 -038A		ND	ND	ND	ND	ND	ND	Tar
LRO-ASB-RM-05 Layer: 3	1902M12 -038A		ND	ND	ND	ND	ND	ND	Felt
LRO-ASB-RM-05 Layer: 4	1902M12 -038A		ND	ND	ND	ND	ND	ND	Felt
LRO-ASB-RM-05 Layer: 5	1902M12 -038A		ND	ND	ND	ND	ND	ND	Insulation

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

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ND = None Detected

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Bulk Sample Summary Report

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NVLAP

Lab Code 102082-0

4-Mar-19

Client Name:	**Tetra Tech Inc.**	AES Job Number:	**1902M12**
Project Name:	**L&R Oil Recovery Assessment**	Project Number:	**103X902702047.011F**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
LRO-ASB-RM-06 Layer: 1	1902M12 -039A		3	ND	ND	ND	ND	ND	Silver paint
LRO-ASB-RM-06 Layer: 2	1902M12 -039A		ND	ND	ND	ND	ND	ND	Tar
LRO-ASB-RM-06 Layer: 3	1902M12 -039A		ND	ND	ND	ND	ND	ND	Felt
LRO-ASB-RM-06 Layer: 4	1902M12 -039A		ND	ND	ND	ND	ND	ND	Felt
LRO-ASB-RM-06 Layer: 5	1902M12 -039A		ND	ND	ND	ND	ND	ND	Insulation
LRO-ASB-RM-07 Layer: 1	1902M12 -040A		ND	ND	ND	ND	ND	ND	Tar

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

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ND = None Detected

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Bulk Sample Summary Report

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4-Mar-19

Client Name:	**Tetra Tech Inc.**	AES Job Number:	**1902M12**
Project Name:	**L&R Oil Recovery Assessment**	Project Number:	**103X902702047.011F**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
LRO-ASB-RM-07 Layer: 2	1902M12 -040A		20	ND	ND	ND	ND	ND	Felt
LRO-ASB-RM-07 Layer: 3	1902M12 -040A		ND	ND	ND	ND	ND	ND	Felt
LRO-ASB-RM-07 Layer: 4	1902M12 -040A		ND	ND	ND	ND	ND	ND	Insulation
LRO-ASB-RP-01 Layer: 1	1902M12 -041A		3	ND	ND	ND	ND	ND	Silver paint
LRO-ASB-RP-01 Layer: 2	1902M12 -041A		ND	ND	ND	ND	ND	ND	Tar
LRO-ASB-RP-01 Layer: 3	1902M12 -041A		ND	ND	ND	ND	ND	ND	Felt

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

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4-Mar-19

Client Name:	**Tetra Tech Inc.**	AES Job Number:	**1902M12**
Project Name:	**L&R Oil Recovery Assessment**	Project Number:	**103X902702047.011F**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
LRO-ASB-RP-01 Layer: 4	1902M12 -041A		ND	ND	ND	ND	ND	ND	Felt
LRO-ASB-RP-01 Layer: 5	1902M12 -041A		ND	ND	ND	ND	ND	ND	Insulation
LRO-ASB-RP-02 Layer: 1	1902M12 -042A		ND	ND	ND	ND	ND	ND	Tar
LRO-ASB-RP-02 Layer: 2	1902M12 -042A		ND	ND	ND	ND	ND	ND	Felt
LRO-ASB-RP-02 Layer: 3	1902M12 -042A		ND	ND	ND	ND	ND	ND	Felt
LRO-ASB-RP-02 Layer: 4	1902M12 -042A		ND	ND	ND	ND	ND	ND	Insulation

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

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ND = None Detected

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Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
LRO-ASB-RP-03 Layer: 1	1902M12 -043A		ND	ND	ND	ND	ND	ND	Tar
LRO-ASB-RP-03 Layer: 2	1902M12 -043A		ND	ND	ND	ND	ND	ND	Felt
LRO-ASB-RP-03 Layer: 3	1902M12 -043A		ND	ND	ND	ND	ND	ND	Felt
LRO-ASB-RP-03 Layer: 4	1902M12 -043A		ND	ND	ND	ND	ND	ND	Insulation
LRO-ASB-RPT-01 Layer: 1	1902M12 -044A		3	ND	ND	ND	ND	ND	Silver paint
LRO-ASB-RPT-01 Layer: 2	1902M12 -044A		ND	ND	ND	ND	ND	ND	Tar

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

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Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
LRO-ASB-WB-01 Layer: 1	1902M12 -045A		ND	ND	ND	ND	ND	ND	Board
LRO-ASB-WB-02 Layer: 1	1902M12 -046A		ND	ND	ND	ND	ND	ND	Board
LRO-ASB-WB-03 Layer: 1	1902M12 -047A		ND	ND	ND	ND	ND	ND	Board
LRO-ASB-WCB-01 Layer: 1	1902M12 -048A		ND	ND	ND	ND	ND	ND	Skim coat. Paint included as binder
LRO-ASB-WCB-01 Layer: 2	1902M12 -048A		ND	ND	ND	ND	ND	ND	Plaster
LRO-ASB-WCB-02 Layer: 1	1902M12 -049A		ND	ND	ND	ND	ND	ND	Skim coat. Paint included as binder

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4-Mar-19

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Project Name:	**L&R Oil Recovery Assessment**	Project Number:	**103X902702047.011F**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
LRO-ASB-WCB-02 Layer: 2	1902M12 -049A		ND	ND	ND	ND	ND	ND	Plaster
LRO-ASB-WCB-03 Layer: 1	1902M12 -050A		ND	ND	ND	ND	ND	ND	Plaster. Paint included as binder

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Microanalyst: Elena Ivanova

QC Analyst: Yelena Khanina

Pressley, Miriam

From: Prys, Paul <Paul.Prys@tetratech.com>
Sent: Wednesday, March 20, 2019 3:03 PM
To: Eichinger, Kevin
Subject: FW: L&R Oil Recovery Assessment
Attachments: 1903D56_REPORT.pdf

Kevin,

Here are the analytical results for the on site and residential soil samples collected at L&R Oil. Looks like there are no issues, but give them a look and let me know if you need anything else.

-----Original Message-----
From: No_Reply@aesatlanta.com <No_Reply@aesatlanta.com>
Sent: Wednesday, March 20, 2019 1:12 PM
To: Vickers, Jessica <jessica.vickers@tetratech.com>; Prys, Paul <Paul.Prys@tetratech.com>
Subject: L&R Oil Recovery Assessment

Please see attached. If you have any questions or need further assistance please contact your project manager at 770-457-8177.

AES Reporting System

ANALYTICAL ENVIRONMENTAL SERVICES,INC.
3080 Presidential Drive ATLANTA,GA 30340
Tel:770-457-8177 Fax:770-457-8188
http:\\www.aesatlanta.com

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ANALYTICAL ENVIRONMENTAL SERVICES, INC.

AES

March 20, 2019

Jessica Vickers
Tetra Tech EM Inc.

1955 Evergreen Blvd.
Duluth GA 30096

RE: L&R Oil Recovery Assessment

Dear Jessica Vickers: Order No: 1903D56

Analytical Environmental Services, Inc. received 29 samples on 3/14/2019 8:30:00 AM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.
AES's accreditations are as follows:
-NELAP/State of Florida Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, Air & Emissions Volatile Organics, and Drinking Water Microbiology & Metals, effective 07/01/18-06/30/19.
State of Georgia, Department of Natural Resources ID #800 for analysis of Drinking Water Metals, effective 07/01/18-06/30/19 and Total Coliforms/ E. coli, effective 04/25/17-04/24/20.
-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Metals and PCM Asbestos), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 11/01/19.
These results relate only to the items tested as received. This report may only be reproduced in full.

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

Sincerely,

Paris Masoudi

Paris Masoudi
Project Manager

5080 Presidential Drive • Atlanta, Georgia 30340 • Tel: 770.457.8177 • Fax: 770.457.8188 • Toll Free: 800.972.4889
www.aesatlanta.com

ANALYTICAL ENVIRONMENTAL SERVICES, INC

3785 Presidential Parkway, Atlanta GA 30340-3704
TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

AES

CHAIN OF CUSTODY

Work Order: 1903D56

Date: 3/13/2019 Page 1 of 3

COMPANY: Tetra Tech EM, Inc.

ADDRESS: 1955 Evergreen Blvd, Bldg 200, Suite 300, Duluth, GA 30096

PHONE: 404-849-7136

FAX: 678-775-3138

SAMPLED BY: Paul Prys

SIGNATURE: [signature]

ANALYSIS REQUESTED: PCB

PRESERVATION (See codes): NA

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

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	PCB (NA)	REMARKS	No # of Containers
1	LROA-602RS-A-031319	3/13/2019	10:40		X	SO	X		1
2	LROA-604RS-A-031219	3/12/2019	14:10		X	SO	X		1
3	LROA-604RS-B-031219	3/12/2019	14:05		X	SO	X		1
4	LROA-606RS-A-031219	3/12/2019	13:15		X	SO	X		1
5	LROA-606RS-B-031219	3/12/2019	13:25		X	SO	X		1
6	LROA-618DS-A-031319	3/13/2019	9:35		X	SO	X		1
7	LROA-618DS-A-031319-DUP	3/13/2019	10:00		X	SO	X		1
8	LROA-618DS-B-031319	3/13/2019	9:40		X	SO	X	MS/MSD	3
9	LROA-700DS-A-031219	3/12/2019	11:25		X	SO	X		1
10	LROA-700DS-B-031219	3/12/2019	11:30		X	SO	X		1
11	LROA-702DS-A-031219	3/12/2019	10:25		X	SO	X		1
12	LROA-702DS-B-031219	3/12/2019	10:50		X	SO	X		1
13	LROA-704DS-A-031219	3/12/2019	14:55		X	SO	X		1
14	LROA-704DS-B-031219	3/12/2019	15:10		X	SO	X		1

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: [signature]	3/13/19 2230	1: [signature]	3/14/19 8:30
2:		2:	
3:		3:	

SPECIAL INSTRUCTIONS/COMMENTS:
Also email results to paul.prys@tetratech.com

SHIPMENT METHOD
OUT 3/13/19 VIA: TT
IN / / VIA:
CLIENT FedEx UPS MAIL COURIER
GREYHOUND OTHER Dropoff

PROJECT INFORMATION
PROJECT NAME: L&R Oil Recovery Assessment
PROJECT #: 103X902702047.011F
SITE ADDRESS: 501 Ruth Street, Shelby, North Carolina
SEND REPORT TO: jessica.vickers@tetratech.com
INVOICE TO: (IF DIFFERENT FROM ABOVE)
QUOTE #: PO#:

RECEIPT
Total # of Containers 16

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

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

SAMPLES RECEIVED AFTER 3PM OR SATURDAY ARE CONSIDERED AS RECEIVED ON THE NEXT BUSINESS DAY; IF NO TAT IS MARKED ON COC AES WILL PROCEED AS STANDARD TAT.
SAMPLES ARE DISPOSED OF 30 DAYS AFTER COMPLETION OF REPORT UNLESS OTHER ARRANGEMENTS ARE MADE.

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

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3785 Presidential Parkway, Atlanta GA 30340-3704
TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1903D56

Date: 3/13/2019 Page 2 of 3

COMPANY: Tetra Tech EM, Inc.

ADDRESS: 1955 Evergreen Blvd, Bldg 200, Suite 300, Duluth, GA 30096

PHONE: 404-849-7136

FAX: 678-775-3138

SAMPLED BY: Paul Prys

SIGNATURE:

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

ANALYSIS REQUESTED

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	PCB	PAH	RCRA METALS	VOCS	REMARKS	No # of Containers
							PRESERVATION (See codes)					
							I	I	I	S/M+ I		
1	LROA-706DS-A-031219	3/12/2019	15:45		X	SO	X					1
2	LROA-706DS-B-031219	3/12/2019	15:45		X	SO	X					1
3	LROA-710DS-A-031219	3/12/2019	16:40		X	SO	X					1
4	LROA-710DS-B-031219	3/12/2019	16:45		X	SO	X					1
5	LROA-63001-031319	3/13/2019	11:10		X	SO	X					1
6	LROA-SS-01-031319	3/13/2019	13:30		X	SO	X	X	X	X	MS/MSD	15
7	LROA-SS-02-031319	3/13/2019	13:00		X	SO	X	X	X	X		5
8	LROA-SS-02-031319-DUP	3/13/2019	13:15		X	SO	X	X	X	X		5
9	LROA-SS-03-031319	3/13/2019	15:15		X	SO	X	X	X	X		5
10	LROA-SS-04-031319	3/13/2019	16:05		X	SO	X	X	X	X		5
11	LROA-SS-05-031319	3/13/2019	16:15		X	SO	X	X	X	X		5
12	LROA-SS-06-031319	3/13/2019	16:25		X	SO	X	X	X	X		5
13	LROA-EB-01-031319	3/13/2019	21:00	X		W	X	X	X	X		
14	LROA-FB-01-031319	3/13/2019	21:15	X		W	X	X	X	X		

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1:	3/13/19 @ 2230	1:	3/14/19 8:30
2:		2:	
3:		3:	

PROJECT INFORMATION

PROJECT NAME: L&R Oil Recovery Assessment

PROJECT #: 103X902702047.011F

SITE ADDRESS: 501 Ruth Street, Shelby, North Carolina

SEND REPORT TO: jessica.vickers@tetratech.com

INVOICE TO: (IF DIFFERENT FROM ABOVE)

QUOTE #: PO#:

RECEIPT

Total # of Containers: 50

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

STATE PROGRAM (if any):

E-mail? (Y) N; Fax? Y / N

DATA PACKAGE: I (II) III IV

SPECIAL INSTRUCTIONS/COMMENTS:
Also email results to paul.prys@tetratech.com

SHIPMENT METHOD
OUT 3/13/19 VIA: TT
IN / / VIA:
CLIENT FedEx UPS MAIL COURIER
GREYHOUND OTHER hotshot

SAMPLES RECEIVED AFTER 3PM OR SATURDAY ARE CONSIDERED AS RECEIVED ON THE NEXT BUSINESS DAY; IF NO TAT IS MARKED ON COC AES WILL PROCEED AS STANDARD TAT.

SAMPLES ARE DISPOSED OF 30 DAYS AFTER COMPLETION OF REPORT UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) O = Other (specify)

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3785 Presidential Parkway, Atlanta GA 30340-3704
TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1903D56

Date: 3/13/2019 Page 3 of 3

COMPANY: Tetra Tech EM, Inc.
ADDRESS: 1955 Evergreen Blvd, Bldg 200, Suite 300, Duluth, GA 30096
PHONE: 404-849-7136
FAX: 678-775-3138
SAMPLED BY: Paul Prys
SIGNATURE:

ANALYSIS REQUESTED: VOC

PRESERVATION (See codes): H+I

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

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	VOC H+I	REMARKS	No # of Containers
1	LROA-TB-01-031319	3/13/2019	21:30	X		W	X		2
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1:	3/13/19 2230	1:	3/14/19 8:30
2:		2:	
3:		3:	

SPECIAL INSTRUCTIONS/COMMENTS:
Analyze all samples via PLM for asbestos for a 5-day TAT
Also email results to paul.prys@tetratech.com

SHIPMENT METHOD
OUT 3/13/19 VIA: TT
IN / / VIA:
CLIENT FedEx UPS MAIL COURIER
GREYHOUND OTHER drop box

PROJECT INFORMATION
PROJECT NAME: L&R Oil Recovery Assessment
PROJECT #: 103X902702047.011F
SITE ADDRESS: 501 Ruth Street, Shelby, North Carolina
SEND REPORT TO: jessica.vickers@tetratech.com
INVOICE TO: (IF DIFFERENT FROM ABOVE)
QUOTE #: PO#:

RECEIPT
Total # of Containers 2

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

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

SAMPLES RECEIVED AFTER 3PM OR SATURDAY ARE CONSIDERED AS RECEIVED ON THE NEXT BUSINESS DAY; IF NO TAT IS MARKED ON COC AES WILL PROCEED AS STANDARD TAT.
SAMPLES ARE DISPOSED OF 30 DAYS AFTER COMPLETION OF REPORT UNLESS OTHER ARRANGEMENTS ARE MADE.

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PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

Analytical Environmental Services, Inc

Date: 20-Mar-19

Client: Tetra Tech EM Inc.
Project: L&R Oil Recovery Assessment
Lab ID: 1903D56

Case Narrative

Sample Receiving Nonconformance:

Sample information on the Chain of Custody (COC) did not match that on the sample bottle labels for 1903D56-007. The COC lists collection time as "10:00," however the bottle label indicates "9:35." Sample was logged in using the information provided by the COC.

Volatile Organic Compounds Analysis by Method 8260D:

Percent recovery for the internal standard compound 1,4-Dichlorobenzene-d4 on samples 1903D56-023A, & -024 A was outside control limits biased low due to suspected matrix interference. All other internal standard recoveries were within control limits.

Due to sample matrix, sample 1903D56-020A required dilution during preparation and/or analysis resulting in elevated reporting limits.

PAH Analysis by Method 8270D:

Matrix spike and/or matrix spike duplicate analyses were not performed with Batch 276068 due to insufficient sample volume.

Analytical Environmental Services, Inc **Date:** 20-Mar-19

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LROA-602RS-A-031319
Project Name:	L&R Oil Recovery Assessment	**Collection Date:**	3/13/2019 10:40:00 AM
Lab ID:	1903D56-001	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3546)**				
Aroclor 1016	BRL		3.5	39	ug/Kg-dry	275835	1	03/15/2019 14:11	UH
Aroclor 1221	BRL		4.9	39	ug/Kg-dry	275835	1	03/15/2019 14:11	UH
Aroclor 1232	BRL		3.1	39	ug/Kg-dry	275835	1	03/15/2019 14:11	UH
Aroclor 1242	BRL		1.8	39	ug/Kg-dry	275835	1	03/15/2019 14:11	UH
Aroclor 1248	BRL		5.1	39	ug/Kg-dry	275835	1	03/15/2019 14:11	UH
Aroclor 1254	84		2.1	39	ug/Kg-dry	275835	1	03/15/2019 14:11	UH
Aroclor 1260	BRL		1.9	39	ug/Kg-dry	275835	1	03/15/2019 14:11	UH
Aroclor 1262	BRL		1.7	39	ug/Kg-dry	275835	1	03/15/2019 14:11	UH
Aroclor 1268	BRL		2.7	39	ug/Kg-dry	275835	1	03/15/2019 14:11	UH
Surr: Decachlorobiphenyl	82.9		0	45.7-140	%REC	275835	1	03/15/2019 14:11	UH
Surr: Tetrachloro-m-xylene	83.6		0	45.3-126	%REC	275835	1	03/15/2019 14:11	UH
PERCENT MOISTURE D2216									
Percent Moisture	15.1		0	0	wt%	R393433	1	03/18/2019 14:00	JW

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 20-Mar-19

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LROA-604RS-A-031219
Project Name:	L&R Oil Recovery Assessment	**Collection Date:**	3/12/2019 2:10:00 PM
Lab ID:	1903D56-002	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3546)**				
Aroclor 1016	BRL		3.5	40	ug/Kg-dry	275835	1	03/15/2019 14:22	UH
Aroclor 1221	BRL		5.0	40	ug/Kg-dry	275835	1	03/15/2019 14:22	UH
Aroclor 1232	BRL		3.1	40	ug/Kg-dry	275835	1	03/15/2019 14:22	UH
Aroclor 1242	BRL		1.9	40	ug/Kg-dry	275835	1	03/15/2019 14:22	UH
Aroclor 1248	BRL		5.2	40	ug/Kg-dry	275835	1	03/15/2019 14:22	UH
Aroclor 1254	13	J	2.2	40	ug/Kg-dry	275835	1	03/15/2019 14:22	UH
Aroclor 1260	5.4	J	1.9	40	ug/Kg-dry	275835	1	03/15/2019 14:22	UH
Aroclor 1262	BRL		1.8	40	ug/Kg-dry	275835	1	03/15/2019 14:22	UH
Aroclor 1268	BRL		2.8	40	ug/Kg-dry	275835	1	03/15/2019 14:22	UH
Surr: Decachlorobiphenyl	83.5		0	45.7-140	%REC	275835	1	03/15/2019 14:22	UH
Surr: Tetrachloro-m-xylene	84		0	45.3-126	%REC	275835	1	03/15/2019 14:22	UH
PERCENT MOISTURE D2216									
Percent Moisture	16.9		0	0	wt%	R393433	1	03/18/2019 14:00	JW

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 20-Mar-19

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LROA-604RS-B-031219
Project Name:	L&R Oil Recovery Assessment	**Collection Date:**	3/12/2019 2:05:00 PM
Lab ID:	1903D56-003	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3546)**				
Aroclor 1016	BRL		3.5	40	ug/Kg-dry	275835	1	03/15/2019 14:44	UH
Aroclor 1221	BRL		4.9	40	ug/Kg-dry	275835	1	03/15/2019 14:44	UH
Aroclor 1232	BRL		3.1	40	ug/Kg-dry	275835	1	03/15/2019 14:44	UH
Aroclor 1242	BRL		1.9	40	ug/Kg-dry	275835	1	03/15/2019 14:44	UH
Aroclor 1248	BRL		5.2	40	ug/Kg-dry	275835	1	03/15/2019 14:44	UH
Aroclor 1254	BRL		2.1	40	ug/Kg-dry	275835	1	03/15/2019 14:44	UH
Aroclor 1260	BRL		1.9	40	ug/Kg-dry	275835	1	03/15/2019 14:44	UH
Aroclor 1262	BRL		1.8	40	ug/Kg-dry	275835	1	03/15/2019 14:44	UH
Aroclor 1268	BRL		2.7	40	ug/Kg-dry	275835	1	03/15/2019 14:44	UH
Surr: Decachlorobiphenyl	85.5		0	45.7-140	%REC	275835	1	03/15/2019 14:44	UH
Surr: Tetrachloro-m-xylene	79.9		0	45.3-126	%REC	275835	1	03/15/2019 14:44	UH
PERCENT MOISTURE D2216									
Percent Moisture	16.1		0	0	wt%	R393433	1	03/18/2019 14:00	JW

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 20-Mar-19

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LROA-606RS-A-031219
Project Name:	L&R Oil Recovery Assessment	**Collection Date:**	3/12/2019 1:15:00 PM
Lab ID:	1903D56-004	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3546)**				
Aroclor 1016	BRL		3.4	39	ug/Kg-dry	275835	1	03/15/2019 16:14	UH
Aroclor 1221	BRL		4.8	39	ug/Kg-dry	275835	1	03/15/2019 16:14	UH
Aroclor 1232	BRL		3.0	39	ug/Kg-dry	275835	1	03/15/2019 16:14	UH
Aroclor 1242	BRL		1.8	39	ug/Kg-dry	275835	1	03/15/2019 16:14	UH
Aroclor 1248	BRL		5.0	39	ug/Kg-dry	275835	1	03/15/2019 16:14	UH
Aroclor 1254	BRL		2.1	39	ug/Kg-dry	275835	1	03/15/2019 16:14	UH
Aroclor 1260	28	J	1.9	39	ug/Kg-dry	275835	1	03/15/2019 16:14	UH
Aroclor 1262	BRL		1.7	39	ug/Kg-dry	275835	1	03/15/2019 16:14	UH
Aroclor 1268	BRL		2.7	39	ug/Kg-dry	275835	1	03/15/2019 16:14	UH
Surr: Decachlorobiphenyl	94.6		0	45.7-140	%REC	275835	1	03/15/2019 16:14	UH
Surr: Tetrachloro-m-xylene	86.8		0	45.3-126	%REC	275835	1	03/15/2019 16:14	UH
PERCENT MOISTURE D2216									
Percent Moisture	13.5		0	0	wt%	R393433	1	03/18/2019 14:00	JW

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 20-Mar-19

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LROA-606RS-B-031219
Project Name:	L&R Oil Recovery Assessment	**Collection Date:**	3/12/2019 1:25:00 PM
Lab ID:	1903D56-005	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3546)**				
Aroclor 1016	BRL		3.4	38	ug/Kg-dry	275835	1	03/15/2019 14:56	UH
Aroclor 1221	BRL		4.7	38	ug/Kg-dry	275835	1	03/15/2019 14:56	UH
Aroclor 1232	BRL		3.0	38	ug/Kg-dry	275835	1	03/15/2019 14:56	UH
Aroclor 1242	BRL		1.8	38	ug/Kg-dry	275835	1	03/15/2019 14:56	UH
Aroclor 1248	BRL		5.0	38	ug/Kg-dry	275835	1	03/15/2019 14:56	UH
Aroclor 1254	BRL		2.1	38	ug/Kg-dry	275835	1	03/15/2019 14:56	UH
Aroclor 1260	BRL		1.9	38	ug/Kg-dry	275835	1	03/15/2019 14:56	UH
Aroclor 1262	BRL		1.7	38	ug/Kg-dry	275835	1	03/15/2019 14:56	UH
Aroclor 1268	BRL		2.6	38	ug/Kg-dry	275835	1	03/15/2019 14:56	UH
Surr: Decachlorobiphenyl	89.2		0	45.7-140	%REC	275835	1	03/15/2019 14:56	UH
Surr: Tetrachloro-m-xylene	86		0	45.3-126	%REC	275835	1	03/15/2019 14:56	UH
PERCENT MOISTURE D2216									
Percent Moisture	12.9		0	0	wt%	R393433	1	03/18/2019 14:00	JW

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 20-Mar-19

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LROA-618DS-A-031319
Project Name:	L&R Oil Recovery Assessment	**Collection Date:**	3/12/2019 9:35:00 AM
Lab ID:	1903D56-006	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3546)**				
Aroclor 1016	BRL		3.4	39	ug/Kg-dry	275835	1	03/15/2019 15:07	UH
Aroclor 1221	BRL		4.8	39	ug/Kg-dry	275835	1	03/15/2019 15:07	UH
Aroclor 1232	BRL		3.0	39	ug/Kg-dry	275835	1	03/15/2019 15:07	UH
Aroclor 1242	BRL		1.8	39	ug/Kg-dry	275835	1	03/15/2019 15:07	UH
Aroclor 1248	BRL		5.1	39	ug/Kg-dry	275835	1	03/15/2019 15:07	UH
Aroclor 1254	BRL		2.1	39	ug/Kg-dry	275835	1	03/15/2019 15:07	UH
Aroclor 1260	BRL		1.9	39	ug/Kg-dry	275835	1	03/15/2019 15:07	UH
Aroclor 1262	41		1.7	39	ug/Kg-dry	275835	1	03/15/2019 15:07	UH
Aroclor 1268	BRL		2.7	39	ug/Kg-dry	275835	1	03/15/2019 15:07	UH
Surr: Decachlorobiphenyl	97.3		0	45.7-140	%REC	275835	1	03/15/2019 15:07	UH
Surr: Tetrachloro-m-xylene	82.1		0	45.3-126	%REC	275835	1	03/15/2019 15:07	UH
PERCENT MOISTURE D2216									
Percent Moisture	14.1		0	0	wt%	R393433	1	03/18/2019 14:00	JW

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 20-Mar-19

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LROA-618DS-A-031319-DUP
Project Name:	L&R Oil Recovery Assessment	**Collection Date:**	3/12/2019 10:00:00 AM
Lab ID:	1903D56-007	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3546)**				
Aroclor 1016	BRL		3.4	38	ug/Kg-dry	275835	1	03/15/2019 15:18	UH
Aroclor 1221	BRL		4.7	38	ug/Kg-dry	275835	1	03/15/2019 15:18	UH
Aroclor 1232	BRL		3.0	38	ug/Kg-dry	275835	1	03/15/2019 15:18	UH
Aroclor 1242	BRL		1.8	38	ug/Kg-dry	275835	1	03/15/2019 15:18	UH
Aroclor 1248	BRL		5.0	38	ug/Kg-dry	275835	1	03/15/2019 15:18	UH
Aroclor 1254	BRL		2.1	38	ug/Kg-dry	275835	1	03/15/2019 15:18	UH
Aroclor 1260	BRL		1.9	38	ug/Kg-dry	275835	1	03/15/2019 15:18	UH
Aroclor 1262	33	J	1.7	38	ug/Kg-dry	275835	1	03/15/2019 15:18	UH
Aroclor 1268	BRL		2.7	38	ug/Kg-dry	275835	1	03/15/2019 15:18	UH
Surr: Decachlorobiphenyl	103		0	45.7-140	%REC	275835	1	03/15/2019 15:18	UH
Surr: Tetrachloro-m-xylene	75.6		0	45.3-126	%REC	275835	1	03/15/2019 15:18	UH
PERCENT MOISTURE D2216									
Percent Moisture	13.1		0	0	wt%	R393433	1	03/18/2019 14:00	JW

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 20-Mar-19

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LROA-618DS-B-031319
Project Name:	L&R Oil Recovery Assessment	**Collection Date:**	3/12/2019 9:40:00 AM
Lab ID:	1903D56-008	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3546)**				
Aroclor 1016	BRL		3.4	39	ug/Kg-dry	275835	1	03/15/2019 12:30	UH
Aroclor 1221	BRL		4.8	39	ug/Kg-dry	275835	1	03/15/2019 12:30	UH
Aroclor 1232	BRL		3.0	39	ug/Kg-dry	275835	1	03/15/2019 12:30	UH
Aroclor 1242	BRL		1.8	39	ug/Kg-dry	275835	1	03/15/2019 12:30	UH
Aroclor 1248	BRL		5.0	39	ug/Kg-dry	275835	1	03/15/2019 12:30	UH
Aroclor 1254	BRL		2.1	39	ug/Kg-dry	275835	1	03/15/2019 12:30	UH
Aroclor 1260	BRL		1.9	39	ug/Kg-dry	275835	1	03/15/2019 12:30	UH
Aroclor 1262	39		1.7	39	ug/Kg-dry	275835	1	03/15/2019 12:30	UH
Aroclor 1268	31	J	2.7	39	ug/Kg-dry	275835	1	03/15/2019 12:30	UH
Surr: Decachlorobiphenyl	144	S	0	45.7-140	%REC	275835	1	03/15/2019 12:30	UH
Surr: Tetrachloro-m-xylene	92		0	45.3-126	%REC	275835	1	03/15/2019 12:30	UH
PERCENT MOISTURE D2216									
Percent Moisture	13.8		0	0	wt%	R393433	1	03/18/2019 14:00	JW

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 20-Mar-19

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LROA-700DS-A-031219
Project Name:	L&R Oil Recovery Assessment	**Collection Date:**	3/12/2019 11:25:00 AM
Lab ID:	1903D56-009	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3546)**				
Aroclor 1016	BRL		3.6	40	ug/Kg-dry	275835	1	03/15/2019 15:29	UH
Aroclor 1221	BRL		5.0	40	ug/Kg-dry	275835	1	03/15/2019 15:29	UH
Aroclor 1232	BRL		3.2	40	ug/Kg-dry	275835	1	03/15/2019 15:29	UH
Aroclor 1242	BRL		1.9	40	ug/Kg-dry	275835	1	03/15/2019 15:29	UH
Aroclor 1248	BRL		5.3	40	ug/Kg-dry	275835	1	03/15/2019 15:29	UH
Aroclor 1254	620		2.2	40	ug/Kg-dry	275835	1	03/15/2019 15:29	UH
Aroclor 1260	BRL		2.0	40	ug/Kg-dry	275835	1	03/15/2019 15:29	UH
Aroclor 1262	BRL		1.8	40	ug/Kg-dry	275835	1	03/15/2019 15:29	UH
Aroclor 1268	BRL		2.8	40	ug/Kg-dry	275835	1	03/15/2019 15:29	UH
Surr: Decachlorobiphenyl	100		0	45.7-140	%REC	275835	1	03/15/2019 15:29	UH
Surr: Tetrachloro-m-xylene	85.3		0	45.3-126	%REC	275835	1	03/15/2019 15:29	UH
PERCENT MOISTURE D2216									
Percent Moisture	17.4		0	0	wt%	R393433	1	03/18/2019 14:00	JW

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 20-Mar-19

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LROA-700DS-B-031219
Project Name:	L&R Oil Recovery Assessment	**Collection Date:**	3/12/2019 11:30:00 AM
Lab ID:	1903D56-010	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3546)**				
Aroclor 1016	BRL		3.4	38	ug/Kg-dry	275835	1	03/15/2019 15:41	UH
Aroclor 1221	BRL		4.8	38	ug/Kg-dry	275835	1	03/15/2019 15:41	UH
Aroclor 1232	BRL		3.0	38	ug/Kg-dry	275835	1	03/15/2019 15:41	UH
Aroclor 1242	BRL		1.8	38	ug/Kg-dry	275835	1	03/15/2019 15:41	UH
Aroclor 1248	BRL		5.0	38	ug/Kg-dry	275835	1	03/15/2019 15:41	UH
Aroclor 1254	BRL		2.1	38	ug/Kg-dry	275835	1	03/15/2019 15:41	UH
Aroclor 1260	BRL		1.9	38	ug/Kg-dry	275835	1	03/15/2019 15:41	UH
Aroclor 1262	BRL		1.7	38	ug/Kg-dry	275835	1	03/15/2019 15:41	UH
Aroclor 1268	BRL		2.7	38	ug/Kg-dry	275835	1	03/15/2019 15:41	UH
Surr: Decachlorobiphenyl	108		0	45.7-140	%REC	275835	1	03/15/2019 15:41	UH
Surr: Tetrachloro-m-xylene	81.4		0	45.3-126	%REC	275835	1	03/15/2019 15:41	UH
PERCENT MOISTURE D2216									
Percent Moisture	13.3		0	0	wt%	R393433	1	03/18/2019 14:00	JW

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 20-Mar-19

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LROA-702DS-A-031219
Project Name:	L&R Oil Recovery Assessment	**Collection Date:**	3/12/2019 10:25:00 AM
Lab ID:	1903D56-011	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3546)**				
Aroclor 1016	BRL		3.4	38	ug/Kg-dry	275835	1	03/15/2019 15:52	UH
Aroclor 1221	BRL		4.7	38	ug/Kg-dry	275835	1	03/15/2019 15:52	UH
Aroclor 1232	BRL		3.0	38	ug/Kg-dry	275835	1	03/15/2019 15:52	UH
Aroclor 1242	BRL		1.8	38	ug/Kg-dry	275835	1	03/15/2019 15:52	UH
Aroclor 1248	BRL		5.0	38	ug/Kg-dry	275835	1	03/15/2019 15:52	UH
Aroclor 1254	BRL		2.1	38	ug/Kg-dry	275835	1	03/15/2019 15:52	UH
Aroclor 1260	BRL		1.8	38	ug/Kg-dry	275835	1	03/15/2019 15:52	UH
Aroclor 1262	BRL		1.7	38	ug/Kg-dry	275835	1	03/15/2019 15:52	UH
Aroclor 1268	BRL		2.6	38	ug/Kg-dry	275835	1	03/15/2019 15:52	UH
Surr: Decachlorobiphenyl	105		0	45.7-140	%REC	275835	1	03/15/2019 15:52	UH
Surr: Tetrachloro-m-xylene	87		0	45.3-126	%REC	275835	1	03/15/2019 15:52	UH
PERCENT MOISTURE D2216									
Percent Moisture	12.4		0	0	wt%	R393433	1	03/18/2019 14:00	JW

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 20-Mar-19

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LROA-702DS-B-031219
Project Name:	L&R Oil Recovery Assessment	**Collection Date:**	3/12/2019 10:50:00 AM
Lab ID:	1903D56-012	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3546)**				
Aroclor 1016	BRL		3.4	39	ug/Kg-dry	275835	1	03/15/2019 16:25	UH
Aroclor 1221	BRL		4.8	39	ug/Kg-dry	275835	1	03/15/2019 16:25	UH
Aroclor 1232	BRL		3.0	39	ug/Kg-dry	275835	1	03/15/2019 16:25	UH
Aroclor 1242	BRL		1.8	39	ug/Kg-dry	275835	1	03/15/2019 16:25	UH
Aroclor 1248	18	J	5.1	39	ug/Kg-dry	275835	1	03/15/2019 16:25	UH
Aroclor 1254	18	J	2.1	39	ug/Kg-dry	275835	1	03/15/2019 16:25	UH
Aroclor 1260	BRL		1.9	39	ug/Kg-dry	275835	1	03/15/2019 16:25	UH
Aroclor 1262	10.0	J	1.7	39	ug/Kg-dry	275835	1	03/15/2019 16:25	UH
Aroclor 1268	BRL		2.7	39	ug/Kg-dry	275835	1	03/15/2019 16:25	UH
Surr: Decachlorobiphenyl	101		0	45.7-140	%REC	275835	1	03/15/2019 16:25	UH
Surr: Tetrachloro-m-xylene	87.5		0	45.3-126	%REC	275835	1	03/15/2019 16:25	UH
PERCENT MOISTURE D2216									
Percent Moisture	14.1		0	0	wt%	R393433	1	03/18/2019 14:00	JW

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 20-Mar-19

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LROA-704DS-A-031219
Project Name:	L&R Oil Recovery Assessment	**Collection Date:**	3/12/2019 2:55:00 PM
Lab ID:	1903D56-013	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3546)**				
Aroclor 1016	BRL		3.4	38	ug/Kg-dry	275835	1	03/15/2019 16:37	UH
Aroclor 1221	BRL		4.7	38	ug/Kg-dry	275835	1	03/15/2019 16:37	UH
Aroclor 1232	BRL		3.0	38	ug/Kg-dry	275835	1	03/15/2019 16:37	UH
Aroclor 1242	BRL		1.8	38	ug/Kg-dry	275835	1	03/15/2019 16:37	UH
Aroclor 1248	BRL		4.9	38	ug/Kg-dry	275835	1	03/15/2019 16:37	UH
Aroclor 1254	BRL		2.0	38	ug/Kg-dry	275835	1	03/15/2019 16:37	UH
Aroclor 1260	BRL		1.8	38	ug/Kg-dry	275835	1	03/15/2019 16:37	UH
Aroclor 1262	BRL		1.7	38	ug/Kg-dry	275835	1	03/15/2019 16:37	UH
Aroclor 1268	BRL		2.6	38	ug/Kg-dry	275835	1	03/15/2019 16:37	UH
Surr: Decachlorobiphenyl	106		0	45.7-140	%REC	275835	1	03/15/2019 16:37	UH
Surr: Tetrachloro-m-xylene	93.8		0	45.3-126	%REC	275835	1	03/15/2019 16:37	UH
PERCENT MOISTURE D2216									
Percent Moisture	12.1		0	0	wt%	R393433	1	03/18/2019 14:00	JW

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 20-Mar-19

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LROA-704DS-B-031219
Project Name:	L&R Oil Recovery Assessment	**Collection Date:**	3/12/2019 3:10:00 PM
Lab ID:	1903D56-014	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3546)**				
Aroclor 1016	BRL		3.4	39	ug/Kg-dry	275835	1	03/15/2019 16:48	UH
Aroclor 1221	BRL		4.8	39	ug/Kg-dry	275835	1	03/15/2019 16:48	UH
Aroclor 1232	BRL		3.0	39	ug/Kg-dry	275835	1	03/15/2019 16:48	UH
Aroclor 1242	BRL		1.8	39	ug/Kg-dry	275835	1	03/15/2019 16:48	UH
Aroclor 1248	BRL		5.0	39	ug/Kg-dry	275835	1	03/15/2019 16:48	UH
Aroclor 1254	BRL		2.1	39	ug/Kg-dry	275835	1	03/15/2019 16:48	UH
Aroclor 1260	BRL		1.9	39	ug/Kg-dry	275835	1	03/15/2019 16:48	UH
Aroclor 1262	15	J	1.7	39	ug/Kg-dry	275835	1	03/15/2019 16:48	UH
Aroclor 1268	BRL		2.7	39	ug/Kg-dry	275835	1	03/15/2019 16:48	UH
Surr: Decachlorobiphenyl	98.8		0	45.7-140	%REC	275835	1	03/15/2019 16:48	UH
Surr: Tetrachloro-m-xylene	88		0	45.3-126	%REC	275835	1	03/15/2019 16:48	UH
PERCENT MOISTURE D2216									
Percent Moisture	13.6		0	0	wt%	R393433	1	03/18/2019 14:00	JW

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 20-Mar-19

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LROA-706DS-A-031219
Project Name:	L&R Oil Recovery Assessment	**Collection Date:**	3/12/2019 3:45:00 PM
Lab ID:	1903D56-015	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3546)**				
Aroclor 1016	BRL		3.5	39	ug/Kg-dry	275835	1	03/15/2019 16:59	UH
Aroclor 1221	BRL		4.9	39	ug/Kg-dry	275835	1	03/15/2019 16:59	UH
Aroclor 1232	BRL		3.1	39	ug/Kg-dry	275835	1	03/15/2019 16:59	UH
Aroclor 1242	BRL		1.8	39	ug/Kg-dry	275835	1	03/15/2019 16:59	UH
Aroclor 1248	BRL		5.1	39	ug/Kg-dry	275835	1	03/15/2019 16:59	UH
Aroclor 1254	BRL		2.1	39	ug/Kg-dry	275835	1	03/15/2019 16:59	UH
Aroclor 1260	BRL		1.9	39	ug/Kg-dry	275835	1	03/15/2019 16:59	UH
Aroclor 1262	BRL		1.7	39	ug/Kg-dry	275835	1	03/15/2019 16:59	UH
Aroclor 1268	BRL		2.7	39	ug/Kg-dry	275835	1	03/15/2019 16:59	UH
Surr: Decachlorobiphenyl	101		0	45.7-140	%REC	275835	1	03/15/2019 16:59	UH
Surr: Tetrachloro-m-xylene	92.1		0	45.3-126	%REC	275835	1	03/15/2019 16:59	UH
PERCENT MOISTURE D2216									
Percent Moisture	15.4		0	0	wt%	R393433	1	03/18/2019 14:00	JW

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 20-Mar-19

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery Assessment
Lab ID: 1903D56-016

Client Sample ID: LROA-706DS-B-031219
Collection Date: 3/12/2019 3:45:00 PM
Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3546)**				
Aroclor 1016	BRL		3.5	39	ug/Kg-dry	275835	1	03/15/2019 17:10	UH
Aroclor 1221	BRL		4.9	39	ug/Kg-dry	275835	1	03/15/2019 17:10	UH
Aroclor 1232	BRL		3.1	39	ug/Kg-dry	275835	1	03/15/2019 17:10	UH
Aroclor 1242	BRL		1.8	39	ug/Kg-dry	275835	1	03/15/2019 17:10	UH
Aroclor 1248	BRL		5.1	39	ug/Kg-dry	275835	1	03/15/2019 17:10	UH
Aroclor 1254	BRL		2.1	39	ug/Kg-dry	275835	1	03/15/2019 17:10	UH
Aroclor 1260	BRL		1.9	39	ug/Kg-dry	275835	1	03/15/2019 17:10	UH
Aroclor 1262	BRL		1.7	39	ug/Kg-dry	275835	1	03/15/2019 17:10	UH
Aroclor 1268	BRL		2.7	39	ug/Kg-dry	275835	1	03/15/2019 17:10	UH
Surr: Decachlorobiphenyl	96.8		0	45.7-140	%REC	275835	1	03/15/2019 17:10	UH
Surr: Tetrachloro-m-xylene	90.6		0	45.3-126	%REC	275835	1	03/15/2019 17:10	UH
PERCENT MOISTURE D2216									
Percent Moisture	14.9		0	0	wt%	R393433	1	03/18/2019 14:00	JW

Qualifiers:

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

Analytical Environmental Servi :es, Inc **Date:** 20-Mar-19

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LROA-710DS-A-031219
Project Name:	L&R Oil Recovery A. sessment	**Collection Date:**	3/12/2019 4:40:00 PM
Lab ID:	1903D56-017	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
POLYCHLORINATED BIPHENY LS SW8082A					**(SW3546)**				
Aroclor 1016	BRL		3.5	40	ug/Kg-dry	275835	1	03/15/2019 17:22	UH
Aroclor 1221	BRL		5.0	40	ug/Kg-dry	275835	1	03/15/2019 17:22	UH
Aroclor 1232	BRL		3.1	40	ug/Kg-dry	275835	1	03/15/2019 17:22	UH
Aroclor 1242	BRL		1.9	40	ug/Kg-dry	275835	1	03/15/2019 17:22	UH
Aroclor 1248	BRL		5.2	40	ug/Kg-dry	275835	1	03/15/2019 17:22	UH
Aroclor 1254	BRL		2.2	40	ug/Kg-dry	275835	1	03/15/2019 17:22	UH
Aroclor 1260	BRL		1.9	40	ug/Kg-dry	275835	1	03/15/2019 17:22	UH
Aroclor 1262	BRL		1.8	40	ug/Kg-dry	275835	1	03/15/2019 17:22	UH
Aroclor 1268	BRL		2.8	40	ug/Kg-dry	275835	1	03/15/2019 17:22	UH
Surr: Decachlorobiphenyl	112		0	45.7-140	%REC	275835	1	03/15/2019 17:22	UH
Surr: Tetrachloro-m-xylene	88.2		0	45.3-126	%REC	275835	1	03/15/2019 17:22	UH
PERCENT MOISTURE D2216									
Percent Moisture	16.7		0	0	wt%	R393433	1	03/18/2019 14:00	JW

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 20-Mar-19

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LROA-710DS-B-031219
Project Name:	L&R Oil Recovery Assessment	**Collection Date:**	3/12/2019 4:45:00 PM
Lab ID:	1903D56-018	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3546)**				
Aroclor 1016	BRL		3.4	38	ug/Kg-dry	275835	1	03/15/2019 17:33	UH
Aroclor 1221	BRL		4.7	38	ug/Kg-dry	275835	1	03/15/2019 17:33	UH
Aroclor 1232	BRL		3.0	38	ug/Kg-dry	275835	1	03/15/2019 17:33	UH
Aroclor 1242	BRL		1.8	38	ug/Kg-dry	275835	1	03/15/2019 17:33	UH
Aroclor 1248	BRL		4.9	38	ug/Kg-dry	275835	1	03/15/2019 17:33	UH
Aroclor 1254	BRL		2.0	38	ug/Kg-dry	275835	1	03/15/2019 17:33	UH
Aroclor 1260	BRL		1.8	38	ug/Kg-dry	275835	1	03/15/2019 17:33	UH
Aroclor 1262	BRL		1.7	38	ug/Kg-dry	275835	1	03/15/2019 17:33	UH
Aroclor 1268	BRL		2.6	38	ug/Kg-dry	275835	1	03/15/2019 17:33	UH
Surr: Decachlorobiphenyl	102		0	45.7-140	%REC	275835	1	03/15/2019 17:33	UH
Surr: Tetrachloro-m-xylene	94.2		0	45.3-126	%REC	275835	1	03/15/2019 17:33	UH
PERCENT MOISTURE D2216									
Percent Moisture	12.2		0	0	wt%	R393433	1	03/18/2019 14:00	JW

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 20-Mar-19

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LROA-63001-031319
Project Name:	L&R Oil Recovery Assessment	**Collection Date:**	3/13/2019 11:10:00 AM
Lab ID:	1903D56-019	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3546)**				
Aroclor 1016	BRL		3.7	42	ug/Kg-dry	275944	1	03/18/2019 22:13	UH
Aroclor 1221	BRL		5.2	42	ug/Kg-dry	275944	1	03/18/2019 22:13	UH
Aroclor 1232	BRL		3.3	42	ug/Kg-dry	275944	1	03/18/2019 22:13	UH
Aroclor 1242	BRL		2.0	42	ug/Kg-dry	275944	1	03/18/2019 22:13	UH
Aroclor 1248	BRL		5.5	42	ug/Kg-dry	275944	1	03/18/2019 22:13	UH
Aroclor 1254	BRL		2.3	42	ug/Kg-dry	275944	1	03/18/2019 22:13	UH
Aroclor 1260	BRL		2.0	42	ug/Kg-dry	275944	1	03/18/2019 22:13	UH
Aroclor 1262	BRL		1.9	42	ug/Kg-dry	275944	1	03/18/2019 22:13	UH
Aroclor 1268	BRL		2.9	42	ug/Kg-dry	275944	1	03/18/2019 22:13	UH
Surr: Decachlorobiphenyl	98.4		0	45.7-140	%REC	275944	1	03/18/2019 22:13	UH
Surr: Tetrachloro-m-xylene	83.9		0	45.3-126	%REC	275944	1	03/18/2019 22:13	UH
PERCENT MOISTURE D2216									
Percent Moisture	20.6		0	0	wt%	R393433	1	03/18/2019 14:00	JW

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 20-Mar-19

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LROA-SS-01-031319
Project Name:	L&R Oil Recovery Assessment	**Collection Date:**	3/13/2019 1:30:00 PM
Lab ID:	1903D56-020	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Mercury by SW7473					**(SW7473)**				
Mercury	0.0581	J	0.0172	0.120	mg/Kg-dry	276012	1	03/18/2019 12:46	CD
TCL VOLATILE ORGANICS SW8260D					**(SW5035)**				
1,1,1-Trichloroethane	BRL		42	160	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
1,1,2,2-Tetrachloroethane	BRL		49	160	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
1,1,2-Trichloroethane	BRL		49	160	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
1,1-Dichloroethane	BRL		45	160	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
1,1-Dichloroethene	BRL		31	160	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
1,2,4-Trichlorobenzene	BRL		63	160	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
1,2-Dibromo-3-chloropropane	BRL		67	160	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
1,2-Dibromoethane	BRL		50	160	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
1,2-Dichlorobenzene	BRL		52	160	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
1,2-Dichloroethane	BRL		49	160	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
1,2-Dichloropropane	BRL		46	160	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
1,3-Dichlorobenzene	BRL		40	160	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
1,4-Dichlorobenzene	BRL		57	160	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
2-Butanone	BRL		200	1600	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
2-Hexanone	BRL		120	320	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
4-Methyl-2-pentanone	BRL		82	320	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
Acetone	BRL		160	3200	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
Benzene	75		19	63	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
Bromodichloromethane	BRL		43	160	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
Bromoform	BRL		43	160	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
Bromomethane	BRL		71	160	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
Carbon disulfide	BRL		87	320	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
Carbon tetrachloride	BRL		42	160	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
Chlorobenzene	BRL		47	160	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
Chloroethane	BRL		86	320	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
Chloroform	BRL		38	160	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
Chloromethane	BRL		59	320	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
cis-1,2-Dichloroethene	BRL		58	160	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
cis-1,3-Dichloropropene	BRL		57	160	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
Cyclohexane	BRL		35	160	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
Dibromochloromethane	BRL		43	160	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
Dichlorodifluoromethane	BRL		47	320	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
Ethylbenzene	360		16	160	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
Freon-113	BRL		41	320	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
Isopropylbenzene	91		45	63	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
m,p-Xylene	5200		30	160	ug/Kg-dry	276074	50	03/19/2019 07:56	BK

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 20-Mar-19

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LROA-SS-01-031319
Project Name:	L&R Oil Recovery Assessment	**Collection Date:**	3/13/2019 1:30:00 PM
Lab ID:	1903D56-020	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260D					**(SW5035)**				
Methyl acetate	BRL		82	160	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
Methyl tert-butyl ether	BRL		36	160	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
Methylcyclohexane	430		51	160	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
Methylene chloride	BRL		160	630	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
o-Xylene	2700		16	160	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
Styrene	BRL		42	160	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
Tetrachloroethene	140		48	63	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
Toluene	1900		17	160	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
trans-1,2-Dichloroethene	BRL		55	160	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
trans-1,3-Dichloropropene	BRL		39	160	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
Trichloroethene	BRL		44	160	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
Trichlorofluoromethane	BRL		74	160	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
Vinyl chloride	BRL		67	320	ug/Kg-dry	276074	50	03/19/2019 07:56	BK
Surr: 4-Bromofluorobenzene	105		0	65.1-125	%REC	276074	50	03/19/2019 07:56	BK
Surr: Dibromofluoromethane	106		0	77.7-123	%REC	276074	50	03/19/2019 07:56	BK
Surr: Toluene-d8	105		0	83.2-120	%REC	276074	50	03/19/2019 07:56	BK
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3546)**				
Aroclor 1016	BRL		3.5	40	ug/Kg-dry	275944	1	03/18/2019 22:24	UH
Aroclor 1221	BRL		5.0	40	ug/Kg-dry	275944	1	03/18/2019 22:24	UH
Aroclor 1232	BRL		3.1	40	ug/Kg-dry	275944	1	03/18/2019 22:24	UH
Aroclor 1242	110		1.9	40	ug/Kg-dry	275944	1	03/18/2019 22:24	UH
Aroclor 1248	BRL		5.2	40	ug/Kg-dry	275944	1	03/18/2019 22:24	UH
Aroclor 1254	BRL		2.2	40	ug/Kg-dry	275944	1	03/18/2019 22:24	UH
Aroclor 1260	BRL		1.9	40	ug/Kg-dry	275944	1	03/18/2019 22:24	UH
Aroclor 1262	BRL		1.8	40	ug/Kg-dry	275944	1	03/18/2019 22:24	UH
Aroclor 1268	BRL		2.8	40	ug/Kg-dry	275944	1	03/18/2019 22:24	UH
Surr: Decachlorobiphenyl	59.9		0	45.7-140	%REC	275944	1	03/18/2019 22:24	UH
Surr: Tetrachloro-m-xylene	61.2		0	45.3-126	%REC	275944	1	03/18/2019 22:24	UH
POLYAROMATIC HYDROCARBONS SW8270D					**(SW3546)**				
Naphthalene	820		34	400	ug/Kg-dry	275812	1	03/15/2019 19:10	RF
Acenaphthylene	BRL		39	400	ug/Kg-dry	275812	1	03/15/2019 19:10	RF
1-Methylnaphthalene	760		40	400	ug/Kg-dry	275812	1	03/15/2019 19:10	RF
2-Methylnaphthalene	1100		36	400	ug/Kg-dry	275812	1	03/15/2019 19:10	RF
Acenaphthene	BRL		31	400	ug/Kg-dry	275812	1	03/15/2019 19:10	RF
Fluorene	BRL		42	400	ug/Kg-dry	275812	1	03/15/2019 19:10	RF
Phenanthrene	180	J	30	400	ug/Kg-dry	275812	1	03/15/2019 19:10	RF
Anthracene	BRL		24	400	ug/Kg-dry	275812	1	03/15/2019 19:10	RF

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 20-Mar-19

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LROA-SS-01-031319
Project Name:	L&R Oil Recovery Assessment	**Collection Date:**	3/13/2019 1:30:00 PM
Lab ID:	1903D56-020	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
POLYAROMATIC HYDROCARBONS SW8270D					**(SW3546)**				
Fluoranthene	190	J	37	400	ug/Kg-dry	275812	1	03/15/2019 19:10	RF
Pyrene	270	J	37	400	ug/Kg-dry	275812	1	03/15/2019 19:10	RF
Benz(a)anthracene	120	J	39	400	ug/Kg-dry	275812	1	03/15/2019 19:10	RF
Chrysene	120	J	33	400	ug/Kg-dry	275812	1	03/15/2019 19:10	RF
Benzo(b)fluoranthene	BRL		37	400	ug/Kg-dry	275812	1	03/15/2019 19:10	RF
Benzo(k)fluoranthene	BRL		34	400	ug/Kg-dry	275812	1	03/15/2019 19:10	RF
Benzo(a)pyrene	BRL		41	400	ug/Kg-dry	275812	1	03/15/2019 19:10	RF
Dibenz(a,h)anthracene	BRL		32	400	ug/Kg-dry	275812	1	03/15/2019 19:10	RF
Benzo(g,h,i)perylene	BRL		35	400	ug/Kg-dry	275812	1	03/15/2019 19:10	RF
Indeno(1,2,3-cd)pyrene	BRL		39	400	ug/Kg-dry	275812	1	03/15/2019 19:10	RF
Surr: 2-Fluorobiphenyl	75.4		0	54.4-120	%REC	275812	1	03/15/2019 19:10	RF
Surr: 4-Terphenyl-d14	81.8		0	60.4-120	%REC	275812	1	03/15/2019 19:10	RF
Surr: Nitrobenzene-d5	89.3		0	51-120	%REC	275812	1	03/15/2019 19:10	RF
METALS, TOTAL SW6010D					**(SW3050B)**				
Arsenic	16.0		0.369	2.24	mg/Kg-dry	275935	1	03/18/2019 17:16	DG
Barium	62.3		0.143	4.48	mg/Kg-dry	275935	1	03/18/2019 17:16	DG
Cadmium	0.805	J	0.0446	2.24	mg/Kg-dry	275935	1	03/18/2019 17:16	DG
Chromium	42.1		0.393	2.24	mg/Kg-dry	275935	1	03/18/2019 17:16	DG
Lead	71.2		0.167	4.48	mg/Kg-dry	275935	1	03/18/2019 17:16	DG
Selenium	BRL		0.679	3.13	mg/Kg-dry	275935	1	03/18/2019 17:16	DG
Silver	0.0779	J	0.0115	2.24	mg/Kg-dry	275935	1	03/18/2019 17:16	DG
PERCENT MOISTURE D2216									
Percent Moisture	16.8		0	0	wt%	R393433	1	03/18/2019 14:00	JW

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 20-Mar-19

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LROA-SS-02-031319
Project Name:	L&R Oil Recovery Assessment	**Collection Date:**	3/13/2019 1:00:00 PM
Lab ID:	1903D56-021	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Mercury by SW7473					**(SW7473)**				
Mercury	0.0724	J	0.0172	0.121	mg/Kg-dry	276012	1	03/18/2019 15:25	CD
TCL VOLATILE ORGANICS SW8260D					**(SW5035)**				
1,1,1-Trichloroethane	BRL		0.86	3.3	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
1,1,2,2-Tetrachloroethane	BRL		1.0	3.3	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
1,1,2-Trichloroethane	BRL		1.0	3.3	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
1,1-Dichloroethane	BRL		0.92	3.3	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
1,1-Dichloroethene	BRL		0.64	3.3	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
1,2,4-Trichlorobenzene	BRL		1.3	3.3	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
1,2-Dibromo-3-chloropropane	BRL		1.4	3.3	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
1,2-Dibromoethane	BRL		1.0	3.3	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
1,2-Dichlorobenzene	BRL		1.1	3.3	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
1,2-Dichloroethane	BRL		1.0	3.3	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
1,2-Dichloropropane	BRL		0.95	3.3	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
1,3-Dichlorobenzene	BRL		0.83	3.3	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
1,4-Dichlorobenzene	BRL		1.2	3.3	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
2-Butanone	BRL		4.1	33	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
2-Hexanone	BRL		2.5	6.5	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
4-Methyl-2-pentanone	BRL		1.7	6.5	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
Acetone	52	J	3.3	65	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
Benzene	4.6		0.39	3.3	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
Bromodichloromethane	BRL		0.89	3.3	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
Bromoform	BRL		0.89	3.3	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
Bromomethane	BRL		1.5	3.3	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
Carbon disulfide	BRL		1.8	6.5	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
Carbon tetrachloride	BRL		0.87	3.3	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
Chlorobenzene	BRL		0.98	3.3	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
Chloroethane	BRL		1.8	6.5	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
Chloroform	BRL		0.79	3.3	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
Chloromethane	BRL		1.2	6.5	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
cis-1,2-Dichloroethene	BRL		1.2	3.3	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
cis-1,3-Dichloropropene	BRL		1.2	3.3	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
Cyclohexane	BRL		0.73	3.3	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
Dibromochloromethane	BRL		0.88	3.3	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
Dichlorodifluoromethane	BRL		0.97	6.5	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
Ethylbenzene	BRL		0.33	3.3	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
Freon-113	BRL		0.85	6.5	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
Isopropylbenzene	BRL		0.92	3.3	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
m,p-Xylene	BRL		0.62	3.3	ug/Kg-dry	276020	1	03/16/2019 16:48	OM

Qualifiers:

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- BRL Not detected at MDL
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- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 20-Mar-19

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LROA-SS-02-031319
Project Name:	L&R Oil Recovery Assessment	**Collection Date:**	3/13/2019 1:00:00 PM
Lab ID:	1903D56-021	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260D					**(SW5035)**				
Methyl acetate	BRL		1.7	3.3	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
Methyl tert-butyl ether	BRL		0.74	3.3	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
Methylcyclohexane	BRL		1.1	3.3	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
Methylene chloride	BRL		3.3	13	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
o-Xylene	BRL		0.34	3.3	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
Styrene	BRL		0.86	3.3	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
Tetrachloroethene	BRL		0.99	3.3	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
Toluene	0.93	J	0.35	3.3	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
trans-1,2-Dichloroethene	BRL		1.1	3.3	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
trans-1,3-Dichloropropene	BRL		0.81	3.3	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
Trichloroethene	BRL		0.90	3.3	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
Trichlorofluoromethane	BRL		1.5	3.3	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
Vinyl chloride	BRL		1.4	6.5	ug/Kg-dry	276020	1	03/16/2019 16:48	OM
Surr: 4-Bromofluorobenzene	90.8		0	65.1-125	%REC	276020	1	03/16/2019 16:48	OM
Surr: Dibromofluoromethane	98.7		0	77.7-123	%REC	276020	1	03/16/2019 16:48	OM
Surr: Toluene-d8	96.4		0	83.2-120	%REC	276020	1	03/16/2019 16:48	OM
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3546)**				
Aroclor 1016	BRL		3.6	40	ug/Kg-dry	275944	1	03/18/2019 22:58	UH
Aroclor 1221	BRL		5.0	40	ug/Kg-dry	275944	1	03/18/2019 22:58	UH
Aroclor 1232	BRL		3.1	40	ug/Kg-dry	275944	1	03/18/2019 22:58	UH
Aroclor 1242	BRL		1.9	40	ug/Kg-dry	275944	1	03/18/2019 22:58	UH
Aroclor 1248	BRL		5.2	40	ug/Kg-dry	275944	1	03/18/2019 22:58	UH
Aroclor 1254	BRL		2.2	40	ug/Kg-dry	275944	1	03/18/2019 22:58	UH
Aroclor 1260	BRL		2.0	40	ug/Kg-dry	275944	1	03/18/2019 22:58	UH
Aroclor 1262	BRL		1.8	40	ug/Kg-dry	275944	1	03/18/2019 22:58	UH
Aroclor 1268	BRL		2.8	40	ug/Kg-dry	275944	1	03/18/2019 22:58	UH
Surr: Decachlorobiphenyl	90.3		0	45.7-140	%REC	275944	1	03/18/2019 22:58	UH
Surr: Tetrachloro-m-xylene	92.2		0	45.3-126	%REC	275944	1	03/18/2019 22:58	UH
POLYAROMATIC HYDROCARBONS SW8270D					**(SW3546)**				
Naphthalene	56	J	34	400	ug/Kg-dry	275812	1	03/15/2019 20:50	RF
Acenaphthylene	BRL		39	400	ug/Kg-dry	275812	1	03/15/2019 20:50	RF
1-Methylnaphthalene	BRL		40	400	ug/Kg-dry	275812	1	03/15/2019 20:50	RF
2-Methylnaphthalene	BRL		37	400	ug/Kg-dry	275812	1	03/15/2019 20:50	RF
Acenaphthene	BRL		31	400	ug/Kg-dry	275812	1	03/15/2019 20:50	RF
Fluorene	BRL		42	400	ug/Kg-dry	275812	1	03/15/2019 20:50	RF
Phenanthrene	BRL		30	400	ug/Kg-dry	275812	1	03/15/2019 20:50	RF
Anthracene	BRL		24	400	ug/Kg-dry	275812	1	03/15/2019 20:50	RF

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Analytical Environmental Services, Inc **Date:** 20-Mar-19

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LROA-SS-02-031319
Project Name:	L&R Oil Recovery Assessment	**Collection Date:**	3/13/2019 1:00:00 PM
Lab ID:	1903D56-021	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
POLYAROMATIC HYDROCARBONS SW8270D					**(SW3546)**				
Fluoranthene	63	J	37	400	ug/Kg-dry	275812	1	03/15/2019 20:50	RF
Pyrene	63	J	38	400	ug/Kg-dry	275812	1	03/15/2019 20:50	RF
Benz(a)anthracene	BRL		39	400	ug/Kg-dry	275812	1	03/15/2019 20:50	RF
Chrysene	BRL		34	400	ug/Kg-dry	275812	1	03/15/2019 20:50	RF
Benzo(b)fluoranthene	86	J	37	400	ug/Kg-dry	275812	1	03/15/2019 20:50	RF
Benzo(k)fluoranthene	BRL		34	400	ug/Kg-dry	275812	1	03/15/2019 20:50	RF
Benzo(a)pyrene	55	J	41	400	ug/Kg-dry	275812	1	03/15/2019 20:50	RF
Dibenz(a,h)anthracene	BRL		32	400	ug/Kg-dry	275812	1	03/15/2019 20:50	RF
Benzo(g,h,i)perylene	72	J	35	400	ug/Kg-dry	275812	1	03/15/2019 20:50	RF
Indeno(1,2,3-cd)pyrene	BRL		39	400	ug/Kg-dry	275812	1	03/15/2019 20:50	RF
Surr: 2-Fluorobiphenyl	71.5		0	54.4-120	%REC	275812	1	03/15/2019 20:50	RF
Surr: 4-Terphenyl-d14	78.5		0	60.4-120	%REC	275812	1	03/15/2019 20:50	RF
Surr: Nitrobenzene-d5	81.5		0	51-120	%REC	275812	1	03/15/2019 20:50	RF
METALS, TOTAL SW6010D					**(SW3050B)**				
Arsenic	11.5		0.367	2.23	mg/Kg-dry	275935	1	03/18/2019 17:18	DG
Barium	81.5		0.143	4.46	mg/Kg-dry	275935	1	03/18/2019 17:18	DG
Cadmium	0.489	J	0.0444	2.23	mg/Kg-dry	275935	1	03/18/2019 17:18	DG
Chromium	25.6		0.391	2.23	mg/Kg-dry	275935	1	03/18/2019 17:18	DG
Lead	97.4		0.167	4.46	mg/Kg-dry	275935	1	03/18/2019 17:18	DG
Selenium	BRL		0.676	3.12	mg/Kg-dry	275935	1	03/18/2019 17:18	DG
Silver	0.0802	J	0.0114	2.23	mg/Kg-dry	275935	1	03/18/2019 17:18	DG
PERCENT MOISTURE D2216									
Percent Moisture	17.1		0	0	wt%	R393548	1	03/19/2019 13:30	JW

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Analytical Environmental Services, Inc

Date: 20-Mar-19

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LROA-SS-02-031319-DUP
Project Name:	L&R Oil Recovery Assessment	**Collection Date:**	3/13/2019 1:15:00 PM
Lab ID:	1903D56-022	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Mercury by SW7473					**(SW7473)**				
Mercury	0.129		0.0177	0.124	mg/Kg-dry	276012	1	03/18/2019 15:33	CD
TCL VOLATILE ORGANICS SW8260D					**(SW5035)**				
1,1,1-Trichloroethane	BRL		0.89	3.4	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
1,1,2,2-Tetrachloroethane	BRL		1.0	3.4	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
1,1,2-Trichloroethane	BRL		1.0	3.4	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
1,1-Dichloroethane	BRL		0.94	3.4	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
1,1-Dichloroethene	BRL		0.66	3.4	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
1,2,4-Trichlorobenzene	BRL		1.3	3.4	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
1,2-Dibromo-3-chloropropane	BRL		1.4	3.4	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
1,2-Dibromoethane	BRL		1.1	3.4	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
1,2-Dichlorobenzene	BRL		1.1	3.4	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
1,2-Dichloroethane	BRL		1.0	3.4	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
1,2-Dichloropropane	BRL		0.98	3.4	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
1,3-Dichlorobenzene	BRL		0.86	3.4	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
1,4-Dichlorobenzene	BRL		1.2	3.4	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
2-Butanone	5.9	J	4.2	34	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
2-Hexanone	BRL		2.6	6.7	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
4-Methyl-2-pentanone	BRL		1.7	6.7	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
Acetone	59	J	3.4	67	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
Benzene	2.2	J	0.40	3.4	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
Bromodichloromethane	BRL		0.91	3.4	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
Bromoform	BRL		0.91	3.4	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
Bromomethane	BRL		1.5	3.4	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
Carbon disulfide	BRL		1.8	6.7	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
Carbon tetrachloride	BRL		0.89	3.4	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
Chlorobenzene	BRL		1.0	3.4	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
Chloroethane	BRL		1.8	6.7	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
Chloroform	BRL		0.81	3.4	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
Chloromethane	BRL		1.3	6.7	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
cis-1,2-Dichloroethene	BRL		1.2	3.4	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
cis-1,3-Dichloropropene	BRL		1.2	3.4	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
Cyclohexane	BRL		0.75	3.4	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
Dibromochloromethane	BRL		0.91	3.4	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
Dichlorodifluoromethane	BRL		1.0	6.7	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
Ethylbenzene	BRL		0.34	3.4	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
Freon-113	BRL		0.88	6.7	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
Isopropylbenzene	BRL		0.95	3.4	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
m,p-Xylene	BRL		0.63	3.4	ug/Kg-dry	276020	1	03/16/2019 17:12	OM

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Analytical Environmental Services, Inc **Date:** 20-Mar-19

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LROA-SS-02-031319-DUP
Project Name:	L&R Oil Recovery Assessment	**Collection Date:**	3/13/2019 1:15:00 PM
Lab ID:	1903D56-022	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260D					**(SW5035)**				
Methyl acetate	BRL		1.7	3.4	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
Methyl tert-butyl ether	BRL		0.77	3.4	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
Methylcyclohexane	BRL		1.1	3.4	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
Methylene chloride	BRL		3.4	13	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
o-Xylene	BRL		0.35	3.4	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
Styrene	BRL		0.88	3.4	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
Tetrachloroethene	BRL		1.0	3.4	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
Toluene	0.40	J	0.36	3.4	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
trans-1,2-Dichloroethene	BRL		1.2	3.4	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
trans-1,3-Dichloropropene	BRL		0.83	3.4	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
Trichloroethene	BRL		0.93	3.4	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
Trichlorofluoromethane	BRL		1.6	3.4	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
Vinyl chloride	BRL		1.4	6.7	ug/Kg-dry	276020	1	03/16/2019 17:12	OM
Surr: 4-Bromofluorobenzene	95		0	65.1-125	%REC	276020	1	03/16/2019 17:12	OM
Surr: Dibromofluoromethane	97		0	77.7-123	%REC	276020	1	03/16/2019 17:12	OM
Surr: Toluene-d8	98.1		0	83.2-120	%REC	276020	1	03/16/2019 17:12	OM
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3546)**				
Aroclor 1016	BRL		3.6	41	ug/Kg-dry	275944	1	03/18/2019 23:09	UH
Aroclor 1221	BRL		5.1	41	ug/Kg-dry	275944	1	03/18/2019 23:09	UH
Aroclor 1232	BRL		3.2	41	ug/Kg-dry	275944	1	03/18/2019 23:09	UH
Aroclor 1242	BRL		1.9	41	ug/Kg-dry	275944	1	03/18/2019 23:09	UH
Aroclor 1248	BRL		5.4	41	ug/Kg-dry	275944	1	03/18/2019 23:09	UH
Aroclor 1254	BRL		2.2	41	ug/Kg-dry	275944	1	03/18/2019 23:09	UH
Aroclor 1260	BRL		2.0	41	ug/Kg-dry	275944	1	03/18/2019 23:09	UH
Aroclor 1262	BRL		1.8	41	ug/Kg-dry	275944	1	03/18/2019 23:09	UH
Aroclor 1268	BRL		2.9	41	ug/Kg-dry	275944	1	03/18/2019 23:09	UH
Surr: Decachlorobiphenyl	86.6		0	45.7-140	%REC	275944	1	03/18/2019 23:09	UH
Surr: Tetrachloro-m-xylene	89.2		0	45.3-126	%REC	275944	1	03/18/2019 23:09	UH
POLYAROMATIC HYDROCARBONS SW8270D					**(SW3546)**				
Naphthalene	BRL		35	410	ug/Kg-dry	275812	1	03/15/2019 21:16	RF
Acenaphthylene	BRL		40	410	ug/Kg-dry	275812	1	03/15/2019 21:16	RF
1-Methylnaphthalene	BRL		41	410	ug/Kg-dry	275812	1	03/15/2019 21:16	RF
2-Methylnaphthalene	BRL		38	410	ug/Kg-dry	275812	1	03/15/2019 21:16	RF
Acenaphthene	BRL		32	410	ug/Kg-dry	275812	1	03/15/2019 21:16	RF
Fluorene	BRL		43	410	ug/Kg-dry	275812	1	03/15/2019 21:16	RF
Phenanthrene	61	J	31	410	ug/Kg-dry	275812	1	03/15/2019 21:16	RF
Anthracene	BRL		25	410	ug/Kg-dry	275812	1	03/15/2019 21:16	RF

Qualifiers:

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Analytical Environmental Services, Inc **Date:** 20-Mar-19

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LROA-SS-02-031319-DUP
Project Name:	L&R Oil Recovery Assessment	**Collection Date:**	3/13/2019 1:15:00 PM
Lab ID:	1903D56-022	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
POLYAROMATIC HYDROCARBONS SW8270D					**(SW3546)**				
Fluoranthene	84	J	38	410	ug/Kg-dry	275812	1	03/15/2019 21:16	RF
Pyrene	77	J	39	410	ug/Kg-dry	275812	1	03/15/2019 21:16	RF
Benz(a)anthracene	BRL		40	410	ug/Kg-dry	275812	1	03/15/2019 21:16	RF
Chrysene	57	J	34	410	ug/Kg-dry	275812	1	03/15/2019 21:16	RF
Benzo(b)fluoranthene	71	J	38	410	ug/Kg-dry	275812	1	03/15/2019 21:16	RF
Benzo(k)fluoranthene	BRL		35	410	ug/Kg-dry	275812	1	03/15/2019 21:16	RF
Benzo(a)pyrene	43	J	42	410	ug/Kg-dry	275812	1	03/15/2019 21:16	RF
Dibenz(a,h)anthracene	BRL		33	410	ug/Kg-dry	275812	1	03/15/2019 21:16	RF
Benzo(g,h,i)perylene	BRL		36	410	ug/Kg-dry	275812	1	03/15/2019 21:16	RF
Indeno(1,2,3-cd)pyrene	BRL		40	410	ug/Kg-dry	275812	1	03/15/2019 21:16	RF
Surr: 2-Fluorobiphenyl	74.6		0	54.4-120	%REC	275812	1	03/15/2019 21:16	RF
Surr: 4-Terphenyl-d14	81		0	60.4-120	%REC	275812	1	03/15/2019 21:16	RF
Surr: Nitrobenzene-d5	78.8		0	51-120	%REC	275812	1	03/15/2019 21:16	RF
METALS, TOTAL SW6010D					**(SW3050B)**				
Arsenic	14.6		0.377	2.29	mg/Kg-dry	275935	1	03/18/2019 17:21	DG
Barium	121		0.146	4.57	mg/Kg-dry	275935	1	03/18/2019 17:21	DG
Cadmium	0.755	J	0.0455	2.29	mg/Kg-dry	275935	1	03/18/2019 17:21	DG
Chromium	22.2		0.401	2.29	mg/Kg-dry	275935	1	03/18/2019 17:21	DG
Lead	71.5		0.171	4.57	mg/Kg-dry	275935	1	03/18/2019 17:21	DG
Selenium	BRL		0.693	3.20	mg/Kg-dry	275935	1	03/18/2019 17:21	DG
Silver	0.117	J	0.0117	2.29	mg/Kg-dry	275935	1	03/18/2019 17:21	DG
PERCENT MOISTURE D2216									
Percent Moisture	19.2		0	0	wt%	R393548	1	03/19/2019 13:30	JW

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 20-Mar-19

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LROA-SS-03-031319
Project Name:	L&R Oil Recovery Assessment	**Collection Date:**	3/13/2019 3:15:00 PM
Lab ID:	1903D56-023	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Mercury by SW7473					**(SW7473)**				
Mercury	0.0619	J	0.0169	0.118	mg/Kg-dry	276012	1	03/18/2019 15:58	CD
TCL VOLATILE ORGANICS SW8260D					**(SW5035)**				
1,1,1-Trichloroethane	BRL		1.0	4.0	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
1,1,2,2-Tetrachloroethane	BRL		1.2	4.0	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
1,1,2-Trichloroethane	BRL		1.2	4.0	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
1,1-Dichloroethane	BRL		1.1	4.0	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
1,1-Dichloroethene	BRL		0.78	4.0	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
1,2,4-Trichlorobenzene	BRL		1.6	4.0	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
1,2-Dibromo-3-chloropropane	BRL		1.7	4.0	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
1,2-Dibromoethane	BRL		1.2	4.0	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
1,2-Dichlorobenzene	BRL		1.3	4.0	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
1,2-Dichloroethane	BRL		1.2	4.0	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
1,2-Dichloropropane	BRL		1.2	4.0	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
1,3-Dichlorobenzene	BRL		1.0	4.0	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
1,4-Dichlorobenzene	BRL		1.4	4.0	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
2-Butanone	BRL		4.9	40	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
2-Hexanone	BRL		3.1	7.9	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
4-Methyl-2-pentanone	BRL		2.1	7.9	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
Acetone	BRL		4.0	79	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
Benzene	0.53	J	0.47	4.0	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
Bromodichloromethane	BRL		1.1	4.0	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
Bromoform	BRL		1.1	4.0	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
Bromomethane	BRL		1.8	4.0	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
Carbon disulfide	BRL		2.2	7.9	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
Carbon tetrachloride	BRL		1.1	4.0	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
Chlorobenzene	BRL		1.2	4.0	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
Chloroethane	BRL		2.1	7.9	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
Chloroform	BRL		0.96	4.0	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
Chloromethane	BRL		1.5	7.9	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
cis-1,2-Dichloroethene	BRL		1.4	4.0	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
cis-1,3-Dichloropropene	BRL		1.4	4.0	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
Cyclohexane	41		0.88	4.0	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
Dibromochloromethane	BRL		1.1	4.0	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
Dichlorodifluoromethane	BRL		1.2	7.9	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
Ethylbenzene	BRL		0.40	4.0	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
Freon-113	4.7	J	1.0	7.9	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
Isopropylbenzene	BRL		1.1	4.0	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
m,p-Xylene	52		0.75	4.0	ug/Kg-dry	276020	1	03/16/2019 17:38	OM

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 20-Mar-19

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LROA-SS-03-031319
Project Name:	L&R Oil Recovery Assessment	**Collection Date:**	3/13/2019 3:15:00 PM
Lab ID:	1903D56-023	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260D					**(SW5035)**				
Methyl acetate	BRL		2.1	4.0	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
Methyl tert-butyl ether	BRL		0.90	4.0	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
Methylcyclohexane	130		1.3	4.0	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
Methylene chloride	BRL		4.0	16	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
o-Xylene	100		0.41	4.0	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
Styrene	BRL		1.0	4.0	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
Tetrachloroethene	23		1.2	4.0	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
Toluene	3.0	J	0.42	4.0	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
trans-1,2-Dichloroethene	BRL		1.4	4.0	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
trans-1,3-Dichloropropene	BRL		0.98	4.0	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
Trichloroethene	BRL		1.1	4.0	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
Trichlorofluoromethane	BRL		1.9	4.0	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
Vinyl chloride	BRL		1.7	7.9	ug/Kg-dry	276020	1	03/16/2019 17:38	OM
Surr: 4-Bromofluorobenzene	90.2		0	65.1-125	%REC	276020	1	03/16/2019 17:38	OM
Surr: Dibromofluoromethane	102		0	77.7-123	%REC	276020	1	03/16/2019 17:38	OM
Surr: Toluene-d8	94.9		0	83.2-120	%REC	276020	1	03/16/2019 17:38	OM
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3546)**				
Aroclor 1016	BRL		3.5	39	ug/Kg-dry	275944	1	03/18/2019 23:20	UH
Aroclor 1221	BRL		4.9	39	ug/Kg-dry	275944	1	03/18/2019 23:20	UH
Aroclor 1232	BRL		3.1	39	ug/Kg-dry	275944	1	03/18/2019 23:20	UH
Aroclor 1242	120		1.8	39	ug/Kg-dry	275944	1	03/18/2019 23:20	UH
Aroclor 1248	BRL		5.1	39	ug/Kg-dry	275944	1	03/18/2019 23:20	UH
Aroclor 1254	30	J	2.1	39	ug/Kg-dry	275944	1	03/18/2019 23:20	UH
Aroclor 1260	BRL		1.9	39	ug/Kg-dry	275944	1	03/18/2019 23:20	UH
Aroclor 1262	15	J	1.7	39	ug/Kg-dry	275944	1	03/18/2019 23:20	UH
Aroclor 1268	BRL		2.7	39	ug/Kg-dry	275944	1	03/18/2019 23:20	UH
Surr: Decachlorobiphenyl	76.1		0	45.7-140	%REC	275944	1	03/18/2019 23:20	UH
Surr: Tetrachloro-m-xylene	71.7		0	45.3-126	%REC	275944	1	03/18/2019 23:20	UH
POLYAROMATIC HYDROCARBONS SW8270D					**(SW3546)**				
Naphthalene	83	J	33	390	ug/Kg-dry	275812	1	03/15/2019 21:42	RF
Acenaphthylene	BRL		38	390	ug/Kg-dry	275812	1	03/15/2019 21:42	RF
1-Methylnaphthalene	79	J	39	390	ug/Kg-dry	275812	1	03/15/2019 21:42	RF
2-Methylnaphthalene	100	J	36	390	ug/Kg-dry	275812	1	03/15/2019 21:42	RF
Acenaphthene	BRL		30	390	ug/Kg-dry	275812	1	03/15/2019 21:42	RF
Fluorene	BRL		41	390	ug/Kg-dry	275812	1	03/15/2019 21:42	RF
Phenanthrene	120	J	29	390	ug/Kg-dry	275812	1	03/15/2019 21:42	RF
Anthracene	BRL		24	390	ug/Kg-dry	275812	1	03/15/2019 21:42	RF

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 20-Mar-19

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LROA-SS-03-031319
Project Name:	L&R Oil Recovery Assessment	**Collection Date:**	3/13/2019 3:15:00 PM
Lab ID:	1903D56-023	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
POLYAROMATIC HYDROCARBONS SW8270D					**(SW3546)**				
Fluoranthene	240	J	36	390	ug/Kg-dry	275812	1	03/15/2019 21:42	RF
Pyrene	300	J	37	390	ug/Kg-dry	275812	1	03/15/2019 21:42	RF
Benz(a)anthracene	160	J	38	390	ug/Kg-dry	275812	1	03/15/2019 21:42	RF
Chrysene	170	J	33	390	ug/Kg-dry	275812	1	03/15/2019 21:42	RF
Benzo(b)fluoranthene	280	J	36	390	ug/Kg-dry	275812	1	03/15/2019 21:42	RF
Benzo(k)fluoranthene	94	J	33	390	ug/Kg-dry	275812	1	03/15/2019 21:42	RF
Benzo(a)pyrene	160	J	40	390	ug/Kg-dry	275812	1	03/15/2019 21:42	RF
Dibenz(a,h)anthracene	BRL		32	390	ug/Kg-dry	275812	1	03/15/2019 21:42	RF
Benzo(g,h,i)perylene	130	J	34	390	ug/Kg-dry	275812	1	03/15/2019 21:42	RF
Indeno(1,2,3-cd)pyrene	100	J	38	390	ug/Kg-dry	275812	1	03/15/2019 21:42	RF
Surr: 2-Fluorobiphenyl	74.7		0	54.4-120	%REC	275812	1	03/15/2019 21:42	RF
Surr: 4-Terphenyl-d14	83.2		0	60.4-120	%REC	275812	1	03/15/2019 21:42	RF
Surr: Nitrobenzene-d5	89		0	51-120	%REC	275812	1	03/15/2019 21:42	RF
METALS, TOTAL SW6010D					**(SW3050B)**				
Arsenic	13.2		0.359	2.18	mg/Kg-dry	275935	1	03/18/2019 17:23	DG
Barium	37.5		0.139	4.35	mg/Kg-dry	275935	1	03/18/2019 17:23	DG
Cadmium	0.543	J	0.0434	2.18	mg/Kg-dry	275935	1	03/18/2019 17:23	DG
Chromium	16.9		0.382	2.18	mg/Kg-dry	275935	1	03/18/2019 17:23	DG
Lead	28.7		0.163	4.35	mg/Kg-dry	275935	1	03/18/2019 17:23	DG
Selenium	BRL		0.660	3.05	mg/Kg-dry	275935	1	03/18/2019 17:23	DG
Silver	0.0309	J	0.0111	2.18	mg/Kg-dry	275935	1	03/18/2019 17:23	DG
PERCENT MOISTURE D2216									
Percent Moisture	15.3		0	0	wt%	R393548	1	03/19/2019 13:30	JW

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
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Analytical Environmental Services, Inc

Date: 20-Mar-19

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LROA-SS-04-031319
Project Name:	L&R Oil Recovery Assessment	**Collection Date:**	3/13/2019 4:05:00 PM
Lab ID:	1903D56-024	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Mercury by SW7473					**(SW7473)**				
Mercury	0.0273	J	0.0163	0.114	mg/Kg-dry	276012	1	03/18/2019 16:07	CD
TCL VOLATILE ORGANICS SW8260D					**(SW5035)**				
1,1,1-Trichloroethane	BRL		0.73	2.8	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
1,1,2,2-Tetrachloroethane	BRL		0.85	2.8	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
1,1,2-Trichloroethane	BRL		0.85	2.8	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
1,1-Dichloroethane	BRL		0.78	2.8	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
1,1-Dichloroethene	BRL		0.55	2.8	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
1,2,4-Trichlorobenzene	BRL		1.1	2.8	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
1,2-Dibromo-3-chloropropane	BRL		1.2	2.8	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
1,2-Dibromoethane	BRL		0.87	2.8	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
1,2-Dichlorobenzene	BRL		0.90	2.8	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
1,2-Dichloroethane	BRL		0.86	2.8	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
1,2-Dichloropropane	BRL		0.81	2.8	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
1,3-Dichlorobenzene	BRL		0.71	2.8	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
1,4-Dichlorobenzene	BRL		0.99	2.8	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
2-Butanone	4.5	J	3.5	28	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
2-Hexanone	BRL		2.1	5.5	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
4-Methyl-2-pentanone	BRL		1.4	5.5	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
Acetone	28	J	2.8	55	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
Benzene	BRL		0.33	2.8	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
Bromodichloromethane	BRL		0.75	2.8	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
Bromoform	BRL		0.75	2.8	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
Bromomethane	BRL		1.2	2.8	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
Carbon disulfide	BRL		1.5	5.5	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
Carbon tetrachloride	BRL		0.74	2.8	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
Chlorobenzene	BRL		0.83	2.8	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
Chloroethane	BRL		1.5	5.5	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
Chloroform	BRL		0.67	2.8	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
Chloromethane	BRL		1.0	5.5	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
cis-1,2-Dichloroethene	BRL		1.0	2.8	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
cis-1,3-Dichloropropene	BRL		1.0	2.8	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
Cyclohexane	BRL		0.62	2.8	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
Dibromochloromethane	BRL		0.75	2.8	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
Dichlorodifluoromethane	BRL		0.83	5.5	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
Ethylbenzene	6.3		0.28	2.8	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
Freon-113	BRL		0.72	5.5	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
Isopropylbenzene	5.8		0.78	2.8	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
m,p-Xylene	15		0.52	2.8	ug/Kg-dry	276020	1	03/16/2019 18:03	OM

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 20-Mar-19

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LROA-SS-04-031319
Project Name:	L&R Oil Recovery Assessment	**Collection Date:**	3/13/2019 4:05:00 PM
Lab ID:	1903D56-024	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260D					**(SW5035)**				
Methyl acetate	BRL		1.4	2.8	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
Methyl tert-butyl ether	BRL		0.63	2.8	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
Methylcyclohexane	5.0		0.89	2.8	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
Methylene chloride	BRL		2.8	11	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
o-Xylene	33		0.29	2.8	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
Styrene	BRL		0.73	2.8	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
Tetrachloroethene	BRL		0.84	2.8	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
Toluene	0.98	J	0.29	2.8	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
trans-1,2-Dichloroethene	BRL		0.96	2.8	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
trans-1,3-Dichloropropene	BRL		0.69	2.8	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
Trichloroethene	BRL		0.77	2.8	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
Trichlorofluoromethane	BRL		1.3	2.8	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
Vinyl chloride	BRL		1.2	5.5	ug/Kg-dry	276020	1	03/16/2019 18:03	OM
Surr: 4-Bromofluorobenzene	78.8		0	65.1-125	%REC	276020	1	03/16/2019 18:03	OM
Surr: Dibromofluoromethane	94.5		0	77.7-123	%REC	276020	1	03/16/2019 18:03	OM
Surr: Toluene-d8	93.7		0	83.2-120	%REC	276020	1	03/16/2019 18:03	OM
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3546)**				
Aroclor 1016	BRL		3.4	38	ug/Kg-dry	275944	1	03/18/2019 23:31	UH
Aroclor 1221	BRL		4.7	38	ug/Kg-dry	275944	1	03/18/2019 23:31	UH
Aroclor 1232	BRL		3.0	38	ug/Kg-dry	275944	1	03/18/2019 23:31	UH
Aroclor 1242	BRL		1.8	38	ug/Kg-dry	275944	1	03/18/2019 23:31	UH
Aroclor 1248	BRL		5.0	38	ug/Kg-dry	275944	1	03/18/2019 23:31	UH
Aroclor 1254	BRL		2.0	38	ug/Kg-dry	275944	1	03/18/2019 23:31	UH
Aroclor 1260	BRL		1.8	38	ug/Kg-dry	275944	1	03/18/2019 23:31	UH
Aroclor 1262	BRL		1.7	38	ug/Kg-dry	275944	1	03/18/2019 23:31	UH
Aroclor 1268	BRL		2.6	38	ug/Kg-dry	275944	1	03/18/2019 23:31	UH
Surr: Decachlorobiphenyl	85.1		0	45.7-140	%REC	275944	1	03/18/2019 23:31	UH
Surr: Tetrachloro-m-xylene	79.5		0	45.3-126	%REC	275944	1	03/18/2019 23:31	UH
POLYAROMATIC HYDROCARBONS SW8270D					**(SW3546)**				
Naphthalene	BRL		32	380	ug/Kg-dry	275812	1	03/15/2019 17:56	RF
Acenaphthylene	BRL		37	380	ug/Kg-dry	275812	1	03/15/2019 17:56	RF
1-Methylnaphthalene	BRL		37	380	ug/Kg-dry	275812	1	03/15/2019 17:56	RF
2-Methylnaphthalene	BRL		35	380	ug/Kg-dry	275812	1	03/15/2019 17:56	RF
Acenaphthene	BRL		29	380	ug/Kg-dry	275812	1	03/15/2019 17:56	RF
Fluorene	BRL		40	380	ug/Kg-dry	275812	1	03/15/2019 17:56	RF
Phenanthrene	BRL		28	380	ug/Kg-dry	275812	1	03/15/2019 17:56	RF
Anthracene	BRL		23	380	ug/Kg-dry	275812	1	03/15/2019 17:56	RF

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 20-Mar-19

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LROA-SS-04-031319
Project Name:	L&R Oil Recovery Assessment	**Collection Date:**	3/13/2019 4:05:00 PM
Lab ID:	1903D56-024	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
POLYAROMATIC HYDROCARBONS SW8270D					**(SW3546)**				
Fluoranthene	BRL		35	380	ug/Kg-dry	275812	1	03/15/2019 17:56	RF
Pyrene	BRL		35	380	ug/Kg-dry	275812	1	03/15/2019 17:56	RF
Benz(a)anthracene	BRL		37	380	ug/Kg-dry	275812	1	03/15/2019 17:56	RF
Chrysene	BRL		32	380	ug/Kg-dry	275812	1	03/15/2019 17:56	RF
Benzo(b)fluoranthene	BRL		35	380	ug/Kg-dry	275812	1	03/15/2019 17:56	RF
Benzo(k)fluoranthene	BRL		32	380	ug/Kg-dry	275812	1	03/15/2019 17:56	RF
Benzo(a)pyrene	BRL		38	380	ug/Kg-dry	275812	1	03/15/2019 17:56	RF
Dibenz(a,h)anthracene	BRL		31	380	ug/Kg-dry	275812	1	03/15/2019 17:56	RF
Benzo(g,h,i)perylene	BRL		33	380	ug/Kg-dry	275812	1	03/15/2019 17:56	RF
Indeno(1,2,3-cd)pyrene	BRL		37	380	ug/Kg-dry	275812	1	03/15/2019 17:56	RF
Surr: 2-Fluorobiphenyl	75.5		0	54.4-120	%REC	275812	1	03/15/2019 17:56	RF
Surr: 4-Terphenyl-d14	89.5		0	60.4-120	%REC	275812	1	03/15/2019 17:56	RF
Surr: Nitrobenzene-d5	84.6		0	51-120	%REC	275812	1	03/15/2019 17:56	RF
METALS, TOTAL SW6010D					**(SW3050B)**				
Arsenic	11.6		0.346	2.10	mg/Kg-dry	275935	1	03/18/2019 17:25	DG
Barium	33.9		0.134	4.20	mg/Kg-dry	275935	1	03/18/2019 17:25	DG
Cadmium	0.335	J	0.0418	2.10	mg/Kg-dry	275935	1	03/18/2019 17:25	DG
Chromium	25.9		0.369	2.10	mg/Kg-dry	275935	1	03/18/2019 17:25	DG
Lead	21.5		0.157	4.20	mg/Kg-dry	275935	1	03/18/2019 17:25	DG
Selenium	BRL		0.637	2.94	mg/Kg-dry	275935	1	03/18/2019 17:25	DG
Silver	0.0407	J	0.0108	2.10	mg/Kg-dry	275935	1	03/18/2019 17:25	DG
PERCENT MOISTURE D2216									
Percent Moisture	12.2		0	0	wt%	R393548	1	03/19/2019 13:30	JW

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 20-Mar-19

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LROA-SS-05-031319
Project Name:	L&R Oil Recovery Assessment	**Collection Date:**	3/13/2019 4:15:00 PM
Lab ID:	1903D56-025	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Mercury by SW7473					**(SW7473)**				
Mercury	0.0371	J	0.0163	0.114	mg/Kg-dry	276012	1	03/18/2019 16:15	CD
TCL VOLATILE ORGANICS SW8260D					**(SW5035)**				
1,1,1-Trichloroethane	BRL		0.87	3.3	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
1,1,2,2-Tetrachloroethane	BRL		1.0	3.3	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
1,1,2-Trichloroethane	BRL		1.0	3.3	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
1,1-Dichloroethane	BRL		0.92	3.3	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
1,1-Dichloroethene	BRL		0.65	3.3	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
1,2,4-Trichlorobenzene	BRL		1.3	3.3	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
1,2-Dibromo-3-chloropropane	BRL		1.4	3.3	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
1,2-Dibromoethane	BRL		1.0	3.3	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
1,2-Dichlorobenzene	BRL		1.1	3.3	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
1,2-Dichloroethane	BRL		1.0	3.3	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
1,2-Dichloropropane	BRL		0.96	3.3	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
1,3-Dichlorobenzene	BRL		0.84	3.3	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
1,4-Dichlorobenzene	BRL		1.2	3.3	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
2-Butanone	BRL		4.1	33	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
2-Hexanone	BRL		2.5	6.6	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
4-Methyl-2-pentanone	BRL		1.7	6.6	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
Acetone	25	J	3.3	66	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
Benzene	BRL		0.39	3.3	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
Bromodichloromethane	BRL		0.89	3.3	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
Bromoform	BRL		0.89	3.3	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
Bromomethane	BRL		1.5	3.3	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
Carbon disulfide	BRL		1.8	6.6	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
Carbon tetrachloride	BRL		0.88	3.3	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
Chlorobenzene	BRL		0.98	3.3	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
Chloroethane	BRL		1.8	6.6	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
Chloroform	BRL		0.80	3.3	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
Chloromethane	BRL		1.2	6.6	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
cis-1,2-Dichloroethene	BRL		1.2	3.3	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
cis-1,3-Dichloropropene	BRL		1.2	3.3	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
Cyclohexane	BRL		0.73	3.3	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
Dibromochloromethane	BRL		0.89	3.3	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
Dichlorodifluoromethane	BRL		0.98	6.6	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
Ethylbenzene	BRL		0.33	3.3	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
Freon-113	BRL		0.86	6.6	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
Isopropylbenzene	BRL		0.93	3.3	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
m,p-Xylene	BRL		0.62	3.3	ug/Kg-dry	276020	1	03/16/2019 18:28	OM

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 20-Mar-19

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LROA-SS-05-031319
Project Name:	L&R Oil Recovery Assessment	**Collection Date:**	3/13/2019 4:15:00 PM
Lab ID:	1903D56-025	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260D					**(SW5035)**				
Methyl acetate	BRL		1.7	3.3	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
Methyl tert-butyl ether	BRL		0.75	3.3	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
Methylcyclohexane	BRL		1.1	3.3	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
Methylene chloride	BRL		3.3	13	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
o-Xylene	BRL		0.34	3.3	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
Styrene	BRL		0.87	3.3	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
Tetrachloroethene	8.3		0.99	3.3	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
Toluene	BRL		0.35	3.3	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
trans-1,2-Dichloroethene	BRL		1.1	3.3	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
trans-1,3-Dichloropropene	BRL		0.81	3.3	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
Trichloroethene	BRL		0.91	3.3	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
Trichlorofluoromethane	BRL		1.5	3.3	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
Vinyl chloride	BRL		1.4	6.6	ug/Kg-dry	276020	1	03/16/2019 18:28	OM
Surr: 4-Bromofluorobenzene	95.2		0	65.1-125	%REC	276020	1	03/16/2019 18:28	OM
Surr: Dibromofluoromethane	94		0	77.7-123	%REC	276020	1	03/16/2019 18:28	OM
Surr: Toluene-d8	97.8		0	83.2-120	%REC	276020	1	03/16/2019 18:28	OM
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3546)**				
Aroclor 1016	BRL		3.4	38	ug/Kg-dry	275944	1	03/18/2019 23:42	UH
Aroclor 1221	BRL		4.7	38	ug/Kg-dry	275944	1	03/18/2019 23:42	UH
Aroclor 1232	BRL		3.0	38	ug/Kg-dry	275944	1	03/18/2019 23:42	UH
Aroclor 1242	9.1	J	1.8	38	ug/Kg-dry	275944	1	03/18/2019 23:42	UH
Aroclor 1248	BRL		5.0	38	ug/Kg-dry	275944	1	03/18/2019 23:42	UH
Aroclor 1254	7.1	J	2.0	38	ug/Kg-dry	275944	1	03/18/2019 23:42	UH
Aroclor 1260	BRL		1.8	38	ug/Kg-dry	275944	1	03/18/2019 23:42	UH
Aroclor 1262	BRL		1.7	38	ug/Kg-dry	275944	1	03/18/2019 23:42	UH
Aroclor 1268	BRL		2.6	38	ug/Kg-dry	275944	1	03/18/2019 23:42	UH
Surr: Decachlorobiphenyl	92.1		0	45.7-140	%REC	275944	1	03/18/2019 23:42	UH
Surr: Tetrachloro-m-xylene	89.8		0	45.3-126	%REC	275944	1	03/18/2019 23:42	UH
POLYAROMATIC HYDROCARBONS SW8270D					**(SW3546)**				
Naphthalene	BRL		32	380	ug/Kg-dry	275812	1	03/15/2019 18:21	RF
Acenaphthylene	BRL		37	380	ug/Kg-dry	275812	1	03/15/2019 18:21	RF
1-Methylnaphthalene	BRL		38	380	ug/Kg-dry	275812	1	03/15/2019 18:21	RF
2-Methylnaphthalene	BRL		35	380	ug/Kg-dry	275812	1	03/15/2019 18:21	RF
Acenaphthene	BRL		29	380	ug/Kg-dry	275812	1	03/15/2019 18:21	RF
Fluorene	BRL		40	380	ug/Kg-dry	275812	1	03/15/2019 18:21	RF
Phenanthrene	BRL		28	380	ug/Kg-dry	275812	1	03/15/2019 18:21	RF
Anthracene	BRL		23	380	ug/Kg-dry	275812	1	03/15/2019 18:21	RF

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 20-Mar-19

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LROA-SS-05-031319
Project Name:	L&R Oil Recovery Assessment	**Collection Date:**	3/13/2019 4:15:00 PM
Lab ID:	1903D56-025	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
POLYAROMATIC HYDROCARBONS SW8270D					**(SW3546)**				
Fluoranthene	BRL		35	380	ug/Kg-dry	275812	1	03/15/2019 18:21	RF
Pyrene	BRL		35	380	ug/Kg-dry	275812	1	03/15/2019 18:21	RF
Benz(a)anthracene	BRL		37	380	ug/Kg-dry	275812	1	03/15/2019 18:21	RF
Chrysene	BRL		32	380	ug/Kg-dry	275812	1	03/15/2019 18:21	RF
Benzo(b)fluoranthene	BRL		35	380	ug/Kg-dry	275812	1	03/15/2019 18:21	RF
Benzo(k)fluoranthene	BRL		32	380	ug/Kg-dry	275812	1	03/15/2019 18:21	RF
Benzo(a)pyrene	BRL		38	380	ug/Kg-dry	275812	1	03/15/2019 18:21	RF
Dibenz(a,h)anthracene	BRL		31	380	ug/Kg-dry	275812	1	03/15/2019 18:21	RF
Benzo(g,h,i)perylene	BRL		33	380	ug/Kg-dry	275812	1	03/15/2019 18:21	RF
Indeno(1,2,3-cd)pyrene	BRL		37	380	ug/Kg-dry	275812	1	03/15/2019 18:21	RF
Surr: 2-Fluorobiphenyl	76.8		0	54.4-120	%REC	275812	1	03/15/2019 18:21	RF
Surr: 4-Terphenyl-d14	90.3		0	60.4-120	%REC	275812	1	03/15/2019 18:21	RF
Surr: Nitrobenzene-d5	89.4		0	51-120	%REC	275812	1	03/15/2019 18:21	RF
METALS, TOTAL SW6010D					**(SW3050B)**				
Arsenic	14.2		0.356	2.16	mg/Kg-dry	275935	1	03/18/2019 17:32	DG
Barium	46.1		0.138	4.32	mg/Kg-dry	275935	1	03/18/2019 17:32	DG
Cadmium	0.321	J	0.0430	2.16	mg/Kg-dry	275935	1	03/18/2019 17:32	DG
Chromium	16.4		0.379	2.16	mg/Kg-dry	275935	1	03/18/2019 17:32	DG
Lead	16.7		0.161	4.32	mg/Kg-dry	275935	1	03/18/2019 17:32	DG
Selenium	BRL		0.654	3.02	mg/Kg-dry	275935	1	03/18/2019 17:32	DG
Silver	0.0548	J	0.0110	2.16	mg/Kg-dry	275935	1	03/18/2019 17:32	DG
PERCENT MOISTURE D2216									
Percent Moisture	12.3		0	0	wt%	R393548	1	03/19/2019 13:30	JW

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 20-Mar-19

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LROA-SS-06-031319
Project Name:	L&R Oil Recovery Assessment	**Collection Date:**	3/13/2019 4:25:00 PM
Lab ID:	1903D56-026	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Mercury by SW7473					**(SW7473)**				
Mercury	0.0175	J	0.0167	0.117	mg/Kg-dry	276012	1	03/18/2019 16:24	CD
TCL VOLATILE ORGANICS SW8260D					**(SW5035)**				
1,1,1-Trichloroethane	BRL		0.88	3.3	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
1,1,2,2-Tetrachloroethane	BRL		1.0	3.3	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
1,1,2-Trichloroethane	BRL		1.0	3.3	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
1,1-Dichloroethane	BRL		0.93	3.3	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
1,1-Dichloroethene	BRL		0.66	3.3	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
1,2,4-Trichlorobenzene	BRL		1.3	3.3	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
1,2-Dibromo-3-chloropropane	BRL		1.4	3.3	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
1,2-Dibromoethane	BRL		1.0	3.3	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
1,2-Dichlorobenzene	BRL		1.1	3.3	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
1,2-Dichloroethane	BRL		1.0	3.3	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
1,2-Dichloropropane	BRL		0.97	3.3	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
1,3-Dichlorobenzene	BRL		0.85	3.3	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
1,4-Dichlorobenzene	BRL		1.2	3.3	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
2-Butanone	BRL		4.1	33	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
2-Hexanone	BRL		2.6	6.6	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
4-Methyl-2-pentanone	BRL		1.7	6.6	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
Acetone	18	J	3.4	66	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
Benzene	BRL		0.40	3.3	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
Bromodichloromethane	BRL		0.90	3.3	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
Bromoform	BRL		0.90	3.3	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
Bromomethane	BRL		1.5	3.3	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
Carbon disulfide	BRL		1.8	6.6	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
Carbon tetrachloride	BRL		0.89	3.3	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
Chlorobenzene	BRL		0.99	3.3	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
Chloroethane	BRL		1.8	6.6	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
Chloroform	BRL		0.80	3.3	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
Chloromethane	BRL		1.2	6.6	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
cis-1,2-Dichloroethene	BRL		1.2	3.3	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
cis-1,3-Dichloropropene	BRL		1.2	3.3	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
Cyclohexane	BRL		0.74	3.3	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
Dibromochloromethane	BRL		0.90	3.3	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
Dichlorodifluoromethane	BRL		0.99	6.6	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
Ethylbenzene	BRL		0.33	3.3	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
Freon-113	BRL		0.87	6.6	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
Isopropylbenzene	BRL		0.94	3.3	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
m,p-Xylene	BRL		0.63	3.3	ug/Kg-dry	276020	1	03/16/2019 18:53	OM

Qualifiers:

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- J Estimated value detected below Reporting Limit
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- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 20-Mar-19

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LROA-SS-06-031319
Project Name:	L&R Oil Recovery Assessment	**Collection Date:**	3/13/2019 4:25:00 PM
Lab ID:	1903D56-026	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260D					**(SW5035)**				
Methyl acetate	BRL		1.7	3.3	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
Methyl tert-butyl ether	BRL		0.76	3.3	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
Methylcyclohexane	BRL		1.1	3.3	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
Methylene chloride	BRL		3.3	13	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
o-Xylene	BRL		0.34	3.3	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
Styrene	BRL		0.88	3.3	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
Tetrachloroethene	BRL		1.0	3.3	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
Toluene	BRL		0.35	3.3	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
trans-1,2-Dichloroethene	BRL		1.2	3.3	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
trans-1,3-Dichloropropene	BRL		0.82	3.3	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
Trichloroethene	BRL		0.92	3.3	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
Trichlorofluoromethane	BRL		1.6	3.3	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
Vinyl chloride	BRL		1.4	6.6	ug/Kg-dry	276020	1	03/16/2019 18:53	OM
Surr: 4-Bromofluorobenzene	90.6		0	65.1-125	%REC	276020	1	03/16/2019 18:53	OM
Surr: Dibromofluoromethane	89.8		0	77.7-123	%REC	276020	1	03/16/2019 18:53	OM
Surr: Toluene-d8	94.6		0	83.2-120	%REC	276020	1	03/16/2019 18:53	OM
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3546)**				
Aroclor 1016	BRL		3.4	39	ug/Kg-dry	275944	1	03/18/2019 23:54	UH
Aroclor 1221	BRL		4.8	39	ug/Kg-dry	275944	1	03/18/2019 23:54	UH
Aroclor 1232	BRL		3.1	39	ug/Kg-dry	275944	1	03/18/2019 23:54	UH
Aroclor 1242	BRL		1.8	39	ug/Kg-dry	275944	1	03/18/2019 23:54	UH
Aroclor 1248	BRL		5.1	39	ug/Kg-dry	275944	1	03/18/2019 23:54	UH
Aroclor 1254	BRL		2.1	39	ug/Kg-dry	275944	1	03/18/2019 23:54	UH
Aroclor 1260	BRL		1.9	39	ug/Kg-dry	275944	1	03/18/2019 23:54	UH
Aroclor 1262	BRL		1.7	39	ug/Kg-dry	275944	1	03/18/2019 23:54	UH
Aroclor 1268	BRL		2.7	39	ug/Kg-dry	275944	1	03/18/2019 23:54	UH
Surr: Decachlorobiphenyl	89.6		0	45.7-140	%REC	275944	1	03/18/2019 23:54	UH
Surr: Tetrachloro-m-xylene	88.4		0	45.3-126	%REC	275944	1	03/18/2019 23:54	UH
POLYAROMATIC HYDROCARBONS SW8270D					**(SW3546)**				
Naphthalene	BRL		33	390	ug/Kg-dry	275812	1	03/15/2019 18:45	RF
Acenaphthylene	BRL		38	390	ug/Kg-dry	275812	1	03/15/2019 18:45	RF
1-Methylnaphthalene	BRL		38	390	ug/Kg-dry	275812	1	03/15/2019 18:45	RF
2-Methylnaphthalene	BRL		35	390	ug/Kg-dry	275812	1	03/15/2019 18:45	RF
Acenaphthene	BRL		30	390	ug/Kg-dry	275812	1	03/15/2019 18:45	RF
Fluorene	BRL		41	390	ug/Kg-dry	275812	1	03/15/2019 18:45	RF
Phenanthrene	BRL		29	390	ug/Kg-dry	275812	1	03/15/2019 18:45	RF
Anthracene	BRL		24	390	ug/Kg-dry	275812	1	03/15/2019 18:45	RF

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Analytical Environmental Services, Inc **Date:** 20-Mar-19

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LROA-SS-06-031319
Project Name:	L&R Oil Recovery Assessment	**Collection Date:**	3/13/2019 4:25:00 PM
Lab ID:	1903D56-026	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
POLYAROMATIC HYDROCARBONS SW8270D					**(SW3546)**				
Fluoranthene	BRL		36	390	ug/Kg-dry	275812	1	03/15/2019 18:45	RF
Pyrene	BRL		36	390	ug/Kg-dry	275812	1	03/15/2019 18:45	RF
Benz(a)anthracene	BRL		38	390	ug/Kg-dry	275812	1	03/15/2019 18:45	RF
Chrysene	BRL		33	390	ug/Kg-dry	275812	1	03/15/2019 18:45	RF
Benzo(b)fluoranthene	BRL		36	390	ug/Kg-dry	275812	1	03/15/2019 18:45	RF
Benzo(k)fluoranthene	BRL		33	390	ug/Kg-dry	275812	1	03/15/2019 18:45	RF
Benzo(a)pyrene	BRL		39	390	ug/Kg-dry	275812	1	03/15/2019 18:45	RF
Dibenz(a,h)anthracene	BRL		31	390	ug/Kg-dry	275812	1	03/15/2019 18:45	RF
Benzo(g,h,i)perylene	BRL		34	390	ug/Kg-dry	275812	1	03/15/2019 18:45	RF
Indeno(1,2,3-cd)pyrene	BRL		37	390	ug/Kg-dry	275812	1	03/15/2019 18:45	RF
Surr: 2-Fluorobiphenyl	77		0	54.4-120	%REC	275812	1	03/15/2019 18:45	RF
Surr: 4-Terphenyl-d14	86.6		0	60.4-120	%REC	275812	1	03/15/2019 18:45	RF
Surr: Nitrobenzene-d5	90.2		0	51-120	%REC	275812	1	03/15/2019 18:45	RF
METALS, TOTAL SW6010D					**(SW3050B)**				
Arsenic	13.8		0.362	2.20	mg/Kg-dry	275935	1	03/18/2019 17:34	DG
Barium	58.4		0.141	4.40	mg/Kg-dry	275935	1	03/18/2019 17:34	DG
Cadmium	0.298	J	0.0438	2.20	mg/Kg-dry	275935	1	03/18/2019 17:34	DG
Chromium	14.7		0.386	2.20	mg/Kg-dry	275935	1	03/18/2019 17:34	DG
Lead	36.2		0.164	4.40	mg/Kg-dry	275935	1	03/18/2019 17:34	DG
Selenium	BRL		0.667	3.08	mg/Kg-dry	275935	1	03/18/2019 17:34	DG
Silver	0.0471	J	0.0113	2.20	mg/Kg-dry	275935	1	03/18/2019 17:34	DG
PERCENT MOISTURE D2216									
Percent Moisture	14.5		0	0	wt%	R393548	1	03/19/2019 13:30	JW

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Analytical Environmental Services, Inc

Date: 20-Mar-19

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LROA-EB-01-031319
Project Name:	L&R Oil Recovery Assessment	**Collection Date:**	3/13/2019 9:00:00 PM
Lab ID:	1903D56-027	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260D					**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.30	5.0	ug/L	276011	1	03/16/2019 16:41	CC
1,1,2,2-Tetrachloroethane	BRL		0.34	5.0	ug/L	276011	1	03/16/2019 16:41	CC
1,1,2-Trichloroethane	BRL		0.43	5.0	ug/L	276011	1	03/16/2019 16:41	CC
1,1-Dichloroethane	BRL		0.43	5.0	ug/L	276011	1	03/16/2019 16:41	CC
1,1-Dichloroethene	BRL		0.40	5.0	ug/L	276011	1	03/16/2019 16:41	CC
1,2,4-Trichlorobenzene	BRL		0.39	5.0	ug/L	276011	1	03/16/2019 16:41	CC
1,2-Dibromo-3-chloropropane	BRL		0.68	5.0	ug/L	276011	1	03/16/2019 16:41	CC
1,2-Dibromoethane	BRL		0.57	5.0	ug/L	276011	1	03/16/2019 16:41	CC
1,2-Dichlorobenzene	BRL		0.45	5.0	ug/L	276011	1	03/16/2019 16:41	CC
1,2-Dichloroethane	BRL		0.37	5.0	ug/L	276011	1	03/16/2019 16:41	CC
1,2-Dichloropropane	BRL		0.35	5.0	ug/L	276011	1	03/16/2019 16:41	CC
1,3-Dichlorobenzene	BRL		0.31	5.0	ug/L	276011	1	03/16/2019 16:41	CC
1,4-Dichlorobenzene	BRL		0.33	5.0	ug/L	276011	1	03/16/2019 16:41	CC
2-Butanone	BRL		2.5	50	ug/L	276011	1	03/16/2019 16:41	CC
2-Hexanone	BRL		0.67	10	ug/L	276011	1	03/16/2019 16:41	CC
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	276011	1	03/16/2019 16:41	CC
Acetone	BRL		3.6	50	ug/L	276011	1	03/16/2019 16:41	CC
Benzene	BRL		0.37	5.0	ug/L	276011	1	03/16/2019 16:41	CC
Bromodichloromethane	BRL		0.25	5.0	ug/L	276011	1	03/16/2019 16:41	CC
Bromoform	BRL		0.19	5.0	ug/L	276011	1	03/16/2019 16:41	CC
Bromomethane	BRL		0.39	5.0	ug/L	276011	1	03/16/2019 16:41	CC
Carbon disulfide	BRL		0.74	5.0	ug/L	276011	1	03/16/2019 16:41	CC
Carbon tetrachloride	BRL		0.29	5.0	ug/L	276011	1	03/16/2019 16:41	CC
Chlorobenzene	BRL		0.42	5.0	ug/L	276011	1	03/16/2019 16:41	CC
Chloroethane	BRL		0.31	10	ug/L	276011	1	03/16/2019 16:41	CC
Chloroform	BRL		0.20	5.0	ug/L	276011	1	03/16/2019 16:41	CC
Chloromethane	BRL		0.21	10	ug/L	276011	1	03/16/2019 16:41	CC
cis-1,2-Dichloroethene	BRL		0.28	5.0	ug/L	276011	1	03/16/2019 16:41	CC
cis-1,3-Dichloropropene	BRL		0.31	5.0	ug/L	276011	1	03/16/2019 16:41	CC
Cyclohexane	BRL		1.0	5.0	ug/L	276011	1	03/16/2019 16:41	CC
Dibromochloromethane	BRL		0.43	5.0	ug/L	276011	1	03/16/2019 16:41	CC
Dichlorodifluoromethane	BRL		0.15	10	ug/L	276011	1	03/16/2019 16:41	CC
Ethylbenzene	BRL		0.26	5.0	ug/L	276011	1	03/16/2019 16:41	CC
Freon-113	BRL		0.32	10	ug/L	276011	1	03/16/2019 16:41	CC
Isopropylbenzene	BRL		0.43	5.0	ug/L	276011	1	03/16/2019 16:41	CC
m,p-Xylene	BRL		0.60	5.0	ug/L	276011	1	03/16/2019 16:41	CC
Methyl acetate	BRL		0.42	5.0	ug/L	276011	1	03/16/2019 16:41	CC
Methyl tert-butyl ether	BRL		0.45	5.0	ug/L	276011	1	03/16/2019 16:41	CC
Methylcyclohexane	BRL		0.39	5.0	ug/L	276011	1	03/16/2019 16:41	CC

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Analytical Environmental Services, Inc

Date: 20-Mar-19

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LROA-EB-01-031319
Project Name:	L&R Oil Recovery Assessment	**Collection Date:**	3/13/2019 9:00:00 PM
Lab ID:	1903D56-027	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260D					**(SW5030B)**				
Methylene chloride	BRL		1.2	5.0	ug/L	276011	1	03/16/2019 16:41	CC
o-Xylene	BRL		0.18	5.0	ug/L	276011	1	03/16/2019 16:41	CC
Styrene	BRL		0.15	5.0	ug/L	276011	1	03/16/2019 16:41	CC
Tetrachloroethene	BRL		0.46	5.0	ug/L	276011	1	03/16/2019 16:41	CC
Toluene	BRL		0.39	5.0	ug/L	276011	1	03/16/2019 16:41	CC
trans-1,2-Dichloroethene	BRL		0.30	5.0	ug/L	276011	1	03/16/2019 16:41	CC
trans-1,3-Dichloropropene	BRL		0.32	5.0	ug/L	276011	1	03/16/2019 16:41	CC
Trichloroethene	BRL		0.30	5.0	ug/L	276011	1	03/16/2019 16:41	CC
Trichlorofluoromethane	BRL		0.18	5.0	ug/L	276011	1	03/16/2019 16:41	CC
Vinyl chloride	BRL		0.30	2.0	ug/L	276011	1	03/16/2019 16:41	CC
Surr: 4-Bromofluorobenzene	100		0	64-125	%REC	276011	1	03/16/2019 16:41	CC
Surr: Dibromofluoromethane	100		0	76.4-125	%REC	276011	1	03/16/2019 16:41	CC
Surr: Toluene-d8	98.2		0	78.3-116	%REC	276011	1	03/16/2019 16:41	CC
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3510C)**				
Aroclor 1016	BRL		0.048	0.50	ug/L	275930	1	03/18/2019 18:30	UH
Aroclor 1221	BRL		0.049	0.50	ug/L	275930	1	03/18/2019 18:30	UH
Aroclor 1232	BRL		0.077	0.50	ug/L	275930	1	03/18/2019 18:30	UH
Aroclor 1242	BRL		0.058	0.50	ug/L	275930	1	03/18/2019 18:30	UH
Aroclor 1248	BRL		0.086	0.50	ug/L	275930	1	03/18/2019 18:30	UH
Aroclor 1254	BRL		0.027	0.50	ug/L	275930	1	03/18/2019 18:30	UH
Aroclor 1260	BRL		0.029	0.50	ug/L	275930	1	03/18/2019 18:30	UH
Surr: Decachlorobiphenyl	59.5		0	31.2-130	%REC	275930	1	03/18/2019 18:30	UH
Surr: Tetrachloro-m-xylene	109		0	46.2-120	%REC	275930	1	03/18/2019 18:30	UH
PAHs by Microextraction SW8270D					**(SW3511)**				
1-Methylnaphthalene	BRL		0.65	8.5	ug/L	275820	1	03/15/2019 16:22	RF
2-Methylnaphthalene	BRL		0.75	8.5	ug/L	275820	1	03/15/2019 16:22	RF
Acenaphthene	BRL		0.53	8.5	ug/L	275820	1	03/15/2019 16:22	RF
Acenaphthylene	BRL		0.38	8.5	ug/L	275820	1	03/15/2019 16:22	RF
Anthracene	BRL		0.36	8.5	ug/L	275820	1	03/15/2019 16:22	RF
Benz(a)anthracene	BRL		0.40	8.5	ug/L	275820	1	03/15/2019 16:22	RF
Benzo(a)pyrene	BRL		0.19	8.5	ug/L	275820	1	03/15/2019 16:22	RF
Benzo(b)fluoranthene	BRL		0.41	8.5	ug/L	275820	1	03/15/2019 16:22	RF
Benzo(g,h,i)perylene	BRL		0.51	8.5	ug/L	275820	1	03/15/2019 16:22	RF
Benzo(k)fluoranthene	BRL		0.42	8.5	ug/L	275820	1	03/15/2019 16:22	RF
Chrysene	BRL		0.46	8.5	ug/L	275820	1	03/15/2019 16:22	RF
Dibenz(a,h)anthracene	BRL		0.54	8.5	ug/L	275820	1	03/15/2019 16:22	RF
Fluoranthene	BRL		0.40	8.5	ug/L	275820	1	03/15/2019 16:22	RF

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Analytical Environmental Services, Inc

Date: 20-Mar-19

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LROA-EB-01-031319
Project Name:	L&R Oil Recovery Assessment	**Collection Date:**	3/13/2019 9:00:00 PM
Lab ID:	1903D56-027	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
PAHs by Microextraction SW8270D					**(SW3511)**				
Fluorene	BRL		0.33	8.5	ug/L	275820	1	03/15/2019 16:22	RF
Indeno(1,2,3-cd)pyrene	BRL		0.49	8.5	ug/L	275820	1	03/15/2019 16:22	RF
Naphthalene	BRL		0.67	8.5	ug/L	275820	1	03/15/2019 16:22	RF
Phenanthrene	BRL		0.45	8.5	ug/L	275820	1	03/15/2019 16:22	RF
Pyrene	BRL		0.39	8.5	ug/L	275820	1	03/15/2019 16:22	RF
Surr: 2-Fluorobiphenyl	107		0	52.2-120	%REC	275820	1	03/15/2019 16:22	RF
Surr: 4-Terphenyl-d14	99.4		0	42.7-120	%REC	275820	1	03/15/2019 16:22	RF
Surr: Nitrobenzene-d5	101		0	50.7-122	%REC	275820	1	03/15/2019 16:22	RF
Mercury, Total SW7470A					**(SW7470A)**				
Mercury	BRL		0.00006	0.00020	mg/L	276010	1	03/18/2019 17:15	CD
METALS, TOTAL SW6010D					**(SW3010A)**				
Arsenic	BRL		0.0072	0.0500	mg/L	275948	1	03/18/2019 13:45	AJ
Barium	BRL		0.0027	0.0200	mg/L	275948	1	03/18/2019 13:45	AJ
Cadmium	BRL		0.0019	0.0050	mg/L	275948	1	03/18/2019 13:45	AJ
Chromium	BRL		0.0032	0.0100	mg/L	275948	1	03/18/2019 13:45	AJ
Lead	BRL		0.0038	0.0100	mg/L	275948	1	03/18/2019 13:45	AJ
Selenium	BRL		0.0074	0.0200	mg/L	275948	1	03/18/2019 13:45	AJ
Silver	BRL		0.0026	0.0100	mg/L	275948	1	03/18/2019 13:45	AJ

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 20-Mar-19

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LROA-FB-03-031319
Project Name:	L&R Oil Recovery Assessment	**Collection Date:**	3/13/2019 9:15:00 PM
Lab ID:	1903D56-028	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260D					**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.30	5.0	ug/L	276011	1	03/16/2019 17:08	CC
1,1,2,2-Tetrachloroethane	BRL		0.34	5.0	ug/L	276011	1	03/16/2019 17:08	CC
1,1,2-Trichloroethane	BRL		0.43	5.0	ug/L	276011	1	03/16/2019 17:08	CC
1,1-Dichloroethane	BRL		0.43	5.0	ug/L	276011	1	03/16/2019 17:08	CC
1,1-Dichloroethene	BRL		0.40	5.0	ug/L	276011	1	03/16/2019 17:08	CC
1,2,4-Trichlorobenzene	BRL		0.39	5.0	ug/L	276011	1	03/16/2019 17:08	CC
1,2-Dibromo-3-chloropropane	BRL		0.68	5.0	ug/L	276011	1	03/16/2019 17:08	CC
1,2-Dibromoethane	BRL		0.57	5.0	ug/L	276011	1	03/16/2019 17:08	CC
1,2-Dichlorobenzene	BRL		0.45	5.0	ug/L	276011	1	03/16/2019 17:08	CC
1,2-Dichloroethane	BRL		0.37	5.0	ug/L	276011	1	03/16/2019 17:08	CC
1,2-Dichloropropane	BRL		0.35	5.0	ug/L	276011	1	03/16/2019 17:08	CC
1,3-Dichlorobenzene	BRL		0.31	5.0	ug/L	276011	1	03/16/2019 17:08	CC
1,4-Dichlorobenzene	BRL		0.33	5.0	ug/L	276011	1	03/16/2019 17:08	CC
2-Butanone	BRL		2.5	50	ug/L	276011	1	03/16/2019 17:08	CC
2-Hexanone	BRL		0.67	10	ug/L	276011	1	03/16/2019 17:08	CC
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	276011	1	03/16/2019 17:08	CC
Acetone	BRL		3.6	50	ug/L	276011	1	03/16/2019 17:08	CC
Benzene	BRL		0.37	5.0	ug/L	276011	1	03/16/2019 17:08	CC
Bromodichloromethane	BRL		0.25	5.0	ug/L	276011	1	03/16/2019 17:08	CC
Bromoform	BRL		0.19	5.0	ug/L	276011	1	03/16/2019 17:08	CC
Bromomethane	BRL		0.39	5.0	ug/L	276011	1	03/16/2019 17:08	CC
Carbon disulfide	BRL		0.74	5.0	ug/L	276011	1	03/16/2019 17:08	CC
Carbon tetrachloride	BRL		0.29	5.0	ug/L	276011	1	03/16/2019 17:08	CC
Chlorobenzene	BRL		0.42	5.0	ug/L	276011	1	03/16/2019 17:08	CC
Chloroethane	BRL		0.31	10	ug/L	276011	1	03/16/2019 17:08	CC
Chloroform	BRL		0.20	5.0	ug/L	276011	1	03/16/2019 17:08	CC
Chloromethane	BRL		0.21	10	ug/L	276011	1	03/16/2019 17:08	CC
cis-1,2-Dichloroethene	BRL		0.28	5.0	ug/L	276011	1	03/16/2019 17:08	CC
cis-1,3-Dichloropropene	BRL		0.31	5.0	ug/L	276011	1	03/16/2019 17:08	CC
Cyclohexane	BRL		1.0	5.0	ug/L	276011	1	03/16/2019 17:08	CC
Dibromochloromethane	BRL		0.43	5.0	ug/L	276011	1	03/16/2019 17:08	CC
Dichlorodifluoromethane	BRL		0.15	10	ug/L	276011	1	03/16/2019 17:08	CC
Ethylbenzene	BRL		0.26	5.0	ug/L	276011	1	03/16/2019 17:08	CC
Freon-113	BRL		0.32	10	ug/L	276011	1	03/16/2019 17:08	CC
Isopropylbenzene	BRL		0.43	5.0	ug/L	276011	1	03/16/2019 17:08	CC
m,p-Xylene	BRL		0.60	5.0	ug/L	276011	1	03/16/2019 17:08	CC
Methyl acetate	BRL		0.42	5.0	ug/L	276011	1	03/16/2019 17:08	CC
Methyl tert-butyl ether	BRL		0.45	5.0	ug/L	276011	1	03/16/2019 17:08	CC
Methylcyclohexane	BRL		0.39	5.0	ug/L	276011	1	03/16/2019 17:08	CC

Qualifiers:

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- BRL Not detected at MDL
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Analytical Environmental Services, Inc **Date:** 20-Mar-19

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LROA-FB-03-031319
Project Name:	L&R Oil Recovery Assessment	**Collection Date:**	3/13/2019 9:15:00 PM
Lab ID:	1903D56-028	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260D					**(SW5030B)**				
Methylene chloride	BRL		1.2	5.0	ug/L	276011	1	03/16/2019 17:08	CC
o-Xylene	BRL		0.18	5.0	ug/L	276011	1	03/16/2019 17:08	CC
Styrene	BRL		0.15	5.0	ug/L	276011	1	03/16/2019 17:08	CC
Tetrachloroethene	BRL		0.46	5.0	ug/L	276011	1	03/16/2019 17:08	CC
Toluene	BRL		0.39	5.0	ug/L	276011	1	03/16/2019 17:08	CC
trans-1,2-Dichloroethene	BRL		0.30	5.0	ug/L	276011	1	03/16/2019 17:08	CC
trans-1,3-Dichloropropene	BRL		0.32	5.0	ug/L	276011	1	03/16/2019 17:08	CC
Trichloroethene	BRL		0.30	5.0	ug/L	276011	1	03/16/2019 17:08	CC
Trichlorofluoromethane	BRL		0.18	5.0	ug/L	276011	1	03/16/2019 17:08	CC
Vinyl chloride	BRL		0.30	2.0	ug/L	276011	1	03/16/2019 17:08	CC
Surr: 4-Bromofluorobenzene	98.5		0	64-125	%REC	276011	1	03/16/2019 17:08	CC
Surr: Dibromofluoromethane	99.2		0	76.4-125	%REC	276011	1	03/16/2019 17:08	CC
Surr: Toluene-d8	101		0	78.3-116	%REC	276011	1	03/16/2019 17:08	CC
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3510C)**				
Aroclor 1016	BRL		0.048	0.50	ug/L	275930	1	03/18/2019 19:04	UH
Aroclor 1221	BRL		0.049	0.50	ug/L	275930	1	03/18/2019 19:04	UH
Aroclor 1232	BRL		0.077	0.50	ug/L	275930	1	03/18/2019 19:04	UH
Aroclor 1242	BRL		0.058	0.50	ug/L	275930	1	03/18/2019 19:04	UH
Aroclor 1248	BRL		0.086	0.50	ug/L	275930	1	03/18/2019 19:04	UH
Aroclor 1254	BRL		0.027	0.50	ug/L	275930	1	03/18/2019 19:04	UH
Aroclor 1260	BRL		0.029	0.50	ug/L	275930	1	03/18/2019 19:04	UH
Surr: Decachlorobiphenyl	45.6		0	31.2-130	%REC	275930	1	03/18/2019 19:04	UH
Surr: Tetrachloro-m-xylene	87.5		0	46.2-120	%REC	275930	1	03/18/2019 19:04	UH
PAHs by Microextraction SW8270D					**(SW3511)**				
1-Methylnaphthalene	BRL		0.66	8.7	ug/L	276068	1	03/19/2019 18:22	RF
2-Methylnaphthalene	BRL		0.76	8.7	ug/L	276068	1	03/19/2019 18:22	RF
Acenaphthene	BRL		0.54	8.7	ug/L	276068	1	03/19/2019 18:22	RF
Acenaphthylene	BRL		0.39	8.7	ug/L	276068	1	03/19/2019 18:22	RF
Anthracene	BRL		0.37	8.7	ug/L	276068	1	03/19/2019 18:22	RF
Benz(a)anthracene	BRL		0.40	8.7	ug/L	276068	1	03/19/2019 18:22	RF
Benzo(a)pyrene	BRL		0.20	8.7	ug/L	276068	1	03/19/2019 18:22	RF
Benzo(b)fluoranthene	BRL		0.42	8.7	ug/L	276068	1	03/19/2019 18:22	RF
Benzo(g,h,i)perylene	BRL		0.51	8.7	ug/L	276068	1	03/19/2019 18:22	RF
Benzo(k)fluoranthene	BRL		0.43	8.7	ug/L	276068	1	03/19/2019 18:22	RF
Chrysene	BRL		0.47	8.7	ug/L	276068	1	03/19/2019 18:22	RF
Dibenz(a,h)anthracene	BRL		0.55	8.7	ug/L	276068	1	03/19/2019 18:22	RF
Fluoranthene	BRL		0.40	8.7	ug/L	276068	1	03/19/2019 18:22	RF

Qualifiers:

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- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
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- Narr See case narrative

Analytical Environmental Services, Inc

Date: 20-Mar-19

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LROA-FB-03-031319
Project Name:	L&R Oil Recovery Assessment	**Collection Date:**	3/13/2019 9:15:00 PM
Lab ID:	1903D56-028	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
PAHs by Microextraction SW8270D					**(SW3511)**				
Fluorene	BRL		0.34	8.7	ug/L	276068	1	03/19/2019 18:22	RF
Indeno(1,2,3-cd)pyrene	BRL		0.49	8.7	ug/L	276068	1	03/19/2019 18:22	RF
Naphthalene	BRL		0.68	8.7	ug/L	276068	1	03/19/2019 18:22	RF
Phenanthrene	BRL		0.46	8.7	ug/L	276068	1	03/19/2019 18:22	RF
Pyrene	BRL		0.40	8.7	ug/L	276068	1	03/19/2019 18:22	RF
Surr: 2-Fluorobiphenyl	95.5		0	52.2-120	%REC	276068	1	03/19/2019 18:22	RF
Surr: 4-Terphenyl-d14	125	S	0	42.7-120	%REC	276068	1	03/19/2019 18:22	RF
Surr: Nitrobenzene-d5	104		0	50.7-122	%REC	276068	1	03/19/2019 18:22	RF
Mercury, Total SW7470A					**(SW7470A)**				
Mercury	BRL		0.00006	0.00020	mg/L	276010	1	03/18/2019 16:24	CD
METALS, TOTAL SW6010D					**(SW3010A)**				
Arsenic	BRL		0.0072	0.0500	mg/L	275948	1	03/18/2019 13:47	AJ
Barium	BRL		0.0027	0.0200	mg/L	275948	1	03/18/2019 13:47	AJ
Cadmium	BRL		0.0019	0.0050	mg/L	275948	1	03/18/2019 13:47	AJ
Chromium	BRL		0.0032	0.0100	mg/L	275948	1	03/18/2019 13:47	AJ
Lead	BRL		0.0038	0.0100	mg/L	275948	1	03/18/2019 13:47	AJ
Selenium	BRL		0.0074	0.0200	mg/L	275948	1	03/18/2019 13:47	AJ
Silver	BRL		0.0026	0.0100	mg/L	275948	1	03/18/2019 13:47	AJ

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- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 20-Mar-19

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LROA-TB-01-031319
Project Name:	L&R Oil Recovery Assessment	**Collection Date:**	3/13/2019
Lab ID:	1903D56-029	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260D					**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.30	5.0	ug/L	276011	1	03/16/2019 18:30	CC
1,1,2,2-Tetrachloroethane	BRL		0.34	5.0	ug/L	276011	1	03/16/2019 18:30	CC
1,1,2-Trichloroethane	BRL		0.43	5.0	ug/L	276011	1	03/16/2019 18:30	CC
1,1-Dichloroethane	BRL		0.43	5.0	ug/L	276011	1	03/16/2019 18:30	CC
1,1-Dichloroethene	BRL		0.40	5.0	ug/L	276011	1	03/16/2019 18:30	CC
1,2,4-Trichlorobenzene	BRL		0.39	5.0	ug/L	276011	1	03/16/2019 18:30	CC
1,2-Dibromo-3-chloropropane	BRL		0.68	5.0	ug/L	276011	1	03/16/2019 18:30	CC
1,2-Dibromoethane	BRL		0.57	5.0	ug/L	276011	1	03/16/2019 18:30	CC
1,2-Dichlorobenzene	BRL		0.45	5.0	ug/L	276011	1	03/16/2019 18:30	CC
1,2-Dichloroethane	BRL		0.37	5.0	ug/L	276011	1	03/16/2019 18:30	CC
1,2-Dichloropropane	BRL		0.35	5.0	ug/L	276011	1	03/16/2019 18:30	CC
1,3-Dichlorobenzene	BRL		0.31	5.0	ug/L	276011	1	03/16/2019 18:30	CC
1,4-Dichlorobenzene	BRL		0.33	5.0	ug/L	276011	1	03/16/2019 18:30	CC
2-Butanone	BRL		2.5	50	ug/L	276011	1	03/16/2019 18:30	CC
2-Hexanone	BRL		0.67	10	ug/L	276011	1	03/16/2019 18:30	CC
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	276011	1	03/16/2019 18:30	CC
Acetone	BRL		3.6	50	ug/L	276011	1	03/16/2019 18:30	CC
Benzene	BRL		0.37	5.0	ug/L	276011	1	03/16/2019 18:30	CC
Bromodichloromethane	BRL		0.25	5.0	ug/L	276011	1	03/16/2019 18:30	CC
Bromoform	BRL		0.19	5.0	ug/L	276011	1	03/16/2019 18:30	CC
Bromomethane	BRL		0.39	5.0	ug/L	276011	1	03/16/2019 18:30	CC
Carbon disulfide	BRL		0.74	5.0	ug/L	276011	1	03/16/2019 18:30	CC
Carbon tetrachloride	BRL		0.29	5.0	ug/L	276011	1	03/16/2019 18:30	CC
Chlorobenzene	BRL		0.42	5.0	ug/L	276011	1	03/16/2019 18:30	CC
Chloroethane	BRL		0.31	10	ug/L	276011	1	03/16/2019 18:30	CC
Chloroform	BRL		0.20	5.0	ug/L	276011	1	03/16/2019 18:30	CC
Chloromethane	BRL		0.21	10	ug/L	276011	1	03/16/2019 18:30	CC
cis-1,2-Dichloroethene	BRL		0.28	5.0	ug/L	276011	1	03/16/2019 18:30	CC
cis-1,3-Dichloropropene	BRL		0.31	5.0	ug/L	276011	1	03/16/2019 18:30	CC
Cyclohexane	BRL		1.0	5.0	ug/L	276011	1	03/16/2019 18:30	CC
Dibromochloromethane	BRL		0.43	5.0	ug/L	276011	1	03/16/2019 18:30	CC
Dichlorodifluoromethane	BRL		0.15	10	ug/L	276011	1	03/16/2019 18:30	CC
Ethylbenzene	BRL		0.26	5.0	ug/L	276011	1	03/16/2019 18:30	CC
Freon-113	BRL		0.32	10	ug/L	276011	1	03/16/2019 18:30	CC
Isopropylbenzene	BRL		0.43	5.0	ug/L	276011	1	03/16/2019 18:30	CC
m,p-Xylene	BRL		0.60	5.0	ug/L	276011	1	03/16/2019 18:30	CC
Methyl acetate	BRL		0.42	5.0	ug/L	276011	1	03/16/2019 18:30	CC
Methyl tert-butyl ether	BRL		0.45	5.0	ug/L	276011	1	03/16/2019 18:30	CC
Methylcyclohexane	BRL		0.39	5.0	ug/L	276011	1	03/16/2019 18:30	CC

Qualifiers:

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Analytical Environmental Services, Inc

Date: 20-Mar-19

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LROA-TB-01-031319
Project Name:	L&R Oil Recovery Assessment	**Collection Date:**	3/13/2019
Lab ID:	1903D56-029	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260D				**(SW5030B)**					
Methylene chloride	BRL		1.2	5.0	ug/L	276011	1	03/16/2019 18:30	CC
o-Xylene	BRL		0.18	5.0	ug/L	276011	1	03/16/2019 18:30	CC
Styrene	BRL		0.15	5.0	ug/L	276011	1	03/16/2019 18:30	CC
Tetrachloroethene	BRL		0.46	5.0	ug/L	276011	1	03/16/2019 18:30	CC
Toluene	BRL		0.39	5.0	ug/L	276011	1	03/16/2019 18:30	CC
trans-1,2-Dichloroethene	BRL		0.30	5.0	ug/L	276011	1	03/16/2019 18:30	CC
trans-1,3-Dichloropropene	BRL		0.32	5.0	ug/L	276011	1	03/16/2019 18:30	CC
Trichloroethene	BRL		0.30	5.0	ug/L	276011	1	03/16/2019 18:30	CC
Trichlorofluoromethane	BRL		0.18	5.0	ug/L	276011	1	03/16/2019 18:30	CC
Vinyl chloride	BRL		0.30	2.0	ug/L	276011	1	03/16/2019 18:30	CC
Surr: 4-Bromofluorobenzene	99.1		0	64-125	%REC	276011	1	03/16/2019 18:30	CC
Surr: Dibromofluoromethane	101		0	76.4-125	%REC	276011	1	03/16/2019 18:30	CC
Surr: Toluene-d8	100		0	78.3-116	%REC	276011	1	03/16/2019 18:30	CC

Qualifiers:

- * Value exceeds maximum contaminant level
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- < Less than Result value
- Narr See case narrative

Clear Save as

ANALYTICAL ENVIRONMENTAL SERVICES, INC. AES

SAMPLE/COOLER RECEIPT CHECKLIST

1. Client Name: **Tetra Tech.Inc.** AES Work Order Number: **1903D56**

2. Carrier: FedEx ☐ UPS ☐ USPS ☐ Client ■ Courier ☐ Other _____

		Yes	No	N/A	Details	Comments
3.	Shipping container/cooler received in good condition?	●	○	○	damaged ☐ leaking ☐ other ☐	
4.	Custody seals present on shipping container?	●	○	○		
5.	Custody seals intact on shipping container?	●	○	○		
6.	Temperature blanks present?	●	○	○		
7.	Cooler temperature(s) within limits of 0-6°C? [See item 13 and 14 for temperature recordings.]	●	○	○	Cooling initiated for recently collected samples / ice present ☐	
8.	Chain of Custody (COC) present?	●	○	○		
9.	Chain of Custody signed, dated, and timed when relinquished and received?	●	○	○		
10.	Sampler name and/or signature on COC?	●	○	○		
11.	Were all samples received within holding time?	●	○	○		
12.	TAT marked on the COC?	●	○	○	If no TAT indicated, proceeded with standard TAT per Terms & Conditions. ☐	

13. Cooler 1 Temperature 1.9 °C Cooler 2 Temperature 0.9 °C Cooler 3 Temperature _____ °C Cooler 4 Temperature _____ °C

14. Cooler 5 Temperature _____ °C Cooler 6 Temperature _____ °C Cooler 7 Temperature _____ °C Cooler 8 Temperature _____ °C

15. Comments: _____

I certify that I have completed sections 1-15 (dated initials). BC 3/14/19

		Yes	No	N/A	Details	Comments
16.	Were sample containers intact upon receipt?	●	○	○		
17.	Custody seals present on sample containers?	○	●	○		
18.	Custody seals intact on sample containers?	○	○	●		
19.	Do sample container labels match the COC?	○	●	○	incomplete info ☐ illegible ☐ no label ☐ other ■	
20.	Are analyses requested indicated on the COC?	●	○	○		
21.	Were all of the samples listed on the COC received?	●	○	○	samples received but not listed on COC ☐ samples listed on COC not received ☐	
22.	Was the sample collection date/time noted?	●	○	○		
23.	Did we receive sufficient sample volume for indicated analyses?	●	○	○		
24.	Were samples received in appropriate containers?	●	○	○		
25.	Were VOA samples received without headspace (< 1/4" bubble)?	●	○	○		
26.	Were trip blanks submitted?	●	○	○	listed on COC ■ not listed on COC ☐	

27. Comments: _____

This section only applies to samples where pH can be checked at Sample Receipt

I certify that I have completed sections 16-27 (dated initials). BC 3/14/19

		Yes	No	N/A	Details	Comments
28.	Have containers needing chemical preservation been checked? *	●	○	○		
29.	Containers meet preservation guidelines?	●	○	○		
30.	Was pH adjusted at Sample Receipt?	○	○	●		

*Note: Certain analyses require chemical preservation but must be checked in the laboratory and not upon Sample Receipt such as Coliforms, VOCs and Oil & Grease/TPH.

I certify that I have completed sections 28-30 (dated initials). BC 3/14/19

Locked

Analytical Environmental Services, Inc

Date: 20-Mar-19

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery Assessment
Workorder: 1903D56

ANALYTICAL QC SUMMARY REPORT

BatchID: 275812

Sample ID: **MB-275812** Client ID: Units: **ug/Kg** Prep Date: **03/14/2019** Run No: **393292**
SampleType: **MBLK** TestCode: **POLYAROMATIC HYDROCARBONS SW8270D** BatchID: **275812** Analysis Date: **03/15/2019** Seq No: **8804665**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1-Methylnaphthalene	BRL	330									
2-Methylnaphthalene	BRL	330									
Acenaphthene	BRL	330									
Acenaphthylene	BRL	330									
Anthracene	BRL	330									
Benz(a)anthracene	BRL	330									
Benzo(a)pyrene	BRL	330									
Benzo(b)fluoranthene	BRL	330									
Benzo(g,h,i)perylene	BRL	330									
Benzo(k)fluoranthene	BRL	330									
Chrysene	BRL	330									
Dibenz(a,h)anthracene	BRL	330									
Fluoranthene	BRL	330									
Fluorene	BRL	330									
Indeno(1,2,3-cd)pyrene	BRL	330									
Naphthalene	BRL	330									
Phenanthrene	BRL	330									
Pyrene	BRL	330									
Surr: 2-Fluorobiphenyl	1369	0	1667		82.2	54.4	120				
Surr: 4-Terphenyl-d14	1542	0	1667		92.5	60.4	120				
Surr: Nitrobenzene-d5	1557	0	1667		93.4	51	120				

Sample ID: **LCS-275812** Client ID: Units: **ug/Kg** Prep Date: **03/14/2019** Run No: **393292**
SampleType: **LCS** TestCode: **POLYAROMATIC HYDROCARBONS SW8270D** BatchID: **275812** Analysis Date: **03/15/2019** Seq No: **8805441**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1-Methylnaphthalene	1527	330	1667		91.6	67.6	120				

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery Assessment
Workorder: 1903D56

ANALYTICAL QC SUMMARY REPORT

BatchID: 275812

Sample ID: **LCS-275812** Client ID: Units: **ug/Kg** Prep Date: **03/14/2019** Run No: **393292**
SampleType: **LCS** TestCode: **POLYAROMATIC HYDROCARBONS SW8270D** BatchID: **275812** Analysis Date: **03/15/2019** Seq No: **8805441**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
2-Methylnaphthalene	1520	330	1667		91.2	66.9	120				
Acenaphthene	1437	330	1667		86.2	67.5	120				
Acenaphthylene	1481	330	1667		88.9	66.5	120				
Anthracene	1568	330	1667		94.1	70	120				
Benz(a)anthracene	1540	330	1667		92.4	70	120				
Benzo(a)pyrene	1624	330	1667		97.5	70	120				
Benzo(b)fluoranthene	1579	330	1667		94.8	64.9	120				
Benzo(g,h,i)perylene	1573	330	1667		94.4	70	120				
Benzo(k)fluoranthene	1582	330	1667		94.9	70	120				
Chrysene	1558	330	1667		93.5	68.3	120				
Dibenz(a,h)anthracene	1540	330	1667		92.4	70	120				
Fluoranthene	1504	330	1667		90.2	70	120				
Fluorene	1460	330	1667		87.6	69.5	120				
Indeno(1,2,3-cd)pyrene	1578	330	1667		94.7	70	120				
Naphthalene	1439	330	1667		86.4	62.8	120				
Phenanthrene	1498	330	1667		89.9	70	120				
Pyrene	1600	330	1667		96.0	70	120				
Surr: 2-Fluorobiphenyl	1383	0	1667		83.0	54.4	120				
Surr: 4-Terphenyl-d14	1481	0	1667		88.9	60.4	120				
Surr: Nitrobenzene-d5	1562	0	1667		93.7	51	120				

Sample ID: **1903D56-020BMS** Client ID: **LROA-SS-01-031319** Units: **ug/Kg-dry** Prep Date: **03/14/2019** Run No: **393292**
SampleType: **MS** TestCode: **POLYAROMATIC HYDROCARBONS SW8270D** BatchID: **275812** Analysis Date: **03/15/2019** Seq No: **8806004**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1-Methylnaphthalene	2565	400	2004	759.6	90.1	57.1	120				
2-Methylnaphthalene	3164	400	2004	1149	101	54.9	120				
Acenaphthene	1795	400	2004		89.6	51.4	120				

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

Analytical Environmental Services, Inc

Date: 20-Mar-19

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery Assessment
Workorder: 1903D56

ANALYTICAL QC SUMMARY REPORT

BatchID: 275812

Sample ID: **1903D56-020BMS** Client ID: **LROA-SS-01-031319** Units: **ug/Kg-dry** Prep Date: **03/14/2019** Run No: **393292**
SampleType: **MS** TestCode: **POLYAROMATIC HYDROCARBONS SW8270D** BatchID: **275812** Analysis Date: **03/15/2019** Seq No: **8806004**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Acenaphthylene	1806	400	2004		90.1	56.5	120				
Anthracene	1842	400	2004		91.9	61.5	120				
Benz(a)anthracene	1859	400	2004	122.7	86.7	59.6	120				
Benzo(a)pyrene	1810	400	2004		90.3	63.2	120				
Benzo(b)fluoranthene	1781	400	2004		88.9	52.3	124				
Benzo(g,h,i)perylene	1680	400	2004		83.8	50.7	120				
Benzo(k)fluoranthene	1598	400	2004		79.7	59.2	120				
Chrysene	1845	400	2004	118.6	86.1	56.5	120				
Dibenz(a,h)anthracene	1797	400	2004		89.6	51.2	119				
Fluoranthene	1703	400	2004	193.6	75.3	58.1	120				
Fluorene	1756	400	2004		87.6	52.6	120				
Indeno(1,2,3-cd)pyrene	1824	400	2004		91.0	51.7	119				
Naphthalene	2659	400	2004	822.5	91.6	49.9	120				
Phenanthrene	1839	400	2004	178.0	82.9	57.4	120				
Pyrene	2066	400	2004	269.4	89.6	56.8	120				
Surr: 2-Fluorobiphenyl	1549	0	2004		77.3	54.4	120				
Surr: 4-Terphenyl-d14	1744	0	2004		87.0	60.4	120				
Surr: Nitrobenzene-d5	1910	0	2004		95.3	51	120				

Sample ID: **1903D56-020BMSD** Client ID: **LROA-SS-01-031319** Units: **ug/Kg-dry** Prep Date: **03/14/2019** Run No: **393292**
SampleType: **MSD** TestCode: **POLYAROMATIC HYDROCARBONS SW8270D** BatchID: **275812** Analysis Date: **03/15/2019** Seq No: **8806005**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1-Methylnaphthalene	2465	400	2004	759.6	85.1	57.1	120	2565	3.97	49.8	
2-Methylnaphthalene	2888	400	2004	1149	86.8	54.9	120	3164	9.11	54.2	
Acenaphthene	1791	400	2004		89.4	51.4	120	1795	0.224	35.6	
Acenaphthylene	1741	400	2004		86.9	56.5	120	1806	3.68	26.4	
Anthracene	1926	400	2004		96.1	61.5	120	1842	4.49	24.3	

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery Assessment
Workorder: 1903D56

ANALYTICAL QC SUMMARY REPORT

BatchID: 275812

Sample ID: **1903D56-020BMSD** Client ID: **LROA-SS-01-031319** Units: **ug/Kg-dry** Prep Date: **03/14/2019** Run No: **393292**
SampleType: **MSD** TestCode: **POLYAROMATIC HYDROCARBONS SW8270D** BatchID: **275812** Analysis Date: **03/15/2019** Seq No: **8806005**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Benz(a)anthracene	2628	400	2004	122.7	125	59.6	120	1859	34.3	24.8	SR
Benzo(a)pyrene	2490	400	2004		124	63.2	120	1810	31.6	21.8	SR
Benzo(b)fluoranthene	2907	400	2004		145	52.3	124	1781	48.0	35.2	SR
Benzo(g,h,i)perylene	1819	400	2004		90.7	50.7	120	1680	7.90	27.7	
Benzo(k)fluoranthene	1946	400	2004		97.1	59.2	120	1598	19.7	31.8	
Chrysene	2780	400	2004	118.6	133	56.5	120	1845	40.4	32.7	SR
Dibenz(a,h)anthracene	1684	400	2004		84.0	51.2	119	1797	6.45	34.8	
Fluoranthene	3926	400	2004	193.6	186	58.1	120	1703	79.0	34.2	SR
Fluorene	1788	400	2004		89.2	52.6	120	1756	1.81	52.9	
Indeno(1,2,3-cd)pyrene	1906	400	2004		95.1	51.7	119	1824	4.41	35.2	
Naphthalene	2478	400	2004	822.5	82.6	49.9	120	2659	7.02	54.6	
Phenanthrene	3998	400	2004	178.0	191	57.4	120	1839	74.0	51.4	SR
Pyrene	4111	400	2004	269.4	192	56.8	120	2066	66.2	33.8	SR
Surr: 2-Fluorobiphenyl	1498	0	2004		74.7	54.4	120	1549	0	0	
Surr: 4-Terphenyl-d14	1622	0	2004		80.9	60.4	120	1744	0	0	
Surr: Nitrobenzene-d5	1819	0	2004		90.8	51	120	1910	0	0	

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 20-Mar-19

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery Assessment
Workorder: 1903D56

ANALYTICAL QC SUMMARY REPORT

BatchID: 275820

Sample ID: **MB-275820** Client ID:
SampleType: **MBLK** TestCode: **PAHs by Microextraction** **SW8270D**
Units: **ug/L** BatchID: **275820**
Prep Date: **03/14/2019** Analysis Date: **03/14/2019**
Run No: **393307** Seq No: **8804529**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1-Methylnaphthalene	BRL	8.6									
2-Methylnaphthalene	BRL	8.6									
Acenaphthene	BRL	8.6									
Acenaphthylene	BRL	8.6									
Anthracene	BRL	8.6									
Benz(a)anthracene	BRL	8.6									
Benzo(a)pyrene	BRL	8.6									
Benzo(b)fluoranthene	BRL	8.6									
Benzo(g,h,i)perylene	BRL	8.6									
Benzo(k)fluoranthene	BRL	8.6									
Chrysene	BRL	8.6									
Dibenz(a,h)anthracene	BRL	8.6									
Fluoranthene	BRL	8.6									
Fluorene	BRL	8.6									
Indeno(1,2,3-cd)pyrene	BRL	8.6									
Naphthalene	BRL	8.6									
Phenanthrene	BRL	8.6									
Pyrene	BRL	8.6									
Surr: 2-Fluorobiphenyl	28.24	0	28.57		98.8	70	130				
Surr: 4-Terphenyl-d14	34.57	0	28.57		121	70	130				
Surr: Nitrobenzene-d5	30.43	0	28.57		107	70	130				

Sample ID: **LCS-275820** Client ID:
SampleType: **LCS** TestCode: **PAHs by Microextraction** **SW8270D**
Units: **ug/L** BatchID: **275820**
Prep Date: **03/14/2019** Analysis Date: **03/14/2019**
Run No: **393307** Seq No: **8804530**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1-Methylnaphthalene	29.24	8.6	28.57		102	70	130				
2-Methylnaphthalene	28.78	8.6	28.57		101	70	130				

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery Assessment
Workorder: 1903D56

ANALYTICAL QC SUMMARY REPORT

BatchID: 275820

Sample ID: **LCS-275820** Client ID: Units: **ug/L** Prep Date: **03/14/2019** Run No: **393307**
SampleType: **LCS** TestCode: **PAHs by Microextraction** **SW8270D** BatchID: **275820** Analysis Date: **03/14/2019** Seq No: **8804530**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Acenaphthene	28.40	8.6	28.57		99.4	70	130				
Acenaphthylene	29.37	8.6	28.57		103	70	130				
Anthracene	30.15	8.6	28.57		106	70	130				
Benz(a)anthracene	31.54	8.6	28.57		110	70	130				
Benzo(a)pyrene	31.45	8.6	28.57		110	70	130				
Benzo(b)fluoranthene	32.27	8.6	28.57		113	70	130				
Benzo(g,h,i)perylene	31.26	8.6	28.57		109	70	130				
Benzo(k)fluoranthene	31.55	8.6	28.57		110	70	130				
Chrysene	31.39	8.6	28.57		110	70	130				
Dibenz(a,h)anthracene	32.79	8.6	28.57		115	70	130				
Fluoranthene	30.26	8.6	28.57		106	70	130				
Fluorene	31.40	8.6	28.57		110	70	130				
Indeno(1,2,3-cd)pyrene	31.73	8.6	28.57		111	70	130				
Naphthalene	27.28	8.6	28.57		95.5	70	130				
Phenanthrene	30.42	8.6	28.57		106	70	130				
Pyrene	32.49	8.6	28.57		114	70	130				
Surr: 2-Fluorobiphenyl	28.06	0	28.57		98.2	70	130				
Surr: 4-Terphenyl-d14	32.10	0	28.57		112	70	130				
Surr: Nitrobenzene-d5	27.95	0	28.57		97.8	70	130				

Sample ID: **1903A15-002BMS** Client ID: Units: **ug/L** Prep Date: **03/14/2019** Run No: **393307**
SampleType: **MS** TestCode: **PAHs by Microextraction** **SW8270D** BatchID: **275820** Analysis Date: **03/14/2019** Seq No: **8804535**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1-Methylnaphthalene	25.37	8.5	28.44		89.2	53.4	120				
2-Methylnaphthalene	25.89	8.5	28.44		91.0	49.3	120				
Acenaphthene	25.38	8.5	28.44		89.3	59.8	120				
Acenaphthylene	26.98	8.5	28.44		94.9	56.3	120				

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

Analytical Environmental Services, Inc

Date: 20-Mar-19

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery Assessment
Workorder: 1903D56

ANALYTICAL QC SUMMARY REPORT

BatchID: 275820

Sample ID: **1903A15-002BMS** Client ID: Units: **ug/L** Prep Date: **03/14/2019** Run No: **393307**
SampleType: **MS** TestCode: **PAHs by Microextraction** **SW8270D** BatchID: **275820** Analysis Date: **03/14/2019** Seq No: **8804535**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Anthracene	27.34	8.5	28.44		96.1	64.2	118				
Benz(a)anthracene	28.80	8.5	28.44		101	63	124				
Benzo(a)pyrene	28.81	8.5	28.44		101	57.6	126				
Benzo(b)fluoranthene	29.31	8.5	28.44		103	62.1	133				
Benzo(g,h,i)perylene	28.21	8.5	28.44		99.2	54.8	127				
Benzo(k)fluoranthene	28.35	8.5	28.44		99.7	52.4	123				
Chrysene	26.84	8.5	28.44		94.4	62.6	118				
Dibenz(a,h)anthracene	30.04	8.5	28.44		106	52.8	125				
Fluoranthene	28.24	8.5	28.44		99.3	69.7	121				
Fluorene	27.86	8.5	28.44		98.0	57.8	117				
Indeno(1,2,3-cd)pyrene	29.39	8.5	28.44		103	51.1	129				
Naphthalene	24.84	8.5	28.44		87.3	43.5	120				
Phenanthrene	26.71	8.5	28.44		93.9	61.7	121				
Pyrene	27.71	8.5	28.44		97.4	67.3	118				
Surr: 2-Fluorobiphenyl	24.93	0	28.44		87.7	52.2	120				
Surr: 4-Terphenyl-d14	17.66	0	28.44		62.1	42.7	120				
Surr: Nitrobenzene-d5	24.11	0	28.44		84.8	50.7	122				

Sample ID: **1903A15-002BMSD** Client ID: Units: **ug/L** Prep Date: **03/14/2019** Run No: **393307**
SampleType: **MSD** TestCode: **PAHs by Microextraction** **SW8270D** BatchID: **275820** Analysis Date: **03/14/2019** Seq No: **8804537**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1-Methylnaphthalene	28.15	8.6	28.73		98.0	53.4	120	25.37	10.4	19.6	
2-Methylnaphthalene	27.28	8.6	28.73		95.0	49.3	120	25.89	5.21	21.2	
Acenaphthene	27.07	8.6	28.73		94.2	59.8	120	25.38	6.42	19.2	
Acenaphthylene	27.88	8.6	28.73		97.0	56.3	120	26.98	3.27	18.9	
Anthracene	27.84	8.6	28.73		96.9	64.2	118	27.34	1.82	18.9	
Benz(a)anthracene	29.62	8.6	28.73		103	63	124	28.80	2.82	18.4	

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

Analytical Environmental Services, Inc

Date: 20-Mar-19

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery Assessment
Workorder: 1903D56

ANALYTICAL QC SUMMARY REPORT

BatchID: 275820

Sample ID: **1903A15-002BMSD** Client ID:
SampleType: **MSD** TestCode: **PAHs by Microextraction SW8270D**
Units: **ug/L** BatchID: **275820**
Prep Date: **03/14/2019** Analysis Date: **03/14/2019**
Run No: **393307** Seq No: **8804537**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Benzo(a)pyrene	29.98	8.6	28.73		104	57.6	126	28.81	3.99	21.9	
Benzo(b)fluoranthene	30.29	8.6	28.73		105	62.1	133	29.31	3.29	22.2	
Benzo(g,h,i)perylene	30.51	8.6	28.73		106	54.8	127	28.21	7.83	25.8	
Benzo(k)fluoranthene	29.04	8.6	28.73		101	52.4	123	28.35	2.40	21.2	
Chrysene	27.93	8.6	28.73		97.2	62.6	118	26.84	3.99	17.5	
Dibenz(a,h)anthracene	32.69	8.6	28.73		114	52.8	125	30.04	8.48	26	
Fluoranthene	29.40	8.6	28.73		102	69.7	121	28.24	4.01	17.8	
Fluorene	28.11	8.6	28.73		97.8	57.8	117	27.86	0.872	21.6	
Indeno(1,2,3-cd)pyrene	31.76	8.6	28.73		111	51.1	129	29.39	7.74	26	
Naphthalene	25.21	8.6	28.73		87.8	43.5	120	24.84	1.49	21.9	
Phenanthrene	28.03	8.6	28.73		97.6	61.7	121	26.71	4.82	21.8	
Pyrene	28.77	8.6	28.73		100	67.3	118	27.71	3.75	18	
Surr: 2-Fluorobiphenyl	24.37	0	28.73		84.8	52.2	120	24.93	0	0	
Surr: 4-Terphenyl-d14	19.30	0	28.73		67.2	42.7	120	17.66	0	0	
Surr: Nitrobenzene-d5	26.55	0	28.73		92.4	50.7	122	24.11	0	0	

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 20-Mar-19

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery Assessment
Workorder: 1903D56

ANALYTICAL QC SUMMARY REPORT

BatchID: 275835

Sample ID: **MB-275835** Client ID: Units: **ug/Kg** Prep Date: **03/14/2019** Run No: **393298**
SampleType: **MBLK** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A** BatchID: **275835** Analysis Date: **03/15/2019** Seq No: **8804121**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	BRL	33									
Aroclor 1221	BRL	33									
Aroclor 1232	BRL	33									
Aroclor 1242	BRL	33									
Aroclor 1248	BRL	33									
Aroclor 1254	BRL	33									
Aroclor 1260	BRL	33									
Aroclor 1262	BRL	33									
Aroclor 1268	BRL	33									
Surr: Decachlorobiphenyl	16.09	0	16.67		96.5	45.7	140				
Surr: Tetrachloro-m-xylene	14.66	0	16.67		87.9	45.3	126				

Sample ID: **LCS-275835** Client ID: Units: **ug/Kg** Prep Date: **03/14/2019** Run No: **393298**
SampleType: **LCS** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A** BatchID: **275835** Analysis Date: **03/15/2019** Seq No: **8804105**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	169.9	33	166.7		102	67	128				
Aroclor 1260	160.0	33	166.7		96.0	66.5	126				
Surr: Decachlorobiphenyl	16.92	0	16.67		101	45.7	140				
Surr: Tetrachloro-m-xylene	15.17	0	16.67		91.0	45.3	126				

Sample ID: **1903D56-008AMS** Client ID: **LROA-618DS-B-031319** Units: **ug/Kg-dry** Prep Date: **03/14/2019** Run No: **393298**
SampleType: **MS** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A** BatchID: **275835** Analysis Date: **03/15/2019** Seq No: **8804114**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	200.8	39	193.3		104	50.7	129				
Aroclor 1260	201.1	39	193.3		104	52.2	129				
Surr: Decachlorobiphenyl	27.59	0	19.33		143	45.7	140				S

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery Assessment
Workorder: 1903D56

ANALYTICAL QC SUMMARY REPORT

BatchID: 275835

Sample ID: **1903D56-008AMS** Client ID: **LROA-618DS-B-031319** Units: **ug/Kg-dry** Prep Date: **03/14/2019** Run No: **393298**
SampleType: **MS** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A** BatchID: **275835** Analysis Date: **03/15/2019** Seq No: **8804114**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: Tetrachloro-m-xylene	18.00	0	19.33		93.1	45.3	126				

Sample ID: **1903D56-008AMSD** Client ID: **LROA-618DS-B-031319** Units: **ug/Kg-dry** Prep Date: **03/14/2019** Run No: **393298**
SampleType: **MSD** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A** BatchID: **275835** Analysis Date: **03/15/2019** Seq No: **8804116**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	198.7	39	193.3		103	50.7	129	200.8	1.04	17	
Aroclor 1260	201.5	39	193.3		104	52.2	129	201.1	0.225	18.7	
Surr: Decachlorobiphenyl	28.92	0	19.33		150	45.7	140	27.59	0	0	S
Surr: Tetrachloro-m-xylene	17.84	0	19.33		92.3	45.3	126	18.00	0	0	

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 20-Mar-19

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery Assessment
Workorder: 1903D56

ANALYTICAL QC SUMMARY REPORT

BatchID: 275930

Sample ID: **MB-275930** Client ID:
SampleType: **MBLK** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A**
Units: **ug/L** BatchID: **275930**
Prep Date: **03/18/2019** Analysis Date: **03/18/2019**
Run No: **393488** Seq No: **8809456**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	BRL	0.50									
Aroclor 1221	BRL	0.50									
Aroclor 1232	BRL	0.50									
Aroclor 1242	BRL	0.50									
Aroclor 1248	BRL	0.50									
Aroclor 1254	BRL	0.50									
Aroclor 1260	BRL	0.50									
Surr: Decachlorobiphenyl	0.3430	0	0.5000		68.6	31.2	130				
Surr: Tetrachloro-m-xylene	0.4617	0	0.5000		92.3	46.2	120				

Sample ID: **LCS-275930** Client ID:
SampleType: **LCS** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A**
Units: **ug/L** BatchID: **275930**
Prep Date: **03/18/2019** Analysis Date: **03/18/2019**
Run No: **393488** Seq No: **8809457**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	4.982	0.50	5.000		99.6	67.7	121				
Aroclor 1260	4.739	0.50	5.000		94.8	63.1	124				
Surr: Decachlorobiphenyl	0.2900	0	0.5000		58.0	31.2	130				
Surr: Tetrachloro-m-xylene	0.4644	0	0.5000		92.9	46.2	120				

Sample ID: **1903D56-027DMS** Client ID: **LROA-EB-01-031319**
SampleType: **MS** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A**
Units: **ug/L** BatchID: **275930**
Prep Date: **03/18/2019** Analysis Date: **03/18/2019**
Run No: **393488** Seq No: **8809459**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	4.671	0.50	5.000		93.4	62.7	129				
Aroclor 1260	5.085	0.50	5.000		102	51.6	127				
Surr: Decachlorobiphenyl	0.3717	0	0.5000		74.3	31.2	130				
Surr: Tetrachloro-m-xylene	0.4179	0	0.5000		83.6	46.2	120				

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery Assessment
Workorder: 1903D56

ANALYTICAL QC SUMMARY REPORT

BatchID: 275930

Sample ID: **1903D56-027DMSD** Client ID: **LROA-EB-01-031319** Units: **ug/L** Prep Date: **03/18/2019** Run No: **393488**
SampleType: **MSD** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A** BatchID: **275930** Analysis Date: **03/18/2019** Seq No: **8809460**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	5.384	0.50	5.000		108	62.7	129	4.671	14.2	19	
Aroclor 1260	4.653	0.50	5.000		93.1	51.6	127	5.085	8.86	20.1	
Surr: Decachlorobiphenyl	0.3385	0	0.5000		67.7	31.2	130	0.3717	0	0	
Surr: Tetrachloro-m-xylene	0.4994	0	0.5000		99.9	46.2	120	0.4179	0	0	

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 20-Mar-19

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery Assessment
Workorder: 1903D56

ANALYTICAL QC SUMMARY REPORT

BatchID: 275935

Sample ID: **MB-275935** Client ID:
SampleType: **MBLK** TestCode: **METALS, TOTAL SW6010D**
Units: **mg/Kg** BatchID: **275935**
Prep Date: **03/15/2019** Analysis Date: **03/18/2019**
Run No: **393516** Seq No: **8809484**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	BRL	2.50									
Barium	0.2010	5.00									J
Cadmium	BRL	2.50									
Chromium	BRL	2.50									
Lead	BRL	5.00									
Selenium	BRL	3.50									
Silver	BRL	2.50									

Sample ID: **LCS-275935** Client ID:
SampleType: **LCS** TestCode: **METALS, TOTAL SW6010D**
Units: **mg/Kg** BatchID: **275935**
Prep Date: **03/15/2019** Analysis Date: **03/18/2019**
Run No: **393516** Seq No: **8809485**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	48.30	2.50	50.00		96.6	80	120				
Barium	49.62	5.00	50.00	0.2010	98.8	80	120				
Cadmium	44.42	2.50	50.00		88.8	80	120				
Chromium	48.06	2.50	50.00		96.1	80	120				
Lead	45.91	5.00	50.00		91.8	80	120				
Selenium	42.70	3.50	50.00		85.4	80	120				
Silver	4.626	2.50	5.000		92.5	80	120				

Sample ID: **1903D20-001AMS** Client ID:
SampleType: **MS** TestCode: **METALS, TOTAL SW6010D**
Units: **mg/Kg-dry** BatchID: **275935**
Prep Date: **03/15/2019** Analysis Date: **03/18/2019**
Run No: **393516** Seq No: **8809491**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	27.58	2.34	46.82	0.8697	57.1	75	125				S
Barium	154.7	4.68	46.82	121.5	71.0	75	125				S
Cadmium	36.05	2.34	46.82	0.1235	76.7	75	125				
Chromium	53.63	2.34	46.82	18.56	74.9	75	125				S

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery Assessment
Workorder: 1903D56

ANALYTICAL QC SUMMARY REPORT

BatchID: 275935

Sample ID: **1903D20-001AMS** Client ID: Units: **mg/Kg-dry** Prep Date: **03/15/2019** Run No: **393516**
SampleType: **MS** TestCode: **METALS, TOTAL SW6010D** BatchID: **275935** Analysis Date: **03/18/2019** Seq No: **8809491**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Lead	48.11	4.68	46.82	17.29	65.8	75	125				S
Selenium	19.76	3.28	46.82		42.2	75	125				S
Silver	3.747	2.34	4.682	0.05848	78.8	75	125				

Sample ID: **1903D20-001AMSD** Client ID: Units: **mg/Kg-dry** Prep Date: **03/15/2019** Run No: **393516**
SampleType: **MSD** TestCode: **METALS, TOTAL SW6010D** BatchID: **275935** Analysis Date: **03/18/2019** Seq No: **8809493**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	28.88	2.34	46.82	0.8697	59.8	75	125	27.58	4.61	20	S
Barium	150.7	4.68	46.82	121.5	62.5	75	125	154.7	2.60	20	S
Cadmium	35.80	2.34	46.82	0.1235	76.2	75	125	36.05	0.696	20	
Chromium	52.98	2.34	46.82	18.56	73.5	75	125	53.63	1.22	20	S
Lead	47.32	4.68	46.82	17.29	64.1	75	125	48.11	1.65	20	S
Selenium	21.07	3.28	46.82		45.0	75	125	19.76	6.41	20	S
Silver	3.706	2.34	4.682	0.05848	77.9	75	125	3.747	1.12	20	

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 20-Mar-19

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery Assessment
Workorder: 1903D56

ANALYTICAL QC SUMMARY REPORT

BatchID: 275944

Sample ID: **MB-275944** Client ID: Units: **ug/Kg** Prep Date: **03/15/2019** Run No: **393490**
SampleType: **MBLK** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A** BatchID: **275944** Analysis Date: **03/18/2019** Seq No: **8809590**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	BRL	33									
Aroclor 1221	BRL	33									
Aroclor 1232	BRL	33									
Aroclor 1242	BRL	33									
Aroclor 1248	BRL	33									
Aroclor 1254	BRL	33									
Aroclor 1260	BRL	33									
Aroclor 1262	BRL	33									
Aroclor 1268	BRL	33									
Surr: Decachlorobiphenyl	18.52	0	16.67		111	45.7	140				
Surr: Tetrachloro-m-xylene	14.59	0	16.67		87.5	45.3	126				

Sample ID: **LCS-275944** Client ID: Units: **ug/Kg** Prep Date: **03/15/2019** Run No: **393490**
SampleType: **LCS** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A** BatchID: **275944** Analysis Date: **03/18/2019** Seq No: **8809591**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	167.6	33	166.7		101	67	128				
Aroclor 1260	161.6	33	166.7		96.9	66.5	126				
Surr: Decachlorobiphenyl	18.23	0	16.67		109	45.7	140				
Surr: Tetrachloro-m-xylene	14.97	0	16.67		89.8	45.3	126				

Sample ID: **1903D56-020BMS** Client ID: **LROA-SS-01-031319** Units: **ug/Kg-dry** Prep Date: **03/18/2019** Run No: **393490**
SampleType: **MS** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A** BatchID: **275944** Analysis Date: **03/18/2019** Seq No: **8809594**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	209.1	40	200.4		104	50.7	129				
Aroclor 1260	141.4	40	200.4		70.5	52.2	129				
Surr: Decachlorobiphenyl	12.01	0	20.05		59.9	45.7	140				

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery Assessment
Workorder: 1903D56

ANALYTICAL QC SUMMARY REPORT

BatchID: 275944

Sample ID: **1903D56-020BMS** Client ID: **LROA-SS-01-031319** Units: **ug/Kg-dry** Prep Date: **03/18/2019** Run No: **393490**
SampleType: **MS** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A** BatchID: **275944** Analysis Date: **03/18/2019** Seq No: **8809594**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: Tetrachloro-m-xylene	12.15	0	20.05		60.6	45.3	126				

Sample ID: **1903D56-020BMSD** Client ID: **LROA-SS-01-031319** Units: **ug/Kg-dry** Prep Date: **03/18/2019** Run No: **393490**
SampleType: **MSD** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A** BatchID: **275944** Analysis Date: **03/18/2019** Seq No: **8809595**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	225.4	40	200.4		112	50.7	129	209.1	7.47	17	
Aroclor 1260	152.4	40	200.4		76.1	52.2	129	141.4	7.53	18.7	
Surr: Decachlorobiphenyl	12.82	0	20.05		63.9	45.7	140	12.01	0	0	
Surr: Tetrachloro-m-xylene	13.42	0	20.05		67.0	45.3	126	12.15	0	0	

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 20-Mar-19

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery Assessment
Workorder: 1903D56

ANALYTICAL QC SUMMARY REPORT

BatchID: 275948

Sample ID: **MB-275948** Client ID:
SampleType: **MBLK** TestCode: **METALS, TOTAL SW6010D**
Units: **mg/L** Prep Date: **03/15/2019** Run No: **393462**
BatchID: **275948** Analysis Date: **03/18/2019** Seq No: **8808505**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	BRL	0.0500									
Barium	BRL	0.0200									
Cadmium	BRL	0.0050									
Chromium	BRL	0.0100									
Lead	BRL	0.0100									
Selenium	BRL	0.0200									
Silver	BRL	0.0100									

Sample ID: **LCS-275948** Client ID:
SampleType: **LCS** TestCode: **METALS, TOTAL SW6010D**
Units: **mg/L** Prep Date: **03/15/2019** Run No: **393462**
BatchID: **275948** Analysis Date: **03/18/2019** Seq No: **8808506**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	0.9913	0.0500	1.000		99.1	80	120				
Barium	1.002	0.0200	1.000		100	80	120				
Cadmium	0.9725	0.0050	1.000		97.3	80	120				
Chromium	1.012	0.0100	1.000		101	80	120				
Lead	0.9699	0.0100	1.000		97.0	80	120				
Selenium	0.9471	0.0200	1.000		94.7	80	120				
Silver	0.1011	0.0100	0.1000		101	80	120				

Sample ID: **1903B86-001BMS** Client ID:
SampleType: **MS** TestCode: **METALS, TOTAL SW6010D**
Units: **mg/L** Prep Date: **03/15/2019** Run No: **393462**
BatchID: **275948** Analysis Date: **03/18/2019** Seq No: **8808510**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	0.9828	0.0500	1.000		98.3	75	125				
Barium	0.9614	0.0200	1.000	0.003870	95.8	75	125				
Cadmium	0.9729	0.0050	1.000		97.3	75	125				
Chromium	0.9766	0.0100	1.000		97.7	75	125				

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery Assessment
Workorder: 1903D56

ANALYTICAL QC SUMMARY REPORT

BatchID: 275948

Sample ID: **1903B86-001BMS** Client ID: Units: **mg/L** Prep Date: **03/15/2019** Run No: **393462**
SampleType: **MS** TestCode: **METALS, TOTAL SW6010D** BatchID: **275948** Analysis Date: **03/18/2019** Seq No: **8808510**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Lead	0.9566	0.0100	1.000		95.7	75	125				
Selenium	0.9532	0.0200	1.000		95.3	75	125				
Silver	0.1011	0.0100	0.1000		101	75	125				

Sample ID: **1903B86-001BMSD** Client ID: Units: **mg/L** Prep Date: **03/15/2019** Run No: **393462**
SampleType: **MSD** TestCode: **METALS, TOTAL SW6010D** BatchID: **275948** Analysis Date: **03/18/2019** Seq No: **8808511**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	0.9786	0.0500	1.000		97.9	75	125	0.9828	0.437	20	
Barium	0.9546	0.0200	1.000	0.003870	95.1	75	125	0.9614	0.713	20	
Cadmium	0.9643	0.0050	1.000		96.4	75	125	0.9729	0.887	20	
Chromium	0.9697	0.0100	1.000		97.0	75	125	0.9766	0.701	20	
Lead	0.9514	0.0100	1.000		95.1	75	125	0.9566	0.539	20	
Selenium	0.9385	0.0200	1.000		93.8	75	125	0.9532	1.55	20	
Silver	0.1001	0.0100	0.1000		100	75	125	0.1011	0.944	20	

Qualifiers:

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

Analytical Environmental Services, Inc

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery Assessment
Workorder: 1903D56

Date: 20-Mar-19

ANALYTICAL QC SUMMARY REPORT

BatchID: 276010

Sample ID: **MB-276010** Client ID:
SampleType: **MBLK** TestCode: **Mercury, Total SW7470A**
Units: **mg/L** Prep Date: **03/18/2019** Run No: **393496**
BatchID: **276010** Analysis Date: **03/18/2019** Seq No: **8808973**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	BRL	0.00020									

Sample ID: **LCS-276010** Client ID:
SampleType: **LCS** TestCode: **Mercury, Total SW7470A**
Units: **mg/L** Prep Date: **03/18/2019** Run No: **393496**
BatchID: **276010** Analysis Date: **03/18/2019** Seq No: **8808974**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.003833	0.00020	0.0040		95.8	80	120				

Sample ID: **1903D56-028BMS** Client ID: **LROA-FB-03-031319**
SampleType: **MS** TestCode: **Mercury, Total SW7470A**
Units: **mg/L** Prep Date: **03/18/2019** Run No: **393496**
BatchID: **276010** Analysis Date: **03/18/2019** Seq No: **8808976**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.003786	0.00020	0.0040		94.6	75	125				

Sample ID: **1903D56-028BMSD** Client ID: **LROA-FB-03-031319**
SampleType: **MSD** TestCode: **Mercury, Total SW7470A**
Units: **mg/L** Prep Date: **03/18/2019** Run No: **393496**
BatchID: **276010** Analysis Date: **03/18/2019** Seq No: **8808977**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.003775	0.00020	0.0040		94.4	75	125	0.003786	0.291	20	

Qualifiers:

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

ANALYTICAL QC SUMMARY REPORT

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery Assessment
Workorder: 1903D56

BatchID: 276011

Sample ID: **MB-276011** Client ID:
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260D**
Units: **ug/L** BatchID: **276011**
Prep Date: **03/16/2019** Analysis Date: **03/16/2019**
Run No: **393332** Seq No: **8806292**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,4-Trichlorobenzene	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,3-Dichlorobenzene	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
2-Butanone	BRL	50									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	50									
Benzene	BRL	5.0									
Bromodichloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									
Chloroform	BRL	5.0									
Chloromethane	BRL	10									

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 20-Mar-19

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery Assessment
Workorder: 1903D56

ANALYTICAL QC SUMMARY REPORT

BatchID: 276011

Sample ID: **MB-276011** Client ID: Units: **ug/L** Prep Date: **03/16/2019** Run No: **393332**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260D** BatchID: **276011** Analysis Date: **03/16/2019** Seq No: **8806292**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Isopropylbenzene	BRL	5.0									
m,p-Xylene	BRL	5.0									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	5.0									
o-Xylene	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl chloride	BRL	2.0									
Surr: 4-Bromofluorobenzene	49.14	0	50.00		98.3	64	125				
Surr: Dibromofluoromethane	48.76	0	50.00		97.5	76.4	125				
Surr: Toluene-d8	49.84	0	50.00		99.7	78.3	116				

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery Assessment
Workorder: 1903D56

ANALYTICAL QC SUMMARY REPORT

BatchID: 276011

Sample ID: **LCS-276011** Client ID: Units: **ug/L** Prep Date: **03/16/2019** Run No: **393332**
SampleType: **LCS** TestCode: **TCL VOLATILE ORGANICS SW8260D** BatchID: **276011** Analysis Date: **03/16/2019** Seq No: **8806275**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	19.00	5.0	20.00		95.0	69	136				
Benzene	20.19	5.0	20.00		101	73.7	126				
Chlorobenzene	19.95	5.0	20.00		99.8	73.5	124				
Toluene	19.54	5.0	20.00		97.7	76.8	125				
Trichloroethene	20.35	5.0	20.00		102	70.9	124				
Surr: 4-Bromofluorobenzene	53.70	0	50.00		107	64	125				
Surr: Dibromofluoromethane	52.22	0	50.00		104	76.4	125				
Surr: Toluene-d8	49.86	0	50.00		99.7	78.3	116				

Sample ID: **1903B53-001AMS** Client ID: Units: **ug/L** Prep Date: **03/16/2019** Run No: **393383**
SampleType: **MS** TestCode: **TCL VOLATILE ORGANICS SW8260D** BatchID: **276011** Analysis Date: **03/18/2019** Seq No: **8808184**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	23.53	5.0	20.00		118	63.8	146				
Benzene	23.61	5.0	20.00		118	70.2	137				
Chlorobenzene	24.82	5.0	20.00	2.010	114	72.7	141				
Toluene	24.25	5.0	20.00		121	67	141				
Trichloroethene	24.56	5.0	20.00		123	69.3	141				
Surr: 4-Bromofluorobenzene	50.29	0	50.00		101	64	125				
Surr: Dibromofluoromethane	51.92	0	50.00		104	76.4	125				
Surr: Toluene-d8	51.02	0	50.00		102	78.3	116				

Sample ID: **1903B53-001AMSD** Client ID: Units: **ug/L** Prep Date: **03/16/2019** Run No: **393383**
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260D** BatchID: **276011** Analysis Date: **03/18/2019** Seq No: **8808185**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	22.70	5.0	20.00		114	63.8	146	23.53	3.59	20.8	
Benzene	23.16	5.0	20.00		116	70.2	137	23.61	1.92	20	

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 20-Mar-19

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery Assessment
Workorder: 1903D56

ANALYTICAL QC SUMMARY REPORT

BatchID: 276011

Sample ID: **1903B53-001AMSD** Client ID:
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260D**
Units: **ug/L** BatchID: **276011**
Prep Date: **03/16/2019** Analysis Date: **03/18/2019**
Run No: **393383** Seq No: **8808185**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chlorobenzene	24.21	5.0	20.00	2.010	111	72.7	141	24.82	2.49	20	
Toluene	23.72	5.0	20.00		119	67	141	24.25	2.21	20	
Trichloroethene	23.32	5.0	20.00		117	69.3	141	24.56	5.18	17.9	
Surr: 4-Bromofluorobenzene	50.33	0	50.00		101	64	125	50.29	0	0	
Surr: Dibromofluoromethane	52.13	0	50.00		104	76.4	125	51.92	0	0	
Surr: Toluene-d8	51.67	0	50.00		103	78.3	116	51.02	0	0	

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery Assessment
Workorder: 1903D56

ANALYTICAL QC SUMMARY REPORT

BatchID: 276012

Sample ID: **MB-276012** Client ID: Units: **mg/Kg** Prep Date: **03/18/2019** Run No: **393476**
SampleType: **MBLK** TestCode: **Total Mercury by SW7473** BatchID: **276012** Analysis Date: **03/18/2019** Seq No: **8808607**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.01460	0.100									J

Sample ID: **LCS-276012** Client ID: Units: **mg/Kg** Prep Date: **03/18/2019** Run No: **393476**
SampleType: **LCS** TestCode: **Total Mercury by SW7473** BatchID: **276012** Analysis Date: **03/18/2019** Seq No: **8808609**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	1.144	0.100	1.000	0.01460	113	80	120				

Sample ID: **1903D56-020CMS** Client ID: **LROA-SS-01-031319** Units: **mg/Kg-dry** Prep Date: **03/18/2019** Run No: **393476**
SampleType: **MS** TestCode: **Total Mercury by SW7473** BatchID: **276012** Analysis Date: **03/18/2019** Seq No: **8808619**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	1.264	0.120	1.134	0.05808	106	80	120				

Sample ID: **1903D56-020CMSD** Client ID: **LROA-SS-01-031319** Units: **mg/Kg-dry** Prep Date: **03/18/2019** Run No: **393476**
SampleType: **MSD** TestCode: **Total Mercury by SW7473** BatchID: **276012** Analysis Date: **03/18/2019** Seq No: **8808623**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	1.182	0.120	1.013	0.05808	111	80	120	1.264	6.70	20	

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 20-Mar-19

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery Assessment
Workorder: 1903D56

ANALYTICAL QC SUMMARY REPORT

BatchID: 276020

Sample ID: **MB-276020** Client ID: Units: **ug/Kg** Prep Date: **03/16/2019** Run No: **393385**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260D** BatchID: **276020** Analysis Date: **03/16/2019** Seq No: **8807209**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,4-Trichlorobenzene	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,3-Dichlorobenzene	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
2-Butanone	BRL	50									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	100									
Benzene	BRL	5.0									
Bromodichloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	10									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									
Chloroform	BRL	5.0									
Chloromethane	BRL	10									

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery Assessment
Workorder: 1903D56

ANALYTICAL QC SUMMARY REPORT

BatchID: 276020

Sample ID: **MB-276020** Client ID: Units: **ug/Kg** Prep Date: **03/16/2019** Run No: **393385**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260D** BatchID: **276020** Analysis Date: **03/16/2019** Seq No: **8807209**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Isopropylbenzene	BRL	5.0									
m,p-Xylene	BRL	5.0									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	20									
o-Xylene	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl chloride	BRL	10									
Surr: 4-Bromofluorobenzene	44.63	0	50.00		89.3	65.1	125				
Surr: Dibromofluoromethane	49.40	0	50.00		98.8	77.7	123				
Surr: Toluene-d8	48.77	0	50.00		97.5	83.2	120				

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 20-Mar-19

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery Assessment
Workorder: 1903D56

ANALYTICAL QC SUMMARY REPORT

BatchID: 276020

Sample ID: **LCS-276020** Client ID:
SampleType: **LCS** TestCode: **TCL VOLATILE ORGANICS SW8260D**
Units: **ug/Kg** Prep Date: **03/16/2019** Run No: **393385**
BatchID: **276020** Analysis Date: **03/16/2019** Seq No: **8807235**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	46.91	5.0	50.00		93.8	67.6	140				
Benzene	46.84	5.0	50.00		93.7	71.3	130				
Chlorobenzene	46.70	5.0	50.00		93.4	70.6	135				
Toluene	45.92	5.0	50.00		91.8	70.4	127				
Trichloroethene	48.08	5.0	50.00		96.2	68.6	138				
Surr: 4-Bromofluorobenzene	49.15	0	50.00		98.3	65.1	125				
Surr: Dibromofluoromethane	51.17	0	50.00		102	77.7	123				
Surr: Toluene-d8	49.53	0	50.00		99.1	83.2	120				

Sample ID: **1903B67-004AMS** Client ID:
SampleType: **MS** TestCode: **TCL VOLATILE ORGANICS SW8260D**
Units: **ug/Kg-dry** Prep Date: **03/16/2019** Run No: **393580**
BatchID: **276020** Analysis Date: **03/19/2019** Seq No: **8811434**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	51.71	6.0	59.65		86.7	61.8	140				
Benzene	53.46	6.0	59.65		89.6	69	131				
Chlorobenzene	52.62	6.0	59.65		88.2	69.5	133				
Toluene	53.44	6.0	59.65		89.6	65.9	133				
Trichloroethene	55.40	6.0	59.65		92.9	65.9	135				
Surr: 4-Bromofluorobenzene	61.32	0	59.65		103	65.1	125				
Surr: Dibromofluoromethane	57.55	0	59.65		96.5	77.7	123				
Surr: Toluene-d8	57.98	0	59.65		97.2	83.2	120				

Sample ID: **1903B67-004AMSD** Client ID:
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260D**
Units: **ug/Kg-dry** Prep Date: **03/16/2019** Run No: **393580**
BatchID: **276020** Analysis Date: **03/19/2019** Seq No: **8811435**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	52.19	5.9	59.42		87.8	61.8	140	51.71	0.935	18.5	
Benzene	55.14	5.9	59.42		92.8	69	131	53.46	3.09	20	

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery Assessment
Workorder: 1903D56

ANALYTICAL QC SUMMARY REPORT

BatchID: 276020

Sample ID: **1903B67-004AMSD** Client ID: Units: **ug/Kg-dry** Prep Date: **03/16/2019** Run No: **393580**
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260D** BatchID: **276020** Analysis Date: **03/19/2019** Seq No: **8811435**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chlorobenzene	54.30	5.9	59.42		91.4	69.5	133	52.62	3.12	20	
Toluene	53.87	5.9	59.42		90.7	65.9	133	53.44	0.804	20	
Trichloroethene	57.04	5.9	59.42		96.0	65.9	135	55.40	2.91	20	
Surr: 4-Bromofluorobenzene	61.60	0	59.42		104	65.1	125	61.32	0	0	
Surr: Dibromofluoromethane	56.51	0	59.42		95.1	77.7	123	57.55	0	0	
Surr: Toluene-d8	57.17	0	59.42		96.2	83.2	120	57.98	0	0	

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 20-Mar-19

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery Assessment
Workorder: 1903D56

ANALYTICAL QC SUMMARY REPORT

BatchID: 276068

Sample ID: **MB-276068** Client ID:
SampleType: **MBLK** TestCode: **PAHs by Microextraction** **SW8270D**
Units: **ug/L** Prep Date: **03/19/2019** Run No: **393597**
BatchID: **276068** Analysis Date: **03/19/2019** Seq No: **8811455**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1-Methylnaphthalene	BRL	8.6									
2-Methylnaphthalene	BRL	8.6									
Acenaphthene	BRL	8.6									
Acenaphthylene	BRL	8.6									
Anthracene	BRL	8.6									
Benz(a)anthracene	BRL	8.6									
Benzo(a)pyrene	BRL	8.6									
Benzo(b)fluoranthene	BRL	8.6									
Benzo(g,h,i)perylene	BRL	8.6									
Benzo(k)fluoranthene	BRL	8.6									
Chrysene	BRL	8.6									
Dibenz(a,h)anthracene	BRL	8.6									
Fluoranthene	BRL	8.6									
Fluorene	BRL	8.6									
Indeno(1,2,3-cd)pyrene	BRL	8.6									
Naphthalene	BRL	8.6									
Phenanthrene	BRL	8.6									
Pyrene	BRL	8.6									
Surr: 2-Fluorobiphenyl	27.67	0	28.57		96.8	70	130				
Surr: 4-Terphenyl-d14	36.08	0	28.57		126	70	130				
Surr: Nitrobenzene-d5	29.00	0	28.57		102	70	130				

Sample ID: **LCS-276068** Client ID:
SampleType: **LCS** TestCode: **PAHs by Microextraction** **SW8270D**
Units: **ug/L** Prep Date: **03/19/2019** Run No: **393597**
BatchID: **276068** Analysis Date: **03/19/2019** Seq No: **8811947**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1-Methylnaphthalene	26.83	8.6	28.57		93.9	70	130				
2-Methylnaphthalene	26.54	8.6	28.57		92.9	70	130				

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery Assessment
Workorder: 1903D56

ANALYTICAL QC SUMMARY REPORT

BatchID: 276068

Sample ID: **LCS-276068** Client ID: Units: **ug/L** Prep Date: **03/19/2019** Run No: **393597**
SampleType: **LCS** TestCode: **PAHs by Microextraction SW8270D** BatchID: **276068** Analysis Date: **03/19/2019** Seq No: **8811947**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Acenaphthene	25.87	8.6	28.57		90.6	70	130				
Acenaphthylene	28.38	8.6	28.57		99.3	70	130				
Anthracene	29.59	8.6	28.57		104	70	130				
Benz(a)anthracene	29.45	8.6	28.57		103	70	130				
Benzo(a)pyrene	28.87	8.6	28.57		101	70	130				
Benzo(b)fluoranthene	29.44	8.6	28.57		103	70	130				
Benzo(g,h,i)perylene	28.92	8.6	28.57		101	70	130				
Benzo(k)fluoranthene	28.71	8.6	28.57		101	70	130				
Chrysene	29.21	8.6	28.57		102	70	130				
Dibenz(a,h)anthracene	29.06	8.6	28.57		102	70	130				
Fluoranthene	30.29	8.6	28.57		106	70	130				
Fluorene	27.74	8.6	28.57		97.1	70	130				
Indeno(1,2,3-cd)pyrene	29.11	8.6	28.57		102	70	130				
Naphthalene	25.78	8.6	28.57		90.2	70	130				
Phenanthrene	27.91	8.6	28.57		97.7	70	130				
Pyrene	29.29	8.6	28.57		103	70	130				
Surr: 2-Fluorobiphenyl	28.31	0	28.57		99.1	70	130				
Surr: 4-Terphenyl-d14	33.15	0	28.57		116	70	130				
Surr: Nitrobenzene-d5	30.52	0	28.57		107	70	130				

Sample ID: **LCSD-276068** Client ID: Units: **ug/L** Prep Date: **03/19/2019** Run No: **393597**
SampleType: **LCSD** TestCode: **PAHs by Microextraction SW8270D** BatchID: **276068** Analysis Date: **03/19/2019** Seq No: **8811949**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1-Methylnaphthalene	28.58	8.6	28.57		100	70	130	26.83	6.34	30	
2-Methylnaphthalene	27.42	8.6	28.57		96.0	70	130	26.54	3.25	30	
Acenaphthene	27.65	8.6	28.57		96.8	70	130	25.87	6.65	30	
Acenaphthylene	28.57	8.6	28.57		100.0	70	130	28.38	0.676	30	

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

Analytical Environmental Services, Inc

Date: 20-Mar-19

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery Assessment
Workorder: 1903D56

ANALYTICAL QC SUMMARY REPORT

BatchID: 276068

Sample ID: **LCSD-276068** Client ID: Units: **ug/L** Prep Date: **03/19/2019** Run No: **393597**
SampleType: **LCSD** TestCode: **PAHs by Microextraction SW8270D** BatchID: **276068** Analysis Date: **03/19/2019** Seq No: **8811949**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Anthracene	29.22	8.6	28.57		102	70	130	29.59	1.24	30	
Benz(a)anthracene	30.22	8.6	28.57		106	70	130	29.45	2.58	30	
Benzo(a)pyrene	30.19	8.6	28.57		106	70	130	28.87	4.45	30	
Benzo(b)fluoranthene	30.43	8.6	28.57		106	70	130	29.44	3.29	30	
Benzo(g,h,i)perylene	29.62	8.6	28.57		104	70	130	28.92	2.40	30	
Benzo(k)fluoranthene	29.69	8.6	28.57		104	70	130	28.71	3.34	30	
Chrysene	29.89	8.6	28.57		105	70	130	29.21	2.31	30	
Dibenz(a,h)anthracene	29.71	8.6	28.57		104	70	130	29.06	2.21	30	
Fluoranthene	30.96	8.6	28.57		108	70	130	30.29	2.21	30	
Fluorene	29.55	8.6	28.57		103	70	130	27.74	6.32	30	
Indeno(1,2,3-cd)pyrene	29.67	8.6	28.57		104	70	130	29.11	1.90	30	
Naphthalene	26.82	8.6	28.57		93.9	70	130	25.78	3.97	30	
Phenanthrene	28.17	8.6	28.57		98.6	70	130	27.91	0.954	30	
Pyrene	30.14	8.6	28.57		105	70	130	29.29	2.85	30	
Surr: 2-Fluorobiphenyl	29.34	0	28.57		103	70	130	28.31	0	0	
Surr: 4-Terphenyl-d14	34.60	0	28.57		121	70	130	33.15	0	0	
Surr: Nitrobenzene-d5	31.32	0	28.57		110	70	130	30.52	0	0	

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery Assessment
Workorder: 1903D56

ANALYTICAL QC SUMMARY REPORT

BatchID: 276074

Sample ID: **MB-276074** Client ID: Units: **ug/Kg** Prep Date: **03/18/2019** Run No: **393505**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260D** BatchID: **276074** Analysis Date: **03/19/2019** Seq No: **8809344**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	250									
1,1,2,2-Tetrachloroethane	BRL	250									
1,1,2-Trichloroethane	BRL	250									
1,1-Dichloroethane	BRL	250									
1,1-Dichloroethene	BRL	250									
1,2,4-Trichlorobenzene	BRL	250									
1,2-Dibromo-3-chloropropane	BRL	250									
1,2-Dibromoethane	BRL	250									
1,2-Dichlorobenzene	BRL	250									
1,2-Dichloroethane	BRL	250									
1,2-Dichloropropane	BRL	250									
1,3-Dichlorobenzene	BRL	250									
1,4-Dichlorobenzene	BRL	250									
2-Butanone	BRL	2500									
2-Hexanone	BRL	500									
4-Methyl-2-pentanone	BRL	500									
Acetone	BRL	5000									
Benzene	BRL	250									
Bromodichloromethane	BRL	250									
Bromoform	BRL	250									
Bromomethane	BRL	250									
Carbon disulfide	BRL	500									
Carbon tetrachloride	BRL	250									
Chlorobenzene	BRL	250									
Chloroethane	BRL	500									
Chloroform	BRL	250									
Chloromethane	BRL	500									

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 20-Mar-19

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery Assessment
Workorder: 1903D56

ANALYTICAL QC SUMMARY REPORT

BatchID: 276074

Sample ID: **MB-276074** Client ID:
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260D**
Units: **ug/Kg** Prep Date: **03/18/2019** Run No: **393505**
BatchID: **276074** Analysis Date: **03/19/2019** Seq No: **8809344**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	250									
cis-1,3-Dichloropropene	BRL	250									
Cyclohexane	BRL	250									
Dibromochloromethane	BRL	250									
Dichlorodifluoromethane	BRL	500									
Ethylbenzene	BRL	250									
Freon-113	BRL	500									
Isopropylbenzene	BRL	250									
m,p-Xylene	BRL	250									
Methyl acetate	BRL	250									
Methyl tert-butyl ether	BRL	250									
Methylcyclohexane	BRL	250									
Methylene chloride	BRL	1000									
o-Xylene	BRL	250									
Styrene	BRL	250									
Tetrachloroethene	BRL	250									
Toluene	BRL	250									
trans-1,2-Dichloroethene	BRL	250									
trans-1,3-Dichloropropene	BRL	250									
Trichloroethene	BRL	250									
Trichlorofluoromethane	BRL	250									
Vinyl chloride	BRL	500									
Surr: 4-Bromofluorobenzene	2494	0	2500		99.8	65.1	125				
Surr: Dibromofluoromethane	2702	0	2500		108	77.7	123				
Surr: Toluene-d8	2534	0	2500		101	83.2	120				

Qualifiers:

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

ANALYTICAL QC SUMMARY REPORT

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery Assessment
Workorder: 1903D56

BatchID: 276074

Sample ID: **LCS-276074** Client ID: Units: **ug/Kg** Prep Date: **03/18/2019** Run No: **393505**
SampleType: **LCS** TestCode: **TCL VOLATILE ORGANICS SW8260D** BatchID: **276074** Analysis Date: **03/18/2019** Seq No: **8809345**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	3052	250	2500		122	67.6	140				
Benzene	2724	250	2500		109	71.3	130				
Chlorobenzene	2560	250	2500		102	70.6	135				
Toluene	2826	250	2500		113	70.4	127				
Trichloroethene	2821	250	2500		113	68.6	138				
Surr: 4-Bromofluorobenzene	2644	0	2500		106	65.1	125				
Surr: Dibromofluoromethane	2734	0	2500		109	77.7	123				
Surr: Toluene-d8	2648	0	2500		106	83.2	120				

Sample ID: **1903D56-020AMS** Client ID: **LROA-SS-01-031319** Units: **ug/Kg-dry** Prep Date: **03/18/2019** Run No: **393505**
SampleType: **MS** TestCode: **TCL VOLATILE ORGANICS SW8260D** BatchID: **276074** Analysis Date: **03/19/2019** Seq No: **8809341**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	1868	160	1586		118	61.8	140				
Benzene	1851	160	1586	74.84	112	69	131				
Chlorobenzene	1608	160	1586		101	69.5	133				
Toluene	3641	160	1586	1918	109	65.9	133				
Trichloroethene	1848	160	1586		117	65.9	135				
Surr: 4-Bromofluorobenzene	1675	0	1586		106	65.1	125				
Surr: Dibromofluoromethane	1674	0	1586		106	77.7	123				
Surr: Toluene-d8	1640	0	1586		103	83.2	120				

Sample ID: **1903D56-020AMSD** Client ID: **LROA-SS-01-031319** Units: **ug/Kg-dry** Prep Date: **03/18/2019** Run No: **393505**
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260D** BatchID: **276074** Analysis Date: **03/19/2019** Seq No: **8809342**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	1885	160	1586		119	61.8	140	1868	0.912	18.5	
Benzene	1855	160	1586	74.84	112	69	131	1851	0.171	20	

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 20-Mar-19

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery Assessment
Workorder: 1903D56

ANALYTICAL QC SUMMARY REPORT

BatchID: 276074

Sample ID: **1903D56-020AMSD** Client ID: **LROA-SS-01-031319** Units: **ug/Kg-dry** Prep Date: **03/18/2019** Run No: **393505**
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260D** BatchID: **276074** Analysis Date: **03/19/2019** Seq No: **8809342**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chlorobenzene	1608	160	1586		101	69.5	133	1608	0	20	
Toluene	3661	160	1586	1918	110	65.9	133	3641	0.556	20	
Trichloroethene	1828	160	1586		115	65.9	135	1848	1.10	20	
Surr: 4-Bromofluorobenzene	1639	0	1586		103	65.1	125	1675	0	0	
Surr: Dibromofluoromethane	1643	0	1586		104	77.7	123	1674	0	0	
Surr: Toluene-d8	1630	0	1586		103	83.2	120	1640	0	0	

Qualifiers:

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

Pressley, Miriam

From: Eichinger, Kevin
Sent: Tuesday, October 2, 2018 8:31 AM
To: andrew.martin@ncdenr.gov
Subject: FW: L&R Oil Recovery
Attachments: 1809G69_REPORT.pdf; 92399573_frc.pdf

Andrew,

Attached are the analytical results. 1809G69_report.pdf contains the results for the drums, totes and the large tanker. For the drums and totes, we performed HAZCAT on-site and divided the totes and drums up into homogenous categories and then sent a representative sample from each category for analysis. I do not have full results on the small tanker, only PCB. These results are found in 92399573_frc.pdf. I get a full screen at a later date.

We are working on a summary table of the results.

Kevin

-----Original Message-----
From: Prys, Paul [mailto:Paul.Prys@tetratech.com]
Sent: Tuesday, October 2, 2018 5:37 AM
To: Eichinger, Kevin <Eichinger.Kevin@epa.gov>
Subject: FW: L&R Oil Recovery

Kevin,

Here are the sampling results from L&R Oil Recovery. The samples ids with "TK" are for the tanker, "TT" the totes, and "DR" the drums. Let me know if you need anything else.

-----Original Message-----
From: NoReply@aesatlanta.net <NoReply@aesatlanta.net>
Sent: Monday, October 01, 2018 6:24 PM
To: Vickers, Jessica <jessica.vickers@tetratech.com>; Prys, Paul <Paul.Prys@tetratech.com>
Subject: L&R Oil Recovery

Please see attached. If you have any questions or need further assistance please contact your project manager at 770-457-8177.

AES Reporting System

ANALYTICAL ENVIRONMENTAL SERVICES,INC.
3080 Presidential Drive ATLANTA,GA 30340
Tel:770-457-8177 Fax:770-457-8188
http:\\www.aesatlanta.com

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Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

September 17, 2018

Chase Furr
Hepaco
2711 Burch Dr
Charlotte, NC 28269

RE: Project: EPA
Pace Project No.: 92399573

Dear Chase Furr:
Enclosed are the analytical results for sample(s) received by the laboratory on September 17, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Taylor Ezell
taylor.ezell@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Chad Edwards, HEPACO

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Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: EPA
Pace Project No.: 92399573

Charlotte Certification IDs
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
Louisiana/NELAP Certification # LA170028
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

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SAMPLE ANALYTE COUNT

Project: EPA
Pace Project No.: 92399573

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92399573001	SAMPLE 1	EPA 8082A	NU1	8	PASI-C
92399573002	SAMPLE 2	EPA 8082A	NU1	8	PASI-C

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Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: EPA
Pace Project No.: 92399573

Sample: SAMPLE 1 **Lab ID: 92399573001** Collected: 09/17/18 10:00 Received: 09/17/18 12:13 Matrix: Non Aqueous Liquid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3580							
PCB-1016 (Aroclor 1016)	ND	mg/kg	10.0	10	09/17/18 12:52	09/17/18 13:40	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	mg/kg	10.0	10	09/17/18 12:52	09/17/18 13:40	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	mg/kg	10.0	10	09/17/18 12:52	09/17/18 13:40	11141-16-5	
PCB-1242 (Aroclor 1242)	**20.9**	mg/kg	10.0	10	09/17/18 12:52	09/17/18 13:40	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	mg/kg	10.0	10	09/17/18 12:52	09/17/18 13:40	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	mg/kg	10.0	10	09/17/18 12:52	09/17/18 13:40	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	mg/kg	10.0	10	09/17/18 12:52	09/17/18 13:40	11096-82-5	
Surrogates								
Decachlorobiphenyl (S)	0	%	49-130	10	09/17/18 12:52	09/17/18 13:40	2051-24-3	D3,S4

Sample: SAMPLE 2 **Lab ID: 92399573002** Collected: 09/17/18 10:00 Received: 09/17/18 12:13 Matrix: Non Aqueous Liquid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3580							
PCB-1016 (Aroclor 1016)	ND	mg/kg	10.0	10	09/17/18 12:52	09/17/18 14:00	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	mg/kg	10.0	10	09/17/18 12:52	09/17/18 14:00	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	mg/kg	10.0	10	09/17/18 12:52	09/17/18 14:00	11141-16-5	
PCB-1242 (Aroclor 1242)	**18.3**	mg/kg	10.0	10	09/17/18 12:52	09/17/18 14:00	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	mg/kg	10.0	10	09/17/18 12:52	09/17/18 14:00	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	mg/kg	10.0	10	09/17/18 12:52	09/17/18 14:00	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	mg/kg	10.0	10	09/17/18 12:52	09/17/18 14:00	11096-82-5	
Surrogates								
Decachlorobiphenyl (S)	0	%	49-130	10	09/17/18 12:52	09/17/18 14:00	2051-24-3	D4,S4

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Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: EPA
Pace Project No.: 92399573

QC Batch: 430973
QC Batch Method: EPA 3580
Analysis Method: EPA 8082A
Analysis Description: 8082 GCS PCB Oil
Associated Lab Samples: 92399573001, 92399573002

METHOD BLANK: 2377232
Matrix: Non Aqueous Liquid
Associated Lab Samples: 92399573001, 92399573002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	mg/kg	ND	1.0	09/17/18 14:20	
PCB-1221 (Aroclor 1221)	mg/kg	ND	1.0	09/17/18 14:20	
PCB-1232 (Aroclor 1232)	mg/kg	ND	1.0	09/17/18 14:20	
PCB-1242 (Aroclor 1242)	mg/kg	ND	1.0	09/17/18 14:20	
PCB-1248 (Aroclor 1248)	mg/kg	ND	1.0	09/17/18 14:20	
PCB-1254 (Aroclor 1254)	mg/kg	ND	1.0	09/17/18 14:20	
PCB-1260 (Aroclor 1260)	mg/kg	ND	1.0	09/17/18 14:20	
Decachlorobiphenyl (S)	%	102	49-130	09/17/18 14:20	

LABORATORY CONTROL SAMPLE & LCSD: 2377233 2377234

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
PCB-1016 (Aroclor 1016)	mg/kg	10	8.5	8.9	85	89	50-148	5	30	
PCB-1260 (Aroclor 1260)	mg/kg	10	9.8	9.9	98	99	53-149	1	30	
Decachlorobiphenyl (S)	%				116	119	49-130			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: EPA
Pace Project No.: 92399573

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-C	Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
D4	Sample was diluted due to the presence of high levels of target analytes.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: EPA
Pace Project No.: 92399573

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92399573001	**SAMPLE 1**	EPA 3580	430973	EPA 8082A	430979
92399573002	**SAMPLE 2**	EPA 3580	430973	EPA 8082A	430979

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Pace Analytical	Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: February 7, 2018 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.06	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☒ Raleigh ☐ Mechanicsville ☐

WO# : 92399573

92399573

Sample Condition Upon Receipt

Client Name: HCPIO

Project #:

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Commercial ☐ Pace ☐ Other:____

Custody Seal Present? ☐ Yes ☒ No **Seals Intact?** ☐ Yes ☒ No

Date/Initials Person Examining Contents: 9/17/18

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☒ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☒ No ☐ N/A

Thermometer: ☒ IR Gun ID: 92T045 **Type of Ice:** ☐ Wet ☐ Blue ☒ None

Cooler Temp (°C): 27.3 **Correction Factor:** Add/Subtract (°C) -0.1

Cooler Temp Corrected (°C): 27.2

Temp should be above freezing to 6°C
☐ Samples out of temp criteria. Samples on ice, cooling process has begun

USDA Regulated Soil (☒ N/A, water sample)
Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☒ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☒ No

				Comments/Discrepancy:
Chain of Custody Present?	☒ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☒ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☒ No	☐ N/A	3.
Rush Turn Around Time Requested?	☒ Yes	☐ No	☐ N/A	4. 24 HR
Sufficient Volume?	☒ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☒ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☒ Yes	☐ No	☐ N/A	
Containers Intact?	☒ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☒ N/A	8.
Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: WI	☒ Yes	☐ No	☐ N/A	9.
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☐ No	☒ N/A	10.
Trip Blank Present?	☐ Yes	☒ No	☐ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☒ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: TP **Date:** 9/17

Project Manager SRF Review: TP **Date:** 9/17

***Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.**

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

****Bottom half of box is to list number of bottle**

Project # WO#: 92399573

PM: PTE Due Date: 09/17/18

CLIENT: 92-HEPACO

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1																												
2																												
3																												
4																												
5																												
6																												
7																												
8																												
9																												
10																												
11																												
12																												

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: of

2268705

Section A Required Client Information:

Company: Hepaco LLC
Address: 2711 Bovin Dr.
Email To: [illegible]
Phone: 704-504-5844 Fax:
Requested Due Date/TAT: SAME DAY 1 DAY

Section B Required Project Information:

Report To: Chase [illegible]
Copy To:
Purchase Order No.:
Project Name: EPA
Project Number: 1843.1226

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: _____

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N): PCB	RCRA & Metals	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	Sample 1			9/17	1000													✓	✓		9239 001
2	Sample 2			9/17	1000													✓	✓		9573 002
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	[signature]	9/17	1213	[signature]	9/17	1213	27.3	N	N	Y

SAMPLER NAME AND SIGNATURE		Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:					
SIGNATURE of SAMPLER:	DATE Signed (MM/DD/YY):				

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pressley, Miriam

From: Prys, Paul <Paul.Prys@tetratech.com>
Sent: Tuesday, December 4, 2018 6:43 PM
To: Rhame, Kenneth
Cc: Eichinger, Kevin
Subject: FW: L&R Oil Sample Results
Attachments: 1811J25_REPORT.pdf

Ken,

Here are the results for L&R Oil I sent to Kevin along with the sample ids and corresponding sample locations.

Kevin,

In the previous email, I switched the sediment sample ids (SD01 and SD02). The sample ids and location below have been corrected and are good to go. SD02 is the MS/MSD.

Let me know if you need anything else.

From: Prys, Paul
Sent: Friday, November 30, 2018 12:00 PM
To: 'eichinger.kevin@epa.gov' <eichinger.kevin@epa.gov>
Subject: FW: L&R Oil Sample Results

Kevin,

Here are the analytical results. Apparently, they came in yesterday, but I wasn't on the email chain. Anyway, below is a list of the sample ids and their corresponding locations.

LOR-WS-SS-111918 – Composite soil samples from rolloffs
LOR-WS-UST01-111918 – UST on the west side of 3 tanks sampled
LOR-WS-UST02-111918 – UST on the east side of the 3 tanks sampled
LOR-WS-UST02-111918 – UST on the south side of the 3 tanks sampled
LOR-WS-TT06-111918 – Composite sample from the Clean Harbors and ER waste totes and representative of HEPACO drums
LOR-WS-DR04-112018 – From the 2 white drums on the loading dock area
LOR-WS-DR05-112018 – From the black drum on the loading dock area
LOR-SD01-112018 & LOR-SD01-112018-DUP – Sediment from the upstream side of the site
LOR-SD02-112018 - Sediment from the downstream side of the site
LOR-EB-112018 – Equipment blank

Let me know if you need anything else.

From: Vickers, Jessica
Sent: Friday, November 30, 2018 11:27 AM
To: Prys, Paul <Paul.Prys@tetratech.com>; pmasoudi@aesatlanta.com
Subject: RE: L&R Oil Sample Results

Paul – these came in yesterday. I didn't notice that you were not copied.

Paris – I still have not received the EDD.

Jessica A. Vickers | USEPA Region 4 START IV QA Manager/Senior Chemist
Direct: 682.681.5727
jessica.vickers@tetratech.com

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Tetra Tech EM Inc. | www.tetratech.com | NASDAQ:TTEK
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Think Green - Not every email needs to be printed

From: Prys, Paul
Sent: Friday, November 30, 2018 10:24 AM
To: pmasoudi@aesatlanta.com
Cc: Vickers, Jessica <jessica.vickers@tetratech.com>
Subject: L&R Oil Sample Results

Paris,

I delivered 11 sets of samples to you guys on 11/20/18 for a 5-day TAT and haven't seen the sample results yet. Our project # is 103X902701101.011F. Could you please update me on the status of these results? My client is asking for an update.

Paul Prys | Senior Environmental Scientist/Project Manager
Direct: 678.775.3106 | Cell: 404.849.7136 | Fax: 678.775.3138
paul.prys@tetratech.com

Tetra Tech | Atlanta Office
1955 Evergreen Blvd. Bldg. 200, Ste. 300, Duluth, GA 30096 www.tetratech.com | NASDAQ:TTEK

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AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

November 29, 2018

Jessica Vickers
Tetra Tech EM Inc.

1955 Evergreen Blvd.
Duluth GA 30096

RE: L&R Oil Recovery

Dear Jessica Vickers:

Order No: 1811J25

Analytical Environmental Services, Inc. received 12 samples on 11/20/2018 5:55:00 PM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.
AES's accreditations are as follows:
-NELAP/State of Florida Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, Air & Emissions Volatile Organics, and Drinking Water Microbiology & Metals, effective 07/01/18-06/30/19.
State of Georgia, Department of Natural Resources ID #800 for analysis of Drinking Water Metals, effective 07/01/18-06/30/19 and Total Coliforms/ E. coli, effective 04/25/17-04/24/20.
-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Metals, PCM Asbestos, Gravimetric), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 11/01/19.
These results relate only to the items tested. This report may only be reproduced in full.

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

Sincerely,

Paris Masoudi

Paris Masoudi
Project Manager

5080 Presidential Drive • Atlanta, Georgia 30340 • Tel: 770.457.8177 • Fax: 770.457.8188 • Toll Free: 800.972.4889
www.aesatlanta.com

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3785 Presidential Parkway, Atlanta GA 30340-3704
TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1811J25

Date: 11/20/2018 Page 1 of 1

COMPANY: Tetra Tech EM, Inc.
ADDRESS: 1955 Evergreen Blvd, Bldg 200, Suite 300, Duluth, GA 30096
PHONE: 404-849-7136
FAX: 678-775-3138
SAMPLED BY: Paul Prys
SIGNATURE:

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

ANALYSIS REQUESTED / PRESERVATION (See codes)

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	VOC (I)	SVOC (I)	PCB (I)	Total Metals (I)	Flashpoint (I)	Corrosivity (I)	BTUs (I)	Herbicides (I)	Pesticides (I)	pH				REMARKS	No # of Containers
1	LOR-WS-SS-111918	11/19/2018	14:45		X	SO	X	X	X	X				X	X						1
2	LOR-WS-UST01-111918	11/19/2018	15:45	X		O	X	X	X	X	X	X	X			X					3
3	LOR-WS-UST02-111918	11/19/2018	16:00	X		O	X	X	X	X	X	X	X			X					3
4	LOR-WS-UST03-111918	11/19/2018	16:15	X		O	X	X	X	X	X	X	X			X					3
5	LOR-WS-TT06-111918	11/19/2018	16:50		X	O	X	X	X	X	X	X	X			X					3
6	LOR-WS-DR04-112018	11/20/2018	9:20	X		O	X	X	X	X	X	X	X			X					3
7	LOR-WS-DR05-112018	11/20/2018	9:30	X		O	X	X	X	X	X	X	X			X					3
8	LOR-SD01-112018	11/20/2018	10:55		X	SE			X												1
9	LOR-SD01-112018-DUP	11/20/2018	10:55		X	SE			X												1
10	LOR-SD02-112018	11/20/2018	10:15		X	SE			X												3
11	LOR-EB-112018	11/20/2018	16:10	X		W			X												2
12																					
13																					
14																					

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1:	11/20/18@1755	1:	11/20/18 5:55pm
2:		2:	5:55pm
3:		3:	

PROJECT INFORMATION
PROJECT NAME: L&R Oil Recovery
PROJECT #: 103X902701101.011F
SITE ADDRESS: 501 Ruth Street, Shelby, North Carolina
SEND REPORT TO: jessica.vickers@tetratech.com
INVOICE TO: (IF DIFFERENT FROM ABOVE)
QUOTE #: PO#:

RECEIPT
Total # of Containers: 26

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

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

SPECIAL INSTRUCTIONS/COMMENTS:
Also, email analytical results to Paul Prys at paul.prys@tetratech.com.

SHIPMENT METHOD
OUT 11/20/18 VIA:
IN / / VIA:
CLIENT FedEx UPS MAIL COURIER
GREYHOUND OTHER

SAMPLES RECEIVED AFTER 3PM OR SATURDAY ARE CONSIDERED AS RECEIVED ON THE NEXT BUSINESS DAY; IF NO TAT IS MARKED ON COC AES WILL PROCEED AS STANDARD TAT.
SAMPLES ARE DISPOSED OF 30 DAYS AFTER COMPLETION OF REPORT UNLESS OTHER ARRANGEMENTS ARE MADE.

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

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc

Date: 29-Nov-18

Client: Tetra Tech EM Inc.
Project: L&R Oil Recovery
Lab ID: 1811J25

Case Narrative

Sample Receiving Nonconformance:

A trip blank was provided but not listed on the Chain of Custody (COC).

At the request of Paul Prys via email on 11/21/18, all sample ID's were corrected to begin with "LRO" instead of "LOR," as listed on the COC.

pH Analysis by Method E9045D:

Sample for pH analysis by method 9045D was received and analyzed outside holding time requirement of "immediate or 15 minutes."

PCB Analysis by Method 8082A:

Due to sample matrix, sample 1811J25-007B required dilution during analysis resulting in elevated reporting limits.

Volatiles Organic Compounds Analysis by Method 8260B:

LCS-270840 recovery for trans-1,2-Dichloroethene was outside control limits biased high. Target analyte was not detected in the analytical samples and data is reportable with high bias.

Due to sample matrix, samples 1811J25--001A, -002A, -003A-004A, ,-005A, -006A, & -007A required dilution during preparation and/or analysis resulting in elevated reporting limits.

LCS/LCSD reported for batch 270772 due to insufficient sample for MS/MSD.

Semi-Volatiles Organic Compounds Analysis by Method 8270:

Due to sample matrix, samples 1811J25-002B, -003B,-004B ,-005B, -006B, & -007B required dilution during analysis resulting in elevated reporting limits.

LCS-270742 recovery for Atrazine was outside control limits biased high. Target analyte was not detected in the analytical samples and data is reportable with high bias.

LCS-270742 recovery for Benzaldehyde was outside control limits biased low.

Analytical Environmental Services, Inc **Date:** 29-Nov-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-SS-111918
Project Name:	L&R Oil Recovery	**Collection Date:**	11/19/2018 2:45:00 PM
Lab ID:	1811J25-001	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Mercury by SW7473					**(SW7473)**				
Mercury	0.249		0.0154	0.108	mg/Kg-dry	270791	1	11/28/2018 15:31	AJ
TCL-SEMIVOLATILE ORGANICS SW8270D					**(SW3550C)**				
1,1′-Biphenyl	350	J	32	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
2,4,5-Trichlorophenol	BRL		65	1800	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
2,4,6-Trichlorophenol	BRL		59	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
2,4-Dichlorophenol	BRL		48	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
2,4-Dimethylphenol	BRL		52	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
2,4-Dinitrophenol	BRL		150	1800	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
2,4-Dinitrotoluene	BRL		53	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
2,6-Dinitrotoluene	BRL		32	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
2-Chloronaphthalene	BRL		42	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
2-Chlorophenol	BRL		36	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
2-Methylnaphthalene	4500		34	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
2-Methylphenol	BRL		46	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
2-Nitroaniline	BRL		67	1800	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
2-Nitrophenol	BRL		25	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
3,3′-Dichlorobenzidine	BRL		180	720	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
3-Nitroaniline	BRL		64	1800	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
4,6-Dinitro-2-methylphenol	BRL		44	1800	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
4-Bromophenyl phenyl ether	BRL		44	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
4-Chloro-3-methylphenol	BRL		35	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
4-Chloroaniline	BRL		94	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
4-Chlorophenyl phenyl ether	BRL		49	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
4-Methylphenol	BRL		59	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
4-Nitroaniline	BRL		64	1800	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
4-Nitrophenol	BRL		45	1800	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
Acenaphthene	BRL		37	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
Acenaphthylene	BRL		33	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
Acetophenone	BRL		75	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
Anthracene	BRL		36	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
Atrazine	BRL		35	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
Benz(a)anthracene	BRL		170	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
Benzaldehyde	BRL		77	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
Benzo(a)pyrene	BRL		190	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
Benzo(b)fluoranthene	BRL		170	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
Benzo(g,h,i)perylene	BRL		180	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
Benzo(k)fluoranthene	BRL		200	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
Bis(2-chloroethoxy)methane	BRL		43	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 29-Nov-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-SS-111918
Project Name:	L&R Oil Recovery	**Collection Date:**	11/19/2018 2:45:00 PM
Lab ID:	1811J25-001	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D					**(SW3550C)**				
Bis(2-chloroethyl)ether	BRL		35	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
Bis(2-chloroisopropyl)ether	BRL		35	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
Bis(2-ethylhexyl)phthalate	650		180	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
Butyl benzyl phthalate	BRL		150	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
Caprolactam	BRL		55	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
Carbazole	BRL		40	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
Chrysene	BRL		200	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
Di-n-butyl phthalate	BRL		48	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
Di-n-octyl phthalate	BRL		130	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
Dibenz(a,h)anthracene	BRL		190	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
Dibenzofuran	BRL		37	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
Diethyl phthalate	BRL		43	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
Dimethyl phthalate	BRL		46	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
Fluoranthene	BRL		41	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
Fluorene	BRL		31	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
Hexachlorobenzene	BRL		43	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
Hexachlorobutadiene	BRL		59	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
Hexachlorocyclopentadiene	BRL		34	710	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
Hexachloroethane	BRL		41	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
Indeno(1,2,3-cd)pyrene	BRL		190	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
Isophorone	BRL		35	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
N-Nitrosodi-n-propylamine	BRL		25	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
N-Nitrosodiphenylamine	BRL		36	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
Naphthalene	2000		42	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
Nitrobenzene	BRL		43	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
Pentachlorophenol	BRL		43	1800	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
Phenanthrene	BRL		33	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
Phenol	BRL		27	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
Pyrene	350	J	170	360	ug/Kg-dry	270742	1	11/27/2018 17:18	YH
Surr: 2,4,6-Tribromophenol	55.9		0	48.2-133	%REC	270742	1	11/27/2018 17:18	YH
Surr: 2-Fluorobiphenyl	44.6	S	0	50.2-120	%REC	270742	1	11/27/2018 17:18	YH
Surr: 2-Fluorophenol	39	S	0	41.6-120	%REC	270742	1	11/27/2018 17:18	YH
Surr: 4-Terphenyl-d14	60.5		0	52.1-122	%REC	270742	1	11/27/2018 17:18	YH
Surr: Nitrobenzene-d5	45.4		0	41.4-120	%REC	270742	1	11/27/2018 17:18	YH
Surr: Phenol-d5	40.1	S	0	45.7-120	%REC	270742	1	11/27/2018 17:18	YH
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
1,1,1-Trichloroethane	BRL		71	270	ug/Kg-dry	270840	50	11/27/2018 14:45	OM
1,1,2,2-Tetrachloroethane	540		83	270	ug/Kg-dry	270840	50	11/27/2018 14:45	OM

Qualifiers:

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

Analytical Environmental Servi es, Inc **Date:** 29-Nov-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-SS-111918
Project Name:	L&R Oil Recovery	**Collection Date:**	11/19/2018 2:45:00 PM
Lab ID:	1811J25-001	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
1,1,2-Trichloroethane	BRL		83	270	ug/Kg-dry	270840	50	11/27/2018 14:45	OM
1,1-Dichloroethane	BRL		76	270	ug/Kg-dry	270840	50	11/27/2018 14:45	OM
1,1-Dichloroethene	BRL		53	270	ug/Kg-dry	270840	50	11/27/2018 14:45	OM
1,2,4-Trichlorobenzene	BRL		110	270	ug/Kg-dry	270840	50	11/27/2018 14:45	OM
1,2-Dibromo-3-chloropropane	BRL		110	270	ug/Kg-dry	270840	50	11/27/2018 14:45	OM
1,2-Dibromoethane	BRL		84	270	ug/Kg-dry	270840	50	11/27/2018 14:45	OM
1,2-Dichlorobenzene	BRL		87	270	ug/Kg-dry	270840	50	11/27/2018 14:45	OM
1,2-Dichloroethane	BRL		83	270	ug/Kg-dry	270840	50	11/27/2018 14:45	OM
1,2-Dichloropropane	BRL		79	270	ug/Kg-dry	270840	50	11/27/2018 14:45	OM
1,3-Dichlorobenzene	BRL		69	270	ug/Kg-dry	270840	50	11/27/2018 14:45	OM
1,4-Dichlorobenzene	BRL		96	270	ug/Kg-dry	270840	50	11/27/2018 14:45	OM
2-Butanone	BRL		340	2700	ug/Kg-dry	270840	50	11/27/2018 14:45	OM
2-Hexanone	BRL		210	540	ug/Kg-dry	270840	50	11/27/2018 14:45	OM
4-Methyl-2-pentanone	BRL		140	540	ug/Kg-dry	270840	50	11/27/2018 14:45	OM
Acetone	470	J	270	5400	ug/Kg-dry	270840	50	11/27/2018 14:45	OM
Benzene	37	J	32	270	ug/Kg-dry	270840	50	11/27/2018 14:45	OM
Bromodichloromethane	BRL		73	270	ug/Kg-dry	270840	50	11/27/2018 14:45	OM
Bromoform	BRL		73	270	ug/Kg-dry	270840	50	11/27/2018 14:45	OM
Bromomethane	BRL		120	270	ug/Kg-dry	270840	50	11/27/2018 14:45	OM
Carbon disulfide	BRL		150	540	ug/Kg-dry	270840	50	11/27/2018 14:45	OM
Carbon tetrachloride	BRL		72	270	ug/Kg-dry	270840	50	11/27/2018 14:45	OM
Chlorobenzene	BRL		81	270	ug/Kg-dry	270840	50	11/27/2018 14:45	OM
Chloroethane	BRL		150	540	ug/Kg-dry	270840	50	11/27/2018 14:45	OM
Chloroform	BRL		65	270	ug/Kg-dry	270840	50	11/27/2018 14:45	OM
Chloromethane	BRL		100	540	ug/Kg-dry	270840	50	11/27/2018 14:45	OM
cis-1,2-Dichloroethene	BRL		98	270	ug/Kg-dry	270840	50	11/27/2018 14:45	OM
cis-1,3-Dichloropropene	BRL		97	270	ug/Kg-dry	270840	50	11/27/2018 14:45	OM
Cyclohexane	BRL		60	270	ug/Kg-dry	270840	50	11/27/2018 14:45	OM
Dibromochloromethane	BRL		73	270	ug/Kg-dry	270840	50	11/27/2018 14:45	OM
Dichlorodifluoromethane	BRL		80	540	ug/Kg-dry	270840	50	11/27/2018 14:45	OM
Ethylbenzene	3000		27	270	ug/Kg-dry	270840	50	11/27/2018 14:45	OM
Freon-113	BRL		70	540	ug/Kg-dry	270840	50	11/27/2018 14:45	OM
Isopropylbenzene	980		76	270	ug/Kg-dry	270840	50	11/27/2018 14:45	OM
m,p-Xylene	19000		51	270	ug/Kg-dry	270840	50	11/27/2018 14:45	OM
Methyl acetate	BRL		140	270	ug/Kg-dry	270840	50	11/27/2018 14:45	OM
Methyl tert-butyl ether	BRL		61	270	ug/Kg-dry	270840	50	11/27/2018 14:45	OM
Methylcyclohexane	830		87	270	ug/Kg-dry	270840	50	11/27/2018 14:45	OM
Methylene chloride	BRL		270	1100	ug/Kg-dry	270840	50	11/27/2018 14:45	OM
o-Xylene	12000		56	540	ug/Kg-dry	270840	100	11/27/2018 15:10	OM

Qualifiers:

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- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 29-Nov-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-SS-111918
Project Name:	L&R Oil Recovery	**Collection Date:**	11/19/2018 2:45:00 PM
Lab ID:	1811J25-001	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
Styrene	BRL		71	270	ug/Kg-dry	270840	50	11/27/2018 14:45	OM
Tetrachloroethene	270		81	270	ug/Kg-dry	270840	50	11/27/2018 14:45	OM
Toluene	2400		29	270	ug/Kg-dry	270840	50	11/27/2018 14:45	OM
trans-1,2-Dichloroethene	BRL		93	270	ug/Kg-dry	270840	50	11/27/2018 14:45	OM
trans-1,3-Dichloropropene	BRL		67	270	ug/Kg-dry	270840	50	11/27/2018 14:45	OM
Trichloroethene	BRL		74	270	ug/Kg-dry	270840	50	11/27/2018 14:45	OM
Trichlorofluoromethane	BRL		130	270	ug/Kg-dry	270840	50	11/27/2018 14:45	OM
Vinyl chloride	BRL		110	540	ug/Kg-dry	270840	50	11/27/2018 14:45	OM
Surr: 4-Bromofluorobenzene	114		0	65.1-125	%REC	270840	50	11/27/2018 14:45	OM
Surr: 4-Bromofluorobenzene	106		0	65.1-125	%REC	270840	100	11/27/2018 15:10	OM
Surr: Dibromofluoromethane	87.2		0	77.7-123	%REC	270840	50	11/27/2018 14:45	OM
Surr: Dibromofluoromethane	91.2		0	77.7-123	%REC	270840	100	11/27/2018 15:10	OM
Surr: Toluene-d8	104		0	83.2-120	%REC	270840	50	11/27/2018 14:45	OM
Surr: Toluene-d8	99.8		0	83.2-120	%REC	270840	100	11/27/2018 15:10	OM
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3546)**				
Aroclor 1016	BRL		3.2	36	ug/Kg-dry	270468	1	11/21/2018 17:21	UH
Aroclor 1221	BRL		4.4	36	ug/Kg-dry	270468	1	11/21/2018 17:21	UH
Aroclor 1232	BRL		2.8	36	ug/Kg-dry	270468	1	11/21/2018 17:21	UH
Aroclor 1242	520		1.7	36	ug/Kg-dry	270468	1	11/21/2018 17:21	UH
Aroclor 1248	BRL		4.7	36	ug/Kg-dry	270468	1	11/21/2018 17:21	UH
Aroclor 1254	70		1.9	36	ug/Kg-dry	270468	1	11/21/2018 17:21	UH
Aroclor 1260	BRL		1.7	36	ug/Kg-dry	270468	1	11/21/2018 17:21	UH
Aroclor 1262	BRL		1.6	36	ug/Kg-dry	270468	1	11/21/2018 17:21	UH
Aroclor 1268	BRL		2.5	36	ug/Kg-dry	270468	1	11/21/2018 17:21	UH
Surr: Decachlorobiphenyl	59.3		0	45.7-140	%REC	270468	1	11/21/2018 17:21	UH
Surr: Tetrachloro-m-xylene	73.1		0	45.3-126	%REC	270468	1	11/21/2018 17:21	UH
CHLORINATED PESTICIDES, TCL SW8081B					**(SW3550C)**				
4,4'-DDD	BRL		0.69	3.6	ug/Kg-dry	270688	1	11/27/2018 13:48	UH
4,4'-DDE	BRL		0.84	3.6	ug/Kg-dry	270688	1	11/27/2018 13:48	UH
4,4'-DDT	BRL		0.81	3.6	ug/Kg-dry	270688	1	11/27/2018 13:48	UH
Aldrin	BRL		0.80	1.8	ug/Kg-dry	270688	1	11/27/2018 13:48	UH
alpha-BHC	BRL		0.86	1.8	ug/Kg-dry	270688	1	11/27/2018 13:48	UH
alpha-Chlordane	BRL		0.77	1.8	ug/Kg-dry	270688	1	11/27/2018 13:48	UH
beta-BHC	BRL		0.58	1.8	ug/Kg-dry	270688	1	11/27/2018 13:48	UH
delta-BHC	BRL		0.69	1.8	ug/Kg-dry	270688	1	11/27/2018 13:48	UH
Dieldrin	BRL		0.75	3.6	ug/Kg-dry	270688	1	11/27/2018 13:48	UH
Endosulfan I	BRL		0.79	1.8	ug/Kg-dry	270688	1	11/27/2018 13:48	UH

Qualifiers:

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Analytical Environmental Services, Inc **Date:** 29-Nov-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-SS-111918
Project Name:	L&R Oil Recovery	**Collection Date:**	11/19/2018 2:45:00 PM
Lab ID:	1811J25-001	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
CHLORINATED PESTICIDES, TCL SW8081B					**(SW3550C)**				
Endosulfan II	BRL		0.80	3.6	ug/Kg-dry	270688	1	11/27/2018 13:48	UH
Endosulfan sulfate	BRL		0.80	3.6	ug/Kg-dry	270688	1	11/27/2018 13:48	UH
Endrin	BRL		0.83	3.6	ug/Kg-dry	270688	1	11/27/2018 13:48	UH
Endrin aldehyde	BRL		0.81	3.6	ug/Kg-dry	270688	1	11/27/2018 13:48	UH
Endrin ketone	BRL		0.70	3.6	ug/Kg-dry	270688	1	11/27/2018 13:48	UH
gamma-BHC	BRL		0.64	1.8	ug/Kg-dry	270688	1	11/27/2018 13:48	UH
gamma-Chlordane	BRL		0.73	1.8	ug/Kg-dry	270688	1	11/27/2018 13:48	UH
Heptachlor	BRL		0.79	1.8	ug/Kg-dry	270688	1	11/27/2018 13:48	UH
Heptachlor epoxide	BRL		0.79	1.8	ug/Kg-dry	270688	1	11/27/2018 13:48	UH
Methoxychlor	BRL		2.4	18	ug/Kg-dry	270688	1	11/27/2018 13:48	UH
Toxaphene	BRL		8.9	180	ug/Kg-dry	270688	1	11/27/2018 13:48	UH
Surr: Decachlorobiphenyl	36.7	S	0	44.5-124	%REC	270688	1	11/27/2018 13:48	UH
Surr: Tetrachloro-m-xylene	34.7	S	0	45.1-120	%REC	270688	1	11/27/2018 13:48	UH
CHLORINATED HERBICIDES SW8151A					**(SW3550C)**				
2,4,5-T	BRL		6.4	36	ug/Kg-dry	270681	1	11/26/2018 18:17	HB
2,4,5-TP (Silvex)	BRL		5.9	36	ug/Kg-dry	270681	1	11/26/2018 18:17	HB
2,4-D	BRL		10	36	ug/Kg-dry	270681	1	11/26/2018 18:17	HB
2,4-DB	BRL		6.2	180	ug/Kg-dry	270681	1	11/26/2018 18:17	HB
Dalapon	BRL		6.1	360	ug/Kg-dry	270681	1	11/26/2018 18:17	HB
Dicamba	BRL		5.8	36	ug/Kg-dry	270681	1	11/26/2018 18:17	HB
Dichlorprop	BRL		7.5	36	ug/Kg-dry	270681	1	11/26/2018 18:17	HB
Dinoseb	BRL		57	91	ug/Kg-dry	270681	1	11/26/2018 18:17	HB
MCPA	BRL		850	3600	ug/Kg-dry	270681	1	11/26/2018 18:17	HB
MCPP	BRL		2200	3600	ug/Kg-dry	270681	1	11/26/2018 18:17	HB
Surr: DCAA	94.8		0	44-120	%REC	270681	1	11/26/2018 18:17	HB
METALS, TOTAL SW6010D					**(SW3050B)**				
Arsenic	1.92	J	0.345	2.09	mg/Kg-dry	270615	1	11/26/2018 14:29	DG
Barium	22.8		0.134	4.19	mg/Kg-dry	270615	1	11/26/2018 14:29	DG
Cadmium	0.163	J	0.0417	2.09	mg/Kg-dry	270615	1	11/26/2018 14:29	DG
Chromium	15.3		0.368	2.09	mg/Kg-dry	270615	1	11/26/2018 14:29	DG
Lead	7.30		0.157	4.19	mg/Kg-dry	270615	1	11/26/2018 14:29	DG
Selenium	BRL		0.668	3.09	mg/Kg-dry	270848	1	11/29/2018 15:44	DG
Silver	BRL		0.0107	2.09	mg/Kg-dry	270615	1	11/26/2018 14:29	DG
PERCENT MOISTURE D2216									
Percent Moisture	7.16		0	0	wt%	R385431	1	11/27/2018 14:15	JW

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Analytical Environmental Services, Inc **Date:** 29-Nov-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-UST01-111918
Project Name:	L&R Oil Recovery	**Collection Date:**	11/19/2018 3:45:00 PM
Lab ID:	1811J25-002	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Mercury - Waste SW7471B					**(SW7471B)**				
Mercury	BRL		0.00902	0.0941	mg/Kg	270777	1	11/28/2018 11:49	AJ
TCL-SEMIVOLATILE ORGANICS SW8270D					**(SW3580A)**				
1,1′-Biphenyl	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
2,4,5-Trichlorophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 18:40	NH
2,4,6-Trichlorophenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
2,4-Dichlorophenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
2,4-Dimethylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
2,4-Dinitrophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 18:40	NH
2,4-Dinitrotoluene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
2,6-Dinitrotoluene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
2-Chloronaphthalene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
2-Chlorophenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
2-Methylnaphthalene	1500		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
2-Methylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
2-Nitroaniline	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 18:40	NH
2-Nitrophenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
3,3′-Dichlorobenzidine	BRL		6700	6700	mg/Kg	270610	10	11/26/2018 18:40	NH
3-Nitroaniline	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 18:40	NH
4,6-Dinitro-2-methylphenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 18:40	NH
4-Bromophenyl phenyl ether	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
4-Chloro-3-methylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
4-Chloroaniline	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
4-Chlorophenyl phenyl ether	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
4-Methylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
4-Nitroaniline	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 18:40	NH
4-Nitrophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 18:40	NH
Acenaphthene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
Acenaphthylene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
Acetophenone	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
Anthracene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
Atrazine	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
Benz(a)anthracene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
Benzaldehyde	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
Benzo(a)pyrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
Benzo(b)fluoranthene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
Benzo(g,h,i)perylene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
Benzo(k)fluoranthene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
Bis(2-chloroethoxy)methane	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH

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Analytical Environmental Services, Inc **Date:** 29-Nov-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-UST01-111918
Project Name:	L&R Oil Recovery	**Collection Date:**	11/19/2018 3:45:00 PM
Lab ID:	1811J25-002	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D					**(SW3580A)**				
Bis(2-chloroethyl)ether	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
Bis(2-chloroisopropyl)ether	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
Bis(2-ethylhexyl)phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
Butyl benzyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
Caprolactam	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
Carbazole	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
Chrysene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
Di-n-butyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
Di-n-octyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
Dibenz(a,h)anthracene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
Dibenzofuran	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
Diethyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
Dimethyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
Fluoranthene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
Fluorene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
Hexachlorobenzene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
Hexachlorobutadiene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
Hexachlorocyclopentadiene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
Hexachloroethane	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
Indeno(1,2,3-cd)pyrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
Isophorone	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
N-Nitrosodi-n-propylamine	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
N-Nitrosodiphenylamine	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
Naphthalene	1900		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
Nitrobenzene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
Pentachlorophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 18:40	NH
Phenanthrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
Phenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
Pyrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 18:40	NH
Surr: 2,4,6-Tribromophenol	92.2		0	52.8-148	%REC	270610	10	11/26/2018 18:40	NH
Surr: 2-Fluorobiphenyl	91.8		0	64.7-137	%REC	270610	10	11/26/2018 18:40	NH
Surr: 2-Fluorophenol	88.7		0	57.4-132	%REC	270610	10	11/26/2018 18:40	NH
Surr: 4-Terphenyl-d14	110		0	62-138	%REC	270610	10	11/26/2018 18:40	NH
Surr: Nitrobenzene-d5	88		0	56.1-138	%REC	270610	10	11/26/2018 18:40	NH
Surr: Phenol-d5	90.8		0	49.6-133	%REC	270610	10	11/26/2018 18:40	NH
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
1,1,1-Trichloroethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 18:33	CC
1,1,2,2-Tetrachloroethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 18:33	CC

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Analytical Environmental Services, Inc **Date:** 29-Nov-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-UST01-111918
Project Name:	L&R Oil Recovery	**Collection Date:**	11/19/2018 3:45:00 PM
Lab ID:	1811J25-002	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
1,1,2-Trichloroethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 18:33	CC
1,1-Dichloroethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 18:33	CC
1,1-Dichloroethene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 18:33	CC
1,2,4-Trichlorobenzene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 18:33	CC
1,2-Dibromo-3-chloropropane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 18:33	CC
1,2-Dibromoethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 18:33	CC
1,2-Dichlorobenzene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 18:33	CC
1,2-Dichloroethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 18:33	CC
1,2-Dichloropropane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 18:33	CC
1,3-Dichlorobenzene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 18:33	CC
1,4-Dichlorobenzene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 18:33	CC
2-Butanone	BRL		1300000	1300000	ug/Kg	270739	5000	11/26/2018 18:33	CC
2-Hexanone	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 18:33	CC
4-Methyl-2-pentanone	900000		250000	250000	ug/Kg	270739	5000	11/26/2018 18:33	CC
Acetone	BRL		1300000	1300000	ug/Kg	270739	5000	11/26/2018 18:33	CC
Benzene	2300000		130000	130000	ug/Kg	270739	5000	11/26/2018 18:33	CC
Bromodichloromethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 18:33	CC
Bromoform	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 18:33	CC
Bromomethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 18:33	CC
Carbon disulfide	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 18:33	CC
Carbon tetrachloride	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 18:33	CC
Chlorobenzene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 18:33	CC
Chloroethane	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 18:33	CC
Chloroform	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 18:33	CC
Chloromethane	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 18:33	CC
cis-1,2-Dichloroethene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 18:33	CC
cis-1,3-Dichloropropene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 18:33	CC
Cyclohexane	2400000		130000	130000	ug/Kg	270739	5000	11/26/2018 18:33	CC
Dibromochloromethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 18:33	CC
Dichlorodifluoromethane	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 18:33	CC
Ethylbenzene	6800000		1300000	1300000	ug/Kg	270739	50000	11/27/2018 13:58	CC
Freon-113	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 18:33	CC
Isopropylbenzene	470000		130000	130000	ug/Kg	270739	5000	11/26/2018 18:33	CC
m,p-Xylene	26000000		1300000	1300000	ug/Kg	270739	50000	11/27/2018 13:58	CC
Methyl acetate	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 18:33	CC
Methyl tert-butyl ether	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 18:33	CC
Methylcyclohexane	3000000		130000	130000	ug/Kg	270739	5000	11/26/2018 18:33	CC
Methylene chloride	BRL		130000	500000	ug/Kg	270739	5000	11/26/2018 18:33	CC
o-Xylene	9900000		1300000	1300000	ug/Kg	270739	50000	11/27/2018 13:58	CC

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Analytical Environmental Services, Inc **Date:** 29-Nov-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-UST01-111918
Project Name:	L&R Oil Recovery	**Collection Date:**	11/19/2018 3:45:00 PM
Lab ID:	1811J25-002	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
Styrene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 18:33	CC
Tetrachloroethene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 18:33	CC
Toluene	28000000		1300000	1300000	ug/Kg	270739	50000	11/27/2018 13:58	CC
trans-1,2-Dichloroethene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 18:33	CC
trans-1,3-Dichloropropene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 18:33	CC
Trichloroethene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 18:33	CC
Trichlorofluoromethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 18:33	CC
Vinyl chloride	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 18:33	CC
Surr: 4-Bromofluorobenzene	102		0	65.1-125	%REC	270739	50000	11/27/2018 13:58	CC
Surr: 4-Bromofluorobenzene	105		0	65.1-125	%REC	270739	5000	11/26/2018 18:33	CC
Surr: Dibromofluoromethane	86.1		0	77.7-123	%REC	270739	5000	11/26/2018 18:33	CC
Surr: Dibromofluoromethane	86.6		0	77.7-123	%REC	270739	50000	11/27/2018 13:58	CC
Surr: Toluene-d8	97.1		0	83.2-120	%REC	270739	5000	11/26/2018 18:33	CC
Surr: Toluene-d8	97.2		0	83.2-120	%REC	270739	50000	11/27/2018 13:58	CC
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3580)**				
Aroclor 1016	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 16:14	UH
Aroclor 1221	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 16:14	UH
Aroclor 1232	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 16:14	UH
Aroclor 1242	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 16:14	UH
Aroclor 1248	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 16:14	UH
Aroclor 1254	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 16:14	UH
Aroclor 1260	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 16:14	UH
Surr: Decachlorobiphenyl	76.6		0	50.5-148	%REC	270611	1	11/23/2018 16:14	UH
Surr: Tetrachloro-m-xylene	79.7		0	50.3-148	%REC	270611	1	11/23/2018 16:14	UH
Laboratory Hydrogen Ion (pH) SW9045D					**(SW9045D)**				
pH	6.19	H	0.01	0.01	pH Units	270770	1	11/27/2018 14:00	RH
Ignitability SW1010A									
Ignitability	68.0	<	0	0	°F	R385339	1	11/26/2018 08:00	SK
BTU ASTM D240									
BTU	17000	N	0	0	BTU/lb	R385474	1	11/27/2018 09:30	AA
METALS, TOTAL SW6010D					**(SW3050B)**				
Arsenic	BRL		0.40	4.8	mg/Kg	270622	1	11/26/2018 11:47	DG
Barium	13		0.15	4.8	mg/Kg	270622	1	11/26/2018 11:47	DG
Cadmium	BRL		0.048	2.4	mg/Kg	270622	1	11/26/2018 11:47	DG
Chromium	0.48	J	0.42	2.4	mg/Kg	270622	1	11/26/2018 11:47	DG

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 29-Nov-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-UST01-111918
Project Name:	L&R Oil Recovery	**Collection Date:**	11/19/2018 3:45:00 PM
Lab ID:	1811J25-002	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
METALS, TOTAL SW6010D					**(SW3050B)**				
Lead	10		0.18	4.8	mg/Kg	270622	1	11/26/2018 11:47	DG
Selenium	1.1	J	0.73	4.8	mg/Kg	270622	1	11/26/2018 11:47	DG
Silver	0.23	J	0.012	2.4	mg/Kg	270622	1	11/26/2018 11:47	DG

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 29-Nov-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-UST02-111918
Project Name:	L&R Oil Recovery	**Collection Date:**	11/19/2018 4:00:00 PM
Lab ID:	1811J25-003	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Mercury - Waste SW7471B					**(SW7471B)**				
Mercury	BRL		0.00946	0.0987	mg/Kg	270777	1	11/28/2018 12:05	AJ
TCL-SEMIVOLATILE ORGANICS SW8270D					**(SW3580A)**				
1,1′-Biphenyl	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
2,4,5-Trichlorophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 17:19	NH
2,4,6-Trichlorophenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
2,4-Dichlorophenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
2,4-Dimethylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
2,4-Dinitrophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 17:19	NH
2,4-Dinitrotoluene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
2,6-Dinitrotoluene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
2-Chloronaphthalene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
2-Chlorophenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
2-Methylnaphthalene	1300		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
2-Methylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
2-Nitroaniline	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 17:19	NH
2-Nitrophenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
3,3′-Dichlorobenzidine	BRL		6700	6700	mg/Kg	270610	10	11/26/2018 17:19	NH
3-Nitroaniline	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 17:19	NH
4,6-Dinitro-2-methylphenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 17:19	NH
4-Bromophenyl phenyl ether	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
4-Chloro-3-methylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
4-Chloroaniline	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
4-Chlorophenyl phenyl ether	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
4-Methylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
4-Nitroaniline	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 17:19	NH
4-Nitrophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 17:19	NH
Acenaphthene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
Acenaphthylene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
Acetophenone	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
Anthracene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
Atrazine	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
Benz(a)anthracene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
Benzaldehyde	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
Benzo(a)pyrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
Benzo(b)fluoranthene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
Benzo(g,h,i)perylene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
Benzo(k)fluoranthene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
Bis(2-chloroethoxy)methane	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 29-Nov-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-UST02-111918
Project Name:	L&R Oil Recovery	**Collection Date:**	11/19/2018 4:00:00 PM
Lab ID:	1811J25-003	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D					**(SW3580A)**				
Bis(2-chloroethyl)ether	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
Bis(2-chloroisopropyl)ether	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
Bis(2-ethylhexyl)phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
Butyl benzyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
Caprolactam	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
Carbazole	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
Chrysene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
Di-n-butyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
Di-n-octyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
Dibenz(a,h)anthracene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
Dibenzofuran	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
Diethyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
Dimethyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
Fluoranthene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
Fluorene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
Hexachlorobenzene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
Hexachlorobutadiene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
Hexachlorocyclopentadiene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
Hexachloroethane	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
Indeno(1,2,3-cd)pyrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
Isophorone	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
N-Nitrosodi-n-propylamine	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
N-Nitrosodiphenylamine	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
Naphthalene	1700		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
Nitrobenzene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
Pentachlorophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 17:19	NH
Phenanthrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
Phenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
Pyrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 17:19	NH
Surr: 2,4,6-Tribromophenol	99.8		0	52.8-148	%REC	270610	10	11/26/2018 17:19	NH
Surr: 2-Fluorobiphenyl	109		0	64.7-137	%REC	270610	10	11/26/2018 17:19	NH
Surr: 2-Fluorophenol	102		0	57.4-132	%REC	270610	10	11/26/2018 17:19	NH
Surr: 4-Terphenyl-d14	132		0	62-138	%REC	270610	10	11/26/2018 17:19	NH
Surr: Nitrobenzene-d5	99.2		0	56.1-138	%REC	270610	10	11/26/2018 17:19	NH
Surr: Phenol-d5	103		0	49.6-133	%REC	270610	10	11/26/2018 17:19	NH
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
1,1,1-Trichloroethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:00	CC
1,1,2,2-Tetrachloroethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:00	CC

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 29-Nov-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-UST02-111918
Project Name:	L&R Oil Recovery	**Collection Date:**	11/19/2018 4:00:00 PM
Lab ID:	1811J25-003	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
1,1,2-Trichloroethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:00	CC
1,1-Dichloroethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:00	CC
1,1-Dichloroethene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:00	CC
1,2,4-Trichlorobenzene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:00	CC
1,2-Dibromo-3-chloropropane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:00	CC
1,2-Dibromoethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:00	CC
1,2-Dichlorobenzene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:00	CC
1,2-Dichloroethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:00	CC
1,2-Dichloropropane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:00	CC
1,3-Dichlorobenzene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:00	CC
1,4-Dichlorobenzene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:00	CC
2-Butanone	BRL		1300000	1300000	ug/Kg	270739	5000	11/26/2018 19:00	CC
2-Hexanone	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 19:00	CC
4-Methyl-2-pentanone	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 19:00	CC
Acetone	BRL		1300000	1300000	ug/Kg	270739	5000	11/26/2018 19:00	CC
Benzene	190000		130000	130000	ug/Kg	270739	5000	11/26/2018 19:00	CC
Bromodichloromethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:00	CC
Bromoform	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:00	CC
Bromomethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:00	CC
Carbon disulfide	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 19:00	CC
Carbon tetrachloride	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:00	CC
Chlorobenzene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:00	CC
Chloroethane	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 19:00	CC
Chloroform	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:00	CC
Chloromethane	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 19:00	CC
cis-1,2-Dichloroethene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:00	CC
cis-1,3-Dichloropropene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:00	CC
Cyclohexane	230000		130000	130000	ug/Kg	270739	5000	11/26/2018 19:00	CC
Dibromochloromethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:00	CC
Dichlorodifluoromethane	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 19:00	CC
Ethylbenzene	520000		130000	130000	ug/Kg	270739	5000	11/26/2018 19:00	CC
Freon-113	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 19:00	CC
Isopropylbenzene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:00	CC
m,p-Xylene	2000000		130000	130000	ug/Kg	270739	5000	11/26/2018 19:00	CC
Methyl acetate	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:00	CC
Methyl tert-butyl ether	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:00	CC
Methylcyclohexane	300000		130000	130000	ug/Kg	270739	5000	11/26/2018 19:00	CC
Methylene chloride	BRL		130000	500000	ug/Kg	270739	5000	11/26/2018 19:00	CC
o-Xylene	770000		130000	130000	ug/Kg	270739	5000	11/26/2018 19:00	CC

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 29-Nov-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-UST02-111918
Project Name:	L&R Oil Recovery	**Collection Date:**	11/19/2018 4:00:00 PM
Lab ID:	1811J25-003	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
Styrene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:00	CC
Tetrachloroethene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:00	CC
Toluene	2000000		130000	130000	ug/Kg	270739	5000	11/26/2018 19:00	CC
trans-1,2-Dichloroethene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:00	CC
trans-1,3-Dichloropropene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:00	CC
Trichloroethene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:00	CC
Trichlorofluoromethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:00	CC
Vinyl chloride	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 19:00	CC
Surr: 4-Bromofluorobenzene	102		0	65.1-125	%REC	270739	5000	11/26/2018 19:00	CC
Surr: Dibromofluoromethane	88.7		0	77.7-123	%REC	270739	5000	11/26/2018 19:00	CC
Surr: Toluene-d8	97.5		0	83.2-120	%REC	270739	5000	11/26/2018 19:00	CC
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3580)**				
Aroclor 1016	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 16:25	UH
Aroclor 1221	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 16:25	UH
Aroclor 1232	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 16:25	UH
Aroclor 1242	4.8		1.0	1.0	mg/Kg	270611	1	11/23/2018 16:25	UH
Aroclor 1248	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 16:25	UH
Aroclor 1254	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 16:25	UH
Aroclor 1260	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 16:25	UH
Surr: Decachlorobiphenyl	76		0	50.5-148	%REC	270611	1	11/23/2018 16:25	UH
Surr: Tetrachloro-m-xylene	80.8		0	50.3-148	%REC	270611	1	11/23/2018 16:25	UH
Laboratory Hydrogen Ion (pH) SW9045D					**(SW9045D)**				
pH	5.42	H	0.01	0.01	pH Units	270770	1	11/27/2018 14:00	RH
Ignitability SW1010A									
Ignitability	68.0	<	0	0	°F	R385339	1	11/26/2018 08:00	SK
BTU ASTM D240									
BTU	3500	N	0	0	BTU/lb	R385474	1	11/27/2018 09:30	AA
METALS, TOTAL SW6010D					**(SW3050B)**				
Arsenic	BRL		0.41	4.9	mg/Kg	270622	1	11/26/2018 12:12	DG
Barium	44		0.16	4.9	mg/Kg	270622	1	11/26/2018 12:12	DG
Cadmium	BRL		0.049	2.5	mg/Kg	270622	1	11/26/2018 12:12	DG
Chromium	0.89	J	0.43	2.5	mg/Kg	270622	1	11/26/2018 12:12	DG
Lead	22		0.18	4.9	mg/Kg	270622	1	11/26/2018 12:12	DG
Selenium	1.0	J	0.75	4.9	mg/Kg	270622	1	11/26/2018 12:12	DG
Silver	0.075	J	0.013	2.5	mg/Kg	270622	1	11/26/2018 12:12	DG

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 29-Nov-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-UST03-111918
Project Name:	L&R Oil Recovery	**Collection Date:**	11/19/2018 4:15:00 PM
Lab ID:	1811J25-004	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Mercury - Waste SW7471B					**(SW7471B)**				
Mercury	BRL		0.00872	0.0910	mg/Kg	270777	1	11/28/2018 12:09	AJ
TCL-SEMIVOLATILE ORGANICS SW8270D					**(SW3580A)**				
1,1′-Biphenyl	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
2,4,5-Trichlorophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 19:06	NH
2,4,6-Trichlorophenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
2,4-Dichlorophenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
2,4-Dimethylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
2,4-Dinitrophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 19:06	NH
2,4-Dinitrotoluene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
2,6-Dinitrotoluene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
2-Chloronaphthalene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
2-Chlorophenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
2-Methylnaphthalene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
2-Methylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
2-Nitroaniline	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 19:06	NH
2-Nitrophenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
3,3′-Dichlorobenzidine	BRL		6700	6700	mg/Kg	270610	10	11/26/2018 19:06	NH
3-Nitroaniline	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 19:06	NH
4,6-Dinitro-2-methylphenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 19:06	NH
4-Bromophenyl phenyl ether	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
4-Chloro-3-methylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
4-Chloroaniline	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
4-Chlorophenyl phenyl ether	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
4-Methylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
4-Nitroaniline	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 19:06	NH
4-Nitrophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 19:06	NH
Acenaphthene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
Acenaphthylene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
Acetophenone	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
Anthracene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
Atrazine	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
Benz(a)anthracene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
Benzaldehyde	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
Benzo(a)pyrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
Benzo(b)fluoranthene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
Benzo(g,h,i)perylene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
Benzo(k)fluoranthene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
Bis(2-chloroethoxy)methane	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 29-Nov-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-UST03-111918
Project Name:	L&R Oil Recovery	**Collection Date:**	11/19/2018 4:15:00 PM
Lab ID:	1811J25-004	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D					**(SW3580A)**				
Bis(2-chloroethyl)ether	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
Bis(2-chloroisopropyl)ether	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
Bis(2-ethylhexyl)phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
Butyl benzyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
Caprolactam	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
Carbazole	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
Chrysene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
Di-n-butyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
Di-n-octyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
Dibenz(a,h)anthracene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
Dibenzofuran	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
Diethyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
Dimethyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
Fluoranthene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
Fluorene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
Hexachlorobenzene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
Hexachlorobutadiene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
Hexachlorocyclopentadiene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
Hexachloroethane	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
Indeno(1,2,3-cd)pyrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
Isophorone	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
N-Nitrosodi-n-propylamine	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
N-Nitrosodiphenylamine	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
Naphthalene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
Nitrobenzene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
Pentachlorophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 19:06	NH
Phenanthrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
Phenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
Pyrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:06	NH
Surr: 2,4,6-Tribromophenol	97.3		0	52.8-148	%REC	270610	10	11/26/2018 19:06	NH
Surr: 2-Fluorobiphenyl	102		0	64.7-137	%REC	270610	10	11/26/2018 19:06	NH
Surr: 2-Fluorophenol	95.6		0	57.4-132	%REC	270610	10	11/26/2018 19:06	NH
Surr: 4-Terphenyl-d14	120		0	62-138	%REC	270610	10	11/26/2018 19:06	NH
Surr: Nitrobenzene-d5	91		0	56.1-138	%REC	270610	10	11/26/2018 19:06	NH
Surr: Phenol-d5	102		0	49.6-133	%REC	270610	10	11/26/2018 19:06	NH
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
1,1,1-Trichloroethane	BRL		13000	13000	ug/Kg	270739	500	11/27/2018 14:53	CC
1,1,2,2-Tetrachloroethane	BRL		13000	13000	ug/Kg	270739	500	11/27/2018 14:53	CC

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 29-Nov-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-UST03-111918
Project Name:	L&R Oil Recovery	**Collection Date:**	11/19/2018 4:15:00 PM
Lab ID:	1811J25-004	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
1,1,2-Trichloroethane	BRL		13000	13000	ug/Kg	270739	500	11/27/2018 14:53	CC
1,1-Dichloroethane	BRL		13000	13000	ug/Kg	270739	500	11/27/2018 14:53	CC
1,1-Dichloroethene	BRL		13000	13000	ug/Kg	270739	500	11/27/2018 14:53	CC
1,2,4-Trichlorobenzene	BRL		13000	13000	ug/Kg	270739	500	11/27/2018 14:53	CC
1,2-Dibromo-3-chloropropane	BRL		13000	13000	ug/Kg	270739	500	11/27/2018 14:53	CC
1,2-Dibromoethane	BRL		13000	13000	ug/Kg	270739	500	11/27/2018 14:53	CC
1,2-Dichlorobenzene	BRL		13000	13000	ug/Kg	270739	500	11/27/2018 14:53	CC
1,2-Dichloroethane	BRL		13000	13000	ug/Kg	270739	500	11/27/2018 14:53	CC
1,2-Dichloropropane	BRL		13000	13000	ug/Kg	270739	500	11/27/2018 14:53	CC
1,3-Dichlorobenzene	BRL		13000	13000	ug/Kg	270739	500	11/27/2018 14:53	CC
1,4-Dichlorobenzene	BRL		13000	13000	ug/Kg	270739	500	11/27/2018 14:53	CC
2-Butanone	BRL		130000	130000	ug/Kg	270739	500	11/27/2018 14:53	CC
2-Hexanone	BRL		25000	25000	ug/Kg	270739	500	11/27/2018 14:53	CC
4-Methyl-2-pentanone	BRL		25000	25000	ug/Kg	270739	500	11/27/2018 14:53	CC
Acetone	BRL		130000	130000	ug/Kg	270739	500	11/27/2018 14:53	CC
Benzene	BRL		13000	13000	ug/Kg	270739	500	11/27/2018 14:53	CC
Bromodichloromethane	BRL		13000	13000	ug/Kg	270739	500	11/27/2018 14:53	CC
Bromoform	BRL		13000	13000	ug/Kg	270739	500	11/27/2018 14:53	CC
Bromomethane	BRL		13000	13000	ug/Kg	270739	500	11/27/2018 14:53	CC
Carbon disulfide	BRL		25000	25000	ug/Kg	270739	500	11/27/2018 14:53	CC
Carbon tetrachloride	BRL		13000	13000	ug/Kg	270739	500	11/27/2018 14:53	CC
Chlorobenzene	BRL		13000	13000	ug/Kg	270739	500	11/27/2018 14:53	CC
Chloroethane	BRL		25000	25000	ug/Kg	270739	500	11/27/2018 14:53	CC
Chloroform	BRL		13000	13000	ug/Kg	270739	500	11/27/2018 14:53	CC
Chloromethane	BRL		25000	25000	ug/Kg	270739	500	11/27/2018 14:53	CC
cis-1,2-Dichloroethene	BRL		13000	13000	ug/Kg	270739	500	11/27/2018 14:53	CC
cis-1,3-Dichloropropene	BRL		13000	13000	ug/Kg	270739	500	11/27/2018 14:53	CC
Cyclohexane	BRL		13000	13000	ug/Kg	270739	500	11/27/2018 14:53	CC
Dibromochloromethane	BRL		13000	13000	ug/Kg	270739	500	11/27/2018 14:53	CC
Dichlorodifluoromethane	BRL		25000	25000	ug/Kg	270739	500	11/27/2018 14:53	CC
Ethylbenzene	BRL		13000	13000	ug/Kg	270739	500	11/27/2018 14:53	CC
Freon-113	BRL		25000	25000	ug/Kg	270739	500	11/27/2018 14:53	CC
Isopropylbenzene	BRL		13000	13000	ug/Kg	270739	500	11/27/2018 14:53	CC
m,p-Xylene	21000		13000	13000	ug/Kg	270739	500	11/27/2018 14:53	CC
Methyl acetate	BRL		13000	13000	ug/Kg	270739	500	11/27/2018 14:53	CC
Methyl tert-butyl ether	BRL		13000	13000	ug/Kg	270739	500	11/27/2018 14:53	CC
Methylcyclohexane	BRL		13000	13000	ug/Kg	270739	500	11/27/2018 14:53	CC
Methylene chloride	BRL		13000	50000	ug/Kg	270739	500	11/27/2018 14:53	CC
o-Xylene	BRL		13000	13000	ug/Kg	270739	500	11/27/2018 14:53	CC

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
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- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 29-Nov-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-UST03-111918
Project Name:	L&R Oil Recovery	**Collection Date:**	11/19/2018 4:15:00 PM
Lab ID:	1811J25-004	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
Styrene	BRL		13000	13000	ug/Kg	270739	500	11/27/2018 14:53	CC
Tetrachloroethene	BRL		13000	13000	ug/Kg	270739	500	11/27/2018 14:53	CC
Toluene	40000		13000	13000	ug/Kg	270739	500	11/27/2018 14:53	CC
trans-1,2-Dichloroethene	BRL		13000	13000	ug/Kg	270739	500	11/27/2018 14:53	CC
trans-1,3-Dichloropropene	BRL		13000	13000	ug/Kg	270739	500	11/27/2018 14:53	CC
Trichloroethene	BRL		13000	13000	ug/Kg	270739	500	11/27/2018 14:53	CC
Trichlorofluoromethane	BRL		13000	13000	ug/Kg	270739	500	11/27/2018 14:53	CC
Vinyl chloride	BRL		25000	25000	ug/Kg	270739	500	11/27/2018 14:53	CC
Surr: 4-Bromofluorobenzene	103		0	65.1-125	%REC	270739	500	11/27/2018 14:53	CC
Surr: Dibromofluoromethane	87.4		0	77.7-123	%REC	270739	500	11/27/2018 14:53	CC
Surr: Toluene-d8	96.7		0	83.2-120	%REC	270739	500	11/27/2018 14:53	CC
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3580)**				
Aroclor 1016	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 16:58	UH
Aroclor 1221	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 16:58	UH
Aroclor 1232	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 16:58	UH
Aroclor 1242	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 16:58	UH
Aroclor 1248	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 16:58	UH
Aroclor 1254	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 16:58	UH
Aroclor 1260	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 16:58	UH
Surr: Decachlorobiphenyl	77.8		0	50.5-148	%REC	270611	1	11/23/2018 16:58	UH
Surr: Tetrachloro-m-xylene	82.4		0	50.3-148	%REC	270611	1	11/23/2018 16:58	UH
Laboratory Hydrogen Ion (pH) SW9045D					**(SW9045D)**				
pH	6.98	H	0.01	0.01	pH Units	270770	1	11/27/2018 14:00	RH
Ignitability SW1010A									
Ignitability	68.0	<	0	0	°F	R385339	1	11/26/2018 08:00	SK
BTU ASTM D240									
BTU	0	N	0	0	BTU/lb	R385474	1	11/27/2018 09:30	AA
METALS, TOTAL SW6010D					**(SW3050B)**				
Arsenic	BRL		0.41	5.0	mg/Kg	270622	1	11/26/2018 12:15	DG
Barium	6.2		0.16	5.0	mg/Kg	270622	1	11/26/2018 12:15	DG
Cadmium	BRL		0.049	2.5	mg/Kg	270622	1	11/26/2018 12:15	DG
Chromium	0.62	J	0.43	2.5	mg/Kg	270622	1	11/26/2018 12:15	DG
Lead	2.1	J	0.19	5.0	mg/Kg	270622	1	11/26/2018 12:15	DG
Selenium	BRL		0.75	5.0	mg/Kg	270622	1	11/26/2018 12:15	DG
Silver	0.053	J	0.013	2.5	mg/Kg	270622	1	11/26/2018 12:15	DG

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
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- E Estimated value above quantitation range
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- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 29-Nov-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-TT06-111918
Project Name:	L&R Oil Recovery	**Collection Date:**	11/19/2018 4:50:00 PM
Lab ID:	1811J25-005	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Mercury - Waste SW7471B					**(SW7471B)**				
Mercury	BRL		0.00918	0.0958	mg/Kg	270777	1	11/28/2018 12:12	AJ
TCL-SEMIVOLATILE ORGANICS SW8270D					**(SW3580A)**				
1,1′-Biphenyl	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
2,4,5-Trichlorophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 19:35	NH
2,4,6-Trichlorophenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
2,4-Dichlorophenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
2,4-Dimethylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
2,4-Dinitrophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 19:35	NH
2,4-Dinitrotoluene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
2,6-Dinitrotoluene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
2-Chloronaphthalene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
2-Chlorophenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
2-Methylnaphthalene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
2-Methylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
2-Nitroaniline	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 19:35	NH
2-Nitrophenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
3,3′-Dichlorobenzidine	BRL		6700	6700	mg/Kg	270610	10	11/26/2018 19:35	NH
3-Nitroaniline	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 19:35	NH
4,6-Dinitro-2-methylphenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 19:35	NH
4-Bromophenyl phenyl ether	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
4-Chloro-3-methylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
4-Chloroaniline	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
4-Chlorophenyl phenyl ether	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
4-Methylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
4-Nitroaniline	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 19:35	NH
4-Nitrophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 19:35	NH
Acenaphthene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
Acenaphthylene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
Acetophenone	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
Anthracene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
Atrazine	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
Benz(a)anthracene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
Benzaldehyde	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
Benzo(a)pyrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
Benzo(b)fluoranthene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
Benzo(g,h,i)perylene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
Benzo(k)fluoranthene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
Bis(2-chloroethoxy)methane	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
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- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 29-Nov-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-TT06-111918
Project Name:	L&R Oil Recovery	**Collection Date:**	11/19/2018 4:50:00 PM
Lab ID:	1811J25-005	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D					**(SW3580A)**				
Bis(2-chloroethyl)ether	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
Bis(2-chloroisopropyl)ether	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
Bis(2-ethylhexyl)phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
Butyl benzyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
Caprolactam	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
Carbazole	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
Chrysene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
Di-n-butyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
Di-n-octyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
Dibenz(a,h)anthracene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
Dibenzofuran	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
Diethyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
Dimethyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
Fluoranthene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
Fluorene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
Hexachlorobenzene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
Hexachlorobutadiene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
Hexachlorocyclopentadiene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
Hexachloroethane	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
Indeno(1,2,3-cd)pyrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
Isophorone	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
N-Nitrosodi-n-propylamine	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
N-Nitrosodiphenylamine	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
Naphthalene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
Nitrobenzene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
Pentachlorophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 19:35	NH
Phenanthrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
Phenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
Pyrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 19:35	NH
Surr: 2,4,6-Tribromophenol	90.2		0	52.8-148	%REC	270610	10	11/26/2018 19:35	NH
Surr: 2-Fluorobiphenyl	93.4		0	64.7-137	%REC	270610	10	11/26/2018 19:35	NH
Surr: 2-Fluorophenol	89.4		0	57.4-132	%REC	270610	10	11/26/2018 19:35	NH
Surr: 4-Terphenyl-d14	112		0	62-138	%REC	270610	10	11/26/2018 19:35	NH
Surr: Nitrobenzene-d5	88.8		0	56.1-138	%REC	270610	10	11/26/2018 19:35	NH
Surr: Phenol-d5	94.9		0	49.6-133	%REC	270610	10	11/26/2018 19:35	NH
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
1,1,1-Trichloroethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:55	CC
1,1,2,2-Tetrachloroethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:55	CC

Qualifiers:

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Analytical Environmental Services, Inc

Date: 29-Nov-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-TT06-111918
Project Name:	L&R Oil Recovery	**Collection Date:**	11/19/2018 4:50:00 PM
Lab ID:	1811J25-005	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
1,1,2-Trichloroethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:55	CC
1,1-Dichloroethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:55	CC
1,1-Dichloroethene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:55	CC
1,2,4-Trichlorobenzene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:55	CC
1,2-Dibromo-3-chloropropane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:55	CC
1,2-Dibromoethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:55	CC
1,2-Dichlorobenzene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:55	CC
1,2-Dichloroethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:55	CC
1,2-Dichloropropane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:55	CC
1,3-Dichlorobenzene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:55	CC
1,4-Dichlorobenzene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:55	CC
2-Butanone	BRL		1300000	1300000	ug/Kg	270739	5000	11/26/2018 19:55	CC
2-Hexanone	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 19:55	CC
4-Methyl-2-pentanone	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 19:55	CC
Acetone	BRL		1300000	1300000	ug/Kg	270739	5000	11/26/2018 19:55	CC
Benzene	580000		130000	130000	ug/Kg	270739	5000	11/26/2018 19:55	CC
Bromodichloromethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:55	CC
Bromoform	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:55	CC
Bromomethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:55	CC
Carbon disulfide	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 19:55	CC
Carbon tetrachloride	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:55	CC
Chlorobenzene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:55	CC
Chloroethane	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 19:55	CC
Chloroform	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:55	CC
Chloromethane	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 19:55	CC
cis-1,2-Dichloroethene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:55	CC
cis-1,3-Dichloropropene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:55	CC
Cyclohexane	530000		130000	130000	ug/Kg	270739	5000	11/26/2018 19:55	CC
Dibromochloromethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:55	CC
Dichlorodifluoromethane	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 19:55	CC
Ethylbenzene	1400000		130000	130000	ug/Kg	270739	5000	11/26/2018 19:55	CC
Freon-113	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 19:55	CC
Isopropylbenzene	150000		130000	130000	ug/Kg	270739	5000	11/26/2018 19:55	CC
m,p-Xylene	4900000		130000	130000	ug/Kg	270739	5000	11/26/2018 19:55	CC
Methyl acetate	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:55	CC
Methyl tert-butyl ether	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:55	CC
Methylcyclohexane	650000		130000	130000	ug/Kg	270739	5000	11/26/2018 19:55	CC
Methylene chloride	BRL		130000	500000	ug/Kg	270739	5000	11/26/2018 19:55	CC
o-Xylene	2000000		130000	130000	ug/Kg	270739	5000	11/26/2018 19:55	CC

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Analytical Environmental Services, Inc **Date:** 29-Nov-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-TT06-111918
Project Name:	L&R Oil Recovery	**Collection Date:**	11/19/2018 4:50:00 PM
Lab ID:	1811J25-005	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
Styrene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:55	CC
Tetrachloroethene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:55	CC
Toluene	6300000		1300000	1300000	ug/Kg	270739	50000	11/27/2018 14:26	CC
trans-1,2-Dichloroethene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:55	CC
trans-1,3-Dichloropropene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:55	CC
Trichloroethene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:55	CC
Trichlorofluoromethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 19:55	CC
Vinyl chloride	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 19:55	CC
Surr: 4-Bromofluorobenzene	102		0	65.1-125	%REC	270739	50000	11/27/2018 14:26	CC
Surr: 4-Bromofluorobenzene	104		0	65.1-125	%REC	270739	5000	11/26/2018 19:55	CC
Surr: Dibromofluoromethane	88.5		0	77.7-123	%REC	270739	5000	11/26/2018 19:55	CC
Surr: Dibromofluoromethane	88.7		0	77.7-123	%REC	270739	50000	11/27/2018 14:26	CC
Surr: Toluene-d8	95.9		0	83.2-120	%REC	270739	5000	11/26/2018 19:55	CC
Surr: Toluene-d8	97		0	83.2-120	%REC	270739	50000	11/27/2018 14:26	CC
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3580)**				
Aroclor 1016	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 17:09	UH
Aroclor 1221	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 17:09	UH
Aroclor 1232	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 17:09	UH
Aroclor 1242	31		5.0	5.0	mg/Kg	270611	5	11/26/2018 12:22	UH
Aroclor 1248	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 17:09	UH
Aroclor 1254	2.1		1.0	1.0	mg/Kg	270611	1	11/23/2018 17:09	UH
Aroclor 1260	BRL		5.0	5.0	mg/Kg	270611	5	11/26/2018 12:22	UH
Surr: Decachlorobiphenyl	63.7		0	50.5-148	%REC	270611	1	11/23/2018 17:09	UH
Surr: Tetrachloro-m-xylene	85.9		0	50.3-148	%REC	270611	1	11/23/2018 17:09	UH
Laboratory Hydrogen Ion (pH) SW9045D					**(SW9045D)**				
pH	6.65	H	0.01	0.01	pH Units	270770	1	11/27/2018 14:00	RH
Ignitability SW1010A									
Ignitability	78.0		0	0	°F	R385339	1	11/26/2018 08:00	SK
BTU ASTM D240									
BTU	20000	N	0	0	BTU/lb	R385474	1	11/27/2018 09:30	AA
METALS, TOTAL SW6010D					**(SW3050B)**				
Arsenic	BRL		0.40	4.8	mg/Kg	270622	1	11/26/2018 12:18	DG
Barium	1.9	J	0.15	4.8	mg/Kg	270622	1	11/26/2018 12:18	DG
Cadmium	BRL		0.048	2.4	mg/Kg	270622	1	11/26/2018 12:18	DG
Chromium	BRL		0.42	2.4	mg/Kg	270622	1	11/26/2018 12:18	DG

Qualifiers:

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- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 29-Nov-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-TT06-111918
Project Name:	L&R Oil Recovery	**Collection Date:**	11/19/2018 4:50:00 PM
Lab ID:	1811J25-005	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
METALS, TOTAL SW6010D					**(SW3050B)**				
Lead	12		0.18	4.8	mg/Kg	270622	1	11/26/2018 12:18	DG
Selenium	BRL		0.73	4.8	mg/Kg	270622	1	11/26/2018 12:18	DG
Silver	0.035	J	0.012	2.4	mg/Kg	270622	1	11/26/2018 12:18	DG

Qualifiers:

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- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
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- Narr See case narrative

Analytical Environmental Services, Inc

Date: 29-Nov-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-DR04-112018
Project Name:	L&R Oil Recovery	**Collection Date:**	11/20/2018 9:20:00 AM
Lab ID:	1811J25-006	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Mercury - Waste SW7471B					**(SW7471B)**				
Mercury	BRL		0.00901	0.0939	mg/Kg	270777	1	11/28/2018 12:15	AJ
TCL-SEMIVOLATILE ORGANICS SW8270D					**(SW3580A)**				
1,1´-Biphenyl	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
2,4,5-Trichlorophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 20:04	NH
2,4,6-Trichlorophenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
2,4-Dichlorophenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
2,4-Dimethylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
2,4-Dinitrophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 20:04	NH
2,4-Dinitrotoluene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
2,6-Dinitrotoluene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
2-Chloronaphthalene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
2-Chlorophenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
2-Methylnaphthalene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
2-Methylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
2-Nitroaniline	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 20:04	NH
2-Nitrophenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
3,3´-Dichlorobenzidine	BRL		6700	6700	mg/Kg	270610	10	11/26/2018 20:04	NH
3-Nitroaniline	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 20:04	NH
4,6-Dinitro-2-methylphenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 20:04	NH
4-Bromophenyl phenyl ether	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
4-Chloro-3-methylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
4-Chloroaniline	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
4-Chlorophenyl phenyl ether	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
4-Methylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
4-Nitroaniline	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 20:04	NH
4-Nitrophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 20:04	NH
Acenaphthene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
Acenaphthylene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
Acetophenone	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
Anthracene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
Atrazine	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
Benz(a)anthracene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
Benzaldehyde	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
Benzo(a)pyrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
Benzo(b)fluoranthene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
Benzo(g,h,i)perylene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
Benzo(k)fluoranthene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
Bis(2-chloroethoxy)methane	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH

Qualifiers:

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Analytical Environmental Services, Inc **Date:** 29-Nov-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-DR04-112018
Project Name:	L&R Oil Recovery	**Collection Date:**	11/20/2018 9:20:00 AM
Lab ID:	1811J25-006	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D					**(SW3580A)**				
Bis(2-chloroethyl)ether	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
Bis(2-chloroisopropyl)ether	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
Bis(2-ethylhexyl)phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
Butyl benzyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
Caprolactam	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
Carbazole	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
Chrysene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
Di-n-butyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
Di-n-octyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
Dibenz(a,h)anthracene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
Dibenzofuran	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
Diethyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
Dimethyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
Fluoranthene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
Fluorene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
Hexachlorobenzene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
Hexachlorobutadiene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
Hexachlorocyclopentadiene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
Hexachloroethane	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
Indeno(1,2,3-cd)pyrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
Isophorone	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
N-Nitrosodi-n-propylamine	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
N-Nitrosodiphenylamine	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
Naphthalene	1100		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
Nitrobenzene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
Pentachlorophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 20:04	NH
Phenanthrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
Phenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
Pyrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:04	NH
Surr: 2,4,6-Tribromophenol	100		0	52.8-148	%REC	270610	10	11/26/2018 20:04	NH
Surr: 2-Fluorobiphenyl	105		0	64.7-137	%REC	270610	10	11/26/2018 20:04	NH
Surr: 2-Fluorophenol	94.8		0	57.4-132	%REC	270610	10	11/26/2018 20:04	NH
Surr: 4-Terphenyl-d14	100		0	62-138	%REC	270610	10	11/26/2018 20:04	NH
Surr: Nitrobenzene-d5	80.4		0	56.1-138	%REC	270610	10	11/26/2018 20:04	NH
Surr: Phenol-d5	91.9		0	49.6-133	%REC	270610	10	11/26/2018 20:04	NH
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
1,1,1-Trichloroethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:22	CC
1,1,2,2-Tetrachloroethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:22	CC

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Analytical Environmental Services, Inc **Date:** 29-Nov-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-DR04-112018
Project Name:	L&R Oil Recovery	**Collection Date:**	11/20/2018 9:20:00 AM
Lab ID:	1811J25-006	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
1,1,2-Trichloroethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:22	CC
1,1-Dichloroethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:22	CC
1,1-Dichloroethene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:22	CC
1,2,4-Trichlorobenzene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:22	CC
1,2-Dibromo-3-chloropropane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:22	CC
1,2-Dibromoethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:22	CC
1,2-Dichlorobenzene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:22	CC
1,2-Dichloroethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:22	CC
1,2-Dichloropropane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:22	CC
1,3-Dichlorobenzene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:22	CC
1,4-Dichlorobenzene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:22	CC
2-Butanone	BRL		1300000	1300000	ug/Kg	270739	5000	11/26/2018 20:22	CC
2-Hexanone	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 20:22	CC
4-Methyl-2-pentanone	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 20:22	CC
Acetone	BRL		1300000	1300000	ug/Kg	270739	5000	11/26/2018 20:22	CC
Benzene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:22	CC
Bromodichloromethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:22	CC
Bromoform	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:22	CC
Bromomethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:22	CC
Carbon disulfide	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 20:22	CC
Carbon tetrachloride	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:22	CC
Chlorobenzene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:22	CC
Chloroethane	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 20:22	CC
Chloroform	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:22	CC
Chloromethane	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 20:22	CC
cis-1,2-Dichloroethene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:22	CC
cis-1,3-Dichloropropene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:22	CC
Cyclohexane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:22	CC
Dibromochloromethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:22	CC
Dichlorodifluoromethane	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 20:22	CC
Ethylbenzene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:22	CC
Freon-113	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 20:22	CC
Isopropylbenzene	660000		130000	130000	ug/Kg	270739	5000	11/26/2018 20:22	CC
m,p-Xylene	260000		130000	130000	ug/Kg	270739	5000	11/26/2018 20:22	CC
Methyl acetate	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:22	CC
Methyl tert-butyl ether	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:22	CC
Methylcyclohexane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:22	CC
Methylene chloride	BRL		130000	500000	ug/Kg	270739	5000	11/26/2018 20:22	CC
o-Xylene	960000		130000	130000	ug/Kg	270739	5000	11/26/2018 20:22	CC

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Analytical Environmental Services, Inc **Date:** 29-Nov-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-DR04-112018
Project Name:	L&R Oil Recovery	**Collection Date:**	11/20/2018 9:20:00 AM
Lab ID:	1811J25-006	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
Styrene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:22	CC
Tetrachloroethene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:22	CC
Toluene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:22	CC
trans-1,2-Dichloroethene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:22	CC
trans-1,3-Dichloropropene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:22	CC
Trichloroethene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:22	CC
Trichlorofluoromethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:22	CC
Vinyl chloride	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 20:22	CC
Surr: 4-Bromofluorobenzene	106		0	65.1-125	%REC	270739	5000	11/26/2018 20:22	CC
Surr: Dibromofluoromethane	90.2		0	77.7-123	%REC	270739	5000	11/26/2018 20:22	CC
Surr: Toluene-d8	96.5		0	83.2-120	%REC	270739	5000	11/26/2018 20:22	CC
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3580)**				
Aroclor 1016	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 17:21	UH
Aroclor 1221	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 17:21	UH
Aroclor 1232	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 17:21	UH
Aroclor 1242	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 17:21	UH
Aroclor 1248	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 17:21	UH
Aroclor 1254	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 17:21	UH
Aroclor 1260	BRL		1.0	1.0	mg/Kg	270611	1	11/23/2018 17:21	UH
Surr: Decachlorobiphenyl	93.3		0	50.5-148	%REC	270611	1	11/23/2018 17:21	UH
Surr: Tetrachloro-m-xylene	82.3		0	50.3-148	%REC	270611	1	11/23/2018 17:21	UH
Laboratory Hydrogen Ion (pH) SW9045D					**(SW9045D)**				
pH	6.50	H	0.01	0.01	pH Units	270770	1	11/27/2018 14:00	RH
Ignitability SW1010A									
Ignitability	150	>	0	0	°F	R385339	1	11/26/2018 08:00	SK
BTU ASTM D240									
BTU	17000	N	0	0	BTU/lb	R385474	1	11/27/2018 09:30	AA
METALS, TOTAL SW6010D					**(SW3050B)**				
Arsenic	BRL		0.41	5.0	mg/Kg	270622	1	11/26/2018 12:22	DG
Barium	BRL		0.16	5.0	mg/Kg	270622	1	11/26/2018 12:22	DG
Cadmium	BRL		0.050	2.5	mg/Kg	270622	1	11/26/2018 12:22	DG
Chromium	BRL		0.44	2.5	mg/Kg	270622	1	11/26/2018 12:22	DG
Lead	0.32	J	0.19	5.0	mg/Kg	270622	1	11/26/2018 12:22	DG
Selenium	1.4	J	0.75	5.0	mg/Kg	270622	1	11/26/2018 12:22	DG
Silver	0.033	J	0.013	2.5	mg/Kg	270622	1	11/26/2018 12:22	DG

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Analytical Environmental Services, Inc **Date:** 29-Nov-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-DR05-112018
Project Name:	L&R Oil Recovery	**Collection Date:**	11/20/2018 9:30:00 AM
Lab ID:	1811J25-007	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Mercury - Waste SW7471B					**(SW7471B)**				
Mercury	BRL		0.00819	0.0854	mg/Kg	270777	1	11/28/2018 12:19	AJ
TCL-SEMIVOLATILE ORGANICS SW8270D					**(SW3580A)**				
1,1′-Biphenyl	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
2,4,5-Trichlorophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 20:33	NH
2,4,6-Trichlorophenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
2,4-Dichlorophenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
2,4-Dimethylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
2,4-Dinitrophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 20:33	NH
2,4-Dinitrotoluene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
2,6-Dinitrotoluene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
2-Chloronaphthalene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
2-Chlorophenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
2-Methylnaphthalene	4400		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
2-Methylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
2-Nitroaniline	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 20:33	NH
2-Nitrophenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
3,3′-Dichlorobenzidine	BRL		6700	6700	mg/Kg	270610	10	11/26/2018 20:33	NH
3-Nitroaniline	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 20:33	NH
4,6-Dinitro-2-methylphenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 20:33	NH
4-Bromophenyl phenyl ether	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
4-Chloro-3-methylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
4-Chloroaniline	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
4-Chlorophenyl phenyl ether	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
4-Methylphenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
4-Nitroaniline	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 20:33	NH
4-Nitrophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 20:33	NH
Acenaphthene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
Acenaphthylene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
Acetophenone	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
Anthracene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
Atrazine	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
Benz(a)anthracene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
Benzaldehyde	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
Benzo(a)pyrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
Benzo(b)fluoranthene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
Benzo(g,h,i)perylene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
Benzo(k)fluoranthene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
Bis(2-chloroethoxy)methane	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH

Qualifiers:

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Analytical Environmental Services, Inc **Date:** 29-Nov-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-DR05-112018
Project Name:	L&R Oil Recovery	**Collection Date:**	11/20/2018 9:30:00 AM
Lab ID:	1811J25-007	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D					**(SW3580A)**				
Bis(2-chloroethyl)ether	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
Bis(2-chloroisopropyl)ether	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
Bis(2-ethylhexyl)phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
Butyl benzyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
Caprolactam	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
Carbazole	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
Chrysene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
Di-n-butyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
Di-n-octyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
Dibenz(a,h)anthracene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
Dibenzofuran	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
Diethyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
Dimethyl phthalate	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
Fluoranthene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
Fluorene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
Hexachlorobenzene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
Hexachlorobutadiene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
Hexachlorocyclopentadiene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
Hexachloroethane	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
Indeno(1,2,3-cd)pyrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
Isophorone	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
N-Nitrosodi-n-propylamine	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
N-Nitrosodiphenylamine	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
Naphthalene	3900		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
Nitrobenzene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
Pentachlorophenol	BRL		5000	5000	mg/Kg	270610	10	11/26/2018 20:33	NH
Phenanthrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
Phenol	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
Pyrene	BRL		1000	1000	mg/Kg	270610	10	11/26/2018 20:33	NH
Surr: 2,4,6-Tribromophenol	88.5		0	52.8-148	%REC	270610	10	11/26/2018 20:33	NH
Surr: 2-Fluorobiphenyl	87.8		0	64.7-137	%REC	270610	10	11/26/2018 20:33	NH
Surr: 2-Fluorophenol	89.9		0	57.4-132	%REC	270610	10	11/26/2018 20:33	NH
Surr: 4-Terphenyl-d14	109		0	62-138	%REC	270610	10	11/26/2018 20:33	NH
Surr: Nitrobenzene-d5	79		0	56.1-138	%REC	270610	10	11/26/2018 20:33	NH
Surr: Phenol-d5	87.4		0	49.6-133	%REC	270610	10	11/26/2018 20:33	NH
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
1,1,1-Trichloroethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:48	CC
1,1,2,2-Tetrachloroethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:48	CC

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 29-Nov-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-DR05-112018
Project Name:	L&R Oil Recovery	**Collection Date:**	11/20/2018 9:30:00 AM
Lab ID:	1811J25-007	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
1,1,2-Trichloroethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:48	CC
1,1-Dichloroethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:48	CC
1,1-Dichloroethene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:48	CC
1,2,4-Trichlorobenzene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:48	CC
1,2-Dibromo-3-chloropropane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:48	CC
1,2-Dibromoethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:48	CC
1,2-Dichlorobenzene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:48	CC
1,2-Dichloroethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:48	CC
1,2-Dichloropropane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:48	CC
1,3-Dichlorobenzene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:48	CC
1,4-Dichlorobenzene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:48	CC
2-Butanone	BRL		1300000	1300000	ug/Kg	270739	5000	11/26/2018 20:48	CC
2-Hexanone	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 20:48	CC
4-Methyl-2-pentanone	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 20:48	CC
Acetone	BRL		1300000	1300000	ug/Kg	270739	5000	11/26/2018 20:48	CC
Benzene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:48	CC
Bromodichloromethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:48	CC
Bromoform	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:48	CC
Bromomethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:48	CC
Carbon disulfide	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 20:48	CC
Carbon tetrachloride	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:48	CC
Chlorobenzene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:48	CC
Chloroethane	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 20:48	CC
Chloroform	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:48	CC
Chloromethane	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 20:48	CC
cis-1,2-Dichloroethene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:48	CC
cis-1,3-Dichloropropene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:48	CC
Cyclohexane	130000		130000	130000	ug/Kg	270739	5000	11/26/2018 20:48	CC
Dibromochloromethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:48	CC
Dichlorodifluoromethane	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 20:48	CC
Ethylbenzene	500000		130000	130000	ug/Kg	270739	5000	11/26/2018 20:48	CC
Freon-113	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 20:48	CC
Isopropylbenzene	800000		130000	130000	ug/Kg	270739	5000	11/26/2018 20:48	CC
m,p-Xylene	2100000		130000	130000	ug/Kg	270739	5000	11/26/2018 20:48	CC
Methyl acetate	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:48	CC
Methyl tert-butyl ether	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:48	CC
Methylcyclohexane	550000		130000	130000	ug/Kg	270739	5000	11/26/2018 20:48	CC
Methylene chloride	BRL		130000	500000	ug/Kg	270739	5000	11/26/2018 20:48	CC
o-Xylene	1100000		130000	130000	ug/Kg	270739	5000	11/26/2018 20:48	CC

Qualifiers:

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- BRL Not detected at MDL
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- B Analyte detected in the associated method blank
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- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 29-Nov-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-WS-DR05-112018
Project Name:	L&R Oil Recovery	**Collection Date:**	11/20/2018 9:30:00 AM
Lab ID:	1811J25-007	**Matrix:**	Waste

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5035)**				
Styrene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:48	CC
Tetrachloroethene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:48	CC
Toluene	440000		130000	130000	ug/Kg	270739	5000	11/26/2018 20:48	CC
trans-1,2-Dichloroethene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:48	CC
trans-1,3-Dichloropropene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:48	CC
Trichloroethene	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:48	CC
Trichlorofluoromethane	BRL		130000	130000	ug/Kg	270739	5000	11/26/2018 20:48	CC
Vinyl chloride	BRL		250000	250000	ug/Kg	270739	5000	11/26/2018 20:48	CC
Surr: 4-Bromofluorobenzene	105		0	65.1-125	%REC	270739	5000	11/26/2018 20:48	CC
Surr: Dibromofluoromethane	86.9		0	77.7-123	%REC	270739	5000	11/26/2018 20:48	CC
Surr: Toluene-d8	99.4		0	83.2-120	%REC	270739	5000	11/26/2018 20:48	CC
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3580)**				
Aroclor 1016	BRL		5.0	5.0	mg/Kg	270611	5	11/26/2018 12:34	UH
Aroclor 1221	BRL		5.0	5.0	mg/Kg	270611	5	11/26/2018 12:34	UH
Aroclor 1232	BRL		5.0	5.0	mg/Kg	270611	5	11/26/2018 12:34	UH
Aroclor 1242	BRL		5.0	5.0	mg/Kg	270611	5	11/26/2018 12:34	UH
Aroclor 1248	BRL		5.0	5.0	mg/Kg	270611	5	11/26/2018 12:34	UH
Aroclor 1254	BRL		5.0	5.0	mg/Kg	270611	5	11/26/2018 12:34	UH
Aroclor 1260	BRL		5.0	5.0	mg/Kg	270611	5	11/26/2018 12:34	UH
Surr: Decachlorobiphenyl	96.7		0	50.5-148	%REC	270611	1	11/23/2018 17:32	UH
Surr: Tetrachloro-m-xylene	84.7		0	50.3-148	%REC	270611	1	11/23/2018 17:32	UH
Laboratory Hydrogen Ion (pH) SW9045D					**(SW9045D)**				
pH	4.76	H	0.01	0.01	pH Units	270770	1	11/27/2018 14:00	RH
Ignitability SW1010A									
Ignitability	140		0	0	°F	R385339	1	11/26/2018 08:00	SK
BTU ASTM D240									
BTU	16000	N	0	0	BTU/lb	R385474	1	11/27/2018 09:30	AA
METALS, TOTAL SW6010D					**(SW3050B)**				
Arsenic	BRL		0.39	4.7	mg/Kg	270622	1	11/26/2018 12:25	DG
Barium	BRL		0.15	4.7	mg/Kg	270622	1	11/26/2018 12:25	DG
Cadmium	BRL		0.047	2.3	mg/Kg	270622	1	11/26/2018 12:25	DG
Chromium	BRL		0.41	2.3	mg/Kg	270622	1	11/26/2018 12:25	DG
Lead	0.33	J	0.18	4.7	mg/Kg	270622	1	11/26/2018 12:25	DG
Selenium	1.0	J	0.71	4.7	mg/Kg	270622	1	11/26/2018 12:25	DG
Silver	0.012	J	0.012	2.3	mg/Kg	270622	1	11/26/2018 12:25	DG

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 29-Nov-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-SD01-112018
Project Name:	L&R Oil Recovery	**Collection Date:**	11/20/2018 10:55:00 AM
Lab ID:	1811J25-008	**Matrix:**	Sediment

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3546)**				
Aroclor 1016	BRL		4.0	46	ug/Kg-dry	270468	1	11/21/2018 17:32	UH
Aroclor 1221	BRL		5.6	46	ug/Kg-dry	270468	1	11/21/2018 17:32	UH
Aroclor 1232	BRL		3.6	46	ug/Kg-dry	270468	1	11/21/2018 17:32	UH
Aroclor 1242	BRL		2.1	46	ug/Kg-dry	270468	1	11/21/2018 17:32	UH
Aroclor 1248	BRL		5.9	46	ug/Kg-dry	270468	1	11/21/2018 17:32	UH
Aroclor 1254	BRL		2.5	46	ug/Kg-dry	270468	1	11/21/2018 17:32	UH
Aroclor 1260	BRL		2.2	46	ug/Kg-dry	270468	1	11/21/2018 17:32	UH
Aroclor 1262	BRL		2.0	46	ug/Kg-dry	270468	1	11/21/2018 17:32	UH
Aroclor 1268	BRL		3.1	46	ug/Kg-dry	270468	1	11/21/2018 17:32	UH
Surr: Decachlorobiphenyl	24	S	0	45.7-140	%REC	270468	1	11/21/2018 17:32	UH
Surr: Tetrachloro-m-xylene	61.4		0	45.3-126	%REC	270468	1	11/21/2018 17:32	UH
PERCENT MOISTURE D2216									
Percent Moisture	26.8		0	0	wt%	R385431	1	11/27/2018 14:15	JW

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 29-Nov-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-SD01-112018-DUP
Project Name:	L&R Oil Recovery	**Collection Date:**	11/20/2018 10:55:00 AM
Lab ID:	1811J25-009	**Matrix:**	Sediment

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3546)**				
Aroclor 1016	BRL		3.8	43	ug/Kg-dry	270468	1	11/23/2018 11:58	UH
Aroclor 1221	BRL		5.3	43	ug/Kg-dry	270468	1	11/23/2018 11:58	UH
Aroclor 1232	BRL		3.4	43	ug/Kg-dry	270468	1	11/23/2018 11:58	UH
Aroclor 1242	BRL		2.0	43	ug/Kg-dry	270468	1	11/23/2018 11:58	UH
Aroclor 1248	BRL		5.6	43	ug/Kg-dry	270468	1	11/23/2018 11:58	UH
Aroclor 1254	BRL		2.3	43	ug/Kg-dry	270468	1	11/23/2018 11:58	UH
Aroclor 1260	BRL		2.1	43	ug/Kg-dry	270468	1	11/23/2018 11:58	UH
Aroclor 1262	BRL		1.9	43	ug/Kg-dry	270468	1	11/23/2018 11:58	UH
Aroclor 1268	BRL		3.0	43	ug/Kg-dry	270468	1	11/23/2018 11:58	UH
Surr: Decachlorobiphenyl	48.8		0	45.7-140	%REC	270468	1	11/23/2018 11:58	UH
Surr: Tetrachloro-m-xylene	92.3		0	45.3-126	%REC	270468	1	11/23/2018 11:58	UH
PERCENT MOISTURE D2216									
Percent Moisture	22.3		0	0	wt%	R385431	1	11/27/2018 14:15	JW

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 29-Nov-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-SD02-112018
Project Name:	L&R Oil Recovery	**Collection Date:**	11/20/2018 10:15:00 AM
Lab ID:	1811J25-010	**Matrix:**	Sediment

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3546)**				
Aroclor 1016	BRL		4.4	49	ug/Kg-dry	270468	1	11/21/2018 17:54	UH
Aroclor 1221	BRL		6.1	49	ug/Kg-dry	270468	1	11/21/2018 17:54	UH
Aroclor 1232	BRL		3.9	49	ug/Kg-dry	270468	1	11/21/2018 17:54	UH
Aroclor 1242	BRL		2.3	49	ug/Kg-dry	270468	1	11/21/2018 17:54	UH
Aroclor 1248	BRL		6.4	49	ug/Kg-dry	270468	1	11/21/2018 17:54	UH
Aroclor 1254	44	J	2.7	49	ug/Kg-dry	270468	1	11/21/2018 17:54	UH
Aroclor 1260	BRL		2.4	49	ug/Kg-dry	270468	1	11/21/2018 17:54	UH
Aroclor 1262	29	J	2.2	49	ug/Kg-dry	270468	1	11/21/2018 17:54	UH
Aroclor 1268	BRL		3.4	49	ug/Kg-dry	270468	1	11/21/2018 17:54	UH
Surr: Decachlorobiphenyl	87.6		0	45.7-140	%REC	270468	1	11/21/2018 17:54	UH
Surr: Tetrachloro-m-xylene	70.9		0	45.3-126	%REC	270468	1	11/21/2018 17:54	UH
PERCENT MOISTURE D2216									
Percent Moisture	32.6		0	0	wt%	R385431	1	11/27/2018 14:15	JW

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 29-Nov-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	LRO-EB-112018
Project Name:	L&R Oil Recovery	**Collection Date:**	11/20/2018 4:10:00 PM
Lab ID:	1811J25-011	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3510C)**				
Aroclor 1016	BRL		0.048	0.50	ug/L	270692	1	11/27/2018 16:41	UH
Aroclor 1221	BRL		0.049	0.50	ug/L	270692	1	11/27/2018 16:41	UH
Aroclor 1232	BRL		0.077	0.50	ug/L	270692	1	11/27/2018 16:41	UH
Aroclor 1242	BRL		0.058	0.50	ug/L	270692	1	11/27/2018 16:41	UH
Aroclor 1248	BRL		0.086	0.50	ug/L	270692	1	11/27/2018 16:41	UH
Aroclor 1254	BRL		0.027	0.50	ug/L	270692	1	11/27/2018 16:41	UH
Aroclor 1260	BRL		0.029	0.50	ug/L	270692	1	11/27/2018 16:41	UH
Surr: Decachlorobiphenyl	85.2		0	31.2-130	%REC	270692	1	11/27/2018 16:41	UH
Surr: Tetrachloro-m-xylene	70.4		0	46.2-120	%REC	270692	1	11/27/2018 16:41	UH

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 29-Nov-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	TRIP BLANK
Project Name:	L&R Oil Recovery	**Collection Date:**	11/19/2018
Lab ID:	1811J25-012	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.30	5.0	ug/L	270772	1	11/27/2018 13:55	OM
1,1,2,2-Tetrachloroethane	BRL		0.34	5.0	ug/L	270772	1	11/27/2018 13:55	OM
1,1,2-Trichloroethane	BRL		0.43	5.0	ug/L	270772	1	11/27/2018 13:55	OM
1,1-Dichloroethane	BRL		0.43	5.0	ug/L	270772	1	11/27/2018 13:55	OM
1,1-Dichloroethene	BRL		0.40	5.0	ug/L	270772	1	11/27/2018 13:55	OM
1,2,4-Trichlorobenzene	BRL		0.39	5.0	ug/L	270772	1	11/27/2018 13:55	OM
1,2-Dibromo-3-chloropropane	BRL		0.68	5.0	ug/L	270772	1	11/27/2018 13:55	OM
1,2-Dibromoethane	BRL		0.57	5.0	ug/L	270772	1	11/27/2018 13:55	OM
1,2-Dichlorobenzene	BRL		0.45	5.0	ug/L	270772	1	11/27/2018 13:55	OM
1,2-Dichloroethane	BRL		0.37	5.0	ug/L	270772	1	11/27/2018 13:55	OM
1,2-Dichloropropane	BRL		0.35	5.0	ug/L	270772	1	11/27/2018 13:55	OM
1,3-Dichlorobenzene	BRL		0.31	5.0	ug/L	270772	1	11/27/2018 13:55	OM
1,4-Dichlorobenzene	BRL		0.33	5.0	ug/L	270772	1	11/27/2018 13:55	OM
2-Butanone	BRL		2.5	50	ug/L	270772	1	11/27/2018 13:55	OM
2-Hexanone	BRL		0.67	10	ug/L	270772	1	11/27/2018 13:55	OM
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	270772	1	11/27/2018 13:55	OM
Acetone	BRL		3.6	50	ug/L	270772	1	11/27/2018 13:55	OM
Benzene	BRL		0.37	5.0	ug/L	270772	1	11/27/2018 13:55	OM
Bromodichloromethane	BRL		0.25	5.0	ug/L	270772	1	11/27/2018 13:55	OM
Bromoform	BRL		0.19	5.0	ug/L	270772	1	11/27/2018 13:55	OM
Bromomethane	BRL		0.39	5.0	ug/L	270772	1	11/27/2018 13:55	OM
Carbon disulfide	BRL		0.74	5.0	ug/L	270772	1	11/27/2018 13:55	OM
Carbon tetrachloride	BRL		0.29	5.0	ug/L	270772	1	11/27/2018 13:55	OM
Chlorobenzene	BRL		0.42	5.0	ug/L	270772	1	11/27/2018 13:55	OM
Chloroethane	BRL		0.31	10	ug/L	270772	1	11/27/2018 13:55	OM
Chloroform	BRL		0.20	5.0	ug/L	270772	1	11/27/2018 13:55	OM
Chloromethane	BRL		0.21	10	ug/L	270772	1	11/27/2018 13:55	OM
cis-1,2-Dichloroethene	BRL		0.28	5.0	ug/L	270772	1	11/27/2018 13:55	OM
cis-1,3-Dichloropropene	BRL		0.31	5.0	ug/L	270772	1	11/27/2018 13:55	OM
Cyclohexane	BRL		1.0	5.0	ug/L	270772	1	11/27/2018 13:55	OM
Dibromochloromethane	BRL		0.43	5.0	ug/L	270772	1	11/27/2018 13:55	OM
Dichlorodifluoromethane	BRL		0.15	10	ug/L	270772	1	11/27/2018 13:55	OM
Ethylbenzene	BRL		0.26	5.0	ug/L	270772	1	11/27/2018 13:55	OM
Freon-113	BRL		0.32	10	ug/L	270772	1	11/27/2018 13:55	OM
Isopropylbenzene	BRL		0.43	5.0	ug/L	270772	1	11/27/2018 13:55	OM
m,p-Xylene	BRL		0.60	5.0	ug/L	270772	1	11/27/2018 13:55	OM
Methyl acetate	BRL		0.42	5.0	ug/L	270772	1	11/27/2018 13:55	OM
Methyl tert-butyl ether	BRL		0.45	5.0	ug/L	270772	1	11/27/2018 13:55	OM
Methylcyclohexane	BRL		0.39	5.0	ug/L	270772	1	11/27/2018 13:55	OM

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 29-Nov-18

Client:	Tetra Tech EM Inc.	**Client Sample ID:**	TRIP BLANK
Project Name:	L&R Oil Recovery	**Collection Date:**	11/19/2018
Lab ID:	1811J25-012	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5030B)**				
Methylene chloride	BRL		1.2	5.0	ug/L	270772	1	11/27/2018 13:55	OM
o-Xylene	BRL		0.18	5.0	ug/L	270772	1	11/27/2018 13:55	OM
Styrene	BRL		0.15	5.0	ug/L	270772	1	11/27/2018 13:55	OM
Tetrachloroethene	BRL		0.46	5.0	ug/L	270772	1	11/27/2018 13:55	OM
Toluene	BRL		0.39	5.0	ug/L	270772	1	11/27/2018 13:55	OM
trans-1,2-Dichloroethene	BRL		0.30	5.0	ug/L	270772	1	11/27/2018 13:55	OM
trans-1,3-Dichloropropene	BRL		0.32	5.0	ug/L	270772	1	11/27/2018 13:55	OM
Trichloroethene	BRL		0.30	5.0	ug/L	270772	1	11/27/2018 13:55	OM
Trichlorofluoromethane	BRL		0.18	5.0	ug/L	270772	1	11/27/2018 13:55	OM
Vinyl chloride	BRL		0.30	2.0	ug/L	270772	1	11/27/2018 13:55	OM
Surr: 4-Bromofluorobenzene	95.4		0	68-127	%REC	270772	1	11/27/2018 13:55	OM
Surr: Dibromofluoromethane	94.3		0	84.4-122	%REC	270772	1	11/27/2018 13:55	OM
Surr: Toluene-d8	98.2		0	80.1-116	%REC	270772	1	11/27/2018 13:55	OM

Qualifiers:

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

Clear Save as

AES ANALYTICAL ENVIRONMENTAL SERVICES, INC.

SAMPLE/COOLER RECEIPT CHECKLIST

1. Client Name: Tetra Tech.Inc. AES Work Order Number: 1811J25

2. Carrier: FedEx ☐ UPS ☐ USPS ☐ Client ■ Courier ☐ Other _____

		Yes	No	N/A	Details	Comments
3.	Shipping container/cooler received in good condition?	●	○	○	damaged ☐ leaking ☐ other ☐	
4.	Custody seals present on shipping container?	○	●	○		
5.	Custody seals intact on shipping container?	○	○	●		
6.	Temperature blanks present?	○	○	○		
7.	Cooler temperature(s) within limits of 0-6°C? [See item 13 and 14 for temperature recordings.]	●	○	○	Cooling initiated for recently collected samples / ice present ☐	
8.	Chain of Custody (COC) present?	●	○	○		
9.	Chain of Custody signed, dated, and timed when relinquished and received?	●	○	○		
10.	Sampler name and/or signature on COC?	●	○	○		
11.	Were all samples received within holding time?	○	●	○		
12.	TAT marked on the COC?	●	○	○	If no TAT indicated, proceeded with standard TAT per Terms & Conditions. ☐	

13. Cooler 1 Temperature 3.9 °C Cooler 2 Temperature 1.3 °C Cooler 3 Temperature _____ °C Cooler 4 Temperature _____ °C

14. Cooler 5 Temperature _____ °C Cooler 6 Temperature _____ °C Cooler 7 Temperature _____ °C Cooler 8 Temperature _____ °C

15. Comments: _____

I certify that I have completed sections 1-15 (dated initials). MH 11/20/18

		Yes	No	N/A	Details	Comments
16.	Were sample containers intact upon receipt?	●	○	○		
17.	Custody seals present on sample containers?	○	●	○		
18.	Custody seals intact on sample containers?	○	○	●		
19.	Do sample container labels match the COC?	●	○	○	incomplete info ☐ illegible ☐ no label ☐ other ☐	
20.	Are analyses requested indicated on the COC?	●	○	○		
21.	Were all of the samples listed on the COC received?	●	○	○	samples received but not listed on COC ☐ samples listed on COC not received ☐	
22.	Was the sample collection date/time noted?	●	○	○		
23.	Did we receive sufficient sample volume for indicated analyses?	●	○	○		
24.	Were samples received in appropriate containers?	●	○	○		
25.	Were VOA samples received without headspace (< 1/4" bubble)?	●	○	○		
26.	Were trip blanks submitted?	●	○	○	listed on COC ☐ not listed on COC ■	

27. Comments: _____

I certify that I have completed sections 16-27 (dated initials). MJ 11/21/18

This section only applies to samples where pH can be checked at Sample Receipt.

		Yes	No	N/A	Details	Comments
28.	Have containers needing chemical preservation been checked? *	○	○	●		
29.	Containers meet preservation guidelines?	○	○	●		
30.	Was pH adjusted at Sample Receipt?	○	○	●		

* Note: Certain analyses require chemical preservation but must be checked in the laboratory and not upon Sample Receipt such as Coliforms, VOCs and Oil & Grease/TPH.

I certify that I have completed sections 28-30 (dated initials). MJ 11/21/18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Lab Order: 1811J25

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1811J25-001A	LRO-WS-SS-111918	11/19/2018 2:45:00PM	Soil	TCL VOLATILE ORGANICS		11/29/2018 8:40:00 AM	11/27/2018
1811J25-001B	LRO-WS-SS-111918	11/19/2018 2:45:00PM	Soil	TOTAL METALS BY ICP		11/26/2018 8:15:00 AM	11/26/2018
1811J25-001B	LRO-WS-SS-111918	11/19/2018 2:45:00PM	Soil	TOTAL METALS BY ICP		11/29/2018 11:31:00 AM	11/29/2018
1811J25-001B	LRO-WS-SS-111918	11/19/2018 2:45:00PM	Soil	Mercury by SW7473		11/28/2018 1:15:00 PM	11/28/2018
1811J25-001B	LRO-WS-SS-111918	11/19/2018 2:45:00PM	Soil	TCL-CHLORINATED PESTICIDES		11/27/2018 10:00:00 AM	11/27/2018
1811J25-001B	LRO-WS-SS-111918	11/19/2018 2:45:00PM	Soil	POLYCHLORINATED BIPHENYLS		11/20/2018 2:00:00 PM	11/21/2018
1811J25-001B	LRO-WS-SS-111918	11/19/2018 2:45:00PM	Soil	CHLORINATED HERBICIDES		11/26/2018 11:00:00 AM	11/26/2018
1811J25-001B	LRO-WS-SS-111918	11/19/2018 2:45:00PM	Soil	TCL-SEMIVOLATILE ORGANICS		11/27/2018 11:00:00 AM	11/27/2018
1811J25-001B	LRO-WS-SS-111918	11/19/2018 2:45:00PM	Soil	PERCENT MOISTURE			11/27/2018
1811J25-002A	LRO-WS-UST01-111918	11/19/2018 3:45:00PM	Waste	TCL VOLATILE ORGANICS		11/26/2018 11:18:00 AM	11/26/2018
1811J25-002A	LRO-WS-UST01-111918	11/19/2018 3:45:00PM	Waste	TCL VOLATILE ORGANICS		11/26/2018 11:18:00 AM	11/27/2018
1811J25-002B	LRO-WS-UST01-111918	11/19/2018 3:45:00PM	Waste	IGNITABILITY			11/26/2018
1811J25-002B	LRO-WS-UST01-111918	11/19/2018 3:45:00PM	Waste	TOTAL METALS BY ICP		11/23/2018 1:57:00 PM	11/26/2018
1811J25-002B	LRO-WS-UST01-111918	11/19/2018 3:45:00PM	Waste	Total Mercury - Waste		11/28/2018 9:34:00 AM	11/28/2018
1811J25-002B	LRO-WS-UST01-111918	11/19/2018 3:45:00PM	Waste	POLYCHLORINATED BIPHENYLS		11/23/2018 10:30:00 AM	11/23/2018
1811J25-002B	LRO-WS-UST01-111918	11/19/2018 3:45:00PM	Waste	TCL-SEMIVOLATILE ORGANICS		11/23/2018 10:30:00 AM	11/26/2018
1811J25-002B	LRO-WS-UST01-111918	11/19/2018 3:45:00PM	Waste	Laboratory Hydrogen Ion (pH)		11/27/2018 2:00:00 PM	11/27/2018
1811J25-002B	LRO-WS-UST01-111918	11/19/2018 3:45:00PM	Waste	BTU			11/27/2018
1811J25-003A	LRO-WS-UST02-111918	11/19/2018 4:00:00PM	Waste	TCL VOLATILE ORGANICS		11/26/2018 11:18:00 AM	11/26/2018
1811J25-003B	LRO-WS-UST02-111918	11/19/2018 4:00:00PM	Waste	IGNITABILITY			11/26/2018
1811J25-003B	LRO-WS-UST02-111918	11/19/2018 4:00:00PM	Waste	TOTAL METALS BY ICP		11/23/2018 1:57:00 PM	11/26/2018
1811J25-003B	LRO-WS-UST02-111918	11/19/2018 4:00:00PM	Waste	Total Mercury - Waste		11/28/2018 9:34:00 AM	11/28/2018
1811J25-003B	LRO-WS-UST02-111918	11/19/2018 4:00:00PM	Waste	POLYCHLORINATED BIPHENYLS		11/23/2018 10:30:00 AM	11/23/2018
1811J25-003B	LRO-WS-UST02-111918	11/19/2018 4:00:00PM	Waste	TCL-SEMIVOLATILE ORGANICS		11/23/2018 10:30:00 AM	11/26/2018
1811J25-003B	LRO-WS-UST02-111918	11/19/2018 4:00:00PM	Waste	Laboratory Hydrogen Ion (pH)		11/27/2018 2:00:00 PM	11/27/2018
1811J25-003B	LRO-WS-UST02-111918	11/19/2018 4:00:00PM	Waste	BTU			11/27/2018
1811J25-004A	LRO-WS-UST03-111918	11/19/2018 4:15:00PM	Waste	TCL VOLATILE ORGANICS		11/26/2018 11:18:00 AM	11/27/2018
1811J25-004B	LRO-WS-UST03-111918	11/19/2018 4:15:00PM	Waste	IGNITABILITY			11/26/2018
1811J25-004B	LRO-WS-UST03-111918	11/19/2018 4:15:00PM	Waste	TOTAL METALS BY ICP		11/23/2018 1:57:00 PM	11/26/2018

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Lab Order: 1811J25

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1811J25-004B	LRO-WS-UST03-111918	11/19/2018 4:15:00PM	Waste	Total Mercury - Waste		11/28/2018 9:34:00 AM	11/28/2018
1811J25-004B	LRO-WS-UST03-111918	11/19/2018 4:15:00PM	Waste	POLYCHLORINATED BIPHENYLS		11/23/2018 10:30:00 AM	11/23/2018
1811J25-004B	LRO-WS-UST03-111918	11/19/2018 4:15:00PM	Waste	TCL-SEMIVOLATILE ORGANICS		11/23/2018 10:30:00 AM	11/26/2018
1811J25-004B	LRO-WS-UST03-111918	11/19/2018 4:15:00PM	Waste	Laboratory Hydrogen Ion (pH)		11/27/2018 2:00:00 PM	11/27/2018
1811J25-004B	LRO-WS-UST03-111918	11/19/2018 4:15:00PM	Waste	BTU			11/27/2018
1811J25-005A	LRO-WS-TT06-111918	11/19/2018 4:50:00PM	Waste	TCL VOLATILE ORGANICS		11/26/2018 11:18:00 AM	11/26/2018
1811J25-005A	LRO-WS-TT06-111918	11/19/2018 4:50:00PM	Waste	TCL VOLATILE ORGANICS		11/26/2018 11:18:00 AM	11/27/2018
1811J25-005B	LRO-WS-TT06-111918	11/19/2018 4:50:00PM	Waste	IGNITABILITY			11/26/2018
1811J25-005B	LRO-WS-TT06-111918	11/19/2018 4:50:00PM	Waste	TOTAL METALS BY ICP		11/23/2018 1:57:00 PM	11/26/2018
1811J25-005B	LRO-WS-TT06-111918	11/19/2018 4:50:00PM	Waste	Total Mercury - Waste		11/28/2018 9:34:00 AM	11/28/2018
1811J25-005B	LRO-WS-TT06-111918	11/19/2018 4:50:00PM	Waste	POLYCHLORINATED BIPHENYLS		11/23/2018 10:30:00 AM	11/23/2018
1811J25-005B	LRO-WS-TT06-111918	11/19/2018 4:50:00PM	Waste	POLYCHLORINATED BIPHENYLS		11/23/2018 10:30:00 AM	11/26/2018
1811J25-005B	LRO-WS-TT06-111918	11/19/2018 4:50:00PM	Waste	TCL-SEMIVOLATILE ORGANICS		11/23/2018 10:30:00 AM	11/26/2018
1811J25-005B	LRO-WS-TT06-111918	11/19/2018 4:50:00PM	Waste	Laboratory Hydrogen Ion (pH)		11/27/2018 2:00:00 PM	11/27/2018
1811J25-005B	LRO-WS-TT06-111918	11/19/2018 4:50:00PM	Waste	BTU			11/27/2018
1811J25-006A	LRO-WS-DR04-112018	11/20/2018 9:20:00AM	Waste	TCL VOLATILE ORGANICS		11/26/2018 11:18:00 AM	11/26/2018
1811J25-006B	LRO-WS-DR04-112018	11/20/2018 9:20:00AM	Waste	IGNITABILITY			11/26/2018
1811J25-006B	LRO-WS-DR04-112018	11/20/2018 9:20:00AM	Waste	TOTAL METALS BY ICP		11/23/2018 1:57:00 PM	11/26/2018
1811J25-006B	LRO-WS-DR04-112018	11/20/2018 9:20:00AM	Waste	Total Mercury - Waste		11/28/2018 9:34:00 AM	11/28/2018
1811J25-006B	LRO-WS-DR04-112018	11/20/2018 9:20:00AM	Waste	POLYCHLORINATED BIPHENYLS		11/23/2018 10:30:00 AM	11/23/2018
1811J25-006B	LRO-WS-DR04-112018	11/20/2018 9:20:00AM	Waste	TCL-SEMIVOLATILE ORGANICS		11/23/2018 10:30:00 AM	11/26/2018
1811J25-006B	LRO-WS-DR04-112018	11/20/2018 9:20:00AM	Waste	Laboratory Hydrogen Ion (pH)		11/27/2018 2:00:00 PM	11/27/2018
1811J25-006B	LRO-WS-DR04-112018	11/20/2018 9:20:00AM	Waste	BTU			11/27/2018
1811J25-007A	LRO-WS-DR05-112018	11/20/2018 9:30:00AM	Waste	TCL VOLATILE ORGANICS		11/26/2018 11:18:00 AM	11/26/2018
1811J25-007B	LRO-WS-DR05-112018	11/20/2018 9:30:00AM	Waste	IGNITABILITY			11/26/2018
1811J25-007B	LRO-WS-DR05-112018	11/20/2018 9:30:00AM	Waste	TOTAL METALS BY ICP		11/23/2018 1:57:00 PM	11/26/2018
1811J25-007B	LRO-WS-DR05-112018	11/20/2018 9:30:00AM	Waste	Total Mercury - Waste		11/28/2018 9:34:00 AM	11/28/2018
1811J25-007B	LRO-WS-DR05-112018	11/20/2018 9:30:00AM	Waste	POLYCHLORINATED BIPHENYLS		11/23/2018 10:30:00 AM	11/23/2018
1811J25-007B	LRO-WS-DR05-112018	11/20/2018 9:30:00AM	Waste	POLYCHLORINATED BIPHENYLS		11/23/2018 10:30:00 AM	11/26/2018

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Lab Order: 1811J25

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1811J25-007B	LRO-WS-DR05-112018	11/20/2018 9:30:00AM	Waste	TCL-SEMIVOLATILE ORGANICS		11/23/2018 10:30:00 AM	11/26/2018
1811J25-007B	LRO-WS-DR05-112018	11/20/2018 9:30:00AM	Waste	Laboratory Hydrogen Ion (pH)		11/27/2018 2:00:00 PM	11/27/2018
1811J25-007B	LRO-WS-DR05-112018	11/20/2018 9:30:00AM	Waste	BTU			11/27/2018
1811J25-008A	LRO-SD01-112018	11/20/2018 10:55:00AM	Sediment	POLYCHLORINATED BIPHENYLS		11/20/2018 2:00:00 PM	11/21/2018
1811J25-008A	LRO-SD01-112018	11/20/2018 10:55:00AM	Sediment	PERCENT MOISTURE			11/27/2018
1811J25-009A	LRO-SD01-112018-DUP	11/20/2018 10:55:00AM	Sediment	POLYCHLORINATED BIPHENYLS		11/20/2018 2:00:00 PM	11/23/2018
1811J25-009A	LRO-SD01-112018-DUP	11/20/2018 10:55:00AM	Sediment	PERCENT MOISTURE			11/27/2018
1811J25-010A	LRO-SD02-112018	11/20/2018 10:15:00AM	Sediment	POLYCHLORINATED BIPHENYLS		11/20/2018 2:00:00 PM	11/21/2018
1811J25-010B	LRO-SD02-112018	11/20/2018 10:15:00AM	Sediment	PERCENT MOISTURE			11/27/2018
1811J25-011A	LRO-EB-112018	11/20/2018 4:10:00PM	Aqueous	POLYCHLORINATED BIPHENYLS		11/27/2018 9:00:00 AM	11/27/2018
1811J25-012A	TRIP BLANK	11/19/2018 12:00:00AM	Aqueous	TCL VOLATILE ORGANICS		11/27/2018 9:30:00 AM	11/27/2018

Analytical Environmental Services, Inc

Date: 29-Nov-18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270468

Sample ID: **MB-270468** Client ID: Units: **ug/Kg** Prep Date: **11/20/2018** Run No: **385115**
SampleType: **MBLK** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A** BatchID: **270468** Analysis Date: **11/21/2018** Seq No: **8600816**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	BRL	33									
Aroclor 1221	BRL	33									
Aroclor 1232	BRL	33									
Aroclor 1242	BRL	33									
Aroclor 1248	BRL	33									
Aroclor 1254	BRL	33									
Aroclor 1260	BRL	33									
Aroclor 1262	BRL	33									
Aroclor 1268	BRL	33									
Surr: Decachlorobiphenyl	19.23	0	16.67		115	45.7	140				
Surr: Tetrachloro-m-xylene	17.03	0	16.67		102	45.3	126				

Sample ID: **LCS-270468** Client ID: Units: **ug/Kg** Prep Date: **11/20/2018** Run No: **385115**
SampleType: **LCS** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A** BatchID: **270468** Analysis Date: **11/21/2018** Seq No: **8600817**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	162.5	33	166.7		97.5	67	128				
Aroclor 1260	175.2	33	166.7		105	66.5	126				
Surr: Decachlorobiphenyl	20.24	0	16.67		121	45.7	140				
Surr: Tetrachloro-m-xylene	17.84	0	16.67		107	45.3	126				

Sample ID: **1811H57-006AMS** Client ID: Units: **ug/Kg-dry** Prep Date: **11/20/2018** Run No: **385115**
SampleType: **MS** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A** BatchID: **270468** Analysis Date: **11/21/2018** Seq No: **8600820**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	201.9	42	208.9		96.6	50.7	129				
Aroclor 1260	201.5	42	208.9		96.4	52.2	129				
Surr: Decachlorobiphenyl	22.39	0	20.90		107	45.7	140				

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270468

Sample ID: **1811H57-006AMS** Client ID: Units: **ug/Kg-dry** Prep Date: **11/20/2018** Run No: **385115**
SampleType: **MS** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A** BatchID: **270468** Analysis Date: **11/21/2018** Seq No: **8600820**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: Tetrachloro-m-xylene	20.38	0	20.90		97.5	45.3	126				

Sample ID: **1811H57-006AMSD** Client ID: Units: **ug/Kg-dry** Prep Date: **11/20/2018** Run No: **385115**
SampleType: **MSD** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A** BatchID: **270468** Analysis Date: **11/21/2018** Seq No: **8600822**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	190.4	42	208.9		91.1	50.7	129	201.9	5.86	17	
Aroclor 1260	192.5	42	208.9		92.1	52.2	129	201.5	4.53	18.7	
Surr: Decachlorobiphenyl	21.23	0	20.90		102	45.7	140	22.39	0	0	
Surr: Tetrachloro-m-xylene	18.89	0	20.90		90.4	45.3	126	20.38	0	0	

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 29-Nov-18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270610

Sample ID: **MB-270610** Client ID: Units: **mg/Kg** Prep Date: **11/23/2018** Run No: **385435**
SampleType: **MBLK** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **270610** Analysis Date: **11/26/2018** Seq No: **8609529**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1′-Biphenyl	BRL	100									
2,4,5-Trichlorophenol	BRL	500									
2,4,6-Trichlorophenol	BRL	100									
2,4-Dichlorophenol	BRL	100									
2,4-Dimethylphenol	BRL	100									
2,4-Dinitrophenol	BRL	500									
2,4-Dinitrotoluene	BRL	100									
2,6-Dinitrotoluene	BRL	100									
2-Chloronaphthalene	BRL	100									
2-Chlorophenol	BRL	100									
2-Methylnaphthalene	BRL	100									
2-Methylphenol	BRL	100									
2-Nitroaniline	BRL	500									
2-Nitrophenol	BRL	100									
3,3′-Dichlorobenzidine	BRL	670									
3-Nitroaniline	BRL	500									
4,6-Dinitro-2-methylphenol	BRL	500									
4-Bromophenyl phenyl ether	BRL	100									
4-Chloro-3-methylphenol	BRL	100									
4-Chloroaniline	BRL	100									
4-Chlorophenyl phenyl ether	BRL	100									
4-Methylphenol	BRL	100									
4-Nitroaniline	BRL	500									
4-Nitrophenol	BRL	500									
Acenaphthene	BRL	100									
Acenaphthylene	BRL	100									
Acetophenone	BRL	100									

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270610

Sample ID: **MB-270610** Client ID: Units: **mg/Kg** Prep Date: **11/23/2018** Run No: **385435**
SampleType: **MBLK** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **270610** Analysis Date: **11/26/2018** Seq No: **8609529**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Anthracene	BRL	100									
Atrazine	BRL	100									
Benz(a)anthracene	BRL	100									
Benzaldehyde	BRL	100									
Benzo(a)pyrene	BRL	100									
Benzo(b)fluoranthene	BRL	100									
Benzo(g,h,i)perylene	BRL	100									
Benzo(k)fluoranthene	BRL	100									
Bis(2-chloroethoxy)methane	BRL	100									
Bis(2-chloroethyl)ether	BRL	100									
Bis(2-chloroisopropyl)ether	BRL	100									
Bis(2-ethylhexyl)phthalate	BRL	100									
Butyl benzyl phthalate	BRL	100									
Caprolactam	BRL	100									
Carbazole	BRL	100									
Chrysene	BRL	100									
Di-n-butyl phthalate	BRL	100									
Di-n-octyl phthalate	BRL	100									
Dibenz(a,h)anthracene	BRL	100									
Dibenzofuran	BRL	100									
Diethyl phthalate	BRL	100									
Dimethyl phthalate	BRL	100									
Fluoranthene	BRL	100									
Fluorene	BRL	100									
Hexachlorobenzene	BRL	100									
Hexachlorobutadiene	BRL	100									
Hexachlorocyclopentadiene	BRL	100									

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 29-Nov-18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270610

Sample ID: **MB-270610** Client ID: Units: **mg/Kg** Prep Date: **11/23/2018** Run No: **385435**
SampleType: **MBLK** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **270610** Analysis Date: **11/26/2018** Seq No: **8609529**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Hexachloroethane	BRL	100									
Indeno(1,2,3-cd)pyrene	BRL	100									
Isophorone	BRL	100									
N-Nitrosodi-n-propylamine	BRL	100									
N-Nitrosodiphenylamine	BRL	100									
Naphthalene	BRL	100									
Nitrobenzene	BRL	100									
Pentachlorophenol	BRL	500									
Phenanthrene	BRL	100									
Phenol	BRL	100									
Pyrene	BRL	100									
Surr: 2,4,6-Tribromophenol	943.2	0	1000		94.3	52.8	148				
Surr: 2-Fluorobiphenyl	437.9	0	500.0		87.6	64.7	137				
Surr: 2-Fluorophenol	921.8	0	1000		92.2	57.4	132				
Surr: 4-Terphenyl-d14	493.9	0	500.0		98.8	62	138				
Surr: Nitrobenzene-d5	445.2	0	500.0		89.0	56.1	138				
Surr: Phenol-d5	988.7	0	1000		98.9	49.6	133				

Sample ID: **LCS-270610** Client ID: Units: **mg/Kg** Prep Date: **11/23/2018** Run No: **385435**
SampleType: **LCS** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **270610** Analysis Date: **11/26/2018** Seq No: **8609530**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
2,4-Dinitrotoluene	839.7	100	1000		84.0	71.3	132				
2-Chlorophenol	1005	100	1000		101	78.6	120				
4-Chloro-3-methylphenol	943.9	100	1000		94.4	79.1	122				
4-Nitrophenol	623.5	500	1000		62.4	52.1	120				
Acenaphthene	799.8	100	1000		80.0	77.2	127				
N-Nitrosodi-n-propylamine	1011	100	1000		101	75.2	137				

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270610

Sample ID: **LCS-270610** Client ID: Units: **mg/Kg** Prep Date: **11/23/2018** Run No: **385435**
SampleType: **LCS** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **270610** Analysis Date: **11/26/2018** Seq No: **8609530**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Pentachlorophenol	548.2	500	1000		54.8	45	120				
Phenol	882.4	100	1000		88.2	63.1	120				
Pyrene	854.3	100	1000		85.4	71.6	139				
Surr: 2,4,6-Tribromophenol	1020	0	1000		102	52.8	148				
Surr: 2-Fluorobiphenyl	459.1	0	500.0		91.8	64.7	137				
Surr: 2-Fluorophenol	1002	0	1000		100	57.4	132				
Surr: 4-Terphenyl-d14	513.0	0	500.0		103	62	138				
Surr: Nitrobenzene-d5	491.0	0	500.0		98.2	56.1	138				
Surr: Phenol-d5	1004	0	1000		100	49.6	133				

Sample ID: **1811J25-003BMS** Client ID: **LRO-WS-UST02-111918** Units: **mg/Kg** Prep Date: **11/23/2018** Run No: **385435**
SampleType: **MS** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **270610** Analysis Date: **11/26/2018** Seq No: **8609532**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
2,4-Dinitrotoluene	642.0	1000	1000		64.2	46.1	120				J
2-Chlorophenol	919.0	1000	1000		91.9	63.2	129				J
4-Chloro-3-methylphenol	906.0	1000	1000		90.6	57.3	146				J
4-Nitrophenol	438.0	5000	1000		43.8	33.5	120				J
Acenaphthene	880.0	1000	1000		88.0	62.2	139				J
N-Nitrosodi-n-propylamine	1034	1000	1000		103	77.8	139				
Pentachlorophenol	BRL	5000	1000		0	33	120				S
Phenol	904.0	1000	1000		90.4	60.3	121				J
Pyrene	954.0	1000	1000		95.4	64.5	139				J
Surr: 2,4,6-Tribromophenol	914.0	0	1000		91.4	52.8	148				
Surr: 2-Fluorobiphenyl	485.0	0	500.0		97.0	64.7	137				
Surr: 2-Fluorophenol	932.0	0	1000		93.2	57.4	132				
Surr: 4-Terphenyl-d14	567.0	0	500.0		113	62	138				
Surr: Nitrobenzene-d5	465.0	0	500.0		93.0	56.1	138				

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270610

Sample ID: **1811J25-003BMS** Client ID: **LRO-WS-UST02-111918** Units: **mg/Kg** Prep Date: **11/23/2018** Run No: **385435**
SampleType: **MS** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **270610** Analysis Date: **11/26/2018** Seq No: **8609532**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: Phenol-d5	954.0	0	1000		95.4	49.6	133				

Sample ID: **1811J25-003BMSD** Client ID: **LRO-WS-UST02-111918** Units: **mg/Kg** Prep Date: **11/23/2018** Run No: **385435**
SampleType: **MSD** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **270610** Analysis Date: **11/26/2018** Seq No: **8609533**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
2,4-Dinitrotoluene	605.0	1000	1000		60.5	46.1	120	642.0	0	26.8	J
2-Chlorophenol	935.0	1000	1000		93.5	63.2	129	919.0	0	22.3	J
4-Chloro-3-methylphenol	893.0	1000	1000		89.3	57.3	146	906.0	0	25.9	J
4-Nitrophenol	421.0	5000	1000		42.1	33.5	120	438.0	0	21.3	J
Acenaphthene	868.0	1000	1000		86.8	62.2	139	880.0	0	24	J
N-Nitrosodi-n-propylamine	989.0	1000	1000		98.9	77.8	139	1034	0	17.5	J
Pentachlorophenol	BRL	5000	1000		0	33	120	0	0	21	S
Phenol	878.0	1000	1000		87.8	60.3	121	904.0	0	21.6	J
Pyrene	956.0	1000	1000		95.6	64.5	139	954.0	0	25.1	J
Surr: 2,4,6-Tribromophenol	932.0	0	1000		93.2	52.8	148	914.0	0	0	
Surr: 2-Fluorobiphenyl	465.0	0	500.0		93.0	64.7	137	485.0	0	0	
Surr: 2-Fluorophenol	890.0	0	1000		89.0	57.4	132	932.0	0	0	
Surr: 4-Terphenyl-d14	550.0	0	500.0		110	62	138	567.0	0	0	
Surr: Nitrobenzene-d5	445.0	0	500.0		89.0	56.1	138	465.0	0	0	
Surr: Phenol-d5	940.0	0	1000		94.0	49.6	133	954.0	0	0	

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270611

Sample ID: **MB-270611** Client ID:
SampleType: **MBLK** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A**
Units: **mg/Kg** BatchID: **270611**
Prep Date: **11/23/2018** Analysis Date: **11/23/2018**
Run No: **385310** Seq No: **8605306**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	BRL	1.0									
Aroclor 1221	BRL	1.0									
Aroclor 1232	BRL	1.0									
Aroclor 1242	BRL	1.0									
Aroclor 1248	BRL	1.0									
Aroclor 1254	BRL	1.0									
Aroclor 1260	BRL	1.0									
Surr: Decachlorobiphenyl	0.6542	0	0.5000		131	50.5	148				
Surr: Tetrachloro-m-xylene	0.5097	0	0.5000		102	50.3	148				

Sample ID: **LCS-270611** Client ID:
SampleType: **LCS** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A**
Units: **mg/Kg** BatchID: **270611**
Prep Date: **11/23/2018** Analysis Date: **11/23/2018**
Run No: **385310** Seq No: **8605307**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	5.234	1.0	5.000		105	80.4	130				
Aroclor 1260	5.319	1.0	5.000		106	80.5	136				
Surr: Decachlorobiphenyl	0.7000	0	0.5000		140	50.5	148				
Surr: Tetrachloro-m-xylene	0.5605	0	0.5000		112	50.3	148				

Sample ID: **1811J25-003BMS** Client ID: **LRO-WS-UST02-111918**
SampleType: **MS** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A**
Units: **mg/Kg** BatchID: **270611**
Prep Date: **11/23/2018** Analysis Date: **11/23/2018**
Run No: **385310** Seq No: **8605313**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	9.338	1.0	5.000		187	70	139				S
Aroclor 1260	4.446	1.0	5.000		88.9	71.9	130				
Surr: Decachlorobiphenyl	0.4226	0	0.5000		84.5	50.5	148				
Surr: Tetrachloro-m-xylene	0.4830	0	0.5000		96.6	50.3	148				

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 29-Nov-18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270611

Sample ID: **1811J25-003BMSD** Client ID: **LRO-WS-UST02-111918** Units: **mg/Kg** Prep Date: **11/23/2018** Run No: **385310**
SampleType: **MSD** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A** BatchID: **270611** Analysis Date: **11/23/2018** Seq No: **8605315**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	9.159	1.0	5.000		183	70	139	9.338	1.94	17.8	S
Aroclor 1260	4.340	1.0	5.000		86.8	71.9	130	4.446	2.43	20	
Surr: Decachlorobiphenyl	0.3965	0	0.5000		79.3	50.5	148	0.4226	0	0	
Surr: Tetrachloro-m-xylene	0.4708	0	0.5000		94.2	50.3	148	0.4830	0	0	

Qualifiers:

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

Date: 29-Nov-18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270615

Sample ID: **MB-270615** Client ID:
SampleType: **MBLK** TestCode: **METALS, TOTAL SW6010D**
Units: **mg/Kg** BatchID: **270615**
Prep Date: **11/26/2018** Analysis Date: **11/26/2018**
Run No: **385403** Seq No: **8608534**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	BRL	2.50									
Barium	BRL	5.00									
Cadmium	BRL	2.50									
Chromium	BRL	2.50									
Lead	0.2140	5.00									J
Selenium	BRL	3.50									
Silver	BRL	2.50									

Sample ID: **LCS-270615** Client ID:
SampleType: **LCS** TestCode: **METALS, TOTAL SW6010D**
Units: **mg/Kg** BatchID: **270615**
Prep Date: **11/26/2018** Analysis Date: **11/26/2018**
Run No: **385403** Seq No: **8608537**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	42.54	2.50	50.00		85.1	80	120				
Barium	45.03	5.00	50.00		90.1	80	120				
Cadmium	43.65	2.50	50.00		87.3	80	120				
Chromium	44.84	2.50	50.00		89.7	80	120				
Lead	44.67	5.00	50.00	0.2140	88.9	80	120				
Silver	4.431	2.50	5.000		88.6	80	120				

Sample ID: **1811H62-002AMS** Client ID:
SampleType: **MS** TestCode: **METALS, TOTAL SW6010D**
Units: **mg/Kg-dry** BatchID: **270615**
Prep Date: **11/26/2018** Analysis Date: **11/26/2018**
Run No: **385403** Seq No: **8608539**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	36.82	2.38	47.60	2.225	72.7	75	125				S
Barium	141.8	4.76	47.60	112.2	62.2	75	125				S
Cadmium	41.06	2.38	47.60		86.3	75	125				
Chromium	49.90	2.38	47.60	12.66	78.2	75	125				
Lead	61.68	4.76	47.60	25.22	76.6	75	125				

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

Analytical Environmental Services, Inc

Date: 29-Nov-18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270615

Sample ID: **1811H62-002AMS** Client ID: Units: **mg/Kg-dry** Prep Date: **11/26/2018** Run No: **385403**
SampleType: **MS** TestCode: **METALS, TOTAL SW6010D** BatchID: **270615** Analysis Date: **11/26/2018** Seq No: **8608539**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Selenium	34.59	3.33	47.60		72.7	75	125				S
Silver	4.242	2.38	4.760	0.05191	88.0	75	125				

Sample ID: **1811H62-002AMSD** Client ID: Units: **mg/Kg-dry** Prep Date: **11/26/2018** Run No: **385403**
SampleType: **MSD** TestCode: **METALS, TOTAL SW6010D** BatchID: **270615** Analysis Date: **11/26/2018** Seq No: **8608541**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	37.23	2.38	47.65	2.225	73.5	75	125	36.82	1.10	20	S
Barium	146.5	4.76	47.65	112.2	72.0	75	125	141.8	3.25	20	S
Cadmium	42.32	2.38	47.65		88.8	75	125	41.06	3.02	20	
Chromium	51.34	2.38	47.65	12.66	81.2	75	125	49.90	2.86	20	
Lead	62.85	4.76	47.65	25.22	79.0	75	125	61.68	1.89	20	
Selenium	36.45	3.34	47.65		76.5	75	125	34.59	5.21	20	
Silver	4.393	2.38	4.765	0.05191	91.1	75	125	4.242	3.49	20	

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270622

Sample ID: **MB-270622** Client ID: Units: **mg/Kg** Prep Date: **11/23/2018** Run No: **385402**
SampleType: **MBLK** TestCode: **METALS, TOTAL SW6010D** BatchID: **270622** Analysis Date: **11/26/2018** Seq No: **8608466**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	0.4770	5.0									J
Barium	BRL	5.0									
Cadmium	BRL	2.5									
Chromium	BRL	2.5									
Lead	1.606	5.0									J
Selenium	BRL	5.0									
Silver	0.1545	2.5									J

Sample ID: **LCS-270622** Client ID: Units: **mg/Kg** Prep Date: **11/23/2018** Run No: **385402**
SampleType: **LCS** TestCode: **METALS, TOTAL SW6010D** BatchID: **270622** Analysis Date: **11/26/2018** Seq No: **8608467**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	45.60	5.0	50.00	0.4770	90.2	80	120				
Barium	48.27	5.0	50.00		96.5	80	120				
Cadmium	46.75	2.5	50.00		93.5	80	120				
Chromium	48.21	2.5	50.00		96.4	80	120				
Lead	48.55	5.0	50.00	1.606	93.9	80	120				
Selenium	42.94	5.0	50.00		85.9	80	120				
Silver	4.936	2.5	5.000	0.1545	95.6	80	120				

Sample ID: **1811J25-002BMS** Client ID: **LRO-WS-UST01-111918** Units: **mg/Kg** Prep Date: **11/23/2018** Run No: **385402**
SampleType: **MS** TestCode: **METALS, TOTAL SW6010D** BatchID: **270622** Analysis Date: **11/26/2018** Seq No: **8608472**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	40.29	4.8	48.47		83.1	75	125				
Barium	47.85	4.8	48.47	12.95	72.0	75	125				S
Cadmium	40.65	2.4	48.47		83.9	75	125				
Chromium	40.68	2.4	48.47	0.4813	82.9	75	125				

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 29-Nov-18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270622

Sample ID: **1811J25-002BMS** Client ID: **LRO-WS-UST01-111918** Units: **mg/Kg** Prep Date: **11/23/2018** Run No: **385402**
SampleType: **MS** TestCode: **METALS, TOTAL SW6010D** BatchID: **270622** Analysis Date: **11/26/2018** Seq No: **8608472**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Lead	48.29	4.8	48.47	10.37	78.2	75	125				
Selenium	41.27	4.8	48.47	1.134	82.8	75	125				
Silver	4.193	2.4	4.847	0.2273	81.8	75	125				

Sample ID: **1811J25-002BMSD** Client ID: **LRO-WS-UST01-111918** Units: **mg/Kg** Prep Date: **11/23/2018** Run No: **385402**
SampleType: **MSD** TestCode: **METALS, TOTAL SW6010D** BatchID: **270622** Analysis Date: **11/26/2018** Seq No: **8608473**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	41.31	4.8	48.46		85.2	75	125	40.29	2.50	20	
Barium	50.48	4.8	48.46	12.95	77.4	75	125	47.85	5.35	20	
Cadmium	42.75	2.4	48.46		88.2	75	125	40.65	5.03	20	
Chromium	43.22	2.4	48.46	0.4813	88.2	75	125	40.68	6.05	20	
Lead	50.28	4.8	48.46	10.37	82.4	75	125	48.29	4.03	20	
Selenium	42.87	4.8	48.46	1.134	86.1	75	125	41.27	3.80	20	
Silver	4.387	2.4	4.846	0.2273	85.8	75	125	4.193	4.51	20	

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270681

Sample ID: **MB-270681** Client ID: Units: **ug/Kg** Prep Date: **11/26/2018** Run No: **385483**
SampleType: **MBLK** TestCode: **CHLORINATED HERBICIDES SW8151A** BatchID: **270681** Analysis Date: **11/26/2018** Seq No: **8610832**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
2,4,5-T	BRL	33									
2,4,5-TP (Silvex)	BRL	33									
2,4-D	BRL	33									
2,4-DB	BRL	170									
Dalapon	BRL	330									
Dicamba	BRL	33									
Dichlorprop	BRL	33									
Dinoseb	BRL	85									
MCPA	BRL	3300									
MCPP	BRL	3300									
Surr: DCAA	141.6	0	166.7		84.9	44	120				

Sample ID: **LCS-270681** Client ID: Units: **ug/Kg** Prep Date: **11/26/2018** Run No: **385483**
SampleType: **LCS** TestCode: **CHLORINATED HERBICIDES SW8151A** BatchID: **270681** Analysis Date: **11/26/2018** Seq No: **8610834**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
2,4,5-T	139.6	33	166.7		83.7	51.9	120				
2,4,5-TP (Silvex)	128.8	33	166.7		77.2	52.6	120				
2,4-D	134.0	33	166.7		80.4	50	120				
Dicamba	136.4	33	166.7		81.8	50.4	120				
Dichlorprop	151.1	33	166.7		90.6	50.6	121				
Surr: DCAA	144.9	0	166.7		86.9	44	120				

Sample ID: **1811J25-001BMS** Client ID: **LRO-WS-SS-111918** Units: **ug/Kg-dry** Prep Date: **11/26/2018** Run No: **385483**
SampleType: **MS** TestCode: **CHLORINATED HERBICIDES SW8151A** BatchID: **270681** Analysis Date: **11/26/2018** Seq No: **8610841**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
2,4,5-T	203.8	35	179.3		114	43.8	121				

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270681

Sample ID: **1811J25-001BMS** Client ID: **LRO-WS-SS-111918** Units: **ug/Kg-dry** Prep Date: **11/26/2018** Run No: **385483**
SampleType: **MS** TestCode: **CHLORINATED HERBICIDES SW8151A** BatchID: **270681** Analysis Date: **11/26/2018** Seq No: **8610841**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
2,4,5-TP (Silvex)	165.7	35	179.3		92.4	49.1	120				
2,4-D	169.4	35	179.3		94.5	40.2	130				
Dicamba	141.6	35	179.3		79.0	46.9	120				
Dichlorprop	184.2	35	179.3		103	41	120				
Surr: DCAA	184.9	0	179.3		103	44	120				

Sample ID: **1811J25-001BMSD** Client ID: **LRO-WS-SS-111918** Units: **ug/Kg-dry** Prep Date: **11/26/2018** Run No: **385483**
SampleType: **MSD** TestCode: **CHLORINATED HERBICIDES SW8151A** BatchID: **270681** Analysis Date: **11/26/2018** Seq No: **8610845**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
2,4,5-T	202.0	36	179.6		113	43.8	121	203.8	0.859	41.6	
2,4,5-TP (Silvex)	159.0	36	179.6		88.6	49.1	120	165.7	4.11	21.6	
2,4-D	173.2	36	179.6		96.4	40.2	130	169.4	2.19	25.4	
Dicamba	135.3	36	179.6		75.3	46.9	120	141.6	4.56	38.3	
Dichlorprop	178.4	36	179.6		99.4	41	120	184.2	3.21	41.3	
Surr: DCAA	175.8	0	179.6		97.9	44	120	184.9	0	0	

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270688

Sample ID: **MB-270688** Client ID: Units: **ug/Kg** Prep Date: **11/27/2018** Run No: **385447**
SampleType: **MBLK** TestCode: **CHLORINATED PESTICIDES, TCL SW8081B** BatchID: **270688** Analysis Date: **11/27/2018** Seq No: **8609807**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
4,4'-DDD	BRL	3.3									
4,4'-DDE	BRL	3.3									
4,4'-DDT	BRL	3.3									
Aldrin	BRL	1.7									
alpha-BHC	BRL	1.7									
alpha-Chlordane	BRL	1.7									
beta-BHC	BRL	1.7									
delta-BHC	BRL	1.7									
Dieldrin	BRL	3.3									
Endosulfan I	BRL	1.7									
Endosulfan II	BRL	3.3									
Endosulfan sulfate	BRL	3.3									
Endrin	BRL	3.3									
Endrin aldehyde	BRL	3.3									
Endrin ketone	BRL	3.3									
gamma-BHC	BRL	1.7									
gamma-Chlordane	BRL	1.7									
Heptachlor	BRL	1.7									
Heptachlor epoxide	BRL	1.7									
Methoxychlor	BRL	17									
Toxaphene	BRL	170									
Surr: Decachlorobiphenyl	13.46	0	16.67		80.7	44.5	124				
Surr: Tetrachloro-m-xylene	11.64	0	16.67		69.8	45.1	120				

Sample ID: **LCS-270688** Client ID: Units: **ug/Kg** Prep Date: **11/27/2018** Run No: **385447**
SampleType: **LCS** TestCode: **CHLORINATED PESTICIDES, TCL SW8081B** BatchID: **270688** Analysis Date: **11/27/2018** Seq No: **8609808**

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

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 29-Nov-18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270688

Sample ID: **LCS-270688** Client ID: Units: **ug/Kg** Prep Date: **11/27/2018** Run No: **385447**
SampleType: **LCS** TestCode: **CHLORINATED PESTICIDES, TCL SW8081B** BatchID: **270688** Analysis Date: **11/27/2018** Seq No: **8609808**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
4,4'-DDT	28.50	3.3	33.33		85.5	69	128				
Aldrin	24.24	1.7	33.33		72.7	66	109				
Dieldrin	26.10	3.3	33.33		78.3	67.8	120				
Endrin	27.92	3.3	33.33		83.8	70.9	121				
gamma-BHC	26.29	1.7	33.33		78.9	66.7	121				
Heptachlor	26.75	1.7	33.33		80.3	61.1	120				
Surr: Decachlorobiphenyl	12.70	0	16.67		76.2	44.5	124				
Surr: Tetrachloro-m-xylene	10.94	0	16.67		65.6	45.1	120				

Sample ID: **1811J25-001BMS** Client ID: **LRO-WS-SS-111918** Units: **ug/Kg-dry** Prep Date: **11/27/2018** Run No: **385447**
SampleType: **MS** TestCode: **CHLORINATED PESTICIDES, TCL SW8081B** BatchID: **270688** Analysis Date: **11/27/2018** Seq No: **8609812**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
4,4'-DDT	28.21	3.6	35.90		78.6	42.5	125				
Aldrin	21.30	1.8	35.90		59.3	45	120				
Dieldrin	24.80	3.6	35.90		69.1	50	122				
Endrin	25.47	3.6	35.90		71.0	57	129				
gamma-BHC	23.77	1.8	35.90		66.2	50	122				
Heptachlor	35.76	1.8	35.90		99.6	50.6	120				
Surr: Decachlorobiphenyl	12.14	0	17.96		67.6	44.5	124				
Surr: Tetrachloro-m-xylene	10.04	0	17.96		55.9	45.1	120				

Sample ID: **1811J25-001BMSD** Client ID: **LRO-WS-SS-111918** Units: **ug/Kg-dry** Prep Date: **11/27/2018** Run No: **385447**
SampleType: **MSD** TestCode: **CHLORINATED PESTICIDES, TCL SW8081B** BatchID: **270688** Analysis Date: **11/27/2018** Seq No: **8609814**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
4,4'-DDT	25.87	3.6	35.90		72.1	42.5	125	28.21	8.64	26.4	
Aldrin	19.51	1.8	35.90		54.4	45	120	21.30	8.74	26.2	

Qualifiers:

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

Date: 29-Nov-18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270688

Sample ID: **1811J25-001BMSD** Client ID: **LRO-WS-SS-111918** Units: **ug/Kg-dry** Prep Date: **11/27/2018** Run No: **385447**
SampleType: **MSD** TestCode: **CHLORINATED PESTICIDES, TCL SW8081B** BatchID: **270688** Analysis Date: **11/27/2018** Seq No: **8609814**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Dieldrin	22.48	3.6	35.90		62.6	50	122	24.80	9.78	39.2	
Endrin	23.34	3.6	35.90		65.0	57	129	25.47	8.74	24.8	
gamma-BHC	21.38	1.8	35.90		59.5	50	122	23.77	10.6	25.8	
Heptachlor	32.15	1.8	35.90		89.6	50.6	120	35.76	10.6	28	
Surr: Decachlorobiphenyl	10.51	0	17.96		58.5	44.5	124	12.14	0	0	
Surr: Tetrachloro-m-xylene	9.201	0	17.96		51.2	45.1	120	10.04	0	0	

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 29-Nov-18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270692

Sample ID: **MB-270692** Client ID: Units: **ug/L** Prep Date: **11/27/2018** Run No: **385445**
SampleType: **MBLK** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A** BatchID: **270692** Analysis Date: **11/27/2018** Seq No: **8610837**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	BRL	0.50									
Aroclor 1221	BRL	0.50									
Aroclor 1232	BRL	0.50									
Aroclor 1242	BRL	0.50									
Aroclor 1248	BRL	0.50									
Aroclor 1254	BRL	0.50									
Aroclor 1260	BRL	0.50									
Surr: Decachlorobiphenyl	0.4618	0	0.5000		92.4	31.2	130				
Surr: Tetrachloro-m-xylene	0.4255	0	0.5000		85.1	46.2	120				

Sample ID: **MB-270692** Client ID: Units: **ug/L** Prep Date: **11/27/2018** Run No: **385445**
SampleType: **MBLK** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A** BatchID: **270692** Analysis Date: **11/27/2018** Seq No: **8610859**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	BRL	0.50									
Aroclor 1221	BRL	0.50									
Aroclor 1232	BRL	0.50									
Aroclor 1242	BRL	0.50									
Aroclor 1248	BRL	0.50									
Aroclor 1254	BRL	0.50									
Aroclor 1260	BRL	0.50									
Surr: Decachlorobiphenyl	0.3772	0	0.5000		75.4	31.2	130				
Surr: Tetrachloro-m-xylene	0.3553	0	0.5000		71.1	46.2	120				

Sample ID: **LCS-270692** Client ID: Units: **ug/L** Prep Date: **11/27/2018** Run No: **385445**
SampleType: **LCS** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A** BatchID: **270692** Analysis Date: **11/27/2018** Seq No: **8610844**

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

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270692

Sample ID: **LCS-270692** Client ID: Units: **ug/L** Prep Date: **11/27/2018** Run No: **385445**
SampleType: **LCS** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A** BatchID: **270692** Analysis Date: **11/27/2018** Seq No: **8610844**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	4.080	0.50	5.000		81.6	67.7	121				
Aroclor 1260	4.254	0.50	5.000		85.1	63.1	124				
Surr: Decachlorobiphenyl	0.4854	0	0.5000		97.1	31.2	130				
Surr: Tetrachloro-m-xylene	0.3550	0	0.5000		71.0	46.2	120				

Sample ID: **1811J25-011AMS** Client ID: **LRO-EB-112018** Units: **ug/L** Prep Date: **11/27/2018** Run No: **385445**
SampleType: **MS** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A** BatchID: **270692** Analysis Date: **11/27/2018** Seq No: **8610849**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	3.907	0.50	5.000		78.1	62.7	129				
Aroclor 1260	3.907	0.50	5.000		78.1	51.6	127				
Surr: Decachlorobiphenyl	0.3530	0	0.5000		70.6	31.2	130				
Surr: Tetrachloro-m-xylene	0.3645	0	0.5000		72.9	46.2	120				

Sample ID: **1811J25-011AMSD** Client ID: **LRO-EB-112018** Units: **ug/L** Prep Date: **11/27/2018** Run No: **385445**
SampleType: **MSD** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A** BatchID: **270692** Analysis Date: **11/27/2018** Seq No: **8610851**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	3.826	0.50	5.000		76.5	62.7	129	3.907	2.10	19	
Aroclor 1260	4.049	0.50	5.000		81.0	51.6	127	3.907	3.59	20.1	
Surr: Decachlorobiphenyl	0.4275	0	0.5000		85.5	31.2	130	0.3530	0	0	
Surr: Tetrachloro-m-xylene	0.3794	0	0.5000		75.9	46.2	120	0.3645	0	0	

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 29-Nov-18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270739

Sample ID: **MB-270739**	Client ID:	Units: **ug/Kg**	Prep Date: **11/26/2018**	Run No: **385297**
SampleType: **MBLK**	TestCode: **TCL VOLATILE ORGANICS SW8260B**	BatchID: **270739**	Analysis Date: **11/26/2018**	Seq No: **8607769**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	250									
1,1,2,2-Tetrachloroethane	BRL	250									
1,1,2-Trichloroethane	BRL	250									
1,1-Dichloroethane	BRL	250									
1,1-Dichloroethene	BRL	250									
1,2,4-Trichlorobenzene	BRL	250									
1,2-Dibromo-3-chloropropane	BRL	250									
1,2-Dibromoethane	BRL	250									
1,2-Dichlorobenzene	BRL	250									
1,2-Dichloroethane	BRL	250									
1,2-Dichloropropane	BRL	250									
1,3-Dichlorobenzene	BRL	250									
1,4-Dichlorobenzene	BRL	250									
2-Butanone	BRL	2500									
2-Hexanone	BRL	500									
4-Methyl-2-pentanone	BRL	500									
Acetone	BRL	2500									
Benzene	BRL	250									
Bromodichloromethane	BRL	250									
Bromoform	BRL	250									
Bromomethane	BRL	250									
Carbon disulfide	BRL	500									
Carbon tetrachloride	BRL	250									
Chlorobenzene	BRL	250									
Chloroethane	BRL	500									
Chloroform	BRL	250									
Chloromethane	BRL	500									

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270739

Sample ID: **MB-270739** Client ID: Units: **ug/Kg** Prep Date: **11/26/2018** Run No: **385297**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **270739** Analysis Date: **11/26/2018** Seq No: **8607769**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	250									
cis-1,3-Dichloropropene	BRL	250									
Cyclohexane	BRL	250									
Dibromochloromethane	BRL	250									
Dichlorodifluoromethane	BRL	500									
Ethylbenzene	BRL	250									
Freon-113	BRL	500									
Isopropylbenzene	BRL	250									
m,p-Xylene	BRL	250									
Methyl acetate	BRL	250									
Methyl tert-butyl ether	BRL	250									
Methylcyclohexane	BRL	250									
Methylene chloride	BRL	1000									
o-Xylene	BRL	250									
Styrene	BRL	250									
Tetrachloroethene	BRL	250									
Toluene	BRL	250									
trans-1,2-Dichloroethene	BRL	250									
trans-1,3-Dichloropropene	BRL	250									
Trichloroethene	BRL	250									
Trichlorofluoromethane	BRL	250									
Vinyl chloride	BRL	500									
Surr: 4-Bromofluorobenzene	2516	0	2500		101	65.1	125				
Surr: Dibromofluoromethane	2334	0	2500		93.4	77.7	123				
Surr: Toluene-d8	2442	0	2500		97.7	83.2	120				

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270739

Sample ID: **1811J25-005AMS** Client ID: **LRO-WS-TT06-111918** Units: **ug/Kg** Prep Date: **11/26/2018** Run No: **385378**
SampleType: **MS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **270739** Analysis Date: **11/27/2018** Seq No: **8610133**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	1018000	250000	1e+006		102	61.8	140				
Benzene	1261000	250000	1e+006		126	69	131				
Chlorobenzene	1097000	250000	1e+006		110	69.5	133				
Toluene	2397000	250000	1e+006	6345000	-395	65.9	133				S
Trichloroethene	1195000	250000	1e+006		119	65.9	135				
Surr: 4-Bromofluorobenzene	2607000	0	2.5e+006		104	65.1	125				
Surr: Dibromofluoromethane	2213000	0	2.5e+006		88.5	77.7	123				
Surr: Toluene-d8	2442000	0	2.5e+006		97.7	83.2	120				

Sample ID: **1811J25-005AMSD** Client ID: **LRO-WS-TT06-111918** Units: **ug/Kg** Prep Date: **11/26/2018** Run No: **385378**
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **270739** Analysis Date: **11/27/2018** Seq No: **8610134**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	1029000	250000	1e+006		103	61.8	140	1018000	1.07	18.5	
Benzene	1228000	250000	1e+006		123	69	131	1261000	2.65	20	
Chlorobenzene	1063000	250000	1e+006		106	69.5	133	1097000	3.15	20	
Toluene	2333000	250000	1e+006	6345000	-401	65.9	133	2397000	2.71	20	S
Trichloroethene	1158000	250000	1e+006		116	65.9	135	1195000	3.15	20	
Surr: 4-Bromofluorobenzene	2604000	0	2.5e+006		104	65.1	125	2607000	0	0	
Surr: Dibromofluoromethane	2218000	0	2.5e+006		88.7	77.7	123	2213000	0	0	
Surr: Toluene-d8	2409000	0	2.5e+006		96.4	83.2	120	2442000	0	0	

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270742

Sample ID: **MB-270742** Client ID:
SampleType: **MBLK** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D**
Units: **ug/Kg** BatchID: **270742**
Prep Date: **11/27/2018** Analysis Date: **11/27/2018**
Run No: **385457** Seq No: **8610205**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1´-Biphenyl	BRL	330									
2,4,5-Trichlorophenol	BRL	1700									
2,4,6-Trichlorophenol	BRL	330									
2,4-Dichlorophenol	BRL	330									
2,4-Dimethylphenol	BRL	330									
2,4-Dinitrophenol	BRL	1700									
2,4-Dinitrotoluene	BRL	330									
2,6-Dinitrotoluene	BRL	330									
2-Chloronaphthalene	BRL	330									
2-Chlorophenol	BRL	330									
2-Methylnaphthalene	BRL	330									
2-Methylphenol	BRL	330									
2-Nitroaniline	BRL	1700									
2-Nitrophenol	BRL	330									
3,3´-Dichlorobenzidine	BRL	670									
3-Nitroaniline	BRL	1700									
4,6-Dinitro-2-methylphenol	BRL	1700									
4-Bromophenyl phenyl ether	BRL	330									
4-Chloro-3-methylphenol	BRL	330									
4-Chloroaniline	BRL	330									
4-Chlorophenyl phenyl ether	BRL	330									
4-Methylphenol	BRL	330									
4-Nitroaniline	BRL	1700									
4-Nitrophenol	BRL	1700									
Acenaphthene	BRL	330									
Acenaphthylene	BRL	330									
Acetophenone	BRL	330									

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

Analytical Environmental Services, Inc **Date:** 29-Nov-18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270742

Sample ID: **MB-270742** Client ID: Units: **ug/Kg** Prep Date: **11/27/2018** Run No: **385457**
SampleType: **MBLK** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **270742** Analysis Date: **11/27/2018** Seq No: **8610205**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Anthracene	BRL	330									
Atrazine	BRL	330									
Benz(a)anthracene	BRL	330									
Benzaldehyde	BRL	330									
Benzo(a)pyrene	BRL	330									
Benzo(b)fluoranthene	BRL	330									
Benzo(g,h,i)perylene	BRL	330									
Benzo(k)fluoranthene	BRL	330									
Bis(2-chloroethoxy)methane	BRL	330									
Bis(2-chloroethyl)ether	BRL	330									
Bis(2-chloroisopropyl)ether	BRL	330									
Bis(2-ethylhexyl)phthalate	BRL	330									
Butyl benzyl phthalate	BRL	330									
Caprolactam	BRL	330									
Carbazole	BRL	330									
Chrysene	BRL	330									
Di-n-butyl phthalate	BRL	330									
Di-n-octyl phthalate	BRL	330									
Dibenz(a,h)anthracene	BRL	330									
Dibenzofuran	BRL	330									
Diethyl phthalate	BRL	330									
Dimethyl phthalate	BRL	330									
Fluoranthene	BRL	330									
Fluorene	BRL	330									
Hexachlorobenzene	BRL	330									
Hexachlorobutadiene	BRL	330									
Hexachlorocyclopentadiene	BRL	660									

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270742

Sample ID: **MB-270742** Client ID:
SampleType: **MBLK** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D**
Units: **ug/Kg** Prep Date: **11/27/2018** Run No: **385457**
BatchID: **270742** Analysis Date: **11/27/2018** Seq No: **8610205**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Hexachloroethane	BRL	330									
Indeno(1,2,3-cd)pyrene	BRL	330									
Isophorone	BRL	330									
N-Nitrosodi-n-propylamine	BRL	330									
N-Nitrosodiphenylamine	BRL	330									
Naphthalene	BRL	330									
Nitrobenzene	BRL	330									
Pentachlorophenol	BRL	1700									
Phenanthrene	BRL	330									
Phenol	BRL	330									
Pyrene	BRL	330									
Surr: 2,4,6-Tribromophenol	3488	0	3333		105	48.2	133				
Surr: 2-Fluorobiphenyl	1473	0	1667		88.4	50.2	120				
Surr: 2-Fluorophenol	2398	0	3333		72.0	41.6	120				
Surr: 4-Terphenyl-d14	1675	0	1667		100	52.1	122				
Surr: Nitrobenzene-d5	1377	0	1667		82.6	41.4	120				
Surr: Phenol-d5	2470	0	3333		74.1	45.7	120				

Sample ID: **LCS-270742** Client ID:
SampleType: **LCS** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D**
Units: **ug/Kg** Prep Date: **11/27/2018** Run No: **385457**
BatchID: **270742** Analysis Date: **11/27/2018** Seq No: **8613379**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
2,4-Dinitrotoluene	3260	330	3333		97.8	53.9	120				
2-Chlorophenol	2710	330	3333		81.3	58.4	120				
4-Chloro-3-methylphenol	3163	330	3333		94.9	62.7	120				
4-Nitrophenol	3302	1700	3333		99.1	45.9	120				
Acenaphthene	3059	330	3333		91.8	59.5	120				
N-Nitrosodi-n-propylamine	2874	330	3333		86.2	62.7	120				

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

Analytical Environmental Services, Inc

Date: 29-Nov-18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270742

Sample ID: **LCS-270742** Client ID: Units: **ug/Kg** Prep Date: **11/27/2018** Run No: **385457**
SampleType: **LCS** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **270742** Analysis Date: **11/27/2018** Seq No: **8613379**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Pentachlorophenol	2683	1700	3333		80.5	43.1	120				
Phenol	2441	330	3333		73.2	52	120				
Pyrene	3099	330	3333		93.0	63.2	126				
Surr: 2,4,6-Tribromophenol	3805	0	3333		114	48.2	133				
Surr: 2-Fluorobiphenyl	1693	0	1667		102	50.2	120				
Surr: 2-Fluorophenol	2533	0	3333		76.0	41.6	120				
Surr: 4-Terphenyl-d14	1739	0	1667		104	52.1	122				
Surr: Nitrobenzene-d5	1519	0	1667		91.1	41.4	120				
Surr: Phenol-d5	2753	0	3333		82.6	45.7	120				

Sample ID: **1811J25-001BMS** Client ID: **LRO-WS-SS-111918** Units: **ug/Kg-dry** Prep Date: **11/27/2018** Run No: **385457**
SampleType: **MS** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **270742** Analysis Date: **11/27/2018** Seq No: **8613381**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
2,4-Dinitrotoluene	2043	360	3590		56.9	40.4	120				
2-Chlorophenol	1830	360	3590		51.0	43.4	120				
4-Chloro-3-methylphenol	1843	360	3590		51.3	47.2	120				
4-Nitrophenol	834.0	1800	3590		23.2	30.3	120				JS
Acenaphthene	1943	360	3590		54.1	43.9	120				
N-Nitrosodi-n-propylamine	2214	360	3590		61.7	44.8	120				
Pentachlorophenol	1493	1800	3590		41.6	40.4	120				J
Phenol	1598	360	3590		44.5	40.2	120				
Pyrene	2407	360	3590	347.6	57.4	44.4	119				
Surr: 2,4,6-Tribromophenol	2420	0	3590		67.4	48.2	133				
Surr: 2-Fluorobiphenyl	953.2	0	1795		53.1	50.2	120				
Surr: 2-Fluorophenol	1765	0	3590		49.2	41.6	120				
Surr: 4-Terphenyl-d14	1219	0	1795		67.9	52.1	122				
Surr: Nitrobenzene-d5	1033	0	1795		57.5	41.4	120				

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270742

Sample ID: **1811J25-001BMS** Client ID: **LRO-WS-SS-111918** Units: **ug/Kg-dry** Prep Date: **11/27/2018** Run No: **385457**
SampleType: **MS** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **270742** Analysis Date: **11/27/2018** Seq No: **8613381**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: Phenol-d5	1805	0	3590		50.3	45.7	120				

Sample ID: **1811J25-001BMSD** Client ID: **LRO-WS-SS-111918** Units: **ug/Kg-dry** Prep Date: **11/27/2018** Run No: **385457**
SampleType: **MSD** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **270742** Analysis Date: **11/27/2018** Seq No: **8613382**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
2,4-Dinitrotoluene	1998	360	3590		55.7	40.4	120	2043	2.24	33.9	
2-Chlorophenol	1759	360	3590		49.0	43.4	120	1830	3.98	31.1	
4-Chloro-3-methylphenol	1862	360	3590		51.9	47.2	120	1843	1.01	36.7	
4-Nitrophenol	885.7	1800	3590		24.7	30.3	120	834.0	0	38.9	JS
Acenaphthene	1870	360	3590		52.1	43.9	120	1943	3.84	32.7	
N-Nitrosodi-n-propylamine	2115	360	3590		58.9	44.8	120	2214	4.54	34.6	
Pentachlorophenol	1625	1800	3590		45.3	40.4	120	1493	0	27.6	J
Phenol	1565	360	3590		43.6	40.2	120	1598	2.04	26	
Pyrene	2194	360	3590	347.6	51.4	44.4	119	2407	9.24	37.2	
Surr: 2,4,6-Tribromophenol	2432	0	3590		67.8	48.2	133	2420	0	0	
Surr: 2-Fluorobiphenyl	923.1	0	1795		51.4	50.2	120	953.2	0	0	
Surr: 2-Fluorophenol	1673	0	3590		46.6	41.6	120	1765	0	0	
Surr: 4-Terphenyl-d14	1099	0	1795		61.2	52.1	122	1219	0	0	
Surr: Nitrobenzene-d5	980.2	0	1795		54.6	41.4	120	1033	0	0	
Surr: Phenol-d5	1693	0	3590		47.2	45.7	120	1805	0	0	

Qualifiers:

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

ANALYTICAL QC SUMMARY REPORT

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

BatchID: **270770**

Sample ID: **LCS-270770** Client ID: Units: **pH Units** Prep Date: **11/27/2018** Run No: **385438**
SampleType: **LCS** TestCode: **Laboratory Hydrogen Ion (pH) SW9045D** BatchID: **270770** Analysis Date: **11/27/2018** Seq No: **8609608**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
pH	7.050	0.01	7.000		101	90	110				

Sample ID: **1811J25-002BDUP** Client ID: **LRO-WS-UST01-111918** Units: **pH Units** Prep Date: **11/27/2018** Run No: **385438**
SampleType: **DUP** TestCode: **Laboratory Hydrogen Ion (pH) SW9045D** BatchID: **270770** Analysis Date: **11/27/2018** Seq No: **8609610**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
pH	6.170	0.01						6.190	0.324	20	H

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 29-Nov-18

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

ANALYTICAL QC SUMMARY REPORT

BatchID: 270772

Sample ID: **MB-270772** Client ID:
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B**
Units: **ug/L** Prep Date: **11/27/2018** Run No: **385415**
BatchID: **270772** Analysis Date: **11/27/2018** Seq No: **8610001**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,4-Trichlorobenzene	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,3-Dichlorobenzene	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
2-Butanone	BRL	50									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	50									
Benzene	BRL	5.0									
Bromodichloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									
Chloroform	BRL	5.0									
Chloromethane	BRL	10									

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 29-Nov-18

ANALYTICAL QC SUMMARY REPORT

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

BatchID: **270772**

Sample ID: **MB-270772** Client ID:
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B**
Units: **ug/L** BatchID: **270772**
Prep Date: **11/27/2018** Analysis Date: **11/27/2018**
Run No: **385415** Seq No: **8610001**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Isopropylbenzene	BRL	5.0									
m,p-Xylene	BRL	5.0									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	5.0									
o-Xylene	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl chloride	BRL	2.0									
Surr: 4-Bromofluorobenzene	48.17	0	50.00		96.3	68	127				
Surr: Dibromofluoromethane	47.48	0	50.00		95.0	84.4	122				
Surr: Toluene-d8	49.30	0	50.00		98.6	80.1	116				

Qualifiers:

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

Date: 29-Nov-18

ANALYTICAL QC SUMMARY REPORT

BatchID: 270772

Sample ID: **LCS-270772** Client ID:
SampleType: **LCS** TestCode: **TCL VOLATILE ORGANICS SW8260B**
Units: **ug/L** BatchID: **270772**
Prep Date: **11/27/2018** Analysis Date: **11/27/2018**
Run No: **385415** Seq No: **8611237**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	53.45	5.0	50.00		107	69	136				
Benzene	51.23	5.0	50.00		102	73.7	126				
Chlorobenzene	48.36	5.0	50.00		96.7	73.5	124				
Toluene	52.17	5.0	50.00		104	76.8	125				
Trichloroethene	52.70	5.0	50.00		105	70.9	124				
Surr: 4-Bromofluorobenzene	52.45	0	50.00		105	68	127				
Surr: Dibromofluoromethane	48.86	0	50.00		97.7	84.4	122				
Surr: Toluene-d8	49.93	0	50.00		99.9	80.1	116				

Sample ID: **LCSD-270772** Client ID:
SampleType: **LCSD** TestCode: **TCL VOLATILE ORGANICS SW8260B**
Units: **ug/L** BatchID: **270772**
Prep Date: **11/27/2018** Analysis Date: **11/27/2018**
Run No: **385415** Seq No: **8611238**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	50.04	5.0	50.00		100	69	136	53.45	6.59	20	
Benzene	50.01	5.0	50.00		100	73.7	126	51.23	2.41	20	
Chlorobenzene	46.95	5.0	50.00		93.9	73.5	124	48.36	2.96	20	
Toluene	50.89	5.0	50.00		102	76.8	125	52.17	2.48	20	
Trichloroethene	51.70	5.0	50.00		103	70.9	124	52.70	1.92	20	
Surr: 4-Bromofluorobenzene	51.01	0	50.00		102	68	127	52.45	0	0	
Surr: Dibromofluoromethane	49.74	0	50.00		99.5	84.4	122	48.86	0	0	
Surr: Toluene-d8	50.05	0	50.00		100	80.1	116	49.93	0	0	

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 29-Nov-18

ANALYTICAL QC SUMMARY REPORT

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

BatchID: 270777

Sample ID: **MB-270777** Client ID:
SampleType: **MBLK** TestCode: **Total Mercury - Waste SW7471B**
Units: **mg/Kg** BatchID: **270777**
Prep Date: **11/28/2018** Analysis Date: **11/28/2018**
Run No: **385504** Seq No: **8611330**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	BRL	0.100									

Sample ID: **LCS-270777** Client ID:
SampleType: **LCS** TestCode: **Total Mercury - Waste SW7471B**
Units: **mg/Kg** BatchID: **270777**
Prep Date: **11/28/2018** Analysis Date: **11/28/2018**
Run No: **385504** Seq No: **8611331**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.4129	0.100	0.4000		103	80	120				

Sample ID: **1811J25-002BMS** Client ID: **LRO-WS-UST01-111918**
SampleType: **MS** TestCode: **Total Mercury - Waste SW7471B**
Units: **mg/Kg** BatchID: **270777**
Prep Date: **11/28/2018** Analysis Date: **11/28/2018**
Run No: **385504** Seq No: **8611333**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.2927	0.0949	0.3797		77.1	80	120				S

Sample ID: **1811J25-002BMSD** Client ID: **LRO-WS-UST01-111918**
SampleType: **MSD** TestCode: **Total Mercury - Waste SW7471B**
Units: **mg/Kg** BatchID: **270777**
Prep Date: **11/28/2018** Analysis Date: **11/28/2018**
Run No: **385504** Seq No: **8611357**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.3118	0.0946	0.3785		82.4	80	120	0.2927	6.34	20	

Qualifiers:

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

Analytical Environmental Services, Inc

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

Date: 29-Nov-18

ANALYTICAL QC SUMMARY REPORT

BatchID: 270791

Sample ID: **MB-270791** Client ID:
SampleType: **MBLK** TestCode: **Total Mercury by SW7473**
Units: **mg/Kg** BatchID: **270791**
Prep Date: **11/28/2018** Analysis Date: **11/28/2018**
Run No: **385522** Seq No: **8611971**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.02150	0.100									J

Sample ID: **LCS-270791** Client ID:
SampleType: **LCS** TestCode: **Total Mercury by SW7473**
Units: **mg/Kg** BatchID: **270791**
Prep Date: **11/28/2018** Analysis Date: **11/28/2018**
Run No: **385522** Seq No: **8611973**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	1.005	0.100	1.000	0.02150	98.4	80	120				

Sample ID: **1811N43-001CMS** Client ID:
SampleType: **MS** TestCode: **Total Mercury by SW7473**
Units: **mg/Kg-dry** BatchID: **270791**
Prep Date: **11/28/2018** Analysis Date: **11/28/2018**
Run No: **385522** Seq No: **8611977**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.8266	0.108	1.020	0.04053	77.1	80	120				S

Sample ID: **1811N43-001CMSD** Client ID:
SampleType: **MSD** TestCode: **Total Mercury by SW7473**
Units: **mg/Kg-dry** BatchID: **270791**
Prep Date: **11/28/2018** Analysis Date: **11/28/2018**
Run No: **385522** Seq No: **8611979**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.9730	0.108	1.008	0.04053	92.5	80	120	0.8266	16.3	20	

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 29-Nov-18

ANALYTICAL QC SUMMARY REPORT

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

BatchID: **270840**

Sample ID: **MB-**
SampleType: **MBLK**
Client ID:
TestCode: **TCL VOLATILE ORGANICS SW8260B**
Units: **ug/Kg**
BatchID: **270840**
Prep Date: **11/29/2018**
Analysis Date: **11/29/2018**
Run No: **385574**
Seq No: **8613137**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,4-Trichlorobenzene	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,3-Dichlorobenzene	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
2-Butanone	BRL	50									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	100									
Benzene	BRL	5.0									
Bromodichloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	10									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									
Chloroform	BRL	5.0									
Chloromethane	BRL	10									

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

Analytical Environmental Services, Inc

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

Date: 29-Nov-18

ANALYTICAL QC SUMMARY REPORT

BatchID: 270840

Sample ID: **MB-**
SampleType: **MBLK**
Client ID:
TestCode: **TCL VOLATILE ORGANICS SW8260B**
Units: **ug/Kg**
BatchID: **270840**
Prep Date: **11/29/2018**
Analysis Date: **11/29/2018**
Run No: **385574**
Seq No: **8613137**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Isopropylbenzene	BRL	5.0									
m,p-Xylene	BRL	5.0									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	20									
o-Xylene	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl chloride	BRL	10									
Surr: 4-Bromofluorobenzene	51.01	0	50.00		102	65.1	125				
Surr: Dibromofluoromethane	46.61	0	50.00		93.2	77.7	123				
Surr: Toluene-d8	49.54	0	50.00		99.1	83.2	120				

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 29-Nov-18

ANALYTICAL QC SUMMARY REPORT

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

BatchID: **270840**

Sample ID: **MB-270840** Client ID:
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B**

Units: **ug/Kg** BatchID: **270840**
Prep Date: **11/29/2018** Analysis Date: **11/27/2018**
Run No: **385415** Seq No: **8613480**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	250									
1,1,2,2-Tetrachloroethane	BRL	250									
1,1,2-Trichloroethane	BRL	250									
1,1-Dichloroethane	BRL	250									
1,1-Dichloroethene	BRL	250									
1,2,4-Trichlorobenzene	BRL	250									
1,2-Dibromo-3-chloropropane	BRL	250									
1,2-Dibromoethane	BRL	250									
1,2-Dichlorobenzene	BRL	250									
1,2-Dichloroethane	BRL	250									
1,2-Dichloropropane	BRL	250									
1,3-Dichlorobenzene	BRL	250									
1,4-Dichlorobenzene	BRL	250									
2-Butanone	BRL	2500									
2-Hexanone	BRL	500									
4-Methyl-2-pentanone	BRL	500									
Acetone	BRL	5000									
Benzene	BRL	250									
Bromodichloromethane	BRL	250									
Bromoform	BRL	250									
Bromomethane	BRL	250									
Carbon disulfide	BRL	500									
Carbon tetrachloride	BRL	250									
Chlorobenzene	BRL	250									
Chloroethane	BRL	500									
Chloroform	BRL	250									
Chloromethane	BRL	500									

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

Date: 29-Nov-18

ANALYTICAL QC SUMMARY REPORT

BatchID: 270840

Sample ID: **MB-270840** Client ID:
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B**
Units: **ug/Kg** BatchID: **270840**
Prep Date: **11/29/2018** Analysis Date: **11/27/2018**
Run No: **385415** Seq No: **8613480**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	250									
cis-1,3-Dichloropropene	BRL	250									
Cyclohexane	BRL	250									
Dibromochloromethane	BRL	250									
Dichlorodifluoromethane	BRL	500									
Ethylbenzene	BRL	250									
Freon-113	BRL	500									
Isopropylbenzene	BRL	250									
m,p-Xylene	BRL	250									
Methyl acetate	BRL	250									
Methyl tert-butyl ether	BRL	250									
Methylcyclohexane	BRL	250									
Methylene chloride	BRL	1000									
o-Xylene	BRL	250									
Styrene	BRL	250									
Tetrachloroethene	BRL	250									
Toluene	BRL	250									
trans-1,2-Dichloroethene	BRL	250									
trans-1,3-Dichloropropene	BRL	250									
Trichloroethene	BRL	250									
Trichlorofluoromethane	BRL	250									
Vinyl chloride	BRL	500									
Surr: 4-Bromofluorobenzene	2462	0	2500		98.5	65.1	125				
Surr: Dibromofluoromethane	2406	0	2500		96.2	77.7	123				
Surr: Toluene-d8	2488	0	2500		99.5	83.2	120				

Qualifiers:

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

ANALYTICAL QC SUMMARY REPORT

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

BatchID: 270840

Sample ID: **LCS-270840** Client ID:
SampleType: **LCS** TestCode: **TCL VOLATILE ORGANICS SW8260B**
Units: **ug/Kg** Prep Date: **11/29/2018** Run No: **385574**
BatchID: **270840** Analysis Date: **11/29/2018** Seq No: **8614204**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	1052	250	1000		105	67.6	140				
Benzene	1052	250	1000		105	71.3	130				
Chlorobenzene	975.5	250	1000		97.6	70.6	135				
Toluene	1048	250	1000		105	70.4	127				
Trichloroethene	1060	250	1000		106	68.6	138				
Surr: 4-Bromofluorobenzene	2558	0	2500		102	65.1	125				
Surr: Dibromofluoromethane	2490	0	2500		99.6	77.7	123				
Surr: Toluene-d8	2491	0	2500		99.6	83.2	120				

Sample ID: **1811J25-001AMS** Client ID: **LRO-WS-SS-111918**
SampleType: **MS** TestCode: **TCL VOLATILE ORGANICS SW8260B**
Units: **ug/Kg-dry** Prep Date: **11/29/2018** Run No: **385574**
BatchID: **270840** Analysis Date: **11/29/2018** Seq No: **8614205**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	2250	540	2154		104	61.8	140				
Benzene	2386	540	2154	36.62	109	69	131				
Chlorobenzene	2215	540	2154		103	69.5	133				
Toluene	4849	540	2154	2424	113	65.9	133				
Trichloroethene	2453	540	2154		114	65.9	135				
Surr: 4-Bromofluorobenzene	5656	0	5386		105	65.1	125				
Surr: Dibromofluoromethane	5193	0	5386		96.4	77.7	123				
Surr: Toluene-d8	5392	0	5386		100	83.2	120				

Sample ID: **1811J25-001AMSD** Client ID: **LRO-WS-SS-111918**
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260B**
Units: **ug/Kg-dry** Prep Date: **11/29/2018** Run No: **385574**
BatchID: **270840** Analysis Date: **11/29/2018** Seq No: **8614206**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	2222	540	2154		103	61.8	140	2250	1.25	18.5	
Benzene	2361	540	2154	36.62	108	69	131	2386	1.04	20	

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

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

Date: 29-Nov-18

ANALYTICAL QC SUMMARY REPORT

BatchID: 270840

Sample ID: **1811J25-001AMSD** Client ID: **LRO-WS-SS-111918**
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260B**
Units: **ug/Kg-dry** Prep Date: **11/29/2018** Run No: **385574**
BatchID: **270840** Analysis Date: **11/29/2018** Seq No: **8614206**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chlorobenzene	2205	540	2154		102	69.5	133	2215	0.439	20	
Toluene	4725	540	2154	2424	107	65.9	133	4849	2.59	20	
Trichloroethene	2426	540	2154		113	65.9	135	2453	1.10	20	
Surr: 4-Bromofluorobenzene	5668	0	5386		105	65.1	125	5656	0	0	
Surr: Dibromofluoromethane	5224	0	5386		97.0	77.7	123	5193	0	0	
Surr: Toluene-d8	5355	0	5386		99.4	83.2	120	5392	0	0	

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 29-Nov-18

ANALYTICAL QC SUMMARY REPORT

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

BatchID: **270848**

Sample ID: **MB-270848** Client ID: Units: **mg/Kg** Prep Date: **11/29/2018** Run No: **385639**
SampleType: **MBLK** TestCode: **METALS, TOTAL SW6010D** BatchID: **270848** Analysis Date: **11/29/2018** Seq No: **8614550**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Lead	BRL	5.00									
Selenium	BRL	3.50									

Sample ID: **LCS-270848** Client ID: Units: **mg/Kg** Prep Date: **11/29/2018** Run No: **385639**
SampleType: **LCS** TestCode: **METALS, TOTAL SW6010D** BatchID: **270848** Analysis Date: **11/29/2018** Seq No: **8614551**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Lead	46.72	5.00	50.00		93.4	80	120				
Selenium	41.17	3.50	50.00		82.3	80	120				

Sample ID: **1811J25-001BMS** Client ID: **LRO-WS-SS-111918** Units: **mg/Kg-dry** Prep Date: **11/29/2018** Run No: **385639**
SampleType: **MS** TestCode: **METALS, TOTAL SW6010D** BatchID: **270848** Analysis Date: **11/29/2018** Seq No: **8614555**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Lead	46.08	4.40	43.97	8.292	85.9	75	125				
Selenium	34.00	3.08	43.97		77.3	75	125				

Sample ID: **1811J25-001BMSD** Client ID: **LRO-WS-SS-111918** Units: **mg/Kg-dry** Prep Date: **11/29/2018** Run No: **385639**
SampleType: **MSD** TestCode: **METALS, TOTAL SW6010D** BatchID: **270848** Analysis Date: **11/29/2018** Seq No: **8614557**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Lead	45.75	4.40	44.04	8.292	85.0	75	125	46.08	0.727	20	
Selenium	32.52	3.08	44.04		73.8	75	125	34.00	4.44	20	S

Qualifiers:
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- BRL Below reporting limit
- J Estimated value detected below Reporting Limit
- Rpt Lim Reporting Limit
- < Less than Result value
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- N Analyte not NELAC certified
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- B Analyte detected in the associated method blank
- H Holding times for preparation or analysis exceeded
- R RPD outside limits due to matrix

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

Date: 29-Nov-18

ANALYTICAL QC SUMMARY REPORT

BatchID: R385339

Sample ID: **LCS-R385339** Client ID:
SampleType: **LCS** TestCode: **Ignitability SW1010A**
Units: **°F** Prep Date:
BatchID: **R385339** Analysis Date: **11/26/2018**
Run No: **385339** Seq No: **8606953**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ignitability	80.00	0	81.00		98.8	93.8	106.2				

Sample ID: **1811K25-001ADUP** Client ID:
SampleType: **DUP** TestCode: **Ignitability SW1010A**
Units: **°F** Prep Date:
BatchID: **R385339** Analysis Date: **11/26/2018**
Run No: **385339** Seq No: **8606962**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ignitability	150.0	0						150.0	0	20	>

Qualifiers:

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BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 29-Nov-18

ANALYTICAL QC SUMMARY REPORT

Client: Tetra Tech EM Inc.
Project Name: L&R Oil Recovery
Workorder: 1811J25

BatchID: **R385474**

Sample ID: **1811J25-002BDUP** Client ID: **LRO-WS-UST01-111918** Units: **BTU/lb** Prep Date: Run No: **385474**
SampleType: **DUP** TestCode: **BTU ASTM D240** BatchID: **R385474** Analysis Date: **11/27/2018** Seq No: **8610473**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
BTU	16760	0						16760	0	20	N

Qualifiers:

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

Pressley, Miriam

From: Prys, Paul <Paul.Prys@tetratech.com>
Sent: Tuesday, December 4, 2018 6:43 PM
To: Rhame, Kenneth
Cc: Eichinger, Kevin
Subject: FW: L&R Oil Sample Results
Attachments: 1811J25_REPORT.pdf

Ken,

Here are the results for L&R Oil I sent to Kevin along with the sample ids and corresponding sample locations.

Kevin,

In the previous email, I switched the sediment sample ids (SD01 and SD02). The sample ids and location below have been corrected and are good to go. SD02 is the MS/MSD.

Let me know if you need anything else.

From: Prys, Paul
Sent: Friday, November 30, 2018 12:00 PM
To: 'eichinger.kevin@epa.gov' <eichinger.kevin@epa.gov>
Subject: FW: L&R Oil Sample Results

Kevin,

Here are the analytical results. Apparently, they came in yesterday, but I wasn't on the email chain. Anyway, below is a list of the sample ids and their corresponding locations.

LOR-WS-SS-111918 – Composite soil samples from rolloffs
LOR-WS-UST01-111918 – UST on the west side of 3 tanks sampled
LOR-WS-UST02-111918 – UST on the east side of the 3 tanks sampled
LOR-WS-UST02-111918 – UST on the south side of the 3 tanks sampled
LOR-WS-TT06-111918 – Composite sample from the Clean Harbors and ER waste totes and representative of HEPACO drums
LOR-WS-DR04-112018 – From the 2 white drums on the loading dock area
LOR-WS-DR05-112018 – From the black drum on the loading dock area
LOR-SD01-112018 & LOR-SD01-112018-DUP – Sediment from the upstream side of the site
LOR-SD02-112018 - Sediment from the downstream side of the site
LOR-EB-112018 – Equipment blank

Let me know if you need anything else.

From: Vickers, Jessica
Sent: Friday, November 30, 2018 11:27 AM
To: Prys, Paul <Paul.Prys@tetratech.com>; pmasoudi@aesatlanta.com
Subject: RE: L&R Oil Sample Results

Paul – these came in yesterday. I didn't notice that you were not copied.

Paris – I still have not received the EDD.

Jessica A. Vickers | USEPA Region 4 START IV QA Manager/Senior Chemist
Direct: 662.681.5727
jessica.vickers@tetratech.com

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Think Green - Not every email needs to be printed

From: Prys, Paul
Sent: Friday, November 30, 2018 10:24 AM
To: pmasoudi@aesatlanta.com
Cc: Vickers, Jessica <jessica.vickers@tetratech.com>
Subject: L&R Oil Sample Results

Paris,

I delivered 11 sets of samples to you guys on 11/20/18 for a 5-day TAT and haven't seen the sample results yet. Our project # is 103X902701101.011F. Could you please update me on the status of these results? My client is asking for an update.

Paul Prys | Senior Environmental Scientist/Project Manager
Direct: 678.775.3106 | Cell: 404.849.7136 | Fax: 678.775.3138
paul.prys@tetratech.com

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Pressley, Miriam

From: Eichinger, Kevin
Sent: Friday, November 30, 2018 12:19 PM
To: Ken Braig
Subject: FW: L&R Oil Sample Results
Attachments: 1811J25_REPORT.pdf

Ken,

All the waste analytical is now in. The Sample IDs are listed on the inventory sheet I sent last week.

We may have a problem with the solid waste, it may need to go for incineration.

Can you work up a cost estimate to dispose of all of the waste? I have a briefing on Tuesday and I want to make sure I ask for the correct amount of money.

Kevin

From: Prys, Paul <Paul.Prys@tetratech.com>
Sent: Friday, November 30, 2018 12:00 PM
To: Eichinger, Kevin <Eichinger.Kevin@epa.gov>
Subject: FW: L&R Oil Sample Results

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To: Prys, Paul <Paul.Prys@tetratech.com>; pmasoudi@aesatlanta.com
Subject: RE: L&R Oil Sample Results

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Jessica A. Vickers | USEPA Region 4 START IV QA Manager/Senior Chemist
Direct: 662.681.5727
jessica.vickers@tetratech.com

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Let me know if you need anything else.

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Pressley, Miriam

From: Eichinger, Kevin
Sent: Tuesday, December 11, 2018 8:24 AM
To: Adams, Glenn
Cc: Moore, Tony
Subject: FW: L&R Oil Sample Results
Attachments: 1811J25_REPORT.pdf

Glenn,

Can you have one of your staff take a look at the sediment sampling results starting on Page 35 of the attached and let me know if an action would be warranted? This was an emergency response where PCB oil was spilled and impacted the storm drain system. We conducted sediment sampling in an unnamed tributary where the storm system daylights.

The sample IDs are:
LOR-SD01-112018 & LOR-SD01-112018-DUP – Sediment from the upstream side of the site
LOR-SD02-112018 - Sediment from the downstream side of the site.

Account information: DE9.2019.T.04D.000DC6.C466RV00

Thanks,
Kevin

From: Prys, Paul
Sent: Friday, November 30, 2018 12:00 PM
To: 'eichinger.kevin@epa.gov' <eichinger.kevin@epa.gov>
Subject: FW: L&R Oil Sample Results

Kevin,

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To: Prys, Paul <Paul.Prys@tetratech.com>; pmasoudi@aesatlanta.com
Subject: RE: L&R Oil Sample Results

Paul – these came in yesterday. I didn't notice that you were not copied.

Paris – I still have not received the EDD.

Jessica A. Vickers | USEPA Region 4 START IV QA Manager/Senior Chemist
Direct: 662 681 5727
jessica.vickers@tetratech.com

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Tetra Tech EM Inc | www.tetratech.com | NASDAQ:TTEK
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Think Green - Not every email needs to be printed

From: Prys, Paul
Sent: Friday, November 30, 2018 10:24 AM
To: pmasoudi@aesatlanta.com
Cc: Vickers, Jessica <jessica.vickers@tetratech.com>
Subject: L&R Oil Sample Results

Paris,

I delivered 11 sets of samples to you guys on 11/20/18 for a 5-day TAT and haven't seen the sample results yet. Our project # is 103X902701101.011F. Could you please update me on the status of these results? My client is asking for an update.

Paul Prys | Senior Environmental Scientist/Project Manager
Direct: 678.775.3106 | Cell: 404.849.7136 | Fax: 678.775.3138
paul.prys@tetratech.com

Tetra Tech | Atlanta Office
1955 Evergreen Blvd. Bldg. 200, Ste. 300, Duluth, GA 30096 www.tetratech.com | NASDAQ:TTEK

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Pressley, Miriam

From: Webster, James
Sent: Thursday, January 17, 2019 9:10 AM
To: Eichinger, Kevin
Subject: FW: L&R Oil

fyi

From: Webster, James
Sent: Thursday, January 17, 2019 9:10 AM
To: Johnson, Dora Ann <Johnson.Dora@epa.gov>
Subject: L&R Oil

Dora,
Can ER check to determine whether rental cost for roll offs was accounted as a pending on 1900s? If so, how long into the future does the pending cover? If not, where are we on site ceiling as we were less that $2K with a daily burn rate of about $150. Need to know if we should propose moving this to a Tier 1 in order to get some funding on it.

jim

Pressley, Miriam

From: Eichinger, Kevin
Sent: Tuesday, July 2, 2019 9:05 AM
To: bates.lloyd@epa.gov; Johnson, Dora Ann
Subject: FW: L&R Oil,

Can I get the POP for L&R Oil moved to 10/1/2019? I had issues with waste disposal.

Kevin

-----Original Message-----
From: Paul Pilgrim <p.pilgrim@erllc.com>
Sent: Monday, July 1, 2019 1:16 PM
To: Eichinger, Kevin <Eichinger.Kevin@epa.gov>
Subject: L&R Oil,

Hi Kevin, I am sure you are aware of the TO ending on 07/31/19. That said, I don't forsee this project being closed out by then. You may want to do a modification. Just a suggestion.

Paul A. Pilgrim
Response Manager
Environmental Restoration, LLC
6940 Commercial Drive
Morrow, GA 30260
770.961.9272 - Office
615.498.4223 - Cellular
p.pilgrim@erllc.com

Sent from my Sprint Samsung Galaxy Note8.

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Pressley, Miriam

From: Taylor, Matt
Sent: Wednesday, May 29, 2019 3:35 PM
To: Crownover, Becki
Cc: Patel, Subash; Eichinger, Kevin
Subject: FW: L_and_R_Oil_Recovery_RSE_Memo_05292019.DOCX
Attachments: L_and_R_Oil_Recovery_RSE_Memo_05292019.DOCX

Becki,

Can you prepare this RSE Polrep for Jim's concurrence and prepare a State transmittal letter to NCDEQ informing them it's a NFA.

From: Eichinger, Kevin
Sent: Wednesday, May 29, 2019 10:42 AM
To: Taylor, Matt <Taylor.Matt@epa.gov>; Patel, Subash <Patel.Subash@epa.gov>
Subject: L_and_R_Oil_Recovery_RSE_Memo_05292019.DOCX

Attached is the draft RSE for the L&R Oil site for your review.

Kevin

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
L and R Oil Recovery
Removal Site Evaluation Pollution Report (POLREP)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region IV

Subject: POLREP
Removal Site Evaluation
L and R Oil Recovery
501 Ruth Street, Shelby, North Carolina

Latitude: 35.29957
Longitude: -81.5287140

From: Kevin Eichinger, On-Scene Coordinator
Thru: Matt Taylor, Removal Operations Section
To: James W. Webster, Ph.D., ERRPB
Date: May 29, 2019
Reporting Period: 4/11/2019 – 4/12/2019

1. Introduction

Site Number: C466
Response Authority: CERCLA
Response Type: Time-Critical
Response Lead: EPA
Incident Category: Removal Assessment
NPL Status: Non NPL

1.1 Site Description

The L&R Oil Recovery Site (the Site) is a 1.14-acre facility which originally operated as an oil trans-load business. The Site most recently operated as a used oil and used oil filter recovery center. The Site consists of a 6,500 square foot single-story building and a two-bay covered loading rack. The used oil was stored onsite in tankers and then transported to a used oil recycling facility. The oil filters were drained into containers inside the building and then stored for disposal in a covered roll-off dumpster. Multiple intermediate bulk containers (IBC) and 55-gallon drums were also stored inside and outside the building. There are seven 20,000-gallon underground storage tanks (UST) on the property. The Potentially Responsible Party (PRP) reported that three of the USTs contain an unknown amount of diesel fuel and water. There was also one 6,500-gallon tanker that is used as an above ground storage tank (AST). One oil recovery truck is stored in the loading rack. The Site is located directly adjacent to a residential community. The Site is fenced; however, there is evidence of trespassing and vandalism.

1.2 Preliminary Removal Assessment/Removal Site Inspection Results

On September 14, 2018, the North Carolina Department of Environmental Quality (NCDEQ), the City of Shelby and Cleveland County officials responded to an emergency request reporting an approximately 3,000-gallon spill of oil. A 6,500-gallon tanker, used to store used oil, discharged its contents into the building via a connected hose placed through a window. The oil filled the entire building and ran out into the property and onto Ruth Street. The Site experienced rain from the Hurricane Florence outer rain bands. A nearby storm drain, and several sections of the sanitary sewer system were impacted by the spill. The storm drains lead to Hickory Creek which is a tributary of the Broad River. One residential property was impacted by the spill. Two samples of oil, spilled from the 6,500-gallon tanker, were obtained and sent offsite for analytical testing. The analytical results indicated that the spilled oil contained Polychlorinated Biphenyls (PCBs) (Aroclor 1242) at concentrations of 20.9 ppm and 18.3 ppm.

During the week of September 18, 2018, additional 55-gallon drums, intermediate bulk containers (IBC) and an additional leaking tanker containing hazardous substances were discovered on site. Samples were collected and sent to a laboratory for analysis.

The tanker held approximately 6,750 gallons of used oil and was contaminated with the following hazardous substances:

1. PCB (Aroclor 1242) - 38,000 ppm
2. PCB (Aroclor 1254) - 4,100 ppm
3. PCB (Aroclor 1260) - 2,000 ppm
4. Ethylbenzene - 34 ppm
5. Xylenes - 181 ppm
6. Tetrachloroethane - 61 ppm
7. Toluene - 100 ppm
8. Lead - 7 ppm

There were 48 IBCs and 57 55-gallon drums that were unsecured. Samples results indicated that these containers were contaminated with the following hazardous substances in varying concentrations:

1. Benzene
2. Cyclohexane
3. Ethylbenzene
4. Xylenes
5. Methylcyclohexane
6. Toluene
7. Lead
8. 2-Methylnaphthalene
9. Naphthalene
10. Isopropylbenzene
11. Tetrachloroethene

1.3 Site Location

The address of the facility is 501 Ruth Street, Shelby, Cleveland County, North Carolina. The geographical coordinates are 35.29957, -81.5287140. The Site is located within the City of Shelby

and residential homes are directly adjacent to the facility. Storm drains outside of the Site connect directly to Hickory Creek which a tributary of the Broad River.

2. Removal Site Evaluation (RSE)

On September 17, 2018, the NCDEQ formally referred the Site to the Region 4 EPA's Emergency Response, Removal and Prevention Branch for Time-Critical Removal Action consideration. The facility is located near residential structures, and the PRP does not have the funding available to perform the necessary remedial actions needed to prevent further environmental harm, or to remove the waste oil contaminated with PCBs. Substantial remediation of the Site may be necessary as oil may have contaminated the soil underneath the building pad and there is a concern that historical contamination has occurred.

A Removal Site Evaluation was conducted between March 11, 2019 and April 12, 2019 to determine if PCBs and other Hazardous Substances were released from improper storage and processing of the used oil to the Site or to the surrounding residential community. The PCB concentrations in the used oil spill and stored on-site exceeds the PCB Removal RMLs. Releases of other hazardous substances such as industrial based solvent, semi-volatile organic compounds (SVOC) and volatile organic compounds (VOC) may have occurred from past recycling activities. There are residential receptors surrounding and down gradient from the Site.

Composite soil samples from the front yard and backyard of the residential properties were collected to a depth of twelve inches. In general, the composite sampling consisted of five (5) aliquots. The residential yards where the sampling occurred were:

- 602 Ruth Street
- 604 Ruth Street
- 606 Ruth Street
- 618 Douglas Street
- 700 Douglas Street
- 702 Douglas Street
- 704 Douglas Street
- 706 Douglas Street (Vacant Lot)
- 710 Douglas Street
- Parcel No. 63001 (Strip of land adjacent to the Site, no street address assigned)

The Site was divided up into use areas and combination of composite and discrete soil samples were obtained. In general, the composite sampling consisted of five (5) aliquots. The use areas where the sampling occurred were:

- Southwest portion of the Site
- Northwest portion of the Site
- Southeast portion of the Site
- Southern portion of the Site
- Tote Storage Area
- UST Area
- Under the building concrete slab front office area
- Under the building concrete slab near Storage Bays 1 and 2

Discrete sediment samples were taken along the stormwater drainage pathway from the Site. The samples were collected in the unnamed tributary on the east side of 420 Airline Avenue and in Hickory Creek downstream from the confluence of the unnamed tributary.

The residential and sediment samples were analyzed for PCBs. Sample taken on Site were analyzed for VOC, SVOC, PCB and Resource Conservation and Recovery Act (RCRA) Metals. All samples were analyzed using SW-846 Test Method 8082a at a START-contracted laboratory using standard turn-around time and a Level 4 data package.

3. Recommendation

The RSE was conducted to identify conditions that would trigger a removal action by the EPA to eliminate or minimize potential threats to human health or the environment. The facility is no longer in operation and the EPA has conducted an extensive emergency action to address the hazardous substances stored in containers and tanks on Site.

For this evaluation, the maximum detected RCRA Metals, PCB, VOC and SVOC concentrations were compared to EPA Residential and Industrial Removal Management Levels (RML). The maximum detected concentrations of PCB, VOC and SVOC did not exceed the Residential RMLs. One sample collected on Site did exceed the Residential RMLs for RCRA Metals. The sample exceeded the Residential Chromium RML by 12.1 mg/kg. The sample did not exceed the Industrial Chromium RML.

Data collected from this RSE does not support evidence of a residential health risk to the property owner or surrounding residential properties. Sample results were evaluated by the Superfund Scientific Support Section and they concurred with this assessment.

Based on current Site conditions and findings of this investigation, it is recommended that no further action be taken at this time. As provided in 40 CFR Part 300.410(f)(1) and 40 CFR Part 300.410(f)(7), the OSC is recommending the Removal Site Evaluation be terminated.

CONCUR: _____ DATE: _____
James W. Webster, Ph.D., Chief, ERRPPB

NON-CONCUR: _____ DATE: _____
James W. Webster, Ph.D., Chief, ERRPPB

Pressley, Miriam

From: Crownover, Becki
Sent: Wednesday, June 19, 2019 12:23 PM
To: Eichinger, Kevin; Patel, Subash; Taylor, Matt
Cc: Crownover, Becki
Subject: FW: L_and_R_Oil_Recovery_RSE_Memo_05292019.DOCX
Attachments: Generic NFA Letter for NC.doc; L_and_R_Oil_Recovery_RSE_Memo_05292019_Becki Edits 5-31-19.DOCX

This is from a couple of weeks ago. I don't believe I ever received these back after Webster signed so I could mail to the State.

Matt, do you have a hardcopy of this? Subash/Kevin, please look to see if I sent you a SIGNED electronic copy.

It could be that Webster just forgot to place back on my desk....

From: Crownover, Becki
Sent: Friday, May 31, 2019 3:05 PM
To: Taylor, Matt <Taylor.Matt@epa.gov>
Cc: Patel, Subash <Patel.Subash@epa.gov>; Eichinger, Kevin <Eichinger.Kevin@epa.gov>; Crownover, Becki <Crownover.Rebecca@epa.gov>
Subject: RE: L_and_R_Oil_Recovery_RSE_Memo_05292019.DOCX

These are ready for Jim W. to concur/sign. If no rush, I'll print them out next Tuesday.

Thanks, Becki

From: Taylor, Matt
Sent: Wednesday, May 29, 2019 3:35 PM
To: Crownover, Becki <Crownover.Rebecca@epa.gov>
Cc: Patel, Subash <Patel.Subash@epa.gov>; Eichinger, Kevin <Eichinger.Kevin@epa.gov>
Subject: FW: L_and_R_Oil_Recovery_RSE_Memo_05292019.DOCX

Becki,

Can you prepare this RSE Polrep for Jim's concurrence and prepare a State transmittal letter to NCDEQ informing them it's a NFA.

From: Eichinger, Kevin
Sent: Wednesday, May 29, 2019 10:42 AM
To: Taylor, Matt <Taylor.Matt@epa.gov>; Patel, Subash <Patel.Subash@epa.gov>
Subject: L_and_R_Oil_Recovery_RSE_Memo_05292019.DOCX

Attached is the draft RSE for the L&R Oil site for your review.

Kevin

Mr. Jim Bateson
Division of Waste Management
NC Department of Environmental Quality
1646 Mail Service Center
Raleigh, NC 27699-1646

Subject: L&R Oil Recovery Site
Shelby, Cleveland County, North Carolina

Dear Mr. Bateson:

The U.S. Environmental Protection Agency's Emergency Response, Removal, Prevention, and Preparedness Branch (ERRPPB) conducted a Removal Site Evaluation (RSE) at the above referenced Site for potential removal action eligibility under the *National Oil and Hazardous Substances Pollution Contingency Plan* (NCP).

Based on the information collected during the RSE, the On-Scene Coordinator (OSC) recommends this Site be given a **no further action** for removal eligibility under the EPA's Superfund Removal Program (see enclosed RSE memo).

This determination does not preclude any other investigation or response action by other parties which may still be appropriate for this Site. Should Site conditions change or additional information become available, ERRPPB will re-evaluate this Site as necessary.

Should you have any questions concerning ERRPPB's determination, please contact Kevin Eichinger, OSC, at (404) 562-8268, or Matt Taylor, Chief of Removal Operations Section, at (404) 562-8759.

Sincerely,

James W. Webster, Ph.D., Chief
Emergency Response, Removal, Prevention, and
Preparedness Branch

Enclosure

cc: Randall Chaffins
James Webster
Matt Taylor
Tony Moore
Subash Patel
Kevin Eichinger
Ron Saskowski
Tina Terrell
Meredith Clark
Rachel McCullough
Greg Armstrong

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
L&R Oil Recovery Site
Removal Site Evaluation Pollution Report (POLREP)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region IV

Subject: POLREP
Removal Site Evaluation
L&R Oil Recovery Site
501 Ruth Street, Shelby, North Carolina

Latitude: 35.29957
Longitude: -81.5287140

From: Kevin Eichinger, On-Scene Coordinator
Thru: Matt Taylor, Removal Operations Section
To: James W. Webster, Ph.D., ERRPPB
Date: May 29, 2019
Reporting Period: 4/11/2019 – 4/12/2019

1. Introduction

Site Number: C466
Response Authority: CERCLA
Response Type: Time-Critical
Response Lead: EPA
Incident Category: Removal Assessment
NPL Status: Non NPL

1.1 Site Description

The L&R Oil Recovery Site (the Site) is a 1.14-acre facility which originally operated as an oil trans-load business. The Site most recently operated as a used oil and used oil filter recovery center. The Site consists of a 6,500 square foot single-story building and a two-bay covered loading rack. The used oil was stored on-site in tankers and then transported to a used oil recycling facility. The oil filters were drained into containers inside the building and then stored for disposal in a covered roll-off dumpster. Multiple intermediate bulk containers (IBC) and 55-gallon drums were also stored inside and outside the building. There are seven 20,000-gallon underground storage tanks (UST) on the property. The Potentially Responsible Party (PRP) reported that three of the USTs contain an unknown amount of diesel fuel and water. There was also one 6,500-gallon tanker that is used as an above ground storage tank (AST). One oil recovery truck is stored in the loading rack. The Site is located directly adjacent to a residential community. The Site is fenced; however, there is evidence of trespassing and vandalism.

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and residential homes are directly adjacent to the facility. Storm drains outside of the Site connect directly to Hickory Creek which is a tributary of the Broad River.

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For this evaluation, the maximum detected RCRA Metals, PCB, VOC and SVOC concentrations were compared to EPA Residential and Industrial RMLs. The maximum detected concentrations of PCB, VOC and SVOC did not exceed the Residential RMLs. One sample collected on-site did exceed the Residential RMLs for RCRA Metals. The sample exceeded the Residential Chromium RML by 12.1 mg/kg. The sample did not exceed the Industrial Chromium RML.

Data collected from this RSE does not support evidence of a residential health risk to the property owner or surrounding residential properties. Sample results were evaluated by the Superfund Scientific Support Section, and they concurred with this assessment.

Based on current Site conditions and findings of this investigation, it is recommended that no further action be taken at this time. As provided in 40 CFR Part 300.410(f)(1) and 40 CFR Part 300.410(f)(7), the OSC is recommending the RSE be terminated.

CONCUR: _____ DATE: _____
James W. Webster, Ph.D., Chief, ERRPPB

NON-CONCUR: _____ DATE: _____
James W. Webster, Ph.D., Chief, ERRPPB

Pressley, Miriam

From: Ken Braig <k.braig@erllc.com>
Sent: Tuesday, May 7, 2019 1:50 PM
To: Eichinger, Kevin
Subject: FW: L4-526 Bulk UST Waste--Profile & PCB Cert
Attachments: ATT00001.txt; TRADEBE PROFILE.xls; PCB Certification-Tradebe.xls

Waste profile and PCB cert for your review and signature.

Ken Braig
Response Manager
Environmental Restoration, LLC
1666 Fabic Drive
Fenton, MO 63026
636-485-0537 (mobile)
k.braig@erllc.com

From: Amy Riggott
Sent: Tuesday, May 07, 2019 12:18 PM
To: Ken Braig <k.braig@erllc.com>
Subject: L4-526 Bulk UST Waste--Profile & PCB Cert

Hi Ken,

Please have the OSC sign these 2 forms.

Thank you,
Amy

Amy Riggott
Environmental Restoration, LLC
110 Granby Street
Bloomfield, CT
Cell 860-778-4835
Fax 636-680-2593
a.riggott@erllc.com

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Pressley, Miriam

From: Ken Braig <k.braig@erllc.com>
Sent: Tuesday, December 11, 2018 2:58 PM
To: Eichinger, Kevin
Subject: FW: L4-526 T&D Non-haz Soil ---ok to award?
Attachments: ATT00001.txt; RFQ L4-526 TD PCB Soil and Debris 12-10-18 10AM ET.pdf; Bids recieved.pdf; BAW--NH Soil.xls

Kevin,
Attached are the bids and the Bid Analysis Worksheet for the soil disposal

#87
Print attachments

Ken Braig
Response Manager
Environmental Restoration, LLC
1666 Fabic Drive
Fenton, MO 63026
636-485-0537 (mobile)
k.braig@erllc.com

From: Amy Riggott
Sent: Tuesday, December 11, 2018 8:38 AM
To: Ken Braig <k.braig@erllc.com>
Cc: Mark Bicksler <m.bicksler@erllc.com>; Christina Strength <c.strength@erllc.com>
Subject: L4-526 T&D Non-haz Soil ---ok to award?

Hi Ken,

Please review. Can we award to AWMS?

Thank you,
Amy

Amy Riggott
Environmental Restoration, LLC
110 Granby Street
Bloomfield, CT
Cell 860-778-4835
Fax 636-680-2593
a.riggott@erllc.com

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Pressley, Miriam

From: Ken Braig <k.braig@erllc.com>
Sent: Monday, May 6, 2019 2:00 PM
To: Eichinger, Kevin
Subject: FW: L4-526 TD Bulk UST Waste --who to award?
Attachments: RFQ L4-526 TD Bulk UST Waste 5-6-19 10AM ET.pdf; Bids received.pdf; BAW.xls

Kevin,
These are the bids received for the UST waste, it looks like AWMS is low bid but it's not cheap. Additionally, Shamrock and Clean Mgt. were sent the RFQ but did not bid.

Ken Braig
Response Manager
Environmental Restoration, LLC
1666 Fabic Drive
Fenton, MO 63026
636-485-0537 (mobile)
k.braig@erllc.com

-----Original Message-----
From: Amy Riggott
Sent: Monday, May 06, 2019 10:36 AM
To: Ken Braig <k.braig@erllc.com>
Cc: Mark Bicksler <m.bicksler@erllc.com>; Christina Strength <c.strength@erllc.com>
Subject: L4-526 TD Bulk UST Waste --who to award?

Hi Ken,

Please review and let me know who you would like to award.

Thank you,
Amy

Your message is ready to be sent with the following file or link attachments:

RFQ L4-526 TD Bulk UST Waste 5-6-19 10AM ET.pdf

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled.

Confidentiality Warning: This e-mail and any attachments contain information intended only for the use of the individual or entity named above. If the reader of this e-mail is not the intended recipient or the employee or agent responsible for delivering it to the intended recipient, any dissemination, publication or copying of this e-mail is strictly prohibited. Although this email has been scanned for malware, the sender does not accept any responsibility for any loss, disruption or damage to your data or computer system that may occur while using data contained in, or transmitted with, this e-mail. If you have received this e-mail in error, please immediately notify by return e-mail. Thank you.

Environmental Restoration, LLC
ERRS Region 4
Job: L4-526
T&D Bulk UST Waste
Due: May 6, 2019 10AM Eastern Time

Request for Quotation

RFQ#: L4-526-10AR

T.O.#: 0526

Job #: L4-526

Date: 4/30/19

Site Name: L&R Oil Recovery Site

Location: Shelby, NC

Attachments: ☑ Yes ☐ No

Statement of Work

1.0 Scope of Work

Environmental Restoration LLC (ER) is the Emergency Rapid Response Service Contractor (ERRS) for Region 4 under Contract Number EP-S4-15-03. Environmental Restoration LLC (ER) has been tasked under Task Order Number 0526 to provide transportation and disposal of approximately 0 – 50,000 gallons of Bulk UST Waste from the L&R Oil Recovery Site located in Shelby, NC. The subcontractor will be required to provide disposal documentation described in section 1.4 of this RFQ.

Process: Waste found inside three UST tanks found onsite at EPA site clean-up abandoned oil facility.

Manifest Information
Mail to Address:
US EPA Region 4/ L&R Oil Recovery Site
61 Forsyth Street, S.W.
Atlanta, GA 30303
Attn: Kevin Eichinger – On Scene Coordinator

Site Address:
US EPA Region 4/ L&R Oil Recovery Site
501 Ruth Street
Shelby, NC 28150

County: Cleveland

EPA ID#: NCR000169185
Generator's Phone number: 678-897-3759
24-hour Emergency Phone #: 888-814-7477

1.1 Definitions

Site – US EPA Region 4/ L&R Oil Recovery Site
501 Ruth Street
Shelby, NC 28150

Generator/EPA - US EPA Region 4/ L&R Oil Recovery Site

Prime Contractor – Environmental Restoration LLC (ER)

Subcontractor – Successful bidder who will perform the scope of work as defined and required by this RFQ and attachments

Tiered Subcontractor – Any Subcontractor that has been hired by the Subcontractor to help perform the scope of work required

ERRS -Emergency and Rapid Response Service Contract

TSDF – Treatment, Storage and Disposal Facility

1.1. Safety

The subcontractor's personnel and equipment shall comply with all safety requirements set forth in applicable State, Federal and local laws and regulations. The subcontractor shall ensure that its employees perform the work in a safe manner. On-site subcontractor personnel, if necessary, shall meet the requirements of 40CFR1910.120. All equipment utilized shall be provided with all appropriate safety features in good working condition.

1.2 Work Hours

All on-site work shall occur between the hours of 7:00AM and 5:00PM Monday through Thursday. Other work hours are at the discretion of the ER Response Manager.

Period of Performance: May 6, 2019 – July 1, 2019

1.3 Transportation

Transportation of the waste materials will be executed by the subcontractor. Transporters shall have all required EPA and State, identification numbers to transport the materials. The transporter must show proof on demand of all proper licenses and insurance coverages. Transporter shall submit a copy of his insurance certificate with the attached bid pricing. ER will load the truck per the subcontractor/driver's specification to maximize load quantities.

- Demurrage - ER requires 3 free hours loading time per truck load.
- The Bulk UST Waste will be pumped from 3 onsite USTs and will require a vacuum truck and an operator.
- The site is tractor trailer accessible. ER is requesting 100 feet of 3" hose or 2" hose.
- A stinger no larger than 2" diameter that is 13' long to reach the bottom of the tanks.
- The tanker will be scheduled per the onsite Response Manager.
- ER can load two tanker loads per day (based on a 5000-gallon truck capacity/tanker).

1.3.1 Project Specific Requirements

Environmental Restoration LLC (ER) shall require the subcontractor to provide the following;
Provide the capability to ship, at a minimum, 10,000 gallons of waste off-site each 8-hour work day, actual quantity shipped per day maybe greater or less. The transporter will be responsible for the truck placards.

1.4 Disposal

The minimum requirements for any TSDF utilized shall include current approved CERCLA status and shall be in good standing with any governing regulatory agency. The CERCLA off site approval must be in place prior to commencing

work. The subcontractor shall provide the name the TSDF's proposed for usage under this RFQ prior to commencing any work. Subcontractor cannot change the location identified without prior written approval from ER.

The waste will be managed as: **UN1993, Waste Flammable Liquid, N.O.S., (Toluene, Xylene), 3, PGII**
Codes: D001
RQ: D001

Per the EPA, no F-codes will be carried.
EPA does not know what processes, if any, were used in generating this waste.

The DOT name can be changed based upon facility preference/permits.

The subcontractor shall provide written documentation needed to complete documentation of the final disposition this waste stream. This information includes but not limited too; date of waste acceptance and final disposal, final disposal methods, and location of TSDF. This information along with the manifest/bill of lading shall be submitted to the ER Response Manager within 10 days of disposal, and submittal of this information shall accompany an invoice for services. Invoices will not be processed for payment until all above-mentioned documents are received by the Response Manager. Certificates of Disposal from the final disposal destination must be submitted to the Response Manager no later 30 days after date of shipment.

1.4.1 Preparing of profiles/manifests/bill of ladings

The disposal firm shall provide to ER completed profile(s), and a fully completed, preprinted manifest(s) as required.

1.4.2 Analytical Data (Attachment C)

Analytical data has been run for this waste stream. Please see Attachment C.
If additional analytical is required by the subcontractor/TSDF, please list those parameters and frequency with the bid on the schedule of pricing-Attachment A.

The Client Sample ID# represent this waste are the following: **LRUST-1-2-3**

Off-Specification of Waste Stream(s)

If a waste stream is discovered upon delivery to the TSDF to be off-specification [non-conforming], ER must be notified within 24 hours of the waste stream arriving at the designated TSDF. This notification must include the following;

- -copy of the representative analysis used to determine the off-spec
- -photos of the waste stream being sampled
- -a formal off specification [non-conforming] form indicating the original price quoted and the new proposed price per unit

Off specification costs will be reviewed by the ER Response Manager or his designate, to determine if additional costs will be allowed for the associated off-spec material. If this requirement is not met, off spec charges will not be allowed.

2.0 Terms and Conditions (Attachment B)

The Attachment B to this RFQ is an ER purchase order with standard terms and conditions, and government required reps and certs. These flowdown clauses will be required to be executed prior to commencing any on-site work by subcontractor. This RFQ and reps and certs shall be incorporated into the purchase order upon execution and shall

constitute the entire agreement between ER and subcontractor. Terms are NET 60 days. We are NOT Tax Exempt. Sales tax must be charged on all procurement as per state and federal laws. Invoice issues and corrections must be settled within 60 days of the service date. ER is not responsible for outstanding invoice balances not finalized within that time frame. ER is not responsible for invoices presented after 60 days of the service date unless written approval is given by ER. Lien Waivers: Will be required from all subcontractors utilizing tiered subcontractors to perform their work to complete the SOW.

Pricing is required to be effective until July 1, 2019.

2.1 Wage Determination

All work performed at the Site shall fall under the Service Contract Act [SCA] / Davis Bacon [DBA] wage determination. All subcontractor personnel working on-site shall be paid per this wage determination for all on-site work performed meeting the appropriate labor occupational code. This wage determination is included as Attachment C. Form 1413 is included for review. The successful bidder will be required to sign the completed Form 1413 before any on-site work can start.

Successful bidder will be required to provide proof of payment to employees via weekly certified payroll records. The form to be completed is provided in Attachment C. Records are to be submitted to the ER email CPDROPBOX@ERLLC.COM on a weekly basis. Failure to submit accurate certified payroll will result in payment being withheld.

2.2 Bonding

Performance Bond: Not required for this procurement at this time

Payment Bond: Not required for this procurement at this time

2.3 Bid Submittal and Questions

Bids and questions can be either emailed or faxed to the following contact individual/s as required. Please be advised it is the subcontractors' responsibility to ensure that question/s, if any, and bids are received-ER assumes no responsibility for lost, mis-communicated, and/or mis-mailed bid documents.

Technical Questions to: Ken Braig CELL 636-485-0537 K.BRAIG@ERLLC.COM
Questions Due 24 hours Prior to Bid Due Date/Time

Submit Responses to: Janice Rick, Purchasing Manager 636-680-2416
E-mail: **RFQ@ERLLC.COM**
Fax: **636-680-2477**

Bid Due Date: **Monday, May 6, 2019 at 10AM ET**
Bids received after this date may be considered non-responsive.

Bid Submittal Documents:

- ☑ Completed & Signed Attachment A - Schedule of Pricing
- ☑ Completed Attachment B including W-9 and Business Class Certification
- ☑ Insurance Certificate from Subcontractor and all Tiered Subcontractors

We are not tax exempt. Sales tax must be charged on all procurement as per state and federal laws. By submission of bid. All invoices MUST clearly show the ER Job Code and PO Number to be processed for payment.

By submission of bid, Subcontractor acknowledges that it has read, understands and agrees to all terms and conditions contained within this RFQ. Additionally, Subcontractor agrees to comply with all terms and conditions contained in this RFQ. ER terms and conditions will hold precedence over any subcontractor terms and conditions.

2.3 Insurance

Subcontractor and Tiered Subcontractor Insurance Requirements:
SUBCONTRACTOR agrees to provide and maintain at its own expense, insurance covering the Work and all liabilities assumed under the Agreement and to furnish certificates of insurance from its insurance carrier, showing that SUBCONTRACTOR carries insurance in the following minimum limits:

(a) Required insurance for all scopes of work:

(i) Worker's Compensation, including coverage under United States Longshoremen's and Harbor Worker's Act where applicable, at the statutory limits for the state or states in which the Work is to be performed. Employer's Liability insurance in the amount of $1,000,000.

(ii) Commercial General Liability insurance in the amount of $1,000,000 combined single limit for bodily injury and property damage, including product liability, completed operations, independent contractors, contractual liability and, where applicable, coverage for damage caused by blasting, collapse or structural injury and/or damage to underground utilities.

(iii) Automobile Public Liability in the amount of $1,000,000 per occurrence for bodily injury and property damage, including owned, rented and hired automobiles.

(b) Required insurance for specialized scope(s) of work:

(i) Should any of the work involve **investigation, removal or remedial** action concerning the actual or threatened escape of hazardous substances, subcontractor shall also carry Contractors Pollution Liability Insurance in an amount not less than $2,000,000 per occurrence/annual aggregate. Such insurance shall be written on an occurrence basis with no sunset clause and provide coverage for both sudden and gradual occurrences arising from the work performed under this agreement. If Completed Operations is limited in the policy, such Completed Operation Coverage shall be for a period of not less than three (3) years. Such insurance shall name ER and ER's client, specified in each Purchase Order, and their subsidiaries and affiliates as Additional Insureds.

All such policies shall be in form and with insurance carriers acceptable to ER. SUBCONTRACTOR will cause ER and ER's Client, US EPA, to be designated as additional insured on all policies, except for Professional Liability, stating coverage is primary and non-contributory with any other insurance or self-insurance available to any additional insured and shall include a waiver of subrogation in favor of ER and ER's Client. SUBCONTRACTOR must provide ER with thirty (30) days prior written notice of cancellation or material change before cancellation or material change in the policy will be effective. The requirements contained herein as to types and limits, as well as ER's approval of insurance do not establish a limit of subcontractor's liability hereunder.

3.0 Subcontract Award

Bidders should note this is an EPA time-critical removal project and that bidder availability to commence services will be considered during the evaluation process. Be advised, this RFQ does not guarantee the work will be performed and

makes no guarantee on quantities to be furnished and delivered. Actual quantities may be greater than or less than the quantity specified in the Scope of Work. The quantity estimated and utilized in this RFQ is based on the estimated quantity of material to be removed from the Site.

Environmental Restoration LLC (ER) reserves the right, without qualification, to accept or reject any and all quotations, to award a subcontract as a result of this RFQ, and to request additional clarifying information either through written information or through conferences with bidders.

3.1 Basis for Award

Award will be made to the bidder with the "best value" listed on the schedule of pricing when considering factors of total cost, terms, conditions, for each Bid Item, compliance status of TSDF, approval period and additional analytical requirements, ability to remove the material from the site, and business classification. All quotations should be submitted with the most favorable pricing and with all bid item requests completed on the schedule of pricing.

4.0 Measurement, Payment and Description of Bid Items

The bid items on the Schedule of Pricing reflect the actual payment for all labor, equipment, materials and appurtenances necessary to complete the designated scope of work as listed in this RFQ. Payment will be made for each bid item based on the actual number of tons shipped from the site for disposal based on certified scale tickets per manifested load removed from the Site, or minimum tonnage per load, if applicable.

Bid Item 1.0 – Disposal of Bulk UST Waste
Disposal cost per gallon including all taxes and fees, including all fuel surcharges and environmental fees to dispose of 0 - 50,000 gallons of Bulk UST Waste.

Waste stream is 5-10% oil and 90-95% aqueous.

Bid Item 2.0 – Transportation of Bulk UST Waste
Transportation cost per load including all taxes and fees, including the vacuum operator, including all fuel surcharges and environmental fees to transport of 0 - 50,000 gallons of Bulk UST Waste.

It is estimated 10 loads based on 50,000-gallon tankers being used.

Bid Item 3.0 – Demurrage per Hour
Demurrage per hour, including all taxes and fees, including all fuel surcharges and environmental fees after 3 hours free hours of loading per tanker load. Demurrage - ER is requesting 3 hours free loading. No demurrage can be charged for off-loading at the facility. This is out of ER's control and we will not pay for this demurrage.

Bid Item 4.0 – TSDF Location / Approval Period / Other Information
Please provide the TSDF location/final disposal site for the waste materials listed in Bid Item 1.0. List any approval period once the sample data is received and other information. Include any additional items or charges that maybe required by subcontractor. Include current or past environmental compliance information of the proposed TSDF/s if available to expedite compliance verification.

Bid Item 5.0 – Business Classification. The subcontractor shall check all applicable business classifications that the subcontractor certifies are applicable to the subcontractor's business. More than one classification can be checked if applicable. Failure to provide information may deem bid as non-responsive.

Bid Item 6.0 – Acknowledgement and DOT Information

ENVIRONMENTAL ER RESTORATION

Environmental Restoration, LLC
ERRS Region 4
Job: L4-526
T&D Bulk UST Waste
Due: May 6, 2019 10AM Eastern Time

Request for Quotation

Bidding Vendor: _____

Attachment A
Schedule of Pricing

Item	Description	$ Per Unit	Total Price
1.0	**Bid Item 1.0 – Disposal of Bulk UST Waste** Disposal cost per gallon including all taxes and fees, including all fuel surcharges and environmental fees to dispose of 0 - 50,000 gallons of Bulk UST Waste. Gallon Size tanker being used: _____ g Minimum # of gallons ERLLC will be charged for per tanker?	**$_____/gallon X 50,000 gallons =** **_____gallons**	**$_____**
2.0	**Bid Item 2.0 – Transportation of Bulk UST Waste** Transportation cost per load including all taxes and fees, including the vacuum operator, including all fuel surcharges and environmental fees to transport of 0 - 50,000 gallons of Bulk UST Waste.	**$_____/load X** **10 loads =**	**$_____**
3.0	**Demurrage per Hour** Demurrage per hour, including all taxes and fees, including all fuel surcharges and environmental fees after 3 hours free hours of loading per tanker load. Demurrage - ER is requesting 3 hours free loading.	**$ _____/hour x 10 hours=**	**$ _____**
		Grand Total $ _____	

4.0 Need to complete this data for all TSDF(s) proposed- [attach additional sheets as necessary]
TSDF Name: _____
Address: _____
Phone: _____ County: _____
EPA and/or State ID#: _____
Profile/Waste Approval Period: _____
Additional Information: (i.e., any additional analysis requirements to obtain approval, including testing criteria, and frequency)

Is additional analytical required? _____
If so, what exact testing is needed?
_____

5.0	Business Classification: (Check all that apply)	Large Business ☐ Small Business ☐ 8(a) Business ☐ Woman Owned Small Business ☐ Small Disadvantage Business ☐ Certified HUBZone Business ☐ Service Disabled Veterans Small Business ☐
6.0	Acknowledgment and DOT Information	

ENVIRONMENTAL ER RESTORATION

Environmental Restoration, LLC
ERRS Region 4
Job: L4-526
T&D Bulk UST Waste
Due: May 6, 2019 10AM Eastern Time

Request for Quotation

Can bidder meet all requirements, specifications, schedule and loads per day criteria within this RFQ?
___Yes ___ No If No: Clarify your schedule requirements when submitting your bid.
_____
_____
Will you be self-performing this transportation? ___Yes ___No
How many trucks do you own that could be available for this work? _____
How many trucks could be available to us at one time? _____
Please submit your DOT # _____
If you will be utilizing subcontractors for the transportation- please submit their DOT # and Legal Company Name / DOT#
_____ _____
_____ _____

Submitting Invoices to ER

When submitting your invoice(s), please provide the following information:
The invoice with the Job Code/PO # listed
Facility signed manifests/BOLs –complete chain until final facility
Certificates of Disposal from all facilities

No invoices will be processed for payment without this necessary information.

Please initial _____

Please refer to **RFQ# L4-526-10AR** regarding correspondence to your quotation. Any other information obtained for bidding purposes or provided herein will not be binding.

Company Name: _____ Date: _____

Submitted By: _____ Email: _____
[Signature]

Primary Contact: _____ Telephone: _____
[Print Name]

Secondary Contact: _____ Telephone: _____
[Print Name]

Attachment B
Insurance Requirements for Bidders Insurance Agent
and
Vendor Profile Package

RFQ Insurance Requirements for this RFQ
Please send this form to your insurance agents so they can send a correct Insurance Certificate

2.4 Insurance

Subcontractor and Tiered Subcontractor Insurance Requirements:
SUBCONTRACTOR agrees to provide and maintain at its own expense, insurance covering the Work and all liabilities assumed under the Agreement and to furnish certificates of insurance from its insurance carrier, showing that SUBCONTRACTOR carries insurance in the following minimum limits:

(a) Required insurance for all scopes of work:

(i) Worker's Compensation, including coverage under United States Longshoremen's and Harbor Worker's Act where applicable, at the statutory limits for the state or states in which the Work is to be performed. Employer's Liability insurance in the amount of $1,000,000.

(ii) Commercial General Liability insurance in the amount of $1,000,000 combined single limit for bodily injury and property damage, including product liability, completed operations, independent contractors, contractual liability and, where applicable, coverage for damage caused by blasting, collapse or structural injury and/or damage to underground utilities.

(iii) Automobile Public Liability in the amount of $1,000,000 per occurrence for bodily injury and property damage, including owned, rented and hired automobiles.

(b) Required insurance for specialized scope(s) of work:

(i) Should any of the work involve **investigation, removal or remedial** action concerning the actual or threatened escape of hazardous substances, subcontractor shall also carry Contractors Pollution Liability Insurance in an amount not less than $2,000,000 per occurrence/annual aggregate. Such insurance shall be written on an occurrence basis with no sunset clause and provide coverage for both sudden and gradual occurrences arising from the work performed under this agreement. If Completed Operations is limited in the policy, such Completed Operation Coverage shall be for a period of not less than three (3) years. Such insurance shall name ER and ER's client, specified in each Purchase Order, and their subsidiaries and affiliates as Additional Insureds.

All such policies shall be in form and with insurance carriers acceptable to ER. SUBCONTRACTOR will cause ER and ER's Client, US EPA, to be designated as additional insured on all policies, except for Professional Liability, stating coverage is primary and non-contributory with any other insurance or self-insurance available to any additional insured and shall include a waiver of subrogation in favor of ER and ER's Client. SUBCONTRACTOR must provide ER with thirty (30) days prior written notice of cancellation or material change before cancellation or material change in the policy will be effective. The requirements contained herein as to types and limits, as well as ER's approval of insurance do not establish a limit of subcontractor's liability hereunder.

TO: ALL VENDORS/SUPPLIERS OF ENVIRONMENTAL RESTORATION, LLC
FROM: ER PURCHASING DEPARTMENT
SUBJECT: CREDIT INFORMATION, TERMS AND CONDITIONS, FORMS AND INVOICE SUBMITTAL

The following information is provided to help your company establish an account with Environmental Restoration, LLC (ER), specify terms and conditions, ensure compliance with federal requirements and with our government contracts, if applicable, and to facilitate ER paying in a timely manner.

Credit Information

Attached is credit information for ER. Please use this information as necessary to establish an account between ER and your company.

Terms and Conditions

ER's established payment terms are NET 60 Days from receipt of an approved invoice. If a Request for Quote (RFQ) was done for the procurement, then the terms and conditions are stated in the RFQ. If no RFQ was issued, or terms and conditions were not discussed prior to award of a Purchase Order (PO)/subcontract, then the terms and conditions stated here are applicable. A sample PO is provided with ER's minimum terms and conditions. ER is not a tax exempt entity, vendor is responsible to report and pay all applicable sales tax or use tax as per state and federal laws.

Forms

W-9: ER is required to obtain a completed W-9 from vendors to meet federal IRS regulations. The W-9 Form is attached to collect this required information.

Business Classification: ER is required to obtain a completed business classification certification to meet federal regulations. The Business Classification Form is attached to collect this required information.

Flow-Downs and Reps & Certs: ER is a government contractor and under our government contracts certain clauses and certifications are required to meet our contract obligations. Attached are Contract Clauses [Flow-downs] and Representations & Certifications [Reps & Certs] applicable to vendors working under these contracts. Please complete the attached forms in their entirety and submit as required to ER purchasing.

Other/Site Specific: If additional forms are needed, the project will provide this information in the RFQ or in written correspondence to the vendor.

Invoice Submittal

We want to pay you! We want to pay per the terms agreed to with your company. To facilitate this process, each invoice MUST have the correct ER Job Code/PO # listed on the invoice to ensure its timely receipt and distribution to approving personnel. If an invoice does not have this information, it may cause a delay in processing your invoice in a timely manner. So please help ER by making sure every invoice has the correct ER Job Code/PO #. ER job personnel will provide that information either verbally or on written award documents.

We look forward to a long and prosperous relationship with every vendor.

Company:	Environmental Restoration, LLC	
Address:	1666 Fabick Drive, Fenton, MO 63026	
Phone / Fax:	636-227-7477 / 636-227-6447	
Organized In:	State of Missouri in December 1997	
Federal Taxpayer ID:	43-1799942 *Note: Environmental Restoration, LLC is NOT TAX EXEMPT*	
DUNS #:	00-819-8421	
Company Contacts / Owners:	Dennis Greaney, President Steve Wilhelm, CFO James Davis, Vice President Mark Ruck, Vice President Russ Gulledge, Vice President	
Purchasing / Office Contacts:	Janice Rick, Purchasing Manager (J.RICK@ERLLC.COM) Shar Reinhold, Accounting Manager (S.REINHOLD@ERLLC.COM)	
Bank Information:	PNC Bank 120 South Central, Clayton, MO 63105 Fax: 314-227-6624; Email: MANDY.FRITZ@PNC.COM Contact: Mandy Fritz; Account #: 4628435307	
Trade / Credit References:	Luby Equipment Phone: 636-343-7900; Fax: 636-343-4811 Contact: Lawrence Caliman LCALIMAN@LUBYEQUIPMENT.COM	Enterprise Holdings Phone: 314-506-4961; Fax: 800-503-7480 Contact: Scott Lanning SCOTT.R.LANNING@EHI.COM
	CNH Industrial Brand Phone: 800-501-5711; Fax: 717-355-1166 Contact: Customer Service NARETAILOPSDOCUMENTMANAGEMENT@CNHIND.COM *(Requests must be dated within 30 days of request & signed by ER)*	Bobcat of St. Louis Phone: 636-225-2900; Fax: 636-225-4344 Contact: Linda Gaugh LGAUGH@BOBCATOFSTL.COM
	Holiday Inn Express – Fenton MO Phone: 636-349-4444; Fax: 636-305-1234 Contact: Allen Schneider ALLENSCHNEIDER@GMAIL.COM	
Invoice Information:	When submitting your invoice(s), please note the following information: • ER job code / PO# must be on all invoices • Do not send ANY invoices to any office / RM / FCA • ALL invoices (1 copy ONLY) are to be mailed / submitted to: **Environmental Restoration, LLC** **Attention: AP Department** **1666 Fabick Drive** **Fenton, MO 63026** **OR** **APDROPBOX@ERLLC.COM** *Please help ensure the payment terms of the RFQ are maintained by following the guidelines above for timely invoice payment.*	

ENVIRONMENTAL ER RESTORATION

1666 FABICK DRIVE
ST. LOUIS, MISSOURI 63026
PHONE (636) 227-7477
FAX (636) 227-6447
www.erllc.com

Purchase Order
Date
PO#:

Vendor Information

SAMPLE PO

Contact:
Phone:
Fax:

Ship To:
Environmental Restoration

IMPORTANT INSTRUCTIONS

> PLEASE NOTE: Environmental Restoration, LLC is not a sales tax exempt company.
> All terms, conditions and instructions set forth in this transaction are stated on the face and reverse side of this Purchase Order.
> All invoices must show the Job Code/PO# to be processed for payment.
> Immediate or weekly invoicing is encouraged.
> All invoices will be approved by ER for all services/materials received by the project before payment will be made
>Terms start on date of an approved invoice
> ALL INVOICES MUST BE RECEIVED WITHIN 90 DAYS OF THE COMPLETION OF EACH DELIVERY TO BE VALID FOR PAYMENT.

Date	Requestor	Job Code	Cost Code			Terms: 60 Days	
ITEM	MATERIAL, SERVICE, DESCRIPTION OF WORK			QTY	UNIT	PRICE	AMOUNT
	Per RFQ #						
	Flow Downs Representaions and Certifications are part of the terms of this agreement and must be completed and signed to be valid.						
			Total		Not to Exceed		

Explanation/Justification:

For Environmental Restoration Use:

Vendor _____ _____

Date: _____ _____

Revised 01/02/14

TERMS & CONDITIONS - ENVIRONMENTAL RESTORATION, LLC

AS CONTRACTOR, WHEN DEFINED AS SUCH, ON FACE OF THIS ORDER TERMS AND CONDITIONS OF PURCHASE

1. DEFINITIONS: "Purchaser" is defined here in as ENVIRONMENTAL RESTORATION, LLC and "Seller" is defined as the person, firm or corporation to whom this order is issued. The word "Materials" means any materials, machinery, equipment, article, item or services provided for in this order.

2. ACCEPTANCE: This order, whether placed pursuant to Seller's quotation or otherwise, is placed only upon the express understanding that Seller's acceptance shall constitute acceptance of all of the terms and conditions specified herein. Any terms or conditions in Seller's quotation, acknowledgment, invoice or other forms which may add to, alter or differ from the terms and conditions specified herein shall not be considered as accepted by or binding upon Purchaser unless Purchaser expressly agrees to such terms or conditions in writing, nor shall such terms or conditions in any way operate to modify or change the full effect of the terms and conditions specified herein. This order shall be deemed accepted on the terms and conditions set forth herein by return of the enclosed acknowledgment copy, by return of Seller's invoice or by return of a separate written acknowledgment by Seller, (neither of which shall not alter, modify or amend any of the terms or conditions of this purchase order,) or by shipment of the materials with accompanying packing list or by performance of the work covered hereby, or by any combination of these events.

3. SHIPMENT: If upon receipt of this order or at any time thereafter it is found that the materials called for cannot be shipped (and/or the work called for cannot be completed) within the time specified in this order, advice must be given immediately to the Purchaser. 1666 Fabick Dr, St. Louis, MO 63026, by mail, fax or telegraph, of the best delivery (and/or completion date) possible. Failure to make shipment (and/or completion) on or before the date specified in this order shall entitle Purchaser at its option to cancel the order, without prejudice to any other rights Purchaser may have as a result thereof, provided that Purchaser's remedy shall be limited to cancellation of this order if Seller's failure to make delivery and/or to complete the order within the time specified is due to acts of God, fire, earthquake, flood, strike, acts of government or the public enemy, or other similar causes beyond Seller's control.

4. IMPROPER DELIVERY: Materials delivered in error will be returned at Seller's expense.

5. PACKAGING: All packing, boxing, crating or cartage, unless otherwise stated herein, shall be deemed to be included in the price of the materials provided for in this purchase order and no extra charge will be allowed therefore. Damage to any materials, not packed to insure proper protection will be charged to Seller.

6. PATENTS, COPYRIGHTS, TRADEMARKS AND TRADE SECRETS: The Seller shall defend at its expense and hold harmless Purchaser, its subsidiaries, agents, customers and users from any and all loss, damages or liability (including legal expense) for or on account of, or resulting from any claim of infringement of any existing or future patents, copyrights, or trademarks, or violation of any trade secrets, with respect to any of the items furnished under this Purchase Order. The fact that Purchaser furnishes specifications to Seller with respect to any of the items, shall neither relieve the Seller from its obligations hereunder nor limit the Seller's liability therefore, nor shall the same be deemed to constitute an undertaking by Purchaser to hold Seller harmless against any such claim which arises out of compliance with the specifications.

7. INSPECTION: All inspections and tests shall be made as required by the specifications issued by Purchaser, and copies of all test reports, test date, etc., in the number specified by the order shall be forwarded by Seller to Purchaser, at 1666 Fabick Dr, St. Louis, MO 63026. All materials purchased under this order shall be subject to inspection at the option of Purchaser, by Purchaser and/or Owner, at all reasonable times and places, both before, during and after manufacture, completion or delivery and Seller shall advise Purchaser ten days in advance, when the materials are ready for inspection. No such inspection, and no failure to inspect, shall relieve Seller of any responsibility or liability with respect to such materials nor be interpreted in any way to imply acceptance thereof by Purchaser, or imply waiver of any of the terms and conditions of this purchase.

8. WARRANTIES: All materials furnished by Seller pursuant to this order shall conform to the specifications, drawings, performance requirements operation standards, designs or other descriptions contained in this order or furnished Seller thereof, shall be merchantable, of new and good material and good workmanship, free from defect in design, workmanship and material, and fit for the purpose intended. If any materials furnished by Seller do not comply with the foregoing warranties, and each of them, Purchaser shall have, in addition to all other remedies given by law, the right, within 18 months from date of shipment or 12 months from date of completion of the plant, whichever is shorter, either before or after payment, to refuse or revoke acceptance, to require Seller to repair or replace the materials at Seller's sole cost and expense, or to replace or repair the materials at Seller's sole cost and expense. Purchaser shall not be deemed to have waived any rights by allowing or requiring Seller to cure a breach of warranty by repair or replacement of materials or by itself repairing or replacing materials. The foregoing shall also incur to the benefit of Owner. The foregoing warranties of merchantability and fitness for the purpose intended are in addition to and not in lieu of any express warranties extended by Seller.

9. SPECIFICATIONS: Purchaser reserves the right at any time to make changes in specifications, drawings, operating standards, performance requirements, designs or other descriptions contained in this order or otherwise supplied Seller therefore. If such changes cause Seller an increase or decrease either in cost or time of performing this order, then an equitable adjustment in price and/or delivery date shall be made and this order shall be modified in writing accordingly. Seller shall make no substitutions under this order except upon the specific written authority of Purchaser.

10. INDEMNIFICATION: Seller agrees to indemnify and hold Purchaser harmless from any and all claims and liability, including expenses, including but not limited to, legal fees and court costs, for injuries or death to persons or damage to or destruction of property caused by or resulting from the acts or omissions of Seller, its agents, suppliers or employees in the performance of this order and defend at Seller's expense all suits or proceedings arising out of any of the foregoing. If work or services under this order are to be performed within the premises occupied or controlled by Purchaser or a customer of Purchaser, then Seller agrees as follows: (a) to accept the premises in their present condition as safe and satisfactory for the work or services to be performed; (b) to hold Purchaser and its customers harmless from all injuries, damages, and claims arising from such performance; (c) claims for damages, personal injury, or death to employees of Seller, Purchaser, or its customers, or any other persons, which may arise from performance of work or services covered by this order, whether performed by Seller or any subcontractor, or anyone directly or indirectly employed by either of them; and (d) to file certificates of such insurance with Purchaser, and to obtain Purchaser's approval of the adequacy of protection whenever so required.

11. INSURANCE COVERAGE: If services are required to be performed hereunder, Seller shall provide and maintain the minimum amounts of insurance set forth below unless otherwise required by Purchaser:

- Minimum of $1,000,000.00 Comprehensive General Liability Insurance
- Minimum of $1,000,000.00 Automobile Liability Insurance
- Workers Compensation Insurance – Statutory
- Environmental Restoration, LLC, shall be named as additional insured
- A waiver of subrogation in favor of the additional insured
- Requirement that Environmental Restoration, LLC be notified in writing a minimum of 30 days prior to any change in, or cancellation of any or all of policy
- Date of certificate must be current and dated within 30 days of receipt by ER

12. TAXES: Seller hereby accepts exclusive liability for, and agrees to indemnify Purchaser against liability for, the payment of any and all contributions or taxes for unemployment insurance, old age pensions or annuities or other purposes now or hereafter imposed by the Government of the United States and/or by the Government of any State of the United States, which are in whole or in part measured by and/or based upon the wages, salaries, or other remuneration paid to persons employed by seller on work in performing this order.

13. FORCE MAJEURE: Neither party shall be liable for or deemed in breach hereof because of any delay in the performance of its obligations to the extent caused by circumstances beyond its control and that could not have been prevented by the exercise of due diligence, including but not limited to fires, natural disasters, riots, wars, terrorism, biological warfare, labor strikes, adverse weather conditions, or acts of God.

14. CONFIDENTIAL INFORMATION: Seller shall not disclose to any third party or use any confidential information concerning this Purchase Order or other material intended for use therewith without first obtaining the written consent of Purchaser. The Purchaser shall retain title at all times to such drawings, specifications, samples and other material, all of which, including copies thereof, upon request or upon completion of this order, shall be promptly returned to Purchaser. Any knowledge or information which Seller may disclose to Purchaser in connection with the purchase of any of the items shall not, unless otherwise specifically agreed upon in writing by Purchaser, be deemed to confidential information and shall be acquired free from any restriction as part of the consideration for this Purchase Order.

15. INVOICES: The invoice shall be dated and prepared on Seller's letterhead or standard invoice form and include, at minimum, the following information: (1) The Purchase Order number; (2) the quantity and description of Materials furnished, including dates of performance; (3) the unit price and total price for each element of cost, as well as the total invoice amount claimed, and; (4) copies of backup documentation to support costs invoiced. The invoice shall be submitted to the address indicated on the face of this Purchase Order. Reimbursement will be made within 60 days after Purchaser's receipt of acceptable invoice. There shall be no interest or fee assessed for delayed payments. Any Seller discount period payment terms begin upon Purchaser's receipt of an acceptable invoice.

16. TERMINATION: The Purchaser reserves the right to terminate this Purchase Order, or any part hereof, for its sole convenience. In the event of such termination, the Seller shall immediately stop all work hereunder and shall immediately cause any and all of its suppliers and subcontractors to cease work. Subject to the terms of this Purchase Order, the Seller shall be paid a percentage of the Purchase Order price reflecting the percentage of the work performed prior to the notice of termination, plus reasonable charges the Seller can demonstrate to the satisfaction of the Purchaser using its standard record keeping system, have resulted from the termination. The Seller shall not be required to comply with the cost accounting standards or contract cost principles for this purpose. This paragraph does not give the Purchaser any right to audit the Seller's records. The Seller shall not be paid for any work performed or costs incurred which reasonably could have been avoided.

17. TERMINATION FOR CAUSE: The Purchaser may terminate this Purchase Order, or any part hereof, for cause in the event of any default by the Seller, or if the Seller fails to comply with any Purchase Order terms and conditions, or fails to provide the Purchaser, upon request, with adequate assurances of future performance. In the event of termination for cause, the Purchaser shall not be liable to the Seller for any amount for supplies or services not accepted and the Seller shall be liable to the Purchaser for any and all rights and remedies provided by law. If it is determined that the Purchaser improperly terminated this Purchase Order for default, such termination shall be deemed a termination for convenience.

18. DISPUTES: Any dispute concerning a question of fact arising under this Purchase Order which is not disposed of by agreement shall be decided by Purchaser. Such decision shall be reduced to writing and a copy thereof furnished to Seller. The decision shall become final unless Seller notifies Purchaser in writing that it disagrees with said decision within 30 days of receipt of the decision. Pending a final decision of a dispute hereunder or appeal thereof, Seller shall diligently proceed with performance hereunder in accordance with the decision of Purchaser.
Seller may appeal a final decision by using alternative dispute resolution (ADR) procedures, which can avoid the acrimony normally resulting from adversarial litigation. The parties will first try to resolve any conflict by negotiating promptly in face-to-face negotiations conducted by a senior procurement representative of the Purchaser. If not resolved within 60 days, then the parties will agree upon a mini-trial process with the selection of a neutral advisor who will mediate the proceedings and if necessary, furnish an impartial said agreement. If mutual agreement by the disputing parties cannot be reached, the impartial opinion rendered by the neutral advisor will be binding. All expenses such as the cost of the neutral advisor or the hearing facility will be shared equally.

19. COMPLIANCE WITH LAW: Seller shall in the performance of the Purchase Order comply with all applicable laws, executive orders, regulations, ordinances, proclamations, demands and regulations of the Government, or of any state or local government authority which may now or hereafter govern performance hereunder.

20. GOVERNING LAW: This order shall be governed and constructed according to the laws of Missouri.
21. ENTIRE AGREEMENT: This Purchase Order and any attachments hereto constitutes the entire agreement and exclusive statement of terms between the parties with respect to the purchase and sale of the items hereunder and supersedes all previous communications, representations, or agreements between the parties with respect thereto. No alteration, modification of amendment of any of the provisions hereof shall be binding unless in writing and signed by Purchaser's authorized procurement representative.

END
Revised 01/02/14

Form **W-9**
(Rev. October 2018)
Department of the Treasury
Internal Revenue Service

Request for Taxpayer Identification Number and Certification

▶ Go to *www.irs.gov/FormW9* for instructions and the latest information.

Give Form to the requester. Do not send to the IRS.

Print or type. See Specific Instructions on page 3.

1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.

2 Business name/disregarded entity name, if different from above

3 Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only **one** of the following seven boxes.

☐ Individual/sole proprietor or single-member LLC ☐ C Corporation ☐ S Corporation ☐ Partnership ☐ Trust/estate

☐ Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ▶ _____

Note: Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is **not** disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner.

☐ Other (see instructions) ▶

4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):

Exempt payee code (if any) _____

Exemption from FATCA reporting code (if any) _____

(Applies to accounts maintained outside the U.S.)

5 Address (number, street, and apt. or suite no.) See instructions.

Requester's name and address (optional)

6 City, state, and ZIP code

7 List account number(s) here (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

Note: If the account is in more than one name, see the instructions for line 1. Also see *What Name and Number To Give the Requester* for guidelines on whose number to enter.

Social security number

☐☐☐ - ☐☐ - ☐☐☐☐

or

Employer identification number

☐☐ - ☐☐☐☐☐☐☐

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
3. I am a U.S. citizen or other U.S. person (defined below); and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

Sign Here **Signature of U.S. person ▶** **Date ▶**

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to *www.irs.gov/FormW9*.

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following.

- Form 1099-INT (interest earned or paid)
- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)
- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding, *later.*

ENVIRONMENTAL RESTORATION

BUSINESS CLASSIFICATION CERTIFICATION

USEPA ERRS Region 4 (EP-S4-15-03)

Please review the business classifications defined on the attachment and complete the certification below. Check all categories, which apply to your business, sign, and date the certification.

Please return the completed certification (This page and the IRS Form W-9 attached) as soon as possible.

Today's Date: _____

Complete Company Name: _____

Company Address: _____

Phone: _____ Fax: _____

Completed By: _____ Title: _____

Federal Taxpayer ID #: _____ DUNS #: _____

Social Security #: _____ *(if you do not have Taxpayer ID #)*

CHECK ALL THAT APPLY

Large Business	☐	Veteran-Owned Small Business	☐
Small Business	☐	Service-Disabled Veteran Owned	☐
Women Owned Small Business	☐	Small Disadvantaged Business	☐
Certified HUBZone Small Business *(Please provide certification)*	☐		

If Small Disadvantaged Business, has it been certified as such be the SBA? YES ☐ NO ☐

If Small Business, please list NAICS codes that apply: _____

CLAUSES INCORPORATED BY REFERENCE

Except as otherwise provided herein, the SUBCONTRACTOR shall be bound by all applicable terms of the clauses issued by the Government (both in full text and referenced), which are included herein and made a part of this Agreement. Those clauses which are incorporated herein by reference shall have the same force and effect as if they were given in full text. Specifically, note that compliance with the Service Contract Act (SCA) and Davis Bacon Act (DBA) is required. Weekly submittal of certified payroll is required on DBA work.

The following Contract Clauses are by this reference incorporated herein, and Subcontractor agrees to incorporate the requirements of this Provision and the Clauses listed herein into any lower-tier subcontract or purchase orders.

Contract Clauses Incorporated by Reference and Applying to All ERRS Purchase Orders and Subcontracts

NUMBER	DATE	TITLE
FAR 52.202-1	JAN 2012	DEFINITIONS
FAR 52.203-3	APR 1984	GRATUITIES
FAR 52.203-5	APR 1984	COVENANT AGAINST CONTINGENT FEES
FAR 52.203-6	SEP 2006	RESTRICTIONS ON SUBCONTRACTOR SALES TO THE GOVERNMENT
FAR 52.203-7	OCT 2010	ANTI-KICKBACK PROCEDURES
FAR 52.203-8	JAN 1997	CANCELLATION, RECISSION, AND RECOVERY OF FUNDS FOR ILLEGAL OR IMPROPER ACTIVITY
FAR 52.203-10	JAN 1997	PRICE OR FEE ADJUSTMENT FOR ILLEGAL OR IMPROPER ACTIVITY
FAR 52.203-12	OCT 2010	LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS
FAR 52.203-13	APR 2010	CONTRACTOR CODE OF BUSINESS ETHICS AND CONDUCT
FAR 52.204-4	MAY 2011	PRINTED OR COPIED DOUBLE-SIDED ON POSTCONSUMER FIBER CONTENT PAPER
FAR 52.204-9	JAN 2011	PERSONAL IDENTITY VERIFICATION OF CONTRACTOR PERSONNEL
FAR 52.204-10	JUL 2013	REPORTING EXECUTIVE COMPENSATION AND FIRST TIER SUBCONTRACT AWARDS
FAR 52.209-6	AUG 2013	PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT
FAR 52.209-9	JUL 2013	UPDATES OF PUBLICLY AVAILABLE INFORMATION REGARDING RESPONSIBILITY MATTERS
FAR 52.210-1	APR 2011	MARKET RESEARCH
FAR 52.211-75	APR 1984	WORKING FILES
FAR 52.215-2	OCT 2010	AUDIT AND RECORDS—NEGOTIATION
FAR 52.215-8	OCT 1997	ORDER OF PRECEDENCE – UNIFORM CONTRACT FORMAT
FAR 52.215-14	OCT 2010	INTERGRITY OF UNIT PRICES
FAR 52.215-21	OCT 2010	REQUIREMENTS FOR CERTIFIED COST OR PRICING DATA AND DATA OTHER THAN CERTIFIED COST OR PRICING DATA-MODIFICATIONS
FAR 52.216-7	JUN 2013	ALLOWABLE COST AND PAYMENT
FAR 52.216-18	OCT 1995	ORDERING
FAR 52.216-19	OCT 1995	ORDER LIMITATIONS
FAR 52.216-22	OCT 1995	INDEFINITE QUANTITY
FAR 52.217-8	NOV 1999	OPTION TO EXTEND SERVICES
FAR 52.217-9	MAR 2000	OPTION TO EXTEND THE TERM OF THE CONTRACT
FAR 52.219-6	NOV 2011	NOTICE OF TOTAL SMALL BUSINESS SET-ASIDE
FAR 52.219-8	JUL 2013	UTILIZATION OF SMALL BUSINESS CONCERNS
FAR 52.219-14	NOV 2011	LIMITATIONS ON SUBCONTRACTING
FAR 52.219-28	JUL 2013	POST-AWARD SMALL BUSINESS PROGRAM REPRESENTATION
FAR 52.222-3	JUN 2003	CONVICT LABOR
FAR 52.222-4	JUL 2005	CONTRACT WORK HOURS AND SAFETY STANDARDS ACT-OVERTIME COMPENSATION
FAR 52.222-6	JUL 2005	DAVIS-BACON ACT
FAR 52.222-7	FEB 1988	WITHHOLDING OF FUNDS
FAR 52.222-8	JUN 2010	PAYROLLS AND BASIC RECORDS
FAR 52.222-9	JUL 2005	APPRENTICES AND TRAINEES
FAR 52.222-10	FEB 1988	COMPLIANCE WITH COPELAND ACT REQUIREMENTS
FAR 52.222-11	JUL 2005	SUBCONTRACTS (LABOR STANDARDS)
FAR 52.222-12	FEB 1988	CONTRACT TERMINATION - DEBARMENT
FAR 52.222-13	FEB 1988	COMPLIANCE WITH DAVIS-BACON AND RELATED ACT REGULATIONS
FAR 52.222-14	FEB 1988	DISPUTES CONCERNING LABOR STANDARDS
FAR 52.222-15	FEB 1988	CERTIFICATION OF ELIGIBILITY
FAR 52.222-16	FEB 1988	APPROVAL OF WAGES
FAR 52.222-21	FEB 1999	PROHIBITION OF SEGREGATED FACILITIES
FAR 52.222-26	MAR 2007	EQUAL OPPORTUNITY
FAR 52.222-27	FEB 1999	AFFIRMATIVE ACTION COMPLIANCE REQUIREMENTS FOR CONSTRUCTION
FAR 52.222-35	SEP 2010	EQUAL OPPORTUNITY FOR VETERANS
FAR 52.222-36	OCT 2010	AFFIRMATIVE ACTION FOR WORKERS WITH DISABILITIES
FAR 52.222-37	SEP 2010	EMPLOYMENT REPORTS ON VETERANS
FAR 52.222-40	DEC 2010	NOTIFICATION OF EMPLOYEE RIGHTS UNDER THE NATIONAL LABOR RELATIONS ACT

Contract Clauses Incorporated by Reference and Applying to All ERRS Purchase Orders and Subcontracts

NUMBER	DATE	TITLE
FAR 52.222-41	NOV 2007	SERVICE CONTRACT LABOR STANDARDS
FAR 52.222-42	MAY 1989	STATEMENT OF EQUIVALENT RATES FOR FEDERAL HIRES
FAR 52.222-43	SEP 2009	FAIR LABOR STANDARDS ACT AND SERVICE CONTRACT LABOR STANDARDS – PRICE ADJUSTMENT (MULTIPLE YEAR AND OPTION CONTRACTS)
FAR 52.222-50	FEB 2009	COMBATING TRAFFICKING IN PERSONS
FAR 52.222-54	AUG 2013	EMPLOYMENT ELIGIBILITY VERIFICATION
FAR 52.223-3	JAN 1997	HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL SAFETY DATA
FAR 52.223-6	MAY 2001	DRUG-FREE WORKPLACE
FAR 52.223-9	MAY 2008	ESTIMATE OF PERCENTAGE OF RECOVERED MATERIAL CONTENT FOR EPA-DESIGNATED PRODUCTS
FAR 52.223-18	AUG 2011	ENCOURAGING CONTRACTOR POLICIES TO BAN TEXT MESSAGING WHILE DRIVING
FAR 52.225-9	SEP 2010	BUY AMERICAN – CONSTRUCTION MATERIALS
FAR 52.225-13	JUN 2008	RESTRICTIONS ON CERTAIN FOREIGN PURCHASES
FAR 52.227-1	DEC 2007	AUTHORIZTION AND CONSENT
FAR 52.227-2	DEC 2007	NOTICE AND ASSISTANCE REGARDING PAYMENT AND COPYRIGHT INFRINGEMENT
FAR 52.227-4	DEC 2007	PATENT INDEMNITY – CONSTRUCTION CONTRACTS
FAR 52.227-14	DEC 2007	RIGHTS IN DATA - GENERAL
FAR 52.227-16	JUN 1987	ADDITIONAL DATA REQUIREMENTS
FAR 52.228-2	OCT 1997	ADDITIONAL BOND SECURITY
FAR 52.228-11	JAN 2012	PLEDGES OF ASSETS
FAR 52.228-15	OCT 2010	PERFORMANCE AND PAYMENT BONDS-CONSTRUCTION
FAR 52.229-3	FEB 2013	FEDERAL, STATE, AND LOCAL TAXES
FAR 52.232-23	JAN 1986	ASSIGNMENT OF CLAIMS
FAR 52.232-25	JUL 2013	PROMPT PAYMENT
FAR 52.232-33	JUL 2013	PAYMENT BY ELECTRONIC FUNDS TRANSFER – SYSTEM FOR AWARD MANAGEMENT
FAR 52.232-39	JUN 2013	UNENFORCEABILITY OF UNAUTHORIZED OBLIGATIONS
FAR 52.232-99	AUG 2012	LOCAL CLAUSES PROVIDING ACELERATED PAYMENT TO SMALL BUSINESS SUBCONTRACORS DEVIATION
FAR 52.233-1	JUL 2002	DISPUTES
FAR 52.233-3	AUG 1996	PROTEST AFTER AWARD
FAR 52.233-4	OCT 2004	APPLICABLE LAW FOR BREACH OF CONTRACT CLAIM
FAR 52.236-5	APR 1984	MATERIAL AND WORKMANSHIP
FAR 52.236-7	NOV 1991	PERMITS AND RESPONSIBILITIES
FAR 52.237-3	JAN 1991	CONTINUITY OF SERVICES
FAR 52.242-3	MAY 2001	PENALTIES FOR UNALLOWABLE COSTS
FAR 52.242-13	JUL 1995	BANKRUPTCY
FAR 52.242-15	AUG 1989	STOP-WORK ORDER
FAR 52.242-71	OCT 2011	ALT 1 REPORTS OF WORK DEVIATION
FAR 52.243-3	SEP 2000	CHANGES - TIME-AND-MATERIALS OR LABOR-HOURS
FAR 52.244-2	OCT 2010	SUBCONTRACTS
FAR 52.244-5	DEC 1996	COMPETITION IN SUBCONTRACTING
FAR 52.244-6	JUL 2013	SUBCONTRACTS FOR COMMERCIAL ITEMS
FAR 52.246-4	AUG 1996	INSPECTION OF SERVICES (FIXED PRICE)
FAR 52.246-6	MAY 2001	INSPECTION – TIME-AND-MATERIAL AND LABOR-HOUR
FAR 52.246-11	FEB 1999	HIGHER-LEVEL CONTRACT QUALITY REQUIREMENT
FAR 52.246-25	FEB 1997	LIMITATION OF LIABILITY – SERVICES
FAR 52.249-6	SEP 1996	TERMINATION (COST-REIMBURSEMENT) ALTERNATE IV
FAR 52.249-14	APR 1984	EXCUSABLE DELAYS
FAR 52.251-1	APR 2012	GOVERNMENT SUPPLY SOURCES
FAR 52.252-2	FEB 1998	CLAUSES INCORPORATED BY REFERENCE
FAR 52.252-6	APR 1984	AUTHORIZED DEVIATIONS IN CLAUSES
FAR 52.253-1	JAN 1991	COMPUTER GENERATED FORMS
EPAAR 1552.203-71	AUG 2000	DISPLAY OF EPA OFFICE OF INSPECTOR GENERAL HOTLINE POSTER
EPAAR 1552.208-70	SEP 2012	PRINTING
EPAAR 1552.209-71	MAY 1994	ORGANIZATIONAL CONFLICTS OF INTEREST
EPAAR 1552.209-73	MAY 1994	NOTIFICATION OF CONFLICTS OF INTEREST REGARDING PERSONNEL
EPAAR 1552.209-74	APR 2004	LIMITATION OF FUTURE CONTRACTING ALTERNATE I
EPAAR 1552.211-78	APR 1985	MANAGEMENT CONSULTING SERVICES
EPAAR 1552.211-79	JAN 2012	COMPLIANCE WITH EPA POLICIES FOR IINFORMATION RESOURCES MANAGEMENT
EPAAR 1552.216-72	APR 1984	ORDERING-BY DESIGNATED ORDERING OFFICERS
EPAAR 1552.216-73	APR 1984	FIXED RATES FOR SERVICES-INDEFINITE DELIVERY/INDEFINITE QUANTITY CONTRACT
EPAAR 1552.217-76		OPTION TO EXTEND THE EFFECTIVE PERIOD OF THE CONTRACT-INDEFINITE DELIVERY/ INDEFINITE QUANTITY CONTRACT
EPAAR 1552.223-71	MAY 2007	EPA GREEN MEETINGS AND CONFERENCES

Contract Clauses Incorporated by Reference and Applying to All ERRS Purchase Orders and Subcontracts

NUMBER	DATE	TITLE
EPAAR 1552.227-76	MAY 1994	PROJECT EMPLOYEE CONFIDENTIALITY AGREEMENT
EPAAR 1552.228-70	OCT 2000	INSURANCE LIABILITY TO THIRD PERSONS
EPAAR 1552.232-70	JUN 1996	SUBMISSION OF INVOICES DEVIATION ALTERNATE I
EPAAR 1552.232-73	OCT 2000	PAYMENTS-FIXED-RATE SERVICES CONTRACT
EPAAR 1552.235-70	APR 1984	SCREENING BUSINESS INFORMATION FOR CLAIMS OF CONFIDENTIALITY
EPAAR 1552.235-71	APR 1984	TREATMENT OF CONFIDENTIAL BUSINESS INFORMATION
EPAAR 1552.235-73	APR 1996	ACCESS TO FEDERAL INSECTICIDE, FUNGICIDE, AND RODENTICIDE ACT CONFIDENTIAL BUSINESS INFORMATION
EPAAR 1552.235-77	DEC 1997	DATE SECURITY FOR FEDERAL INSECTICIDE, FUNGICIDE, AND RODENTICIDE ACT CONFIDENTIAL BUSINESS INFORMATION
EPAAR 1552.235-78	DEC 1997	DATA SECURITY FOR TOXIC SUBSTANCES CONTROL ACT CONFIDENTIAL BUSINESS INFORMATION
EPAAR 1552.235-79	APR 1996	RELEASE OF CONTRACTOR CONFIDENTIAL BUSINESS INFORMATION
EPAAR 1552.235-80	OCT 2000	ACCESS TO CONFIDENTIAL BUSINESS INFORMATION
EPAAR 1552.237-71	AUG 2009	TECHNICAL DIRECTION
EPAAR 1552.237-72	APR 1984	KEY PERSONNEL
EPAAR 1552.237-74	APR 1984	PUBLICITY
EPAAR 1552.237-75	APR 1984	PAPERWORK REDUCTION ACT
EPAAR 1552.237-76	JUN 1999	GOVERNMENT-CONTRACTOR RELATIONS
EPAAR 1552.239-70	OCT 2000	REHABILITATION ACT NOTICE
EPAAR 1552.242-70	APR 1984	INDIRECT COSTS DEVIATION
EPAAR 1552.242-72	OCT 2000	FINANCIAL ADMINSTRATIVE CONTRACTING OFFICER

AFFIRMATIVE ACTION / EQUAL OPPORTUNITY

- The equal opportunity clause prescribed by Executive Order 11246, as amended by Executive Order 11375, as implemented in Title 41 CFR, Section 60-1.4 is incorporated herein by specific reference and is applicable to orders amounting to $10,000 or more.
- The affirmative action clause prescribed by the Vietnam Era Readjustment Assistance Act of 1974 and set forth in Title 41, CFR, Section 60-250.4 relating to the affirmation action program for disabled veterans and veterans for the Vietnam Era is incorporated herein by specific reference.
- The minority business enterprise's requirements of Executive Order 11625 are incorporated herein by specific reference.
- The affirmative action clause prescribed by Executive Order 11758 and set forth in Title 41 CFR, Section 60-741.4 relating to the affirmative action program for the handicapped is incorporated herein by specific reference.

CERTIFICATIONS

- Occupational Safety and Health Act: Contractor shall observe and comply with the Federal Occupational Safety and Health Act of 1970 and with all safety and health standards promulgated by the Secretary of Labor under authority therefore, and with all applicable state occupational safety and health laws and regulations. Contractor and any subcontractor hereunder shall not require any laborer or mechanic employed in the performance of the contract to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to their health and safety. This provision shall also be included in any contracts with subcontractors.
- Affirmative Action Plan: If Contractor has 50 or more employees and the contracts of Sale are in an amount of $50,000 or more, the Contractor may be required under Section 60-1.40 of Title 41 CFR to develop a written affirmative action compliance program for each of it establishments. If the Contractor is so required, it agrees to do so within 120 days from the commencement of a contract and maintain such program until such time as it is no longer required by law or regulation.

PROHIBITION OF SEGREGATED FACILITIES

- Segregated Facilities: As used in this clause, means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees, that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, sex, or national origin because of written or oral policies or employees custom. The term does not include separate or single user rest rooms or necessary dressing or sleeping areas provided to assure privacy between the sexes.
- The Subcontractor agrees that it does not and will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control where segregated facilities are maintained. The Subcontractor agrees that a breach of this clause is a violation of the Equal Opportunity clause in this contract.
- This clause shall be included in every subcontract and purchase order that is subject to the Equal Opportunity clause of this contract.

REPORTING OF EXECUTIVE COMPENSATION AND FIRST –TIER SUBCONTRACT AWARDS UNDER THE FEDERAL ACCOUNTABILITY AND TRANSPARENCY ACT OF 2006 AMENDED (FAR 52.204-10)

- The rule applies to all contracts valued at $25,000 or more, including commercial item contracts, commercially available off-the-shelf (COTS) item contracts, and contracts with small business concerns.
- Both prime contractors and first-tier subcontractors must report the names and total compensation of their five highest compensated executives, if during the preceding completed fiscal year, the contractor received:
  - 80% or more of its annual gross revenues from Federal contracts (and subcontracts), loans, grants and (sub grants) and cooperative agreements; **AND**
  - The company received $25 million or more of its annual gross revenues from Federal contracts and (subcontracts), loans, grants (and sub grants) and cooperative agreements; **AND**
  - The company does not already publicly report executive compensation through SEC or IRS; **AND**
  - This contract or subcontract is valued at $25,000.00 or more;
  - Any contractor or subcontractor meeting all four of the above criteria **must** report its executive compensation.
- Prime contractors are responsible for reporting subcontractor executive compensation information via the FSRS system.

REPRESENTATIONS, CERTIFICATIONS AND OTHER STATEMENTS OF OFFERORS
(NON-COMMERCIAL ITEMS – GOVERNMENT PROGRAMS)

The offeror represents and certifies as part of it proposal / quotation that: (Check or complete all applicable boxes or blocks);

1. Taxpayer Identification (FAR 52.204-3)

A. Definitions:

Common parent, as used in this solicitation provision, means that corporate entity that owns or controls an affiliate group of corporations that field its Federal income tax returns on a consolidated basis, and of which the offeror is a member.

Taxpayer Identification Number (TIN), as used in this provision, means the number required by the IRS to be used by the offeror in reporting income tax and other returns. The TIN may be either a Social Security Number or Employer Identification Number.

B. All offerors must submit the information required in paragraphs (D) through (F) of this provision to comply with debt collection requirements of 31 U.S.C. 770(c) and 3325(d), reporting requirements of 26 U.S.C. 6041, 6041A, and 6050M and implementing regulations issued by the IRS. If the resulting contract is subject to the reporting requirements described in FAR 4.904, the failure or refusal by the offeror to furnish the information may result in 31 percent reductions of payment otherwise due under the contract.

C. The TIN may be used by the Government to collect and report on any delinquent amounts arising out of the offerors relationship with the government (31 U.S.C. 7701(3)). If the resulting contract is subject to the payment reporting requirements described in FAR 4.904, the TIN provided hereunder may be matched with IRS records to verity the accuracy of the offerors TIN.

D. Taxpayer Identification Number (TIN).

i. ☐ TIN: _____

ii. ☐ TIN has been applied for:

iii. ☐ TIN is not required because:_____

iv. ☐ Offeror is a nonresident alien, foreign corporation, or foreign partnership that does not have income effectively connected with the conduct of a trade or business in the U.S. and does not have an office or place of business or a fiscal paying agent in the U.S.

v. ☐ Offeror is an agency or instrumentality of a foreign government;

vi. ☐ Offeror is an agency or instrumentality of a Federal, state or local government;

vii. ☐ Other. State basis; _____

E. Type of Organization.

i. ☐ Sole proprietorship

ii. ☐ Partnership

iii. ☐ Corporate Entity (not Tax-Exempt)

iv. ☐ Corporate Entity (Tax-Exempt)

v. ☐ Government Entity (Federal, State or Local)

vi. ☐ International Organization per 26 CFR 1.6049-4

vii. ☐ Other. _____

F. Common Parent.

i. ☐ Offeror is not owned or controlled by a common parent as defined in paragraph A of this provision or

ii. ☐ Name and TIN of Common Parent: _____

2. Certification Regarding Debarment, Suspension, Etc. (FAR 52.209-5)
The offeror certifies, to the best of its knowledge and belief, that:

A. The offeror and / or any of it principals:

i. Are ☐ Are not ☐, presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any federal agency;

ii. Have ☐ Have not ☐, with-in a 3-year period-preceding this offer, been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state or local) contract or subcontract, violation of federal or state antitrust statutes relating to the submission of offerors; or commission of embezzlement, theft, forgery, bribery, falsification or destruction or records, making false statements, or receiving stolen property; and,

iii. Are ☐ Are not ☐, presently indicted for, or otherwise criminally or civilly charged by a governmental entity with commission of any of the above offenses.

B. The offeror has ☐ has not ☐, within a 3-year period preceding this offer, had one of more federally-funded contracts/subcontracts terminated for default.

3. Small-Business Program Representations (FAR 52.219-1) (May 2001) *(see definitions below)*

A. The small business size standard is _____

B. The offeror represents as part of its offer that it ☐ is, ☐ is not a small business concern.

C. *(Complete only if the offeror is a small business concern as indicated in 3.A.ii)*
The offeror represents as part its offer that it ☐ is, ☐ is not a women-owned small business concern.

D. *(Complete only if the offeror is a small business concern as indicated in 3.A.ii)*
The offeror represents as part of its offer that ☐ is, ☐ is not veteran-owned small business concern.

E. *(Complete only if the offeror is a small business concern as indicated in 3.A.ii)*
The offeror represents as part of its offer that ☐ is, ☐ is not a service-disabled veteran-owned small business concern.

F. Definitions:
Small business concern;
A concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR Part 121.

Women-owned small business concern;

1. Business is a small business concern and,
2. Not less than 51 percent of which is owned by one or more women or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more women; and,
3. The management and daily business operations of which are controlled by one or more women.

Veteran-owned small business concern;

1. Business is a small business concern and,
2. Not less than 51 percent of which is owned by one or more veterans as defined in 38 U.S.C. 101(2) or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more veterans; and,
3. The management and daily business operations of which are controlled by one or more veterans.

Service-disabled veteran-owned small business concern;

4. Business is a small business concern and,
5. Not less than 51 percent of which is owned by one or more service-disable veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more service-disable veterans; and,
6. The management and daily business operations of which are controlled by one or more service-disable veterans or, in the case of a veteran with permanent and severe disability, the spouse or permanent caregiver of such veteran and
7. Service-disable veteran means a veteran, as defined in 38 U.S.C. 101(2), with a disability that is service-connected, as defined in 38 U.S.C. 101(16).

Under 15 U.S.C. 645(d), any person who misrepresents a firm's status as a small, HUBZone small, small disadvantaged, or women-owned small business concern in order to obtain a contract to be awarded under the preference programs established pursuant to section 8(a), 8(d), 9, or 15 of the Small Business Act or any other provision of Federal law that specifically references section 8(d) for a definition of program eligibility, shall:

1. Be punished by imposition of fine, imprisonment, or both;
2. Be subject to administrative remedies, including suspension and debarment; and
3. Be ineligible for participation in program conducted under the authority of the Act.

HUBZone *(Complete only if the offeror is a small business concern as indicated in 3.A.ii).*
The offeror represents, as part of its offer, that;

A. It is ☐ It is not ☐ a HUBZone small business concern listed, on the date of this representation, on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration, and no material change in ownership and control, principal office, or HUBZone employee percentage has occurred since it was certified by the Small Business Administration in accordance with 13 CFR Part 126; and

B. It is ☐ It is not ☐ a joint venture that complies with the requirements of 13 CFR Part 126, and the representation in paragraph (4)(i) of this provision is accurate for the HUBZone small business concern or concerns that are participating in the joint venture.

C. Offeror shall enter the name or names of the HUBZone small business concern or concerns that are participating in the joint venture: _____.

D. Each HUBZone small business concern participating in the joint venture shall submit a separate signed copy of the HUBZone representation.

E. Alternate II (Oct 2000). As prescribed in 19.307(a)(3), add the following paragraph (b)(7) to the basic provision:

(Complete if offeror represented itself as disadvantaged in paragraph (b)(2) of this provision).

The offeror shall check the category in which its ownership falls:

_____ Black American
_____ Hispanic American
_____ Native American (American Indians, Eskimos, Aleuts, or Native Hawaiians
_____ Asian-Pacific American (persons with origins from Burma, Thailand, Malaysia, Indonesia, Singapore, Brunei, Japan, China, Taiwan, Laos, Cambodia (Kampuchea), Vietnam, Korea, The Philippines, U.S. Trust Territory of the Pacific Islands (Republic of Palau), Republic of the Marshall Islands, Federated States of Micronesia, the Commonwealth of the Northern Mariana Islands, Guam, Samoa, Macao, Hong Kong, Fiji, Tonga, Kiribati, Tuvalu, or Nauru).
_____ Subcontinent Asian (Asian-Indian) American (persons with origins from India, Pakistan, Bangladesh, Sri Lanka, Bhutan, the Maldives Islands, or Nepal).

5. Historically Black College or University and Minority Institution Representation (FAR 52.226-2);

A. Definition as used in this provision: Historically black college or university means an institution determined by the Secretary of Deduction to meet the requirement of 34 CFR 608.2. For the Department of Defense, the National Aeronautics and Space Administration, and the Coast Guard, the term also includes any nonprofit research institution that was integral part of such a college or university before November 14, 1986.

Minority institution means an institution of higher education meeting the requirement of Section 1046(3) of the Higher Education Act of 1965 (20 U.S.C. 1067k, including a Hispanic-serving institution of higher education, as defined in Section 316(b)(1) of the Act (20 U.S.C. 1101a)).

B. The offeror represents that:

It is ☐ It is not ☐ a historically black college or university;

It is ☐ It is not ☐ a minority institution.

Previous Contracts and Compliance Reports (FAR 52.222-22) ($10,000 and 50 or more Employees)
The offeror represents that:

A. It has ☐ It has not ☐ participated in a previous contract or subcontract subject either to the Equal Opportunity clause of this solicitation, the clause originally contained in Section 310 of Executive Order No. 10925, or the clause contained in Section 201 of Executive Order No. 11114;

B. It has ☐ It has not ☐ filed all required compliance reports; and,

C. Representations-indicating submission of required reports, signed by the offerors proposed subcontractors, will be obtained before subcontract award.

6. Affirmative Action Compliance (FAR 52.222-25) ($10,000 and 50 or more Employees)
The offeror represents that:

A. It has ☐ developed and has on file, ☐ has not developed and does not have on file, at each establishment, affirmative action programs required by the rules and regulations of the Secretary of Labor (41 CFR 60-1 and 602); or

B. It ☐ has not previously had contracts/subcontract subject to the written affirmative action programs requirement of the rules and regulations of the Secretary of Labor.

7. Clean Air and Water Certification (FAR 52.223-1) ($100,000)
The offeror certifies that:

A. Any facility to be used in the performance of this proposed subcontract is ☐ , is not ☐ listed on the Environmental Protection Agency (EPA) List of Violating Facilities;

B. The offeror will immediately notify the Contractor, before award, of the receipt of any communication from the Administrator, or a designee, of the EPA, indicating that any facility that the offeror proposes to use for the performance of the subcontract is under consideration to be listed on the EPA List of Violating Facilities; and,

C. The offeror will include a certification substantially the same as this certification, including this paragraph, in every non-exempt sub-subcontract.

8. Certification and Disclosure Regarding Payments to Influence Certain Federal Transactions (FAR 52.203-11) ($100,000)

A. The definitions and prohibitions contained in this clause at FAR 52.203-12, Limitation on Payments to Influence Certain Federal Transactions, included in this solicitation, are hereby incorporated by reference in paragraph (b) of this certification.

B. The offeror, by signing its offer, hereby certifies, to the best of its knowledge and belief, that on or after December 23, 1989:

i. No federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a member of, Congress, an officer or employee of Congress, or an employee of a member of Congress, on his or her behalf, in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment or modification of any federal contract, grant, loan, or cooperative agreement;

ii. If any funds other than federal appropriated funds (including profit or fee received under a covered federal transaction) have been paid, or will be paid, to any person for influencing or attempting to influence an officer or employee of any agency, a member of Congress, on his or her behalf, in connection with this solicitation, the offeror shall complete and submit, with its offer, OMB Standard Form LL, Disclosure of Lobbying Activities, to the Contractor; and,

iii. The offeror will include the language of this certification in all subcontract awards at any tier and require that all recipients of the subcontract awards in excess of $100,000 shall certify and disclose accordingly.

C. Submission of this certification and disclosure is a pre-requisite for making or entering into this subcontract imposed by Section 1352, Title 31, United States Code. Any person who makes expenditure prohibited under this provision or who fails to file or amend the disclosure form to be filed or amended by this provision, shall be subject to a civil penalty of not less than $10,000, and not more than $100,000, for each such failure.

9. Disclosure of Ownership or Control by the Government of a Terrorist Country (DEARS 252.209-7001) (SEP 1994)

A. Definitions. As used in this provision:

i. A Government of a terrorist country includes the state and the government of a terrorist county, as well as any political subdivision, agency or instrumentality thereof.

ii. A terrorist county means a county determined by the Secretary of State, under section 6(j)(1)(A) of the Export Administration Act of 1979 (50 U.S.C. A.P. 2405(j)(I)(A), to be a country the government of which has repeatedly provided support for acts of international terrorism. As of the date of this provision terrorist countries include: Cuba, Iran, Iraq, Libya, North Korea, Sudan, and Syria.

iii. A significant interest means:

a. Ownership of or beneficial interest in 5 percent or more of the firms or subsidiary's securities. Beneficial interest includes holding 5 percent or more of any class of the firms securities in a nominee shares, a
b. Holding a management position in the firm, such as director or officer;
c. Ability to control or influence the election, appointment, or tenure of directors or officers in the firm;
d. Ownership of 10 percent or more of the assets of a firm such as equipment, real estate, or other tangible assets of the firm; or
e. Holding 50 percent or more of the indebtedness of a firm.

B. Prohibition on award. In accordance with 10 U.S.C. 2327, no contract may be awarded to a firm or a subsidiary of a firm if the government of a terrorist country has a significant interest in the firm of subsidiary, unless a waiver is granted by the Secretary of Defense.

C. Disclosure. If the government of a terrorist country has a significant interest in the Offeror or a subsidiary of the Offeror, the Offeror shall disclose such interest in an attachment to its offer. If the Offeror is a subsidiary, it shall also disclose any significant interest the government of a terrorist county has in any firm that owns or controls the subsidiary, the disclosure shall include:

a. Identification of each government holding significant interest; and
b. A description of the significant interest held by each government.

10. **Prohibition on Obligating or Awarding Federal Funds to ACORN**
The offeror certifies, to the best of its knowledge and belief, that:

A. The offeror and / or any of it principals:

i. Are ☐ Are not ☐, presently affiliated with ACORN, any of its affiliates, subsidiaries, or allied organizations.

ii. The offeror agrees to comply with to comply with section 163 of the Continuing Appropriations Resolutions, 2010, Division B of Pub. L No. 111-68 (CR), which states
1. SEC. 163 None of the funds made available by this joint resolution or any prior Act may be provided to the Association of Community Organizations for Reform Now (ACORN), or any of its affiliates, subsidiaries, or allied organizations.

This is to certify, to the best of my knowledge and belief that the representations and certifications made herein by the offeror are accurate and current as of the date indicated below.

Offeror: _____

Address: _____

_____

Email: _____

Phone Number: _____ **Fax Number:** _____

Name of Person Authorized to Sign: _____
(Printed)

Signature: _____ **Date:** _____

SUBCONTRACTOR CONFLICT OF INTEREST CERTIFICATION

I hereby certify that to the best of my knowledge, my company has reported to Environmental Restoration, LLC any known conflicts of interest, whether organizational or personal, associated with this work assignment/task order/delivery order.

Company Name: _____

Signature: _____ Date: _____

Printed Name: _____ Title: _____

CONFIDENTIALITY AGREEMENT

I, recognize that during my employment, I may perform work in accordance with the Environmental Protection Agency ("EPA") Contracts where I may have access to data, either provided by the Government or generated during the project, which is of a sensitive nature and which would not be released to the public without EPA approval.

Therefore, I agree NOT to disclose, either in whole or in part, to any entity external to EPA, the Department of Justice or to Environmental Restoration LLC, any information or technical data provided by the Government or generated by Subcontractor personnel; any site-specific cost information, or any enforcement strategy without first obtaining the written permission of the EPA Contracting Officer.

This agreement shall last for the life of the contract and to continue for a period of five (5) year after the completion of the contract.

Dated this day of _____, 20___.

Offeror: _____

Email: _____

Phone Number: _____ **Fax Number:** _____

Name of Person Authorized to Sign: _____
(Printed)

Signature: _____ **Date:** _____

REPORTING OF EXECUTIVE COMPENSATION AND FIRST-TIER SUBCONTRACTOR AWARDS UNDER THE FEDERAL FUNDING ACCOUNTABILITY AND TRANSPARENCY ACT

As a prime contractor to the U. S. Government, in accordance with Public Law 109-282, U.S.C. § 6101 and FAR 52.204-10, ER is required to obtain and post information at www.fsrs.gov regarding all first-tier subcontracts meeting the criteria listed below:

- Both prime contractors and first-tier subcontractors must report the names and total compensation of their five highest compensated executives (*executives including officers, managing partners or any other employees in management positions*), if **during the preceding completed fiscal year**, the sub received:

  A. 80% or more of its annual gross revenues from Federal contracts (and subcontracts), loans, grants and (sub grants) and cooperative agreements; **AND**
  B. The company received $25 million or more of its annual gross revenues from Federal contracts and (subcontracts), loans, grants (and sub grants) and cooperative agreements; **AND**
  C. The company does not already publicly report executive compensation through SEC or IRS; **AND**
  D. This contract or subcontract is valued at $25,000.00 or more;

- Any contractor or subcontractor meeting all of the above criteria **must** report its executive compensation.

If subcontracts meet the above criteria and are not exempt, ER must gather subcontractor's information of the following and post to the www.fsrs.gov. Please be aware that all information collected on the FSRS website will be visible on a public website at www.USASpending.gov.

Required information is as follows:

- The name and DUNS Number of the subcontractor and its parent
- The date and amount of the subcontract award
- A general description of the products or services
- The subcontract number
- The subcontractor's address and place of performance
- The the names and total compensation of their five highest compensated executives (*executives including officers, managing partners or any other employees in management positions*).
- The prime contract and order number
- The applicable NAICS code

Therefore, the following page will document the required information.

In order to comply with government regulations this company requires these documents be requested from government and non government vendors on an equal basis.

We want you to receive payment as soon as possible, but we regret that we cannot release payment until all needed items and signatures are received.

Please complete the certification below and return with your bid. Additionally, please sign and date the certification.

SECTION 1				
Legal Company Name of Company				
Company Reports to the SEC?	❑	Yes	❑	No
Parent Company Name				
DUNS No.			NAICS Code	
Congressional Zone				
Subcontractor Address				
Street Address				
City, State & Zip Code				
	(City)		*(ST)*	*(Zip)*

SECTION 2				
*The subcontract is valued at **$25,000.00** or more; **AND***	❑	Yes	❑	No
*The company received 80% or more of its annual revenues in the preceding year from Federal funds, **AND***	❑	Yes	❑	No
*The company received $25 million or more of its annual gross revenues in the preceding year from federal funds; **AND***	❑	Yes	❑	No
The company does not already publicly report executive compensation through SEC	❑	Yes	❑	No

If all Section 2 are checked yes, please complete Section 3. If any of Section 2 are checked no, skip to Section 4.

SECTION 3		
Names and Total Compensation of the Top Five Executives		
	(Legal Name)	*(Total Annual Compensation)*
	(Legal Name)	*(Total Annual Compensation)*
	(Legal Name)	*(Total Annual Compensation)*
	(Legal Name)	*(Total Annual Compensation)*
	(Legal Name)	*(Total Annual Compensation)*

SECTION 4		
Printed Name of Authorized Representative	*Signature*	*Date*

Attachment C

Wage Determination, Form 1413, SCA Payroll Reporting Forms and Instructions

STATEMENT AND ACKNOWLEDGMENT

OMB Control Number: 9000-0014
Expiration Date: 1/31/2021

Paperwork Reduction Act Statement - This information collection meets the requirements of 44 U.S.C. § 3507, as amended by section 2 of the Paperwork Reduction Act of 1995. You do not need to answer these questions unless we display a valid Office of Management and Budget (OMB) control number. The OMB control number for this collection is 9000-0014. We estimate that it will take .05 hours to read the instructions, gather the facts, and answer the questions. Send only comments relating to our time estimate, including suggestions for reducing this burden, or any other aspects of this collection of information to: U.S. General Services Administration, Regulatory Secretariat Division (M1V1CB), 1800 F Street, NW, Washington, DC 20405.

PART I - STATEMENT OF PRIME CONTRACTOR

1. PRIME CONTRACT NUMBER	2. DATE SUBCONTRACT AWARDED	3. SUBCONTRACT NUMBER
Job/Contract: L4-526 EP-S4-15-03		**PO#:**

4. PRIME CONTRACTOR			5. SUBCONTRACTOR		
a. NAME **Environmental Restoration LLC**			a. NAME		
b. STREET ADDRESS **1666 Fabick Drive**			b. STREET ADDRESS		
c. CITY **Fenton**	d. STATE **MO**	e. ZIP CODE **63026**	c. CITY	d. STATE	e. ZIP CODE

6. The prime contract [X] does, [ ] does not contain the clause entitled "Contract Work Hours and Safety Standards Act -- Overtime Compensation."

7. The prime contractor states that under the contract shown in Item 1, a subcontract was awarded on the date shown in Item 2 to the subcontractor identified in item 5 by the following firm:

a. NAME OF AWARDING FIRM

Environmental Restoration LLC

b. DESCRIPTION OF WORK BY SUBCONTRACTOR

Environmental Restoration LLC (ER) is the Emergency Rapid Response Service Contractor (ERRS) for Region 4 under Contract Number EP-S4-15-03. Environmental Restoration LLC (ER) has been tasked under Task Order Number 0526 to provide transportation and disposal of approximately 0 – 50,000 gallons of Bulk UST Waste from the L&R Oil Recovery Site located in Shelby, NC.

SCA Wage Determination is marked with work categories and is included with this RFQ

8. PROJECT	9. LOCATION
L&R Oil Recovery Site	Shelby, NC

10a. NAME OF PERSON SIGNING	11. BY *(Signature)*	12. DATE SIGNED
Amy Riggott		
10b. TITLE OF PERSON SIGNING Field Cost Accountant		

PART II - ACKNOWLEDGMENT OF SUBCONTRACTOR

13. The subcontractor acknowledges that the following clauses of the contract shown in Item 1 are included in this subcontract:

- Contract Work Hours and Safety Standards Act - Overtime Compensation (If included in prime contract see Block 6)
- Payrolls and Basic Records
- Withholding of Funds
- Disputes Concerning Labor Standards
- Compliance with Construction Wage Rate Requirements and Related Regulations
- Construction Wage Rate Requirements
- Apprentices and Trainees
- Compliance with Copeland Act Requirements
- Subcontracts (Labor Standards)
- Contract Termination - Debarment
- Certification of Eligibility

14. NAME(S) OF ANY INTERMEDIATE SUBCONTRACTORS, IF ANY

A		C	
B		D	

15a. NAME OF PERSON SIGNING	16. BY *(Signature)*	17. DATE SIGNED
15b. TITLE OF PERSON SIGNING		

EP-S4-15-03 - YEAR 3 - 08/24/18 TO 08/23/19
PUBLIC POSTING

WD 96-0223 (Rev.-43) was first posted on www.wdol.gov on 07/10/2018
Hazardous Waste Pickup/Disposal Services
****

REGISTER OF WAGE DETERMINATIONS UNDER THE SERVICE CONTRACT ACT By direction of the Secretary of Labor	U.S. DEPARTMENT OF LABOR EMPLOYMENT STANDARDS ADMINISTRATION WAGE AND HOUR DIVISION WASHINGTON, D.C. 20210
Daniel W. Simms Director Division of Wage Determinations	Wage Determination No: 1996-0223 Revision No: 43 Date Of Revision: 07/03/2018

Note: Under Executive Order (EO) 13658, an hourly minimum wage of $10.35 for calendar year 2018 applies to all contracts subject to the Service Contract Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least $10.35 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2018. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts
NATIONWIDE: Applicable in the continental U.S. and Hawaii
Regions are defined as follows:
MIDWEST REGION: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin;
NORTHEAST REGION: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Pureto Rico, Rhode Island, Vermont and Virgin Islands;
SOUTH REGION: Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia;
WEST REGION: Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

Fringe Benefits Required Follow the Occupational Listing

Employed on contracts for removal of oil spills, hazardous waste materials and related cleanup services.

OCCUPATION CODE - TITLE	FOOTNOTE	RATE
23440 - Heavy Equipment Operator		
MIDWEST REGION		30.87
NORTHEAST REGION		29.32
SOUTH REGION		26.89
WEST REGION		30.28
23470 - Laborer		
MIDWEST REGION		17.37
NORTHEAST REGION		17.79
SOUTH REGION		13.55
WEST REGION		15.50
30090 - Environmental Technician		
MIDWEST REGION		27.47
NORTHEAST REGION		29.25
SOUTH REGION		26.05
WEST REGION		27.64
31010 - Airplane Pilot		29.33

31361 - Truckdriver, Light	
MIDWEST REGION	15.66
NORTHEAST REGION	19.65
SOUTH REGION	12.73
WEST REGION	13.25
31362 - Truckdriver, Medium	
MIDWEST REGION	25.25
NORTHEAST REGION	25.31
SOUTH REGION	21.48
WEST REGION	23.72
31363 - Truckdriver, Heavy	
MIDWEST REGION	26.46
NORTHEAST REGION	26.58
SOUTH REGION	22.51
WEST REGION	24.90

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors, applies to all contracts subject to the Service Contract Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is the victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.
ALL OCCUPATIONS LISTED ABOVE RECEIVE THE FOLLOWING BENEFITS:

HEALTH & WELFARE: $4.48 per hour or $179.20 per week or $776.53 per month

HEALTH & WELFARE EO 13706: $4.18 per hour, or $167.20 per week, or $724.53 per month*

*This rate is to be used only when compensating employees for performance on an SCA-covered contract also covered by EO 13706, Establishing Paid Sick Leave for Federal Contractors. A contractor may not receive credit toward its SCA obligations for any paid sick leave provided pursuant to EO 13706.

VACATION: 2 weeks paid vacation after 1 year of service with a contractor or successor, 3 weeks after 5 years, and 4 weeks after 15 years. Length of service includes the whole span of continuous service with the present contractor or successor, wherever employed, and with the predecessor contractors in the performance of similar work at the same Federal facility. (Reg. 29 CFR 4.173)

HOLIDAYS: A minimum of ten paid holidays per year: New Year's Day, Martin Luther King Jr.'s Birthday, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day, and Christmas Day. (A contractor may substitute for any of the named holidays another day off with pay in accordance with a plan communicated to the employees involved.) (See 29 CFR 4.174)

VACATION (Hawaii): 2 weeks paid vacation after 1 year of service with a contractor or successor; 3 weeks after 10 years, and 4 weeks after 15 years. Length of service includes the whole span of continuous service with the present contractor or successor, wherever employed, and with the predecessor contractors in the performance of similar work at the same Federal facility. (Reg. 29 CFR

4.173)

HEALTH & WELFARE (Hawaii): $1.91 per hour, or $76.40 per week, or $331.07 per month for all employees on whose behalf the contractor provides health care benefits pursuant to the Hawaii prepaid Health Care Act. For those employees who are not receiving health care benefits mandated by the Hawaii prepaid Health Care Act, the new health and welfare benefit rate will be $4.48 per hour.

HEALTH & WELFARE (Hawaii EO 13706): $1.63 per hour, or $65.20 per week, or $282.53 per month for all employees on whose behalf the contractor provides health care benefits pursuant to the Hawaii prepaid Health Care Act. For those employees who are not receiving health care benefits mandated by the Hawaii prepaid Health Care Act, the new health and welfare benefit rate will be $4.18 per hour. *

*This rate is to be used only when compensating employees for performance on an SCA-covered contract also covered by EO 13706, Establishing Paid Sick Leave for Federal Contractors. A contractor may not receive credit toward its SCA obligations for any paid sick leave provided pursuant to EO 13706.

** UNIFORM ALLOWANCE **

If employees are required to wear uniforms in the performance of this contract (either by the terms of the Government contract, by the employer, by the state or local law, etc.), the cost of furnishing such uniforms and maintaining (by laundering or dry cleaning) such uniforms is an expense that may not be borne by an employee where such cost reduces the hourly rate below that required by the wage determination. The Department of Labor will accept payment in accordance with the following standards as compliance:

The contractor or subcontractor is required to furnish all employees with an adequate number of uniforms without cost or to reimburse employees for the actual cost of the uniforms. In addition, where uniform cleaning and maintenance is made the responsibility of the employee, all contractors and subcontractors subject to this wage determination shall (in the absence of a bona fide collective bargaining agreement providing for a different amount, or the furnishing of contrary affirmative proof as to the actual cost), reimburse all employees for such cleaning and maintenance at a rate of $3.35 per week (or $.67 cents per day). However, in those instances where the uniforms furnished are made of "wash and wear" materials, may be routinely washed and dried with other personal garments, and do not require any special treatment such as dry cleaning, daily washing, or commercial laundering in order to meet the cleanliness or appearance standards set by the terms of the Government contract, by the contractor, by law, or by the nature of the work, there is no requirement that employees be reimbursed for uniform maintenance costs.

** NOTES APPLYING TO THIS WAGE DETERMINATION **

Under the policy and guidance contained in All Agency Memorandum No. 159, the Wage and Hour Division does not recognize, for section 4(c) purposes, prospective wage rates and fringe benefit provisions that are effective only upon such contingencies as "approval of Wage and Hour, issuance of a wage determination, incorporation of the wage determination in the contract, adjusting the contract price, etc." (The relevant CBA section) in the collective bargaining agreement between (the parties) contains contingency language that Wage and Hour does not recognize as reflecting "arm's length negotiation" under section 4(c) of the Act and 29 C.F.R. 5.11(a) of the regulations. This wage determination therefore reflects the actual CBA wage rates and fringe benefits

paid under the predecessor contract.

** SERVICE CONTRACT ACT DIRECTORY OF OCCUPATIONS **

The duties of employees under job titles listed are those described in the "Service Contract Act Directory of Occupations", Fifth Edition (Revision 1), dated September 2015, unless otherwise indicated.

REQUEST FOR AUTHORIZATION OF ADDITIONAL CLASSIFICATION AND WAGE RATE
Standard Form 1444 (SF-1444)

Conformance Process:

The contracting officer shall require that any class of service employee which is not listed herein and which is to be employed under the contract (i.e., the work to be performed is not performed by any classification listed in the wage determination), be classified by the contractor so as to provide a reasonable relationship (i.e., appropriate level of skill comparison) between such unlisted classifications and the classifications listed in the wage determination. Such conformed classes of employees shall be paid the monetary wages and furnished the fringe benefits as are determined (See 29 CFR 4.6(b)(2)(i)). Such conforming procedures shall be initiated by the contractor prior to the performance of contract work by such unlisted class(es) of employees (See 29 CFR 4.6(b)(2)(ii)). The Wage and Hour Division shall make a final determination of conformed classification, wage rate, and/or fringe benefits which shall be retroactive to the commencement date of the contract (See 29 CFR 4.6(b)(2)(iv)(C)(vi)). When multiple wage determinations are included in a contract, a separate SF-1444 should be prepared for each wage determination to which a class(es) is to be conformed.

The process for preparing a conformance request is as follows:

1) When preparing the bid, the contractor identifies the need for a conformed occupation(s) and computes a proposed rate(s).

2) After contract award, the contractor prepares a written report listing in order the proposed classification title(s), a Federal grade equivalency (FGE) for each proposed classification(s), job description(s), and rationale for proposed wage rate(s), including information regarding the agreement or disagreement of the authorized representative of the employees involved, or where there is no authorized representative, the employees themselves. This report should be submitted to the contracting officer no later than 30 days after such unlisted class(es) of employees performs any contract work.

3) The contracting officer reviews the proposed action and promptly submits a report of the action, together with the agency's recommendations and pertinent information including the position of the contractor and the employees, to the Wage and Hour Division, U.S. Department of Labor, for review (See 29 CFR 4.6(b)(2)(ii)).

4) Within 30 days of receipt, the Wage and Hour Division approves, modifies, or disapproves the action via transmittal to the agency contracting officer, or notifies the contracting officer that additional time will be required to process the request.

5) The contracting officer transmits the Wage and Hour decision to the contractor.

6) The contractor informs the affected employees.

Information required by the Regulations must be submitted on SF-1444 or bond paper.

When preparing a conformance request, the "Service Contract Act Directory of Occupations" (the Directory) should be used to compare job definitions to ensure that duties requested are not performed by a classification already listed in the wage determination. Remember, it is not the job title, but the required tasks that determine whether a class is included in an established wage determination. Conformances may not be used to artificially split, combine, or subdivide classifications listed in the wage determination.

U.S. Department of Labor
Wage and Hour Division

PAYROLL

(For Contractor's Optional Use; See Instructions at www.dol.gov/whd/forms/wh347instr.htm)

Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number.

U.S. Wage and Hour Division

Rev. Dec. 2008

NAME OF CONTRACTOR ☐ OR SUBCONTRACTOR ☐	ADDRESS	OMB No.:1235-0008 Expires: 04/30/2021

PAYROLL NO.	FOR WEEK ENDING	PROJECT AND LOCATION	PROJECT OR CONTRACT NO.

(1) NAME AND INDIVIDUAL IDENTIFYING NUMBER (e.g., LAST FOUR DIGITS OF SOCIAL SECURITY NUMBER) OF WORKER	(2) NO. OF WITHHOLDING EXEMPTIONS	(3) WORK CLASSIFICATION	OT. OR ST.	(4) DAY AND DATE / HOURS WORKED EACH DAY							(5) TOTAL HOURS	(6) RATE OF PAY	(7) GROSS AMOUNT EARNED	(8) DEDUCTIONS FICA	WITH-HOLDING TAX			OTHER	TOTAL DEDUCTIONS	(9) NET WAGES PAID FOR WEEK
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While completion of Form WH-347 is optional, it is mandatory for covered contractors and subcontractors performing work on Federally financed or assisted construction contracts to respond to the information collection contained in 29 C.F.R. §§ 3.3, 5.5(a). The Copeland Act (40 U.S.C. § 3145) contractors and subcontractors performing work on Federally financed or assisted construction contracts to "furnish weekly a statement with respect to the wages paid each employee during the preceding week." U.S. Department of Labor (DOL) regulations at 29 C.F.R. § 5.5(a)(3)(ii) require contractors to submit weekly a copy of all payrolls to the Federal agency contracting for or financing the construction project, accompanied by a signed "Statement of Compliance" indicating that the payrolls are correct and complete and that each laborer or mechanic has been paid not less than the proper Davis-Bacon prevailing wage rate for the work performed. DOL and federal contracting agencies receiving this information review the information to determine that employees have received legally required wages and fringe benefits.

Public Burden Statement

We estimate that is will take an average of 55 minutes to complete this collection, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. If you have any comments regarding these estimates or any other aspect of this collection, including suggestions for reducing this burden, send them to the Administrator, Wage and Hour Division, U.S. Department of Labor, Room S3502, 200 Constitution Avenue, N.W. Washington, D.C. 20210

(over)

Date _____

I, _____ _____
(Name of Signatory Party) (Title)

do hereby state:

(1) That I pay or supervise the payment of the persons employed by

_____ on the
(Contractor or Subcontractor)

_____; that during the payroll period commencing on the
(Building or Work)

_____ day of _____, _____, and ending the _____ day of _____, _____,

all persons employed on said project have been paid the full weekly wages earned, that no rebates have been or will be made either directly or indirectly to or on behalf of said

_____ from the full
(Contractor or Subcontractor)

weekly wages earned by any person and that no deductions have been made either directly or indirectly from the full wages earned by any person, other than permissible deductions as defined in Regulations, Part 3 (29 C.F.R. Subtitle A), issued by the Secretary of Labor under the Copeland Act, as amended (48 Stat. 948, 63 Stat. 108, 72 Stat. 967; 76 Stat. 357; 40 U.S.C. § 3145), and described below:

_____

_____

_____

_____

(2) That any payrolls otherwise under this contract required to be submitted for the above period are correct and complete; that the wage rates for laborers or mechanics contained therein are not less than the applicable wage rates contained in any wage determination incorporated into the contract; that the classifications set forth therein for each laborer or mechanic conform with the work he performed.

(3) That any apprentices employed in the above period are duly registered in a bona fide apprenticeship program registered with a State apprenticeship agency recognized by the Bureau of Apprenticeship and Training, United States Department of Labor, or if no such recognized agency exists in a State, are registered with the Bureau of Apprenticeship and Training, United States Department of Labor.

(4) That:

(a) WHERE FRINGE BENEFITS ARE PAID TO APPROVED PLANS, FUNDS, OR PROGRAMS

☐ – in addition to the basic hourly wage rates paid to each laborer or mechanic listed in the above referenced payroll, payments of fringe benefits as listed in the contract have been or will be made to appropriate programs for the benefit of such employees, except as noted in section 4(c) below.

(b) WHERE FRINGE BENEFITS ARE PAID IN CASH

☐ – Each laborer or mechanic listed in the above referenced payroll has been paid, as indicated on the payroll, an amount not less than the sum of the applicable basic hourly wage rate plus the amount of the required fringe benefits as listed in the contract, except as noted in section 4(c) below.

(c) EXCEPTIONS

EXCEPTION (CRAFT)	EXPLANATION

REMARKS:

NAME AND TITLE	SIGNATURE

THE WILLFUL FALSIFICATION OF ANY OF THE ABOVE STATEMENTS MAY SUBJECT THE CONTRACTOR OR SUBCONTRACTOR TO CIVIL OR CRIMINAL PROSECUTION. SEE SECTION 1001 OF TITLE 18 AND SECTION 231 OF TITLE 31 OF THE UNITED STATES CODE.

United States Department of Labor

Wage and Hour Division

Wage and Hour Division (WHD)

Instructions For Completing Payroll Form, WH-347

- WH-347 (PDF)
  OMB Control No. 1235-0008, Expires 04/30/2021.

General: Form WH-347has been made available for the convenience of contractors and subcontractors required by their Federal or Federally-aided construction-type contracts and subcontracts to submit weekly payrolls. Properly filled out, this form will satisfy the requirements of Regulations, Parts 3 and 5 (29 C.F.R., Subtitle A), as to payrolls submitted in connection with contracts subject to the Davis-Bacon and related Acts.

While completion of Form WH-347 is optional, it is mandatory for covered contractors and subcontractors performing work on Federally financed or assisted construction contracts to respond to the information collection contained in 29 C.F.R. §§ 3.3, 5.5(a). The Copeland Act (40 U.S.C. § 3145) requires contractors and subcontractors performing work on Federally financed or assisted construction contracts to "furnish weekly a statement with respect to the wages paid each employee during the preceding week." U.S. Department of Labor (DOL) Regulations at 29 C.F.R. § 5.5(a)(3)(ii) require contractors to submit weekly a copy of all payrolls to the Federal agency contracting for or financing the construction project, accompanied by a signed "Statement of Compliance" indicating that the payrolls are correct and complete and that each laborer or mechanic has been paid not less than the proper Davis-Bacon prevailing wage rate for the work performed. DOL and federal contracting agencies receiving this information review the information to determine that employees have received legally required wages and fringe benefits.

Under the Davis-Bacon and related Acts, the contractor is required to pay not less than prevailing wage, including fringe benefits, as predetermined by the Department of Labor. The contractor's obligation to pay fringe benefits may be met either by payment of the fringe benefits to bona fide benefit plans, funds or programs or by making payments to the covered workers (laborers and mechanics) as cash in lieu of fringe benefits.

This payroll provides for the contractor to show on the face of the payroll all monies to each worker, whether as basic rates or as cash in lieu of fringe benefits, and provides for the contractor's representation in the statement of compliance on the payroll (as shown on page 2) that he/she is paying for fringe benefits required by the contract and not paid as cash in lieu of fringe benefits. Detailed instructions concerning the preparation of the payroll follow:

Contractor or Subcontractor: Fill in your firm's name and check appropriate box.

Address: Fill in your firm's address.

Payroll No.: Beginning with the number "1", list the payroll number for the submission.

For Week Ending: List the workweek ending date.

Project and Location: Self-explanatory.

Project or Contract No.: Self-explanatory.

Column 1 - Name and Individual Identifying Number of Worker: Enter each worker's full name and an individual identifying number (e.g., last four digits of worker's social security number) on each weekly payroll submitted.

Column 2 - No. of Withholding Exemptions: This column is merely inserted for the employer's convenience and is not a requirement of Regulations, Part 3 and 5.

Column 3 - Work Classifications: List classification descriptive of work actually performed by each laborer or mechanic. Consult classification and minimum wage schedule set forth in contract specifications. If additional classifications are deemed necessary, see Contracting Officer or Agency representative. An individual may be shown as having worked in more than one classification provided an accurate breakdown or hours worked in each classification is maintained and shown on the submitted payroll by use of separate entries.

Column 4 - Hours worked: List the day and date and straight time and overtime hours worked in the applicable boxes. On all contracts subject to the Contract Work Hours Standard Act, enter hours worked in excess of 40 hours a week as "overtime".

Column 5 - Total: Self-explanatory

Column 6 - Rate of Pay (Including Fringe Benefits): In the "straight time" box for each worker, list the actual hourly rate paid for straight time worked, plus cash paid in lieu of fringe benefits paid. When recording the straight time hourly rate, any cash paid in lieu of fringe benefits may be shown separately from the basic rate. For example, "$12.25/.40" would reflect a $12.25 base hourly rate plus $0.40 for fringe benefits. This is of assistance in correctly computing overtime. See "Fringe Benefits" below. When overtime is worked, show the overtime hourly rate paid plus any cash in lieu of fringe benefits paid in the "overtime" box for each worker; otherwise, you may skip this box. See "Fringe Benefits" below. Payment of not less than time and one-half the basic or regular rate paid is required for overtime under the Contract Work Hours Standard Act of 1962 if the prime contract exceeds $100,000. In addition to paying no less than the predetermined rate for the classification which an individual works, the contractor must pay amounts predetermined as fringe benefits in the wage decision made part of the contract to approved fringe benefit plans, funds or programs or shall pay as cash in lieu of fringe benefits. See "FRINGE BENEFITS" below.

Column 7 - Gross Amount Earned: Enter gross amount earned on this project. If part of a worker's weekly wage was earned on projects other than the project described on this payroll, enter in column 7 first the amount earned on the Federal or Federally assisted project and then the gross amount earned during the week on all projects, thus "$163.00/$420.00" would reflect the earnings of a worker who earned $163.00 on a Federally assisted construction project during a week in which $420.00 was earned on all work.

Column 8 - Deductions: Five columns are provided for showing deductions made. If more than five deduction are involved, use the first four columns and show the balance deductions under "Other" column; show actual total under "Total Deductions" column; and in the attachment to the payroll describe the deduction(s) contained in the "Other" column. All deductions must be in accordance with the provisions of the Copeland Act Regulations, 29 C.F.R., Part 3. If an individual worked on other jobs in addition to this project, show actual deductions from his/her weekly gross wage, and indicate that deductions are based on his gross wages.

Column 9 - Net Wages Paid for Week: Self-explanatory.

Totals - Space has been left at the bottom of the columns so that totals may be shown if the contractor so desires.

Statement Required by Regulations, Parts 3 and 5: While the "statement of compliance" need not be notarized, the statement (on page 2 of the payroll form) is subject to the penalties provided by 18 U.S.C. § 1001, namely, a fine, possible imprisonment of not more than 5 years, or both. Accordingly, the party signing this statement should have knowledge of the facts represented as true.

Items 1and 2: Space has been provided between items (1) and (2) of the statement for describing any deductions made. If all deductions made are adequately described in the "Deductions" column above, state "*See* Deductions column in this payroll." *See* "FRINGE BENEFITS" below for instructions concerning filling out paragraph 4 of the statement.

Item 4 FRINGE BENEFITS - Contractors who pay all required fringe benefits: If paying all fringe benefits to approved plans, funds, or programs in amounts not less than were determined in the applicable wage decision of the Secretary of Labor, show the basic cash hourly rate and overtime rate paid to each worker on the face of the payroll and check paragraph 4(a) of the statement on page 2 of the WH-347 payroll form to indicate the payment. Note any exceptions in section 4(c).

Contractors who pay no fringe benefits: If not paying all fringe benefits to approved plans, funds, or programs in amounts of at least those that were determined in the applicable wage decision of the Secretary of Labor, pay any remaining fringe benefit amount to each laborer and mechanic and insert in the "straight time" of the "Rate of Pay" column of the payroll an amount not less than the predetermined rate for each classification plus the amount of fringe benefits determined for each classification in the application wage decision. Inasmuch as it is not necessary to pay time and a half on cash paid in lieu of fringe benefits, the overtime rate shall be not less than the sum of the basic predetermined rate, plus the half time premium on basic or regular rate, plus the required cash in lieu of fringe benefits at the straight time rate. In addition, check paragraph 4(b) of the statement on page 2 the payroll form to indicate the payment of fringe benefits in cash directly to the workers. Note any exceptions in section 4(c).

Use of Section 4(c), Exceptions

Any contractor who is making payment to approved plans, funds, or programs in amounts less than the wage determination requires is obliged to pay the deficiency directly to the covered worker as cash in lieu of fringe benefits. Enter any exceptions to section 4(a) or 4(b) in section 4(c). Enter in the Exception column the craft, and enter in the Explanation column the hourly amount paid each worker as cash in lieu of fringe benefits and the hourly amount paid to plans, funds, or programs as fringe benefits. The contractor must pay an amount not less than the predetermined rate plus cash in lieu of fringe benefits as shown in section 4(c) to each such individual for all hours worked (unless otherwise provided by applicable wage determination) on the Federal or Federally assisted project. Enter the rate paid and amount of cash paid in lieu of fringe benefits per hour in column 6 on the payroll. See paragraph on "Contractors who pay no fringe benefits" for computation of overtime rate.

Public Burden Statement: We estimate that it will take an average of 55 minutes to complete this collection of information, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. If you have any comments regarding these estimates or any other aspect of this collection of information, including suggestions for reducing this burden, send them to the Administrator, Wage and Hour Division, ESA, U.S. Department of Labor, Room S3502, 200 Constitution Avenue, N.W.,Washington, D.C. 20210.

Note: In order to view, fill out, and print PDF forms, you need Adobe® Acrobat® Reader® version 5 or later, which you may download for free at www.adobe.com/products/acrobat/readstep2.html.

>

ATTACHMENT D
Analytical

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

Eurofins TestAmerica, Nashville
2960 Foster Creighton Drive
Nashville, TN 37204
Tel: (615)726-0177

Laboratory Job ID: 490-172322-1
Laboratory Sample Delivery Group: L4-526
Client Project/Site: L&R Oil Shelby, NC

For:
Environmental Restoration LLC
1666 Fabick Dr.
Fenton, Missouri 63026

Attn: Ken Braig

Authorized for release by:
4/29/2019 12:12:35 PM

Ken Hayes, Project Manager II
(615)301-5035
ken.hayes@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Method Summary 31
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Sample Summary

Client: Environmental Restoration LLC
Project/Site: L&R Oil Shelby, NC

Job ID: 490-172322-1
SDG: L4-526

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-172322-1	LRUST-1-2-3	Water	04/17/19 09:00	04/18/19 09:25
490-172322-4	LRUST-1-2-3	Waste	04/17/19 09:00	04/18/19 09:25

Job ID: 490-172322-1

Laboratory: Eurofins TestAmerica, Nashville

4

Narrative

Job Narrative
490-172322-1

Comments
No additional comments.

Receipt
The samples were received on 4/18/2019 9:25 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was -0.3° C.

GC/MS VOA
Method(s) 8260C, 8260D: The continuing calibration verification (CCV) analyzed in batch 180-276362 was outside the method criteria for the following analyte(s): 1,2,3-Trichlorobenzene,1,2,4-Trichlorobenzene and Acetone. (HIGH). As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method(s) 8260C, 8260D: The continuing calibration verification (CCV) analyzed in batch 180-276362 was outside the method criteria for the following analyte(s): 2-Hexanone, 4-Methyl-2-pentanone, Chloromethane, Methyl acetate and Vinyl chloride.(LOW). A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method(s) 8260C, 8260D: The continuing calibration verification (CCV) analyzed in batch 180-276362 was outside the method criteria for the following analyte(s): 2-Butanone , Acetone and Methyl acetate. (LOW MINIMUM RRF). A low-level LCS (LLCS), spiked at the reporting limit (RL), was prepared with this batch. The affected target analytes recovered within acceptance limits; therefore, the LLCS demonstrates the analytical system had sufficient sensitivity to detect the compounds. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method(s) 8260C, 8260D: The laboratory control sample (LCS) for analytical batch 180-276362 recovered outside control limits for the following analytes: 4-Methyl-2-pentanone . A low-level LCS (LLCS), spiked at the reporting limit (RL), was prepared with this batch. The affected target analytes recovered within acceptance limits; therefore, the LLCS demonstrates the analytical system had sufficient sensitivity to detect the compounds had they been present. Since the affected target compounds were not detected in the samples, the data have been reported and qualified.

Method(s) 8260C, 8260D: The following sample was diluted to bring the concentration of target analytes within the calibration range: LRUST-1-2-3 (490-172322-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method(s) 8270E: The following sample was diluted due to an abundance of target analytes: LRUST-1-2-3 (490-172322-1). As such, surrogate recoveries are below the calibration range or are not reported, and elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
Method(s) 8082A: The continuing calibration verification (CCV) associated with batch 490-589479 recovered above the upper control limit for PCB-1221. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following sample is impacted: LRUST-1-2-3 (490-172322-4).

Method(s) 8082A: The following sample was diluted due to the nature of the sample matrix: LRUST-1-2-3 (490-172322-4). Elevated reporting limits (RLs) are provided.

Method(s) 8082A: Surrogate recovery for the following sample was outside control limits: LRUST-1-2-3 (490-172322-4). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8082A: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with

Job ID: 490-172322-1 (Continued)

Laboratory: Eurofins TestAmerica, Nashville (Continued)

490-589451.

Method(s) 8082A: The following sample required a dilution due to the nature of the sample matrix: LRUST-1-2-3 (490-172322-1). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method(s) 8082A: The following sample was diluted due to the nature of the sample matrix: LRUST-1-2-3 (490-172322-1). Elevated reporting limits (RLs) are provided.

Method(s) 8082A: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with 490-589623.

Method(s) 8082A: The %RPD between the primary and confirmation column exceeded 40% for Tetrachloro-m-xylene for the following sample: LRUST-1-2-3 (490-172322-1). The lower value(s) has been reported and qualified in accordance with the laboratory's SOP.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Method(s) 3510C: Dilutions were performed for the following samples: LRUST-1-2-3 (490-172322-1). These dilutions were prepared as follows:
100ml of sample made up to 1000ml
Sample contains two layers- organic and water.

Method(s) 9070A: A reduced volume for the following sample was used due to a suspected high concentration of HEM: LRUST-1-2-3 (490-172322-1). Elevated reporting limits (RL) are provided.

Sample contained an organic and inorganic layer.

Method(s) 9070A: Due to the high concentration of HEM the matrix spike / matrix spike duplicate (MS/MSD) for preparation batch 490-590842 and analytical batch 490-590847 could not be evaluated for accuracy and precision. The associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) met acceptance criteria.

Method(s) 3520C: Due to the matrix, the following sample could not be concentrated to the final method required volume: LRUST-1-2-3 (490-172322-1). The reporting limits (RLs) are elevated proportionately.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Definitions/Glossary

Client: Environmental Restoration LLC
Project/Site: L&R Oil Shelby, NC

Job ID: 490-172322-1
SDG: L4-526

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
X	Surrogate is outside control limits

GC Semi VOA

Qualifier	Qualifier Description
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
X	Surrogate is outside control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample Results

Client: Environmental Restoration LLC
Project/Site: L&R Oil Shelby, NC

Job ID: 490-172322-1
SDG: L4-526

Client Sample ID: LRUST-1-2-3

Date Collected: 04/17/19 09:00
Date Received: 04/18/19 09:25

Lab Sample ID: 490-172322-1
Matrix: Water

Method: EPA 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		1000000		ug/L			04/22/19 13:57	50000
Benzene	ND		250000		ug/L			04/22/19 13:57	50000
Bromochloromethane	ND		250000		ug/L			04/22/19 13:57	50000
Bromodichloromethane	ND		250000		ug/L			04/22/19 13:57	50000
Bromoform	ND		250000		ug/L			04/22/19 13:57	50000
Bromomethane	ND		250000		ug/L			04/22/19 13:57	50000
2-Butanone (MEK)	ND		250000		ug/L			04/22/19 13:57	50000
Carbon disulfide	ND		250000		ug/L			04/22/19 13:57	50000
Carbon tetrachloride	ND		250000		ug/L			04/22/19 13:57	50000
Chlorobenzene	ND		250000		ug/L			04/22/19 13:57	50000
Chlorodibromomethane	ND		250000		ug/L			04/22/19 13:57	50000
Chloroethane	ND		250000		ug/L			04/22/19 13:57	50000
Chloroform	ND		250000		ug/L			04/22/19 13:57	50000
Chloromethane	ND		250000		ug/L			04/22/19 13:57	50000
cis-1,2-Dichloroethene	ND		250000		ug/L			04/22/19 13:57	50000
cis-1,3-Dichloropropene	ND		250000		ug/L			04/22/19 13:57	50000
Cyclohexane	ND		250000		ug/L			04/22/19 13:57	50000
1,2-Dibromo-3-Chloropropane	ND		250000		ug/L			04/22/19 13:57	50000
1,2-Dibromoethane (EDB)	ND		250000		ug/L			04/22/19 13:57	50000
1,2-Dichlorobenzene	ND		250000		ug/L			04/22/19 13:57	50000
1,3-Dichlorobenzene	ND		250000		ug/L			04/22/19 13:57	50000
1,4-Dichlorobenzene	ND		250000		ug/L			04/22/19 13:57	50000
Dichlorodifluoromethane	ND		250000		ug/L			04/22/19 13:57	50000
1,1-Dichloroethane	ND		250000		ug/L			04/22/19 13:57	50000
1,2-Dichloroethane	ND		250000		ug/L			04/22/19 13:57	50000
1,1-Dichloroethene	ND		250000		ug/L			04/22/19 13:57	50000
1,2-Dichloropropane	ND		250000		ug/L			04/22/19 13:57	50000
Ethylbenzene	ND		250000		ug/L			04/22/19 13:57	50000
2-Hexanone	ND		250000		ug/L			04/22/19 13:57	50000
Isopropylbenzene	ND		250000		ug/L			04/22/19 13:57	50000
Methyl acetate	ND		1250000		ug/L			04/22/19 13:57	50000
Methylcyclohexane	ND		250000		ug/L			04/22/19 13:57	50000
Methylene Chloride	ND		250000		ug/L			04/22/19 13:57	50000
4-Methyl-2-pentanone (MIBK)	ND	*	250000		ug/L			04/22/19 13:57	50000
Methyl tert-butyl ether	ND		250000		ug/L			04/22/19 13:57	50000
Styrene	ND		250000		ug/L			04/22/19 13:57	50000
1,1,2,2-Tetrachloroethane	ND		250000		ug/L			04/22/19 13:57	50000
Tetrachloroethene	ND		250000		ug/L			04/22/19 13:57	50000
Toluene	**670000**		250000		ug/L			04/22/19 13:57	50000
trans-1,2-Dichloroethene	ND		250000		ug/L			04/22/19 13:57	50000
trans-1,3-Dichloropropene	ND		250000		ug/L			04/22/19 13:57	50000
1,2,3-Trichlorobenzene	ND		250000		ug/L			04/22/19 13:57	50000
1,2,4-Trichlorobenzene	ND		250000		ug/L			04/22/19 13:57	50000
1,1,1-Trichloroethane	ND		250000		ug/L			04/22/19 13:57	50000
1,1,2-Trichloroethane	ND		250000		ug/L			04/22/19 13:57	50000
Trichloroethene	ND		250000		ug/L			04/22/19 13:57	50000
Trichlorofluoromethane	ND		250000		ug/L			04/22/19 13:57	50000
1,1,2-Trichloro-1,2,2-trichfluoroethane	ND		250000		ug/L			04/22/19 13:57	50000
Vinyl chloride	ND		250000		ug/L			04/22/19 13:57	50000

Client Sample Results

Client: Environmental Restoration LLC
Project/Site: L&R Oil Shelby, NC

Job ID: 490-172322-1
SDG: L4-526

Client Sample ID: LRUST-1-2-3

Date Collected: 04/17/19 09:00
Date Received: 04/18/19 09:25

Lab Sample ID: 490-172322-1

Matrix: Water

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Method: EPA 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	956000		500000		ug/L			04/22/19 13:57	50000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*64 - 122*		*04/22/19 13:57*	*50000*
Dibromofluoromethane (Surr)	*103*		*70 - 127*		*04/22/19 13:57*	*50000*
1,2-Dichloroethane-d4 (Surr)	*96*		*58 - 139*		*04/22/19 13:57*	*50000*
Toluene-d8 (Surr)	*98*		*71 - 125*		*04/22/19 13:57*	*50000*

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
Acenaphthylene	ND		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
Acetophenone	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
Anthracene	ND		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
Atrazine	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
Benzaldehyde	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
Benzidine	ND		143000		ug/L		04/19/19 12:04	04/25/19 19:04	50
Benzo[a]anthracene	ND		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
Benzo[a]pyrene	ND		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
Benzo[b]fluoranthene	ND		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
Benzo[g,h,i]perylene	ND		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
Benzo[k]fluoranthene	ND		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
Benzyl alcohol	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
Biphenyl	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
Bis(2-chloroethoxy)methane	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
Bis(2-chloroethyl)ether	ND		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
bis (2-chloroisopropyl) ether	ND		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
Bis(2-ethylhexyl) phthalate	ND		71700		ug/L		04/19/19 12:04	04/25/19 19:04	50
4-Bromophenyl phenyl ether	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
Butyl benzyl phthalate	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
Caprolactam	ND		35900		ug/L		04/19/19 12:04	04/25/19 19:04	50
Carbazole	ND		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
4-Chloroaniline	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
4-Chloro-3-methylphenol	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
2-Chloronaphthalene	ND		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
2-Chlorophenol	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
4-Chlorophenyl phenyl ether	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
Chrysene	ND		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
Dibenz(a,h)anthracene	ND		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
Dibenzofuran	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
1,2-Dichlorobenzene	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
1,3-Dichlorobenzene	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
1,4-Dichlorobenzene	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
3,3'-Dichlorobenzidine	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
2,4-Dichlorophenol	ND		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
Diethyl phthalate	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
2,4-Dimethylphenol	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
Dimethyl phthalate	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
Di-n-butyl phthalate	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
4,6-Dinitro-2-methylphenol	ND		35900		ug/L		04/19/19 12:04	04/25/19 19:04	50

Client Sample Results

Client: Environmental Restoration LLC
Project/Site: L&R Oil Shelby, NC

Job ID: 490-172322-1
SDG: L4-526

Client Sample ID: LRUST-1-2-3
Date Collected: 04/17/19 09:00
Date Received: 04/18/19 09:25

Lab Sample ID: 490-172322-1
Matrix: Water

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	ND		71700		ug/L		04/19/19 12:04	04/25/19 19:04	50
2,4-Dinitrotoluene	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
2,6-Dinitrotoluene	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
Di-n-octyl phthalate	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
Fluoranthene	ND		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
Fluorene	ND		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
Hexachlorobenzene	ND		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
Hexachlorobutadiene	ND		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
Hexachlorocyclopentadiene	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
Hexachloroethane	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
Indeno[1,2,3-cd]pyrene	ND		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
Isophorone	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
2-Methylnaphthalene	**83200**		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
2-Methylphenol	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
Methylphenol, 3 & 4	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
Naphthalene	**91900**		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
2-Nitroaniline	ND		35900		ug/L		04/19/19 12:04	04/25/19 19:04	50
3-Nitroaniline	ND		35900		ug/L		04/19/19 12:04	04/25/19 19:04	50
4-Nitroaniline	ND		35900		ug/L		04/19/19 12:04	04/25/19 19:04	50
Nitrobenzene	ND		14300		ug/L		04/19/19 12:04	04/25/19 19:04	50
2-Nitrophenol	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
4-Nitrophenol	ND		35900		ug/L		04/19/19 12:04	04/25/19 19:04	50
N-Nitrosodimethylamine	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
N-Nitrosodi-n-propylamine	ND		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
n-Nitrosodiphenylamine(as diphenylamine)	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
Pentachlorophenol	ND		35900		ug/L		04/19/19 12:04	04/25/19 19:04	50
Phenanthrene	ND		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
Phenol	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
Pyrene	ND		1360		ug/L		04/19/19 12:04	04/25/19 19:04	50
1,2,4,5-Tetrachlorobenzene	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
2,3,4,6-Tetrachlorophenol	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
1,2,4-Trichlorobenzene	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
2,4,5-Trichlorophenol	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50
2,4,6-Trichlorophenol	ND		7170		ug/L		04/19/19 12:04	04/25/19 19:04	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*0*	*X D*	*37 - 105*	*04/19/19 12:04*	*04/25/19 19:04*	*50*
2-Fluorophenol (Surr)	*0*	*X D*	*22 - 105*	*04/19/19 12:04*	*04/25/19 19:04*	*50*
Nitrobenzene-d5 (Surr)	*0*	*X D*	*38 - 105*	*04/19/19 12:04*	*04/25/19 19:04*	*50*
Phenol-d5 (Surr)	*0*	*X D*	*26 - 105*	*04/19/19 12:04*	*04/25/19 19:04*	*50*
Terphenyl-d14 (Surr)	*0*	*X D*	*21 - 119*	*04/19/19 12:04*	*04/25/19 19:04*	*50*
2,4,6-Tribromophenol (Surr)	*0*	*X D*	*29 - 105*	*04/19/19 12:04*	*04/25/19 19:04*	*50*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		50.0		ug/L		04/22/19 15:50	04/23/19 20:44	10
PCB-1221	ND		50.0		ug/L		04/22/19 15:50	04/23/19 20:44	10
PCB-1232	ND		50.0		ug/L		04/22/19 15:50	04/23/19 20:44	10
PCB-1242	**146**		50.0		ug/L		04/22/19 15:50	04/23/19 20:44	10

Client Sample Results

Client: Environmental Restoration LLC
Project/Site: L&R Oil Shelby, NC

Job ID: 490-172322-1
SDG: L4-526

Client Sample ID: LRUST-1-2-3

Date Collected: 04/17/19 09:00
Date Received: 04/18/19 09:25

Lab Sample ID: 490-172322-1

Matrix: Water

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Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1248	ND		50.0		ug/L		04/22/19 15:50	04/23/19 20:44	10
PCB-1254	ND		50.0		ug/L		04/22/19 15:50	04/23/19 20:44	10
PCB-1260	ND		50.0		ug/L		04/22/19 15:50	04/23/19 20:44	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*0*	*X*	*10 - 150*	*04/22/19 15:50*	*04/23/19 20:44*	*10*
Tetrachloro-m-xylene	*1*	*X p*	*10 - 150*	*04/22/19 15:50*	*04/23/19 20:44*	*10*

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.00500		mg/L		04/20/19 14:02	04/24/19 18:08	1
Arsenic	ND		0.200		mg/L		04/20/19 14:02	04/24/19 00:01	20
Barium	**0.459**		0.0100		mg/L		04/20/19 14:02	04/23/19 14:31	1
Cadmium	**0.00720**		0.00100		mg/L		04/20/19 14:02	04/23/19 14:31	1
Chromium	**0.0135**		0.00500		mg/L		04/20/19 14:02	04/23/19 14:31	1
Lead	**0.191**		0.00500		mg/L		04/20/19 14:02	04/23/19 14:31	1
Selenium	ND		0.0100		mg/L		04/20/19 14:02	04/23/19 14:31	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0200		mg/L		04/19/19 16:27	04/20/19 16:51	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint	**53.4**		1.00		Degrees F			04/23/19 17:31	1
pH	**5.28**		0.100		SU			04/20/19 13:36	1
Temperature	**19.2**		0.100		Degrees C			04/20/19 13:36	1
HEM (Oil & Grease)	**11500**		36.2		mg/L		04/26/19 12:49	04/26/19 12:49	1
SGT-HEM (Oil & Grease)	**6620**		36.2		mg/L		04/26/19 12:49	04/26/19 12:49	1

Client Sample Results

Client: Environmental Restoration LLC
Project/Site: L&R Oil Shelby, NC

Job ID: 490-172322-1
SDG: L4-526

Client Sample ID: LRUST-1-2-3
Date Collected: 04/17/19 09:00
Date Received: 04/18/19 09:25

Lab Sample ID: 490-172322-4
Matrix: Waste

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		4.95		mg/Kg		04/20/19 22:00	04/22/19 22:12	10
PCB-1221	ND		4.95		mg/Kg		04/20/19 22:00	04/22/19 22:12	10
PCB-1232	ND		4.95		mg/Kg		04/20/19 22:00	04/22/19 22:12	10
PCB-1242	**6.27**	**p**	4.95		mg/Kg		04/20/19 22:00	04/22/19 22:12	10
PCB-1248	ND		4.95		mg/Kg		04/20/19 22:00	04/22/19 22:12	10
PCB-1254	ND		4.95		mg/Kg		04/20/19 22:00	04/22/19 22:12	10
PCB-1260	ND		4.95		mg/Kg		04/20/19 22:00	04/22/19 22:12	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*177*	*X*	*20 - 150*	*04/20/19 22:00*	*04/22/19 22:12*	*10*
Tetrachloro-m-xylene	*94*		*19 - 147*	*04/20/19 22:00*	*04/22/19 22:12*	*10*

QC Sample Results

Client: Environmental Restoration LLC
Project/Site: L&R Oil Shelby, NC

Job ID: 490-172322-1
SDG: L4-526

Method: EPA 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 180-276362/5
Matrix: Water
Analysis Batch: 276362

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		20.0		ug/L			04/22/19 09:23	1
Benzene	ND		5.00		ug/L			04/22/19 09:23	1
Bromochloromethane	ND		5.00		ug/L			04/22/19 09:23	1
Bromodichloromethane	ND		5.00		ug/L			04/22/19 09:23	1
Bromoform	ND		5.00		ug/L			04/22/19 09:23	1
Bromomethane	ND		5.00		ug/L			04/22/19 09:23	1
2-Butanone (MEK)	ND		5.00		ug/L			04/22/19 09:23	1
Carbon disulfide	ND		5.00		ug/L			04/22/19 09:23	1
Carbon tetrachloride	ND		5.00		ug/L			04/22/19 09:23	1
Chlorobenzene	ND		5.00		ug/L			04/22/19 09:23	1
Chlorodibromomethane	ND		5.00		ug/L			04/22/19 09:23	1
Chloroethane	ND		5.00		ug/L			04/22/19 09:23	1
Chloroform	ND		5.00		ug/L			04/22/19 09:23	1
Chloromethane	ND		5.00		ug/L			04/22/19 09:23	1
cis-1,2-Dichloroethene	ND		5.00		ug/L			04/22/19 09:23	1
cis-1,3-Dichloropropene	ND		5.00		ug/L			04/22/19 09:23	1
Cyclohexane	ND		5.00		ug/L			04/22/19 09:23	1
1,2-Dibromo-3-Chloropropane	ND		5.00		ug/L			04/22/19 09:23	1
1,2-Dibromoethane (EDB)	ND		5.00		ug/L			04/22/19 09:23	1
1,2-Dichlorobenzene	ND		5.00		ug/L			04/22/19 09:23	1
1,3-Dichlorobenzene	ND		5.00		ug/L			04/22/19 09:23	1
1,4-Dichlorobenzene	ND		5.00		ug/L			04/22/19 09:23	1
Dichlorodifluoromethane	ND		5.00		ug/L			04/22/19 09:23	1
1,1-Dichloroethane	ND		5.00		ug/L			04/22/19 09:23	1
1,2-Dichloroethane	ND		5.00		ug/L			04/22/19 09:23	1
1,1-Dichloroethene	ND		5.00		ug/L			04/22/19 09:23	1
1,2-Dichloropropane	ND		5.00		ug/L			04/22/19 09:23	1
Ethylbenzene	ND		5.00		ug/L			04/22/19 09:23	1
2-Hexanone	ND		5.00		ug/L			04/22/19 09:23	1
Isopropylbenzene	ND		5.00		ug/L			04/22/19 09:23	1
Methyl acetate	ND		25.0		ug/L			04/22/19 09:23	1
Methylcyclohexane	ND		5.00		ug/L			04/22/19 09:23	1
Methylene Chloride	ND		5.00		ug/L			04/22/19 09:23	1
4-Methyl-2-pentanone (MIBK)	ND		5.00		ug/L			04/22/19 09:23	1
Methyl tert-butyl ether	ND		5.00		ug/L			04/22/19 09:23	1
Styrene	ND		5.00		ug/L			04/22/19 09:23	1
1,1,2,2-Tetrachloroethane	ND		5.00		ug/L			04/22/19 09:23	1
Tetrachloroethene	ND		5.00		ug/L			04/22/19 09:23	1
Toluene	ND		5.00		ug/L			04/22/19 09:23	1
trans-1,2-Dichloroethene	ND		5.00		ug/L			04/22/19 09:23	1
trans-1,3-Dichloropropene	ND		5.00		ug/L			04/22/19 09:23	1
1,2,3-Trichlorobenzene	ND		5.00		ug/L			04/22/19 09:23	1
1,2,4-Trichlorobenzene	ND		5.00		ug/L			04/22/19 09:23	1
1,1,1-Trichloroethane	ND		5.00		ug/L			04/22/19 09:23	1
1,1,2-Trichloroethane	ND		5.00		ug/L			04/22/19 09:23	1
Trichloroethene	ND		5.00		ug/L			04/22/19 09:23	1
Trichlorofluoromethane	ND		5.00		ug/L			04/22/19 09:23	1
1,1,2-Trichloro-1,2,2-trichfluoroethane	ND		5.00		ug/L			04/22/19 09:23	1

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Method: EPA 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 180-276362/5
Matrix: Water
Analysis Batch: 276362

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		5.00		ug/L			04/22/19 09:23	1
Xylenes, Total	ND		10.0		ug/L			04/22/19 09:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*64 - 122*		*04/22/19 09:23*	*1*
Dibromofluoromethane (Surr)	*109*		*70 - 127*		*04/22/19 09:23*	*1*
1,2-Dichloroethane-d4 (Surr)	*94*		*58 - 139*		*04/22/19 09:23*	*1*
Toluene-d8 (Surr)	*111*		*71 - 125*		*04/22/19 09:23*	*1*

Lab Sample ID: LCS 180-276362/9
Matrix: Water
Analysis Batch: 276362

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	20.0	19.38	J	ug/L		97	14 - 150
Benzene	10.0	8.915		ug/L		89	66 - 124
Bromochloromethane	10.0	9.490		ug/L		95	68 - 122
Bromodichloromethane	10.0	8.952		ug/L		90	65 - 127
Bromoform	10.0	9.117		ug/L		91	58 - 134
Bromomethane	10.0	13.92		ug/L		139	10 - 150
2-Butanone (MEK)	20.0	13.21		ug/L		66	36 - 150
Carbon disulfide	10.0	11.02		ug/L		110	49 - 138
Carbon tetrachloride	10.0	9.331		ug/L		93	69 - 130
Chlorobenzene	10.0	9.237		ug/L		92	72 - 122
Chlorodibromomethane	10.0	8.731		ug/L		87	66 - 129
Chloroethane	10.0	11.08		ug/L		111	10 - 150
Chloroform	10.0	9.307		ug/L		93	69 - 119
Chloromethane	10.0	7.275		ug/L		73	38 - 148
cis-1,2-Dichloroethene	10.0	9.314		ug/L		93	68 - 121
cis-1,3-Dichloropropene	10.0	8.648		ug/L		86	59 - 129
Cyclohexane	10.0	8.736		ug/L		87	59 - 139
1,2-Dibromo-3-Chloropropane	10.0	7.648		ug/L		76	28 - 141
1,2-Dibromoethane (EDB)	10.0	8.002		ug/L		80	71 - 119
1,2-Dichlorobenzene	10.0	9.459		ug/L		95	63 - 124
1,3-Dichlorobenzene	10.0	9.489		ug/L		95	71 - 117
1,4-Dichlorobenzene	10.0	9.253		ug/L		93	72 - 116
Dichlorodifluoromethane	10.0	9.756		ug/L		98	28 - 148
1,1-Dichloroethane	10.0	8.800		ug/L		88	71 - 124
1,2-Dichloroethane	10.0	7.618		ug/L		76	69 - 127
1,1-Dichloroethene	10.0	11.15		ug/L		111	57 - 135
1,2-Dichloropropane	10.0	8.493		ug/L		85	65 - 125
Ethylbenzene	10.0	9.503		ug/L		95	73 - 120
2-Hexanone	20.0	11.11		ug/L		56	43 - 150
Isopropylbenzene	10.0	9.789		ug/L		98	71 - 123
Methyl acetate	20.0	10.52	J	ug/L		53	45 - 150
Methylcyclohexane	10.0	9.242		ug/L		92	68 - 121
Methylene Chloride	10.0	10.01		ug/L		100	55 - 134
4-Methyl-2-pentanone (MIBK)	20.0	8.639	*	ug/L		43	47 - 148

Method: EPA 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 180-276362/9
Matrix: Water
Analysis Batch: 276362

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	10.0	7.571		ug/L		76	64 - 126
Styrene	10.0	9.272		ug/L		93	65 - 133
1,1,2,2-Tetrachloroethane	10.0	7.114		ug/L		71	51 - 142
Tetrachloroethene	10.0	11.21		ug/L		112	73 - 129
Toluene	10.0	9.470		ug/L		95	68 - 127
trans-1,2-Dichloroethene	10.0	10.34		ug/L		103	69 - 127
trans-1,3-Dichloropropene	10.0	8.032		ug/L		80	57 - 124
1,2,3-Trichlorobenzene	10.0	12.16		ug/L		122	28 - 150
1,2,4-Trichlorobenzene	10.0	11.68		ug/L		117	33 - 146
1,1,1-Trichloroethane	10.0	9.245		ug/L		92	69 - 128
1,1,2-Trichloroethane	10.0	8.333		ug/L		83	71 - 119
Trichloroethene	10.0	9.887		ug/L		99	75 - 122
Trichlorofluoromethane	10.0	12.80		ug/L		128	13 - 150
1,1,2-Trichloro-1,2,2-trichfluoroethane	10.0	11.41		ug/L		114	56 - 135
Vinyl chloride	10.0	7.559		ug/L		76	57 - 132
Xylenes, Total	20.0	19.04		ug/L		95	74 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*64 - 122*
Dibromofluoromethane (Surr)	*106*		*70 - 127*
1,2-Dichloroethane-d4 (Surr)	*87*		*58 - 139*
Toluene-d8 (Surr)	*109*		*71 - 125*

Lab Sample ID: 180-89137-F-13 MS
Matrix: Water
Analysis Batch: 276362

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	ND		20.0	ND		ug/L		70	14 - 150
Benzene	ND		10.0	9.344		ug/L		93	66 - 124
Bromochloromethane	ND		10.0	9.813		ug/L		98	68 - 122
Bromodichloromethane	ND		10.0	9.136		ug/L		91	65 - 127
Bromoform	ND		10.0	9.534		ug/L		95	58 - 134
Bromomethane	ND	F2	10.0	11.58		ug/L		116	10 - 150
2-Butanone (MEK)	ND		20.0	11.69		ug/L		58	36 - 150
Carbon disulfide	ND		10.0	10.30		ug/L		103	49 - 138
Carbon tetrachloride	ND		10.0	9.135		ug/L		91	69 - 130
Chlorobenzene	ND		10.0	9.405		ug/L		94	72 - 122
Chlorodibromomethane	ND		10.0	8.886		ug/L		89	66 - 129
Chloroethane	ND	F2	10.0	8.603		ug/L		86	10 - 150
Chloroform	ND		10.0	9.758		ug/L		98	69 - 119
Chloromethane	ND		10.0	7.716		ug/L		77	38 - 148
cis-1,2-Dichloroethene	ND		10.0	9.698		ug/L		97	68 - 121
cis-1,3-Dichloropropene	ND		10.0	9.265		ug/L		93	59 - 129
Cyclohexane	ND		10.0	8.612		ug/L		86	59 - 139
1,2-Dibromo-3-Chloropropane	ND		10.0	9.067		ug/L		91	28 - 141
1,2-Dibromoethane (EDB)	ND		10.0	8.427		ug/L		84	71 - 119
1,2-Dichlorobenzene	ND		10.0	9.881		ug/L		99	63 - 124

Method: EPA 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 180-89137-F-13 MS
Matrix: Water
Analysis Batch: 276362

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichlorobenzene	ND		10.0	9.702		ug/L		97	71 - 117
1,4-Dichlorobenzene	ND		10.0	9.529		ug/L		95	72 - 116
Dichlorodifluoromethane	ND		10.0	9.088		ug/L		91	28 - 148
1,1-Dichloroethane	ND		10.0	9.120		ug/L		91	71 - 124
1,2-Dichloroethane	ND		10.0	8.277		ug/L		83	69 - 127
1,1-Dichloroethene	ND		10.0	10.57		ug/L		106	57 - 135
1,2-Dichloropropane	ND		10.0	8.910		ug/L		89	65 - 125
Ethylbenzene	ND		10.0	9.596		ug/L		96	73 - 120
2-Hexanone	ND		20.0	10.08		ug/L		50	43 - 150
Isopropylbenzene	ND		10.0	9.759		ug/L		98	71 - 123
Methyl acetate	ND		20.0	ND		ug/L		61	45 - 150
Methylcyclohexane	ND		10.0	9.296		ug/L		93	68 - 121
Methylene Chloride	ND		10.0	10.36		ug/L		104	55 - 134
4-Methyl-2-pentanone (MIBK)	ND	F1 *	20.0	9.027	F1	ug/L		45	47 - 148
Methyl tert-butyl ether	ND		10.0	8.389		ug/L		84	64 - 126
Styrene	ND		10.0	9.461		ug/L		95	65 - 133
1,1,2,2-Tetrachloroethane	ND		10.0	7.764		ug/L		78	51 - 142
Tetrachloroethene	ND		10.0	11.03		ug/L		110	73 - 129
Toluene	ND		10.0	9.489		ug/L		95	68 - 127
trans-1,2-Dichloroethene	ND		10.0	10.20		ug/L		102	69 - 127
trans-1,3-Dichloropropene	ND		10.0	8.317		ug/L		83	57 - 124
1,2,3-Trichlorobenzene	ND	F1	10.0	13.67		ug/L		137	28 - 150
1,2,4-Trichlorobenzene	ND		10.0	12.70		ug/L		127	33 - 146
1,1,1-Trichloroethane	ND		10.0	9.519		ug/L		95	69 - 128
1,1,2-Trichloroethane	ND		10.0	9.016		ug/L		90	71 - 119
Trichloroethene	ND		10.0	10.19		ug/L		102	75 - 122
Trichlorofluoromethane	ND		10.0	11.47		ug/L		115	13 - 150
1,1,2-Trichloro-1,2,2-trichfluoroethane	ND		10.0	11.15		ug/L		112	56 - 135
Vinyl chloride	ND		10.0	7.686		ug/L		77	57 - 132
Xylenes, Total	ND		20.0	19.03		ug/L		95	74 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*64 - 122*
Dibromofluoromethane (Surr)	*109*		*70 - 127*
1,2-Dichloroethane-d4 (Surr)	*100*		*58 - 139*
Toluene-d8 (Surr)	*105*		*71 - 125*

Lab Sample ID: 180-89137-F-13 MSD
Matrix: Water
Analysis Batch: 276362

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	ND		20.0	ND		ug/L		96	14 - 150	31	35
Benzene	ND		10.0	9.131		ug/L		91	66 - 124	2	16
Bromochloromethane	ND		10.0	10.32		ug/L		103	68 - 122	5	18
Bromodichloromethane	ND		10.0	9.790		ug/L		98	65 - 127	7	16
Bromoform	ND		10.0	10.95		ug/L		110	58 - 134	14	16
Bromomethane	ND	F2	10.0	8.011	F2	ug/L		80	10 - 150	36	35

Method: EPA 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 180-89137-F-13 MSD
Matrix: Water
Analysis Batch: 276362

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Butanone (MEK)	ND		20.0	15.38		ug/L		77	36 - 150	27	35
Carbon disulfide	ND		10.0	9.041		ug/L		90	49 - 138	13	35
Carbon tetrachloride	ND		10.0	8.370		ug/L		84	69 - 130	9	17
Chlorobenzene	ND		10.0	9.357		ug/L		94	72 - 122	1	15
Chlorodibromomethane	ND		10.0	9.922		ug/L		99	66 - 129	11	15
Chloroethane	ND	F2	10.0	5.597	F2	ug/L		56	10 - 150	42	35
Chloroform	ND		10.0	9.521		ug/L		95	69 - 119	2	16
Chloromethane	ND		10.0	7.627		ug/L		76	38 - 148	1	35
cis-1,2-Dichloroethene	ND		10.0	9.578		ug/L		96	68 - 121	1	17
cis-1,3-Dichloropropene	ND		10.0	9.543		ug/L		95	59 - 129	3	16
Cyclohexane	ND		10.0	7.571		ug/L		76	59 - 139	13	22
1,2-Dibromo-3-Chloropropane	ND		10.0	11.69		ug/L		117	28 - 141	25	35
1,2-Dibromoethane (EDB)	ND		10.0	9.657		ug/L		97	71 - 119	14	16
1,2-Dichlorobenzene	ND		10.0	10.35		ug/L		103	63 - 124	5	21
1,3-Dichlorobenzene	ND		10.0	9.772		ug/L		98	71 - 117	1	19
1,4-Dichlorobenzene	ND		10.0	9.536		ug/L		95	72 - 116	0	19
Dichlorodifluoromethane	ND		10.0	7.944		ug/L		79	28 - 148	13	25
1,1-Dichloroethane	ND		10.0	8.769		ug/L		88	71 - 124	4	17
1,2-Dichloroethane	ND		10.0	9.116		ug/L		91	69 - 127	10	16
1,1-Dichloroethene	ND		10.0	9.208		ug/L		92	57 - 135	14	35
1,2-Dichloropropane	ND		10.0	9.293		ug/L		93	65 - 125	4	16
Ethylbenzene	ND		10.0	9.019		ug/L		90	73 - 120	6	15
2-Hexanone	ND		20.0	12.85		ug/L		64	43 - 150	24	35
Isopropylbenzene	ND		10.0	9.405		ug/L		94	71 - 123	4	15
Methyl acetate	ND		20.0	ND		ug/L		75	45 - 150	21	35
Methylcyclohexane	ND		10.0	7.914		ug/L		79	68 - 121	16	18
Methylene Chloride	ND		10.0	10.12		ug/L		101	55 - 134	2	25
4-Methyl-2-pentanone (MIBK)	ND	F1 *	20.0	12.27		ug/L		61	47 - 148	30	33
Methyl tert-butyl ether	ND		10.0	9.611		ug/L		96	64 - 126	14	23
Styrene	ND		10.0	9.648		ug/L		96	65 - 133	2	15
1,1,2,2-Tetrachloroethane	ND		10.0	9.320		ug/L		93	51 - 142	18	21
Tetrachloroethene	ND		10.0	10.29		ug/L		103	73 - 129	7	15
Toluene	ND		10.0	9.054		ug/L		91	68 - 127	5	15
trans-1,2-Dichloroethene	ND		10.0	9.524		ug/L		95	69 - 127	7	17
trans-1,3-Dichloropropene	ND		10.0	9.220		ug/L		92	57 - 124	10	15
1,2,3-Trichlorobenzene	ND	F1	10.0	16.73	F1	ug/L		167	28 - 150	20	35
1,2,4-Trichlorobenzene	ND		10.0	14.00		ug/L		140	33 - 146	10	35
1,1,1-Trichloroethane	ND		10.0	8.562		ug/L		86	69 - 128	11	17
1,1,2-Trichloroethane	ND		10.0	9.735		ug/L		97	71 - 119	8	16
Trichloroethene	ND		10.0	9.610		ug/L		96	75 - 122	6	15
Trichlorofluoromethane	ND		10.0	9.511		ug/L		95	13 - 150	19	35
1,1,2-Trichloro-1,2,2-trichfluoroethane	ND		10.0	8.997		ug/L		90	56 - 135	21	35
Vinyl chloride	ND		10.0	7.914		ug/L		79	57 - 132	3	21
Xylenes, Total	ND		20.0	18.71		ug/L		94	74 - 120	2	15

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*88*		*64 - 122*

7

Method: EPA 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 180-89137-F-13 MSD
Matrix: Water
Analysis Batch: 276362

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*99*		*70 - 127*
1,2-Dichloroethane-d4 (Surr)	*93*		*58 - 139*
Toluene-d8 (Surr)	*94*		*71 - 125*

7

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 180-276253/1-A
Matrix: Water
Analysis Batch: 276762

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 276253

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
Acenaphthylene	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
Acetophenone	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
Anthracene	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
Atrazine	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
Benzaldehyde	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
Benzidine	ND		200		ug/L		04/19/19 09:39	04/25/19 14:18	1
Benzo[a]anthracene	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
Benzo[a]pyrene	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
Benzo[b]fluoranthene	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
Benzo[g,h,i]perylene	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
Benzo[k]fluoranthene	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
Benzyl alcohol	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
Biphenyl	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
Bis(2-chloroethoxy)methane	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
Bis(2-chloroethyl)ether	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
bis (2-chloroisopropyl) ether	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
Bis(2-ethylhexyl) phthalate	ND		100		ug/L		04/19/19 09:39	04/25/19 14:18	1
4-Bromophenyl phenyl ether	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
Butyl benzyl phthalate	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
Caprolactam	ND		50.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
Carbazole	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
4-Chloroaniline	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
4-Chloro-3-methylphenol	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
2-Chloronaphthalene	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
2-Chlorophenol	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
4-Chlorophenyl phenyl ether	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
Chrysene	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
Dibenz(a,h)anthracene	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
Dibenzofuran	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
1,2-Dichlorobenzene	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
1,3-Dichlorobenzene	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
1,4-Dichlorobenzene	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
3,3'-Dichlorobenzidine	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
2,4-Dichlorophenol	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
Diethyl phthalate	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
2,4-Dimethylphenol	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
Dimethyl phthalate	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 180-276253/1-A
Matrix: Water
Analysis Batch: 276762

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 276253

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-butyl phthalate	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
4,6-Dinitro-2-methylphenol	ND		50.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
2,4-Dinitrophenol	ND		100		ug/L		04/19/19 09:39	04/25/19 14:18	1
2,4-Dinitrotoluene	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
2,6-Dinitrotoluene	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
Di-n-octyl phthalate	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
Fluoranthene	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
Fluorene	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
Hexachlorobenzene	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
Hexachlorobutadiene	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
Hexachlorocyclopentadiene	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
Hexachloroethane	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
Indeno[1,2,3-cd]pyrene	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
Isophorone	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
2-Methylnaphthalene	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
2-Methylphenol	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
Methylphenol, 3 & 4	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
Naphthalene	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
2-Nitroaniline	ND		50.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
3-Nitroaniline	ND		50.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
4-Nitroaniline	ND		50.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
Nitrobenzene	ND		20.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
2-Nitrophenol	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
4-Nitrophenol	ND		50.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
N-Nitrosodimethylamine	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
N-Nitrosodi-n-propylamine	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
n-Nitrosodiphenylamine(as diphenylamine)	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
Pentachlorophenol	ND		50.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
Phenanthrene	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
Phenol	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
Pyrene	ND		1.90		ug/L		04/19/19 09:39	04/25/19 14:18	1
1,2,4,5-Tetrachlorobenzene	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
2,3,4,6-Tetrachlorophenol	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
1,2,4-Trichlorobenzene	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
2,4,5-Trichlorophenol	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1
2,4,6-Trichlorophenol	ND		10.0		ug/L		04/19/19 09:39	04/25/19 14:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*57*		*37 - 105*	*04/19/19 09:39*	*04/25/19 14:18*	*1*
2-Fluorophenol (Surr)	*58*		*22 - 105*	*04/19/19 09:39*	*04/25/19 14:18*	*1*
Nitrobenzene-d5 (Surr)	*59*		*38 - 105*	*04/19/19 09:39*	*04/25/19 14:18*	*1*
Phenol-d5 (Surr)	*62*		*26 - 105*	*04/19/19 09:39*	*04/25/19 14:18*	*1*
Terphenyl-d14 (Surr)	*74*		*21 - 119*	*04/19/19 09:39*	*04/25/19 14:18*	*1*
2,4,6-Tribromophenol (Surr)	*59*		*29 - 105*	*04/19/19 09:39*	*04/25/19 14:18*	*1*

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 180-276253/2-A
Matrix: Water
Analysis Batch: 276762

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 276253

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	200	136.6		ug/L		68	50 - 100
Acenaphthylene	200	138.4		ug/L		69	51 - 100
Acetophenone	200	126.9		ug/L		63	50 - 100
Anthracene	200	144.0		ug/L		72	51 - 100
Atrazine	200	138.1		ug/L		69	11 - 100
Benzaldehyde	200	65.18		ug/L		33	10 - 127
Benzidine	200	ND		ug/L		33	5 - 100
Benzo[a]anthracene	200	141.0		ug/L		70	51 - 100
Benzo[a]pyrene	200	151.3		ug/L		76	52 - 100
Benzo[b]fluoranthene	200	143.2		ug/L		72	49 - 100
Benzo[g,h,i]perylene	200	148.1		ug/L		74	51 - 100
Benzo[k]fluoranthene	200	152.9		ug/L		76	49 - 100
Benzyl alcohol	200	151.5		ug/L		76	39 - 100
Biphenyl	200	130.0		ug/L		65	49 - 100
Bis(2-chloroethoxy)methane	200	142.4		ug/L		71	48 - 100
Bis(2-chloroethyl)ether	200	131.5		ug/L		66	49 - 100
bis (2-chloroisopropyl) ether	200	145.6		ug/L		73	25 - 110
Bis(2-ethylhexyl) phthalate	200	157.5		ug/L		79	49 - 100
4-Bromophenyl phenyl ether	200	138.2		ug/L		69	50 - 100
Butyl benzyl phthalate	200	161.4		ug/L		81	51 - 100
Caprolactam	200	167.2		ug/L		84	51 - 102
Carbazole	200	149.6		ug/L		75	52 - 100
4-Chloroaniline	200	138.4		ug/L		69	52 - 100
4-Chloro-3-methylphenol	200	147.2		ug/L		74	55 - 100
2-Chloronaphthalene	200	132.8		ug/L		66	50 - 100
2-Chlorophenol	200	132.4		ug/L		66	55 - 100
4-Chlorophenyl phenyl ether	200	138.8		ug/L		69	52 - 100
Chrysene	200	138.3		ug/L		69	52 - 100
Dibenz(a,h)anthracene	200	149.9		ug/L		75	50 - 100
Dibenzofuran	200	137.1		ug/L		69	53 - 100
1,2-Dichlorobenzene	200	130.7		ug/L		65	54 - 100
1,3-Dichlorobenzene	200	128.9		ug/L		64	55 - 100
1,4-Dichlorobenzene	200	131.3		ug/L		66	56 - 100
3,3'-Dichlorobenzidine	200	140.9		ug/L		70	47 - 101
2,4-Dichlorophenol	200	137.9		ug/L		69	55 - 100
Diethyl phthalate	200	131.2		ug/L		66	53 - 100
2,4-Dimethylphenol	200	135.0		ug/L		67	52 - 100
Dimethyl phthalate	200	135.5		ug/L		68	54 - 100
Di-n-butyl phthalate	200	156.3		ug/L		78	53 - 100
4,6-Dinitro-2-methylphenol	400	247.7		ug/L		62	48 - 100
2,4-Dinitrophenol	400	197.1		ug/L		49	42 - 100
2,4-Dinitrotoluene	200	149.5		ug/L		75	58 - 100
2,6-Dinitrotoluene	200	148.5		ug/L		74	58 - 100
Di-n-octyl phthalate	200	177.1		ug/L		89	44 - 101
Fluoranthene	200	141.6		ug/L		71	53 - 100
Fluorene	200	140.5		ug/L		70	52 - 100
Hexachlorobenzene	200	131.4		ug/L		66	47 - 100
Hexachlorobutadiene	200	125.6		ug/L		63	46 - 100

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 180-276253/2-A
Matrix: Water
Analysis Batch: 276762

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 276253

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hexachlorocyclopentadiene	200	107.1		ug/L		54	44 - 100
Hexachloroethane	200	154.7		ug/L		77	53 - 100
Indeno[1,2,3-cd]pyrene	200	149.1		ug/L		75	51 - 100
Isophorone	200	134.5		ug/L		67	48 - 100
2-Methylnaphthalene	200	144.0		ug/L		72	55 - 100
2-Methylphenol	200	137.3		ug/L		69	53 - 100
Methylphenol, 3 & 4	200	128.5		ug/L		64	51 - 100
Naphthalene	200	134.5		ug/L		67	53 - 100
2-Nitroaniline	200	147.1		ug/L		74	43 - 100
3-Nitroaniline	200	159.2		ug/L		80	56 - 100
4-Nitroaniline	200	157.6		ug/L		79	53 - 100
Nitrobenzene	200	129.9		ug/L		65	47 - 100
2-Nitrophenol	200	151.0		ug/L		75	56 - 100
4-Nitrophenol	400	252.6		ug/L		63	45 - 102
N-Nitrosodimethylamine	200	132.0		ug/L		66	50 - 100
N-Nitrosodi-n-propylamine	200	131.8		ug/L		66	50 - 100
n-Nitrosodiphenylamine(as diphenylamine)	200	140.9		ug/L		70	48 - 100
Pentachlorophenol	400	241.6		ug/L		60	41 - 100
Phenanthrene	200	143.1		ug/L		72	50 - 100
Phenol	200	127.0		ug/L		63	49 - 100
Pyrene	200	144.1		ug/L		72	48 - 100
1,2,4,5-Tetrachlorobenzene	200	110.5		ug/L		55	45 - 100
2,3,4,6-Tetrachlorophenol	200	127.6		ug/L		64	51 - 100
1,2,4-Trichlorobenzene	200	129.2		ug/L		65	52 - 100
2,4,5-Trichlorophenol	200	127.6		ug/L		64	50 - 100
2,4,6-Trichlorophenol	200	135.0		ug/L		67	51 - 100

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*61*		*37 - 105*
2-Fluorophenol (Surr)	*58*		*22 - 105*
Nitrobenzene-d5 (Surr)	*63*		*38 - 105*
Phenol-d5 (Surr)	*65*		*26 - 105*
Terphenyl-d14 (Surr)	*68*		*21 - 119*
2,4,6-Tribromophenol (Surr)	*65*		*29 - 105*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 490-589451/1-A
Matrix: Waste
Analysis Batch: 589479

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 589451

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.500		mg/Kg		04/20/19 22:00	04/22/19 12:11	1
PCB-1221	ND		0.500		mg/Kg		04/20/19 22:00	04/22/19 12:11	1
PCB-1232	ND		0.500		mg/Kg		04/20/19 22:00	04/22/19 12:11	1
PCB-1242	ND		0.500		mg/Kg		04/20/19 22:00	04/22/19 12:11	1
PCB-1248	ND		0.500		mg/Kg		04/20/19 22:00	04/22/19 12:11	1
PCB-1254	ND		0.500		mg/Kg		04/20/19 22:00	04/22/19 12:11	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 490-589451/1-A
Matrix: Waste
Analysis Batch: 589479

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 589451

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1260	ND		0.500		mg/Kg		04/20/19 22:00	04/22/19 12:11	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	118		20 - 150	04/20/19 22:00	04/22/19 12:11	1
Tetrachloro-m-xylene	109		19 - 147	04/20/19 22:00	04/22/19 12:11	1

Lab Sample ID: LCS 490-589451/2-A
Matrix: Waste
Analysis Batch: 589479

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 589451

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1248	5.00	4.771		mg/Kg		95	56 - 141

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	107		20 - 150
Tetrachloro-m-xylene	110		19 - 147

Lab Sample ID: LCSD 490-589451/3-A
Matrix: Waste
Analysis Batch: 589479

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 589451

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1248	5.00	4.918		mg/Kg		98	56 - 141	3	50

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	111		20 - 150
Tetrachloro-m-xylene	112		19 - 147

Lab Sample ID: MB 490-589623/1-A
Matrix: Water
Analysis Batch: 589711

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 589623

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.500		ug/L		04/22/19 15:50	04/23/19 17:55	1
PCB-1221	ND		0.500		ug/L		04/22/19 15:50	04/23/19 17:55	1
PCB-1232	ND		0.500		ug/L		04/22/19 15:50	04/23/19 17:55	1
PCB-1242	ND		0.500		ug/L		04/22/19 15:50	04/23/19 17:55	1
PCB-1248	ND		0.500		ug/L		04/22/19 15:50	04/23/19 17:55	1
PCB-1254	ND		0.500		ug/L		04/22/19 15:50	04/23/19 17:55	1
PCB-1260	ND		0.500		ug/L		04/22/19 15:50	04/23/19 17:55	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	45		10 - 150	04/22/19 15:50	04/23/19 17:55	1
Tetrachloro-m-xylene	90		10 - 150	04/22/19 15:50	04/23/19 17:55	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 490-589623/2-A
Matrix: Water
Analysis Batch: 589711

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 589623

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	5.00	4.672		ug/L		93	47 - 144
PCB-1260	5.00	3.843		ug/L		77	45 - 144

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*23*		*10 - 150*
Tetrachloro-m-xylene	*85*		*10 - 150*

Lab Sample ID: LCSD 490-589623/3-A
Matrix: Water
Analysis Batch: 589711

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 589623

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016	5.00	4.811		ug/L		96	47 - 144	3	50
PCB-1260	5.00	3.988		ug/L		80	45 - 144	4	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*33*		*10 - 150*
Tetrachloro-m-xylene	*87*		*10 - 150*

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 490-589370/1-A
Matrix: Water
Analysis Batch: 589974

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 589370

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.00500		mg/L		04/20/19 14:02	04/23/19 13:24	1
Arsenic	ND		0.0100		mg/L		04/20/19 14:02	04/23/19 13:24	1
Barium	ND		0.0100		mg/L		04/20/19 14:02	04/23/19 13:24	1
Cadmium	ND		0.00100		mg/L		04/20/19 14:02	04/23/19 13:24	1
Chromium	ND		0.00500		mg/L		04/20/19 14:02	04/23/19 13:24	1
Lead	ND		0.00500		mg/L		04/20/19 14:02	04/23/19 13:24	1
Selenium	ND		0.0100		mg/L		04/20/19 14:02	04/23/19 13:24	1

Lab Sample ID: MB 490-589370/1-A
Matrix: Water
Analysis Batch: 590003

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 589370

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.0100		mg/L		04/20/19 14:02	04/23/19 22:53	1

Lab Sample ID: LCS 490-589370/2-A
Matrix: Water
Analysis Batch: 589974

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 589370

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	0.100	0.1094		mg/L		109	80 - 120
Arsenic	0.100	0.1059		mg/L		106	80 - 120
Barium	0.100	0.1110		mg/L		111	80 - 120

QC Sample Results

Client: Environmental Restoration LLC
Project/Site: L&R Oil Shelby, NC

Job ID: 490-172322-1
SDG: L4-526

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LCS 490-589370/2-A
Matrix: Water
Analysis Batch: 589974

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 589370

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	0.100	0.1084		mg/L		108	80 - 120
Chromium	0.100	0.1086		mg/L		109	80 - 120
Lead	0.100	0.1147		mg/L		115	80 - 120
Selenium	0.100	0.1030		mg/L		103	80 - 120

Lab Sample ID: LCS 490-589370/2-A
Matrix: Water
Analysis Batch: 590003

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 589370

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.1075		mg/L		108	80 - 120

Lab Sample ID: LCSD 490-589370/3-A
Matrix: Water
Analysis Batch: 589974

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 589370

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Silver	0.100	0.1079		mg/L		108	80 - 120	1	20
Arsenic	0.100	0.1054		mg/L		105	80 - 120	0	20
Barium	0.100	0.1089		mg/L		109	80 - 120	2	20
Cadmium	0.100	0.1069		mg/L		107	80 - 120	1	20
Chromium	0.100	0.1068		mg/L		107	80 - 120	2	20
Lead	0.100	0.1134		mg/L		113	80 - 120	1	20
Selenium	0.100	0.1016		mg/L		102	80 - 120	1	20

Lab Sample ID: LCSD 490-589370/3-A
Matrix: Water
Analysis Batch: 590003

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 589370

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.100	0.1053		mg/L		105	80 - 120	2	20

Lab Sample ID: 490-172411-D-2-B MS
Matrix: Water
Analysis Batch: 589974

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 589370

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	ND		0.100	0.1126		mg/L		113	75 - 125
Arsenic	ND		0.100	0.1101		mg/L		110	75 - 125
Barium	ND		0.100	0.1137		mg/L		114	75 - 125
Cadmium	ND		0.100	0.1116		mg/L		112	75 - 125
Chromium	ND		0.100	0.1116		mg/L		112	75 - 125
Lead	ND		0.100	0.1165		mg/L		117	75 - 125
Selenium	ND		0.100	0.1060		mg/L		106	75 - 125

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: 490-172411-D-2-B MS
Matrix: Water
Analysis Batch: 590003

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 589370

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Arsenic	ND		0.100	0.1096		mg/L		110	75 - 125		

Lab Sample ID: 490-172411-D-2-C MSD
Matrix: Water
Analysis Batch: 589974

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 589370

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Silver	ND		0.100	0.1043		mg/L		104	75 - 125	8	20
Arsenic	ND		0.100	0.1056		mg/L		106	75 - 125	4	20
Barium	ND		0.100	0.1074		mg/L		107	75 - 125	6	20
Cadmium	ND		0.100	0.1052		mg/L		105	75 - 125	6	20
Chromium	ND		0.100	0.1051		mg/L		105	75 - 125	6	20
Lead	ND		0.100	0.1100		mg/L		110	75 - 125	6	20
Selenium	ND		0.100	0.1047		mg/L		105	75 - 125	1	20

Lab Sample ID: 490-172411-D-2-C MSD
Matrix: Water
Analysis Batch: 590003

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 589370

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	ND		0.100	0.1024		mg/L		102	75 - 125	7	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 490-589232/1-A
Matrix: Water
Analysis Batch: 589432

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 589232

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.000200		mg/L		04/19/19 16:27	04/19/19 22:43	1

Lab Sample ID: LCS 490-589232/2-A
Matrix: Water
Analysis Batch: 589432

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 589232

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00100	0.001005		mg/L		100	80 - 120

Lab Sample ID: LCSD 490-589232/3-A
Matrix: Water
Analysis Batch: 589432

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 589232

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.00100	0.0009940		mg/L		99	80 - 120	1	20

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 490-172285-D-8-B MS
Matrix: Water
Analysis Batch: 589432

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 589232

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND		0.00100	0.001184		mg/L		118	75 - 125

Lab Sample ID: 490-172285-D-8-C MSD
Matrix: Water
Analysis Batch: 589432

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 589232

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.00100	0.001163		mg/L		116	75 - 125	2	20

Method: 1010A - Ignitability, Pensky-Martens Closed-Cup Method

Lab Sample ID: MB 490-589940/16
Matrix: Water
Analysis Batch: 589940

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint	>200		1.00		Degrees F			04/23/19 17:31	1

Lab Sample ID: LCS 490-589940/17
Matrix: Water
Analysis Batch: 589940

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Flashpoint	81.0	83.20		Degrees F		103	94 - 106

Lab Sample ID: LCSD 490-589940/15
Matrix: Water
Analysis Batch: 589940

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Flashpoint	81.0	81.10		Degrees F		100	94 - 106	2	20

Lab Sample ID: LCSD 490-589940/26
Matrix: Water
Analysis Batch: 589940

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Flashpoint	81.0	81.50		Degrees F		101	94 - 106	2	20

Lab Sample ID: 490-172322-1 DU
Matrix: Water
Analysis Batch: 589940

Client Sample ID: LRUST-1-2-3
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Flashpoint	53.4		54.60		Degrees F		2	10

QC Sample Results

Client: Environmental Restoration LLC
Project/Site: L&R Oil Shelby, NC

Job ID: 490-172322-1
SDG: L4-526

Method: 9040C - pH

Lab Sample ID: LCS 490-589355/1
Matrix: Water
Analysis Batch: 589355

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	7.00	7.030		SU		100	98 - 103

Lab Sample ID: 490-172322-1 DU
Matrix: Water
Analysis Batch: 589355

Client Sample ID: LRUST-1-2-3
Prep Type: Total/NA

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Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	5.28		5.280		SU		0	20
Temperature	19.2		19.20		Degrees C		0	20

Method: 9070A - HEM and SGT-HEM

Lab Sample ID: MB 490-590842/1-A
Matrix: Water
Analysis Batch: 590847

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 590842

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	ND		4.00		mg/L		04/26/19 12:49	04/26/19 12:49	1
SGT-HEM (Oil & Grease)	ND		4.00		mg/L		04/26/19 12:49	04/26/19 12:49	1

Lab Sample ID: LCS 490-590842/2-A
Matrix: Water
Analysis Batch: 590847

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 590842

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM (Oil & Grease)	41.7	39.48		mg/L		95	78 - 114
SGT-HEM (Oil & Grease)	20.8	18.75		mg/L		90	64 - 132

Lab Sample ID: LCSD 490-590842/3-A
Matrix: Water
Analysis Batch: 590847

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 590842

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
HEM (Oil & Grease)	41.7	39.69		mg/L		95	78 - 114	1	18
SGT-HEM (Oil & Grease)	20.8	18.23		mg/L		88	64 - 132	3	34

QC Association Summary

Client: Environmental Restoration LLC
Project/Site: L&R Oil Shelby, NC

Job ID: 490-172322-1
SDG: L4-526

GC/MS VOA

Analysis Batch: 276362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-172322-1	LRUST-1-2-3	Total/NA	Water	EPA 8260D	
MB 180-276362/5	Method Blank	Total/NA	Water	EPA 8260D	
LCS 180-276362/9	Lab Control Sample	Total/NA	Water	EPA 8260D	
180-89137-F-13 MS	Matrix Spike	Total/NA	Water	EPA 8260D	
180-89137-F-13 MSD	Matrix Spike Duplicate	Total/NA	Water	EPA 8260D	

GC/MS Semi VOA

Prep Batch: 276253

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-172322-1	LRUST-1-2-3	Total/NA	Water	3520C	
MB 180-276253/1-A	Method Blank	Total/NA	Water	3520C	
LCS 180-276253/2-A	Lab Control Sample	Total/NA	Water	3520C	

Analysis Batch: 276762

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-172322-1	LRUST-1-2-3	Total/NA	Water	8270E	276253
MB 180-276253/1-A	Method Blank	Total/NA	Water	8270E	276253
LCS 180-276253/2-A	Lab Control Sample	Total/NA	Water	8270E	276253

GC Semi VOA

Prep Batch: 589451

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-172322-4	LRUST-1-2-3	Total/NA	Waste	3580A	
MB 490-589451/1-A	Method Blank	Total/NA	Waste	3580A	
LCS 490-589451/2-A	Lab Control Sample	Total/NA	Waste	3580A	
LCSD 490-589451/3-A	Lab Control Sample Dup	Total/NA	Waste	3580A	

Analysis Batch: 589479

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-172322-4	LRUST-1-2-3	Total/NA	Waste	8082A	589451
MB 490-589451/1-A	Method Blank	Total/NA	Waste	8082A	589451
LCS 490-589451/2-A	Lab Control Sample	Total/NA	Waste	8082A	589451
LCSD 490-589451/3-A	Lab Control Sample Dup	Total/NA	Waste	8082A	589451

Prep Batch: 589623

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-172322-1	LRUST-1-2-3	Total/NA	Water	3510C	
MB 490-589623/1-A	Method Blank	Total/NA	Water	3510C	
LCS 490-589623/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 490-589623/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 589711

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-172322-1	LRUST-1-2-3	Total/NA	Water	8082A	589623
MB 490-589623/1-A	Method Blank	Total/NA	Water	8082A	589623
LCS 490-589623/2-A	Lab Control Sample	Total/NA	Water	8082A	589623
LCSD 490-589623/3-A	Lab Control Sample Dup	Total/NA	Water	8082A	589623

QC Association Summary

Client: Environmental Restoration LLC
Project/Site: L&R Oil Shelby, NC

Job ID: 490-172322-1
SDG: L4-526

Metals

Prep Batch: 589232

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-172322-1	LRUST-1-2-3	Total/NA	Water	7470A	
MB 490-589232/1-A	Method Blank	Total/NA	Water	7470A	
LCS 490-589232/2-A	Lab Control Sample	Total/NA	Water	7470A	
LCSD 490-589232/3-A	Lab Control Sample Dup	Total/NA	Water	7470A	
490-172285-D-8-B MS	Matrix Spike	Total/NA	Water	7470A	
490-172285-D-8-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Prep Batch: 589370

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-172322-1	LRUST-1-2-3	Total/NA	Water	3010A	
MB 490-589370/1-A	Method Blank	Total/NA	Water	3010A	
LCS 490-589370/2-A	Lab Control Sample	Total/NA	Water	3010A	
LCSD 490-589370/3-A	Lab Control Sample Dup	Total/NA	Water	3010A	
490-172411-D-2-B MS	Matrix Spike	Total/NA	Water	3010A	
490-172411-D-2-C MSD	Matrix Spike Duplicate	Total/NA	Water	3010A	

Analysis Batch: 589432

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-172322-1	LRUST-1-2-3	Total/NA	Water	7470A	589232
MB 490-589232/1-A	Method Blank	Total/NA	Water	7470A	589232
LCS 490-589232/2-A	Lab Control Sample	Total/NA	Water	7470A	589232
LCSD 490-589232/3-A	Lab Control Sample Dup	Total/NA	Water	7470A	589232
490-172285-D-8-B MS	Matrix Spike	Total/NA	Water	7470A	589232
490-172285-D-8-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	589232

Analysis Batch: 589974

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-172322-1	LRUST-1-2-3	Total/NA	Water	6010D	589370
MB 490-589370/1-A	Method Blank	Total/NA	Water	6010D	589370
LCS 490-589370/2-A	Lab Control Sample	Total/NA	Water	6010D	589370
LCSD 490-589370/3-A	Lab Control Sample Dup	Total/NA	Water	6010D	589370
490-172411-D-2-B MS	Matrix Spike	Total/NA	Water	6010D	589370
490-172411-D-2-C MSD	Matrix Spike Duplicate	Total/NA	Water	6010D	589370

Analysis Batch: 590003

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-172322-1	LRUST-1-2-3	Total/NA	Water	6010D	589370
MB 490-589370/1-A	Method Blank	Total/NA	Water	6010D	589370
LCS 490-589370/2-A	Lab Control Sample	Total/NA	Water	6010D	589370
LCSD 490-589370/3-A	Lab Control Sample Dup	Total/NA	Water	6010D	589370
490-172411-D-2-B MS	Matrix Spike	Total/NA	Water	6010D	589370
490-172411-D-2-C MSD	Matrix Spike Duplicate	Total/NA	Water	6010D	589370

Analysis Batch: 590318

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-172322-1	LRUST-1-2-3	Total/NA	Water	6010D	589370

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QC Association Summary

Client: Environmental Restoration LLC
Project/Site: L&R Oil Shelby, NC

Job ID: 490-172322-1
SDG: L4-526

General Chemistry

Analysis Batch: 589355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-172322-1	LRUST-1-2-3	Total/NA	Water	9040C	
LCS 490-589355/1	Lab Control Sample	Total/NA	Water	9040C	
490-172322-1 DU	LRUST-1-2-3	Total/NA	Water	9040C	

Analysis Batch: 589940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-172322-1	LRUST-1-2-3	Total/NA	Water	1010A	
MB 490-589940/16	Method Blank	Total/NA	Water	1010A	
LCS 490-589940/17	Lab Control Sample	Total/NA	Water	1010A	
LCSD 490-589940/15	Lab Control Sample Dup	Total/NA	Water	1010A	
LCSD 490-589940/26	Lab Control Sample Dup	Total/NA	Water	1010A	
490-172322-1 DU	LRUST-1-2-3	Total/NA	Water	1010A	

Prep Batch: 590842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-172322-1	LRUST-1-2-3	Total/NA	Water	9070A	
MB 490-590842/1-A	Method Blank	Total/NA	Water	9070A	
LCS 490-590842/2-A	Lab Control Sample	Total/NA	Water	9070A	
LCSD 490-590842/3-A	Lab Control Sample Dup	Total/NA	Water	9070A	

Analysis Batch: 590847

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-172322-1	LRUST-1-2-3	Total/NA	Water	9070A	590842
MB 490-590842/1-A	Method Blank	Total/NA	Water	9070A	590842
LCS 490-590842/2-A	Lab Control Sample	Total/NA	Water	9070A	590842
LCSD 490-590842/3-A	Lab Control Sample Dup	Total/NA	Water	9070A	590842

Lab Chronicle

Client: Environmental Restoration LLC
Project/Site: L&R Oil Shelby, NC

Job ID: 490-172322-1
SDG: L4-526

Client Sample ID: LRUST-1-2-3

Date Collected: 04/17/19 09:00
Date Received: 04/18/19 09:25

Lab Sample ID: 490-172322-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 8260D		50000	5 mL	5 mL	276362	04/22/19 13:57	PJJ	TAL PIT
Total/NA	Prep	3520C			230 mL	33.0 mL	276253	04/19/19 12:04	BJT	TAL PIT
Total/NA	Analysis	8270E		50	1 mL	1 mL	276762	04/25/19 19:04	VVP	TAL PIT
Total/NA	Prep	3510C			100 mL	5 mL	589623	04/22/19 15:50	MCO	TAL NSH
Total/NA	Analysis	8082A		10			589711	04/23/19 20:44	SLA	TAL NSH
Total/NA	Prep	3010A			50 mL	50 mL	589370	04/20/19 14:02	MNC	TAL NSH
Total/NA	Analysis	6010D		1			589974	04/23/19 14:31	RLB	TAL NSH
Total/NA	Prep	3010A			50 mL	50 mL	589370	04/20/19 14:02	MNC	TAL NSH
Total/NA	Analysis	6010D		20			590003	04/24/19 00:01	RDH	TAL NSH
Total/NA	Prep	3010A			50 mL	50 mL	589370	04/20/19 14:02	MNC	TAL NSH
Total/NA	Analysis	6010D		1			590318	04/24/19 18:08	RLB	TAL NSH
Total/NA	Prep	7470A			.300 mL	30 mL	589232	04/19/19 16:27	EHS	TAL NSH
Total/NA	Analysis	7470A		1			589432	04/20/19 16:51	EHS	TAL NSH
Total/NA	Analysis	1010A		1			589940	04/23/19 17:31	VRP	TAL NSH
Total/NA	Analysis	9040C		1			589355	04/20/19 13:36	MXX	TAL NSH
Total/NA	Prep	9070A			106 mL	960 mL	590842	04/26/19 12:49	BAD	TAL NSH
Total/NA	Analysis	9070A		1			590847	04/26/19 12:49	BAD	TAL NSH

Client Sample ID: LRUST-1-2-3

Date Collected: 04/17/19 09:00
Date Received: 04/18/19 09:25

Lab Sample ID: 490-172322-4
Matrix: Waste

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3580A			1.01 g	10 mL	589451	04/20/19 22:00	AMD	TAL NSH
Total/NA	Analysis	8082A		10	1 mL	1.0 mL	589479	04/22/19 22:12	SLA	TAL NSH

Laboratory References:

TAL NSH = Eurofins TestAmerica, Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177
TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

9

Method Summary

Client: Environmental Restoration LLC
Project/Site: L&R Oil Shelby, NC

Job ID: 490-172322-1
SDG: L4-526

Method	Method Description	Protocol	Laboratory
EPA 8260D	Volatile Organic Compounds by GC/MS	SW846	TAL PIT
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	TAL PIT
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL NSH
6010D	Metals (ICP)	SW846	TAL NSH
7470A	Mercury (CVAA)	SW846	TAL NSH
1010A	Ignitability, Pensky-Martens Closed-Cup Method	SW846	TAL NSH
9040C	pH	SW846	TAL NSH
9070A	HEM and SGT-HEM	SW846	TAL NSH
3010A	Preparation, Total Metals	SW846	TAL NSH
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL NSH
3520C	Liquid-Liquid Extraction (Continuous)	SW846	TAL PIT
3580A	Waste Dilution	SW846	TAL NSH
5030C	Purge and Trap	SW846	TAL PIT
7470A	Preparation, Mercury	SW846	TAL NSH
9070A	HEM and SGT-HEM (SPE)	SW846	TAL NSH

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL NSH = Eurofins TestAmerica, Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Accreditation/Certification Summary

Client: Environmental Restoration LLC
Project/Site: L&R Oil Shelby, NC

Job ID: 490-172322-1
SDG: L4-526

Laboratory: Eurofins TestAmerica, Nashville

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
North Carolina (WW/SW)	State Program	4	387	12-31-19

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
9040C		Water	Temperature
9070A	9070A	Water	SGT-HEM (Oil & Grease)

Laboratory: Eurofins TestAmerica, Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	88-0690	06-27-19
California	State Program	9	2891	04-30-19 *
Connecticut	State Program	1	PH-0688	09-30-20
Florida	NELAP	4	E871008	06-30-19
Illinois	NELAP	5	200005	06-30-19
Kansas	NELAP	7	E-10350	01-31-20
Louisiana	NELAP	6	04041	06-30-19
Nevada	State Program	9	PA00164	07-31-19
New Hampshire	NELAP	1	2030	04-04-20
New Jersey	NELAP	2	PA005	06-30-19
New York	NELAP	2	11182	03-31-20
North Carolina (WW/SW)	State Program	4	434	12-31-19
Oregon	NELAP	10	PA-2151	02-06-20
Pennsylvania	NELAP	3	02-00416	04-30-19
South Carolina	State Program	4	89014	04-30-19 *
Texas	NELAP	6	T104704528-15-2	03-31-20
US Fish & Wildlife	Federal		LE94312A-1	07-31-19
USDA	Federal		P330-16-00211	06-26-19
Utah	NELAP	8	PA001462015-4	05-31-19 *
Virginia	NELAP	3	460189	09-14-19
West Virginia DEP	State Program	3	142	01-31-20
Wisconsin	State Program	5	998027800	08-31-19

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

490-172322 Chain of Custody

COOLER RECEIPT FORM

Cooler Received/Opened On 4/18/2019 @ 0925

Time Samples Removed From Cooler 1903 Time Samples Placed In Storage 1917 (2 Hour Window)

1. Tracking # 1542 (last 4 digits, FedEx) Courier: FedEx

   IR Gun ID 17960353 pH Strip Lot NA Chlorine Strip Lot NA

2. Temperature of rep. sample or temp blank when opened: -0.3 *Degrees Celsius*

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES ...NO...NA

4. Were custody seals on outside of cooler? YES...NO...NA

   If yes, how many and where: 1 (Front)

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) 2.2

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

   Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry Ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

   b. Was there any observable headspace present in any VOA vial? YES...NO...NA

Larger than this.

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence #_____

I certify that I unloaded the cooler and answered questions 7-14 (intial) GH

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

   b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) GH

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) GH

I certify that I attached a label with the unique LIMS number to each container (intial) GH

21. Were there Non-Conformance Issues at login? YES...NO Was a NCM generated? YES...NO...#_____

BIS = Broken in shipment
Cooler Receipt Form.doc

LF-1
End of Form

Revised 8/23/17

4/29/2019

Chain of Custody Record

Charlotte #229

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☑

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client: Environmental Restoration	Project Manager: Ken Brady	Date: 4-17-19	Chain of Custody Number: 282943
Address: 1666 Fabick Dr	Telephone Number (Area Code)/Fax Number: 636-485-0531	Lab Number	Page 1 of
City: Fenton; State: MO; Zip Code: 63026	Site Contact	Lab Contact	
Project Name and Location (State): L&R Oil Shelby, NC	Carrier/Waybill Number		
Contract/Purchase Order/Quote No.: L4-526			

job# 490-153606

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	TCL VOA	TCL TAL Semi-Vol	PCB's	RCRA Metals	Mercury	Flash pt.	Oil & Grease	Special Instructions/ Conditions of Receipt
LRUST-1-2-3	4-17-19	0900		X			5		1	5			X	X	X	X	X	X	X	5 day TAT
RR-274146	4-17-19	0830													X					3 day TAT 100cm2 hexane wipe
RR-280653	4-17-19	0840													X					3 day TAT 100cm2 hexane wipe

Loc: 490
172322

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify): -0.30c

1. Relinquished By	Date 4-17-19	Time 1600	1. Received By C. Bonham	Date 4/17/19	Time 1600
2. Relinquished By C. Bonham	Date 4/17/19	Time 1740	2. Received By TA-NAS	Date 4-18-19	Time 0925
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

ENVIRONMENTAL ER RESTORATION

(1) AWMS

Environmental Restoration, LLC
ERRS Region 4
Job: L4-526
T&D Bulk UST Waste
Due: May 6, 2019 10AM Eastern Time

Request for Quotation

Bidding Vendor: American Waste Management Services Inc

Attachment A
Schedule of Pricing

Item	Description	$ Per Unit	Total Price
1.0	**Bid Item 1.0 – Disposal of Bulk UST Waste** Disposal cost per gallon including all taxes and fees, including all fuel surcharges and environmental fees to dispose of 0 - 50,000 gallons of Bulk UST Waste. Gallon Size tanker being used: 5000 g Minimum # of gallons ERLLC will be charged for per tanker?	$ (b) (4) [redacted] **50,000 gallons =** Cl < 2% Sediment < 3% Sulfur < 2% 1500 gallons	
2.0	**Bid Item 2.0 – Transportation of Bulk UST Waste** Transportation cost per load including all taxes and fees, including the vacuum operator, including all fuel surcharges and environmental fees to transport of 0 - 50,000 gallons of Bulk UST Waste.	$ 4 (b) (4) [redacted] **10 loads =**	
3.0	**Demurrage per Hour** Demurrage per hour, including all taxes and fees, including all fuel surcharges and environmental fees after 3 hours free hours of loading per tanker load. Demurrage - ER is requesting 3 hours free loading.	$ (b) (4) [redacted] **hours=**	
		Grand Total $ 128450	

4.0. Need to complete this data for all TSDF(s) proposed- [attach additional sheets as necessary]
TSDF Name: Norlite
Address: 628 South Saratoga St Cohoes NY12047
Phone: County:
EPA and/or State ID#: NYD080469935
Profile/Waste Approval Period: 4-7 days after all required documents submitted
Additional Information: (i.e., any additional analysis requirements to obtain approval, including testing criteria, and frequency)

Is additional analytical required?
If so, what exact testing is needed?
Disposal pricing subject to final approval and acceptance by the facility after review of profile data and samples when required. All charges from non conforming wastes will be invoiced. All charges from trans equipment damages and or cleanouts will be invoiced. Facility can take 1-2 loads per day based on their capacity and daily scheduling updates to confirm.

5.0	Business Classification: (Check all that apply)	Large Business ☒ Small Business ☒ WHEN this solicitation carries NAICS 562910 size standard *based on number of employees* 8(a) Business ☐ Woman Owned Small Business ☐ Small Disadvantage Business ☐ Certified HUBZone Business ☐ Service Disabled Veterans Small Business ☐
6.0	Acknowledgment and DOT Information	

ENVIRONMENTAL ER RESTORATION

Environmental Restoration, LLC
ERRS Region 4
Job: L4-526
T&D Bulk UST Waste
Due: May 6, 2019 10AM Eastern Time

Request for Quotation

Can bidder meet all requirements, specifications, schedule and loads per day criteria within this RFQ?
X___Yes ___ No If No: Clarify your schedule requirements when submitting your bid.

Will you be self-performing this transportation? ___Yes X___No
How many trucks do you own that could be available for this work? _____
How many trucks could be available to us at one time? _____
Please submit your DOT # _____
If you will be utilizing subcontractors for the transportation- please submit their DOT # and Legal Company Name / DOT#
STAT 460002

Submitting Invoices to ER

When submitting your invoice(s), please provide the following information:
The Invoice with the Job Code/PO # listed
Facility signed manifests/BOLs --complete chain until final facility
Certificates of Disposal from all facilities

No invoices will be processed for payment without this necessary information.

Please initial JES

Please refer to **RFQ# L4-526-10AR** regarding correspondence to your quotation. Any other information obtained for bidding purposes or provided herein will not be binding.

Company Name: American Waste Management Services Inc Date: 5/6/19

Submitted By: James E Smith [Signature] Email: jsmith@awmsi.com

Primary Contact: James E Smith [Print Name] Telephone: 330-856-8800

Secondary Contact: John Zwahl [Print Name] Telephone: 973-903-7022

Amy Riggott

From: John Zwahl <jzwahl@awmsi.com>
Sent: Monday, May 6, 2019 11:13 AM
To: Amy Riggott; jsmith@awmsi.com
Cc: 'Bob Hazen'; Ken Braig
Subject: RE: [EXT]RE: RFQ L4-526 TD Bulk UST Waste Due: 5-6-19 10AM ET

Amy,

A/ I had asked for some clarifications and received them within the last 5 mins:

As per Tradebe:
"We can manage all the waste in a two week period. Best case would be one a day for the two weeks. We should see at very least one sample so we can run analytical to make sure everything matches up. If we don't do it that way we will need to run the first load to see if it matches. If it does not the truck will be held up. If the PCBs are going to be close it would be in the customers best interest to send pre shipment samples so we can be sure they don't approach our levels but if they remain very low than we can just do the one profile sample. Profile process should only take a couple of days."

If we have any flexibility with when we can ship I will try to coordinate a time window when they can accept more than one load per day.

John Zwahl
Mid Atlantic Sales Manager
American Waste Management Services, Inc
(757) 689-2471 Office
(973) 903-7022 Cell Phone
(330) 856-8484 Fax
www.awmsi.com

From: Amy Riggott <a.riggott@erllc.com>
Sent: Monday, May 6, 2019 11:03 AM
To: jsmith@awmsi.com
Cc: Bob Hazen <bhazen@awmsi.com>; John Zwahl <jzwahl@awmsi.com>; Ken Braig <k.braig@erllc.com>
Subject: *RE: [EXT]RE: RFQ L4-526 TD Bulk UST Waste Due: 5-6-19 10AM ET*

Q/ Hi Jim,

Please let me know if additional analysis would be required.
Cl, % sediment, sulfur, etc.

Thank you

From: Jim Smith <jsmith@awmsi.com>
Sent: Monday, May 6, 2019 10:21 AM
To: Amy Riggott <a.riggott@erllc.com>; Mark Bicksler <m.bicksler@erllc.com>; Ken Braig <k.braig@erllc.com>; Christina Strength <c.strength@erllc.com>; RFQ <rfp@erllc.com>
Cc: Bob Hazen <bhazen@awmsi.com>; John Zwahl <jzwahl@awmsi.com>; jsmith@awmsi.com
Subject: [EXT]RE: RFQ L4-526 TD Bulk UST Waste Due: 5-6-19 10AM ET

*****CAUTION*** This email originates from a source outside the company. Please use caution when opening attachments, clicking on links, or following the senders request.**

Thanks for the opportunity

James E Smith
Vice President Disposal Sales
American Waste Management Services Inc.
One American Way
Warren, OH 44484
Cell: 330-283-6584
Office: 330-856-8800
Fax: 330-856-8484
jsmith@awmsi.com
www.awmsi.com

From: Amy Riggott [mailto:a.riggott@erllc.com]
Sent: Tuesday, April 30, 2019 2:01 PM
To: Amy Riggott;Mark Bicksler;Ken Braig;Amy Riggott;Christina Strength
Subject: RFQ L4-526 TD Bulk UST Waste Due: 5-6-19 10AM ET

Good afternoon,

Attached please find an RFQ to provide transportation and disposal of approximately 0 – 50,000 gallons of Bulk UST Waste from the L&R Oil Recovery Site located in Shelby, NC.

This bid is due on May 5, 2019 at 10AM ET.

Please let me know if you have any questions.

Thankyou,
Amy

Amy Riggott
Environmental Restoration, LLC
110 Granby Street
Bloomfield, CT
Cell 860-778-4835
Fax 636-680-2593
a.riggott@erllc.com

Confidentiality Warning: This e-mail and any attachments contain information intended only for the use of the individual or entity named above. If the reader of this e-mail is not the intended recipient or the employee or agent responsible for delivering it to the intended recipient, any dissemination, publication or copying of this e-mail is strictly prohibited. Although this email has been scanned for malware, the sender does not accept any responsibility for any loss, disruption or damage to your data or computer system that may occur while using data contained in, or transmitted with, this e-mail. If you have received this e-mail in error, please immediately notify by return e-mail. Thank you.

ENVIRONMENTAL ER RESTORATION

(2) ECOFLO

Environmental Restoration, LLC
ERRS Region 4
Job: L4-526
T&D Bulk UST Waste
Due: May 6, 2019 10AM Eastern Time

Request for Quotation

Bidding Vendor: ECOFLO, Inc.

Attachment A
Schedule of Pricing

Item	Description	$ Per Unit	Total Price
1.0	**Bid Item 1.0 – Disposal of Bulk UST Waste** Disposal cost per gallon including all taxes and fees, including all fuel surcharges and environmental fees to dispose of 0 - 50,000 gallons of Bulk UST Waste. Gallon Size tanker being used: 4,500-5,000 g Minimum # of gallons ERLLC will be charged for per tanker?	(b) (4) [redacted] 50,000 gallons = 750 gallons	
2.0	**Bid Item 2.0 – Transportation of Bulk UST Waste** Transportation cost per load including all taxes and fees, including the vacuum operator, including all fuel surcharges and environmental fees to transport of 0 - 50,000 gallons of Bulk UST Waste.	$ (b) (4) [redacted] 10 loads =	
3.0	**Demurrage per Hour** Demurrage per hour, including all taxes and fees, including all fuel surcharges and environmental fees after 3 hours free hours of loading per tanker load. Demurrage - ER is requesting 3 hours free loading.	$ (b) (4) [redacted] hours=	
		Grand Total $ 163,850.00	

4.0 Need to complete this data for all TSDF(s) proposed- [attach additional sheets as necessary]
TSDF Name: Clean Harbors of Baltimore
Address: 1910 Russell St. Baltimore, MD 21230
Phone: 877-333-4244 County: Baltimore
EPA and/or State ID#: MDD890555189
Profile/Waste Approval Period: 1-2 weeks
Additional Information: (i.e., any additional analysis requirements to obtain approval, including testing criteria, and frequency) Please see attached bid stipulations.
Is additional analytical required? No
If so, what exact testing is needed?

5.0 Business Classification: (Check all that apply)
- Large Business ☐
- Small Business ☑
- 8(a) Business ☐
- Woman Owned Small Business ☐
- Small Disadvantage Business ☐
- Certified HUBZone Business ☐
- Service Disabled Veterans Small Business ☐

6.0 Acknowledgment and DOT Information

ENVIRONMENTAL ER RESTORATION

Environmental Restoration, LLC
ERRS Region 4
Job: L4-526
T&D Bulk UST Waste
Due: May 6, 2019 10AM Eastern Time

Request for Quotation

Can bidder meet all requirements, specifications, schedule and loads per day criteria within this RFQ?
[✓] Yes ___ No If No: Clarify your schedule requirements when submitting your bid.

Will you be self-performing this transportation? ___ Yes [✓] No
How many trucks do you own that could be available for this work? _____
How many trucks could be available to us at one time? _____
Please submit your DOT # _____
If you will be utilizing subcontractors for the transportation- please submit their DOT # and Legal Company Name / DOT#
STAT, Inc. NCD980799142

Submitting Invoices to ER

When submitting your invoice(s), please provide the following information:
The invoice with the Job Code/PO # listed
Facility signed manifests/BOLs –complete chain until final facility
Certificates of Disposal from all facilities

No invoices will be processed for payment without this necessary information.

Please initial _____

Please refer to RFQ# L4-526-10AR regarding correspondence to your quotation. Any other information obtained for bidding purposes or provided herein will not be binding.

Company Name: ECOFLO, Inc. Date: 5/3/2019

Submitted By: _____ [Signature] *Email:* info@ecoflo.com

Primary Contact: Hal Browne [Print Name] Telephone: 336-253-0132

Secondary Contact: Jeannine Viars [Print Name] Telephone: 336-617-2724

BID STIPULATIONS

Waste

1. Pricing is based on profile approval at designated disposal facility.
2. ER will compete and sign an appropriate Waste Characterization Form.
3. Only liquid waste and waste meeting the analytical specification in Attachment D.
4. Waste Criterion:
    a. Treatment
        i. PCBs are < 50 ppm and from a non-TSCA source.
        ii. Specific Gravity is < 1.2.
        iii. Waste contains no more than 100 ppm phenol.
        iv. Waste is non-reactive with water and organic solvents.
        v. Waste contains no debris.
        vi. Solids will be surcharged at $0.06 per percent beginning at 5 percent.
    b. Fuel Blend
        i. Dispersible Sludge is < 12 inches.
        ii. PCBs are < 50 ppm and from a non-TSCA source.
        iii. Waste contains no debris.
        iv. Viscosity is < 150 centipoise at room temperature.
        v. Waste contains no pesticides.
        vi. Waste is non-reactive with water and organic solvents.
5. Terms and Conditions:
    a. T&C #18 will be deleted.
    b. Add the following to T&C #10:
        i. Purchaser agrees to indemnify and hold Seller harmless from any and all claims and liability, including expenses, including but not limited to, legal fees and court costs, for injuries or death to persons or damages to or destruction of property caused by or resulting from the acts or omissions of Purchaser, its agents, suppliers or employees in the performance of this order, and defend at Purchaser's expense all suits or proceedings arising out of any of the foregoing. If work or services under this order are to be performed within the premises occupied or controlled by the Purchaser or a customer of the Purchaser, then Purchaser agrees to (a) hold Seller and its subcontractors harmless from all injuries, damages and claims arising from such performance, and (b) claims from damages, personal injury or death to employees of the Seller, Purchaser or its customers, or any other persons, which may arise from performance of work or service caused by the order, whether performed by Purchaser or any subcontractor, or anyone directly or indirectly employed by either of them.

c. Add the following as a T&C:

WASTE CHARACTERIZATION

A. PURCHASER and Generator Responsibilities To Timely Provide Accurate Information. Prior to SELLER's performance of any Services, PURCHASER must require Generator to complete and submit a completed SELLER Material Characterization Form in the format provided by SELLER ("Waste Characterization") and all Material Safety Data Sheets ("MSDS") applicable to each Waste. PURCHASER and Generator must also provide to SELLER all other information when and as required by Law. Prior to SELLER taking control of the Waste, PURCHASER and Generator must provide to SELLER all information necessary for SELLER to fully protect the environment, and the health and safety of employees, subcontractors, and the public, including, when necessary or requested by SELLER, the identity of the Generator(s) of the Waste and descriptions of the Generator's procedures regarding the generation, processing, and handling of the Waste. Generator's Waste Characterization must be true, accurate, and complete. SELLER may request more specific information before providing the Services, and PURCHASER agrees to cause Generator to timely provide such information to SELLER upon such request. Further, upon SELLER's request, PURCHASER shall require Generator to submit a sample of the Waste which represents the composition and condition of the Waste Generator will provide SELLER. In the event that PURCHASER or Generator becomes aware of additional information about the Waste after Generator has provided a Waste Characterization to SELLER, PURCHASER and/or Generator shall promptly inform SELLER and submit an amended Waste Characterization reflecting such additional information. Any change in a Waste Characterization shall be grounds for SELLER to revoke the Proposal or its acceptance of any related Purchase Orders(s) or Wastes.

B. SELLER's Reliance On Information. SELLER is entitled to and will rely on information provided by PURCHASER and on Generator's Waste Characterization to provide Services.

NONCONFORMING WASTE

A. Definition and Scope. Any Waste provided by Generator which, at the time it is tendered by Generator or at any time thereafter, is not described truly, accurately, and completely by the then current Waste Characterization, or which does not reasonably match the sample of Waste provided by Generator, is "Nonconforming Waste" and is governed by this Section 4. If one or more containers or units of Generator's Waste is Nonconforming, SELLER may, in its sole discretion, classify any or all of Generator's Waste as Nonconforming.

B. Notification, Communication, and Action. SELLER may reject or may revoke acceptance of Nonconforming Waste in its sole discretion. As soon as

practicable after discovering that Waste is Nonconforming Waste, SELLER shall notify PURCHASER of such Nonconforming Waste. If SELLER has possession of the Nonconforming Waste, PURCHASER must, within forty eight (48) hours after receiving notice from SELLER of such Nonconforming Waste, notify SELLER of PURCHASER's request as to one of the follow actions with regard to the Nonconforming Waste: (1) that SELLER return the Nonconforming Waste to Generator; (2) that SELLER deliver the Nonconforming Waste to a third party; (3) that SELLER provide Services at whatever price SELLER deems applicable for the Nonconforming Waste; or (4) that SELLER take, or allow PURCHASER or Generator to take, some other reasonable action with regard to the Nonconforming Waste. Provided, however, that if PURCHASER requests that SELLER perform any action other than to return the Waste to Generator, SELLER may, in its sole discretion, decline to do so and SELLER shall then return the Waste to Generator. If PURCHASER fails within the forty eight (48) hours of receiving notice by SELLER of the nonconformity to inform SELLER what actions to take with regard to the Nonconforming Waste, SELLER may take such actions that it chooses in its sole discretion regarding such Waste, including, but not limited to, returning the Waste to the Generator or disposing of such Waste. If PURCHASER so requests, SELLER shall provide PURCHASER with information supporting SELLER's determination of the nonconformance of Nonconforming Waste, but such request shall not affect the time periods for actions and communications by the PURCHASER as stated hereinabove.

C. Costs and Expenses. PURCHASER shall, in all circumstances, be responsible and liable for all costs, fees, and expenses incurred by SELLER or any third party related to any Nonconforming Waste, regardless of when the nonconformity is discovered or when the expenses are incurred.

TITLE

A. Conforming Waste. If the Generator 's Waste conforms to the Waste Characterization and sample (if any), title to the Waste shall pass from Generator to SELLER when SELLER accepts the Waste (see Section 7A) and signs the hazardous waste manifest accepting such Waste at its RCRA/TSCA permitted facility.

B. Nonconforming Waste. If Generator tenders Nonconforming Waste to SELLER, title to the Nonconforming Waste shall remain with Generator, regardless of the time at which the Waste is discovered or determined to be Nonconforming Waste.

ENVIRONMENTAL RESTORATION

(3) Capitol

Environmental Restoration, LLC
ERRS Region 4
Job: L4-526
T&D Bulk UST Waste
Due: May 6, 2019 10AM Eastern Time

Request for Quotation

Bidding Vendor: Capitol Environmental Svcs.

Attachment A
Schedule of Pricing

Item	Description	$ Per Unit	Total Price
1.0	**Bid Item 1.0 – Disposal of Bulk UST Waste** Disposal cost per gallon including all taxes and fees, including all fuel surcharges and environmental fees to dispose of 0 - 50,000 gallons of Bulk UST Waste. Gallon Size tanker being used: 4500-5000 g Minimum # of gallons ERLLC will be charged for per tanker?	$ (b) (4) [redacted] 50,000 gallons = 1000 gallons	
2.0	**Bid Item 2.0 – Transportation of Bulk UST Waste** Transportation cost per load including all taxes and fees, including the vacuum operator, including all fuel surcharges and environmental fees to transport of 0 - 50,000 gallons of Bulk UST Waste.	$ (b) (4) [redacted] 10 loads =	
3.0	**Demurrage per Hour** Demurrage per hour, including all taxes and fees, including all fuel surcharges and environmental fees after 3 hours free hours of loading per tanker load. Demurrage - ER is requesting 3 hours free loading.	$ (b) (4) [redacted] hours=	
		Grand Total $ 175,958.00	
4.0	Need to complete this data for all TSDF(s) proposed- [attach additional sheets as necessary] TSDF Name: Clean Harbors in Baltimore. Address: Phone: County: EPA and/or State ID#: MDD890555189 Profile/Waste Approval Period: 1-2 weeks Additional Information: (i.e., any additional analysis requirements to obtain approval, including testing criteria, and frequency) Is additional analytical required? No If so, what exact testing is needed?		
5.0	Business Classification: (Check all that apply)	Large Business ☐ Small Business ☒ 8(a) Business ☐ Woman Owned Small Business ☐ Small Disadvantage Business ☐ Certified HUBZone Business ☐ Service Disabled Veterans Small Business ☐	
6.0	Acknowledgment and DOT Information		

ENVIRONMENTAL RESTORATION

Environmental Restoration, LLC
ERRS Region 4
Job: L4-526
T&D Bulk UST Waste
Due: May 6, 2019 10AM Eastern Time

Request for Quotation

Can bidder meet all requirements, specifications, schedule and loads per day criteria within this RFQ?
X Yes ___ No If No: Clarify your schedule requirements when submitting your bid.

Will you be self-performing this transportation? ___Yes X No
How many trucks do you own that could be available for this work? _____
How many trucks could be available to us at one time? _____
Please submit your DOT # _____
If you will be utilizing subcontractors for the transportation- please submit their DOT # and Legal Company Name / DOT#

Submitting Invoices to ER

When submitting your invoice(s), please provide the following information:
The invoice with the Job Code/PO # listed
Facility signed manifests/BOLs –complete chain until final facility
Certificates of Disposal from all facilities

No invoices will be processed for payment without this necessary information.

Please initial SMS

Please refer to **RFQ# L4-526-10AR** regarding correspondence to your quotation. Any other information obtained for bidding purposes or provided herein will not be binding.

Company Name: Captol Environmental Svcs Date: 5-3-19

Submitted By: Susan M. Schult [Signature] Email: SSchult@capitolenv.com

Primary Contact: Susan Schult [Print Name] Telephone: 301-218-6607

Secondary Contact: Vicki Mray [Print Name] Telephone: 302-380-3737

Pressley, Miriam

From: Paul Pilgrim <p.pilgrim@erllc.com>
Sent: Monday, October 28, 2019 11:01 AM
To: Eichinger, Kevin
Cc: Christina Strength
Subject: FW: L4-526; 1900 Draft
Attachments: ATT00001.txt; L4-526 1900-55 10-20-19 Draft.pdf

Hi Kevin, were you okay for us to finalize this draft 1900-55?

Paul A. Pilgrim
Response Manager
Environmental Restoration, LLC.
6940 Commercial Drive
Morrow, GA 30260
Office: 770-961-9272
Cell: 615-498-4223
p.pilgrim@erllc.com

From: Christina Strength <c.strength@erllc.com>
Sent: Monday, October 28, 2019 10:25
To: Paul Pilgrim <p.pilgrim@erllc.com>
Subject: FW: L4-526; 1900 Draft

Just making sure you were able to review and send this one to the OSC. Just trying to get all my 1900s finalized this week for EOM.

Thanks!

From: Christina Strength
Sent: Wednesday, October 23, 2019 11:36 AM
To: Paul Pilgrim <p.pilgrim@erllc.com>
Subject: L4-526; 1900 Draft

Hi Paul,

Sorry for the delay on this 1900....it got put on the back burner when I got all the other jobs. See if this looks ok to send to the OSC. There were some corrections to rates and also all the time, etc for the last site visit.

I'm waiting for the COD from Shamrock before I can add that invoice.

Thank you,

Christina Strength
Field Cost Accountant
Environmental Restoration
Cell: 407-557-4086
Fax: 636-680-2584
c.strength@erllc.com

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EPA STANDARD FORM 1900-55
Personnel Report

US ENVIRONMENTAL PROTECTION AGENCY
HAZARDOUS SUBSTANCE RESPONSE FUND CONTRACTOR RECEIVING REPORT

Date: 10/20/2019

Site: EPS41503 0526 L AND R OIL RECOVERY Site #:C466RV00
Contractor: ERLLC, Ref# L4-526

** DRAFT **

Delivery Order #: 68HE0418F0526
Contract #: EP-S4-15-03

EMPLOYEE	EMPLOYEE ID	WORK CLASSIFICATION	RCMS #	DAILY HOURS REG	DAILY HOURS OT	RATES REG	RATES OT	LABOR COST	G&A COST	PERSONNEL COST	Cmt	REF #
ADJUSTMENTS												
ERLLC:												
08/30/19:												
Strength, Christina	(b) (6)	Field Clerk/Typist	S2-10-01	(b) (4)							Y	483
Strength, Christina		Field Clerk/Typist	S2-10-01								Y	484
07/09/19:												
Pilgrim, Paul		Project Manager	S1-30-02								Y	487
Pilgrim, Paul		Project Manager	S1-30-02								Y	488
07/08/19:												
Pilgrim, Paul		Project Manager	S1-30-02								Y	485
Pilgrim, Paul		Project Manager	S1-30-02								Y	486
10/11/19:												
Strength, Christina		Field Clerk/Typist	S2-10-01								Y	496
09/13/19:												
Hall, Blake		Equipment Operator	S2-05-01								Y	521
Hall, Blake		Equipment Operator	S2-05-01								Y	508
Pilgrim, Paul		Project Manager	S1-30-02								Y	505
Pilgrim, Paul		Project Manager	S1-30-02								Y	507
Planteny, Phillip		Laborer	S2-15-01								Y	522
Planteny, Phillip		Laborer	S2-15-01								Y	509
09/12/19:												
Hall, Blake		Laborer	S2-15-01								Y	515
Pilgrim, Paul		Project Manager	S1-30-02								Y	504
Planteny, Phillip		Equipment Operator	S2-05-01								Y	512
09/11/19:												
Hall, Blake		Laborer	S2-15-01								Y	514
Pilgrim, Paul		Project Manager	S1-30-02								Y	503
Planteny, Phillip		Equipment Operator	S2-05-01								Y	511
Strength, Christina		Field Clerk/Typist	S2-10-01								Y	500
09/10/19:												
Hall, Blake		Laborer	S2-15-01								Y	513
Pilgrim, Paul		Project Manager	S1-30-02								Y	502
Planteny, Phillip		Equipment Operator	S2-05-01								Y	510
Strength, Christina		Field Clerk/Typist	S2-10-01								Y	499
09/09/19:												
Hall, Blake		Laborer	S2-15-01								Y	520
Pilgrim, Paul		Project Manager	S1-30-02								Y	506
Pilgrim, Paul		Project Manager	S1-30-02								Y	501
Strength, Christina		Field Clerk/Typist	S2-10-01								Y	498
09/06/19:												
Pilgrim, Paul		Project Manager	S1-30-02								N	519
09/05/19:												
Strength, Christina		Field Clerk/Typist	S2-10-01								Y	518
09/04/19:												
Strength, Christina		Field Clerk/Typist	S2-10-01								Y	517
09/03/19:												
Strength, Christina		Field Clerk/Typist	S2-10-01								Y	516

50 pages

Pressley, Miriam

From: Paul Pilgrim <p.pilgrim@erllc.com>
Sent: Wednesday, August 7, 2019 10:06 AM
To: Eichinger, Kevin
Subject: FW: L4-526 TD Oil Waste in Totes --ok to award AWMS?
Attachments: ATT00001.txt; BAW.xls

Hi Kevin, hope all is well in Germany. (Jealous!....lol) Wanted to go to Oktoberfest 2019 in Munich but it doesn't look I will get there..... Anyhow, please see attached bid review as requested. We are awarding to American Waste Management today. Still waiting on the water.

Paul A. Pilgrim
Response Manager
Environmental Restoration, LLC.
6940 Commercial Drive
Morrow, GA 30260
Office: 770-961-9272
Cell: 615-498-4223
p.pilgrim@erllc.com

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ENVIRONMENTAL ER RESTORATION

BID ANALYSIS WORKSHEET

DATE: 8/6/2019

PROJECT NUMBER: L4-526

PREPARED BY: Amy Riggott

PROJECT NAME: L&R Oil

ITEM: T&D Oil Tote Waste

ORDER REQUIRED ON SITE BY:

Manager: Pilgrim

FCA: Strength

Consent Required: No / Yes

		1		2		3		4	
	Vendor	American Waste Mgmt. Services, Inc.		Capitol		Clean Management		US Ecology	
	Vendor Rep.	Jim Smith		Susan Schult		Scott Bridgeman		Jodi Gentzlinger	
	Phone	330-856-8800		301-218-6607		800-538-8131		321-749-6894	
	City, ST	Warren, OH		Newark, DE		North Carolina		North Carolina	
	Date Bid Rec'd	08/06/19		08/06/19		08/06/19		08/06/19	
	Terms	Net 60		Net 60		Net 60		Net 60	
	Quantity	Unit Price	Extended	Unit Price	Extended	Unit Price	Extended	Unit Price	Extended
Cost per 275-gallon tote, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 19 x 275-gallon totes of Waste Oil (TT01).	19	[redacted]							NO Bid
Cost per 275-gallon tote, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 11 x 275-gallon totes of Waste Oil (TT02).	11								$ -
Cost per 275-gallon tote, including all taxes and fees, including all fuel surcharges and environmental fees, to dispose of 0 to 9 x 275-gallon totes of Waste Oil (TT03).	9								$ -
Cost per load including all taxes and fees, including all fuel surcharges and environmental fees, for per load to pick-up the totes.	2								$ -
Cost per hour including all taxes and fees, including all fuel surcharges and environmental fees, for demurrage per hour, after 5 hours free loading.	5								$ -
		Fuels blended for		Fuels blended for	All waste must meet "GOOD FUEL SPEC" (See	NO	Must meet specific criteria--(see bid)		

(b) (4)

Proposed Facility / Approval period once all required documents are submitted		Ecoflo to Geocycle-Holly Hill, SC	3-5 days	Ecoflo to Geocycle or Giant	2-3 days	Clean Earth of AL to Green America Recycling	2 days		
Additional analysisor sample required? / Final use of oil?		No	Waste will be blended for fuels blending -Energy Recovery at cement kiln.	No	Waste will be blended for fuels blending -Energy Recovery at cement kiln.	No	$ -		$ -
Total			$ 14,700.00		$ 14,995.00		$ 17,274.00		No Bid

Recomended Vendor: **American Waste Mgmt. Services, Inc.** **OSC Approval:** _____ **Date:** _____

Basis For Recomendation: (*check all that apply*) _X_Best Value per RFQ _X_Lowest Cost __Sole Source __Best Technically Accepted Supplier __Other(explain)

Justification / Explanation for Award: (*Must Complete*) **American Waste Mgmt. Services, Inc. (AWMS) provided the best value, meeting all requirements of the RFQ. AWMS can meet site scheudle. The proposed facilities holds currect CERCLA approvals.**

Pressley, Miriam

From: Paul Pilgrim <p.pilgrim@erllc.com>
Sent: Wednesday, July 24, 2019 7:19 PM
To: Eichinger, Kevin
Cc: Christina Strength
Subject: FW: L4-526; 1900-55 7-11-19
Attachments: ATT00001.txt; L4-526 1900-55 7-11-19.pdf

Hi Kevin, we are missing your John Hancock on this one bubba. Please review and sign. If you remember, she was making adjustments to this one on the next go around for the things we discussed.

Paul A. Pilgrim
Response Manager
Environmental Restoration, LLC.
6940 Commercial Drive
Morrow, GA 30260
Office: 770-961-9272
Cell: 615-498-4223
p.pilgrim@erllc.com

From: Christina Strength <c.strength@erllc.com>
Sent: Wednesday, July 24, 2019 15:59
To: Paul Pilgrim <p.pilgrim@erllc.com>
Subject: FW: L4-526; 1900-55 7-11-19

Hi Paul,

Just checking to see if you got a signature back from Kevin on this one. I don't think I've seen it come through.

From: Christina Strength
Sent: Monday, July 15, 2019 1:15 PM
To: Paul Pilgrim <p.pilgrim@erllc.com>
Subject: L4-526; 1900-55 7-11-19

To sign and send to the OSC when you have time.

My little sister just went into labor so I might be away from my computer for a while today. I'll be checking my emails on my phone though if you need anything.

I'll get those Cycle Chem invoices added to the next draft for this week.

Thanks,

Christina Strength
Field Cost Accountant
Environmental Restoration
Cell: 407-557-4086
Fax: 636-680-2584
c.strength@erllc.com

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EPA STANDARD FORM 1900-55
Personnel Report

US ENVIRONMENTAL PROTECTION AGENCY
HAZARDOUS SUBSTANCE RESPONSE FUND CONTRACTOR RECEIVING REPORT

Date: 07/11/2019

Site: EPS41503 0526 L AND R OIL RECOVERY Site #:C466RV00
Contractor: ERLLC, Ref# L4-526

Delivery Order #: 68HE0418F0526
Contract #: EP-S4-15-03

EMPLOYEE	EMPLOYEE ID	WORK CLASSIFICATION	RCMS #	DAILY HOURS REG	DAILY HOURS OT	RATES REG	RATES OT	LABOR COST	G&A COST	PERSONNEL COST	Cmt	REF #
ERLLC:												
Hall, Blake	(b) (6) [redacted]	Laborer	S2-15-01	(b) (4) [redacted]							Y	346
Pilgrim, Paul		Project Manager	S1-30-02								Y	341
Planteny, Phillip		Laborer	S2-15-01								Y	347
Strength, Christina		Field Clerk/Typist	S2-10-01								Y	357
			ADJU									
ERLLC:												
07/10/19:												
Hall, Blake		Laborer	S2-15-01								Y	351
Pilgrim, Paul		Project Manager	S1-30-02								Y	352
Planteny, Phillip		Laborer	S2-15-01								Y	353
Strength, Christina		Field Clerk/Typist	S2-10-01								Y	356
07/09/19:												
Hall, Blake		Laborer	S2-15-01								Y	345
Pilgrim, Paul		Project Manager	S1-30-02								Y	340
Planteny, Phillip		Laborer	S2-15-01								Y	349
Strength, Christina		Field Clerk/Typist	S2-10-01								Y	355
07/08/19:												
Hall, Blake		Laborer	S2-15-01								Y	344
Hall, Blake		Laborer	S2-15-01								Y	343
Pilgrim, Paul		Project Manager	S1-30-02								Y	342
Pilgrim, Paul		Project Manager	S1-30-02								Y	339
Planteny, Phillip		Laborer	S2-15-01								Y	348
Planteny, Phillip		Laborer	S2-15-01								Y	350
Strength, Christina		Field Clerk/Typist	S2-10-01								Y	354
07/02/19:												
Strength, Christina		Field Clerk/Typist	S2-10-01								Y	336
07/01/19:												
Michalides, Nick		Site Safety	S4-50-01								Y	338
Strength, Christina		Field Clerk/Typist	S2-10-01								Y	335
06/26/19:												
Strength, Christina		Field Clerk/Typist	S2-10-01								Y	337
TOTAL PERSONNEL COST FOR TODAY:								$6,983.27	$0.00	$6,983.27		
TOTAL PERSONNEL COST TO DATE:										$84,334.53		

31 pages