



September 17, 2018

Eagle Environmental Consulting, Inc.

Martin C Eckert III

4101 Inca Street

Denver

CO 80211

Project Name - Loudder Flow Line

Project Number - [none]

Attached are your analytical results for Loudder Flow Line received by Origins Laboratory, Inc. September 17, 2018. This project is associated with Origins project number Y809201-01.

The analytical results in the following report were analyzed under the guidelines of EPA Methods. These methods are identified as follows; "SW" are defined in SW-846, "EPA" are defined in 40CFR part 136 and "SM" are defined in the most current revision of Standard Methods For the Examination of Water and Wastewater.

The analytical results apply specifically to the samples and analyses specified per the attached Chain of Custody. As such, this report shall not be reproduced except in full, without the written approval of Origin's laboratory.

Unless otherwise noted, the analytical results for all soil samples are reported on a wet weight basis. All analytical analyses were performed under NELAP guidelines unless noted by a data qualifier.

Any holding time exceedances, deviations from the method specifications or deviations from Origins Laboratory's Standard Operating Procedures are outlined in the case narrative.

Thank you for selecting Origins for your analytical needs. Please contact us with any questions concerning this report, or if we can help with anything at all.

Origins Laboratory, Inc.
303.433.1322
o-squad@oelabinc.com



1725 Elk Place, Denver, CO 80211 | Phone: 303.433.1322 | Fax: 303.265.9645

Eagle Environmental Consulting, Inc.

4101 Inca Street

Denver CO 80211

Martin C Eckert III

Project Number: [none]

Project: Loudder Flow Line

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS-1-Surface	Y809201-01	Soil	September 15, 2018 13:47	09/17/2018 08:00
SS-2-1-2'	Y809201-02	Soil	September 15, 2018 13:48	09/17/2018 08:00

Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

Eagle Environmental Consulting, Inc.
4101 Inca Street
Denver CO 80211

Martin C Eckert III
Project Number: [none]
Project: Loudder Flow Line

ORIGINS LABORATORY, INC

Client: EAGLE

Address: 4101 INCA ST

Telephone Number: 3-433-0479

Email Address: MCE3@Eagle-Enviro.com

Project Manager: M. Eckert

Project Name: LOUDDER FLOW LINE

Project Number:

Samples Collected By: M. Eckert

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page (of)

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis	Sample Instructions	
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summary			Other
SS-1-Surface	9/15/18	1344	2										1
SS-2-1-2'	9/15/18	1344	2										2
													3
													4
													5
													6
													7
													8
													9
													10

Relinquished By: [Signature]

Relinquished By: [Signature]

Date: 9/17/18

Date: 9/17/18

Time: 800

Time: 600

Received By: [Signature]

Received By: [Signature]

Date: 9/17/18

Date: 9/17/18

Time: 600

Time: 600

Turnaround Time: Same Day ☒ 24 Hr ☐ 48 Hr ☐ 72 Hr ☐ Standard ☐

Temp Received- 12.2

Date Results Needed

Eagle Environmental Consulting, Inc.
4101 Inca Street
Denver CO 80211

Martin C Eckert III
Project Number: [none]
Project: Louder Flow Line

Origins Laboratory

F-012207-01-R1
Effective Date: 01/09/12

Sample Receipt Checklist

Origins Work Order: 4809201

Client: Eagle Env

Client Project ID: Louder Flow Line

Checklist Completed by: JP

Shipped Via: HD
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Date/time completed: 9/17/18

Airbill #: N/A

Matrix(s) Received: (Check all that apply): ☒ Soil/Solid ☐ Water ☐ Other: _____ (Describe)

Cooler Number/Temperature: 1 / 1.2 °C _____ / _____ °C _____ / _____ °C _____ / _____ °C

Thermometer ID: T003

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		<input checked="" type="checkbox"/>		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		<input checked="" type="checkbox"/>		
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?		<input checked="" type="checkbox"/>		
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
For volatiles in water — is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.			<input checked="" type="checkbox"/>	
Are samples preserved that require preservation and was it checked ⁽¹⁾ ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity)/(pH <2 for samples preserved with HNO ₃ , HCL, H ₂ SO ₄) / (pH >10 for samples preserved with NaAsO ₂ +NaOH, ZnAc+NaOH)			<input checked="" type="checkbox"/>	
Additional Comments (if any):				

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note date/time and person contacted as well as the corrective action to in the additional comments (above) and the case narrative.

Reviewed by (Project Manager) JP

Date/Time Reviewed 9/17/18

Origins Laboratory, Inc.

Jefe Pellegrini

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Eagle Environmental Consulting, Inc.
4101 Inca Street
Denver CO 80211

Martin C Eckert III
Project Number: [none]
Project: Loudder Flow Line

SS-1-Surface

9/15/2018 1:47:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y809201-01 (Soil)

Diesel Range Organics (DRO/TEPH) by EPA 8015C

Diesel (C10-C28)	326	50.0	mg/kg	1	B8I1703	KDK	09/17/2018	09/17/2018
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Surrogate: o-Terphenyl	82.6 %	59-131			"	"	"
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GBTEX + Napthalene by 8260C

Gasoline Range Hydrocarbons	6.85	5.00	mg/kg	25	B8I1702	KDK	"	09/17/2018	
Benzene	ND	0.050	"	"	"	KDK	"	"	U
Toluene	ND	0.050	"	"	"	KDK	"	"	U
Ethylbenzene	ND	0.050	"	"	"	KDK	"	"	U
Xylenes, total	ND	0.050	"	"	"	KDK	"	"	U
Naphthalene	ND	0.200	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	89.5 %	70-130			"	"	"
Surrogate: Toluene-d8	96.4 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	93.1 %	70-130			"	"	"

Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

Eagle Environmental Consulting, Inc.
4101 Inca Street
Denver CO 80211

Martin C Eckert III
Project Number: [none]
Project: Loudder Flow Line

SS-2-1-2'

9/15/2018 1:48:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y809201-02 (Soil)

Diesel Range Organics (DRO/TEPH) by EPA 8015C

Diesel (C10-C28)	ND	50.0	mg/kg	1	B811703	KDK	09/17/2018	09/17/2018	U
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Surrogate: o-Terphenyl	72.4 %	59-131			"	"	"		
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GBTEX + Napthalene by 8260C

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B811702	KDK	"	09/17/2018	U
Benzene	ND	0.002	"	"	"	KDK	"	"	U
Toluene	ND	0.002	"	"	"	KDK	"	"	U
Ethylbenzene	ND	0.002	"	"	"	KDK	"	"	U
Xylenes, total	ND	0.002	"	"	"	KDK	"	"	U
Napthalene	ND	0.008	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	94.4 %	70-130			"	"	"		
Surrogate: Toluene-d8	95.9 %	70-130			"	"	"		
Surrogate: 4-Bromofluorobenzene	93.1 %	70-130			"	"	"		

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Denver CO 80211

Martin C Eckert III
Project Number: [none]
Project: Loudder Flow Line

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B8I1702 - EPA 5030 (soil)										
Blank (B8I1702-BLK1)					Prepared: 09/17/2018 Analyzed: 09/17/2018					
Gasoline Range Hydrocarbons	ND	0.200	mg/kg							U
Benzene	ND	0.002	"							U
Toluene	ND	0.002	"							U
Ethylbenzene	ND	0.002	"							U
Xylenes, total	ND	0.002	"							U
Naphthalene	ND	0.008	"							U
Surrogate: 1,2-Dichloroethane-d4	58		ug/kg	62.5		93.1	70-130			
Surrogate: Toluene-d8	60		"	62.5		96.3	70-130			
Surrogate: 4-Bromofluorobenzene	57		"	62.5		90.8	70-130			

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Denver CO 80211

Martin C Eckert III
Project Number: [none]
Project: Loudder Flow Line

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B8I1702 - EPA 5030 (soil)										
LCS (B8I1702-BS1)					Prepared: 09/17/2018 Analyzed: 09/17/2018					
Benzene	0.105	0.002	mg/kg	0.100		105	70-130			
Toluene	0.096	0.002	"	0.100		96.1	70-130			
Ethylbenzene	0.093	0.002	"	0.100		93.4	70-130			
m,p-Xylene	0.195	0.004	"	0.200		97.5	70-130			
o-Xylene	0.097	0.002	"	0.100		96.9	70-130			
Naphthalene	0.091	0.008	"	0.100		91.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	56		ug/kg	62.5		89.5	70-130			
Surrogate: Toluene-d8	60		"	62.5		96.6	70-130			
Surrogate: 4-Bromofluorobenzene	64		"	62.5		102	70-130			

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Project: Loudder Flow Line

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B8I1702 - EPA 5030 (soil)										
Matrix Spike (B8I1702-MS1)		Source: Y809201-01			Prepared: 09/17/2018 Analyzed: 09/17/2018					
Benzene	0.094	0.002	mg/kg	0.100	ND	93.8	70-130			
Toluene	0.092	0.002	"	0.100	0.010	81.7	70-130			
Ethylbenzene	0.101	0.002	"	0.100	0.004	96.5	70-130			
m,p-Xylene	0.208	0.004	"	0.200	0.010	99.2	70-130			
o-Xylene	0.103	0.002	"	0.100	0.005	98.4	70-130			
Naphthalene	0.052	0.008	"	0.100	0.028	23.6	70-130			QM-07
Surrogate: 1,2-Dichloroethane-d4	63		ug/kg	62.5		100	70-130			
Surrogate: Toluene-d8	62		"	62.5		99.8	70-130			
Surrogate: 4-Bromofluorobenzene	84		"	62.5		134	70-130			

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Martin C Eckert III
Project Number: [none]
Project: Loudder Flow Line

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B8I1702 - EPA 5030 (soil)										
Matrix Spike Dup (B8I1702-MSD1)		Source: Y809201-01			Prepared: 09/17/2018 Analyzed: 09/17/2018					
Benzene	0.108	0.002	mg/kg	0.100	ND	108	70-130	14.0	20	
Toluene	0.105	0.002	"	0.100	0.010	94.3	70-130	12.8	20	
Ethylbenzene	0.126	0.002	"	0.100	0.004	122	70-130	22.1	20	QR-02
m,p-Xylene	0.253	0.004	"	0.200	0.010	122	70-130	19.6	20	
o-Xylene	0.124	0.002	"	0.100	0.005	119	70-130	17.8	20	
Naphthalene	0.038	0.008	"	0.100	0.028	10.1	70-130	30.1	20	QM-07
Surrogate: 1,2-Dichloroethane-d4	57		ug/kg	62.5		90.5	70-130			
Surrogate: Toluene-d8	64		"	62.5		102	70-130			
Surrogate: 4-Bromofluorobenzene	100		"	62.5		161	70-130			

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4101 Inca Street
Denver CO 80211

Martin C Eckert III
Project Number: [none]
Project: Loudder Flow Line

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control

Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Extractable Petroleum Hydrocarbons by 8015C - Quality Control

Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B811703 - EPA 3550B

Blank (B811703-BLK1)

Prepared: 09/17/2018 Analyzed: 09/17/2018

Diesel (C10-C28)	ND	50.0	mg/kg							U
Surrogate: o-Terphenyl	35		"	50.0		69.4	59-131			

LCS (B811703-BS1)

Prepared: 09/17/2018 Analyzed: 09/17/2018

Diesel (C10-C28)	805	50.0	mg/kg	1000		80.5	64-121			
Surrogate: o-Terphenyl	42		"	50.0		83.5	59-131			

Matrix Spike (B811703-MS1)

Source: Y809201-01

Prepared: 09/17/2018 Analyzed: 09/17/2018

Diesel (C10-C28)	941	50.0	mg/kg	1000	326	61.6	53-125			
Surrogate: o-Terphenyl	43		"	50.0		85.0	59-131			

Matrix Spike Dup (B811703-MSD1)

Source: Y809201-01

Prepared: 09/17/2018 Analyzed: 09/17/2018

Diesel (C10-C28)	1010	50.0	mg/kg	1000	326	68.2	53-125	6.84	20	
Surrogate: o-Terphenyl	45		"	50.0		90.8	59-131			

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Eagle Environmental Consulting, Inc.

4101 Inca Street

Denver CO 80211

Martin C Eckert III

Project Number: [none]

Project: Loudder Flow Line

Notes and Definitions

U Sample is Non-Detect.

QR-02 The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

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