



CTEH

Kyle Lawrence

5120 North Shore Drive

North Little Rock AR 72118

June 05, 2025

Project Name - PROJ-054017

Project Number - PROJ-054017

Attached are your analytical results for PROJ-054017 received by Origins Laboratory May 25, 2025. This project is associated with Origins project number E5E0902-01.

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
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1725 Elk Place, Denver, CO 80211 | Phone: 303.433.1322 | Fax: 303.265.9645



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
GACO0523T119S001	E5E0902-01	Soil	May 23, 2025 9:00	05/25/2025 08:00

Origins Laboratory

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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: ESE0902 Client: cteh
Client Project ID: PROJ-054017
Checklist Completed by: JAB / sm Shipped Via: HD
(UPS, FedEx, Hand Delivered, Pick-up, etc.)
Date/time completed: 5/25/25 Airbill #: N/A
Matrix(s) Received: (Check all that apply): Soil/Solid Water Other: _____
(Describe)
Cooler Number/Temperature: 1 / 1.8 °C
Thermometer ID: T007

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 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 ⁽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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 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 ⁽¹⁾ ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontrated analytes 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 type="checkbox"/>	<input type="checkbox"/>	<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 be taken in the additional comments (above) and the case narrative.

Reviewed by (Project Manager): JAB

Date/Time Reviewed: 5/27/25

Origins Laboratory



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 Project Number: PROJ-054017
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GACO0523T119S001
5/23/2025 9:00:00AM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
E5E0902-01 (Soil)									
Origins Laboratory									
Boron (DTPA Sorbitol)									
Boron	1.12		0.0995	mg/L	1	B5E2736	05/27/2025	05/28/2025	
DRO/ORO by EPA 8015D									
Diesel (C10-C28)	ND		25.0	mg/kg	1	B5E2706	05/27/2025	05/28/2025	U
Residual Range Organics (C28-C40)	ND		100	"	"	"	"	"	U
Surrogate: o-Terphenyl	112 %			50-150		"	"	"	
GBTEX+TMBs by 8260D									
1,2,4-Trimethylbenzene	ND		0.00200	mg/kg	1	B5E2703	05/27/2025	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	119 %			70-130		"	"	"	
Surrogate: Toluene-d8	98.7 %			70-130		"	"	"	
Surrogate: 4-Bromofluorobenzene	94.9 %			70-130		"	"	"	

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GACO0523T119S001
5/23/2025 9:00:00AM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
E5E0902-01 (Soil)									
Origins Laboratory									
Metals by Saturated Paste by EPA 6010									
Calcium	1.71		0.499	meq/L	10	[CALC]	05/27/2025	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	B5E2765	05/27/2025	05/27/2025	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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GACO0523T119S001
5/23/2025 9:00:00AM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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E5E0902-01 (Soil)
Origins Laboratory

PAH by EPA 8270E extracted via 3580A

Pyrene	ND		0.020	mg/kg	1	B5E2765	05/27/2025	05/27/2025	U
Surrogate: Fluorene-d10	92.8 %			60-130		"	"	"	
Surrogate: Anthracene-d10	97.0 %			60-130		"	"	"	
Surrogate: Pyrene-d10	105 %			60-130		"	"	"	
Surrogate: Benzo (a) pyrene-d12	97.9 %			60-130		"	"	"	

pH in Soil by 9045D

pH	7.99			pH Units	1	B5E2752	05/27/2025	05/29/2025	
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SAR by 20B Saturated Paste

SAR	0.165		0.0100	SAR	1	B5E2726	05/27/2025	05/30/2025	
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.335		0.00500	mmhos/cm	1	B5E2752	05/27/2025	05/29/2025	
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Table 915 metals by EPA 6020B

Arsenic	5.90		0.256	mg/kg	10	B5E2761	05/27/2025	05/28/2025	
Barium	104		72.5	"	"	"	"	"	
Cadmium	ND		0.336	"	"	"	"	"	
Copper	ND		40.7	"	"	"	"	"	

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GACO0523T119S001
5/23/2025 9:00:00AM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
E5E0902-01 (Soil)									
Origins Laboratory									
Table 915 metals by EPA 6020B									
Lead	12.4		12.4	mg/kg	10	B5E2761	05/27/2025	05/28/2025	
Nickel	ND		23.0	"	"	"	"	"	
Selenium	0.405		0.230	"	"	"	"	"	
Silver	ND		0.707	"	"	"	"	"	
Zinc	ND		327	"	"	"	"	"	

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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 B5E2726 - Saturated Paste Metals

Blank (B5E2726-BLK1)

Prepared: 05/27/2025 Analyzed: 05/30/2025

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

Duplicate (B5E2726-DUP1)

Source: E5E0900-12

Prepared: 05/27/2025 Analyzed: 05/30/2025

SAR	ND	0.0100	SAR	1.93				200		
Calcium PPM	194	10.0	mg/L	181				6.97	50	
Magnesium PPM	62.2	10.0	"	57.0				8.68	50	
Sodium PPM	123	10.0	"	116				5.46	50	

Batch B5E2736 - DTPA Sorbitol Preparation

Blank (B5E2736-BLK1)

Prepared: 05/27/2025 Analyzed: 05/28/2025

Boron	ND	0.100	mg/L							
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Duplicate (B5E2736-DUP1)

Source: E5E0900-12

Prepared: 05/27/2025 Analyzed: 05/28/2025

Boron	1.86	0.100	mg/L	1.76				5.74	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 B5E2765 - EPA 3580

Blank (B5E2765-BLK1)

Prepared: 05/27/2025 Analyzed: 05/27/2025

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	200		ug/kg	200		99.6	60-130			
Surrogate: Anthracene-d10	190		"	200		97.1	60-130			
Surrogate: Pyrene-d10	210		"	200		105	60-130			
Surrogate: Benzo (a) pyrene-d12	200		"	200		97.8	60-130			

LCS (B5E2765-BS1)

Prepared: 05/27/2025 Analyzed: 05/27/2025

1-Methylnaphthalene	0.201	0.002	mg/kg	0.200		100	70-130			
2-Methylnaphthalene	0.198	0.002	"	0.200		99.0	70-130			
Acenaphthene	0.201	0.020	"	0.200		101	70-130			
Anthracene	0.192	0.020	"	0.200		96.1	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 B5E2765 - EPA 3580

LCS (B5E2765-BS1)

Prepared: 05/27/2025 Analyzed: 05/27/2025

Benzo (a) anthracene	0.198	0.005	mg/kg	0.200		98.9	70-130			
Benzo (a) pyrene	0.186	0.020	"	0.200		93.2	70-130			
Benzo (b) fluoranthene	0.162	0.020	"	0.200		81.1	70-130			
Benzo (g,h,i) perylene	0.183	0.020	"	0.200		91.4	70-130			
Benzo (k) fluoranthene	0.165	0.020	"	0.200		82.6	70-130			
Chrysene	0.223	0.020	"	0.200		111	70-130			
Dibenz (a,h) anthracene	0.175	0.020	"	0.200		87.5	70-130			
Fluoranthene	0.218	0.020	"	0.200		109	70-130			
Fluorene	0.201	0.020	"	0.200		100	70-130			
Indeno (1,2,3-cd) pyrene	0.173	0.020	"	0.200		86.4	70-130			
Naphthalene	0.200	0.002	"	0.200		100	70-130			
Phenanthrene	0.198	0.020	"	0.200		99.2	70-130			
Pyrene	0.218	0.020	"	0.200		109	70-130			
Surrogate: Fluorene-d10	200		ug/kg	200		98.8	60-130			
Surrogate: Anthracene-d10	190		"	200		96.0	60-130			
Surrogate: Pyrene-d10	210		"	200		106	60-130			
Surrogate: Benzo (a) pyrene-d12	190		"	200		96.1	60-130			

Matrix Spike (B5E2765-MS1)

Source: E5E0918-16

Prepared: 05/27/2025 Analyzed: 05/27/2025

1-Methylnaphthalene	0.195	0.002	mg/kg	0.200	ND	97.6	70-130			
2-Methylnaphthalene	0.195	0.002	"	0.200	ND	97.5	70-130			
Acenaphthene	0.197	0.020	"	0.200	0.0009	98.2	70-130			
Anthracene	0.211	0.020	"	0.200	0.026	92.3	70-130			
Benzo (a) anthracene	0.198	0.005	"	0.200	0.018	90.3	70-130			
Benzo (a) pyrene	0.201	0.020	"	0.200	0.036	82.7	70-130			
Benzo (b) fluoranthene	0.176	0.020	"	0.200	0.076	50.1	70-130			QM-07
Benzo (g,h,i) perylene	0.219	0.020	"	0.200	0.057	80.8	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 B5E2765 - EPA 3580

Matrix Spike (B5E2765-MS1)

Source: E5E0918-16

Prepared: 05/27/2025 Analyzed: 05/27/2025

Benzo (k) fluoranthene	0.201	0.020	mg/kg	0.200	0.033	84.3	70-130			
Chrysene	0.254	0.020	"	0.200	0.052	101	70-130			
Dibenz (a,h) anthracene	0.182	0.020	"	0.200	0.009	86.1	70-130			
Fluoranthene	0.263	0.020	"	0.200	0.045	109	70-130			
Fluorene	0.196	0.020	"	0.200	ND	97.8	70-130			
Indeno (1,2,3-cd) pyrene	0.196	0.020	"	0.200	0.042	77.0	70-130			
Naphthalene	0.196	0.002	"	0.200	ND	98.1	70-130			
Phenanthrene	0.212	0.020	"	0.200	0.005	103	70-130			
Pyrene	0.262	0.020	"	0.200	0.048	107	70-130			
Surrogate: Fluorene-d10	190		ug/kg	200		97.2	60-130			
Surrogate: Anthracene-d10	190		"	200		95.0	60-130			
Surrogate: Pyrene-d10	200		"	200		101	60-130			
Surrogate: Benzo (a) pyrene-d12	200		"	200		97.6	60-130			

Matrix Spike Dup (B5E2765-MSD1)

Source: E5E0918-16

Prepared: 05/27/2025 Analyzed: 05/27/2025

1-Methylnaphthalene	0.193	0.002	mg/kg	0.200	ND	96.6	70-130	0.986	20	
2-Methylnaphthalene	0.192	0.002	"	0.200	ND	96.2	70-130	1.25	20	
Acenaphthene	0.199	0.020	"	0.200	0.0009	99.0	70-130	0.786	20	
Anthracene	0.216	0.020	"	0.200	0.026	95.0	70-130	2.55	20	
Benzo (a) anthracene	0.230	0.005	"	0.200	0.018	106	70-130	14.9	20	
Benzo (a) pyrene	0.263	0.020	"	0.200	0.036	114	70-130	26.6	20	QR-DUP
Benzo (b) fluoranthene	0.210	0.020	"	0.200	0.076	66.9	70-130	17.5	20	QM-07
Benzo (g,h,i) perylene	0.265	0.020	"	0.200	0.057	104	70-130	19.2	20	
Benzo (k) fluoranthene	0.233	0.020	"	0.200	0.033	100	70-130	14.8	20	
Chrysene	0.333	0.020	"	0.200	0.052	141	70-130	27.1	20	QM-07, QR-DUP
Dibenz (a,h) anthracene	0.199	0.020	"	0.200	0.009	94.7	70-130	9.01	20	

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EPA 8270E (SW846) - Semivolatile Organic Compounds - Quality Control
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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 B5E2765 - EPA 3580

Matrix Spike Dup (B5E2765-MSD1)

Source: E5E0918-16

Prepared: 05/27/2025 Analyzed: 05/27/2025

Fluoranthene	0.345	0.020	mg/kg	0.200	0.045	150	70-130	26.8	20	QM-07, QR-DUP
Fluorene	0.193	0.020	"	0.200	ND	96.6	70-130	1.23	20	
Indeno (1,2,3-cd) pyrene	0.244	0.020	"	0.200	0.042	101	70-130	21.9	20	QR-DUP
Naphthalene	0.200	0.002	"	0.200	ND	100	70-130	2.03	20	
Phenanthrene	0.221	0.020	"	0.200	0.005	108	70-130	4.13	20	
Pyrene	0.359	0.020	"	0.200	0.048	156	70-130	31.4	20	QM-07, QR-DUP
Surrogate: Fluorene-d10	190		ug/kg	200		93.6	60-130			
Surrogate: Anthracene-d10	190		"	200		94.7	60-130			
Surrogate: Pyrene-d10	210		"	200		103	60-130			
Surrogate: Benzo (a) pyrene-d12	200		"	200		98.7	60-130			

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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 B5E2706 - EPA 3550B

Blank (B5E2706-BLK1)

Prepared: 05/27/2025 Analyzed: 05/28/2025

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			

LCS (B5E2706-BS1)

Prepared: 05/27/2025 Analyzed: 05/28/2025

Diesel (C10-C28)	793	50.0	mg/kg	1000		79.3	70-130			
Residual Range Organics (C28-C40)	802	200	"	1000		80.2	70-130			
Surrogate: o-Terphenyl	51		"	49.8		102	50-150			

Matrix Spike (B5E2706-MS1)

Source: E5E0880-01

Prepared: 05/27/2025 Analyzed: 05/28/2025

Diesel (C10-C28)	832	50.0	mg/kg	1000	ND	83.2	70-130			
Residual Range Organics (C28-C40)	808	200	"	1000	ND	80.8	70-130			
Surrogate: o-Terphenyl	50		"	49.8		100	50-150			

Matrix Spike Dup (B5E2706-MSD1)

Source: E5E0880-01

Prepared: 05/27/2025 Analyzed: 05/28/2025

Diesel (C10-C28)	922	50.0	mg/kg	1000	ND	92.2	70-130	10.3	35	
Residual Range Organics (C28-C40)	887	200	"	1000	ND	88.7	70-130	9.31	35	
Surrogate: o-Terphenyl	53		"	49.8		107	50-150			

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CTEH
 5120 North Shore Drive
 North Little Rock AR 72118

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 B5E2761 - EPA 3050B

Blank (B5E2761-BLK1)

Prepared: 05/27/2025 Analyzed: 05/28/2025

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

LCS (B5E2761-BS1)

Prepared: 05/27/2025 Analyzed: 05/28/2025

Arsenic	4.92	0.290	mg/kg	5.00		98.4	80-120			
Barium	506	82.0	"	500		101	80-120			
Cadmium	5.05	0.380	"	5.00		101	80-120			
Copper	47.6	46.0	"	50.0		95.1	80-120			
Lead	4.99	14.0	"	5.00		99.8	80-120			
Nickel	4.88	26.0	"	5.00		97.6	80-120			
Selenium	5.05	0.260	"	5.00		101	80-120			
Silver	5.18	0.800	"	5.00		104	80-120			
Zinc	49.4	370	"	50.0		98.8	80-120			

Matrix Spike (B5E2761-MS1)

Source: E5E0880-01

Prepared: 05/27/2025 Analyzed: 05/28/2025

Arsenic	9.68	0.287	mg/kg	4.95	6.78	58.7	75-125			QM-07
Barium	593	81.1	"	495	101	99.4	75-125			
Cadmium	5.30	0.376	"	4.95	0.260	102	75-125			
Copper	58.3	45.5	"	49.5	9.66	98.4	75-125			
Lead	13.5	13.9	"	4.95	9.13	88.1	75-125			

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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 B5E2761 - EPA 3050B

Matrix Spike (B5E2761-MS1)

Source: E5E0880-01

Prepared: 05/27/2025 Analyzed: 05/28/2025

Nickel	13.8	25.7	mg/kg	4.95	10.4	67.9	75-125			QM-07
Selenium	5.25	0.257	"	4.95	0.343	99.2	75-125			
Silver	5.20	0.791	"	4.95	0.0504	104	75-125			
Zinc	86.7	366	"	49.5	42.1	90.2	75-125			

Matrix Spike Dup (B5E2761-MSD1)

Source: E5E0880-01

Prepared: 05/27/2025 Analyzed: 05/28/2025

Arsenic	10.0	0.289	mg/kg	4.99	6.78	65.2	75-125	3.57	20	QM-07
Barium	559	81.9	"	499	101	91.7	75-125	5.96	20	
Cadmium	4.97	0.379	"	4.99	0.260	94.4	75-125	6.45	20	
Copper	55.0	45.9	"	49.9	9.66	90.8	75-125	5.86	20	
Lead	12.0	14.0	"	4.99	9.13	58.0	75-125	11.5	20	QM-07
Nickel	13.5	26.0	"	4.99	10.4	63.1	75-125	1.51	20	QM-07
Selenium	4.54	0.260	"	4.99	0.343	84.1	75-125	14.5	20	
Silver	4.87	0.799	"	4.99	0.0504	96.5	75-125	6.64	20	
Zinc	84.8	369	"	49.9	42.1	85.5	75-125	2.25	20	

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CTEH
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 Project Number: PROJ-054017
 Project: PROJ-054017

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 B5E2752 - Saturated Paste pH/EC

Blank (B5E2752-BLK1)

Prepared: 05/27/2025 Analyzed: 05/29/2025

Specific Conductance (EC) ND 0.00500 mmhos/cm

Duplicate (B5E2752-DUP1)

Source: E5E0900-12

Prepared: 05/27/2025 Analyzed: 05/29/2025

Specific Conductance (EC) 2.44 0.00500 mmhos/cm 2.35 3.72 25

pH 7.71 pH Units 7.61 1.31 25

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CTEH
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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
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Batch B5E2703 - EPA 5030 (soil)

Blank (B5E2703-BLK1)

Prepared: 05/27/2025 Analyzed: 05/27/2025

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

106

70-130

Surrogate: Toluene-d8

0.13

"

0.125

102

70-130

Surrogate: 4-Bromofluorobenzene

0.13

"

0.125

101

70-130

LCS (B5E2703-BS1)

Prepared: 05/27/2025 Analyzed: 05/27/2025

1,2,4-Trimethylbenzene	0.121	0.00200	mg/kg	0.100		121	70-130			
1,3,5-Trimethylbenzene	0.123	0.00200	"	0.100		123	70-130			
Benzene	0.0987	0.00200	"	0.100		98.7	70-130			
Ethylbenzene	0.108	0.00200	"	0.100		108	70-130			
Naphthalene	0.0892	0.00380	"	0.100		89.2	70-130			
Toluene	0.102	0.00200	"	0.100		102	70-130			
o-Xylene	0.116	0.00200	"	0.100		116	70-130			
m,p-Xylene	0.222	0.00400	"	0.200		111	70-130			

Surrogate: 1,2-Dichloroethane-d4

0.13

"

0.125

103

70-130

Surrogate: Toluene-d8

0.13

"

0.125

103

70-130

Surrogate: 4-Bromofluorobenzene

0.12

"

0.125

98.3

70-130

Matrix Spike (B5E2703-MS1)

Source: E5E0880-01

Prepared: 05/27/2025 Analyzed: 05/27/2025

1,2,4-Trimethylbenzene	0.120	0.00200	mg/kg	0.100	ND	120	70-130			
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Kyle Lawrence
 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 B5E2703 - EPA 5030 (soil)

Matrix Spike (B5E2703-MS1)		Source: E5E0880-01			Prepared: 05/27/2025 Analyzed: 05/27/2025					
1,3,5-Trimethylbenzene	0.122	0.00200	mg/kg	0.100	ND	122	70-130			
Benzene	0.103	0.00200	"	0.100	ND	103	70-130			
Ethylbenzene	0.112	0.00200	"	0.100	ND	112	70-130			
Naphthalene	0.0850	0.00380	"	0.100	0.00222	82.7	70-130			
Toluene	0.106	0.00200	"	0.100	ND	106	70-130			
o-Xylene	0.119	0.00200	"	0.100	ND	119	70-130			
m,p-Xylene	0.229	0.00400	"	0.200	ND	115	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		99.2	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		103	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		100	70-130			

Matrix Spike Dup (B5E2703-MSD1)		Source: E5E0880-01			Prepared: 05/27/2025 Analyzed: 05/27/2025					
1,2,4-Trimethylbenzene	0.106	0.00200	mg/kg	0.100	ND	106	70-130	12.7	20	
1,3,5-Trimethylbenzene	0.105	0.00200	"	0.100	ND	105	70-130	14.6	20	
Benzene	0.100	0.00200	"	0.100	ND	100	70-130	2.61	20	
Ethylbenzene	0.100	0.00200	"	0.100	ND	100	70-130	10.9	20	
Naphthalene	0.0910	0.00380	"	0.100	0.00222	88.8	70-130	6.84	20	
Toluene	0.0964	0.00200	"	0.100	ND	96.4	70-130	9.22	20	
o-Xylene	0.107	0.00200	"	0.100	ND	107	70-130	10.4	20	
m,p-Xylene	0.206	0.00400	"	0.200	ND	103	70-130	10.4	20	
Surrogate: 1,2-Dichloroethane-d4	0.14		"	0.125		109	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		97.9	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		100	70-130			

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Notes and Definitions

- U Sample is Non-Detect.
 - QR-DUP RPD exceeds QC acceptance criteria, this indicates source sample is not homogenous.
 - 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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