



July 05, 2022

Eagle Environmental Consulting, Inc.

Martin C Eckert III

8000 W 44th Ave

Wheat Ridge CO 80033

Project Name - Noble - UPRR 39 Pan Am G #1 Project Number - [none]

Attached are your analytical results for Noble - UPRR 39 Pan Am G #1 received by Origins Laboratory, Inc. June 24, 2022. This project is associated with Origins project number Y206632-01.

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



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Wheat Ridge CO 80033

Martin C Eckert III  
Project Number: [none]  
Project: Noble - UPRR 39 Pan Am G #1

### CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Background-01@4	Y206632-01	Soil	May 17, 2022 14:21	06/24/2022 14:18

Origins Laboratory, Inc.

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Jordan A. Bynon For Jen Pellegrini, Project Manager



# ORIGINS LABORATORY, INC

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

Martin C Eckert III  
Project Number: [none]  
Project: Noble - UPRR 39 Pan Am G #1

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

Origins Work Order: Y2506602 Sample Receipt Checklist

Client: Eagle/Noble  
Client Project ID: UPRR 39

Checklist Completed by: [Signature] Shipped Via: HD  
Date/Time completed: 6/28/22 (UPS, FedEx, Hand Delivered, Pick-up, etc.)  
Airbill #: N/A

Matrix(s) Received: (Check all that apply)  Soil/Solid  Water  Other: \_\_\_\_\_

Cooler Number/Temperature: 148.0 °C (Describe)

Thermometer ID: T003

Requirement Description	Yes	No	N/A	Comments (if any)
<small>If samples require cooling, was the temperature between 0°C to ≤ 8°C<sup>(1)</sup>?</small>	<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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" 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 analytes or samples with HTs due within 48 hours present <sup>(1)</sup> ?	<input type="checkbox"/>	<input checked="" 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 subcontracted analyses in order to insure sample integrity) <small>&lt;2 for samples preserved with HNO3, HCL, H2SO4 / ( pH &gt; 10 for samples preserved with NaAsO2+NaOH, ZnAc+NaOH)</small>	<input type="checkbox"/>	<input checked="" 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 6/28/22

Origins Laboratory, Inc.  
[Signature]

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**Background-01@4'**  
**5/17/2022 2:21:00PM**

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y206632-01 (Soil)**

**Metals by Saturated Paste by EPA 6010**

Calcium	0.954	0.499	meq/L	10	[CALC]	KAP	06/28/2022	06/29/2022	
Magnesium	ND	0.823	"	"	"	KAP	"	"	
Sodium	5.19	0.435	"	"	"	KAP	"	"	

**pH in Soil by 9045D**

pH	8.33		pH Units	1	B2F2812	ACC	06/28/2022	06/29/2022	
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**SAR by 20B Saturated Paste**

SAR	5.97		SAR	1	B2F2807	KAP	06/28/2022	06/29/2022	
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**Table 915 metals by EPA 6020B**

Arsenic	2.31	0.00100	mg/kg	1	B2F2724	CIH	06/27/2022	06/27/2022	
Selenium	0.0778	0.00100	"	"	"	CIH	"	"	

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**Metals by SM 3500 Series Methods - 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 B2F2724 - Default Prep Metals**

**Blank (B2F2724-BLK1)**

Prepared: 06/27/2022 Analyzed: 06/27/2022

Arsenic	ND	0.00100	mg/kg							
Barium	ND	0.0100	"							
Cadmium	ND	0.00100	"							
Copper	ND	0.0100	"							
Lead	ND	0.00100	"							
Nickel	ND	0.00100	"							
Selenium	ND	0.00100	"							
Silver	ND	0.00100	"							
Zinc	ND	0.0100	"							

**LCS (B2F2724-BS1)**

Prepared: 06/27/2022 Analyzed: 06/27/2022

Arsenic	0.0472	0.00100	mg/kg	0.0500		94.3	80-120			
Barium	4.92	0.0100	"	5.00		98.5	80-120			
Cadmium	0.0503	0.00100	"	0.0500		101	80-120			
Copper	0.472	0.0100	"	0.500		94.5	80-120			
Lead	0.0493	0.00100	"	0.0500		98.6	80-120			
Nickel	0.0463	0.00100	"	0.0500		92.6	80-120			
Selenium	0.0490	0.00100	"	0.0500		97.9	80-120			
Silver	0.0516	0.00100	"	0.0500		103	80-120			
Zinc	0.475	0.0100	"	0.500		95.1	80-120			

**Matrix Spike (B2F2724-MS1)**

Source: Y206630-10

Prepared: 06/27/2022 Analyzed: 06/27/2022

Arsenic	6.44	0.00100	mg/kg	5.21	5.56	16.9	75-125			QM-07
Barium	565	0.0100	"	521	64.6	96.0	75-125			
Cadmium	5.03	0.00100	"	5.21	0.0879	95.0	75-125			
Copper	54.1	0.0100	"	52.1	5.40	93.5	75-125			
Lead	7.82	0.00100	"	5.21	3.86	76.0	75-125			

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**Metals by SM 3500 Series Methods - 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 B2F2724 - Default Prep Metals**

**Matrix Spike (B2F2724-MS1)**

**Source: Y206630-10**

Prepared: 06/27/2022 Analyzed: 06/27/2022

Nickel	7.79	0.00100	mg/kg	5.21	4.78	57.9	75-125			QM-07
Selenium	5.53	0.00100	"	5.21	0.166	103	75-125			
Silver	5.38	0.00100	"	5.21	0.0168	103	75-125			
Zinc	47.6	0.0100	"	52.1	13.2	66.0	75-125			QM-07

**Matrix Spike Dup (B2F2724-MSD1)**

**Source: Y206630-10**

Prepared: 06/27/2022 Analyzed: 06/27/2022

Arsenic	6.00	0.00100	mg/kg	4.84	5.56	9.23	75-125	6.96	20	QM-07
Barium	537	0.0100	"	484	64.6	97.6	75-125	4.96	20	
Cadmium	4.77	0.00100	"	4.84	0.0879	96.6	75-125	5.44	20	
Copper	51.3	0.0100	"	48.4	5.40	94.7	75-125	5.36	20	
Lead	7.58	0.00100	"	4.84	3.86	76.8	75-125	3.10	20	
Nickel	7.86	0.00100	"	4.84	4.78	63.7	75-125	0.919	20	QM-07
Selenium	4.72	0.00100	"	4.84	0.166	94.1	75-125	15.8	20	
Silver	4.94	0.00100	"	4.84	0.0168	102	75-125	8.42	20	
Zinc	47.2	0.0100	"	48.4	13.2	70.1	75-125	0.907	20	QM-07

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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 B2F2812 - NO PREP**

**Blank (B2F2812-BLK1)**

Prepared: 06/28/2022 Analyzed: 06/29/2022

pH 0.00 pH Units

**Duplicate (B2F2812-DUP1)**

**Source: Y206630-07**

Prepared: 06/28/2022 Analyzed: 06/29/2022

pH 8.10 pH Units 8.13 0.370 25

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### Notes and Definitions

- 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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