



March 14, 2023

Tasman Geosciences

Jake Whritenour

6855 West 119th Avenue

Broomfield CO 80020

Project Name - Noble - HSR - Laurice 6-1

Project Number - UWRWE-A2539-ABN

Attached are your analytical results for Noble - HSR - Laurice 6-1 received by Origins Laboratory, Inc. March 03, 2023. This project is associated with Origins project number Y303101-01.

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



Tasman Geosciences

6855 West 119th Avenue

Broomfield CO 80020

Jake Whritenour

Project Number: UWRWE-A2539-ABN

Project: Noble - HSR - Laurice 6-1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FL01-A@3'	Y303101-01	Soil	March 3, 2023 11:20	03/03/2023 14:05

Origins Laboratory, Inc.

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Jordan A. Bynon For Jen Pellegrini, Project Manager

ORIGINS

LABORATORY, INC

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Jake Whritenour
Project Number: UWRWE-A2539-ABN
Project: Noble - HSR - Laurice 6-1

Origins Laboratory

F-012207-01-R1

Effective Date: 01/09/12

Sample Receipt Checklist

Origins Work Order: 430301

Client: Tasman

Client Project ID: Laurice 6-1

Checklist Completed by: ZHS

Shipped Via: HD

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

Date/time completed: 3/13/23

Airbill #: NA

Matrix(s) Received: (Check all that apply): X Soil/Solid

Water

Other:

Cooler Number/Temperature: 1 / 5.5 °C / °C / °C (Describe) °C

Thermometer ID: T004

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 (> 1/4 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 HNO3, HCL, H2SO4) / (pH >10 for samples preserved with NaAsO2+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)

3/16/23
Date/Time Reviewed

Origins Laboratory, Inc.

J. Bynon

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Broomfield CO 80020

Jake Whritenour
Project Number: UWRWE-A2539-ABN
Project: Noble - HSR - Laurice 6-1

FL01-A@3'
3/3/2023 11:20:00AM

Y303101-01 (Soil)
Origins Laboratory, Inc.

Boron (DTPA Sorbitol)

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
Boron	0.244	0.0993	mg/L	1	B3C0602	KAP	03/06/2023	03/07/2023	

DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B3C0719	ZZZ	03/07/2023	03/09/2023	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	ZZZ	"	"	U
Surrogate: o-Terphenyl	89.1 %	50-150	"	"	"	"	"	"	"

GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B3C0402	JSM	03/04/2023	03/05/2023	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	JSM	"	"	U
Benzene	ND	0.00200	"	"	"	JSM	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	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	90.4 %	70-130	"	"	"	"	"	"	"
Surrogate: 4-Bromofluorobenzene	94.4 %	70-130	"	"	"	"	"	"	"

Metals by Saturated Paste by EPA 6010

Origins Laboratory, Inc.

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Broomfield CO 80020

Jake Whritenour
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Project: Noble - HSR - Laurice 6-1

FL01-A@3'

3/3/2023 11:20:00AM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Y303101-01 (Soil)
Origins Laboratory, Inc.

Metals by Saturated Paste by EPA 6010

Calcium	1.94	0.499	meq/L	10	[CALC]	KAP	03/07/2023	03/08/2023	
Magnesium	ND	0.823	"	"	"	KAP	"	"	
Sodium	4.23	0.435	"	"	"	KAP	"	"	

pH in Soil by 9045D

pH	8.08		pH Units	1	B3C0713	HJD	03/07/2023	03/08/2023	
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SAR by 20B Saturated Paste

SAR	3.78		SAR	1	B3C0707	KAP	03/07/2023	03/08/2023	
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.825	0.00500	mmhos/cm	1	B3C0713	HJD	03/07/2023	03/08/2023	
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Waypoint Analytical, LLC.

PAH by 8270D SIM

1-Methylnaphthalene	ND	0.00201	mg/Kg	1	L668611		03/09/2023	03/10/2023	
2-Methylnaphthalene	ND	0.00201	"	"	"		"	"	
Acenaphthene	ND	0.00067	"	"	"		"	"	
Anthracene	ND	0.00067	"	"	"		"	"	

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Project: Noble - HSR - Laurice 6-1

FL01-A@3'

3/3/2023 11:20:00AM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Y303101-01 (Soil)
Waypoint Analytical, LLC.

PAH by 8270D SIM

Benzo(a)anthracene	ND	0.00067	mg/Kg	1	L668611		03/09/2023	03/10/2023	
Benzo(a)pyrene	ND	0.00067	"	"	"		"	"	
Benzo(b)fluoranthene	ND	0.00067	"	"	"		"	"	
Benzo(k)fluoranthene	ND	0.00067	"	"	"		"	"	
Chrysene	ND	0.00067	"	"	"		"	"	
Dibenz(a,h)anthracene	ND	0.00067	"	"	"		"	"	
Fluoranthene	ND	0.00067	"	"	"		"	"	
Fluorene	ND	0.00067	"	"	"		"	"	
Indeno(1,2,3-cd)pyrene	ND	0.00067	"	"	"		"	"	
Naphthalene	ND	0.00201	"	"	"		"	"	
Pyrene	ND	0.00067	"	"	"		"	"	

Surrogate: 2-Fluorobiphenyl	48.2 %	33-115	"	"	"	"	"	"	
Surrogate: 4-Terphenyl-d14	44.5 %	33-122	"	"	"	"	"	"	
Surrogate: Nitrobenzene-d5	46.6 %	29-110	"	"	"	"	"	"	

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Jake Whritenour
Project Number: UWRWE-A2539-ABN
Project: Noble - HSR - Laurice 6-1

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 B3C0402 - EPA 5030 (soil)

Blank (B3C0402-BLK1)

Prepared: 03/04/2023 Analyzed: 03/05/2023

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	0.12		"	0.125		93.5	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		96.9	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		97.2	70-130			

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B3C0402 - EPA 5030 (soil)

LCS (B3C0402-BS1)

Prepared: 03/04/2023 Analyzed: 03/05/2023

1,2,4-Trimethylbenzene	0.106	0.00200	mg/kg	0.100	106	70-130
1,3,5-Trimethylbenzene	0.107	0.00200	"	0.100	107	70-130
Benzene	0.0944	0.00200	"	0.100	94.4	70-130
Ethylbenzene	0.105	0.00200	"	0.100	105	70-130
Naphthalene	0.0965	0.00380	"	0.100	96.5	70-130
Toluene	0.0935	0.00200	"	0.100	93.5	70-130
o-Xylene	0.106	0.00200	"	0.100	106	70-130
m,p-Xylene	0.207	0.00400	"	0.200	103	70-130
Surrogate: 1,2-Dichloroethane-d4	0.11	"	"	0.125	91.7	70-130
Surrogate: Toluene-d8	0.12	"	"	0.125	98.5	70-130
Surrogate: 4-Bromofluorobenzene	0.12	"	"	0.125	99.0	70-130

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B3C0402 - EPA 5030 (soil)

Matrix Spike (B3C0402-MS1)

Source: Y302542-01

Prepared: 03/04/2023 Analyzed: 03/06/2023

1,2,4-Trimethylbenzene	0.0909	0.00200	mg/kg	0.100	ND	90.9	70-130			
1,3,5-Trimethylbenzene	0.0928	0.00200	"	0.100	ND	92.8	70-130			
Benzene	0.0914	0.00200	"	0.100	ND	91.4	70-130			
Ethylbenzene	0.0926	0.00200	"	0.100	ND	92.6	70-130			
Naphthalene	0.0740	0.00380	"	0.100	ND	74.0	70-130			
Toluene	0.0928	0.00200	"	0.100	ND	92.8	70-130			
o-Xylene	0.0950	0.00200	"	0.100	ND	95.0	70-130			
m,p-Xylene	0.183	0.00400	"	0.200	ND	91.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		103	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		101	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		99.7	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
Batch B3C0402 - EPA 5030 (soil)										
Matrix Spike Dup (B3C0402-MSD1)			Source: Y302542-01		Prepared: 03/04/2023 Analyzed: 03/06/2023					
1,2,4-Trimethylbenzene	0.0928	0.00200	mg/kg	0.100	ND	92.8	70-130	2.09	20	
1,3,5-Trimethylbenzene	0.0927	0.00200	"	0.100	ND	92.7	70-130	0.0647	20	
Benzene	0.0919	0.00200	"	0.100	ND	91.9	70-130	0.502	20	
Ethylbenzene	0.0951	0.00200	"	0.100	ND	95.1	70-130	2.73	20	
Naphthalene	0.0778	0.00380	"	0.100	ND	77.8	70-130	4.93	20	
Toluene	0.0919	0.00200	"	0.100	ND	91.9	70-130	0.931	20	
o-Xylene	0.0975	0.00200	"	0.100	ND	97.5	70-130	2.62	20	
m,p-Xylene	0.188	0.00400	"	0.200	ND	93.8	70-130	2.28	20	
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		106	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		98.6	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		102	70-130			

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Project Number: UWRWE-A2539-ABN
Project: Noble - HSR - Laurice 6-1

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 B3C0719 - EPA 3580

Blank (B3C0719-BLK1)

Prepared: 03/07/2023 Analyzed: 03/09/2023

Diesel (C10-C28)	ND	25.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	100	"							U
Surrogate: o-Terphenyl	25		"	24.9		101	50-150			

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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 B3C0719 - EPA 3580

LCS (B3C0719-BS1)

Prepared: 03/07/2023 Analyzed: 03/09/2023

Diesel (C10-C28)	846	50.0	mg/kg	1000	84.6	70-130
Residual Range Organics (C28-C40)	820	200	"	1000	82.0	70-130
Surrogate: o-Terphenyl	45		"	49.8	91.3	50-150

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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 B3C0719 - EPA 3580

Matrix Spike (B3C0719-MS1)

Source: Y303101-01

Prepared: 03/07/2023 Analyzed: 03/09/2023

Diesel (C10-C28)	804	50.0	mg/kg	1000	ND	80.4	70-130
Residual Range Organics (C28-C40)	785	200	"	1000	ND	78.5	70-130
Surrogate: o-Terphenyl	42		"	49.8		84.7	50-150

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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 B3C0719 - EPA 3580

Matrix Spike Dup (B3C0719-MSD1)

Source: Y303101-01

Prepared: 03/07/2023 Analyzed: 03/09/2023

Diesel (C10-C28)	835	50.0	mg/kg	1000	ND	83.5	70-130	3.77	35	
Residual Range Organics (C28-C40)	815	200	"	1000	ND	81.5	70-130	3.79	35	
Surrogate: o-Terphenyl	43		"	49.8		85.7	50-150			

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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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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 B3C0602 - DTPA Sorbitol Preparation

Blank (B3C0602-BLK1)

Prepared: 03/06/2023 Analyzed: 03/07/2023

Boron ND 0.100 mg/L

Duplicate (B3C0602-DUP1)

Source: Y303085-01

Prepared: 03/06/2023 Analyzed: 03/07/2023

Boron 0.101 0.0996 mg/L 0.107 5.76 50

Batch B3C0707 - Saturated Paste Metals

Blank (B3C0707-BLK1)

Prepared: 03/07/2023 Analyzed: 03/08/2023

SAR 0.00 SAR

Calcium PPM ND 10.0 mg/L

Magnesium PPM ND 10.0 "

Sodium PPM ND 10.0 "

Duplicate (B3C0707-DUP1)

Source: Y303101-01

Prepared: 03/07/2023 Analyzed: 03/08/2023

SAR 0.00 SAR 3.78 200 200

Calcium PPM 37.5 10.0 mg/L 38.8 3.38 50

Magnesium PPM 6.56 10.0 " 6.82 3.87 50

Sodium PPM 95.2 10.0 " 97.2 2.03 50

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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 B3C0713 - Saturated Paste pH/EC

Blank (B3C0713-BLK1)

Prepared: 03/07/2023 Analyzed: 03/08/2023

Specific Conductance (EC) ND 0.00500 mmhos/cm

Duplicate (B3C0713-DUP1)

Source: Y303101-01

Prepared: 03/07/2023 Analyzed: 03/08/2023

Specific Conductance (EC)	0.834	0.00500	mmhos/cm	0.825	1.07	25
pH	8.13		pH Units	8.08	0.617	25

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Jordan A. Bynon For Jen Pellegrini, Project Manager

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Jake Whritenour
Project Number: UWRWE-A2539-ABN
Project: Noble - HSR - Laurice 6-1

PAH by 8270D SIM - Quality Control Waypoint Analytical, LLC.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch L668611 - 3550B

MSD (L 96052-MSD-L668611)

Source: 96052

Prepared: 03/09/2023 Analyzed: 03/10/2023

2-Methylnaphthalene	0.0904	0.00201	mg/Kg	0.162	<0.00194	55.8	30-130	3.9	30	
Fluorene	0.106	0.00067	"	0.162	<0.000286	65.4	30-130	2.8	30	
Pyrene	0.0994	0.00067	"	0.162	<0.000643	61.3	30-130	3.3	30	
Indeno(1,2,3-cd)pyrene	0.0777	0.00067	"	0.162	<0.000627	47.9	30-130	0.3	30	
Fluoranthene	0.103	0.00067	"	0.162	<0.000394	63.5	30-130	3.6	30	
Dibenz(a,h)anthracene	0.0946	0.00067	"	0.162	<0.000614	58.3	30-130	0.3	30	
Chrysene	0.106	0.00067	"	0.162	0.000779	64.9	30-130	3.8	30	
Naphthalene	0.0916	0.00201	"	0.162	<0.00145	56.5	30-130	3.7	30	
1-Methylnaphthalene	0.0935	0.00201	"	0.162	<0.00109	57.7	30-130	4	30	
Benzo(k)fluoranthene	0.076	0.00067	"	0.162	<0.000437	46.9	30-130	0.1	30	
Acenaphthene	0.0996	0.00067	"	0.162	<0.000304	61.4	30-130	4.2	30	
Anthracene	0.105	0.00067	"	0.162	<0.000334	64.8	30-130	1.9	30	
Benzo(a)anthracene	0.106	0.00067	"	0.162	<0.000493	65.4	30-130	4.8	30	
Benzo(a)pyrene	0.111	0.00067	"	0.162	0.000515	68.2	30-130	5.5	30	
Benzo(b)fluoranthene	0.079	0.00067	"	0.162	<0.000585	48.7	30-130	8.5	30	
Surrogate: 2-Fluorobiphenyl	50.4		"	0.325	160	50.4	33-115			
Surrogate: Nitrobenzene-d5	49.8		"	0.325	158	49.8	29-110			
Surrogate: 4-Terphenyl-d14	55		"	0.325	181	55	33-122			

MS (L 96052-MS-L668611)

Source: 96052

Prepared: 03/09/2023 Analyzed: 03/10/2023

Benzo(k)fluoranthene	0.0759	0.00067	mg/Kg	0.163	<0.000437	46.5	30-130			
Acenaphthene	0.0955	0.00067	"	0.163	<0.000304	58.5	30-130			
Naphthalene	0.0882	0.00201	"	0.163	<0.00145	54.1	30-130			
Indeno(1,2,3-cd)pyrene	0.0774	0.00067	"	0.163	<0.000627	47.4	30-130			
Fluorene	0.103	0.00067	"	0.163	<0.000286	63.1	30-130			
Fluoranthene	0.0993	0.00067	"	0.163	<0.000394	60.9	30-130			
Dibenz(a,h)anthracene	0.0943	0.00067	"	0.163	<0.000614	57.8	30-130			

Origins Laboratory, Inc.

J. Bynon

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Tasman Geosciences
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Broomfield CO 80020

Jake Whritenour
Project Number: UWRWE-A2539-ABN
Project: Noble - HSR - Laurice 6-1

PAH by 8270D SIM - Quality Control Waypoint Analytical, LLC.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch L668611 - 3550B

MS (L 96052-MS-L668611)

Source: 96052

Prepared: 03/09/2023 Analyzed: 03/10/2023

Chrysene	0.102	0.00067	mg/Kg	0.163	0.000779	62	30-130
1-Methylnaphthalene	0.0898	0.00201	"	0.163	<0.00109	55	30-130
Benzo(a)pyrene	0.105	0.00067	"	0.163	0.000515	64.1	30-130
Anthracene	0.103	0.00067	"	0.163	<0.000334	63.1	30-130
Pyrene	0.0961	0.00067	"	0.163	<0.000643	58.9	30-130
2-Methylnaphthalene	0.0869	0.00201	"	0.163	<0.00194	53.3	30-130
Benzo(b)fluoranthene	0.0725	0.00067	"	0.163	<0.000585	44.4	30-130
Benzo(a)anthracene	0.101	0.00067	"	0.163	<0.000493	61.9	30-130
Surrogate: Nitrobenzene-d5	41.7		"	0.326	158	41.7	29-110
Surrogate: 4-Terphenyl-d14	53.3		"	0.326	181	53.3	33-122
Surrogate: 2-Fluorobiphenyl	42.3		"	0.326	160	42.3	33-115

LCS (LCS-L668611)

Prepared: 03/09/2023 Analyzed: 03/10/2023

Chrysene	0.113	0.00067	mg/Kg	0.167		67.6	30-130
Dibenz(a,h)anthracene	0.135	0.00067	"	0.167		80.8	30-130
Fluoranthene	0.112	0.00067	"	0.167		67	30-130
Fluorene	0.118	0.00067	"	0.167		70.6	30-130
Indeno(1,2,3-cd)pyrene	0.117	0.00067	"	0.167		70	30-130
Naphthalene	0.102	0.00201	"	0.167		61	30-130
Benzo(k)fluoranthene	0.0936	0.00067	"	0.167		56	30-130
Pyrene	0.11	0.00067	"	0.167		65.8	30-130
Benzo(a)pyrene	0.12	0.00067	"	0.167		71.8	30-130
Benzo(a)anthracene	0.115	0.00067	"	0.167		68.8	30-130
Anthracene	0.118	0.00067	"	0.167		70.6	30-130
Acenaphthene	0.109	0.00067	"	0.167		65.2	30-130
2-Methylnaphthalene	0.0989	0.00201	"	0.167		59.2	30-130
1-Methylnaphthalene	0.102	0.00201	"	0.167		61	30-130

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Broomfield CO 80020

Jake Whritenour
Project Number: UWRWE-A2539-ABN
Project: Noble - HSR - Laurice 6-1

PAH by 8270D SIM - Quality Control Waypoint Analytical, LLC.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch L668611 - 3550B

LCS (LCS-L668611)

Prepared: 03/09/2023 Analyzed: 03/10/2023

Benzo(b)fluoranthene	0.0915	0.00067	mg/Kg	0.167	54.7	30-130
Surrogate: Nitrobenzene-d5	56.4	"	"	0.333	56.4	29-110
Surrogate: 4-Terphenyl-d14	62.7	"	"	0.333	62.7	33-122
Surrogate: 2-Fluorobiphenyl	57.3	"	"	0.333	57.3	33-115

LRB (LRB-L668611)

Prepared: 03/09/2023 Analyzed: 03/10/2023

Chrysene	ND	0.00067	mg/Kg	-	-	-
Dibenz(a,h)anthracene	ND	0.00067	"	-	-	-
Fluoranthene	ND	0.00067	"	-	-	-
Fluorene	ND	0.00067	"	-	-	-
Benzo(k)fluoranthene	ND	0.00067	"	-	-	-
Naphthalene	ND	0.00201	"	-	-	-
Indeno(1,2,3-cd)pyrene	ND	0.00067	"	-	-	-
Benzo(b)fluoranthene	ND	0.00067	"	-	-	-
Benzo(a)pyrene	ND	0.00067	"	-	-	-
Benzo(a)anthracene	ND	0.00067	"	-	-	-
Acenaphthene	ND	0.00067	"	-	-	-
2-Methylnaphthalene	ND	0.00201	"	-	-	-
1-Methylnaphthalene	ND	0.00201	"	-	-	-
Pyrene	ND	0.00067	"	-	-	-
Anthracene	ND	0.00067	"	-	-	-
Surrogate: Nitrobenzene-d5	52.8	"	0.333	52.8	29-110	
Surrogate: 4-Terphenyl-d14	62.1	"	0.333	62.1	33-122	
Surrogate: 2-Fluorobiphenyl	52.2	"	0.333	52.2	33-115	

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Tasman Geosciences

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Project Number: UWRWE-A2539-ABN

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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.

Calculated results may use J-flag data (instead of reported "ND") as part of calculation to provide a more accurate result.

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Jordan A. Bynon For Jen Pellegrini, Project Manager