



Eagle Environmental Consulting, LLC

Alfred Garraffa

8000 W 44th Ave

Wheat Ridge CO 80033

December 11, 2024

Project Name - Noble - Sandau #34-12F

Project Number - [none]

Attached are your analytical results for Noble - Sandau #34-12F received by Origins Laboratory November 07, 2024. This project is associated with Origins project number E4K0240-01.

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
303.433.1322
projectmanager@originslab.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

Alfred Garraffa
Project Number: [none]
Project: Noble - Sandau #34-12F

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-01	E4K0240-01	Water	November 7, 2024 11:45	11/07/2024 17:12
MW-02	E4K0240-02	Water	November 7, 2024 12:00	11/07/2024 17:12
MW-03	E4K0240-03	Water	November 7, 2024 12:15	11/07/2024 17:12
MW-04	E4K0240-04	Water	November 7, 2024 12:30	11/07/2024 17:12
MW-05	E4K0240-05	Water	November 7, 2024 12:45	11/07/2024 17:12

Origins Laboratory



Jen Pellegrini, Project Manager

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

Alfred Garraffa
Project Number: [none]
Project: Noble - Sandau #34-12F

ORIGINS

LABORATORY INC

440240

ORIGINS WORK ORDER #

Page 1 of 1

Client: Eagle Environmental Consulting

Project Manager: Alfred Garraffa

Key:

Address: 8000 W 44th Ave

Project Name: Sandau #34-12F

W=Water

Telephone Number: 303-433-0479

Project Number: 440240

GW=Groundwater

Collected By: JLM

SW=Surface Water

Email Address: agarraffa@eagle-enviro.com

Invoice/Billing Info: Noble / Bill to Day

WW=Waste Water

S=Soil | SO=Solid | O=Oil | A=Air | G=Gas | UNP=Impress | HCL=Hydrochloric | HNO3=Nitric | H2SO4=Sulfuric | NaOH=Sodium Hydroxide

I=Liquid

#	Sample ID	Date Sampled	Time Sampled	# of Containers	Matrix Preservative	Analysis										Comments
						BTEX	ALPH	NUM	THAP	THAP	THAP	THAP	THAP	THAP	THAP	
1	MW-01	11/14	1145	3	GL	X	X	X	X	X	X	X	X	X	X	
2	MW-02	12/02	1200	1	GL	X	X	X	X	X	X	X	X	X	X	
3	MW-03	12/15	1215	1	GL	X	X	X	X	X	X	X	X	X	X	
4	MW-04	12/30	1230	1	GL	X	X	X	X	X	X	X	X	X	X	
5	MW-05	12/31	1231	1	GL	X	X	X	X	X	X	X	X	X	X	
6																
7																
8																
9																
10																

Relinquished By: <u>Alfred Garraffa</u>	Date: <u>11/14/24</u>	Time: <u>1712</u>	Received By: <u>JLM</u>	Date: <u>11/14/24</u>	Time: <u>1712</u>
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

1725 Elk Place Denver, Co, 80211 | # 303.433.1322 | originslab.com | Temp Received - 5.4 Received On Ice? ☒ Yes ☐ No

For Lab Sample Receiving Only:

☒ Standard

☐ 48 Hr ☐ 72 Hr

☐ SAME DAY ☐ 24 Hr

Turnaround Time

Origins Laboratory

Jefe Pellegrini

Jen Pellegrini, Project Manager

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Wheat Ridge CO 80033

Alfred Garraffa
Project Number: [none]
Project: Noble - Sandau #34-12F

Origins Laboratory

Sample Receipt Checklist

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

Origins Work Order: E4K0240

Client: Eagle

Client Project ID: Sandau

Checklist Completed by: THOIN

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

Date/time completed: 11/7/12

Airbill #: N/A

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

Cooler Number/Temperature: 1 5-4 °C 1 °C 1 °C (Describe) °C

Thermometer ID: 1007

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"/>	<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 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"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>	<input 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"/>	<input type="checkbox"/>	<input type="checkbox"/>	NC
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) AG

11/11/12
Date/Time Reviewed

Origins Laboratory

Jen Pellegrini

Jen Pellegrini, Project Manager

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

Alfred Garraffa
Project Number: [none]
Project: Noble - Sandau #34-12F

MW-01

11/7/2024 11:45:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory E4K0240-01 (Water)

BTEX+N+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	2.00	ug/L	1	B4K1006	11/10/2024	11/10/2024	U
1,3,5-Trimethylbenzene	ND	2.00	"	"	"	"	"	U
Benzene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Naphthalene	ND	2.00	"	"	"	"	"	U
Toluene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	103 %	70-130	"	"	"
Surrogate: Toluene-d8	101 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	99.8 %	70-130	"	"	"

Origins Laboratory



Jen Pellegrini, Project Manager

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Alfred Garraffa
Project Number: [none]
Project: Noble - Sandau #34-12F

MW-02

11/7/2024 12:00:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory E4K0240-02 (Water)

BTEX+N+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	2.00	ug/L	1	B4K1006	11/10/2024	11/10/2024	U
1,3,5-Trimethylbenzene	ND	2.00	"	"	"	"	"	U
Benzene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Naphthalene	ND	2.00	"	"	"	"	"	U
Toluene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	106 %	70-130	"	"	"
Surrogate: Toluene-d8	100 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	99.2 %	70-130	"	"	"

Origins Laboratory



Jen Pellegrini, Project Manager

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Wheat Ridge CO 80033

Alfred Garraffa
Project Number: [none]
Project: Noble - Sandau #34-12F

MW-03

11/7/2024 12:15:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory E4K0240-03 (Water)

BTEX+N+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	2.00	ug/L	1	B4K1006	11/10/2024	11/10/2024	U
1,3,5-Trimethylbenzene	ND	2.00	"	"	"	"	"	U
Benzene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Naphthalene	ND	2.00	"	"	"	"	"	U
Toluene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	105 %	70-130	"	"	"
Surrogate: Toluene-d8	101 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	99.1 %	70-130	"	"	"

Origins Laboratory



Jen Pellegrini, Project Manager

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Alfred Garraffa
Project Number: [none]
Project: Noble - Sandau #34-12F

MW-04

11/7/2024 12:30:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory E4K0240-04 (Water)

BTEX+N+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	2.00	ug/L	1	B4K1006	11/10/2024	11/10/2024	U
1,3,5-Trimethylbenzene	ND	2.00	"	"	"	"	"	U
Benzene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Naphthalene	ND	2.00	"	"	"	"	"	U
Toluene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	104 %	70-130	"	"	"
Surrogate: Toluene-d8	101 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	99.2 %	70-130	"	"	"

Origins Laboratory



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Wheat Ridge CO 80033

Alfred Garraffa
Project Number: [none]
Project: Noble - Sandau #34-12F

MW-05

11/7/2024 12:45:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory E4K0240-05 (Water)

BTEX+N+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	2.00	ug/L	1	B4K1006	11/10/2024	11/10/2024	U
1,3,5-Trimethylbenzene	ND	2.00	"	"	"	"	"	U
Benzene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Naphthalene	ND	2.00	"	"	"	"	"	U
Toluene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	105 %	70-130	"	"	"
Surrogate: Toluene-d8	101 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	98.0 %	70-130	"	"	"

Origins Laboratory



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Eagle Environmental Consulting, LLC
8000 W 44th Ave
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Alfred Garraffa
Project Number: [none]
Project: Noble - Sandau #34-12F

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

Origins Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B4K1006 - EPA 5030B (Water)										
Blank (B4K1006-BLK1)					Prepared: 11/10/2024 Analyzed: 11/10/2024					
1,2,4-Trimethylbenzene	ND	2.00	ug/L							U
1,3,5-Trimethylbenzene	ND	2.00	"							U
Benzene	ND	1.00	"							U
Ethylbenzene	ND	1.00	"							U
Naphthalene	ND	2.00	"							U
Toluene	ND	1.00	"							U
Xylenes, total	ND	1.00	"							U
Surrogate: 1,2-Dichloroethane-d4	65		"	62.5		104	70-130			
Surrogate: Toluene-d8	63		"	62.5		100	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.4	70-130			

Origins Laboratory



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Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B4K1006 - EPA 5030B (Water)										
LCS (B4K1006-BS1)					Prepared: 11/10/2024 Analyzed: 11/10/2024					
1,2,4-Trimethylbenzene	46.2	2.00	ug/L	50.0		92.3	70-130			
1,3,5-Trimethylbenzene	56.0	2.00	"	50.0		112	70-130			
Benzene	45.0	1.00	"	50.0		89.9	70-130			
Ethylbenzene	50.4	1.00	"	50.0		101	70-130			
m,p-Xylene	90.4	2.00	"	100		90.4	70-130			
Naphthalene	52.3	2.00	"	50.0		105	70-130			
o-Xylene	45.2	1.00	"	50.0		90.3	70-130			
Toluene	44.4	1.00	"	50.0		88.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	68		"	62.5		109	70-130			
Surrogate: Toluene-d8	62		"	62.5		99.8	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	70-130			

Origins Laboratory

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Alfred Garraffa
Project Number: [none]
Project: Noble - Sandau #34-12F

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

Origins Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B4K1006 - EPA 5030B (Water)

Matrix Spike (B4K1006-MS1)		Source: E4K0226-01			Prepared: 11/10/2024 Analyzed: 11/10/2024					
1,2,4-Trimethylbenzene	47.3	2.00	ug/L	50.0	ND	94.6	70-130			
1,3,5-Trimethylbenzene	57.6	2.00	"	50.0	ND	115	70-130			
Benzene	46.5	1.00	"	50.0	0.250	92.5	70-130			
Ethylbenzene	53.5	1.00	"	50.0	ND	107	70-130			
m,p-Xylene	96.6	2.00	"	100	ND	96.6	70-130			
Naphthalene	46.5	2.00	"	50.0	0.200	92.5	70-130			
o-Xylene	47.8	1.00	"	50.0	ND	95.7	70-130			
Toluene	46.7	1.00	"	50.0	ND	93.3	70-130			
Surrogate: 1,2-Dichloroethane-d4	66		"	62.5		106	70-130			
Surrogate: Toluene-d8	64		"	62.5		102	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.8	70-130			

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Alfred Garraffa
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Project: Noble - Sandau #34-12F

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

Origins Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B4K1006 - EPA 5030B (Water)

Matrix Spike Dup (B4K1006-MSD1)		Source: E4K0226-01			Prepared: 11/10/2024 Analyzed: 11/10/2024					
1,2,4-Trimethylbenzene	48.4	2.00	ug/L	50.0	ND	96.8	70-130	2.32	20	
1,3,5-Trimethylbenzene	58.8	2.00	"	50.0	ND	118	70-130	2.03	20	
Benzene	47.8	1.00	"	50.0	0.250	95.2	70-130	2.86	20	
Ethylbenzene	54.0	1.00	"	50.0	ND	108	70-130	0.967	20	
m,p-Xylene	97.4	2.00	"	100	ND	97.4	70-130	0.824	20	
Naphthalene	53.4	2.00	"	50.0	0.200	106	70-130	13.8	20	
o-Xylene	48.8	1.00	"	50.0	ND	97.5	70-130	1.88	20	
Toluene	47.0	1.00	"	50.0	ND	93.9	70-130	0.662	20	
Surrogate: 1,2-Dichloroethane-d4	68		"	62.5		108	70-130			
Surrogate: Toluene-d8	62		"	62.5		99.8	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		98.5	70-130			

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

Alfred Garraffa
Project Number: [none]
Project: Noble - Sandau #34-12F

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 on a wet weight basis.

Origins Laboratory



Jen Pellegrini, Project Manager

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