

**TABLE 1**  
**SOIL SAMPLE FIELD DATA SUMMARY TABLE**  
**SHUTT 20-34 WELLHEAD**  
**WELD COUNTY, COLORADO**  
**KERR-MCGEE OIL AND GAS ONSHORE, LP**

Soil Sample Location	Date	Depth (ft. bgs)	PID Reading (ppm)	Visual Observation	Olfactory Observation	Latitude	Longitude	Submitted for Lab Analysis? (Y/N)
<b>WELLHEAD EXCAVATION SAMPLES</b>								
N Wall	4/18/2023	3	0.0	NS	NO	40.26536055	-104.758724	N
E Wall	4/18/2023	3	0.0	NS	NO	40.26534338	-104.7586581	N
S Wall	4/18/2023	3	0.0	NS	NO	40.26531228	-104.7587101	N
W Wall	4/18/2023	3	0.0	NS	NO	40.26532878	-104.7587726	N
B01@6'-WP	4/18/2023	6	22.9	NS	NO	40.26532906	-104.7587233	Y
WH-Riser@5'	4/18/2023	5	0.0	NS	NO	40.26532413	-104.758733	Y
N01@5'	5/8/2023	5	1.2	NS	NO	40.265356	-104.758692	Y
E01@5'	5/8/2023	5	1.5	NS	NO	40.265321	-104.758662	Y
S01@5'	5/8/2023	5	0.8	NS	NO	40.265294	-104.758704	Y
W01@5'	5/8/2023	5	2.1	NS	NO	40.265334	-104.758752	Y
W02@5'	5/8/2023	5	0.3	NS	NO	40.2653	-104.758752	Y
B01@7'	5/8/2023	7	4.1	Stain	NO	40.26532906	-104.7587233	Y
<b>BACKGROUND SOIL SAMPLES</b>								
Native-BG01@3'	4/18/2023	3	0.0	NS	NO	40.26540271	-104.7587213	Y
Native-BG01@6'	4/18/2023	6	0.0	NS	NO	40.26540271	-104.7587213	Y
Native-BG02@3'	4/18/2023	3	0.0	NS	NO	40.26533441	-104.7586474	Y
Native-BG02@6'	4/18/2023	6	0.0	NS	NO	40.26533441	-104.7586474	Y
Native-BG03@3'	4/18/2023	3	0.0	NS	NO	40.26523921	-104.7587184	Y
Native-BG03@3'	4/18/2023	6	0.0	NS	NO	40.26523921	-104.7587184	Y

**Notes:**

ft. - feet

bgs - below ground surface

PID - Photoionization detector

ppm - parts per million

NS - No Staining

NO - No Odor

NA - Not Analyzed/Not Applicable

TABLE 2-1  
SOIL SAMPLE ANALYTICAL RESULTS  
VOLATILE ORGANIC COMPOUNDS AND TOTAL PETROLEUM HYDROCARBONS  
SHUTT 20-34 WELLHEAD  
WELD COUNTY, COLORADO  
KERR-MCGEE OIL AND GAS ONSHORE, LP

Soil Sample ID	Date	Depth (ft. bgs)	TPH-GRO <sup>+</sup> (mg/kg)	TPH-DRO <sup>+</sup> (mg/kg)	TPH-RRO <sup>+</sup> (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	1,2,4- Trimethyl benzene (mg/kg)	1,3,5- Trimethyl benzene (mg/kg)	Naphthalene (mg/kg)
Groundwater Protection Values (GPV)			500	500	500	0.0026	0.69	0.78	9.9	0.0081	0.0087	0.0038
<b>WELLHEAD EXCAVATION SAMPLES</b>												
<b>B01@6'-WP</b>	4/18/2023	6	24.2	<25.0	<100	0.00234	0.00362	0.0261	0.309	<b>0.239</b>	<b>0.127</b>	<b>0.00658</b>
<b>WH-Riser@5'</b>	4/18/2023	5	<0.200	<25.0	<100	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00380
<b>N01@5'</b>	5/8/2023	5	0.221	<25.0	<100	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00201
<b>E01@5'</b>	5/8/2023	5	<0.200	<25.0	<100	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00201
<b>S01@5'</b>	5/8/2023	5	<0.200	<25.0	<100	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00201
<b>W01@5'</b>	5/8/2023	5	<0.200	<25.0	<100	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00201
<b>W02@5'</b>	5/8/2023	5	<0.200	<25.0	<100	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00201
<b>B01@7'</b>	5/8/2023	7	<0.200	<25.0	<100	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00201

TABLE 2-2  
SOIL SAMPLE ANALYTICAL RESULTS  
POLYCYCLIC AROMATIC HYDROCARBONS  
SHUTT 20-34 WELLHEAD  
WELD COUNTY, COLORADO  
KERR-MCGEE OIL AND GAS ONSHORE, LP

Soil Sample ID	Date	Depth (ft. bgs)	Acenaphthene (mg/Kg)	Anthracene (mg/Kg)	Benzo (a) anthracene (mg/Kg)	Benzo (b) fluoranthene (mg/Kg)	Benzo (k) fluoranthene (mg/Kg)	Benzo (a) pyrene (mg/Kg)	Chrysene (mg/Kg)	Dibenz (a,h) anthracene (mg/Kg)	Fluoranthene (mg/Kg)	Fluorene (mg/Kg)	Indeno (1,2,3-cd) pyrene (mg/Kg)	1-Methyl naphthalene (mg/Kg)	2-Methyl naphthalene (mg/Kg)	Pyrene (mg/Kg)
Groundwater Protection Values (GPV)			0.55	5.8	0.011	0.3	2.9	0.24	9	0.096	8.9	0.54	0.98	0.006	0.019	1.3
WELLHEAD EXCAVATION SAMPLES																
B01@6'-WP	4/18/2023	6	0.00198	<0.00067	0.000695	0.001	<0.00067	<0.00067	0.0009	<0.000614	0.000746	0.00261	0.00122	0.00888	0.0149	0.00255
WH-Riser@5'	4/18/2023	5	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	0.000652	0.000689	<0.00201	<0.00201	0.00118
N01@5'	5/8/2023	5	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00201	<0.00201	<0.00067
E01@5'	5/8/2023	5	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00201	<0.00201	<0.00067
S01@5'	5/8/2023	5	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00201	<0.00201	<0.00067
W01@5'	5/8/2023	5	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00201	<0.00201	<0.00067
W02@5'	5/8/2023	5	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00201	<0.00201	<0.00067
B01@7'	5/8/2023	7	0.000479 J	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	0.00256	<0.00067	<0.00067	0.00082	<0.00067	0.00136 J	<0.00201	0.0018

TABLE 2-3  
SOIL SAMPLE ANALYTICAL RESULTS  
SOIL SUITABILITY FOR RECLAMATION  
SHUTT 20-34 WELLHEAD  
WELD COUNTY, COLORADO  
KERR-MCGEE OIL AND GAS ONSHORE, LP

Soil Sample ID	Date	Depth (ft. bgs)	EC (mmhos/cm)	SAR	pH	Boron (mg/L)
Groundwater Protection Values (GPV)			4	6	6-8.3	2
<b>WELLHEAD EXCAVATION SAMPLES</b>						
<b>B01@6'-WP</b>	4/18/2023	6	0.946	3.32	8.35*	0.342
<b>WH-Riser@5'</b>	4/18/2023	5	1.39	4.34	8.52*	0.575
<b>N01@5'</b>	5/8/2023	5	NA	NA	8.18	0.177
<b>E01@5'</b>	5/8/2023	5	NA	NA	8.18	0.248
<b>S01@5'</b>	5/8/2023	5	NA	NA	8.12	0.183
<b>W01@5'</b>	5/8/2023	5	NA	NA	8.09	0.256
<b>W02@5'</b>	5/8/2023	5	NA	NA	8.32*	0.160
<b>B01@7'</b>	5/8/2023	7	NA	NA	8.05	0.194
<b>BACKGROUND SAMPLES</b>						
<b>Native-BG01@3'</b>	4/18/2023	3	1.20	8.19	8.64	0.966
<b>Native-BG01@6'</b>	4/18/2023	6	1.05	4.07	8.53	0.295
<b>Native-BG02@3'</b>	4/18/2023	3	0.696	3.02	8.48	0.303
<b>Native-BG02@6'</b>	4/18/2023	6	0.552	2.98	8.43	0.223
<b>Native-BG03@3'</b>	4/18/2023	3	0.988	11.0	8.61	0.699
<b>Native-BG03@3'</b>	4/18/2023	6	1.93	7.90	8.36	0.171

**TABLE 2-4**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
**METALS**  
**SHUTT 20-34 WELLHEAD**  
**WELD COUNTY, COLORADO**  
**KERR-MCGEE OIL AND GAS ONSHORE, LP**

Soil Sample ID	Date	Depth (ft. bgs)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (VI) (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Zinc (mg/kg)
Groundwater Protection Value (GPV)			0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370
<b>WELLHEAD EXCAVATION SAMPLES</b>												
<b>B01@6'-WP</b>	4/18/2023	6	2.43*	61.1	0.107	<0.5	<9.12	<9.12	<9.12	<0.0912	<0.0912	<0.5
<b>WH-Riser@5'</b>	4/18/2023	5	2.22*	60.4	0.114	<0.509	<8.51	<8.51	<8.51	0.102	<0.0851	<85.1
<b>N01@5'</b>	5/8/2023	5	2.71*	46.6	0.196	NA	NA	NA	NA	<0.0972	NA	NA
<b>E01@5'</b>	5/8/2023	5	1.89*	54.0	<0.0907	NA	NA	NA	NA	<0.0907	NA	NA
<b>S01@5'</b>	5/8/2023	5	2.35*	76.0	<0.0886	NA	NA	NA	NA	<0.0886	NA	NA
<b>W01@5'</b>	5/8/2023	5	2.28*	<b>85.5</b>	0.192	NA	NA	NA	NA	<0.0835	NA	NA
			NA	67.4	NA	NA	NA	NA	NA	NA	NA	NA
			NA	77.6	NA	NA	NA	NA	NA	NA	NA	NA
<b>W02@5'</b>	5/8/2023	5	2.59*	67.4	<0.0903	NA	NA	NA	NA	<0.0903	NA	NA
<b>B01@7'</b>	5/8/2023	7	3.73*	73.2	<0.0880	NA	NA	NA	NA	0.103	NA	NA
<b>BACKGROUND SAMPLES</b>												
<b>Native-BG01@3'</b>	4/18/2023	3	2.10	50.2	0.0964	<0.503	<9.09	<9.09	<9.09	<0.0909	<0.0909	<90.9
<b>Native-BG01@6'</b>	4/18/2023	6	3.10	71.5	<0.0943	<0.509	<9.43	<9.43	<9.43	0.130	<0.0943	<94.3
<b>Native-BG02@3'</b>	4/18/2023	3	1.81	39.7	0.130	<0.5	<9.25	<9.25	<9.25	0.102	<0.0925	<92.5
<b>Native-BG02@6'</b>	4/18/2023	6	2.53	75.6	<0.0940	<0.512	<9.40	<9.40	<9.40	0.146	<0.0940	<94.0
<b>Native-BG03@3'</b>	4/18/2023	3	2.31	54.5	0.111	<1	<9.35	<9.35	<9.35	0.0973	<0.0935	<93.5
<b>Native-BG03@6'</b>	4/18/2023	6	3.83	74.2	0.0990	<0.511	<9.00	<9.00	<9.00	<0.0900	<0.0900	<90.0

TABLE 2-5  
SOIL SAMPLE ANALYTICAL RESULTS  
NOTES  
SHUTT 20-34 WELLHEAD  
WELD COUNTY, COLORADO  
KERR-MCGEE OIL AND GAS ONSHORE, LP

**Notes:**

GPV - Groundwater Protection Values (mg/kg)

TPH - Total Petroleum Hydrocarbons

GRO - Gasoline Range Organics

DRO - Diesel Range Organics

RRO - Residual Range Organics

\*Allowable level for TPH is 500 mg/kg for combined GRO, DRO, ORO

\*Exceeds Table 915-1 allowable level but below background

EC - Electrical Conductivity

SAR - Sodium Adsorption Ratio

mmhos/cm - millimhos per centimeter

<0.00200 - less than laboratory reporting limit

NA - Not Analyzed/Not Applicable

**Bold** - exceeds Table 915-1 allowable level and background

TABLE 3  
GROUNDWATER ANALYTICAL RESULTS  
SHUTT 20-34 WELLHEAD  
WELD COUNTY, COLORADO  
KERR-MCGEE OIL & GAS ONSHORE, LP

Well Name	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Naphthalene (µg/L)	1,2,4- trimethylbenzene (µg/L)	1,3,5- trimethylbenzene (µg/L)	Total Dissolved Solids (ug/L)	Chloride Ion (ug/L)	Sulfate Ion (ug/L)	Depth to Water/ (Product Thickness) (ft bgs)
<b>COGCC Allowable Levels</b>		<b>5</b>	<b>560</b>	<b>700</b>	<b>1400</b>	<b>140</b>	<b>67</b>	<b>67</b>	<b>996,250</b>	<b>250,000</b>	<b>250,000</b>	
WH-GW01	4/18/2023	<1.00	<1.00	2.27	3.18	<2.00	3.22	<2.00	812,000	150,000	191,000	6.0
BG-GW01	5/26/2023	NA	NA	NA	NA	NA	NA	NA	797,000	191,000	207,000	2.0

Notes: COGCC - Colorado Oil and Gas Conservation Commission

ft bgs - feet below ground surface

NA - not analyzed/not available

**BOLD** = Analytical result is in exceedance of COGCC Table 915-1 groundwater standards.

µg/L - micrograms per liter

< - less than laboratory reporting limit

Excavation groundwater depth is approximate

May 01, 2023

Ensolum

Jeremy Espinoza

11049 W 44th Avenue, Suite 103

Wheat Ridge CO 80033

Project Name - KMG - Shutt 20-34 WH

Project Number - 09A1417271

Attached are your analytical results for KMG - Shutt 20-34 WH received by Origins Laboratory, Inc. April 19, 2023. This project is associated with Origins project number Y304416-01.

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





Ensolum  
11049 W 44th Avenue, Suite 103  
Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

### CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B01@6'-WP	Y304416-01	Soil	April 18, 2023 16:38	04/19/2023 08:20
WH-Riser@5'	Y304416-02	Soil	April 18, 2023 16:39	04/19/2023 08:20
Native-BG01@3'	Y304416-03	Soil	April 18, 2023 17:03	04/19/2023 08:20
Native-BG01@6'	Y304416-04	Soil	April 18, 2023 17:04	04/19/2023 08:20
Native-BG02@3'	Y304416-05	Soil	April 18, 2023 17:06	04/19/2023 08:20
Native-BG02@6'	Y304416-06	Soil	April 18, 2023 17:07	04/19/2023 08:20
Native-BG03@3'	Y304416-07	Soil	April 18, 2023 17:10	04/19/2023 08:20
Native-BG03@6'	Y304416-08	Soil	April 18, 2023 17:11	04/19/2023 08:20
WH-GW01	Y304416-09	Water	April 18, 2023 16:41	04/19/2023 08:20

Origins Laboratory, Inc.



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Ensolum

11049 W 44th Avenue, Suite 103

Wheat Ridge CO 80033

Jeremy Espinoza

Project Number: 09A1417271

Project: KMG - Shutt 20-34 WH

**ORIGINS**  
LABORATORY, INC

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Initial

430H41U

page | of |

Client: Ensolum  
Address: \_\_\_\_\_  
Telephone Number: \_\_\_\_\_  
Email Address: KMG Team

Project Manager: J. Espinoza  
Project Name: Shutt 20-34 WH  
Project Number: 09A1417271  
Samples Collected By: HK

Fax: 303.265.9645

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
B01261-WP	4/18/23	1638	3							X	X	TDS, anions, cations
WH-Riser 05'		1639	1							X	X	on WH-GWol per Jeremy's email on 4/20/23
Native B6012 3'		1703								X	X	TDS, anions added back to WH-GWol
Native B6012 6'		1704										per Jeremy's email on 4/20/23
Native B6023 3'		1706										added to B01261 & Kier 3 metals
Native B6023 6'		1707										to act Native-
Native B6030 3'		1716										Same Day
Native B6030 6'		1711										24 Hr
WH-GW01		1641	4									48 Hr
Native B6012 3'			4									Standard
Relinquished By: <u>Alexis Kull</u>	Date: <u>4/19/23</u>	Time: <u>8:20</u>	Date: <u>4-19-23</u>	Time: <u>8:20</u>	Date: <u>4-19-23</u>	Time: <u>8:20</u>	Date: <u>4-19-23</u>	Time: <u>8:20</u>	Date: <u>4-19-23</u>	Time: <u>8:20</u>	Date: <u>4-19-23</u>	Time: <u>8:20</u>

Temp Received: 10.6°

Date Results Needed

Origins Laboratory, Inc.

*Bynon*

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Ensolum  
11049 W 44th Avenue, Suite 103  
Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

Origins Laboratory

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

## Sample Receipt Checklist

Origins Work Order: BOH4110

Client: Ensolum

Client Project ID: Shutt 20-34 WH

Checklist Completed by: JH/EXS

Shipped Via: 110

(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Date/time completed: 4/19/23

Airbill #: NA

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

Cooler Number/Temperature: 1 / 10.0° C / \_\_\_\_\_ °C / \_\_\_\_\_ °C (Describe)

Thermometer ID: 7014

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.

Jan Espinoza  
Reviewed by (Project Manager)

4/19/23  
Date/Time Reviewed

Origins Laboratory, Inc.

*J. Bynon*

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Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

**B01@6'-WP**  
**4/18/2023 4:38:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y304416-01 (Soil)**

## Boron (DTPA Sorbitol)

Boron	0.342	0.0990	mg/L	1	B3D2109	04/21/2023	04/25/2023	
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## DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B3D1921	04/19/2023	04/19/2023	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	97.3 %	50-150	"	"	"	"	"
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## GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	0.239	0.00200	mg/kg	1	B3D1930	04/19/2023	04/19/2023
1,3,5-Trimethylbenzene	0.127	0.00200	"	"	"	"	"
Benzene	0.00234	0.00200	"	"	"	"	"
Ethylbenzene	0.0261	0.00200	"	"	"	"	"
Naphthalene	0.00658	0.00380	"	"	"	"	"
Toluene	0.00362	0.00200	"	"	"	"	"
Xylenes, total	0.309	0.00200	"	"	"	"	"
Gasoline Range Hydrocarbons	24.2	5.00	"	25	"	"	04/20/2023

Surrogate: 1,2-Dichloroethane-d4	76.9 %	70-130	"	"	04/19/2023
Surrogate: Toluene-d8	89.9 %	70-130	"	"	"

Origins Laboratory, Inc.



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Ensolum  
11049 W 44th Avenue, Suite 103  
Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

B01@6'-WP

4/18/2023 4:38:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y304416-01 (Soil)

## GBTEX+TMBs by 8260D

Surrogate: 4-Bromofluorobenzene	124 %	70-130	B3D19 30	04/19/2023	04/19/2023
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## Metals by Saturated Paste by EPA 6010

Calcium	2.43	0.499	meq/L	10	[CALC]	04/24/2023	04/26/2023
Magnesium	1.31	0.823	"	"	"	"	"
Sodium	4.53	0.435	"	"	"	"	"

## PAH by 8270D SIM

1-Methylnaphthalene	0.00888	0.00109	0.00201	mg/Kg	1	L677722	04/23/2023	04/23/2023
2-Methylnaphthalene	0.0149	0.00194	0.00201	"	"	"	"	"
Acenaphthene	0.00198	0.000304	0.00067	"	"	"	"	"
Anthracene	ND	0.000334	0.00067	"	"	"	"	"
Benzo(a)anthracene	0.000695	0.000493	0.00067	"	"	"	"	"
Benzo(a)pyrene	ND	0.000468	0.00067	"	"	"	"	"
Benzo(b)fluoranthene	0.001	0.000585	0.00067	"	"	"	"	"
Benzo(k)fluoranthene	ND	0.000437	0.00067	"	"	"	"	"
Chrysene	0.0009	0.000624	0.00067	"	"	"	"	"
Dibenz(a,h)anthracene	ND	0.000614	0.00067	"	"	"	"	"
Fluoranthene	0.000746	0.000394	0.00067	"	"	"	"	"
Fluorene	0.00261	0.000286	0.00067	"	"	"	"	"
Indeno(1,2,3-cd)pyrene	0.00122	0.000627	0.00067	"	"	"	"	"

Origins Laboratory, Inc.



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Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

B01@6'-WP

4/18/2023 4:38:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, LLC.  
Y304416-01 (Soil)

## PAH by 8270D SIM

Pyrene	0.00255	0.000643	0.00067	mg/Kg	1	L677722	04/23/2023	04/23/2023
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Surrogate: 2-Fluorobiphenyl	52.9 %	33-115	"	"	"
Surrogate: 4-Terphenyl-d14	62.5 %	33-122	"	"	"
Surrogate: Nitrobenzene-d5	57.7 %	29-110	"	"	"

## pH in Soil by 9045D

pH	8.35	pH Units	1	B3D2413	04/24/2023	04/25/2023
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## SAR by 20B Saturated Paste

SAR	3.32	SAR	1	B3D2409	04/24/2023	04/26/2023
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## Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.946	0.00500	mmhos/cm	1	B3D2413	04/24/2023	04/25/2023
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## Table 915 metals by EPA 6020B

Arsenic	2.43	0.0912	mg/kg	10	B3D2119	04/21/2023	04/24/2023
Barium	61.1	9.12	"	"	"	"	"
Cadmium	0.107	0.0912	"	"	"	"	"
Copper	ND	9.12	"	"	"	"	"

Origins Laboratory, Inc.



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Ensolum  
11049 W 44th Avenue, Suite 103  
Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

B01@6'-WP

4/18/2023 4:38:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y304416-01 (Soil)

### Table 915 metals by EPA 6020B

Lead	ND	9.12	mg/kg	10	B3D2119	04/21/2023	04/24/2023
Nickel	ND	9.12	"	"	"	"	"
Selenium	ND	0.0912	"	"	"	"	"
Silver	ND	0.0912	"	"	"	"	"
Zinc	ND	91.2	"	"	"	"	"

### Total Metals by 7196A

Chromium, Hexavalent	ND	0.244	0.5	mg/Kg	1	L677803	04/18/2023	04/24/2023
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Origins Laboratory, Inc.



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Ensolum  
11049 W 44th Avenue, Suite 103  
Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

WH-Riser@5'  
4/18/2023 4:39:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y304416-02 (Soil)

## Boron (DTPA Sorbitol)

Boron	0.575	0.0982	mg/L	1	B3D2109	04/21/2023	04/25/2023	
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## DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B3D1921	04/19/2023	04/19/2023	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	96.4 %	50-150			"	"	"	
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## GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B3D1930	04/19/2023	04/19/2023	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

Origins Laboratory, Inc.



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Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

## WH-Riser@5'

4/18/2023 4:39:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y304416-02 (Soil)

### GBTEX+TMBs by 8260D

Surrogate: 1,2-Dichloroethane-d4	76.0 %		70-130			B3D19 30	04/19/2023	04/19/2023	
Surrogate: Toluene-d8	92.7 %		70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	98.6 %		70-130			"	"	"	

### Metals by Saturated Paste by EPA 6010

Calcium	2.73		0.499	meq/L	10	[CALC]	04/24/2023	04/26/2023	
Magnesium	2.16		0.823	"	"	"	"	"	
Sodium	6.78		0.435	"	"	"	"	"	

### PAH by 8270D SIM

1-Methylnaphthalene	ND	0.00109	0.00201	mg/Kg	1	L677722	04/23/2023	04/23/2023	
2-Methylnaphthalene	ND	0.00194	0.00201	"	"	"	"	"	
Acenaphthene	ND	0.000304	0.00067	"	"	"	"	"	
Anthracene	ND	0.000334	0.00067	"	"	"	"	"	
Benzo(a)anthracene	ND	0.000493	0.00067	"	"	"	"	"	
Benzo(a)pyrene	ND	0.000468	0.00067	"	"	"	"	"	
Benzo(b)fluoranthene	ND	0.000585	0.00067	"	"	"	"	"	
Benzo(k)fluoranthene	ND	0.000437	0.00067	"	"	"	"	"	
Chrysene	ND	0.000624	0.00067	"	"	"	"	"	
Dibenz(a,h)anthracene	ND	0.000614	0.00067	"	"	"	"	"	

Origins Laboratory, Inc.



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Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

WH-Riser@5'  
4/18/2023 4:39:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, LLC.  
Y304416-02 (Soil)

## PAH by 8270D SIM

Fluoranthene	ND	0.000394	0.00067	mg/Kg	1	L677722	04/23/2023	04/23/2023	
Fluorene	0.000652	0.000286	0.00067	"	"	"	"	"	J
Indeno(1,2,3-cd)pyrene	0.000689	0.000627	0.00067	"	"	"	"	"	
Pyrene	0.00118	0.000643	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	52.3 %	33-115	"	"	"
Surrogate: 4-Terphenyl-d14	58.9 %	33-122	"	"	"
Surrogate: Nitrobenzene-d5	54.7 %	29-110	"	"	"

## pH in Soil by 9045D

pH	8.52	pH Units	1	B3D2413	04/24/2023	04/25/2023
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## SAR by 20B Saturated Paste

SAR	4.34	SAR	1	B3D2409	04/24/2023	04/26/2023
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## Specific Conductance Mod. 9050A

Specific Conductance (EC)	1.39	0.00500	mmhos/cm	1	B3D2413	04/24/2023	04/25/2023
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## Table 915 metals by EPA 6020B

Arsenic	2.22	0.0851	mg/kg	10	B3D2119	04/21/2023	04/24/2023
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Origins Laboratory, Inc.



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Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

## WH-Riser@5'

4/18/2023 4:39:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y304416-02 (Soil)

### Table 915 metals by EPA 6020B

Barium	60.4	8.51	mg/kg	10	B3D2119	04/21/2023	04/24/2023
Cadmium	0.114	0.0851	"	"	"	"	"
Copper	ND	8.51	"	"	"	"	"
Lead	ND	8.51	"	"	"	"	"
Nickel	ND	8.51	"	"	"	"	"
Selenium	0.102	0.0851	"	"	"	"	"
Silver	ND	0.0851	"	"	"	"	"
Zinc	ND	85.1	"	"	"	"	"

### Total Metals by 7196A

Chromium, Hexavalent	ND	0.248	0.509	mg/Kg	1	L677803	04/18/2023	04/24/2023
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Origins Laboratory, Inc.



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Ensolum  
11049 W 44th Avenue, Suite 103  
Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

**Native-BG01@3'**  
**4/18/2023 5:03:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y304416-03 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	0.966	0.100	mg/L	1	B3D2109	04/21/2023	04/25/2023
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**Metals by Saturated Paste by EPA 6010**

Calcium	0.947	0.499	meq/L	10	[CALC]	04/24/2023	04/26/2023
Magnesium	1.18	0.823	"	"	"	"	"
Sodium	8.45	0.435	"	"	"	"	"

**pH in Soil by 9045D**

pH	8.64		pH Units	1	B3D2413	04/24/2023	04/25/2023
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**SAR by 20B Saturated Paste**

SAR	8.19		SAR	1	B3D2409	04/24/2023	04/26/2023
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**Specific Conductance Mod. 9050A**

Specific Conductance (EC)	1.20	0.00500	mmhos/cm	1	B3D2413	04/24/2023	04/25/2023
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**Table 915 metals by EPA 6020B**

Arsenic	2.10	0.0909	mg/kg	10	B3D2119	04/21/2023	04/24/2023
Barium	50.2	9.09	"	"	"	"	"
Cadmium	0.0964	0.0909	"	"	"	"	"
Copper	ND	9.09	"	"	"	"	"

Origins Laboratory, Inc.



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Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

Native-BG01@3'

4/18/2023 5:03:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y304416-03 (Soil)

## Table 915 metals by EPA 6020B

Lead	ND	9.09	mg/kg	10	B3D2119	04/21/2023	04/24/2023
Nickel	ND	9.09	"	"	"	"	"
Selenium	ND	0.0909	"	"	"	"	"
Silver	ND	0.0909	"	"	"	"	"
Zinc	ND	90.9	"	"	"	"	"

## Total Metals by 7196A

Chromium, Hexavalent	ND	0.245	0.503	mg/Kg	1	L677803	04/18/2023	04/24/2023
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Origins Laboratory, Inc.



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Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

Native-BG01@6'  
4/18/2023 5:04:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y304416-04 (Soil)

## Boron (DTPA Sorbitol)

Boron	0.295	0.0995	mg/L	1	B3D2109	04/21/2023	04/25/2023
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## Metals by Saturated Paste by EPA 6010

Calcium	1.99	0.499	meq/L	10	[CALC]	04/24/2023	04/26/2023
Magnesium	2.28	0.823	"	"	"	"	"
Sodium	5.94	0.435	"	"	"	"	"

## pH in Soil by 9045D

pH	8.53		pH Units	1	B3D2413	04/24/2023	04/25/2023
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## SAR by 20B Saturated Paste

SAR	4.07		SAR	1	B3D2409	04/24/2023	04/26/2023
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## Specific Conductance Mod. 9050A

Specific Conductance (EC)	1.05	0.00500	mmhos/cm	1	B3D2413	04/24/2023	04/25/2023
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## Table 915 metals by EPA 6020B

Arsenic	3.10	0.0943	mg/kg	10	B3D2119	04/21/2023	04/24/2023
Barium	71.5	9.43	"	"	"	"	"
Cadmium	ND	0.0943	"	"	"	"	"
Copper	ND	9.43	"	"	"	"	"

Origins Laboratory, Inc.



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Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

Native-BG01@6'

4/18/2023 5:04:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y304416-04 (Soil)

Table 915 metals by EPA 6020B

Lead	ND	9.43	mg/kg	10	B3D2119	04/21/2023	04/24/2023
Nickel	ND	9.43	"	"	"	"	"
Selenium	0.130	0.0943	"	"	"	"	"
Silver	ND	0.0943	"	"	"	"	"
Zinc	ND	94.3	"	"	"	"	"

Total Metals by 7196A

Chromium, Hexavalent	ND	0.248	0.509	mg/Kg	1	L677803	04/18/2023	04/24/2023
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Origins Laboratory, Inc.



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Ensolum  
11049 W 44th Avenue, Suite 103  
Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

Native-BG02@3'  
4/18/2023 5:06:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y304416-05 (Soil)

## Boron (DTPA Sorbitol)

Boron	0.303	0.0994	mg/L	1	B3D2109	04/21/2023	04/25/2023
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## Metals by Saturated Paste by EPA 6010

Calcium	1.79	0.499	meq/L	10	[CALC]	04/24/2023	04/26/2023
Magnesium	1.24	0.823	"	"	"	"	"
Sodium	3.72	0.435	"	"	"	"	"

## pH in Soil by 9045D

pH	8.48		pH Units	1	B3D2413	04/24/2023	04/25/2023
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## SAR by 20B Saturated Paste

SAR	3.02		SAR	1	B3D2409	04/24/2023	04/26/2023
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## Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.696	0.00500	mmhos/cm	1	B3D2413	04/24/2023	04/25/2023
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## Table 915 metals by EPA 6020B

Arsenic	1.81	0.0925	mg/kg	10	B3D2119	04/21/2023	04/24/2023
Barium	39.7	9.25	"	"	"	"	"
Cadmium	0.130	0.0925	"	"	"	"	"
Copper	ND	9.25	"	"	"	"	"

Origins Laboratory, Inc.



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Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

**Native-BG02@3'**

**4/18/2023 5:06:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y304416-05 (Soil)**

**Table 915 metals by EPA 6020B**

Lead	ND	9.25	mg/kg	10	B3D2119	04/21/2023	04/24/2023
Nickel	ND	9.25	"	"	"	"	"
Selenium	<b>0.102</b>	0.0925	"	"	"	"	"
Silver	ND	0.0925	"	"	"	"	"
Zinc	ND	92.5	"	"	"	"	"

**Total Metals by 7196A**

Chromium, Hexavalent	ND	0.244	0.5	mg/Kg	1	L677803	04/18/2023	04/24/2023
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Ensolum  
11049 W 44th Avenue, Suite 103  
Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

Native-BG02@6'  
4/18/2023 5:07:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y304416-06 (Soil)

## Boron (DTPA Sorbitol)

Boron	0.223	0.0980	mg/L	1	B3D2109	04/21/2023	04/25/2023
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## Metals by Saturated Paste by EPA 6010

Calcium	1.28	0.499	meq/L	10	[CALC]	04/24/2023	04/26/2023
Magnesium	0.853	0.823	"	"	"	"	"
Sodium	3.08	0.435	"	"	"	"	"

## pH in Soil by 9045D

pH	8.43		pH Units	1	B3D2413	04/24/2023	04/25/2023
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## SAR by 20B Saturated Paste

SAR	2.98		SAR	1	B3D2409	04/24/2023	04/26/2023
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## Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.552	0.00500	mmhos/cm	1	B3D2413	04/24/2023	04/25/2023
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## Table 915 metals by EPA 6020B

Arsenic	2.53	0.0940	mg/kg	10	B3D2119	04/21/2023	04/24/2023
Barium	75.6	9.40	"	"	"	"	"
Cadmium	ND	0.0940	"	"	"	"	"
Copper	ND	9.40	"	"	"	"	"

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Ensolum  
11049 W 44th Avenue, Suite 103  
Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

## Native-BG02@6'

4/18/2023 5:07:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y304416-06 (Soil)

### Table 915 metals by EPA 6020B

Lead	ND	9.40	mg/kg	10	B3D2119	04/21/2023	04/24/2023
Nickel	ND	9.40	"	"	"	"	"
Selenium	0.146	0.0940	"	"	"	"	"
Silver	ND	0.0940	"	"	"	"	"
Zinc	ND	94.0	"	"	"	"	"

### Total Metals by 7196A

Chromium, Hexavalent	ND	0.249	0.512	mg/Kg	1	L677803	04/18/2023	04/24/2023
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Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

**Native-BG03@3'**  
**4/18/2023 5:10:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y304416-07 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	0.699	0.0998	mg/L	1	B3D2405	04/24/2023	04/25/2023
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**Metals by Saturated Paste by EPA 6010**

Calcium	0.821	0.499	meq/L	10	[CALC]	04/24/2023	04/26/2023
Magnesium	1.07	0.823	"	"	"	"	"
Sodium	10.7	0.435	"	"	"	"	"

**pH in Soil by 9045D**

pH	8.61		pH Units	1	B3D2413	04/24/2023	04/25/2023
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**SAR by 20B Saturated Paste**

SAR	11.0		SAR	1	B3D2409	04/24/2023	04/26/2023
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**Specific Conductance Mod. 9050A**

Specific Conductance (EC)	0.988	0.00500	mmhos/cm	1	B3D2413	04/24/2023	04/25/2023
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**Table 915 metals by EPA 6020B**

Arsenic	2.31	0.0935	mg/kg	10	B3D2119	04/21/2023	04/24/2023
Barium	54.5	9.35	"	"	"	"	"
Cadmium	0.111	0.0935	"	"	"	"	"
Copper	ND	9.35	"	"	"	"	"

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Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

Native-BG03@3'

4/18/2023 5:10:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y304416-07 (Soil)

Table 915 metals by EPA 6020B

Lead	ND	9.35	mg/kg	10	B3D2119	04/21/2023	04/24/2023
Nickel	ND	9.35	"	"	"	"	"
Selenium	0.0973	0.0935	"	"	"	"	"
Silver	ND	0.0935	"	"	"	"	"
Zinc	ND	93.5	"	"	"	"	"

Total Metals by 7196A

Chromium, Hexavalent	ND	0.488	1	mg/Kg	1	L677803	04/18/2023	04/24/2023
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Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

Native-BG03@6'  
4/18/2023 5:11:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y304416-08 (Soil)

## Boron (DTPA Sorbitol)

Boron	0.171	0.101	mg/L	1	B3D2405	04/24/2023	04/25/2023
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## Metals by Saturated Paste by EPA 6010

Calcium	3.71	0.499	meq/L	10	[CALC]	04/24/2023	04/26/2023
Magnesium	2.51	0.823	"	"	"	"	"
Sodium	13.9	0.435	"	"	"	"	"

## pH in Soil by 9045D

pH	8.36		pH Units	1	B3D2413	04/24/2023	04/25/2023
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## SAR by 20B Saturated Paste

SAR	7.90		SAR	1	B3D2409	04/24/2023	04/26/2023
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## Specific Conductance Mod. 9050A

Specific Conductance (EC)	1.93	0.00500	mmhos/cm	1	B3D2413	04/24/2023	04/25/2023
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## Table 915 metals by EPA 6020B

Arsenic	3.83	0.0900	mg/kg	10	B3D2119	04/21/2023	04/24/2023
Barium	74.2	9.00	"	"	"	"	"
Cadmium	0.0990	0.0900	"	"	"	"	"
Copper	ND	9.00	"	"	"	"	"

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Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

Native-BG03@6'

4/18/2023 5:11:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y304416-08 (Soil)

Table 915 metals by EPA 6020B

Lead	ND	9.00	mg/kg	10	B3D2119	04/21/2023	04/24/2023
Nickel	ND	9.00	"	"	"	"	"
Selenium	ND	0.0900	"	"	"	"	"
Silver	ND	0.0900	"	"	"	"	"
Zinc	ND	90.0	"	"	"	"	"

Total Metals by 7196A

Chromium, Hexavalent	ND	0.249	0.511	mg/Kg	1	L677803	04/18/2023	04/24/2023
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Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

## WH-GW01

4/18/2023 4:41:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y304416-09 (Water)

### Anions by IC 300.0

Chloride	150		31.2	mg/L	125	B3D2102	04/21/2023	04/22/2023	
Sulfate	191		31.2	"	"	"	"	"	

### BTEX+N+TMBs by 8260D

1,2,4-Trimethylbenzene	3.22		2.00	ug/L	1	B3D1926	04/19/2023	04/19/2023	
1,3,5-Trimethylbenzene	ND		2.00	"	"	"	"	"	U
Benzene	ND		1.00	"	"	"	"	"	U
Ethylbenzene	2.27		1.00	"	"	"	"	"	
Naphthalene	ND		2.00	"	"	"	"	"	U
Toluene	ND		1.00	"	"	"	"	"	U
Xylenes, total	3.18		1.00	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	112 %		70-130			"	"	"	
Surrogate: Toluene-d8	93.7 %		70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	92.8 %		70-130			"	"	"	

### Total Dissolved Solids by 2540C

Total Dissolved Solids	812		5.00	mg/L	1	B3D2020	04/20/2023	04/20/2023	
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Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B3D1921 - EPA 3550B										
Blank (B3D1921-BLK1)					Prepared: 04/19/2023 Analyzed: 04/19/2023					
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			

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11049 W 44th Avenue, Suite 103  
Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

Extractable Petroleum Hydrocarbons by 8015D - 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 B3D1921 - EPA 3550B

LCS (B3D1921-BS1)

Prepared: 04/19/2023 Analyzed: 04/19/2023

Diesel (C10-C28)	1060	50.0	mg/kg	1000		106	70-130			
Residual Range Organics (C28-C40)	1080	200	"	1000		108	70-130			
Surrogate: o-Terphenyl	50		"	49.8		101	50-150			

Origins Laboratory, Inc.



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11049 W 44th Avenue, Suite 103  
Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

Extractable Petroleum Hydrocarbons by 8015D - 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 B3D1921 - EPA 3550B

Matrix Spike (B3D1921-MS1)		Source: Y304415-01			Prepared: 04/19/2023 Analyzed: 04/19/2023					
Diesel (C10-C28)	1030	50.0	mg/kg	1000	ND	103	70-130			
Residual Range Organics (C28-C40)	1030	200	"	1000	ND	103	70-130			
Surrogate: o-Terphenyl	47		"	49.8		95.0	50-150			

Origins Laboratory, Inc.



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Ensolum  
11049 W 44th Avenue, Suite 103  
Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

Extractable Petroleum Hydrocarbons by 8015D - Quality Control  
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B3D1921 - EPA 3550B										
Matrix Spike Dup (B3D1921-MSD1)		Source: Y304415-01			Prepared: 04/19/2023 Analyzed: 04/19/2023					
Diesel (C10-C28)	1040	50.0	mg/kg	1000	ND	104	70-130	1.03	35	
Residual Range Organics (C28-C40)	1050	200	"	1000	ND	105	70-130	2.43	35	
Surrogate: o-Terphenyl	47		"	49.8		95.2	50-150			

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Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B3D1926 - EPA 5030B (Water)										
Blank (B3D1926-BLK1)					Prepared: 04/19/2023 Analyzed: 04/19/2023					
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	66		"	62.5		106	70-130			
Surrogate: Toluene-d8	61		"	62.5		97.0	70-130			
Surrogate: 4-Bromofluorobenzene	58		"	62.5		93.3	70-130			

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Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

**Volatile Organic Compounds by GC/MS SW846 8260D - 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 B3D1926 - EPA 5030B (Water)**

**LCS (B3D1926-BS1)**

Prepared: 04/19/2023 Analyzed: 04/19/2023

1,2,4-Trimethylbenzene	50.4	2.00	ug/L	50.0		101	70-130			
1,3,5-Trimethylbenzene	50.6	2.00	"	50.0		101	70-130			
Benzene	47.5	1.00	"	50.0		95.0	70-130			
Ethylbenzene	48.6	1.00	"	50.0		97.1	70-130			
m,p-Xylene	100	2.00	"	100		100	70-130			
Naphthalene	53.2	2.00	"	50.0		106	70-130			
o-Xylene	53.8	1.00	"	50.0		108	70-130			
Toluene	45.2	1.00	"	50.0		90.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	62		"	62.5		99.2	70-130			
Surrogate: Toluene-d8	60		"	62.5		96.5	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	70-130			

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Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

**Volatile Organic Compounds by GC/MS SW846 8260D - 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 B3D1926 - EPA 5030B (Water)**

Matrix Spike (B3D1926-MS1)		Source: Y304415-11			Prepared: 04/19/2023 Analyzed: 04/19/2023					
1,2,4-Trimethylbenzene	47.6	2.00	ug/L	50.0	0.320	94.5	70-130			
1,3,5-Trimethylbenzene	45.4	2.00	"	50.0	0.360	90.1	70-130			
Benzene	44.7	1.00	"	50.0	ND	89.4	70-130			
Ethylbenzene	45.8	1.00	"	50.0	0.330	90.9	70-130			
m,p-Xylene	93.9	2.00	"	100	0.430	93.5	70-130			
Naphthalene	48.5	2.00	"	50.0	0.160	96.7	70-130			
o-Xylene	48.8	1.00	"	50.0	0.470	96.6	70-130			
Toluene	43.3	1.00	"	50.0	0.770	85.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	61		"	62.5		97.8	70-130			
Surrogate: Toluene-d8	61		"	62.5		97.3	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.5	70-130			

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**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3D1926 - EPA 5030B (Water)</b>										
<b>Matrix Spike Dup (B3D1926-MSD1)</b>		<b>Source: Y304415-11</b>			Prepared: 04/19/2023 Analyzed: 04/19/2023					
1,2,4-Trimethylbenzene	46.4	2.00	ug/L	50.0	0.320	92.3	70-130	2.40	20	
1,3,5-Trimethylbenzene	43.7	2.00	"	50.0	0.360	86.8	70-130	3.70	20	
Benzene	45.0	1.00	"	50.0	ND	89.9	70-130	0.557	20	
Ethylbenzene	44.1	1.00	"	50.0	0.330	87.6	70-130	3.65	20	
m,p-Xylene	91.2	2.00	"	100	0.430	90.8	70-130	2.91	20	
Naphthalene	49.9	2.00	"	50.0	0.160	99.6	70-130	2.95	20	
o-Xylene	47.4	1.00	"	50.0	0.470	93.8	70-130	2.87	20	
Toluene	43.2	1.00	"	50.0	0.770	84.8	70-130	0.278	20	
Surrogate: 1,2-Dichloroethane-d4	63		"	62.5		101	70-130			
Surrogate: Toluene-d8	60		"	62.5		96.0	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		98.5	70-130			

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Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3D1930 - EPA 5030 (soil)</b>										
<b>Blank (B3D1930-BLK1)</b>					Prepared: 04/19/2023 Analyzed: 04/19/2023					
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	0.093		"	0.125		74.2	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		95.5	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		97.5	70-130			

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11049 W 44th Avenue, Suite 103  
Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3D1930 - EPA 5030 (soil)</b>										
<b>LCS (B3D1930-BS1)</b>					Prepared: 04/19/2023 Analyzed: 04/19/2023					
1,2,4-Trimethylbenzene	0.106	0.00200	mg/kg	0.100		106	70-130			
1,3,5-Trimethylbenzene	0.107	0.00200	"	0.100		107	70-130			
Benzene	0.0977	0.00200	"	0.100		97.7	70-130			
Ethylbenzene	0.0992	0.00200	"	0.100		99.2	70-130			
Naphthalene	0.118	0.00380	"	0.100		118	70-130			
Toluene	0.0963	0.00200	"	0.100		96.3	70-130			
o-Xylene	0.114	0.00200	"	0.100		114	70-130			
m,p-Xylene	0.214	0.00400	"	0.200		107	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.092		"	0.125		73.8	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		97.6	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		96.9	70-130			

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**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3D1930 - EPA 5030 (soil)</b>										
<b>Matrix Spike (B3D1930-MS1)</b>		<b>Source: Y304415-01</b>			Prepared: 04/19/2023 Analyzed: 04/19/2023					
1,2,4-Trimethylbenzene	0.0984	0.00200	mg/kg	0.100	0.000440	97.9	70-130			
1,3,5-Trimethylbenzene	0.0964	0.00200	"	0.100	ND	96.4	70-130			
Benzene	0.0886	0.00200	"	0.100	ND	88.6	70-130			
Ethylbenzene	0.0956	0.00200	"	0.100	ND	95.6	70-130			
Naphthalene	0.0979	0.00380	"	0.100	0.00118	96.8	70-130			
Toluene	0.0860	0.00200	"	0.100	ND	86.0	70-130			
o-Xylene	0.102	0.00200	"	0.100	ND	102	70-130			
m,p-Xylene	0.204	0.00400	"	0.200	ND	102	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.090		"	0.125		72.0	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		97.0	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		101	70-130			

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**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3D1930 - EPA 5030 (soil)</b>										
<b>Matrix Spike Dup (B3D1930-MSD1)</b>	<b>Source: Y304415-01</b>				Prepared: 04/19/2023 Analyzed: 04/19/2023					
1,2,4-Trimethylbenzene	0.0991	0.00200	mg/kg	0.100	0.000440	98.7	70-130	0.770	20	
1,3,5-Trimethylbenzene	0.0954	0.00200	"	0.100	ND	95.4	70-130	1.04	20	
Benzene	0.0933	0.00200	"	0.100	ND	93.3	70-130	5.12	20	
Ethylbenzene	0.0965	0.00200	"	0.100	ND	96.5	70-130	0.874	20	
Naphthalene	0.103	0.00380	"	0.100	0.00118	102	70-130	4.96	20	
Toluene	0.0882	0.00200	"	0.100	ND	88.2	70-130	2.52	20	
o-Xylene	0.104	0.00200	"	0.100	ND	104	70-130	1.71	20	
m,p-Xylene	0.206	0.00400	"	0.200	ND	103	70-130	0.653	20	
Surrogate: 1,2-Dichloroethane-d4	0.093		"	0.125		74.0	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		95.3	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		101	70-130			

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## Volatile Organic Compounds by GC/MS SW846 8260D - 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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## Metals by EPA 6000/7000 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 B3D2119 - EPA 3050B

#### Blank (B3D2119-BLK1)

Prepared: 04/21/2023 Analyzed: 04/24/2023

Arsenic	ND	0.000100	mg/kg
Barium	ND	0.0100	"
Cadmium	ND	0.000100	"
Copper	ND	0.0100	"
Lead	ND	0.0100	"
Nickel	ND	0.0100	"
Selenium	ND	0.000100	"
Silver	ND	0.000100	"
Zinc	ND	0.100	"

#### LCS (B3D2119-BS1)

Prepared: 04/21/2023 Analyzed: 04/24/2023

Arsenic	0.0544	0.000100	mg/kg	0.0500	109	80-120
Barium	5.22	0.0100	"	5.00	104	80-120
Cadmium	0.0526	0.000100	"	0.0500	105	80-120
Copper	0.533	0.0100	"	0.500	107	80-120
Lead	0.0520	0.0100	"	0.0500	104	80-120
Nickel	0.0560	0.0100	"	0.0500	112	80-120
Selenium	0.0557	0.000100	"	0.0500	111	80-120
Silver	0.0525	0.000100	"	0.0500	105	80-120
Zinc	0.546	0.100	"	0.500	109	80-120

#### Matrix Spike (B3D2119-MS1)

Source: Y304416-01

Prepared: 04/21/2023 Analyzed: 04/24/2023

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## Metals by EPA 6000/7000 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 B3D2119 - EPA 3050B

Matrix Spike (B3D2119-MS1)		Source: Y304416-01			Prepared: 04/21/2023 Analyzed: 04/24/2023					
Arsenic	7.01	0.0860	mg/kg	4.30	2.43	107	75-125			
Barium	521	8.60	"	430	61.1	107	75-125			
Cadmium	4.64	0.0860	"	4.30	0.107	106	75-125			
Copper	47.0	8.60	"	43.0	6.74	93.6	75-125			
Lead	11.9	8.60	"	4.30	8.04	89.2	75-125			
Nickel	10.6	8.60	"	4.30	5.70	115	75-125			
Selenium	4.60	0.0860	"	4.30	0.0858	105	75-125			
Silver	4.54	0.0860	"	4.30	0.0347	105	75-125			
Zinc	71.1	86.0	"	43.0	24.5	109	75-125			
Matrix Spike Dup (B3D2119-MSD1)		Source: Y304416-01			Prepared: 04/21/2023 Analyzed: 04/24/2023					
Arsenic	7.58	0.0964	mg/kg	4.82	2.43	107	75-125	7.84	20	
Barium	576	9.64	"	482	61.1	107	75-125	10.1	20	
Cadmium	5.21	0.0964	"	4.82	0.107	106	75-125	11.5	20	
Copper	52.8	9.64	"	48.2	6.74	95.6	75-125	11.7	20	
Lead	13.5	9.64	"	4.82	8.04	113	75-125	12.8	20	
Nickel	11.4	9.64	"	4.82	5.70	117	75-125	6.44	20	
Selenium	5.17	0.0964	"	4.82	0.0858	105	75-125	11.5	20	
Silver	5.03	0.0964	"	4.82	0.0347	104	75-125	10.2	20	
Zinc	76.5	96.4	"	48.2	24.5	108	75-125	7.22	20	

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## Classical Chemistry Parameters - Quality Control

### Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3D2020 - NO PREP</b>										
<b>Blank (B3D2020-BLK1)</b>					Prepared: 04/20/2023 Analyzed: 04/20/2023					
Total Dissolved Solids	ND	5.00	mg/L							
<b>LCS (B3D2020-BS1)</b>					Prepared: 04/20/2023 Analyzed: 04/20/2023					
Total Dissolved Solids	1020	5.00	mg/L	1010		101	90-110			
<b>Duplicate (B3D2020-DUP1)</b>					Source: Y304428-02 Prepared: 04/20/2023 Analyzed: 04/20/2023					
Total Dissolved Solids	5920	5.00	mg/L		5920			0.0845	10	
<b>Batch B3D2102 - Filter .45um non acidified</b>										
<b>Blank (B3D2102-BLK1)</b>					Prepared: 04/21/2023 Analyzed: 04/21/2023					
Chloride	ND	0.250	mg/L							
Sulfate	ND	0.250	"							
<b>LCS (B3D2102-BS1)</b>					Prepared: 04/21/2023 Analyzed: 04/21/2023					
Chloride	3.65	0.250	mg/L	4.00		91.4	90-110			
Sulfate	3.69	0.250	"	4.00		92.3	90-110			
<b>Matrix Spike (B3D2102-MS1)</b>					Source: Y304431-12 Prepared: 04/21/2023 Analyzed: 04/22/2023					
Chloride	550		mg/L	500	37.4	103	90-110			
Sulfate	1700		"	500	1250	89.6	90-110			QM-07
<b>Matrix Spike Dup (B3D2102-MSD1)</b>					Source: Y304431-12 Prepared: 04/21/2023 Analyzed: 04/22/2023					
Chloride	548		mg/L	500	37.4	102	90-110	0.371	5	
Sulfate	1690		"	500	1250	87.8	90-110	0.534	5	QM-07

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Project: KMG - Shutt 20-34 WH

## Classical Chemistry Parameters - 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 B3D2109 - DTPA Sorbitol Preparation

#### Blank (B3D2109-BLK1)

Prepared: 04/21/2023 Analyzed: 04/25/2023

Boron ND 0.100 mg/L

#### Duplicate (B3D2109-DUP1)

Source: Y304415-01

Prepared: 04/21/2023 Analyzed: 04/25/2023

Boron 0.438 0.0982 mg/L 0.457 4.30 50

### Batch B3D2405 - DTPA Sorbitol Preparation

#### Blank (B3D2405-BLK1)

Prepared: 04/24/2023 Analyzed: 04/25/2023

Boron ND 0.100 mg/L

#### Duplicate (B3D2405-DUP1)

Source: Y304416-07

Prepared: 04/24/2023 Analyzed: 04/25/2023

Boron 0.620 0.0997 mg/L 0.699 12.0 50

### Batch B3D2409 - Saturated Paste Metals

#### Blank (B3D2409-BLK1)

Prepared: 04/24/2023 Analyzed: 04/26/2023

SAR 0.00 SAR

Calcium PPM ND 10.0 mg/L

Magnesium PPM ND 10.0 "

Sodium PPM ND 10.0 "

#### Duplicate (B3D2409-DUP1)

Source: Y304415-02

Prepared: 04/24/2023 Analyzed: 04/26/2023

Calcium PPM 17.7 10.0 mg/L 18.1 2.12 50

SAR 0.00 SAR 7.56 200 200

Magnesium PPM 6.77 10.0 mg/L 7.45 9.53 50

Sodium PPM 144 10.0 " 151 5.32 50

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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
<b>Batch B3D2413 - Saturated Paste pH/EC</b>										
<b>Blank (B3D2413-BLK1)</b>					Prepared: 04/24/2023 Analyzed: 04/25/2023					
Specific Conductance (EC)	ND	0.00500	mmhos/cm							
<b>Duplicate (B3D2413-DUP1)</b>					<b>Source: Y304415-02</b> Prepared: 04/24/2023 Analyzed: 04/25/2023					
pH	8.41		pH Units		8.42			0.119	25	
Specific Conductance (EC)	0.914	0.00500	mmhos/cm		0.921			0.741	25	

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**PAH by 8270D SIM - Quality Control**  
**Waypoint Analytical, LLC.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch L677722 - 3550B**

MSD (L 81042-MSD-L677722)		Source: 81042			Prepared: 04/23/2023 Analyzed: 04/23/2023					
2-Methylnaphthalene	0.101	0.00201	mg/Kg dry	0.164	0.00244	60	30-130	8.5	30	
Chrysene	0.218	0.00067	"	0.164	0.0998	72	30-130	5.3	30	
Pyrene	0.254	0.00067	"	0.164	0.139	70.1	30-130	10.4	30	
Indeno(1,2,3-cd)pyrene	0.161	0.00067	"	0.164	0.0984	38.1	30-130	11.1	30	
Fluorene	0.119	0.00067	"	0.164	0.00352	70.4	30-130	5.7	30	
Fluoranthene	0.301	0.00067	"	0.164	0.16	85.9	30-130	10	30	
Dibenz(a,h)anthracene	0.131	0.00067	"	0.164	0.0287	62.3	30-130	13.5	30	
Benzo(b)fluoranthene	0.187	0.00067	"	0.164	0.119	41.4	30-130	7.7	30	
Benzo(a)pyrene	0.215	0.00067	"	0.164	0.122	56.7	30-130	9.3	30	
Benzo(a)anthracene	0.205	0.00067	"	0.164	0.104	61.5	30-130	6.6	30	
Anthracene	0.13	0.00067	"	0.164	0.0127	71.5	30-130	6.6	30	
Benzo(k)fluoranthene	0.11	0.00067	"	0.164	0.0919	11	30-130	7	30	*
1-Methylnaphthalene	0.0986	0.00201	"	0.164	0.00227	58.7	30-130	10.9	30	
Acenaphthene	0.112	0.00067	"	0.164	0.00297	66.4	30-130	5.2	30	
Surrogate: Nitrobenzene-d5	50.1		"	0.329	174	50.1	29-110			
Surrogate: 2-Fluorobiphenyl	47.4		"	0.329	170	47.4	33-115			
Surrogate: 4-Terphenyl-d14	56.2		"	0.329	203	56.2	33-122			

MS (L 81042-MS-L677722)		Source: 81042			Prepared: 04/23/2023 Analyzed: 04/23/2023					
Chrysene	0.23	0.00067	mg/Kg dry	0.165	0.0998	78.9	30-130			
Fluoranthene	0.333	0.00067	"	0.165	0.16	105	30-130			
Fluorene	0.126	0.00067	"	0.165	0.00352	74.2	30-130			
Indeno(1,2,3-cd)pyrene	0.18	0.00067	"	0.165	0.0984	49.4	30-130			
Pyrene	0.282	0.00067	"	0.165	0.139	86.6	30-130			
Benzo(k)fluoranthene	0.118	0.00067	"	0.165	0.0919	15.8	30-130			*
1-Methylnaphthalene	0.11	0.00201	"	0.165	0.00227	65.2	30-130			
Benzo(a)pyrene	0.236	0.00067	"	0.165	0.122	69	30-130			

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**PAH by 8270D SIM - Quality Control**  
**Waypoint Analytical, LLC.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch L677722 - 3550B**

MS (L 81042-MS-L677722)		Source: 81042			Prepared: 04/23/2023 Analyzed: 04/23/2023					
Benzo(a)anthracene	0.219	0.00067	mg/Kg dry	0.165	0.104	69.6	30-130			
Anthracene	0.139	0.00067	"	0.165	0.0127	76.5	30-130			
Acenaphthene	0.118	0.00067	"	0.165	0.00297	69.7	30-130			
2-Methylnaphthalene	0.11	0.00201	"	0.165	0.00244	65.1	30-130			
Benzo(b)fluoranthene	0.202	0.00067	"	0.165	0.119	50.3	30-130			
Dibenz(a,h)anthracene	0.15	0.00067	"	0.165	0.0287	73.5	30-130			
Surrogate: Nitrobenzene-d5	55.4		"	0.33	174	55.4	29-110			
Surrogate: 4-Terphenyl-d14	61.5		"	0.33	203	61.5	33-122			
Surrogate: 2-Fluorobiphenyl	53.6		"	0.33	170	53.6	33-115			

LCS (LCS-L677722)		Prepared: 04/23/2023 Analyzed: 04/23/2023								
Benzo(b)fluoranthene	0.109	0.00067	mg/Kg	0.167		65.2	30-130			
Benzo(k)fluoranthene	0.0951	0.00067	"	0.167		56.9	30-130			
Chrysene	0.12	0.00067	"	0.167		71.8	30-130			
Fluoranthene	0.131	0.00067	"	0.167		78.4	30-130			
Indeno(1,2,3-cd)pyrene	0.13	0.00067	"	0.167		77.8	30-130			
Benzo(a)pyrene	0.133	0.00067	"	0.167		79.6	30-130			
Pyrene	0.123	0.00067	"	0.167		73.6	30-130			
Dibenz(a,h)anthracene	0.122	0.00067	"	0.167		73	30-130			
Anthracene	0.121	0.00067	"	0.167		72.4	30-130			
Acenaphthene	0.113	0.00067	"	0.167		67.6	30-130			
2-Methylnaphthalene	0.112	0.00201	"	0.167		67	30-130			
1-Methylnaphthalene	0.112	0.00201	"	0.167		67	30-130			
Fluorene	0.122	0.00067	"	0.167		73	30-130			
Benzo(a)anthracene	0.136	0.00067	"	0.167		81.4	30-130			
Surrogate: Nitrobenzene-d5	62.7		"	0.333		62.7	29-110			
Surrogate: 4-Terphenyl-d14	67.2		"	0.333		67.2	33-122			

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**PAH by 8270D SIM - Quality Control**  
**Waypoint Analytical, LLC.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch L677722 - 3550B</b>										
<b>LCS (LCS-L677722)</b>					Prepared: 04/23/2023 Analyzed: 04/23/2023					
Surrogate: 2-Fluorobiphenyl	58.5		mg/Kg	0.333		58.5	33-115			
<b>LRB (LRB-L677722)</b>					Prepared: 04/23/2023 Analyzed: 04/23/2023					
Indeno(1,2,3-cd)pyrene	ND	0.00067	mg/Kg				-			
Benzo(b)fluoranthene	ND	0.00067	"				-			
Benzo(k)fluoranthene	ND	0.00067	"				-			
Chrysene	ND	0.00067	"				-			
Dibenz(a,h)anthracene	ND	0.00067	"				-			
Pyrene	ND	0.00067	"				-			
Fluorene	ND	0.00067	"				-			
2-Methylnaphthalene	ND	0.00201	"				-			
Fluoranthene	ND	0.00067	"				-			
Benzo(a)pyrene	ND	0.00067	"				-			
Benzo(a)anthracene	ND	0.00067	"				-			
Anthracene	ND	0.00067	"				-			
1-Methylnaphthalene	ND	0.00201	"				-			
Acenaphthene	ND	0.00067	"				-			
Surrogate: Nitrobenzene-d5	59.1		"	0.333		59.1	29-110			
Surrogate: 4-Terphenyl-d14	63		"	0.333		63	33-122			
Surrogate: 2-Fluorobiphenyl	57.3		"	0.333		57.3	33-115			

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Ensolum  
11049 W 44th Avenue, Suite 103  
Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

## Total Metals by 7196A - Quality Control Waypoint Analytical, LLC.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch L677803 -</b>										
<b>DUP (L 81187-DUP)</b>		<b>Source: Y304416-08</b>			Prepared: Analyzed: 04/24/2023					
Chromium, Hexavalent	ND	0.5	mg/Kg		81187	-		0	20	
<b>MS (L 81187-MS)</b>		<b>Source: Y304416-08</b>			Prepared: Analyzed: 04/24/2023					
Chromium, Hexavalent	31.5	2.51	mg/Kg	40.2	81187	78	75-125			
<b>LCS (LCS)</b>					Prepared: Analyzed: 04/24/2023					
Chromium, Hexavalent	6.67	0.5	mg/Kg	8		83	75-125			
<b>LRB (LRB)</b>					Prepared: Analyzed: 04/24/2023					
Chromium, Hexavalent	ND	0.5	mg/Kg							

Origins Laboratory, Inc.



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11049 W 44th Avenue, Suite 103  
Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

### 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.

J Estimated Value. Analyte below reported quantitation limit.

\* QC Failure

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported on a wet weight basis.

Calculated results may use J-flag data (instead of reported "ND") as part of calculation to provide a more accurate result.

Origins Laboratory, Inc.



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May 22, 2023

Ensolum

Jeremy Espinoza

11049 W 44th Avenue, Suite 103

Wheat Ridge CO 80033

Project Name - KMG - Shutt 20-34 WH

Project Number - 09A1417271

Attached are your analytical results for KMG - Shutt 20-34 WH received by Origins Laboratory, Inc. May 08, 2023. This project is associated with Origins project number Y305231-01.

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

Ensolum  
11049 W 44th Avenue, Suite 103  
Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
N01@5'	Y305231-01	Soil	May 8, 2023 13:30	05/08/2023 17:12
E01@5'	Y305231-02	Soil	May 8, 2023 13:35	05/08/2023 17:12
S01@5'	Y305231-03	Soil	May 8, 2023 13:40	05/08/2023 17:12
W01@5'	Y305231-04	Soil	May 8, 2023 13:45	05/08/2023 17:12
W02@5'	Y305231-05	Soil	May 8, 2023 13:50	05/08/2023 17:12
B01@7'	Y305231-06	Soil	May 8, 2023 13:55	05/08/2023 17:12

Barium rerun on sample W01@5' per the email from Jeremy on 05/10/23. JEP

Origins Laboratory, Inc.



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*





Ensolum

11049 W 44th Avenue, Suite 103

Wheat Ridge CO 80033

Jeremy Espinoza

Project Number: 09A1417271

Project: KMG - Shutt 20-34 WH

Origins Laboratory

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

### Sample Receipt Checklist

Origins Work Order: YB05231

Client: Ensolum

Client Project ID: Shutt 20-34 WH

Checklist Completed by: JM

Shipped Via: TD

(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Date/time completed: 5/8/23

Airbill #: N/A

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

Cooler Number/Temperature: 1 / 4 °C \_\_\_\_\_ °C \_\_\_\_\_ °C (Describe) \_\_\_\_\_ °C

Thermometer ID: 7003

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> ?	/			
Is there ice present (document if blue ice is used)	/			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)			/	
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)			/	
Were all samples received intact <sup>(1)</sup> ?	/			
Was adequate sample volume provided <sup>(1)</sup> ?	/			
Are short holding time analytes or samples with HTs due within 48 hours present <sup>(1)</sup> ?		/		
Is a chain-of-custody (COC) present and filled out completely <sup>(1)</sup> ?	/			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	/			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	/			
Is the COC properly relinquished by the client with date and time recorded <sup>(1)</sup> ?	/			
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.			/	
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)			/	
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) JM

5/8/23  
Date/Time Reviewed

Origins Laboratory, Inc.

*J. Bynon*

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Ensolum  
11049 W 44th Avenue, Suite 103  
Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

N01@5'

5/8/2023 1:30:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y305231-01 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	0.177	0.0993	mg/L	1	B3E0905	05/09/2023	05/10/2023	
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**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B3E0819	05/08/2023	05/09/2023	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	83.6 %	50-150			"	"	"	
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**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B3E0820	05/08/2023	05/08/2023	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	0.221	0.200	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	97.8 %	70-130			"	"	"	
Surrogate: Toluene-d8	87.9 %	70-130			"	"	"	

Origins Laboratory, Inc.



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Ensolum  
11049 W 44th Avenue, Suite 103  
Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

N01@5'

5/8/2023 1:30:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y305231-01 (Soil)**

**GBTEX+TMBs by 8260D**

Surrogate: 4-Bromofluorobenzene	107 %	70-130	B3E08 20	05/08/2023	05/08/2023
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**PAH by 8270D SIM**

1-Methylnaphthalene	ND	0.00109	0.00201	mg/Kg	1	L682644	05/18/2023	05/18/2023
2-Methylnaphthalene	ND	0.00194	0.00201	"	"	"	"	"
Acenaphthene	ND	0.000304	0.00067	"	"	"	"	"
Anthracene	ND	0.000334	0.00067	"	"	"	"	"
Benzo(a)anthracene	ND	0.000493	0.00067	"	"	"	"	"
Benzo(a)pyrene	ND	0.000468	0.00067	"	"	"	"	"
Benzo(b)fluoranthene	ND	0.000585	0.00067	"	"	"	"	"
Benzo(k)fluoranthene	ND	0.000437	0.00067	"	"	"	"	"
Chrysene	ND	0.000624	0.00067	"	"	"	"	"
Dibenz(a,h)anthracene	ND	0.000614	0.00067	"	"	"	"	"
Fluoranthene	ND	0.000394	0.00067	"	"	"	"	"
Fluorene	ND	0.000286	0.00067	"	"	"	"	"
Indeno(1,2,3-cd)pyrene	ND	0.000627	0.00067	"	"	"	"	"
Naphthalene	ND	0.00145	0.00201	"	"	"	"	"
Pyrene	ND	0.000643	0.00067	"	"	"	"	"
Surrogate: 2-Fluorobiphenyl	48.2 %		33-115			"	"	"
Surrogate: 4-Terphenyl-d14	59.1 %		33-122			"	"	"

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Ensolum

11049 W 44th Avenue, Suite 103

Wheat Ridge CO 80033

Jeremy Espinoza

Project Number: 09A1417271

Project: KMG - Shutt 20-34 WH

N01@5'

5/8/2023 1:30:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, LLC.

Y305231-01 (Soil)

## PAH by 8270D SIM

Surrogate: Nitrobenzene-d5	48.5 %	29-110			L6826 44	05/18/2023	05/18/2023
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## pH in Soil by 9045D

pH	8.18		pH Units	1	B3E0909	05/09/2023	05/10/2023
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## Table 915 metals by EPA 6020B

Arsenic	2.71	0.0972	mg/kg	10	B3E0817	05/08/2023	05/09/2023
Barium	46.6	9.72	"	"	"	"	"
Cadmium	0.196	0.0972	"	"	"	"	"
Selenium	ND	0.0972	"	"	"	"	"

Origins Laboratory, Inc.



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Ensolum  
11049 W 44th Avenue, Suite 103  
Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

E01@5'

5/8/2023 1:35:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y305231-02 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	0.248	0.0982	mg/L	1	B3E0905	05/09/2023	05/10/2023	
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**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B3E0819	05/08/2023	05/09/2023	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	90.6 %	50-150			"	"	"	
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**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B3E0820	05/08/2023	05/09/2023	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	110 %	70-130			"	"	"	
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Origins Laboratory, Inc.



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Ensolum  
11049 W 44th Avenue, Suite 103  
Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

E01@5'

5/8/2023 1:35:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y305231-02 (Soil)**

**GBTEX+TMBs by 8260D**

Surrogate: Toluene-d8	98.2 %		70-130			B3E08 20	05/08/2023	05/09/2023	
Surrogate: 4-Bromofluorobenzene	95.0 %		70-130			"	"	"	

**PAH by 8270D SIM**

1-Methylnaphthalene	ND	0.00109	0.00201	mg/Kg	1	L682644	05/18/2023	05/18/2023	
2-Methylnaphthalene	ND	0.00194	0.00201	"	"	"	"	"	
Acenaphthene	ND	0.000304	0.00067	"	"	"	"	"	
Anthracene	ND	0.000334	0.00067	"	"	"	"	"	
Benzo(a)anthracene	ND	0.000493	0.00067	"	"	"	"	"	
Benzo(a)pyrene	ND	0.000468	0.00067	"	"	"	"	"	
Benzo(b)fluoranthene	ND	0.000585	0.00067	"	"	"	"	"	
Benzo(k)fluoranthene	ND	0.000437	0.00067	"	"	"	"	"	
Chrysene	ND	0.000624	0.00067	"	"	"	"	"	
Dibenz(a,h)anthracene	ND	0.000614	0.00067	"	"	"	"	"	
Fluoranthene	ND	0.000394	0.00067	"	"	"	"	"	
Fluorene	ND	0.000286	0.00067	"	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	0.000627	0.00067	"	"	"	"	"	
Naphthalene	ND	0.00145	0.00201	"	"	"	"	"	
Pyrene	ND	0.000643	0.00067	"	"	"	"	"	
Surrogate: 2-Fluorobiphenyl	55.7 %		33-115			"	"	"	

Origins Laboratory, Inc.



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Ensolum  
11049 W 44th Avenue, Suite 103  
Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

E01@5'

5/8/2023 1:35:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Waypoint Analytical, LLC.**  
Y305231-02 (Soil)

**PAH by 8270D SIM**

Surrogate: 4-Terphenyl-d14	69.5 %	33-122	L6826 44	05/18/2023	05/18/2023
Surrogate: Nitrobenzene-d5	53.8 %	29-110	"	"	"

**pH in Soil by 9045D**

pH	8.18	pH Units	1	B3E0909	05/09/2023	05/10/2023
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**Table 915 metals by EPA 6020B**

Arsenic	1.89	0.0907	mg/kg	10	B3E0817	05/08/2023	05/09/2023
Barium	54.0	9.07	"	"	"	"	"
Cadmium	ND	0.0907	"	"	"	"	"
Selenium	ND	0.0907	"	"	"	"	"

Origins Laboratory, Inc.



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Ensolum  
11049 W 44th Avenue, Suite 103  
Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

S01@5'

5/8/2023 1:40:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y305231-03 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	0.183	0.0981	mg/L	1	B3E0905	05/09/2023	05/10/2023	
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**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B3E0819	05/08/2023	05/09/2023	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	84.4 %	50-150			"	"	"	
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**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B3E0820	05/08/2023	05/09/2023	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	99.2 %	70-130			"	"	"	
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Origins Laboratory, Inc.



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Ensolum  
11049 W 44th Avenue, Suite 103  
Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

S01@5'

5/8/2023 1:40:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y305231-03 (Soil)**

**GBTEX+TMBs by 8260D**

Surrogate: Toluene-d8	88.3 %	70-130	B3E08 20	05/08/2023	05/09/2023
Surrogate: 4-Bromofluorobenzene	106 %	70-130	"	"	"

**PAH by 8270D SIM**

1-Methylnaphthalene	ND	0.00109	0.00201	mg/Kg	1	L682644	05/18/2023	05/18/2023
2-Methylnaphthalene	ND	0.00194	0.00201	"	"	"	"	"
Acenaphthene	ND	0.000304	0.00067	"	"	"	"	"
Anthracene	ND	0.000334	0.00067	"	"	"	"	"
Benzo(a)anthracene	ND	0.000493	0.00067	"	"	"	"	"
Benzo(a)pyrene	ND	0.000468	0.00067	"	"	"	"	"
Benzo(b)fluoranthene	ND	0.000585	0.00067	"	"	"	"	"
Benzo(k)fluoranthene	ND	0.000437	0.00067	"	"	"	"	"
Chrysene	ND	0.000624	0.00067	"	"	"	"	"
Dibenz(a,h)anthracene	ND	0.000614	0.00067	"	"	"	"	"
Fluoranthene	ND	0.000394	0.00067	"	"	"	"	"
Fluorene	ND	0.000286	0.00067	"	"	"	"	"
Indeno(1,2,3-cd)pyrene	ND	0.000627	0.00067	"	"	"	"	"
Naphthalene	ND	0.00145	0.00201	"	"	"	"	"
Pyrene	ND	0.000643	0.00067	"	"	"	"	"
Surrogate: 2-Fluorobiphenyl	61 %	33-115	"	"	"	"	"	"

Origins Laboratory, Inc.



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Ensolum  
11049 W 44th Avenue, Suite 103  
Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

S01@5'

5/8/2023 1:40:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Waypoint Analytical, LLC.**  
**Y305231-03 (Soil)**

**PAH by 8270D SIM**

Surrogate: 4-Terphenyl-d14	76.3 %	33-122	L6826 44	05/18/2023	05/18/2023
Surrogate: Nitrobenzene-d5	61.9 %	29-110	"	"	"

**pH in Soil by 9045D**

pH	8.12	pH Units	1	B3E0909	05/09/2023	05/10/2023
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**Table 915 metals by EPA 6020B**

Arsenic	2.35	0.0886	mg/kg	10	B3E0817	05/08/2023	05/09/2023
Barium	76.0	8.86	"	"	"	"	"
Cadmium	ND	0.0886	"	"	"	"	"
Selenium	ND	0.0886	"	"	"	"	"

Origins Laboratory, Inc.



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Ensolum  
11049 W 44th Avenue, Suite 103  
Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

W01@5'

5/8/2023 1:45:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y305231-04 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	0.256	0.0984	mg/L	1	B3E0905	05/09/2023	05/10/2023	
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**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B3E0819	05/08/2023	05/09/2023	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	84.7 %	50-150			"	"	"	
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**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B3E0820	05/08/2023	05/09/2023	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	96.4 %	70-130			"	"	"	
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Ensolum  
11049 W 44th Avenue, Suite 103  
Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

W01@5'

5/8/2023 1:45:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y305231-04 (Soil)**

**GBTEX+TMBs by 8260D**

Surrogate: Toluene-d8	88.1 %	70-130	B3E08 20	05/08/2023	05/09/2023
Surrogate: 4-Bromofluorobenzene	108 %	70-130	"	"	"

**pH in Soil by 9045D**

pH	8.09	pH Units	1	B3E0909	05/09/2023	05/10/2023
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**Table 915 metals by EPA 6020B**

Arsenic	2.28	0.0835	mg/kg	10	B3E0817	05/08/2023	05/09/2023
Barium	85.5	8.35	"	"	"	"	"
Cadmium	0.192	0.0835	"	"	"	"	"
Selenium	ND	0.0835	"	"	"	"	"

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Ensolum

11049 W 44th Avenue, Suite 103

Wheat Ridge CO 80033

Jeremy Espinoza

Project Number: 09A1417271

Project: KMG - Shutt 20-34 WH

W01@5'

5/8/2023 1:45:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y305231-04RE1 (Soil)

## Table 915 metals by EPA 6020B

Barium	67.4	8.91	mg/kg	10	B3E1105	05/11/2023	05/12/2023
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Ensolum

11049 W 44th Avenue, Suite 103

Wheat Ridge CO 80033

Jeremy Espinoza

Project Number: 09A1417271

Project: KMG - Shutt 20-34 WH

W01@5'

5/8/2023 1:45:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y305231-04RE2 (Soil)

## Table 915 metals by EPA 6020B

Barium	77.6	9.26	mg/kg	10	B3E1105	05/11/2023	05/12/2023
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11049 W 44th Avenue, Suite 103  
Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

W02@5'

5/8/2023 1:50:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y305231-05 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	0.160	0.0998	mg/L	1	B3E0905	05/09/2023	05/10/2023	
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**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B3E0819	05/08/2023	05/09/2023	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	86.2 %	50-150			"	"	"	
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**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B3E0820	05/08/2023	05/09/2023	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	98.7 %	70-130			"	"	"	
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11049 W 44th Avenue, Suite 103  
Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

W02@5'

5/8/2023 1:50:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y305231-05 (Soil)

## GBTEX+TMBs by 8260D

Surrogate: Toluene-d8	87.8 %	70-130	B3E08 20	05/08/2023	05/09/2023
Surrogate: 4-Bromofluorobenzene	107 %	70-130	"	"	"

## PAH by 8270D SIM

1-Methylnaphthalene	ND	0.00109	0.00201	mg/Kg	1	L682644	05/18/2023	05/18/2023
2-Methylnaphthalene	ND	0.00194	0.00201	"	"	"	"	"
Acenaphthene	ND	0.000304	0.00067	"	"	"	"	"
Anthracene	ND	0.000334	0.00067	"	"	"	"	"
Benzo(a)anthracene	ND	0.000493	0.00067	"	"	"	"	"
Benzo(a)pyrene	ND	0.000468	0.00067	"	"	"	"	"
Benzo(b)fluoranthene	ND	0.000585	0.00067	"	"	"	"	"
Benzo(k)fluoranthene	ND	0.000437	0.00067	"	"	"	"	"
Chrysene	ND	0.000624	0.00067	"	"	"	"	"
Dibenz(a,h)anthracene	ND	0.000614	0.00067	"	"	"	"	"
Fluoranthene	ND	0.000394	0.00067	"	"	"	"	"
Fluorene	ND	0.000286	0.00067	"	"	"	"	"
Indeno(1,2,3-cd)pyrene	ND	0.000627	0.00067	"	"	"	"	"
Naphthalene	ND	0.00145	0.00201	"	"	"	"	"
Pyrene	ND	0.000643	0.00067	"	"	"	"	"
Surrogate: 2-Fluorobiphenyl	57.8 %	33-115	"	"	"	"	"	"

Origins Laboratory, Inc.



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Ensolum

11049 W 44th Avenue, Suite 103

Wheat Ridge CO 80033

Jeremy Espinoza

Project Number: 09A1417271

Project: KMG - Shutt 20-34 WH

W02@5'

5/8/2023 1:50:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, LLC.

Y305231-05 (Soil)

## PAH by 8270D SIM

Surrogate: 4-Terphenyl-d14	71.6 %	33-122	L6826 44	05/18/2023	05/18/2023
Surrogate: Nitrobenzene-d5	55 %	29-110	"	"	"

## pH in Soil by 9045D

pH	8.32	pH Units	1	B3E0909	05/09/2023	05/10/2023
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## Table 915 metals by EPA 6020B

Arsenic	2.59	0.0903	mg/kg	10	B3E0817	05/08/2023	05/09/2023
Barium	67.4	9.03	"	"	"	"	"
Cadmium	ND	0.0903	"	"	"	"	"
Selenium	ND	0.0903	"	"	"	"	"

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11049 W 44th Avenue, Suite 103  
Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

B01@7'

5/8/2023 1:55:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y305231-06 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	0.194	0.0995	mg/L	1	B3E0905	05/09/2023	05/10/2023	
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**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B3E0819	05/08/2023	05/09/2023	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	89.6 %	50-150	"	"	"
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**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B3E0820	05/08/2023	05/09/2023	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	98.7 %	70-130	"	"	"
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Ensolum  
11049 W 44th Avenue, Suite 103  
Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

B01@7'

5/8/2023 1:55:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y305231-06 (Soil)**

**GBTEX+TMBs by 8260D**

Surrogate: Toluene-d8	88.4 %	70-130	B3E08 20	05/08/2023	05/09/2023
Surrogate: 4-Bromofluorobenzene	106 %	70-130	"	"	"

**PAH by 8270D SIM**

1-Methylnaphthalene	0.00136	0.00109	0.00201	mg/Kg	1	L682644	05/18/2023	05/18/2023	J
2-Methylnaphthalene	ND	0.00194	0.00201	"	"	"	"	"	
Acenaphthene	0.000479	0.000304	0.00067	"	"	"	"	"	J
Anthracene	ND	0.000334	0.00067	"	"	"	"	"	
Benzo(a)anthracene	ND	0.000493	0.00067	"	"	"	"	"	
Benzo(a)pyrene	ND	0.000468	0.00067	"	"	"	"	"	
Benzo(b)fluoranthene	ND	0.000585	0.00067	"	"	"	"	"	
Benzo(k)fluoranthene	ND	0.000437	0.00067	"	"	"	"	"	
Chrysene	0.00256	0.000624	0.00067	"	"	"	"	"	
Dibenz(a,h)anthracene	ND	0.000614	0.00067	"	"	"	"	"	
Fluoranthene	ND	0.000394	0.00067	"	"	"	"	"	
Fluorene	0.00082	0.000286	0.00067	"	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	0.000627	0.00067	"	"	"	"	"	
Naphthalene	ND	0.00145	0.00201	"	"	"	"	"	
Pyrene	0.0018	0.000643	0.00067	"	"	"	"	"	
Surrogate: 2-Fluorobiphenyl	51.7 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	65.7 %		33-122			"	"	"	

Origins Laboratory, Inc.



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Ensolum  
11049 W 44th Avenue, Suite 103  
Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

B01@7'

5/8/2023 1:55:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Waypoint Analytical, LLC.**  
Y305231-06 (Soil)

**PAH by 8270D SIM**

Surrogate: Nitrobenzene-d5	48.6 %	29-110	L6826 44	05/18/2023	05/18/2023
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**pH in Soil by 9045D**

pH	8.05	pH Units	1	B3E0909	05/09/2023	05/10/2023
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**Table 915 metals by EPA 6020B**

Arsenic	3.73	0.0880	mg/kg	10	B3E0817	05/08/2023	05/09/2023
Barium	73.2	8.80	"	"	"	"	"
Cadmium	ND	0.0880	"	"	"	"	"
Selenium	0.103	0.0880	"	"	"	"	"

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Ensolum  
11049 W 44th Avenue, Suite 103  
Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B3E0819 - EPA 3550B										
Blank (B3E0819-BLK1)					Prepared: 05/08/2023 Analyzed: 05/09/2023					
Diesel (C10-C28)	ND	25.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	100	"							U
Surrogate: o-Terphenyl	16		"	24.9		65.6	50-150			

Origins Laboratory, Inc.



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11049 W 44th Avenue, Suite 103  
Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

Extractable Petroleum Hydrocarbons by 8015D - 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 B3E0819 - EPA 3550B

LCS (B3E0819-BS1)

Prepared: 05/08/2023 Analyzed: 05/09/2023

Diesel (C10-C28)	840	50.0	mg/kg	1000		84.0	70-130			
Residual Range Organics (C28-C40)	941	200	"	1000		94.1	70-130			
Surrogate: o-Terphenyl	42		"	49.8		83.6	50-150			

Origins Laboratory, Inc.



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11049 W 44th Avenue, Suite 103  
Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

## Extractable Petroleum Hydrocarbons by 8015D - 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 B3E0819 - EPA 3550B

Matrix Spike (B3E0819-MS1)		Source: Y305226-01			Prepared: 05/08/2023 Analyzed: 05/09/2023					
Diesel (C10-C28)	823	50.0	mg/kg	1000	ND	82.3	70-130			
Residual Range Organics (C28-C40)	912	200	"	1000	ND	91.2	70-130			
Surrogate: o-Terphenyl	38		"	49.8		76.8	50-150			

Origins Laboratory, Inc.



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11049 W 44th Avenue, Suite 103  
Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B3E0819 - EPA 3550B										
Matrix Spike Dup (B3E0819-MSD1)		Source: Y305226-01			Prepared: 05/08/2023 Analyzed: 05/09/2023					
Diesel (C10-C28)	845	50.0	mg/kg	1000	ND	84.5	70-130	2.54	35	
Residual Range Organics (C28-C40)	920	200	"	1000	ND	92.0	70-130	0.888	35	
Surrogate: o-Terphenyl	39		"	49.8		77.5	50-150			

Origins Laboratory, Inc.



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Ensolum  
11049 W 44th Avenue, Suite 103  
Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control

### Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B3E0820 - EPA 5030 (soil)										
Blank (B3E0820-BLK1)					Prepared: 05/08/2023 Analyzed: 05/08/2023					
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	0.11		"	0.125		87.9	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		92.3	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		107	70-130			

Origins Laboratory, Inc.



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Ensolum  
11049 W 44th Avenue, Suite 103  
Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3E0820 - EPA 5030 (soil)</b>										
<b>LCS (B3E0820-BS1)</b>					Prepared: 05/08/2023 Analyzed: 05/08/2023					
1,2,4-Trimethylbenzene	0.115	0.00200	mg/kg	0.100		115	70-130			
1,3,5-Trimethylbenzene	0.117	0.00200	"	0.100		117	70-130			
Benzene	0.105	0.00200	"	0.100		105	70-130			
Ethylbenzene	0.113	0.00200	"	0.100		113	70-130			
Naphthalene	0.103	0.00380	"	0.100		103	70-130			
Toluene	0.0938	0.00200	"	0.100		93.8	70-130			
o-Xylene	0.111	0.00200	"	0.100		111	70-130			
m,p-Xylene	0.228	0.00400	"	0.200		114	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		94.0	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		93.0	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		105	70-130			

Origins Laboratory, Inc.



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Ensolum  
11049 W 44th Avenue, Suite 103  
Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

**Volatile Organic Compounds by GC/MS SW846 8260D - 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 B3E0820 - EPA 5030 (soil)**

Matrix Spike (B3E0820-MS1)		Source: Y305226-01			Prepared: 05/08/2023 Analyzed: 05/08/2023					
1,2,4-Trimethylbenzene	0.112	0.00200	mg/kg	0.100	ND	112	70-130			
1,3,5-Trimethylbenzene	0.114	0.00200	"	0.100	ND	114	70-130			
Benzene	0.102	0.00200	"	0.100	ND	102	70-130			
Ethylbenzene	0.110	0.00200	"	0.100	ND	110	70-130			
Naphthalene	0.0984	0.00380	"	0.100	ND	98.4	70-130			
Toluene	0.0909	0.00200	"	0.100	ND	90.9	70-130			
o-Xylene	0.108	0.00200	"	0.100	ND	108	70-130			
m,p-Xylene	0.220	0.00400	"	0.200	ND	110	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		94.4	70-130			
Surrogate: Toluene-d8	0.11		"	0.125		91.2	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		102	70-130			

Origins Laboratory, Inc.



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Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3E0820 - EPA 5030 (soil)</b>										
<b>Matrix Spike Dup (B3E0820-MSD1)</b>		<b>Source: Y305226-01</b>			Prepared: 05/08/2023 Analyzed: 05/08/2023					
1,2,4-Trimethylbenzene	0.109	0.00200	mg/kg	0.100	ND	109	70-130	2.60	20	
1,3,5-Trimethylbenzene	0.113	0.00200	"	0.100	ND	113	70-130	1.38	20	
Benzene	0.100	0.00200	"	0.100	ND	100	70-130	1.70	20	
Ethylbenzene	0.109	0.00200	"	0.100	ND	109	70-130	1.73	20	
Naphthalene	0.102	0.00380	"	0.100	ND	102	70-130	3.28	20	
Toluene	0.0886	0.00200	"	0.100	ND	88.6	70-130	2.56	20	
o-Xylene	0.107	0.00200	"	0.100	ND	107	70-130	0.687	20	
m,p-Xylene	0.218	0.00400	"	0.200	ND	109	70-130	1.10	20	
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		96.3	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		92.1	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		102	70-130			

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Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

## Volatile Organic Compounds by GC/MS SW846 8260D - 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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## Metals by EPA 6000/7000 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 B3E0817 - EPA 3050B

##### Blank (B3E0817-BLK1)

Prepared: 05/08/2023 Analyzed: 05/09/2023

Arsenic	ND	0.000100	mg/kg
Barium	ND	0.0100	"
Cadmium	ND	0.000100	"
Selenium	ND	0.000100	"

##### LCS (B3E0817-BS1)

Prepared: 05/08/2023 Analyzed: 05/09/2023

Arsenic	0.0530	0.000100	mg/kg	0.0500		106	80-120
Barium	5.37	0.0100	"	5.00		107	80-120
Cadmium	0.0547	0.000100	"	0.0500		109	80-120
Selenium	0.0525	0.000100	"	0.0500		105	80-120

##### Matrix Spike (B3E0817-MS1)

Source: Y305226-01

Prepared: 05/08/2023 Analyzed: 05/09/2023

Arsenic	9.86	0.0904	mg/kg	4.52	4.82	111	75-125
Barium	519	9.04	"	452	38.5	106	75-125
Cadmium	5.13	0.0904	"	4.52	0.156	110	75-125
Selenium	4.53	0.0904	"	4.52	0.166	96.5	75-125

##### Matrix Spike Dup (B3E0817-MSD1)

Source: Y305226-01

Prepared: 05/08/2023 Analyzed: 05/09/2023

Arsenic	9.31	0.0978	mg/kg	4.89	4.82	91.7	75-125	5.73	20
Barium	539	9.78	"	489	38.5	102	75-125	3.77	20
Cadmium	5.30	0.0978	"	4.89	0.156	105	75-125	3.24	20
Selenium	4.68	0.0978	"	4.89	0.166	92.3	75-125	3.38	20

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Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

## Classical Chemistry Parameters - Quality Control

### Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3E0905 - DTPA Sorbitol Preparation</b>										
<b>Blank (B3E0905-BLK1)</b>					Prepared: 05/09/2023 Analyzed: 05/10/2023					
Boron	ND	0.100	mg/L							
<b>Duplicate (B3E0905-DUP1)</b>					Source: Y305226-01 Prepared: 05/09/2023 Analyzed: 05/10/2023					
Boron	0.200	0.0988	mg/L		0.211			5.37	50	

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Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

**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 B3E0909 - Saturated Paste pH/EC**

<b>Duplicate (B3E0909-DUP1)</b>		<b>Source: Y305230-01</b>			Prepared: 05/09/2023 Analyzed: 05/10/2023					
pH	8.07		pH Units		7.99			0.996	25	

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Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

**PAH by 8270D SIM - Quality Control**  
**Waypoint Analytical, LLC.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch L682644 - 3550B

MSD (L 93966-MSD-L682644)		Source: 93966			Prepared: 05/18/2023 Analyzed: 05/18/2023					
Dibenz(a,h)anthracene	0.0939	0.00067	mg/Kg	0.163	<0.000614	57.6	30-130	9.3	30	
Pyrene	0.0945	0.00067	"	0.163	<0.000643	57.9	30-130	0.9	30	
Naphthalene	0.083	0.00201	"	0.163	<0.00145	50.9	30-130	5.5	30	
Indeno(1,2,3-cd)pyrene	0.0824	0.00067	"	0.163	<0.000627	50.5	30-130	9.1	30	
Fluoranthene	0.0963	0.00067	"	0.163	<0.000394	59	30-130	1.7	30	
Chrysene	0.0974	0.00067	"	0.163	<0.000624	59.7	30-130	1	30	
Benzo(k)fluoranthene	0.105	0.00067	"	0.163	<0.000437	64.4	30-130	14.8	30	
2-Methylnaphthalene	0.0791	0.00201	"	0.163	<0.00194	48.5	30-130	4.5	30	
1-Methylnaphthalene	0.09	0.00201	"	0.163	<0.00109	55.2	30-130	0.6	30	
Fluorene	0.0853	0.00067	"	0.163	<0.000286	52.3	30-130	1.6	30	
Benzo(b)fluoranthene	0.0795	0.00067	"	0.163	0.00181	47.6	30-130	10.9	30	
Acenaphthene	0.0883	0.00067	"	0.163	<0.000304	54.1	30-130	0.1	30	
Anthracene	0.0864	0.00067	"	0.163	<0.000334	53	30-130	0.4	30	
Benzo(a)anthracene	0.0899	0.00067	"	0.163	<0.000493	55.1	30-130	3	30	
Benzo(a)pyrene	0.0927	0.00067	"	0.163	<0.000468	56.8	30-130	2.4	30	
Surrogate: Nitrobenzene-d5	54.1		"	0.327	161	54.1	29-110			
Surrogate: 2-Fluorobiphenyl	55		"	0.327	173	55	33-115			
Surrogate: 4-Terphenyl-d14	65.1		"	0.327	216	65.1	33-122			

MS (L 93966-MS-L682644)		Source: 93966			Prepared: 05/18/2023 Analyzed: 05/18/2023					
Benzo(k)fluoranthene	0.0905	0.00067	mg/Kg	0.167	<0.000437	54.1	30-130			
Naphthalene	0.0877	0.00201	"	0.167	<0.00145	52.5	30-130			
Indeno(1,2,3-cd)pyrene	0.0752	0.00067	"	0.167	<0.000627	45	30-130			
Fluorene	0.0867	0.00067	"	0.167	<0.000286	51.9	30-130			
Fluoranthene	0.0946	0.00067	"	0.167	<0.000394	56.6	30-130			
Dibenz(a,h)anthracene	0.0855	0.00067	"	0.167	<0.000614	51.1	30-130			
Chrysene	0.0984	0.00067	"	0.167	<0.000624	58.9	30-130			

Origins Laboratory, Inc.



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Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

**PAH by 8270D SIM - Quality Control**  
**Waypoint Analytical, LLC.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch L682644 - 3550B**

MS (L 93966-MS-L682644)		Source: 93966			Prepared: 05/18/2023 Analyzed: 05/18/2023					
Pyrene	0.0936	0.00067	mg/Kg	0.167	<0.000643	56	30-130			
1-Methylnaphthalene	0.0894	0.00201	"	0.167	<0.00109	53.5	30-130			
Benzo(a)pyrene	0.0905	0.00067	"	0.167	<0.000468	54.1	30-130			
Benzo(a)anthracene	0.0927	0.00067	"	0.167	<0.000493	55.5	30-130			
Anthracene	0.086	0.00067	"	0.167	<0.000334	51.4	30-130			
Acenaphthene	0.0882	0.00067	"	0.167	<0.000304	52.8	30-130			
2-Methylnaphthalene	0.0828	0.00201	"	0.167	<0.00194	49.5	30-130			
Benzo(b)fluoranthene	0.0887	0.00067	"	0.167	0.00181	52	30-130			
Surrogate: Nitrobenzene-d5	52.2		"	0.333	161	52.2	29-110			
Surrogate: 4-Terphenyl-d14	62.7		"	0.333	216	62.7	33-122			
Surrogate: 2-Fluorobiphenyl	53.4		"	0.333	173	53.4	33-115			

LCS (LCS-L682644)		Prepared: 05/18/2023 Analyzed: 05/18/2023								
Chrysene	0.122	0.00067	mg/Kg	0.167		73	30-130			
Dibenz(a,h)anthracene	0.107	0.00067	"	0.167		64	30-130			
Fluorene	0.105	0.00067	"	0.167		62.8	30-130			
1-Methylnaphthalene	0.112	0.00201	"	0.167		67	30-130			
Naphthalene	0.108	0.00201	"	0.167		64.6	30-130			
Benzo(k)fluoranthene	0.124	0.00067	"	0.167		74.2	30-130			
Pyrene	0.12	0.00067	"	0.167		71.8	30-130			
Fluoranthene	0.12	0.00067	"	0.167		71.8	30-130			
Benzo(a)pyrene	0.121	0.00067	"	0.167		72.4	30-130			
Benzo(a)anthracene	0.112	0.00067	"	0.167		67	30-130			
Anthracene	0.117	0.00067	"	0.167		70	30-130			
Acenaphthene	0.11	0.00067	"	0.167		65.8	30-130			
2-Methylnaphthalene	0.1	0.00201	"	0.167		59.8	30-130			
Indeno(1,2,3-cd)pyrene	0.0965	0.00067	"	0.167		57.7	30-130			

Origins Laboratory, Inc.



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**PAH by 8270D SIM - Quality Control**  
**Waypoint Analytical, LLC.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch L682644 - 3550B**

**LCS (LCS-L682644)**

Prepared: 05/18/2023 Analyzed: 05/18/2023

Benzo(b)fluoranthene	0.103	0.00067	mg/Kg	0.167		61.6	30-130			
Surrogate: Nitrobenzene-d5	69.6		"	0.333		69.6	29-110			
Surrogate: 4-Terphenyl-d14	85.2		"	0.333		85.2	33-122			
Surrogate: 2-Fluorobiphenyl	73.2		"	0.333		73.2	33-115			

**LRB (LRB-L682644)**

Prepared: 05/18/2023 Analyzed: 05/18/2023

Chrysene	ND	0.00067	mg/Kg				-			
Dibenz(a,h)anthracene	ND	0.00067	"				-			
Fluoranthene	ND	0.00067	"				-			
Fluorene	ND	0.00067	"				-			
Benzo(k)fluoranthene	ND	0.00067	"				-			
Naphthalene	ND	0.00201	"				-			
Indeno(1,2,3-cd)pyrene	ND	0.00067	"				-			
Benzo(b)fluoranthene	ND	0.00067	"				-			
Benzo(a)pyrene	ND	0.00067	"				-			
Benzo(a)anthracene	ND	0.00067	"				-			
Acenaphthene	ND	0.00067	"				-			
2-Methylnaphthalene	ND	0.00201	"				-			
1-Methylnaphthalene	ND	0.00201	"				-			
Pyrene	ND	0.00067	"				-			
Anthracene	ND	0.00067	"				-			
Surrogate: Nitrobenzene-d5	51		"	0.333		51	29-110			
Surrogate: 4-Terphenyl-d14	68.1		"	0.333		68.1	33-122			
Surrogate: 2-Fluorobiphenyl	53.1		"	0.333		53.1	33-115			

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Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

### Notes and Definitions

U Sample is Non-Detect.

J Estimated Value. Analyte below reported quantitation limit.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported on a wet weight basis.

Calculated results may use J-flag data (instead of reported "ND") as part of calculation to provide a more accurate result.

Origins Laboratory, Inc.



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June 07, 2023

Ensolum

Jeremy Espinoza

11049 W 44th Avenue, Suite 103

Wheat Ridge CO 80033

**Project Name - KMG - Shutt 20-34 WH****Project Number - 09A1417271**

Attached are your analytical results for KMG - Shutt 20-34 WH received by Origins Laboratory, Inc. May 26, 2023. This project is associated with Origins project number Y305708-01.

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



Ensolum

11049 W 44th Avenue, Suite 103

Wheat Ridge CO 80033

Jeremy Espinoza

Project Number: 09A1417271

Project: KMG - Shutt 20-34 WH

### CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BG-GW01	Y305708-01	Water	May 26, 2023 9:42	05/26/2023 15:23

Origins Laboratory, Inc.



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Ensolum

11049 W 44th Avenue, Suite 103

Wheat Ridge CO 80033

Jeremy Espinoza

Project Number: 09A1417271

Project: KMG - Shutt 20-34 WH

Origins Laboratory

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

## Sample Receipt Checklist

Origins Work Order: Y305708

Client: Ensolum

Client Project ID: Shutt 20-34 WH

Checklist Completed by: TSH/ELH

Shipped Via: HQ

Date/time completed: 5/20/23

(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Airbill #: NA

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

Cooler Number/Temperature: 116 °C 1 °C 1 °C (Describe) °C

Thermometer ID: 7004

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"/>	<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 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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? <b>If yes, contact client and note in narrative.</b>	<input type="checkbox"/>	<input checked="" 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)/(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 type="checkbox"/>	<input type="checkbox"/>	<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 (Project Manager) CEP

Date/Time Reviewed 5/20/23

Origins Laboratory, Inc.

*J. Bynon*

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11049 W 44th Avenue, Suite 103

Wheat Ridge CO 80033

Jeremy Espinoza

Project Number: 09A1417271

Project: KMG - Shutt 20-34 WH

BG-GW01

5/26/2023 9:42:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y305708-01 (Water)

## Anions by IC 300.0

Chloride	191	31.2	mg/L	125	B3E2623	ACC	05/26/2023	05/30/2023	
Sulfate	207	31.2	"	"	"	ACC	"	"	

## Total Dissolved Solids by 2540C

Total Dissolved Solids	797	5.00	"	1	B3E3010	EMILI	05/30/2023	05/31/2023	
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Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Ensolum  
11049 W 44th Avenue, Suite 103  
Wheat Ridge CO 80033

Jeremy Espinoza  
Project Number: 09A1417271  
Project: KMG - Shutt 20-34 WH

## Classical Chemistry Parameters - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3E2623 - Filter .45um non acidified</b>										
<b>Blank (B3E2623-BLK1)</b>					Prepared: 05/26/2023 Analyzed: 05/27/2023					
Chloride	ND	0.250	mg/L							U
Sulfate	ND	0.250	"							U
<b>LCS (B3E2623-BS1)</b>					Prepared: 05/26/2023 Analyzed: 05/27/2023					
Chloride	4.11	0.250	mg/L	4.00		103	90-110			
Sulfate	3.94	0.250	"	4.00		98.6	90-110			
<b>Matrix Spike (B3E2623-MS1)</b>					<b>Source: Y305695-01</b>		Prepared: 05/26/2023 Analyzed: 05/27/2023			
Chloride	1570		mg/L	500	1030	108	90-110			
Sulfate	2450		"	500	1960	96.7	90-110			
<b>Matrix Spike Dup (B3E2623-MSD1)</b>					<b>Source: Y305695-01</b>		Prepared: 05/26/2023 Analyzed: 05/27/2023			
Chloride	1560		mg/L	500	1030	105	90-110	0.925	5	
Sulfate	2430		"	500	1960	92.8	90-110	0.801	5	
<b>Batch B3E3010 - NO PREP</b>										
<b>Blank (B3E3010-BLK1)</b>					Prepared: 05/30/2023 Analyzed: 05/31/2023					
Total Dissolved Solids	ND	5.00	mg/L							
<b>LCS (B3E3010-BS1)</b>					Prepared: 05/30/2023 Analyzed: 05/31/2023					
Total Dissolved Solids	964	5.00	mg/L	1000		96.4	90-110			
<b>Duplicate (B3E3010-DUP1)</b>					<b>Source: Y305665-06</b>		Prepared: 05/30/2023 Analyzed: 05/31/2023			
Total Dissolved Solids	1880	5.00	mg/L		1880			0.213	10	

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Ensolum

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Wheat Ridge CO 80033

Jeremy Espinoza

Project Number: 09A1417271

Project: KMG - Shutt 20-34 WH

### 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 at a wet weight basis.

Origins Laboratory, Inc.



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