



March 14, 2024

**Eagle Environmental Consulting, LLC**

**Andrew Newberry**

**8000 W 44th Ave**

**Wheat Ridge CO 80033**

**Project Name - Noble - Lucci B #1-20**

**Project Number - [none]**

Attached are your analytical results for Noble - Lucci B #1-20 received by Origins Laboratory, Inc. February 05, 2024. This project is associated with Origins project number Y402131-01.

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, LLC  
8000 W 44th Ave  
Wheat Ridge CO 80033

Andrew Newberry  
Project Number: [none]  
Project: Noble - Lucci B #1-20

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
WH-FS-01@6'	Y402131-01	Soil	February 5, 2024 10:35	02/05/2024 15:01
Background-01@2'	Y402131-02	Soil	February 5, 2024 10:20	02/05/2024 15:01

A pH rerun was requested for WH-FS-01@6' per Garrett's email on 02/16/2024. No errors were found in the original data, all results are reported. JAB

Origins Laboratory, Inc.

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Jordan A. Bynon, Project Manager







# ORIGINS

LABORATORY, INC

Eagle Environmental Consulting, LLC  
8000 W 44th Ave  
Wheat Ridge CO 80033

Andrew Newberry  
Project Number: [none]  
Project: Noble - Lucci B #1-20

Origins Laboratory

F-012207-01-R1

Effective Date: 01/09/12

## Sample Receipt Checklist

Origins Work Order: 440281

Client: Eagle

Client Project ID: Lucci B #1-20

Checklist Completed by: ELB

Shipped Via: HO

Date/time completed: 2/5/24

(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Airbill #: N/A

Matrix(s) Received: (Check all that apply): ✓

Soil/Solid

Water

Other:

Cooler Number/Temperature: 133 °C

°C

°C

(Describe)

Thermometer ID: 7004

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 8°C <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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"/>	<input type="checkbox"/>	<input 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"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are short holding time analyses or samples with HTS due within 48 hours present <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) present and filled out completely <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client with date and time recorded <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are samples preserved that require preservation and was it checked <sup>(1)</sup> ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcooled analyses in order to insure sample integrity) (pH < 2 for samples preserved with HNO <sub>3</sub> , HCL, H <sub>2</sub> SO <sub>4</sub> ) / (pH > 10 for samples preserved with NaAsO <sub>2</sub> ·NaOH, ZnAc·NaOH)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Additional Comments (if any):				

<sup>(1)</sup>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) [Signature]

Date/Time Reviewed 2/7/24

Origins Laboratory, Inc.

[Signature]

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Jordan A. Bynon, Project Manager



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8000 W 44th Ave  
Wheat Ridge CO 80033

Andrew Newberry  
Project Number: [none]  
Project: Noble - Lucci B #1-20

WH-FS-01@6'  
2/5/2024 10:35:00AM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y402131-01 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	ND	0.101	mg/L	1	B4B0814	ACC	02/08/2024	02/09/2024	
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**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B4B0701	ADM	02/07/2024	02/14/2024	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	ADM	"	"	U
Surrogate: o-Terphenyl	86.7 %	50-150	"	"	"	"	"	"	

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B4B0633	JSM	02/06/2024	02/07/2024	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	JSM	"	"	U
Benzene	ND	0.00200	"	"	"	JSM	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	JSM	"	"	U
Naphthalene	ND	0.00380	"	"	"	JSM	"	"	U
Toluene	ND	0.00200	"	"	"	JSM	"	"	U
Xylenes, total	ND	0.00200	"	"	"	JSM	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	JSM	"	"	U

Surrogate: 1,2-Dichloroethane-d4	104 %	70-130	"	"	"	"	"	"	
Surrogate: Toluene-d8	101 %	70-130	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene	92.0 %	70-130	"	"	"	"	"	"	

Origins Laboratory, Inc.

*J. Bynon*

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Project Number: [none]  
Project: Noble - Lucci B #1-20

WH-FS-01@6'  
2/5/2024 10:35:00AM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y402131-01 (Soil)**

**Metals by Saturated Paste by EPA 6010**

Calcium	0.733	0.499	meq/L	10	[CALC]	ACC	02/07/2024	02/08/2024	
Magnesium	ND	0.823	"	"	"	ACC	"	"	
Sodium	ND	0.435	"	"	"	ACC	"	"	

**PAH by EPA 8270E**

1-Methylnaphthalene	ND	0.002	mg/kg	1	B4B0726	Windo	02/07/2024	02/08/2024	U
2-Methylnaphthalene	ND	0.002	"	"	"	Windo	"	"	U
Acenaphthene	ND	0.020	"	"	"	Windo	"	"	U
Anthracene	ND	0.020	"	"	"	Windo	"	"	U
Benzo (a) anthracene	ND	0.005	"	"	"	Windo	"	"	U
Benzo (a) pyrene	ND	0.020	"	"	"	Windo	"	"	U
Benzo (b) fluoranthene	ND	0.020	"	"	"	Windo	"	"	U
Benzo (k) fluoranthene	ND	0.020	"	"	"	Windo	"	"	U
Chrysene	ND	0.020	"	"	"	Windo	"	"	U
Dibenz (a,h) anthracene	ND	0.020	"	"	"	Windo	"	"	U
Fluoranthene	ND	0.020	"	"	"	Windo	"	"	U
Fluorene	ND	0.020	"	"	"	Windo	"	"	U
Indeno (1,2,3-cd) pyrene	ND	0.020	"	"	"	Windo	"	"	U
Pyrene	ND	0.020	"	"	"	Windo	"	"	U

Origins Laboratory, Inc.

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WH-FS-01@6'  
2/5/2024 10:35:00AM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y402131-01 (Soil)

PAH by EPA 8270E

Surrogate: Fluorene-d10	101 %	60-130	B4B07 26	02/07/2024	02/08/2024
Surrogate: Anthracene-d10	94.3 %	60-130	"	"	"
Surrogate: Pyrene-d10	99.9 %	60-130	"	"	"
Surrogate: Benzo (a) pyrene-d12	103 %	60-130	"	"	"

pH in Soil by 9045D

pH	8.36	pH Units	1	B4B0722	EAL	02/07/2024	02/08/2024
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SAR by 20B Saturated Paste

SAR	0.0456	0.0100	SAR	1	B4B0717	ACC	02/07/2024	02/08/2024
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.148	0.00500	mmhos/cm	1	B4B0722	EAL	02/07/2024	02/08/2024
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Jordan A. Bynon, Project Manager





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WH-FS-01@6'  
2/5/2024 10:35:00AM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y402131-01RE1 (Soil)

pH in Soil by 9045D

pH	8.27	pH Units	1	B4B1915	EAL	02/07/2024	02/20/2024
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Wheat Ridge CO 80033

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Project: Noble - Lucci B #1-20

WH-FS-01@6'  
2/5/2024 10:35:00AM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y402131-01RE2 (Soil)

pH in Soil by 9045D

pH	8.27	pH Units	1	B4B1915	EAL	02/07/2024	02/20/2024
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Wheat Ridge CO 80033

Andrew Newberry  
Project Number: [none]  
Project: Noble - Lucci B #1-20

Background-01@2'  
2/5/2024 10:20:00AM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y402131-02 (Soil)

**Boron (DTPA Sorbitol)**

Boron	0.142	0.101	mg/L	1	B4B0814	ACC	02/08/2024	02/09/2024
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**Metals by Saturated Paste by EPA 6010**

Calcium	1.34	0.499	meq/L	10	[CALC]	ACC	02/07/2024	02/08/2024
Magnesium	ND	0.823	"	"	"	ACC	"	"
Sodium	ND	0.435	"	"	"	ACC	"	"

**pH in Soil by 9045D**

pH	8.36		pH Units	1	B4B0722	EAL	02/07/2024	02/08/2024
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**SAR by 20B Saturated Paste**

SAR	0.0476	0.0100	SAR	1	B4B0717	ACC	02/07/2024	02/08/2024
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**Specific Conductance Mod. 9050A**

Specific Conductance (EC)	0.265	0.00500	mmhos/cm	1	B4B0722	EAL	02/07/2024	02/08/2024
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Project Number: [none]  
Project: Noble - Lucci B #1-20

**Volatile Organic Compounds by GC/MS SW846 8260D - 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 B4B0633 - EPA 5030 (soil)**

**Blank (B4B0633-BLK1)**

Prepared: 02/06/2024 Analyzed: 02/06/2024

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg							U
1,3,5-Trimethylbenzene	ND	0.00200	"							U
Benzene	ND	0.00200	"							U
Ethylbenzene	ND	0.00200	"							U
Naphthalene	ND	0.00380	"							U
Toluene	ND	0.00200	"							U
Xylenes, total	ND	0.00200	"							U
Gasoline Range Hydrocarbons	ND	0.200	"							U
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		102	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		103	70-130			
Surrogate: 4-Bromofluorobenzene	0.11		"	0.125		91.7	70-130			

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**Volatile Organic Compounds by GC/MS SW846 8260D - 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 B4B0633 - EPA 5030 (soil)**

**LCS (B4B0633-BS1)**

Prepared: 02/06/2024 Analyzed: 02/06/2024

1,2,4-Trimethylbenzene	0.101	0.00200	mg/kg	0.100	101	70-130
1,3,5-Trimethylbenzene	0.102	0.00200	"	0.100	102	70-130
Benzene	0.0960	0.00200	"	0.100	96.0	70-130
Ethylbenzene	0.102	0.00200	"	0.100	102	70-130
Naphthalene	0.0958	0.00380	"	0.100	95.8	70-130
Toluene	0.0942	0.00200	"	0.100	94.2	70-130
o-Xylene	0.100	0.00200	"	0.100	100	70-130
m,p-Xylene	0.203	0.00400	"	0.200	101	70-130
Surrogate: 1,2-Dichloroethane-d4	0.12	"	"	0.125	98.2	70-130
Surrogate: Toluene-d8	0.12	"	"	0.125	97.7	70-130
Surrogate: 4-Bromofluorobenzene	0.13	"	"	0.125	103	70-130

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Jordan A. Bynon, Project Manager





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**Volatile Organic Compounds by GC/MS SW846 8260D - 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 B4B0633 - EPA 5030 (soil)

Matrix Spike (B4B0633-MS1)

Source: Y402155-01

Prepared: 02/06/2024 Analyzed: 02/06/2024

1,2,4-Trimethylbenzene	0.0997	0.00200	mg/kg	0.100	ND	99.7	70-130			
1,3,5-Trimethylbenzene	0.0984	0.00200	"	0.100	ND	98.4	70-130			
Benzene	0.0931	0.00200	"	0.100	ND	93.1	70-130			
Ethylbenzene	0.0981	0.00200	"	0.100	ND	98.1	70-130			
Naphthalene	0.101	0.00380	"	0.100	0.00190	98.9	70-130			
Toluene	0.0920	0.00200	"	0.100	ND	92.0	70-130			
o-Xylene	0.0980	0.00200	"	0.100	ND	98.0	70-130			
m,p-Xylene	0.197	0.00400	"	0.200	ND	98.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		100	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		98.5	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		104	70-130			

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Jordan A. Bynon, Project Manager





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Andrew Newberry  
Project Number: [none]  
Project: Noble - Lucci B #1-20

**Volatile Organic Compounds by GC/MS SW846 8260D - 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 B4B0633 - EPA 5030 (soil)

**Matrix Spike Dup (B4B0633-MSD1)**

Source: Y402155-01

Prepared: 02/06/2024 Analyzed: 02/06/2024

1,2,4-Trimethylbenzene	0.108	0.00200	mg/kg	0.100	ND	108	70-130	7.80	20	
1,3,5-Trimethylbenzene	0.108	0.00200	"	0.100	ND	108	70-130	9.51	20	
Benzene	0.108	0.00200	"	0.100	ND	108	70-130	14.5	20	
Ethylbenzene	0.108	0.00200	"	0.100	ND	108	70-130	9.42	20	
Naphthalene	0.105	0.00380	"	0.100	0.00190	103	70-130	3.70	20	
Toluene	0.106	0.00200	"	0.100	ND	106	70-130	13.7	20	
o-Xylene	0.108	0.00200	"	0.100	ND	108	70-130	9.49	20	
m,p-Xylene	0.216	0.00400	"	0.200	ND	108	70-130	8.97	20	
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		99.6	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		98.2	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		101	70-130			

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Jordan A. Bynon, Project Manager





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8000 W 44th Ave  
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Andrew Newberry  
Project Number: [none]  
Project: Noble - Lucci B #1-20

Volatile Organic Compounds by GC/MS SW846 8260D - 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 B4B0701 - EPA 3550B

Blank (B4B0701-BLK1)

Prepared: 02/07/2024 Analyzed: 02/14/2024

Diesel (C10-C28)	ND	25.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	100	"							U
Surrogate: o-Terphenyl	22		"	24.9		88.6	50-150			

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Andrew Newberry  
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Project: Noble - Lucci B #1-20

Extractable Petroleum Hydrocarbons by 8015D - 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 B4B0701 - EPA 3550B

LCS (B4B0701-BS1)

Prepared: 02/07/2024 Analyzed: 02/14/2024

Diesel (C10-C28)	927	50.0	mg/kg	1000	92.7	70-130
Residual Range Organics (C28-C40)	926	200	"	1000	92.6	70-130
Surrogate: o-Terphenyl	52		"	49.8	105	50-150

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Andrew Newberry  
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Project: Noble - Lucci B #1-20

Extractable Petroleum Hydrocarbons by 8015D - 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 B4B0701 - EPA 3550B

Matrix Spike (B4B0701-MS1)

Source: Y402102-01

Prepared: 02/07/2024 Analyzed: 02/14/2024

Diesel (C10-C28)	944	50.0	mg/kg	1000	ND	94.4	70-130
Residual Range Organics (C28-C40)	904	200	"	1000	50.9	85.3	70-130
Surrogate: o-Terphenyl	52		"	49.8		104	50-150

Origins Laboratory, Inc.

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Jordan A. Bynon, Project Manager





Eagle Environmental Consulting, LLC  
8000 W 44th Ave  
Wheat Ridge CO 80033

Andrew Newberry  
Project Number: [none]  
Project: Noble - Lucci B #1-20

Extractable Petroleum Hydrocarbons by 8015D - 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 B4B0701 - EPA 3550B

Matrix Spike Dup (B4B0701-MSD1)

Source: Y402102-01

Prepared: 02/07/2024 Analyzed: 02/14/2024

Diesel (C10-C28)	1000	50.0	mg/kg	1000	ND	100	70-130	6.08	35	
Residual Range Organics (C28-C40)	941	200	"	1000	50.9	89.0	70-130	4.01	35	
Surrogate: o-Terphenyl	53		"	49.8		107	50-150			

Origins Laboratory, Inc.

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Jordan A. Bynon, Project Manager





Eagle Environmental Consulting, LLC  
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Wheat Ridge CO 80033

Andrew Newberry  
Project Number: [none]  
Project: Noble - Lucci B #1-20

Extractable Petroleum Hydrocarbons by 8015D - 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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EPA 8270E (SW846) - Semivolatile Organic Compounds - 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 B4B0726 - EPA 3580

Blank (B4B0726-BLK1)

Prepared: 02/07/2024 Analyzed: 02/08/2024

1-Methylnaphthalene	ND	0.002	mg/kg							U
2-Methylnaphthalene	ND	0.002	"							U
Acenaphthene	ND	0.020	"							U
Anthracene	ND	0.020	"							U
Benzo (a) anthracene	ND	0.005	"							U
Benzo (a) pyrene	ND	0.020	"							U
Benzo (b) fluoranthene	ND	0.020	"							U
Benzo (g,h,i) perylene	ND	0.020	"							U
Benzo (k) fluoranthene	ND	0.020	"							U
Chrysene	ND	0.020	"							U
Dibenz (a,h) anthracene	ND	0.020	"							U
Fluoranthene	ND	0.020	"							U
Fluorene	ND	0.020	"							U
Indeno (1,2,3-cd) pyrene	ND	0.020	"							U
Naphthalene	ND	0.002	"							U
Phenanthrene	ND	0.020	"							U
Pyrene	ND	0.020	"							U
Surrogate: Fluorene-d10	200		ug/kg	200		100	60-130			
Surrogate: Anthracene-d10	190		"	200		94.1	60-130			
Surrogate: Pyrene-d10	210		"	200		103	60-130			
Surrogate: Benzo (a) pyrene-d12	210		"	200		103	60-130			

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*J. Bynon*

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Jordan A. Bynon, Project Manager



Eagle Environmental Consulting, LLC  
8000 W 44th Ave  
Wheat Ridge CO 80033

Andrew Newberry  
Project Number: [none]  
Project: Noble - Lucci B #1-20

**EPA 8270E (SW846) - Semivolatile Organic Compounds - 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 B4B0726 - EPA 3580**

**LCS (B4B0726-BS1)**

Prepared: 02/07/2024 Analyzed: 02/08/2024

1-Methylnaphthalene	0.167	0.002	mg/kg	0.200		83.5	70-130
2-Methylnaphthalene	0.166	0.002	"	0.200		82.8	70-130
Acenaphthene	0.163	0.020	"	0.200		81.4	70-130
Anthracene	0.159	0.020	"	0.200		79.7	70-130
Benzo (a) anthracene	0.161	0.005	"	0.200		80.5	70-130
Benzo (a) pyrene	0.171	0.020	"	0.200		85.3	70-130
Benzo (b) fluoranthene	0.176	0.020	"	0.200		87.9	70-130
Benzo (g,h,i) perylene	0.176	0.020	"	0.200		88.1	70-130
Benzo (k) fluoranthene	0.172	0.020	"	0.200		85.8	70-130
Chrysene	0.165	0.020	"	0.200		82.6	70-130
Dibenz (a,h) anthracene	0.174	0.020	"	0.200		87.0	70-130
Fluoranthene	0.156	0.020	"	0.200		78.2	70-130
Fluorene	0.163	0.020	"	0.200		81.5	70-130
Indeno (1,2,3-cd) pyrene	0.168	0.020	"	0.200		84.1	70-130
Naphthalene	0.168	0.002	"	0.200		83.8	70-130
Phenanthrene	0.157	0.020	"	0.200		78.6	70-130
Pyrene	0.167	0.020	"	0.200		83.4	70-130
Surrogate: Fluorene-d10	200		ug/kg	200		101	60-130
Surrogate: Anthracene-d10	190		"	200		93.0	60-130
Surrogate: Pyrene-d10	200		"	200		101	60-130
Surrogate: Benzo (a) pyrene-d12	200		"	200		101	60-130

**Matrix Spike (B4B0726-MS1)**

Source: Y401767-01

Prepared: 02/07/2024 Analyzed: 02/08/2024

1-Methylnaphthalene	0.162	0.002	mg/kg	0.200	ND	80.8	70-130
2-Methylnaphthalene	0.161	0.002	"	0.200	ND	80.4	70-130
Acenaphthene	0.161	0.020	"	0.200	ND	80.6	70-130
Anthracene	0.149	0.020	"	0.200	0.0009	74.1	70-130

Origins Laboratory, Inc.

*J. Bynon*

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Wheat Ridge CO 80033

Andrew Newberry  
Project Number: [none]  
Project: Noble - Lucci B #1-20

## EPA 8270E (SW846) - Semivolatile Organic Compounds - 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 B4B0726 - EPA 3580

#### Matrix Spike (B4B0726-MS1)

Source: Y401767-01

Prepared: 02/07/2024 Analyzed: 02/08/2024

Benzo (a) anthracene	0.160	0.005	mg/kg	0.200	0.001	79.7	70-130			
Benzo (a) pyrene	0.163	0.020	"	0.200	ND	81.5	70-130			
Benzo (b) fluoranthene	0.174	0.020	"	0.200	ND	86.9	70-130			
Benzo (g,h,i) perylene	0.169	0.020	"	0.200	0.004	82.8	70-130			
Benzo (k) fluoranthene	0.179	0.020	"	0.200	ND	89.7	70-130			
Chrysene	0.161	0.020	"	0.200	0.0006	80.1	70-130			
Dibenz (a,h) anthracene	0.170	0.020	"	0.200	ND	84.9	70-130			
Fluoranthene	0.157	0.020	"	0.200	ND	78.4	70-130			
Fluorene	0.162	0.020	"	0.200	ND	81.1	70-130			
Indeno (1,2,3-cd) pyrene	0.165	0.020	"	0.200	ND	82.5	70-130			
Naphthalene	0.164	0.002	"	0.200	ND	82.1	70-130			
Phenanthrene	0.152	0.020	"	0.200	ND	76.0	70-130			
Pyrene	0.160	0.020	"	0.200	ND	80.0	70-130			
Surrogate: Fluorene-d10	200		ug/kg	200		100	60-130			
Surrogate: Anthracene-d10	190		"	200		93.9	60-130			
Surrogate: Pyrene-d10	200		"	200		98.7	60-130			
Surrogate: Benzo (a) pyrene-d12	200		"	200		101	60-130			

#### Matrix Spike Dup (B4B0726-MSD1)

Source: Y401767-01

Prepared: 02/07/2024 Analyzed: 02/08/2024

1-Methylnaphthalene	0.167	0.002	mg/kg	0.200	ND	83.6	70-130	3.37	20	
2-Methylnaphthalene	0.168	0.002	"	0.200	ND	83.8	70-130	4.15	20	
Acenaphthene	0.167	0.020	"	0.200	ND	83.6	70-130	3.71	20	
Anthracene	0.157	0.020	"	0.200	0.0009	77.9	70-130	4.93	20	
Benzo (a) anthracene	0.171	0.005	"	0.200	0.001	85.1	70-130	6.43	20	
Benzo (a) pyrene	0.156	0.020	"	0.200	ND	77.9	70-130	4.46	20	
Benzo (b) fluoranthene	0.189	0.020	"	0.200	ND	94.3	70-130	8.25	20	
Benzo (g,h,i) perylene	0.188	0.020	"	0.200	0.004	92.3	70-130	10.6	20	

Origins Laboratory, Inc.

*J. Bynon*

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Andrew Newberry  
Project Number: [none]  
Project: Noble - Lucci B #1-20

**EPA 8270E (SW846) - Semivolatile Organic Compounds - 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 B4B0726 - EPA 3580**

**Matrix Spike Dup (B4B0726-MSD1)**

**Source: Y401767-01**

Prepared: 02/07/2024 Analyzed: 02/08/2024

Benzo (k) fluoranthene	0.189	0.020	mg/kg	0.200	ND	94.5	70-130	5.25	20	
Chrysene	0.167	0.020	"	0.200	0.0006	83.3	70-130	3.82	20	
Dibenz (a,h) anthracene	0.195	0.020	"	0.200	ND	97.6	70-130	14.0	20	
Fluoranthene	0.162	0.020	"	0.200	ND	80.9	70-130	3.16	20	
Fluorene	0.168	0.020	"	0.200	ND	83.8	70-130	3.22	20	
Indeno (1,2,3-cd) pyrene	0.187	0.020	"	0.200	ND	93.3	70-130	12.3	20	
Naphthalene	0.171	0.002	"	0.200	ND	85.6	70-130	4.07	20	
Phenanthrene	0.161	0.020	"	0.200	ND	80.6	70-130	5.84	20	
Pyrene	0.167	0.020	"	0.200	ND	83.3	70-130	4.10	20	
Surrogate: Fluorene-d10	200		ug/kg	200		99.5	60-130			
Surrogate: Anthracene-d10	190		"	200		96.0	60-130			
Surrogate: Pyrene-d10	200		"	200		98.6	60-130			
Surrogate: Benzo (a) pyrene-d12	210		"	200		103	60-130			

Origins Laboratory, Inc.

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Jordan A. Bynon, Project Manager





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8000 W 44th Ave  
Wheat Ridge CO 80033

Andrew Newberry  
Project Number: [none]  
Project: Noble - Lucci B #1-20

Classical Chemistry Parameters - 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 B4B0717 - Saturated Paste Metals

Blank (B4B0717-BLK1)

Prepared: 02/07/2024 Analyzed: 02/08/2024

SAR	ND	0.0100	SAR
Calcium PPM	ND	10.0	mg/L
Magnesium PPM	ND	10.0	"
Sodium PPM	ND	10.0	"

Duplicate (B4B0717-DUP1)

Source: Y402130-01

Prepared: 02/07/2024 Analyzed: 02/08/2024

Calcium PPM	10.4	10.0	mg/L
SAR	ND	0.0100	SAR
Magnesium PPM	3.09	10.0	mg/L
Sodium PPM	61.5	10.0	"

11.2	7.85	50
ND		200
3.69	17.7	50
65.8	6.74	50

Batch B4B0814 - DTPA Sorbitol Preparation

Blank (B4B0814-BLK1)

Prepared: 02/08/2024 Analyzed: 02/09/2024

Boron	ND	0.100	mg/L
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Duplicate (B4B0814-DUP1)

Source: Y402130-01

Prepared: 02/08/2024 Analyzed: 02/09/2024

Boron	0.245	0.0987	mg/L
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0.249	1.51	50
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Origins Laboratory, Inc.

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Jordan A. Bynon, Project Manager





Eagle Environmental Consulting, LLC  
8000 W 44th Ave  
Wheat Ridge CO 80033

Andrew Newberry  
Project Number: [none]  
Project: Noble - Lucci B #1-20

Saturated Paste - 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 B4B0722 - Saturated Paste pH/EC

Blank (B4B0722-BLK1)

Prepared: 02/07/2024 Analyzed: 02/08/2024

Specific Conductance (EC) ND 0.00500 mmhos/cm

Duplicate (B4B0722-DUP1)

Source: Y402130-01

Prepared: 02/07/2024 Analyzed: 02/08/2024

pH 8.50 pH Units

8.48 0.236 25

Specific Conductance (EC) 0.397 0.00500 mmhos/cm

0.444 11.1 25

Batch B4B1915 - Saturated Paste pH/EC

Duplicate (B4B1915-DUP1)

Source: Y402379-01

Prepared: 02/19/2024 Analyzed: 02/20/2024

pH 8.35 pH Units

8.37 0.239 25

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Jordan A. Bynon, Project Manager





Eagle Environmental Consulting, LLC  
8000 W 44th Ave  
Wheat Ridge CO 80033

Andrew Newberry  
Project Number: [none]  
Project: Noble - Lucci B #1-20

### Notes and Definitions

- U Sample is Non-Detect.
  - 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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