



**Tasman Geosciences**

**Jeb Watts**

**6855 West 119th Avenue**

**Broomfield CO 80020**

**January 10, 2025**

**Project Name - P66 - Knaub 9-13G**

**Project Number - [none]**

Attached are your analytical results for P66 - Knaub 9-13G received by Origins Laboratory December 09, 2024. This project is associated with Origins project number E4L0329-01.

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**

Tasman Geosciences  
6855 West 119th Avenue  
Broomfield CO 80020

Jeb Watts  
Project Number: [none]  
Project: P66 - Knaub 9-13G

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	E4L0329-01	Water	December 9, 2024 11:50	12/09/2024 14:22
MW02	E4L0329-02	Water	December 9, 2024 12:17	12/09/2024 14:22
MW03	E4L0329-03	Water	December 9, 2024 12:41	12/09/2024 14:22
MW04	E4L0329-04	Water	December 9, 2024 11:47	12/09/2024 14:22
MW05	E4L0329-05	Water	December 9, 2024 12:08	12/09/2024 14:22
MW06	E4L0329-06	Water	December 9, 2024 12:26	12/09/2024 14:22

Origins Laboratory



Jen Pellegrini, Project Manager

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Jeb Watts  
Project Number: [none]  
Project: P66 - Knaub 9-13G

# ORIGINS

LABORATORY, INC

www.originslaboratory.com

page 1 of 1

Client: Tasman / P166

Address: 6855 W. 119th Ave.

Broomfield, CO 80020

Telephone Number: 303-487-1228

Email Address: stephen.veithen@bbl.com

humphrey@tasman-geo.com

**640329**

Project Manager: Stephen Veithen, Bbl.com

Project Name: Humb 9-136

Project Number: \_\_\_\_\_

Samples Collected By: BV/GT

\_\_\_\_\_

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis				Sample Instructions
				Unpreserved	HCl	HNO <sub>3</sub>	Other	Groundwater	Soil	Air Summa Canister #	Other	DTM <sub>2</sub> + TMR <sub>2</sub>			
MW01	12-9-24	1150	3	X				X					X	1	
MW02		1217	1											2	
MW03		1241	1											3	
MW04		1147	1											4	
MW05		1208	1											5	
MW06		1226	1											6	
														7	
														8	
														9	
														10	

Relinquished By: <u>[Signature]</u>	Date: <u>12-9-24</u>	Time: <u>2:42Z</u>	Received By: <u>[Signature]</u>	Date: <u>12/9/24</u>	Time: <u>1422</u>	Turnaround Time: <input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input checked="" type="checkbox"/> Standard
Relinquished By: _____	Date: _____	Time: _____	Received By: _____	Date: _____	Time: _____	

Temp Received: 4.3

Date Results Needed

Jeff Pelligrini

Jen Pellegrini, Project Manager

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6855 West 119th Avenue  
Broomfield CO 80020

Jeb Watts  
Project Number: [none]  
Project: P66 - Knaub 9-13G

Origins Laboratory

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

**Sample Receipt Checklist**

Origins Work Order: E4 0329 Client: Tasman  
Client Project ID: Knaub

Checklist Completed by: HD KMR Shipped Via: HD  
(UPS, FedEx, Hand Delivered, Pick-up, etc.)  
Date/time completed: 12/9/24 Airbill #: N/A

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

Cooler Number/Temperature: 1 43-c (Describe) 1 °C 1 °C 1 °C

Thermometer ID: 7007

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C <sup>(1)</sup> ?	<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 <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Are short holding time analytes or samples with HTs due within 48 hours present <sup>(1)</sup> ?		<input checked="" type="checkbox"/>		
Is a chain-of-custody (COC) present and filled out completely <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client with date and time recorded <sup>(1)</sup> ?	<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 <sup>(1)</sup> ? (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 <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"/>			
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: HD (Project Manager) Date/Time Reviewed: 12/11/24

Origins Laboratory

*Jen Pellegrini*

Jen Pellegrini, Project Manager

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Tasman Geosciences  
6855 West 119th Avenue  
Broomfield CO 80020

Jeb Watts  
Project Number: [none]  
Project: P66 - Knaub 9-13G

MW01

12/9/2024 11:50:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory

### E4L0329-01 (Water)

#### BTEX+N+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	2.00	ug/L	1	B4L1140	12/11/2024	12/13/2024	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	95.5 %	70-130	"	"	"
Surrogate: Toluene-d8	102 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	96.7 %	70-130	"	"	"

Origins Laboratory



Jen Pellegrini, Project Manager

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Project Number: [none]  
Project: P66 - Knaub 9-13G

## MW02

12/9/2024 12:17:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory E4L0329-02 (Water)

### BTEX+N+TMBs by 8260D

1,2,4-Trimethylbenzene	8.83	2.00	ug/L	1	B4L1140	12/11/2024	12/13/2024	
1,3,5-Trimethylbenzene	ND	2.00	"	"	"	"	"	U
Benzene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	1.01	1.00	"	"	"	"	"	
Naphthalene	ND	2.00	"	"	"	"	"	U
Toluene	ND	1.00	"	"	"	"	"	U
Xylenes, total	9.90	1.00	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	97.0 %	70-130	"	"	"
Surrogate: Toluene-d8	103 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	90.5 %	70-130	"	"	"

Origins Laboratory



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Jen Pellegrini, Project Manager



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## MW03

12/9/2024 12:41:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory E4L0329-03 (Water)

### BTEX+N+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	2.00	ug/L	1	B4L1140	12/11/2024	12/13/2024	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	92.4 %	70-130	"	"	"
Surrogate: Toluene-d8	103 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	97.1 %	70-130	"	"	"

Origins Laboratory



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## MW04

12/9/2024 11:47:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory E4L0329-04 (Water)

### BTEX+N+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	2.00	ug/L	1	B4L1140	12/11/2024	12/13/2024	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	91.9 %	70-130	"	"	"
Surrogate: Toluene-d8	104 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	94.6 %	70-130	"	"	"

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## MW05

12/9/2024 12:08:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory E4L0329-05 (Water)

### BTEX+N+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	2.00	ug/L	1	B4L1140	12/11/2024	12/13/2024	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	96.9 %	70-130	"	"	"
Surrogate: Toluene-d8	105 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	90.8 %	70-130	"	"	"

Origins Laboratory



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Project: P66 - Knaub 9-13G

## MW06

12/9/2024 12:26:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory E4L0329-06 (Water)

### BTEX+N+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	2.00	ug/L	1	B4L1140	12/11/2024	12/13/2024	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	97.3 %	70-130	"	"	"
Surrogate: Toluene-d8	104 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	90.1 %	70-130	"	"	"

Origins Laboratory



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Project: P66 - Knaub 9-13G

**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 B4L1140 - EPA 5030B (Water)										
Blank (B4L1140-BLK1)					Prepared: 12/11/2024 Analyzed: 12/13/2024					
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	54		"	62.5		85.6	70-130			
Surrogate: Toluene-d8	67		"	62.5		108	70-130			
Surrogate: 4-Bromofluorobenzene	59		"	62.5		94.8	70-130			

Origins Laboratory

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Project Number: [none]  
Project: P66 - Knaub 9-13G

## 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 B4L1140 - EPA 5030B (Water)

#### LCS (B4L1140-BS1)

Prepared: 12/11/2024 Analyzed: 12/13/2024

1,2,4-Trimethylbenzene	56.9	2.00	ug/L	50.0		114	70-130			
1,3,5-Trimethylbenzene	58.0	2.00	"	50.0		116	70-130			
Benzene	48.6	1.00	"	50.0		97.3	70-130			
Ethylbenzene	58.5	1.00	"	50.0		117	70-130			
m,p-Xylene	115	2.00	"	100		115	70-130			
Naphthalene	50.0	2.00	"	50.0		100	70-130			
o-Xylene	55.9	1.00	"	50.0		112	70-130			
Toluene	55.0	1.00	"	50.0		110	70-130			
Surrogate: 1,2-Dichloroethane-d4	63		"	62.5		101	70-130			
Surrogate: Toluene-d8	64		"	62.5		103	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.1	70-130			

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Project: P66 - Knaub 9-13G

## 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 B4L1140 - EPA 5030B (Water)										
Matrix Spike (B4L1140-MS1)		Source: E4L0329-01			Prepared: 12/11/2024 Analyzed: 12/13/2024					
1,2,4-Trimethylbenzene	63.5	2.00	ug/L	50.0	ND	127	70-130			QM-07
1,3,5-Trimethylbenzene	65.6	2.00	"	50.0	ND	131	70-130			
Benzene	49.8	1.00	"	50.0	ND	99.6	70-130			
Ethylbenzene	65.2	1.00	"	50.0	ND	130	70-130			
m,p-Xylene	129	2.00	"	100	ND	129	70-130			
Naphthalene	51.7	2.00	"	50.0	0.350	103	70-130			
o-Xylene	62.9	1.00	"	50.0	ND	126	70-130			
Toluene	58.5	1.00	"	50.0	ND	117	70-130			
Surrogate: 1,2-Dichloroethane-d4	62		"	62.5		98.9	70-130			
Surrogate: Toluene-d8	62		"	62.5		100	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	70-130			

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Jeb Watts  
Project Number: [none]  
Project: P66 - Knaub 9-13G

## 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 B4L1140 - EPA 5030B (Water)										
Matrix Spike Dup (B4L1140-MSD1)			Source: E4L0329-01		Prepared: 12/11/2024 Analyzed: 12/13/2024					
1,2,4-Trimethylbenzene	65.3	2.00	ug/L	50.0	ND	131	70-130	2.76	20	QM-07
1,3,5-Trimethylbenzene	67.9	2.00	"	50.0	ND	136	70-130	3.42	20	QM-07
Benzene	52.4	1.00	"	50.0	ND	105	70-130	5.16	20	
Ethylbenzene	69.8	1.00	"	50.0	ND	140	70-130	6.77	20	QM-07
m,p-Xylene	138	2.00	"	100	ND	138	70-130	6.82	20	QM-07
Naphthalene	56.3	2.00	"	50.0	0.350	112	70-130	8.65	20	
o-Xylene	67.1	1.00	"	50.0	ND	134	70-130	6.54	20	QM-07
Toluene	62.0	1.00	"	50.0	ND	124	70-130	5.69	20	
Surrogate: 1,2-Dichloroethane-d4	62		"	62.5		98.5	70-130			
Surrogate: Toluene-d8	63		"	62.5		101	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.2	70-130			

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Tasman Geosciences  
6855 West 119th Avenue  
Broomfield CO 80020

Jeb Watts  
Project Number: [none]  
Project: P66 - Knaub 9-13G

## Notes and Definitions

U Sample is Non-Detect.

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 on a wet weight basis.

Origins Laboratory



Jen Pellegrini, Project Manager

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