



CTEH

June 06, 2025

Kyle Lawrence

5120 North Shore Drive

North Little Rock AR 72118

Project Name - PROJ-054017

Project Number - PROJ-054017

Attached are your analytical results for PROJ-054017 received by Origins Laboratory May 28, 2025. This project is associated with Origins project number E5E0960-01.

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



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CTEH  
5120 North Shore Drive  
North Little Rock AR 72118

Kyle Lawrence  
Project Number: PROJ-054017  
Project: PROJ-054017

### CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GACO0527T173-1S001	E5E0960-01	Soil	May 27, 2025 14:30	05/28/2025 07:26

Origins Laboratory

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Jen Pellegrini For Jordan A. Bynon, Project Manager



# ORIGINS LABORATORY

CTEH  
5120 North Shore Drive  
North Little Rock AR 72118

Kyle Lawrence  
Project Number: PROJ-054017  
Project: PROJ-054017

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

### Sample Receipt Checklist

Origins Work Order: ESE0960 Client: CTEH  
 Checklist Completed by: SEM/NKM Client Project ID: PROJ-054017  
 Date/time completed: 05/28/25 Shipped Via: TD  
 (UPS, FedEx, Hand Delivered, Pick-up, etc.)  
 Matrix(s) Received: (Check all that apply):  Soil/Solid  Water  Other: \_\_\_\_\_  
 Cooler Number/Temperature: 1 / S.I. °C (Describe)  
 Thermometer ID: F001

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 5°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? <b>If yes, contact client and note in narrative.</b>	<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 HNO3, HCL, H2SO4) / pH >10 for samples preserved with NaAsO2+NaOH, ZnAc+NaOH)			<input checked="" type="checkbox"/>	
<b>Additional Comments (if any):</b>				

<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 be taken in the additional comments (above) and the case narrative.

Reviewed by (Project Manager) [Signature] Date/Time Reviewed 5/28/25

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*Jen Pellegrini*

Jen Pellegrini For Jordan A. Bynon, Project Manager

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**GACO0527T173-1S001**  
**5/27/2025 2:30:00PM**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
<b>E5E0960-01 (Soil)</b>									
<b>Origins Laboratory</b>									
<b>Boron (DTPA Sorbitol)</b>									
Boron	0.342		0.101	mg/L	1	B5E2809	05/28/2025	06/02/2025	
<b>DRO/ORO by EPA 8015D</b>									
Diesel (C10-C28)	ND		25.0	mg/kg	1	B5E2816	05/28/2025	05/29/2025	U
Residual Range Organics (C28-C40)	ND		100	"	"	"	"	"	U
Surrogate: o-Terphenyl	103 %			50-150		"	"	"	
<b>GBTEX+TMBs by 8260D</b>									
1,2,4-Trimethylbenzene	ND		0.00200	mg/kg	1	B5E2819	05/28/2025	05/28/2025	U
1,3,5-Trimethylbenzene	ND		0.00200	"	"	"	"	"	U
Benzene	ND		0.00200	"	"	"	"	"	U
Ethylbenzene	ND		0.00200	"	"	"	"	"	U
Toluene	ND		0.00200	"	"	"	"	"	U
Xylenes, total	ND		0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND		0.200	"	"	"	"	"	U
Surrogate: 1,2-Dichloroethane-d4	109 %			70-130		"	"	"	
Surrogate: Toluene-d8	104 %			70-130		"	"	"	
Surrogate: 4-Bromofluorobenzene	95.2 %			70-130		"	"	"	

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**GACO0527T173-1S001**  
**5/27/2025 2:30:00PM**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**E5E0960-01 (Soil)**  
**Origins Laboratory**

**Metals by Saturated Paste by EPA 6010**

Calcium	1.66		0.499	meq/L	10	[CALC]	05/28/2025	05/30/2025	
Magnesium	ND		0.823	"	"	"	"	"	
Sodium	ND		0.435	"	"	"	"	"	

**PAH by EPA 8270E extracted via 3580A**

1-Methylnaphthalene	ND		0.002	mg/kg	1	B5E2834	05/28/2025	05/29/2025	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 (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

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**5/27/2025 2:30:00PM**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**E5E0960-01 (Soil)**  
**Origins Laboratory**

**PAH by EPA 8270E extracted via 3580A**

Pyrene	ND		0.020	mg/kg	1	B5E2834	05/28/2025	05/29/2025	U
Surrogate: Fluorene-d10	97.6 %			60-130		"	"	"	
Surrogate: Anthracene-d10	99.1 %			60-130		"	"	"	
Surrogate: Pyrene-d10	101 %			60-130		"	"	"	
Surrogate: Benzo (a) pyrene-d12	100 %			60-130		"	"	"	

**pH in Soil by 9045D**

pH	8.29			pH Units	1	B5E2813	05/28/2025	05/30/2025	
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**SAR by 20B Saturated Paste**

SAR	0.137		0.0100	SAR	1	B5E2806	05/28/2025	05/30/2025	
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**Specific Conductance Mod. 9050A**

Specific Conductance (EC)	0.263		0.00500	mmhos/cm	1	B5E2813	05/28/2025	05/30/2025	
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**Table 915 metals by EPA 6020B**

Arsenic	3.65		0.257	mg/kg	10	B5E2823	05/28/2025	05/29/2025	
Barium	74.9		72.7	"	"	"	"	"	
Cadmium	ND		0.337	"	"	"	"	"	U
Copper	ND		40.8	"	"	"	"	"	U

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**GACO0527T173-1S001**  
**5/27/2025 2:30:00PM**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
<b>E5E0960-01 (Soil)</b>									
<b>Origins Laboratory</b>									
<b>Table 915 metals by EPA 6020B</b>									
Lead	ND		12.4	mg/kg	10	B5E2823	05/28/2025	05/29/2025	U
Nickel	ND		23.1	"	"	"	"	"	U
Selenium	0.311		0.231	"	"	"	"	"	U
Silver	ND		0.709	"	"	"	"	"	U
Zinc	ND		328	"	"	"	"	"	U

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**Classical Chemistry Parameters - 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 B5E2806 - Saturated Paste Metals**

**Blank (B5E2806-BLK1)**

Prepared: 05/28/2025 Analyzed: 05/30/2025

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

**Duplicate (B5E2806-DUP1)**

**Source: E5E0956-19**

Prepared: 05/28/2025 Analyzed: 05/30/2025

SAR	ND	0.0100	SAR	0.890				200		U
Calcium PPM	40.9	10.0	mg/L	37.7				8.22	50	
Magnesium PPM	8.80	10.0	"	8.13				7.91	50	U
Sodium PPM	24.3	10.0	"	23.1				4.98	50	

**Batch B5E2809 - DTPA Sorbitol Preparation**

**Blank (B5E2809-BLK1)**

Prepared: 05/28/2025 Analyzed: 06/02/2025

Boron	ND	0.100	mg/L							U
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**Duplicate (B5E2809-DUP1)**

**Source: E5E0956-19**

Prepared: 05/28/2025 Analyzed: 06/02/2025

Boron	0.389	0.100	mg/L	0.375				3.65	50	
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**EPA 8270E (SW846) - Semivolatile Organic Compounds - 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 B5E2834 - EPA 3580**

**Blank (B5E2834-BLK1)**

Prepared: 05/28/2025 Analyzed: 05/28/2025

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	190		ug/kg	200		97.4	60-130			
Surrogate: Anthracene-d10	200		"	200		97.6	60-130			
Surrogate: Pyrene-d10	200		"	200		101	60-130			
Surrogate: Benzo (a) pyrene-d12	200		"	200		97.9	60-130			

**LCS (B5E2834-BS1)**

Prepared: 05/28/2025 Analyzed: 05/28/2025

1-Methylnaphthalene	0.199	0.002	mg/kg	0.200		99.6	70-130			
2-Methylnaphthalene	0.202	0.002	"	0.200		101	70-130			
Acenaphthene	0.216	0.020	"	0.200		108	70-130			
Anthracene	0.220	0.020	"	0.200		110	70-130			

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**EPA 8270E (SW846) - Semivolatile Organic Compounds - 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 B5E2834 - EPA 3580**

**LCS (B5E2834-BS1)**

Prepared: 05/28/2025 Analyzed: 05/28/2025

Benzo (a) anthracene	0.212	0.005	mg/kg	0.200		106	70-130			
Benzo (a) pyrene	0.203	0.020	"	0.200		101	70-130			
Benzo (b) fluoranthene	0.215	0.020	"	0.200		107	70-130			
Benzo (g,h,i) perylene	0.208	0.020	"	0.200		104	70-130			
Benzo (k) fluoranthene	0.205	0.020	"	0.200		103	70-130			
Chrysene	0.211	0.020	"	0.200		106	70-130			
Dibenz (a,h) anthracene	0.199	0.020	"	0.200		99.3	70-130			
Fluoranthene	0.216	0.020	"	0.200		108	70-130			
Fluorene	0.215	0.020	"	0.200		107	70-130			
Indeno (1,2,3-cd) pyrene	0.203	0.020	"	0.200		102	70-130			
Naphthalene	0.207	0.002	"	0.200		104	70-130			
Phenanthrene	0.210	0.020	"	0.200		105	70-130			
Pyrene	0.217	0.020	"	0.200		108	70-130			
Surrogate: Fluorene-d10	200		ug/kg	200		99.1	60-130			
Surrogate: Anthracene-d10	200		"	200		99.3	60-130			
Surrogate: Pyrene-d10	200		"	200		101	60-130			
Surrogate: Benzo (a) pyrene-d12	200		"	200		99.4	60-130			

**Matrix Spike (B5E2834-MS1)**

**Source: E5E0956-19**

Prepared: 05/28/2025 Analyzed: 05/28/2025

1-Methylnaphthalene	0.216	0.002	mg/kg	0.200	ND	108	70-130			
2-Methylnaphthalene	0.219	0.002	"	0.200	ND	110	70-130			
Acenaphthene	0.218	0.020	"	0.200	0.0003	109	70-130			
Anthracene	0.206	0.020	"	0.200	0.0008	103	70-130			
Benzo (a) anthracene	0.214	0.005	"	0.200	ND	107	70-130			
Benzo (a) pyrene	0.219	0.020	"	0.200	0.002	109	70-130			
Benzo (b) fluoranthene	0.229	0.020	"	0.200	0.003	113	70-130			
Benzo (g,h,i) perylene	0.207	0.020	"	0.200	0.002	102	70-130			

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**EPA 8270E (SW846) - Semivolatile Organic Compounds - 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 B5E2834 - EPA 3580**

**Matrix Spike (B5E2834-MS1)**

**Source: E5E0956-19**

Prepared: 05/28/2025 Analyzed: 05/28/2025

Benzo (k) fluoranthene	0.223	0.020	mg/kg	0.200	0.0008	111	70-130			
Chrysene	0.217	0.020	"	0.200	0.003	107	70-130			
Dibenz (a,h) anthracene	0.212	0.020	"	0.200	0.0008	106	70-130			
Fluoranthene	0.211	0.020	"	0.200	0.003	104	70-130			
Fluorene	0.209	0.020	"	0.200	ND	105	70-130			
Indeno (1,2,3-cd) pyrene	0.205	0.020	"	0.200	0.002	102	70-130			
Naphthalene	0.214	0.002	"	0.200	ND	107	70-130			
Phenanthrene	0.221	0.020	"	0.200	0.001	110	70-130			
Pyrene	0.218	0.020	"	0.200	0.002	108	70-130			
Surrogate: Fluorene-d10	190		ug/kg	200		97.2	60-130			
Surrogate: Anthracene-d10	200		"	200		102	60-130			
Surrogate: Pyrene-d10	200		"	200		99.2	60-130			
Surrogate: Benzo (a) pyrene-d12	200		"	200		101	60-130			

**Matrix Spike Dup (B5E2834-MSD1)**

**Source: E5E0956-19**

Prepared: 05/28/2025 Analyzed: 05/28/2025

1-Methylnaphthalene	0.212	0.002	mg/kg	0.200	ND	106	70-130	2.05	20	
2-Methylnaphthalene	0.214	0.002	"	0.200	ND	107	70-130	2.29	20	
Acenaphthene	0.212	0.020	"	0.200	0.0003	106	70-130	2.61	20	
Anthracene	0.200	0.020	"	0.200	0.0008	99.8	70-130	2.87	20	
Benzo (a) anthracene	0.207	0.005	"	0.200	ND	103	70-130	3.18	20	
Benzo (a) pyrene	0.205	0.020	"	0.200	0.002	102	70-130	6.64	20	
Benzo (b) fluoranthene	0.219	0.020	"	0.200	0.003	108	70-130	4.42	20	
Benzo (g,h,i) perylene	0.198	0.020	"	0.200	0.002	97.9	70-130	4.52	20	
Benzo (k) fluoranthene	0.213	0.020	"	0.200	0.0008	106	70-130	4.57	20	
Chrysene	0.211	0.020	"	0.200	0.003	104	70-130	2.74	20	
Dibenz (a,h) anthracene	0.203	0.020	"	0.200	0.0008	101	70-130	4.29	20	
Fluoranthene	0.217	0.020	"	0.200	0.003	107	70-130	2.61	20	

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**EPA 8270E (SW846) - Semivolatile Organic Compounds - 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 B5E2834 - EPA 3580**

**Matrix Spike Dup (B5E2834-MSD1)**

**Source: E5E0956-19**

Prepared: 05/28/2025 Analyzed: 05/28/2025

Fluorene	0.210	0.020	mg/kg	0.200	ND	105	70-130	0.540	20	
Indeno (1,2,3-cd) pyrene	0.200	0.020	"	0.200	0.002	99.2	70-130	2.50	20	
Naphthalene	0.208	0.002	"	0.200	ND	104	70-130	2.84	20	
Phenanthrene	0.211	0.020	"	0.200	0.001	105	70-130	4.77	20	
Pyrene	0.214	0.020	"	0.200	0.002	106	70-130	1.84	20	
Surrogate: Fluorene-d10	200		ug/kg	200		98.4	60-130			
Surrogate: Anthracene-d10	200		"	200		99.1	60-130			
Surrogate: Pyrene-d10	200		"	200		100	60-130			
Surrogate: Benzo (a) pyrene-d12	200		"	200		99.8	60-130			

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Jen Pellegrini For Jordan A. Bynon, Project Manager



CTEH  
 5120 North Shore Drive  
 North Little Rock AR 72118

Kyle Lawrence  
 Project Number: PROJ-054017  
 Project: PROJ-054017

**Extractable Petroleum Hydrocarbons by 8015D - 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 B5E2816 - EPA 3550B**

**Blank (B5E2816-BLK1)**

Prepared: 05/28/2025 Analyzed: 05/29/2025

Diesel (C10-C28)	ND	25.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	100	"							U
Surrogate: o-Terphenyl	28		"	24.9		111	50-150			

**LCS (B5E2816-BS1)**

Prepared: 05/28/2025 Analyzed: 05/29/2025

Diesel (C10-C28)	863	50.0	mg/kg	1000		86.3	70-130			
Residual Range Organics (C28-C40)	891	200	"	1000		89.1	70-130			
Surrogate: o-Terphenyl	56		"	49.8		112	50-150			

**Matrix Spike (B5E2816-MS1)**

**Source: E5E0954-23**

Prepared: 05/28/2025 Analyzed: 05/29/2025

Diesel (C10-C28)	824	50.0	mg/kg	1000	ND	82.4	70-130			
Residual Range Organics (C28-C40)	849	200	"	1000	ND	84.9	70-130			
Surrogate: o-Terphenyl	49		"	49.8		98.9	50-150			

**Matrix Spike Dup (B5E2816-MSD1)**

**Source: E5E0954-23**

Prepared: 05/28/2025 Analyzed: 05/29/2025

Diesel (C10-C28)	786	50.0	mg/kg	1000	ND	78.6	70-130	4.82	35	
Residual Range Organics (C28-C40)	822	200	"	1000	ND	82.2	70-130	3.20	35	
Surrogate: o-Terphenyl	48		"	49.8		96.6	50-150			

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Kyle Lawrence  
 Project Number: PROJ-054017  
 Project: PROJ-054017

**Metals by EPA 6000/7000 Series Methods - 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 B5E2823 - EPA 3050B**

**Blank (B5E2823-BLK1)**

Prepared: 05/28/2025 Analyzed: 05/29/2025

Arsenic	ND	0.290	mg/kg							U
Barium	ND	82.0	"							U
Cadmium	ND	0.380	"							U
Copper	ND	46.0	"							U
Lead	ND	14.0	"							U
Nickel	ND	26.0	"							U
Selenium	ND	0.260	"							U
Silver	ND	0.800	"							U
Zinc	ND	370	"							U

**LCS (B5E2823-BS1)**

Prepared: 05/28/2025 Analyzed: 05/29/2025

Arsenic	5.33	0.290	mg/kg	5.00		107	80-120			
Barium	574	82.0	"	500		115	80-120			
Cadmium	5.46	0.380	"	5.00		109	80-120			
Copper	52.9	46.0	"	50.0		106	80-120			
Lead	5.20	14.0	"	5.00		104	80-120			U
Nickel	5.44	26.0	"	5.00		109	80-120			U
Selenium	5.62	0.260	"	5.00		112	80-120			
Silver	5.28	0.800	"	5.00		106	80-120			
Zinc	55.0	370	"	50.0		110	80-120			U

**Matrix Spike (B5E2823-MS1)**

Source: E5E0958-01

Prepared: 05/28/2025 Analyzed: 05/29/2025

Arsenic	11.1	0.256	mg/kg	4.42	6.07	113	75-125			
Barium	667	72.4	"	442	161	115	75-125			
Cadmium	5.33	0.336	"	4.42	0.460	110	75-125			
Copper	68.5	40.6	"	44.2	18.5	113	75-125			
Lead	22.2	12.4	"	4.42	15.9	144	75-125			QM-07

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 Project: PROJ-054017

**Metals by EPA 6000/7000 Series Methods - 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 B5E2823 - EPA 3050B**

**Matrix Spike (B5E2823-MS1)**

**Source: E5E0958-01**

Prepared: 05/28/2025 Analyzed: 05/29/2025

Nickel	20.2	23.0	mg/kg	4.42	15.2	113	75-125			U
Selenium	5.51	0.230	"	4.42	0.573	112	75-125			
Silver	4.78	0.707	"	4.42	0.0739	107	75-125			
Zinc	134	327	"	44.2	82.7	116	75-125			U

**Matrix Spike Dup (B5E2823-MSD1)**

**Source: E5E0958-01**

Prepared: 05/28/2025 Analyzed: 05/29/2025

Arsenic	10.7	0.260	mg/kg	4.48	6.07	104	75-125	3.28	20	
Barium	648	73.4	"	448	161	109	75-125	2.93	20	
Cadmium	5.16	0.340	"	4.48	0.460	105	75-125	3.16	20	
Copper	68.8	41.2	"	44.8	18.5	112	75-125	0.433	20	
Lead	20.8	12.5	"	4.48	15.9	111	75-125	6.60	20	
Nickel	20.1	23.3	"	4.48	15.2	109	75-125	0.649	20	U
Selenium	5.28	0.233	"	4.48	0.573	105	75-125	4.19	20	
Silver	4.68	0.716	"	4.48	0.0739	103	75-125	2.07	20	
Zinc	126	331	"	44.8	82.7	96.2	75-125	6.31	20	U

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**Saturated Paste - 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 B5E2813 - Saturated Paste pH/EC**

**Blank (B5E2813-BLK1)**

Prepared: 05/28/2025 Analyzed: 05/30/2025

Specific Conductance (EC)	ND	0.00500	mmhos/cm							U
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**Duplicate (B5E2813-DUP1)**

**Source: E5E0956-19**

Prepared: 05/28/2025 Analyzed: 05/30/2025

Specific Conductance (EC)	0.433	0.00500	mmhos/cm		0.394			9.45	25	
pH	8.08		pH Units		7.98			1.25	25	

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 Project: PROJ-054017

**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 B5E2819 - EPA 5030 (soil)**

**Blank (B5E2819-BLK1)**

Prepared: 05/28/2025 Analyzed: 05/28/2025

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	105	70-130				
Surrogate: Toluene-d8	0.13		"	0.125	104	70-130				
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125	95.6	70-130				

**LCS (B5E2819-BS1)**

Prepared: 05/28/2025 Analyzed: 05/28/2025

1,2,4-Trimethylbenzene	0.110	0.00200	mg/kg	0.100	110	70-130				
1,3,5-Trimethylbenzene	0.111	0.00200	"	0.100	111	70-130				
Benzene	0.101	0.00200	"	0.100	101	70-130				
Ethylbenzene	0.110	0.00200	"	0.100	110	70-130				
Naphthalene	0.103	0.00380	"	0.100	103	70-130				
Toluene	0.101	0.00200	"	0.100	101	70-130				
o-Xylene	0.108	0.00200	"	0.100	108	70-130				
m,p-Xylene	0.219	0.00400	"	0.200	110	70-130				

Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125	102	70-130				
Surrogate: Toluene-d8	0.13		"	0.125	101	70-130				
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125	103	70-130				

**Matrix Spike (B5E2819-MS1)**

Source: E5E0954-23

Prepared: 05/28/2025 Analyzed: 05/28/2025

1,2,4-Trimethylbenzene	0.0910	0.00200	mg/kg	0.100	ND	91.0	70-130			
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 Project Number: PROJ-054017  
 Project: PROJ-054017

**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 B5E2819 - EPA 5030 (soil)**

**Matrix Spike (B5E2819-MS1)**

**Source: E5E0954-23**

Prepared: 05/28/2025 Analyzed: 05/28/2025

1,3,5-Trimethylbenzene	0.0943	0.00200	mg/kg	0.100	ND	94.3	70-130			
Benzene	0.0904	0.00200	"	0.100	ND	90.4	70-130			
Ethylbenzene	0.0976	0.00200	"	0.100	ND	97.6	70-130			
Naphthalene	0.0793	0.00380	"	0.100	ND	79.3	70-130			
Toluene	0.0890	0.00200	"	0.100	ND	89.0	70-130			
o-Xylene	0.0962	0.00200	"	0.100	ND	96.2	70-130			
m,p-Xylene	0.194	0.00400	"	0.200	ND	97.0	70-130			

Surrogate: 1,2-Dichloroethane-d4	0.14		"	0.125		109	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		100	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		105	70-130			

**Matrix Spike Dup (B5E2819-MSD1)**

**Source: E5E0954-23**

Prepared: 05/28/2025 Analyzed: 05/28/2025

1,2,4-Trimethylbenzene	0.0850	0.00200	mg/kg	0.100	ND	85.0	70-130	6.87	20	
1,3,5-Trimethylbenzene	0.0859	0.00200	"	0.100	ND	85.9	70-130	9.37	20	
Benzene	0.0883	0.00200	"	0.100	ND	88.3	70-130	2.37	20	
Ethylbenzene	0.0918	0.00200	"	0.100	ND	91.8	70-130	6.19	20	
Naphthalene	0.0783	0.00380	"	0.100	ND	78.3	70-130	1.24	20	
Toluene	0.0860	0.00200	"	0.100	ND	86.0	70-130	3.45	20	
o-Xylene	0.0910	0.00200	"	0.100	ND	91.0	70-130	5.56	20	
m,p-Xylene	0.183	0.00400	"	0.200	ND	91.3	70-130	6.05	20	

Surrogate: 1,2-Dichloroethane-d4	0.14		"	0.125		110	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		99.9	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		104	70-130			

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North Little Rock AR 72118

Kyle Lawrence  
Project Number: PROJ-054017  
Project: PROJ-054017

### 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.

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