

**TABLE 1**  
**SOIL SAMPLE ANALYTICAL AND FIELD RESULTS**  
**WADDELL 12-24 WELLHEAD**  
**WELD COUNTY, COLORADO**  
**KERR-MCGEE OIL & GAS ONSHORE, LP**

Analyte	Groundwater Protection Values (GPV)	B01@3.5'	Native-BG01@1'	Native-BG02@1'	Native-BG03@1'	S01@6''
		10/19/2021	10/19/2021	10/19/2021	10/19/2021	10/19/2021
Photoionization Detector Reading						
PID (ppm)	NA	12.0	NA	NA	NA	14.8
Total Petroleum Hydrocarbons by USEPA Method 8015D						
TPH-GRO* (mg/kg)	500	<0.200	NA	NA	NA	0.614
TPH-DRO* (mg/kg)	500	<25.0	NA	NA	NA	<25.0
TPH-RRO* (mg/kg)	500	<100	NA	NA	NA	<100
Soil Suitability for Reclamation						
EC (mmhos/cm)	4	2.43	6.34	4.62	0.867	1.79
Sodium Adsorption Ratio (SAR)	6	10.2	13.3	11.0	3.23	4.19
pH, Lab (pH units)	6-8.3	8.59	7.97	8.14	7.81	9.18
Boron (mg/L)	2	1.25	0.864	0.635	<0.201	<0.201
Organic Concentrations in Soil (GPV for Soil)						
Benzene (mg/kg)	0.0026	<0.00200	NA	NA	NA	<0.00200
Toluene (mg/kg)	0.69	<0.00200	NA	NA	NA	<0.00200
Ethylbenzene (mg/kg)	0.78	<0.00200	NA	NA	NA	<0.00200
Xylenes, Total (mg/kg)	9.9	<0.00200	NA	NA	NA	<0.00200
1,2,4-Trimethylbenzene (mg/kg)	0.0081	<0.00200	NA	NA	NA	0.00324
1,3,5-Trimethylbenzene (mg/kg)	0.0087	<0.00200	NA	NA	NA	<0.00200
Acenaphthene (mg/Kg)	0.55	<0.00335	NA	NA	NA	<0.00067
Anthracene (mg/Kg)	5.8	<0.00335	NA	NA	NA	<0.00067
Benzo (a) anthracene (mg/Kg)	0.011	<0.00335	NA	NA	NA	<0.00067
Benzo (b) fluoranthene (mg/Kg)	0.3	<0.00335	NA	NA	NA	<0.00067
Benzo (k) fluoranthene (mg/Kg)	2.9	<0.00335	NA	NA	NA	<0.00067
Benzo (a) pyrene (mg/Kg)	0.24	<0.00335	NA	NA	NA	<0.00067
Chrysene (mg/Kg)	9	<0.00335	NA	NA	NA	<0.00067
Dibenz (a,h) anthracene (mg/Kg)	0.096	<0.00335	NA	NA	NA	<0.00067
Fluoranthene (mg/Kg)	8.9	<0.00335	NA	NA	NA	<0.00067
Fluorene (mg/Kg)	0.54	<0.00335	NA	NA	NA	0.000735
Indeno (1,2,3-cd) pyrene (mg/Kg)	0.98	<0.00335	NA	NA	NA	<0.00067
1-Methylnaphthalene (mg/Kg)	0.006	0.00239	NA	NA	NA	0.000822
2-Methylnaphthalene (mg/Kg)	0.019	0.00459	NA	NA	NA	0.00136
Naphthalene (mg/Kg)	0.0038	<0.00335	NA	NA	NA	<0.00067
Pyrene (mg/Kg)	1.3	<0.00335	NA	NA	NA	<0.00067
Metals in Soils (GPV for Soil)						
Arsenic (mg/Kg)	0.29	0.444	1.09	0.562	0.294	0.8
Barium (mg/Kg)	82	12.5	35.1	40.8	23.9	8.65
Cadmium (mg/Kg)	0.38	0.0269	0.0795	0.0701	0.0892	0.0401
Chromium, Hexavalent (mg/Kg)	0.00067	<2.5	<2.52	<0.504	<2.5	<0.515
Copper (mg/Kg)	46	2.28	4.43	4.57	7.17	2.09
Lead (mg/Kg)	14	1.84	6.03	4.67	4.69	2.44
Nickel (mg/Kg)	26	1.25	2.63	2.86	1.61	2.13
Selenium (mg/Kg)	0.26	0.16	0.346	0.353	0.365	0.391
Silver (mg/Kg)	0.8	0.0101	0.0233	0.024	0.0284	<0.25
Zinc (mg/Kg)	370	8.8	21	22.8	30.7	11.2

**TABLE 1 (Continued)**  
**SOIL SAMPLE ANALYTICAL AND FIELD RESULTS**  
**WADDELL 12-24 WELLHEAD**  
**WELD COUNTY, COLORADO**  
**KERR-MCGEE OIL & GAS ONSHORE, LP**

Analyte	Groundwater Protection Values (GPV)	W01@6"	E01@6"	N01@6"	S02@6"	W02@6"
		10/19/2021	12/17/2021	12/17/2021	12/17/2021	12/17/2021
Photoionization Detector Reading						
PID (ppm)	NA	14.4	17.9	0.0	0.0	3.8
Total Petroleum Hydrocarbons by USEPA Method 8015D						
TPH-GRO* (mg/kg)	500	0.394	3.08	4.93	NA	NA
TPH-DRO* (mg/kg)	500	<25.0	<25.0	40.1	NA	NA
TPH-RRO* (mg/kg)	500	<100	<100	<100	NA	NA
Soil Suitability for Reclamation						
EC (mmhos/cm)	4	2.41	1.71	1.45	NA	NA
Sodium Adsorption Ratio (SAR)	6	6.20	5.97	3.22	NA	NA
pH, Lab (pH units)	6-8.3	8.71	8.15	11.4	7.67	NA
Boron (mg/L)	2	0.742	0.278	0.399	NA	NA
Organic Concentrations in Soil (GPV for Soil)						
Benzene (mg/kg)	0.0026	<0.00200	<0.00200	<0.00200	NA	NA
Toluene (mg/kg)	0.69	<0.00200	<0.00200	<0.00200	NA	NA
Ethylbenzene (mg/kg)	0.78	<0.00200	<0.00200	<0.00200	NA	NA
Xylenes, Total (mg/kg)	9.9	<0.00200	<0.00200	0.00270	NA	NA
1,2,4-Trimethylbenzene (mg/kg)	0.0081	<0.00200	<0.00200	0.00432	NA	NA
1,3,5-Trimethylbenzene (mg/kg)	0.0087	<0.00200	<0.00200	<0.00200	NA	NA
Acenaphthene (mg/Kg)	0.55	<0.00335	<0.00067	0.00183	NA	NA
Anthracene (mg/Kg)	5.8	<0.00335	<0.00067	0.000725	NA	NA
Benzo (a) anthracene (mg/Kg)	0.011	<0.00335	<0.00067	<0.00067	NA	NA
Benzo (b) fluoranthene (mg/Kg)	0.3	<0.00335	0.000267	0.000743	NA	NA
Benzo (k) fluoranthene (mg/Kg)	2.9	<0.00335	<0.00067	<0.00067	NA	NA
Benzo (a) pyrene (mg/Kg)	0.24	<0.00335	0.000459	0.000473	NA	NA
Chrysene (mg/Kg)	9	0.00208	<0.00067	0.00262	NA	NA
Dibenz (a,h) anthracene (mg/Kg)	0.096	<0.00335	<0.00067	0.000495	NA	NA
Fluoranthene (mg/Kg)	8.9	<0.00335	<0.00067	0.000478	NA	NA
Fluorene (mg/Kg)	0.54	0.00526	<0.00067	0.00461	NA	NA
Indeno (1,2,3-cd) pyrene (mg/Kg)	0.98	<0.00335	0.000342	0.000635	NA	NA
1-Methylnaphthalene (mg/Kg)	0.006	0.007	<0.00067	0.00606	NA	0.00505
2-Methylnaphthalene (mg/Kg)	0.019	0.0107	<0.00067	0.00884	NA	NA
Naphthalene (mg/Kg)	0.0038	0.00255	<0.00067	0.00246	NA	NA
Pyrene (mg/Kg)	1.3	<0.00335	<0.00067	0.00293	NA	NA
Metals in Soils (GPV for Soil)						
Arsenic (mg/Kg)	0.29	1.43	0.425	0.571	NA	0.469
Barium (mg/Kg)	82	25.7	27	33.6	NA	NA
Cadmium (mg/Kg)	0.38	0.134	0.0509	0.085	NA	NA
Chromium, Hexavalent (mg/Kg)	0.00067	<2.51	<1.03	<2.52	NA	NA
Copper (mg/Kg)	46	7.44	2.81	5.03	NA	NA
Lead (mg/Kg)	14	8.09	3.54	6.18	NA	NA
Nickel (mg/Kg)	26	3.78	1.36	2.62	NA	NA
Selenium (mg/Kg)	0.26	0.3	0.198	0.258	0.251	NA
Silver (mg/Kg)	0.8	0.0149	0.023	0.0221	NA	NA
Zinc (mg/Kg)	370	26.7	11.7	21.5	NA	NA

**TABLE 1 (Continued)**  
**SOIL SAMPLE ANALYTICAL AND FIELD RESULTS**  
**WADDELL 12-24 WELLHEAD**  
**WELD COUNTY, COLORADO**  
**KERR-MCGEE OIL & GAS ONSHORE, LP**

Analyte	Groundwater Protection Values (GPV)	N02@6"
		2/24/2022
Photoionization Detector Reading		
PID (ppm)	NA	0.6
Total Petroleum Hydrocarbons by USEPA Method 8015D		
TPH-GRO* (mg/kg)	500	NA
TPH-DRO* (mg/kg)	500	NA
TPH-RRO* (mg/kg)	500	NA
Soil Suitability for Reclamation		
EC (mmhos/cm)	4	NA
Sodium Adsorption Ratio (SAR)	6	NA
pH, Lab (pH units)	6-8.3	7.51
Boron (mg/L)	2	NA
Organic Concentrations in Soil (GPV for Soil)		
Benzene (mg/kg)	0.0026	NA
Toluene (mg/kg)	0.69	NA
Ethylbenzene (mg/kg)	0.78	NA
Xylenes, Total (mg/kg)	9.9	NA
1,2,4-Trimethylbenzene (mg/kg)	0.0081	NA
1,3,5-Trimethylbenzene (mg/kg)	0.0087	NA
Acenaphthene (mg/Kg)	0.55	NA
Anthracene (mg/Kg)	5.8	NA
Benzo (a) anthracene (mg/Kg)	0.011	NA
Benzo (b) fluoranthene (mg/Kg)	0.3	NA
Benzo (k) fluoranthene (mg/Kg)	2.9	NA
Benzo (a) pyrene (mg/Kg)	0.24	NA
Chrysene (mg/Kg)	9	NA
Dibenz (a,h) anthracene (mg/Kg)	0.096	NA
Fluoranthene (mg/Kg)	8.9	NA
Fluorene (mg/Kg)	0.54	NA
Indeno (1,2,3-cd) pyrene (mg/Kg)	0.98	NA
1-Methylnaphthalene (mg/Kg)	0.006	<0.00067
2-Methylnaphthalene (mg/Kg)	0.019	NA
Naphthalene (mg/Kg)	0.0038	NA
Pyrene (mg/Kg)	1.3	NA
Metals in Soils (GPV for Soil)		
Arsenic (mg/Kg)	0.29	NA
Barium (mg/Kg)	82	NA
Cadmium (mg/Kg)	0.38	NA
Chromium, Hexavalent (mg/Kg)	0.00067	NA
Copper (mg/Kg)	46	NA
Lead (mg/Kg)	14	NA
Nickel (mg/Kg)	26	NA
Selenium (mg/Kg)	0.26	NA
Silver (mg/Kg)	0.8	NA
Zinc (mg/Kg)	370	NA

**TABLE 1 (Continued)**  
**SOIL SAMPLE ANALYTICAL AND FIELD RESULTS**  
**WADDELL 12-24 WELLHEAD**  
**WELD COUNTY, COLORADO**  
**KERR-MCGEE OIL & GAS ONSHORE, LP**

**Notes:**

GPV - groundwater protection values  
mg/kg - milligrams per kilogram  
PID - Photoionization Detector  
ppm - parts per million  
TPH - total petroleum hydrocarbons  
GRO - gasoline range organics  
DRO - diesel range organics  
RRO - residual range organics

EC - electrical conductivity  
SAR - sodium adsorption ratio  
mmhos/cm - millimhos per centimeter  
<0.00200 - less than laboratory reporting limit  
NA - Not Applicable / Not Analyzed  
Bold indicates exceeds Table 915 Groundwater Protection limits  
\*Allowable level for TPH is 500 mg/kg for combined GRO,  
DRO, and RRO

**TABLE 2**  
**PHOTOIONIZATION DETECTOR FIELD RESULTS**  
**WADDELL 12-24 WELLHEAD**  
**WELD COUNTY, COLORADO**  
**KERR-MCGEE OIL & GAS ONSHORE, LP**

Screening Location	Location	Date	PID Reading (ppm)
B01@3.5'	Wellhead Excavation	10/19/2021	12.0
North Wall	Wellhead Excavation	10/19/2021	0.9
East Wall	Wellhead Excavation	10/19/2021	1.9
S01@6"	Wellhead Excavation	10/19/2021	14.8
W01@6"	Wellhead Excavation	10/19/2021	14.4
W02@6"	Wellhead Excavation	12/17/2021	3.8
S02@6"	Wellhead Excavation	12/17/2021	0.0
E01@6"	Wellhead Excavation	12/17/2021	17.9
N01@6"	Wellhead Excavation	12/17/2021	0.0
N02@6"	Wellhead Excavation	2/24/2022	0.6
PH01	Pothole	12/3/2021	0.3
PH02	Pothole	12/3/2021	0.0
PH03	Pothole	12/3/2021	0.1
PH04	Pothole	12/3/2021	0.0
PH05	Pothole	12/3/2021	0.0
PH06	Pothole	12/3/2021	0.1
PH07	Pothole	12/3/2021	0.1
PH08	Pothole	12/3/2021	0.1
PH09	Pothole	12/3/2021	0.0
PH10	Pothole	12/3/2021	0.3
PH11	Pothole	12/3/2021	0.1
PH12	Pothole	12/3/2021	0.0
PH13	Pothole	12/3/2021	0.1
PH14	Pothole	12/3/2021	0.0
PH15	Pothole	12/3/2021	0.0
PH16	Pothole	12/3/2021	0.1
PH17	Pothole	12/3/2021	0.1
PH18	Pothole	12/6/2021	0.0
PH19	Pothole	12/6/2021	0.0
PH20	Pothole	12/6/2021	0.0
Native-BG01@1'	Background	10/19/2021	NA
Native-BG02@1'	Background	10/19/2021	NA
Native-BG03@1'	Background	10/19/2021	NA

Notes:

PID - Photoionization Detector

ppm - parts per million

NA - Not Analyzed

TABLE 3  
GROUNDWATER ANALYTICAL RESULTS  
WADDELL 12-24 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>8,387,500</b>	<b>2,350,000</b>	<b>2,037,500</b>	
GW01	10/19/2021	<1.00	<1.00	<1.00	<1.00	<4.00	<1.00	<1.00	1,030,000	194,000	235,000	0.5
BG-GW01	10/19/2021	NA	NA	NA	NA	NA	NA	NA	6,710,000	1,880,000	1,630,000	1
BG-GW02	10/19/2021	NA	NA	NA	NA	NA	NA	NA	860,000	172,000	198,000	1

Notes: COGCC - Colorado Oil and Gas Conservation Commission

µg/L - micrograms per liter

ft bgs - feet below ground surface

< - less than laboratory reporting limit

NA - not analyzed/not available

Excavation groundwater depth is approximate

Total dissolved solids, chloride ion, and sulfate ion parameters based on background sample (BG-GW01) concentration x 1.25

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



October 26, 2021

WSP USA

Brian Sulzberger

4600 W. 60th Ave.

Arvada

CO

80003

**Project Name - KMG - Waddell 12-24 WH**

**Project Number - 31403177.171**

Attached are your analytical results for KMG - Waddell 12-24 WH received by Origins Laboratory, Inc. October 19, 2021. This project is associated with Origins project number Y110412-01.

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

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.171

Project: KMG - Waddell 12-24 WH

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S01@6"	Y110412-01	Soil	October 19, 2021 11:20	10/19/2021 17:30
W01@6"	Y110412-02	Soil	October 19, 2021 11:12	10/19/2021 17:30
B01@6.5'	Y110412-03	Soil	October 19, 2021 11:05	10/19/2021 17:30
GW01	Y110412-04	Water	October 19, 2021 11:10	10/19/2021 17:30
Native-BG01@1'	Y110412-05	Soil	October 19, 2021 11:29	10/19/2021 17:30
Native-BG02@1'	Y110412-06	Soil	October 19, 2021 11:37	10/19/2021 17:30
Native-BG03@1'	Y110412-07	Soil	October 19, 2021 11:48	10/19/2021 17:30
BG -GW01	Y110412-08	Water	October 19, 2021 11:20	10/19/2021 17:30
BG-GW02	Y110412-09	Water	October 19, 2021 11:30	10/19/2021 17:30

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.*



Date Results Needed \_\_\_\_\_

WSP USA

4600 W. 60th Ave.

Arvada

CO

80003

Brian Sulzberger

Project Number: 31403177.171

Project: KMG - Waddell 12-24 WH

Origins Laboratory

## Sample Receipt Checklist

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

Origins Work Order: 4110412

Client: WSP

Client Project ID: Waddell 12-24 WH

Checklist Completed by: KH

Shipped Via: HD

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

Date/time completed: 10/19/11

Airbill #: NA

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

Cooler Number/Temperature: 116-2 °C / \_\_\_\_\_ °C / \_\_\_\_\_ °C (Describe) \_\_\_\_\_ °C

Thermometer ID: TC03

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"/>		<u>same day</u>
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.

[Signature]  
Reviewed by (Project Manager)

4/16/12  
Date/Time Reviewed

Origins Laboratory, Inc.

[Signature]

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.

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.171  
Project: KMG - Waddell 12-24 WH

S01@6"

10/19/2021 11:20:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y110412-01 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	ND	0.201	mg/L	1	B1J2008	10/20/2021	10/21/2021	
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**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B1J1918	10/19/2021	10/20/2021	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	95.9 %	50-150		"	"	"
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**GBTEX+TMBs**

1,2,4-Trimethylbenzene	0.00324	0.00200	mg/kg	1	B1J1919	10/19/2021	10/20/2021	
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	0.614	0.200	"	"	"	"	"	
Xylenes, total	ND	0.00200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	99.8 %	70-130		"	"	"
Surrogate: Toluene-d8	98.4 %	70-130		"	"	"

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.171  
Project: KMG - Waddell 12-24 WH

S01@6"

10/19/2021 11:20:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y110412-01 (Soil)**

**GBTEX+TMBs**

Surrogate: 4-Bromofluorobenzene	104 %	70-130	B1J19 19	10/19/2021	10/20/2021
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**Metals by Saturated Paste**

Calcium	5.05	0.499	meq/L	10	[CALC]	10/20/2021	10/21/2021
Magnesium	ND	0.823	"	"	"	"	"
Sodium	7.17	0.435	"	"	"	"	"

**PAH by 8270D SIM**

1-Methylnaphthalene	0.000822	0.00033	0.00067	mg/Kg	1	L580523	10/21/2021	10/21/2021
2-Methylnaphthalene	0.00136	0.00039	0.00067	"	"	"	"	"
Acenaphthene	ND	0.0003	0.00067	"	"	"	"	"
Anthracene	ND	0.00033	0.00067	"	"	"	"	"
Benzo(a)anthracene	ND	0.00041	0.00067	"	"	"	"	"
Benzo(a)pyrene	ND	0.00014	0.00067	"	"	"	"	"
Benzo(b)fluoranthene	ND	0.00021	0.00067	"	"	"	"	"
Benzo(k)fluoranthene	ND	0.00013	0.00067	"	"	"	"	"
Chrysene	ND	0.00027	0.00067	"	"	"	"	"
Dibenz(a,h)anthracene	ND	0.00036	0.00067	"	"	"	"	"
Fluoranthene	ND	0.00039	0.00067	"	"	"	"	"
Fluorene	0.000735	0.00029	0.00067	"	"	"	"	"

Origins Laboratory, Inc.

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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.171  
Project: KMG - Waddell 12-24 WH

S01@6"

10/19/2021 11:20:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Waypoint Analytical, Inc.**  
Y110412-01 (Soil)

**PAH by 8270D SIM**

Indeno(1,2,3-cd)pyrene	ND	0.00029	0.00067	mg/Kg	1	L580523	10/21/2021	10/21/2021
Naphthalene	ND	0.000467	0.00067	"	"	"	"	"
Pyrene	ND	0.00059	0.00067	"	"	"	"	"

Surrogate: 2-Fluorobiphenyl	85 %	33-115	"	"	"
Surrogate: 4-Terphenyl-d14	66.7 %	33-122	"	"	"
Surrogate: Nitrobenzene-d5	65.2 %	29-110	"	"	"

**pH in Soil by 9045D**

pH	9.18	pH Units	1	B1J2018	10/20/2021	10/21/2021
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**SAR by 20B Saturated Paste**

SAR	4.19	SAR	1	B1J2007	10/20/2021	10/21/2021
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**Specific Conductance Mod. 9050A**

Specific Conductance (EC)	1.79	0.00500	mmhos/cm	1	B1J2020	10/20/2021	10/21/2021
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**Total Metals by 6020B**

Arsenic	0.8	0.0855	0.25	mg/Kg	5	L580554	10/21/2021	10/25/2021
Barium	8.65	0.042	0.25	"	"	"	"	"

Origins Laboratory, Inc.



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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.171

Project: KMG - Waddell 12-24 WH

S01@6"

10/19/2021 11:20:00AM

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

Y110412-01 (Soil)

## Total Metals by 6020B

Cadmium	0.0401	0.0259	0.25	mg/Kg	5	L580554	10/21/2021	10/25/2021	J
Copper	2.09	0.0806	0.25	"	"	"	"	"	
Lead	2.44	0.031	0.25	"	"	"	"	"	
Nickel	2.13	0.0633	0.25	"	"	"	"	"	
Selenium	0.391	0.103	0.25	"	"	"	"	"	
Silver	ND	0.0067	0.25	"	"	"	"	"	
Zinc	11.2	0.534	2.5	"	"	"	"	"	

## Total Metals by 7196A

Chromium, Hexavalent	ND	0.251	0.515	mg/Kg	1	L580692	10/19/2021	10/22/2021	
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Origins Laboratory, Inc.

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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.171  
Project: KMG - Waddell 12-24 WH

W01@6"

10/19/2021 11:12:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y110412-02 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	0.742	0.201	mg/L	1	B1J2008	10/20/2021	10/21/2021	
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**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B1J1918	10/19/2021	10/20/2021	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	94.1 %	50-150	"	"	"
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**GBTEX+TMBs**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B1J1919	10/19/2021	10/20/2021	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	0.394	0.200	"	"	"	"	"	
Xylenes, total	ND	0.00200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	93.8 %	70-130	"	"	"
Surrogate: Toluene-d8	101 %	70-130	"	"	"

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.171  
Project: KMG - Waddell 12-24 WH

W01@6"

10/19/2021 11:12:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y110412-02 (Soil)

## GBTEX+TMBs

Surrogate: 4-Bromofluorobenzene	112 %	70-130	B1J19 19	10/19/2021	10/20/2021
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## Metals by Saturated Paste

Calcium	4.36	0.499	meq/L	10	[CALC]	10/20/2021	10/21/2021
Magnesium	1.32	0.823	"	"	"	"	"
Sodium	10.4	0.435	"	"	"	"	"

## PAH by 8270D SIM

1-Methylnaphthalene	0.007	0.00165	0.00335	mg/Kg	5	L580523	10/21/2021	10/21/2021	
2-Methylnaphthalene	0.0107	0.00195	0.00335	"	"	"	"	"	
Acenaphthene	ND	0.0015	0.00335	"	"	"	"	"	
Anthracene	ND	0.00165	0.00335	"	"	"	"	"	
Benzo(a)anthracene	ND	0.00205	0.00335	"	"	"	"	"	
Benzo(a)pyrene	ND	0.0007	0.00335	"	"	"	"	"	
Benzo(b)fluoranthene	ND	0.00105	0.00335	"	"	"	"	"	
Benzo(k)fluoranthene	ND	0.00065	0.00335	"	"	"	"	"	
Chrysene	0.00208	0.00135	0.00335	"	"	"	"	"	J
Dibenz(a,h)anthracene	ND	0.0018	0.00335	"	"	"	"	"	
Fluoranthene	ND	0.00195	0.00335	"	"	"	"	"	
Fluorene	0.00526	0.00145	0.00335	"	"	"	"	"	

Origins Laboratory, Inc.

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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.171  
Project: KMG - Waddell 12-24 WH

W01@6"

10/19/2021 11:12:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Waypoint Analytical, Inc.**  
**Y110412-02 (Soil)**

**PAH by 8270D SIM**

Indeno(1,2,3-cd)pyrene	ND	0.00145	0.00335	mg/Kg	5	L580523	10/21/2021	10/21/2021	
Naphthalene	0.00255	0.00234	0.00335	"	"	"	"	"	J
Pyrene	ND	0.00295	0.00335	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	93.4 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	101 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	66.7 %		29-110			"	"	"	

**pH in Soil by 9045D**

pH	8.71			pH Units	1	B1J2018	10/20/2021	10/21/2021	
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**SAR by 20B Saturated Paste**

SAR	6.20			SAR	1	B1J2007	10/20/2021	10/21/2021	
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**Specific Conductance Mod. 9050A**

Specific Conductance (EC)	2.41		0.00500	mmhos/cm	1	B1J2020	10/20/2021	10/21/2021	
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**Total Metals by 6020B**

Arsenic	1.43	0.0855	0.25	mg/Kg	5	L580554	10/21/2021	10/25/2021	
Barium	25.7	0.042	0.25	"	"	"	"	"	

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.171  
Project: KMG - Waddell 12-24 WH

W01@6"

10/19/2021 11:12:00AM

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

Y110412-02 (Soil)

## Total Metals by 6020B

Cadmium	0.134	0.0259	0.25	mg/Kg	5	L580554	10/21/2021	10/25/2021	J
Copper	7.44	0.0806	0.25	"	"	"	"	"	
Lead	8.09	0.031	0.25	"	"	"	"	"	
Nickel	3.78	0.0633	0.25	"	"	"	"	"	
Selenium	0.3	0.103	0.25	"	"	"	"	"	
Silver	0.0149	0.0067	0.25	"	"	"	"	"	J
Zinc	26.7	0.534	2.5	"	"	"	"	"	

## Total Metals by 7196A

Chromium, Hexavalent	ND	1.22	2.51	mg/Kg	5	L580692	10/19/2021	10/22/2021	
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Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.171  
Project: KMG - Waddell 12-24 WH

B01@6.5'

10/19/2021 11:05:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y110412-03 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	1.25	0.198	mg/L	1	B1J2008	10/20/2021	10/21/2021	
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**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B1J1918	10/19/2021	10/20/2021	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	89.4 %	50-150			"	"	"	
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**GBTEX+TMBs**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B1J1919	10/19/2021	10/20/2021	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	"	"	U
Xylenes, total	ND	0.00200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	101 %	70-130			"	"	"	
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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.171

Project: KMG - Waddell 12-24 WH

B01@6.5'

10/19/2021 11:05:00AM

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

Y110412-03 (Soil)

## GBTEX+TMBs

Surrogate: Toluene-d8	98.4 %	70-130	B1J19 19	10/19/2021	10/20/2021
Surrogate: 4-Bromofluorobenzene	104 %	70-130	"	"	"

## Metals by Saturated Paste

Calcium	1.68	0.499	meq/L	10	[CALC]	10/20/2021	10/21/2021
Magnesium	1.21	0.823	"	"	"	"	"
Sodium	12.3	0.435	"	"	"	"	"

## PAH by 8270D SIM

1-Methylnaphthalene	0.00239	0.00165	0.00335	mg/Kg	5	L580523	10/21/2021	10/21/2021	J
2-Methylnaphthalene	0.00459	0.00195	0.00335	"	"	"	"	"	
Acenaphthene	ND	0.0015	0.00335	"	"	"	"	"	
Anthracene	ND	0.00165	0.00335	"	"	"	"	"	
Benzo(a)anthracene	ND	0.00205	0.00335	"	"	"	"	"	
Benzo(a)pyrene	ND	0.0007	0.00335	"	"	"	"	"	
Benzo(b)fluoranthene	ND	0.00105	0.00335	"	"	"	"	"	
Benzo(k)fluoranthene	ND	0.00065	0.00335	"	"	"	"	"	
Chrysene	ND	0.00135	0.00335	"	"	"	"	"	
Dibenz(a,h)anthracene	ND	0.0018	0.00335	"	"	"	"	"	
Fluoranthene	ND	0.00195	0.00335	"	"	"	"	"	

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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.171  
Project: KMG - Waddell 12-24 WH

B01@6.5'

10/19/2021 11:05:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Waypoint Analytical, Inc.**  
Y110412-03 (Soil)

**PAH by 8270D SIM**

Fluorene	ND	0.00145	0.00335	mg/Kg	5	L580523	10/21/2021	10/21/2021
Indeno(1,2,3-cd)pyrene	ND	0.00145	0.00335	"	"	"	"	"
Naphthalene	ND	0.00234	0.00335	"	"	"	"	"
Pyrene	ND	0.00295	0.00335	"	"	"	"	"

Surrogate: 2-Fluorobiphenyl	88 %	33-115	"	"	"
Surrogate: 4-Terphenyl-d14	95.8 %	33-122	"	"	"
Surrogate: Nitrobenzene-d5	75.7 %	29-110	"	"	"

**pH in Soil by 9045D**

pH	8.59	pH Units	1	B1J2018	10/20/2021	10/21/2021
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**SAR by 20B Saturated Paste**

SAR	10.2	SAR	1	B1J2007	10/20/2021	10/21/2021
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**Specific Conductance Mod. 9050A**

Specific Conductance (EC)	2.43	0.00500	mmhos/cm	1	B1J2020	10/20/2021	10/21/2021
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**Total Metals by 6020B**

Arsenic	0.444	0.0855	0.25	mg/Kg	5	L580554	10/21/2021	10/25/2021
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Origins Laboratory, Inc.



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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.171

Project: KMG - Waddell 12-24 WH

B01@6.5'

10/19/2021 11:05:00AM

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

Y110412-03 (Soil)

## Total Metals by 6020B

Barium	12.5	0.042	0.25	mg/Kg	5	L580554	10/21/2021	10/25/2021	
Cadmium	0.0269	0.0259	0.25	"	"	"	"	"	J
Copper	2.28	0.0806	0.25	"	"	"	"	"	
Lead	1.84	0.031	0.25	"	"	"	"	"	
Nickel	1.25	0.0633	0.25	"	"	"	"	"	
Selenium	0.16	0.103	0.25	"	"	"	"	"	J
Silver	0.0101	0.0067	0.25	"	"	"	"	"	J
Zinc	8.8	0.534	2.5	"	"	"	"	"	

## Total Metals by 7196A

Chromium, Hexavalent	ND	1.22	2.5	mg/Kg	5	L580692	10/19/2021	10/22/2021	
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Origins Laboratory, Inc.

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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.171  
Project: KMG - Waddell 12-24 WH

## GW01

10/19/2021 11:10:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y110412-04 (Water)

### Anions by IC 300.0

Chloride	194	31.2	mg/L	125	B1J2002	10/20/2021	10/20/2021	
Sulfate	235	31.2	"	"	"	"	"	

### BTEX+N+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	1.00	ug/L	1	B1J1903	10/19/2021	10/20/2021	U
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	U
Benzene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Naphthalene	ND	4.00	"	"	"	"	"	U
Toluene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	103 %	70-130	"	"	"
Surrogate: Toluene-d8	101 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	97.1 %	70-130	"	"	"

### Total Dissolved Solids by 2540C

Total Dissolved Solids	1030	5.00	mg/L	1	B1J2001	10/20/2021	10/20/2021
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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.

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.171  
Project: KMG - Waddell 12-24 WH

**Native-BG01@1'**  
**10/19/2021 11:29:00AM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y110412-05 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	0.864	0.201	mg/L	1	B1J2008	10/20/2021	10/21/2021
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**Metals by Saturated Paste**

Calcium	8.03	0.499	meq/L	10	[CALC]	10/20/2021	10/21/2021
Magnesium	6.89	0.823	"	"	"	"	"
Sodium	36.4	0.435	"	"	"	"	"

**pH in Soil by 9045D**

pH	7.97		pH Units	1	B1J2018	10/20/2021	10/21/2021
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**SAR by 20B Saturated Paste**

SAR	13.3		SAR	1	B1J2007	10/20/2021	10/21/2021
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**Specific Conductance Mod. 9050A**

Specific Conductance (EC)	6.34	0.00500	mmhos/cm	1	B1J2020	10/20/2021	10/21/2021
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**Total Metals by 6020B**

Arsenic	1.09	0.0855	0.25	mg/Kg	5	L580554	10/21/2021	10/25/2021
Barium	35.1	0.042	0.25	"	"	"	"	"
Cadmium	0.0795	0.0259	0.25	"	"	"	"	"
Copper	4.43	0.0806	0.25	"	"	"	"	"

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Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.171  
Project: KMG - Waddell 12-24 WH

Native-BG01@1'  
10/19/2021 11:29:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.  
Y110412-05 (Soil)

## Total Metals by 6020B

Lead	6.03	0.031	0.25	mg/Kg	5	L580554	10/21/2021	10/25/2021	
Nickel	2.63	0.0633	0.25	"	"	"	"	"	
Selenium	0.346	0.103	0.25	"	"	"	"	"	
Silver	0.0233	0.0067	0.25	"	"	"	"	"	J
Zinc	21	0.534	2.5	"	"	"	"	"	

## Total Metals by 7196A

Chromium, Hexavalent	ND	1.23	2.52	mg/Kg	5	L580692	10/19/2021	10/22/2021	
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Brian Sulzberger  
Project Number: 31403177.171  
Project: KMG - Waddell 12-24 WH

**Native-BG02@1'**  
**10/19/2021 11:37:00AM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y110412-06 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	0.635	0.198	mg/L	1	B1J2008	10/20/2021	10/21/2021
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**Metals by Saturated Paste**

Calcium	8.17	0.499	meq/L	10	[CALC]	10/20/2021	10/21/2021
Magnesium	3.81	0.823	"	"	"	"	"
Sodium	26.9	0.435	"	"	"	"	"

**pH in Soil by 9045D**

pH	8.14		pH Units	1	B1J2018	10/20/2021	10/21/2021
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**SAR by 20B Saturated Paste**

SAR	11.0		SAR	1	B1J2007	10/20/2021	10/21/2021
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**Specific Conductance Mod. 9050A**

Specific Conductance (EC)	4.62	0.00500	mmhos/cm	1	B1J2020	10/20/2021	10/21/2021
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**Total Metals by 6020B**

Arsenic	0.562	0.0855	0.25	mg/Kg	5	L580554	10/21/2021	10/25/2021
Barium	40.8	0.042	0.25	"	"	"	"	"
Cadmium	0.0701	0.0259	0.25	"	"	"	"	"
Copper	4.57	0.0806	0.25	"	"	"	"	"

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Brian Sulzberger  
Project Number: 31403177.171  
Project: KMG - Waddell 12-24 WH

**Native-BG02@1'**  
**10/19/2021 11:37:00AM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Waypoint Analytical, Inc.**  
**Y110412-06 (Soil)**

**Total Metals by 6020B**

Lead	4.67	0.031	0.25	mg/Kg	5	L580554	10/21/2021	10/25/2021	
Nickel	2.86	0.0633	0.25	"	"	"	"	"	
Selenium	0.353	0.103	0.25	"	"	"	"	"	
Silver	0.024	0.0067	0.25	"	"	"	"	"	J
Zinc	22.8	0.534	2.5	"	"	"	"	"	

**Total Metals by 7196A**

Chromium, Hexavalent	ND	0.245	0.504	mg/Kg	1	L580692	10/19/2021	10/22/2021	
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Project: KMG - Waddell 12-24 WH

**Native-BG03@1'**  
**10/19/2021 11:48:00AM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y110412-07 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	ND	0.201	mg/L	1	B1J2008	10/20/2021	10/21/2021
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**Metals by Saturated Paste**

Calcium	1.77	0.499	meq/L	10	[CALC]	10/20/2021	10/21/2021
Magnesium	0.856	0.823	"	"	"	"	"
Sodium	3.71	0.435	"	"	"	"	"

**pH in Soil by 9045D**

pH	7.81	pH Units	1	B1J2018	10/20/2021	10/21/2021
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**SAR by 20B Saturated Paste**

SAR	3.23	SAR	1	B1J2007	10/20/2021	10/21/2021
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**Specific Conductance Mod. 9050A**

Specific Conductance (EC)	0.867	0.00500	mmhos/cm	1	B1J2020	10/20/2021	10/21/2021
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**Total Metals by 6020B**

Arsenic	0.294	0.0855	0.25	mg/Kg	5	L580554	10/21/2021	10/25/2021
Barium	23.9	0.042	0.25	"	"	"	"	"
Cadmium	0.0892	0.0259	0.25	"	"	"	"	"
Copper	7.17	0.0806	0.25	"	"	"	"	"

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Brian Sulzberger  
Project Number: 31403177.171  
Project: KMG - Waddell 12-24 WH

**Native-BG03@1'**  
**10/19/2021 11:48:00AM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Waypoint Analytical, Inc.**  
**Y110412-07 (Soil)**

**Total Metals by 6020B**

Lead	4.69	0.031	0.25	mg/Kg	5	L580554	10/21/2021	10/25/2021	
Nickel	1.61	0.0633	0.25	"	"	"	"	"	
Selenium	0.365	0.103	0.25	"	"	"	"	"	
Silver	0.0284	0.0067	0.25	"	"	"	"	"	J
Zinc	30.7	0.534	2.5	"	"	"	"	"	

**Total Metals by 7196A**

Chromium, Hexavalent	ND	1.22	2.5	mg/Kg	5	L580692	10/19/2021	10/22/2021	
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Project Number: 31403177.171

Project: KMG - Waddell 12-24 WH

**BG -GW01**

**10/19/2021 11:20:00AM**

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

**Y110412-08 (Water)**

**Anions by IC 300.0**

Chloride	1880	31.2	mg/L	125	B1J2002	10/20/2021	10/20/2021
Sulfate	1630	31.2	"	"	"	"	"

**Total Dissolved Solids by 2540C**

Total Dissolved Solids	6710	5.00	"	1	B1J2015	10/20/2021	10/22/2021
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Project Number: 31403177.171  
Project: KMG - Waddell 12-24 WH

**BG-GW02**

**10/19/2021 11:30:00AM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y110412-09 (Water)**

**Anions by IC 300.0**

Chloride	172		31.2	mg/L	125	B1J2002	10/20/2021	10/20/2021	
Sulfate	198		31.2	"	"	"	"	"	

**Total Dissolved Solids by 2540C**

Total Dissolved Solids	860		5.00	"	1	B1J2015	10/20/2021	10/22/2021	
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Project Number: 31403177.171  
Project: KMG - Waddell 12-24 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 B1J1903 - EPA 5030B (Water)</b>										
<b>Blank (B1J1903-BLK1)</b>					Prepared: 10/19/2021 Analyzed: 10/19/2021					
1,2,4-Trimethylbenzene	ND	1.00	ug/L							U
1,3,5-Trimethylbenzene	ND	1.00	"							U
Benzene	ND	1.00	"							U
Ethylbenzene	ND	1.00	"							U
Naphthalene	ND	4.00	"							U
Toluene	ND	1.00	"							U
Xylenes, total	ND	1.00	"							U
Surrogate: 1,2-Dichloroethane-d4	62		"	62.5		99.2	70-130			
Surrogate: Toluene-d8	65		"	62.5		104	70-130			
Surrogate: 4-Bromofluorobenzene	57		"	62.5		91.9	70-130			

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Project Number: 31403177.171  
Project: KMG - Waddell 12-24 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 B1J1903 - EPA 5030B (Water)**

**LCS (B1J1903-BS1)**

Prepared: 10/19/2021 Analyzed: 10/19/2021

1,2,4-Trimethylbenzene	47.1	1.00	ug/L	50.0		94.1	70-130			
1,3,5-Trimethylbenzene	48.2	1.00	"	50.0		96.3	70-130			
Benzene	47.9	1.00	"	50.0		95.7	70-130			
Ethylbenzene	52.0	1.00	"	50.0		104	70-130			
m,p-Xylene	104	2.00	"	100		104	70-130			
Naphthalene	57.0	4.00	"	50.0		114	70-130			
o-Xylene	49.5	1.00	"	50.0		99.0	70-130			
Toluene	50.6	1.00	"	50.0		101	70-130			
Surrogate: 1,2-Dichloroethane-d4	65		"	62.5		103	70-130			
Surrogate: Toluene-d8	64		"	62.5		103	70-130			
Surrogate: 4-Bromofluorobenzene	59		"	62.5		94.1	70-130			

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Project Number: 31403177.171  
Project: KMG - Waddell 12-24 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 B1J1903 - EPA 5030B (Water)**

Matrix Spike (B1J1903-MS1)		Source: Y110374-03			Prepared: 10/19/2021 Analyzed: 10/19/2021					
1,2,4-Trimethylbenzene	50.7	1.00	ug/L	50.0	ND	101	70-130			
1,3,5-Trimethylbenzene	52.4	1.00	"	50.0	ND	105	70-130			
Benzene	52.4	1.00	"	50.0	ND	105	70-130			
Ethylbenzene	55.2	1.00	"	50.0	ND	110	70-130			
m,p-Xylene	111	2.00	"	100	ND	111	70-130			
Naphthalene	60.1	4.00	"	50.0	0.920	118	70-130			
o-Xylene	51.9	1.00	"	50.0	ND	104	70-130			
Toluene	52.8	1.00	"	50.0	ND	106	70-130			
Surrogate: 1,2-Dichloroethane-d4	69		"	62.5		111	70-130			
Surrogate: Toluene-d8	63		"	62.5		100	70-130			
Surrogate: 4-Bromofluorobenzene	59		"	62.5		94.2	70-130			

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Project: KMG - Waddell 12-24 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 B1J1903 - EPA 5030B (Water)</b>										
<b>Matrix Spike Dup (B1J1903-MSD1)</b>		<b>Source: Y110374-03</b>			Prepared: 10/19/2021 Analyzed: 10/19/2021					
1,2,4-Trimethylbenzene	48.9	1.00	ug/L	50.0	ND	97.7	70-130	3.73	20	
1,3,5-Trimethylbenzene	50.8	1.00	"	50.0	ND	102	70-130	3.24	20	
Benzene	51.1	1.00	"	50.0	ND	102	70-130	2.43	20	
Ethylbenzene	54.4	1.00	"	50.0	ND	109	70-130	1.51	20	
m,p-Xylene	108	2.00	"	100	ND	108	70-130	2.66	20	
Naphthalene	56.8	4.00	"	50.0	0.920	112	70-130	5.51	20	
o-Xylene	49.8	1.00	"	50.0	ND	99.7	70-130	3.97	20	
Toluene	52.1	1.00	"	50.0	ND	104	70-130	1.28	20	
Surrogate: 1,2-Dichloroethane-d4	67		"	62.5		108	70-130			
Surrogate: Toluene-d8	64		"	62.5		102	70-130			
Surrogate: 4-Bromofluorobenzene	59		"	62.5		94.6	70-130			

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Brian Sulzberger

Project Number: 31403177.171

Project: KMG - Waddell 12-24 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 B1J1918 - EPA 3550B

#### Blank (B1J1918-BLK1)

Prepared: 10/19/2021 Analyzed: 10/19/2021

Diesel (C10-C28)	ND	25.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	100	"							U
Surrogate: o-Terphenyl	25		"	25.0		99.9	50-150			

Origins Laboratory, Inc.



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Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.171

Project: KMG - Waddell 12-24 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 B1J1918 - EPA 3550B

#### LCS (B1J1918-BS1)

Prepared: 10/19/2021 Analyzed: 10/19/2021

Diesel (C10-C28)	1040	50.0	mg/kg	1000		104	70-130			
Residual Range Organics (C28-C40)	1090	200	"	1000		109	70-130			
Surrogate: o-Terphenyl	51		"	50.0		102	50-150			

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Brian Sulzberger

Project Number: 31403177.171

Project: KMG - Waddell 12-24 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 B1J1918 - EPA 3550B

Matrix Spike (B1J1918-MS1)		Source: Y110406-01			Prepared: 10/19/2021 Analyzed: 10/19/2021					
Diesel (C10-C28)	999	50.0	mg/kg	1000	ND	99.9	70-130			
Residual Range Organics (C28-C40)	1060	200	"	1000	ND	106	70-130			
Surrogate: o-Terphenyl	47		"	50.0		93.9	50-150			

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Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.171

Project: KMG - Waddell 12-24 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 B1J1918 - EPA 3550B

Matrix Spike Dup (B1J1918-MSD1)		Source: Y110406-01			Prepared: 10/19/2021 Analyzed: 10/19/2021					
Diesel (C10-C28)	1010	50.0	mg/kg	1000	ND	101	70-130	0.740	35	
Residual Range Organics (C28-C40)	1050	200	"	1000	ND	105	70-130	0.722	35	
Surrogate: o-Terphenyl	46		"	50.0		92.2	50-150			

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Brian Sulzberger

Project Number: 31403177.171

Project: KMG - Waddell 12-24 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
<b>Batch B1J1919 - EPA 5030 (soil)</b>										
<b>Blank (B1J1919-BLK1)</b>					Prepared: 10/19/2021 Analyzed: 10/20/2021					
1,2,4-Trimethylbenzene	ND	0.00200	mg/kg							U
Naphthalene	ND	0.00380	"							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	0.12		"	0.125		94.9	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		101	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		102	70-130			

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Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.171  
Project: KMG - Waddell 12-24 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 B1J1919 - EPA 5030 (soil)</b>										
<b>LCS (B1J1919-BS1)</b>					Prepared: 10/19/2021 Analyzed: 10/20/2021					
1,2,4-Trimethylbenzene	0.105	0.00200	mg/kg	0.100		105	70-130			
Naphthalene	0.0809	0.0100	"	0.100		80.9	70-130			
1,3,5-Trimethylbenzene	0.104	0.00200	"	0.100		104	70-130			
Benzene	0.100	0.00200	"	0.100		100	70-130			
Ethylbenzene	0.104	0.00200	"	0.100		104	70-130			
m,p-Xylene	0.207	0.00400	"	0.200		104	70-130			
o-Xylene	0.106	0.00200	"	0.100		106	70-130			
Toluene	0.108	0.00200	"	0.100		108	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		89.0	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		102	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		101	70-130			

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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.171  
Project: KMG - Waddell 12-24 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 B1J1919 - EPA 5030 (soil)</b>										
<b>Matrix Spike (B1J1919-MS1)</b>		<b>Source: Y110406-01</b>			Prepared: 10/19/2021 Analyzed: 10/20/2021					
1,2,4-Trimethylbenzene	0.0989	0.00200	mg/kg	0.100	0.00100	97.9	70-130			
Naphthalene	0.0629	0.0100	"	0.100	ND	62.9	70-130			QM-07
1,3,5-Trimethylbenzene	0.0875	0.00200	"	0.100	0.000640	86.9	70-130			
Benzene	0.0858	0.00200	"	0.100	ND	85.8	70-130			
Ethylbenzene	0.0950	0.00200	"	0.100	ND	95.0	70-130			
m,p-Xylene	0.206	0.00400	"	0.200	0.00128	102	70-130			
o-Xylene	0.101	0.00200	"	0.100	ND	101	70-130			
Toluene	0.134	0.00200	"	0.100	ND	134	70-130			QM-07
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		92.5	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		101	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		98.8	70-130			

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Brian Sulzberger  
Project Number: 31403177.171  
Project: KMG - Waddell 12-24 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 B1J1919 - EPA 5030 (soil)</b>										
<b>Matrix Spike Dup (B1J1919-MSD1)</b>		<b>Source: Y110406-01</b>			Prepared: 10/19/2021 Analyzed: 10/20/2021					
1,2,4-Trimethylbenzene	0.108	0.00200	mg/kg	0.100	0.00100	107	70-130	9.06	20	QR-03
Naphthalene	0.0831	0.0100	"	0.100	ND	83.1	70-130	27.7	20	
1,3,5-Trimethylbenzene	0.105	0.00200	"	0.100	0.000640	105	70-130	18.4	20	
Benzene	0.103	0.00200	"	0.100	ND	103	70-130	17.8	20	
Ethylbenzene	0.107	0.00200	"	0.100	ND	107	70-130	12.0	20	
m,p-Xylene	0.217	0.00400	"	0.200	0.00128	108	70-130	5.10	20	
o-Xylene	0.109	0.00200	"	0.100	ND	109	70-130	7.53	20	
Toluene	0.116	0.00200	"	0.100	ND	116	70-130	14.2	20	
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		96.8	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		99.6	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		100	70-130			

Origins Laboratory, Inc.



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Brian Sulzberger  
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Project: KMG - Waddell 12-24 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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## 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 B1J2001 - NO PREP

##### Blank (B1J2001-BLK1)

Prepared: 10/20/2021 Analyzed: 10/20/2021

Total Dissolved Solids ND 5.00 mg/L

##### LCS (B1J2001-BS1)

Prepared: 10/20/2021 Analyzed: 10/20/2021

Total Dissolved Solids 996 5.00 mg/L 1000

99.6 85-115

##### Duplicate (B1J2001-DUP1)

Source: Y110412-04

Prepared: 10/20/2021 Analyzed: 10/20/2021

Total Dissolved Solids 1040 5.00 mg/L

1030 1.16 20

#### Batch B1J2002 - Filter .45um non acidified

##### Blank (B1J2002-BLK1)

Prepared: 10/20/2021 Analyzed: 10/20/2021

Chloride ND 0.250 mg/L

Sulfate ND 0.250 "

##### LCS (B1J2002-BS1)

Prepared: 10/20/2021 Analyzed: 10/20/2021

Chloride 4.04 0.250 mg/L 4.00

101 90-110

Sulfate 3.94 0.250 " 4.00

98.5 90-110

##### Matrix Spike (B1J2002-MS1)

Source: Y110412-08

Prepared: 10/20/2021 Analyzed: 10/20/2021

Chloride 2320 mg/L 500

1880 87.1 80-120

Sulfate 2060 " 500

1630 86.0 80-120

##### Matrix Spike Dup (B1J2002-MSD1)

Source: Y110412-08

Prepared: 10/20/2021 Analyzed: 10/20/2021

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Project: KMG - Waddell 12-24 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 B1J2002 - Filter .45um non acidified</b>										
<b>Matrix Spike Dup (B1J2002-MSD1)</b>			<b>Source: Y110412-08</b>		Prepared: 10/20/2021 Analyzed: 10/20/2021					
Chloride	2320		mg/L	500	1880	86.5	80-120	0.117	20	
Sulfate	2060		"	500	1630	86.1	80-120	0.00723	20	
<b>Batch B1J2015 - NO PREP</b>										
<b>Blank (B1J2015-BLK1)</b>			Prepared: 10/20/2021 Analyzed: 10/22/2021							
Total Dissolved Solids	ND	5.00	mg/L							
<b>LCS (B1J2015-BS1)</b>			Prepared: 10/20/2021 Analyzed: 10/22/2021							
Total Dissolved Solids	966	5.00	mg/L	1000		96.6	85-115			
<b>Duplicate (B1J2015-DUP1)</b>			<b>Source: Y110400-11</b>		Prepared: 10/20/2021 Analyzed: 10/22/2021					
Total Dissolved Solids	1430	5.00	mg/L		1470			2.28	20	

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Project: KMG - Waddell 12-24 WH

## 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 B1J2018 - NO PREP</b>										
<b>Duplicate (B1J2018-DUP1)</b>	<b>Source: Y110411-02</b>				Prepared: 10/20/2021 Analyzed: 10/21/2021					
pH	8.20		pH Units		8.27			0.850	25	
<b>Batch B1J2020 - NO PREP</b>										
<b>Blank (B1J2020-BLK1)</b>					Prepared: 10/20/2021 Analyzed: 10/21/2021					
Specific Conductance (EC)	0.00180	0.00500	mmhos/cm							
<b>Duplicate (B1J2020-DUP1)</b>	<b>Source: Y110411-02</b>				Prepared: 10/20/2021 Analyzed: 10/21/2021					
Specific Conductance (EC)	1.44	0.00500	mmhos/cm		1.54			6.81	25	

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Project: KMG - Waddell 12-24 WH

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch L580523 - 3550B**

MSD (L 88491-MSD-L580523)		Source: 88491			Prepared: 10/21/2021 Analyzed: 10/21/2021					
Fluoranthene	0.103	0.00039	mg/Kg	0.166	<0.000390	62	30-130	32.5	30	
Pyrene	0.102	0.00059	"	0.166	<0.000590	61.4	30-130	32.7	30	
Naphthalene	0.0804	0.000467	"	0.166	<0.000467	48.4	30-130	37	30	
Fluorene	0.0954	0.00029	"	0.166	<0.000290	57.4	30-130	35	30	
Dibenz(a,h)anthracene	0.0788	0.00036	"	0.166	<0.000360	47.4	30-130	44.5	30	
Chrysene	0.101	0.00027	"	0.166	<0.000270	60.8	30-130	35.1	30	
Benzo(k)fluoranthene	0.0828	0.00013	"	0.166	<0.000130	49.8	30-130	46.5	30	
1-Methylnaphthalene	0.0866	0.00033	"	0.166	<0.000330	52.1	30-130	35.5	30	
Indeno(1,2,3-cd)pyrene	0.0789	0.00029	"	0.166	<0.000290	47.5	30-130	37.2	30	
2-Methylnaphthalene	0.0883	0.00039	"	0.166	0.000639	53.1	30-130	34.4	30	
Benzo(b)fluoranthene	0.0892	0.00021	"	0.166	<0.000210	53.7	30-130	37.9	30	
Acenaphthene	0.0912	0.0003	"	0.166	<0.000300	54.9	30-130	34.3	30	
Anthracene	0.0978	0.00033	"	0.166	<0.000330	58.9	30-130	31.9	30	
Benzo(a)anthracene	0.104	0.00041	"	0.166	<0.000410	62.6	30-130	32.9	30	
Benzo(a)pyrene	0.104	0.00014	"	0.166	0.000203	62.6	30-130	36.8	30	
Surrogate: 2-Fluorobiphenyl	62.2		"	0.331	275	62.2	33-115			
Surrogate: Nitrobenzene-d5	48.3		"	0.331	213	48.3	29-110			
Surrogate: 4-Terphenyl-d14	55.2		"	0.331	224	55.2	33-122			

MS (L 88491-MS-L580523)		Source: 88491			Prepared: 10/21/2021 Analyzed: 10/21/2021					
Benzo(k)fluoranthene	0.133	0.00013	mg/Kg	0.167	<0.000130	79.6	30-130			
Benzo(b)fluoranthene	0.131	0.00021	"	0.167	<0.000210	78.4	30-130			
Naphthalene	0.117	0.000467	"	0.167	<0.000467	70	30-130			
Indeno(1,2,3-cd)pyrene	0.115	0.00029	"	0.167	<0.000290	68.8	30-130			
Fluorene	0.136	0.00029	"	0.167	<0.000290	81.4	30-130			
Fluoranthene	0.143	0.00039	"	0.167	<0.000390	85.6	30-130			
Dibenz(a,h)anthracene	0.124	0.00036	"	0.167	<0.000360	74.2	30-130			

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Brian Sulzberger  
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Project: KMG - Waddell 12-24 WH

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch L580523 - 3550B**

MS (L 88491-MS-L580523)		Source: 88491			Prepared: 10/21/2021 Analyzed: 10/21/2021					
1-Methylnaphthalene	0.124	0.00033	mg/Kg	0.167	<0.000330	74.2	30-130			
Benzo(a)pyrene	0.151	0.00014	"	0.167	0.000203	90.4	30-130			
Benzo(a)anthracene	0.145	0.00041	"	0.167	<0.000410	86.8	30-130			
Anthracene	0.135	0.00033	"	0.167	<0.000330	80.8	30-130			
Acenaphthene	0.129	0.0003	"	0.167	<0.000300	77.2	30-130			
2-Methylnaphthalene	0.125	0.00039	"	0.167	0.000639	74.8	30-130			
Chrysene	0.144	0.00027	"	0.167	<0.000270	86.2	30-130			
Pyrene	0.142	0.00059	"	0.167	<0.000590	85	30-130			
Surrogate: Nitrobenzene-d5	68.7		"	0.333	213	68.7	29-110			
Surrogate: 4-Terphenyl-d14	69		"	0.333	224	69	33-122			
Surrogate: 2-Fluorobiphenyl	90		"	0.333	275	90	33-115			

LCS (LCS-L580523)		Prepared: 10/21/2021 Analyzed: 10/21/2021								
Anthracene	0.12	0.00033	mg/Kg	0.167		71.8	30-130			
Acenaphthene	0.113	0.0003	"	0.167		67.6	30-130			
2-Methylnaphthalene	0.111	0.00039	"	0.167		66.4	30-130			
Pyrene	0.132	0.00059	"	0.167		79	30-130			
Indeno(1,2,3-cd)pyrene	0.11	0.00029	"	0.167		65.8	30-130			
1-Methylnaphthalene	0.111	0.00033	"	0.167		66.4	30-130			
Benzo(a)anthracene	0.13	0.00041	"	0.167		77.8	30-130			
Benzo(a)pyrene	0.131	0.00014	"	0.167		78.4	30-130			
Benzo(b)fluoranthene	0.118	0.00021	"	0.167		70.6	30-130			
Chrysene	0.127	0.00027	"	0.167		76	30-130			
Dibenz(a,h)anthracene	0.109	0.00036	"	0.167		65.2	30-130			
Naphthalene	0.103	0.000467	"	0.167		61.6	30-130			
Fluoranthene	0.132	0.00039	"	0.167		79	30-130			
Fluorene	0.119	0.00029	"	0.167		71.2	30-130			

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch L580523 - 3550B**

**LCS (LCS-L580523)**

Prepared: 10/21/2021 Analyzed: 10/21/2021

Benzo(k)fluoranthene	0.118	0.00013	mg/Kg	0.167		70.6	30-130			
Surrogate: Nitrobenzene-d5	69.3		"	0.333		69.3	29-110			
Surrogate: 4-Terphenyl-d14	84		"	0.333		84	33-122			
Surrogate: 2-Fluorobiphenyl	89.1		"	0.333		89.1	33-115			

**LRB (LRB-L580523)**

Prepared: 10/21/2021 Analyzed: 10/21/2021

Benzo(a)anthracene	ND	0.00067	mg/Kg				-			
Anthracene	ND	0.00067	"				-			
Pyrene	ND	0.00067	"				-			
2-Methylnaphthalene	ND	0.00067	"				-			
1-Methylnaphthalene	ND	0.00067	"				-			
Naphthalene	ND	0.00067	"				-			
Acenaphthene	ND	0.00067	"				-			
Benzo(a)pyrene	ND	0.00067	"				-			
Indeno(1,2,3-cd)pyrene	ND	0.00067	"				-			
Fluorene	ND	0.00067	"				-			
Fluoranthene	ND	0.00067	"				-			
Dibenz(a,h)anthracene	ND	0.00067	"				-			
Chrysene	ND	0.00067	"				-			
Benzo(k)fluoranthene	ND	0.00067	"				-			
Benzo(b)fluoranthene	ND	0.00067	"				-			
Surrogate: Nitrobenzene-d5	62.4		"	0.333		62.4	29-110			
Surrogate: 2-Fluorobiphenyl	78.3		"	0.333		78.3	33-115			
Surrogate: 4-Terphenyl-d14	61.5		"	0.333		61.5	33-122			

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## Total Metals by 6020B - Quality Control Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch L580554 - 3050B</b>										
<b>MSD (L 88526-MSD-L580554)</b>			<b>Source: 88526</b>		Prepared: 10/21/2021 Analyzed: 10/25/2021					
Barium	30.1	0.042	mg/Kg	4.85	19.7	214	75-125	6.1	80	*
Zinc	78.9	0.534	"	24.3	47.4	130	75-125	3	80	*
Silver	0.493	0.0067	"	0.485	0.04	102	75-125	1.4	80	
Selenium	3.48	0.103	"	4.85	0.449	62	75-125	5.3	80	*
Nickel	14.8	0.0633	"	2.43	11.2	148	75-125	1.3	80	*
Lead	14.5	0.031	"	2.43	11.3	132	75-125	4	80	*
Cadmium	0.554	0.0259	"	0.485	0.0634	114	75-125	6.5	80	
Arsenic	8.61	0.0855	"	2.43	5.16	142	75-125	7.2	80	*
Copper	12.1	0.0806	"	2.43	7.96	171	75-125	4.8	80	*
<b>MS (L 88526-MS-L580554)</b>			<b>Source: 88526</b>		Prepared: 10/21/2021 Analyzed: 10/25/2021					
Lead	15.1	0.031	mg/Kg	2.45	11.3	155	75-125			*
Arsenic	9.26	0.0855	"	2.45	5.16	167	75-125			*
Barium	32	0.042	"	4.9	19.7	251	75-125			*
Copper	12.7	0.0806	"	2.45	7.96	193	75-125			*
Nickel	14.6	0.0633	"	2.45	11.2	139	75-125			*
Selenium	3.67	0.103	"	4.9	0.449	66	75-125			*
Silver	0.5	0.0067	"	0.49	0.04	102	75-125			
Zinc	76.5	0.534	"	24.5	47.4	119	75-125			
Cadmium	0.519	0.0259	"	0.49	0.0634	106	75-125			
<b>LCS (LCS-L580554)</b>			Prepared: 10/21/2021 Analyzed: 10/25/2021							
Zinc	24.6	0.534	mg/Kg	25		98	80-120			
Barium	4.89	0.042	"	5		98	80-120			
Silver	0.475	0.0067	"	0.5		95	80-120			
Selenium	4.58	0.103	"	5		92	80-120			
Nickel	2.5	0.0633	"	2.5		100	80-120			

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Project: KMG - Waddell 12-24 WH

## Total Metals by 6020B - Quality Control Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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### Batch L580554 - 3050B

#### LCS (LCS-L580554)

Prepared: 10/21/2021 Analyzed: 10/25/2021

Lead	2.44	0.031	mg/Kg	2.5		98	80-120			
Copper	2.45	0.0806	"	2.5		98	80-120			
Cadmium	0.483	0.0259	"	0.5		97	80-120			
Arsenic	2.36	0.0855	"	2.5		94	80-120			

#### LRB (LRB-L580554)

Prepared: 10/21/2021 Analyzed: 10/25/2021

Silver	ND	0.25	mg/Kg				-			
Lead	ND	0.25	"				-			
Nickel	ND	0.25	"				-			
Zinc	ND	2.5	"				-			
Arsenic	ND	0.25	"				-			
Barium	ND	0.25	"				-			
Cadmium	ND	0.25	"				-			
Copper	ND	0.25	"				-			
Selenium	ND	0.25	"				-			

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch L580692 -</b>										
<b>DUP (L 88499-DUP)</b>	<b>Source: Y110412-01</b>				Prepared: Analyzed: 10/22/2021					
Chromium, Hexavalent	ND	0.244	mg/Kg		<0.502	-		0	20	
<b>MS (L 88499-MS)</b>	<b>Source: Y110412-01</b>				Prepared: Analyzed: 10/22/2021					
Chromium, Hexavalent	3.03	0.244	mg/Kg	8	<0.244	38	75-125			*
<b>LCS (LCS)</b>					Prepared: Analyzed: 10/22/2021					
Chromium, Hexavalent	6.18	0.244	mg/Kg	8		77	75-125			
<b>LRB (LRB)</b>					Prepared: Analyzed: 10/22/2021					
Chromium, Hexavalent	ND	0.5	mg/Kg				-			

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.*

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.171

Project: KMG - Waddell 12-24 WH

## Notes and Definitions

U Sample is Non-Detect.

QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.

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.

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.*



December 30, 2021

WSP USA

Brian Sulzberger

4600 W. 60th Ave.

Arvada

CO

80003

**Project Name - KMG - Waddell 12-24 WH**

**Project Number - 31403177.171**

Attached are your analytical results for KMG - Waddell 12-24 WH received by Origins Laboratory, Inc. December 17, 2021. This project is associated with Origins project number Y112436-01.

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

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.171

Project: KMG - Waddell 12-24 WH

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
W02@6"	Y112436-01	Soil	December 17, 2021 13:20	12/17/2021 15:39
S02@6"	Y112436-02	Soil	December 17, 2021 13:25	12/17/2021 15:39
E01@6"	Y112436-03	Soil	December 17, 2021 13:30	12/17/2021 15:39
N01@6"	Y112436-04	Soil	December 17, 2021 13:35	12/17/2021 15:39

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.*





WSP USA

4600 W. 60th Ave.

Arvada

CO

80003

Brian Sulzberger

Project Number: 31403177.171

Project: KMG - Waddell 12-24 WH

Origins Laboratory

F-012207-01-R1

Effective Date: 01/09/12

## Sample Receipt Checklist

Origins Work Order: 112436

Client: WSP

Client Project ID: Waddell 12-24

Checklist Completed by: YH

Shipped Via: HD

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

Date/time completed: 12/17/21

Airbill #: AD

Matrix(s) Received: (Check all that apply):

☒ Soil/Solid

☐ Water

☐ Other:

(Describe)

Cooler Number/Temperature: 1 / 5.1 °C

1 °C

1 °C

1 °C

Thermometer ID: 1003

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

Date/Time Reviewed

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.

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.171  
Project: KMG - Waddell 12-24 WH

W02@6"

12/17/2021 1:20:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.  
Y112436-01 (Soil)

## PAH by 8270D SIM

1-Methylnaphthalene	0.00505	0.00033	0.00067	mg/Kg	1	L591644	12/23/2021	12/27/2021
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Surrogate: 2-Fluorobiphenyl	35.2 %		33-115			"	"	"
Surrogate: 4-Terphenyl-d14	43.7 %		33-122			"	"	"
Surrogate: Nitrobenzene-d5	29 %		29-110			"	"	"

## Total Metals by 6020B

Arsenic	0.469	0.0855	0.25	mg/Kg	5	L591233	12/21/2021	12/27/2021
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Origins Laboratory, Inc.



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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.171

Project: KMG - Waddell 12-24 WH

S02@6"

12/17/2021 1:25:00PM

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

Y112436-02 (Soil)

## pH in Soil by 9045D

pH	7.67			pH Units	1	B1L1718	12/17/2021	12/21/2021	
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## Total Metals by 6020B

Selenium	0.251	0.103	0.25	mg/Kg	5	L591233	12/21/2021	12/27/2021	
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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.

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.171  
Project: KMG - Waddell 12-24 WH

E01@6"

12/17/2021 1:30:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y112436-03 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	0.278	0.199	mg/L	1	B1L1716	12/17/2021	12/20/2021	
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**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B1L1721	12/17/2021	12/17/2021	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	63.9 %	50-150	"	"	"
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**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B1L1720	12/17/2021	12/17/2021	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	3.08	0.200	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	95.8 %	70-130	"	"	"
Surrogate: Toluene-d8	94.0 %	70-130	"	"	"

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.

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.171  
Project: KMG - Waddell 12-24 WH

E01@6"

12/17/2021 1:30:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y112436-03 (Soil)**

**GBTEX+TMBs by 8260D**

Surrogate: 4-Bromofluorobenzene	99.7 %	70-130	B1L17 20	12/17/2021	12/17/2021
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**Metals by Saturated Paste by EPA 6010**

Calcium	0.818	0.499	meq/L	10	[CALC]	12/17/2021	12/21/2021
Magnesium	ND	0.823	"	"	"	"	"
Sodium	4.68	0.435	"	"	"	"	"

**PAH by 8270D SIM**

1-Methylnaphthalene	ND	0.00033	0.00067	mg/Kg	1	L591644	12/23/2021	12/27/2021	
2-Methylnaphthalene	ND	0.00039	0.00067	"	"	"	"	"	
Acenaphthene	ND	0.0003	0.00067	"	"	"	"	"	
Anthracene	ND	0.00033	0.00067	"	"	"	"	"	
Benzo(a)anthracene	ND	0.00041	0.00067	"	"	"	"	"	
Benzo(a)pyrene	0.000459	0.00024	0.00067	"	"	"	"	"	J
Benzo(b)fluoranthene	0.000267	0.00021	0.00067	"	"	"	"	"	J
Benzo(k)fluoranthene	ND	0.00013	0.00067	"	"	"	"	"	
Chrysene	ND	0.00027	0.00067	"	"	"	"	"	
Dibenz(a,h)anthracene	ND	0.00036	0.00067	"	"	"	"	"	
Fluoranthene	ND	0.00039	0.00067	"	"	"	"	"	
Fluorene	ND	0.00029	0.00067	"	"	"	"	"	

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.

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.171  
Project: KMG - Waddell 12-24 WH

E01@6"

12/17/2021 1:30:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Waypoint Analytical, Inc.**  
**Y112436-03 (Soil)**

**PAH by 8270D SIM**

Indeno(1,2,3-cd)pyrene	0.000342	0.00029	0.00067	mg/Kg	1	L591644	12/23/2021	12/27/2021	J
Naphthalene	ND	0.000467	0.00067	"	"	"	"	"	
Pyrene	ND	0.00059	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	45 %	33-115	"	"	"
Surrogate: 4-Terphenyl-d14	53.8 %	33-122	"	"	"
Surrogate: Nitrobenzene-d5	37.5 %	29-110	"	"	"

**pH in Soil by 9045D**

pH	8.15	pH Units	1	B1L1718	12/17/2021	12/21/2021
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**SAR by 20B Saturated Paste**

SAR	5.97	SAR	1	B1L1715	12/17/2021	12/21/2021
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**Specific Conductance Mod. 9050A**

Specific Conductance (EC)	1.71	0.00500	mmhos/cm	1	B1L1717	12/17/2021	12/21/2021
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**Total Metals by 6020B**

Arsenic	0.425	0.0855	0.25	mg/Kg	5	L591233	12/21/2021	12/27/2021
Barium	27	0.042	0.25	"	"	"	"	"

Origins Laboratory, Inc.



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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.171

Project: KMG - Waddell 12-24 WH

E01@6"

12/17/2021 1:30:00PM

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

Y112436-03 (Soil)

## Total Metals by 6020B

Cadmium	0.0509	0.0259	0.25	mg/Kg	5	L591233	12/21/2021	12/27/2021	J
Copper	2.81	0.0806	0.25	"	"	"	"	"	
Lead	3.54	0.031	0.25	"	"	"	"	"	
Nickel	1.36	0.0633	0.25	"	"	"	"	"	
Selenium	0.198	0.103	0.25	"	"	"	"	"	J
Silver	0.023	0.0067	0.25	"	"	"	"	"	J
Zinc	11.7	0.534	2.5	"	"	"	"	"	

## Total Metals by 7196A

Chromium, Hexavalent	ND	0.502	1.03	mg/Kg	2	L591522	12/17/2021	12/22/2021	
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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.

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.171  
Project: KMG - Waddell 12-24 WH

N01@6"

12/17/2021 1:35:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y112436-04 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	0.399	0.200	mg/L	1	B1L1716	12/17/2021	12/20/2021
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**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	40.1	25.0	mg/kg	1	B1L1721	12/17/2021	12/17/2021
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	U

Surrogate: o-Terphenyl	77.0 %	50-150	"	"	"
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**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	0.00432	0.00200	mg/kg	1	B1L1720	12/17/2021	12/17/2021
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	0.00270	0.00200	"	"	"	"	"
Gasoline Range Hydrocarbons	4.93	0.200	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	96.5 %	70-130	"	"	"
Surrogate: Toluene-d8	94.2 %	70-130	"	"	"

Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.171  
Project: KMG - Waddell 12-24 WH

N01@6"

12/17/2021 1:35:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y112436-04 (Soil)**

**GBTEX+TMBs by 8260D**

Surrogate: 4-Bromofluorobenzene	103 %	70-130	B1L17 20	12/17/2021	12/17/2021
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**Metals by Saturated Paste by EPA 6010**

Calcium	3.95	0.499	meq/L	10	[CALC]	12/17/2021	12/21/2021
Magnesium	ND	0.823	"	"	"	"	"
Sodium	4.51	0.435	"	"	"	"	"

**PAH by 8270D SIM**

1-Methylnaphthalene	0.00606	0.00033	0.00067	mg/Kg	1	L591799	12/27/2021	12/28/2021	
2-Methylnaphthalene	0.00884	0.00039	0.00067	"	"	"	"	"	
Acenaphthene	0.00183	0.0003	0.00067	"	"	"	"	"	
Anthracene	0.000725	0.00033	0.00067	"	"	"	"	"	
Benzo(a)anthracene	ND	0.00041	0.00067	"	"	"	"	"	
Benzo(a)pyrene	0.000473	0.00024	0.00067	"	"	"	"	"	J
Benzo(b)fluoranthene	0.000743	0.00021	0.00067	"	"	"	"	"	
Benzo(k)fluoranthene	ND	0.00013	0.00067	"	"	"	"	"	
Chrysene	0.00262	0.00027	0.00067	"	"	"	"	"	
Dibenz(a,h)anthracene	0.000495	0.00036	0.00067	"	"	"	"	"	J
Fluoranthene	0.000478	0.00039	0.00067	"	"	"	"	"	J
Fluorene	0.00461	0.00029	0.00067	"	"	"	"	"	
Indeno(1,2,3-cd)pyrene	0.000635	0.00029	0.00067	"	"	"	"	"	J

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.

WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.171  
Project: KMG - Waddell 12-24 WH

N01@6"

12/17/2021 1:35:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Waypoint Analytical, Inc.**  
**Y112436-04 (Soil)**

**PAH by 8270D SIM**

Naphthalene	0.00246	0.000467	0.00067	mg/Kg	1	L591799	12/27/2021	12/28/2021	
Pyrene	0.00293	0.00059	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	54.7 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	65.7 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	36.2 %		29-110			"	"	"	

**pH in Soil by 9045D**

pH	11.4			pH Units	1	B1L1718	12/17/2021	12/21/2021	
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**SAR by 20B Saturated Paste**

SAR	3.22			SAR	1	B1L1715	12/17/2021	12/21/2021	
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**Specific Conductance Mod. 9050A**

Specific Conductance (EC)	1.45		0.00500	mmhos/cm	1	B1L1717	12/17/2021	12/21/2021	
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**Total Metals by 6020B**

Arsenic	0.571	0.0855	0.25	mg/Kg	5	L591233	12/21/2021	12/27/2021	
Barium	33.6	0.042	0.25	"	"	"	"	"	
Cadmium	0.085	0.0259	0.25	"	"	"	"	"	J

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.

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.171

Project: KMG - Waddell 12-24 WH

N01@6"

12/17/2021 1:35:00PM

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

Y112436-04 (Soil)

### Total Metals by 6020B

Copper	5.03	0.0806	0.25	mg/Kg	5	L591233	12/21/2021	12/27/2021	
Lead	6.18	0.031	0.25	"	"	"	"	"	
Nickel	2.62	0.0633	0.25	"	"	"	"	"	
Selenium	0.258	0.103	0.25	"	"	"	"	"	
Silver	0.0221	0.0067	0.25	"	"	"	"	"	J
Zinc	21.5	0.534	2.5	"	"	"	"	"	

### Total Metals by 7196A

Chromium, Hexavalent	ND	1.23	2.52	mg/Kg	5	L591522	12/17/2021	12/22/2021	
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Origins Laboratory, Inc.



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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.171  
Project: KMG - Waddell 12-24 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 B1L1720 - EPA 5030 (soil)</b>										
<b>Blank (B1L1720-BLK1)</b>					Prepared: 12/17/2021 Analyzed: 12/17/2021					
1,2,4-Trimethylbenzene	ND	0.00200	mg/kg							U
Naphthalene	ND	0.0100	"							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	0.12		"	0.125		98.6	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		94.6	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		101	70-130			

Origins Laboratory, Inc.



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Brian Sulzberger

Project Number: 31403177.171

Project: KMG - Waddell 12-24 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 B1L1720 - EPA 5030 (soil)**

**LCS (B1L1720-BS1)**

Prepared: 12/17/2021 Analyzed: 12/17/2021

1,2,4-Trimethylbenzene	0.0984	0.00200	mg/kg	0.100		98.4	70-130			
Naphthalene	0.0985	0.0100	"	0.100		98.5	70-130			
1,3,5-Trimethylbenzene	0.0980	0.00200	"	0.100		98.0	70-130			
Benzene	0.0947	0.00200	"	0.100		94.7	70-130			
Ethylbenzene	0.0994	0.00200	"	0.100		99.4	70-130			
m,p-Xylene	0.201	0.00400	"	0.200		100	70-130			
o-Xylene	0.102	0.00200	"	0.100		102	70-130			
Toluene	0.0944	0.00200	"	0.100		94.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		91.8	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		96.0	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		101	70-130			

Origins Laboratory, Inc.



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Project Number: 31403177.171  
Project: KMG - Waddell 12-24 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 B1L1720 - EPA 5030 (soil)</b>										
<b>Matrix Spike (B1L1720-MS1)</b>		<b>Source: Y112436-03</b>			Prepared: 12/17/2021 Analyzed: 12/17/2021					
1,2,4-Trimethylbenzene	0.0958	0.00200	mg/kg	0.100	0.00124	94.6	70-130			
Naphthalene	0.0800	0.0100	"	0.100	0.00270	77.3	70-130			
1,3,5-Trimethylbenzene	0.0964	0.00200	"	0.100	0.000420	96.0	70-130			
Benzene	0.103	0.00200	"	0.100	ND	103	70-130			
Ethylbenzene	0.106	0.00200	"	0.100	ND	106	70-130			
m,p-Xylene	0.212	0.00400	"	0.200	0.00152	105	70-130			
o-Xylene	0.106	0.00200	"	0.100	ND	106	70-130			
Toluene	0.102	0.00200	"	0.100	ND	102	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		96.2	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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Project: KMG - Waddell 12-24 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 B1L1720 - EPA 5030 (soil)</b>										
<b>Matrix Spike Dup (B1L1720-MSD1)</b>		<b>Source: Y112436-03</b>			Prepared: 12/17/2021 Analyzed: 12/17/2021					
1,2,4-Trimethylbenzene	0.0767	0.00200	mg/kg	0.100	0.00124	75.4	70-130	22.2	20	QM-07
Naphthalene	0.0646	0.0100	"	0.100	0.00270	61.9	70-130	21.2	20	QM-07
1,3,5-Trimethylbenzene	0.0764	0.00200	"	0.100	0.000420	76.0	70-130	23.1	20	QM-07
Benzene	0.0929	0.00200	"	0.100	ND	92.9	70-130	10.1	20	
Ethylbenzene	0.0902	0.00200	"	0.100	ND	90.2	70-130	15.7	20	
m,p-Xylene	0.179	0.00400	"	0.200	0.00152	89.0	70-130	16.9	20	
o-Xylene	0.0899	0.00200	"	0.100	ND	89.9	70-130	16.3	20	
Toluene	0.0882	0.00200	"	0.100	ND	88.2	70-130	14.2	20	
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		95.7	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		94.9	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		103	70-130			

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WSP USA

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Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.171

Project: KMG - Waddell 12-24 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 B1L1721 - EPA 3580

Blank (B1L1721-BLK1)

Prepared: 12/17/2021 Analyzed: 12/17/2021

Diesel (C10-C28)	ND	25.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	100	"							U
Surrogate: o-Terphenyl	24		"	24.9		95.4	50-150			

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Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.171  
Project: KMG - Waddell 12-24 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 B1L1721 - EPA 3580

LCS (B1L1721-BS1)

Prepared: 12/17/2021 Analyzed: 12/17/2021

Diesel (C10-C28)	556	25.0	mg/kg	500		111	70-130			
Residual Range Organics (C28-C40)	563	100	"	500		113	70-130			
Surrogate: o-Terphenyl	26		"	24.9		105	50-150			

Origins Laboratory, Inc.



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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.171

Project: KMG - Waddell 12-24 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 B1L1721 - EPA 3580

Matrix Spike (B1L1721-MS1)		Source: Y112436-03			Prepared: 12/17/2021 Analyzed: 12/17/2021					
Diesel (C10-C28)	528	25.0	mg/kg	500	ND	106	70-130			
Residual Range Organics (C28-C40)	537	100	"	500	ND	107	70-130			
Surrogate: o-Terphenyl	26		"	24.9		105	50-150			

Origins Laboratory, Inc.



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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.171

Project: KMG - Waddell 12-24 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 B1L1721 - EPA 3580

Matrix Spike Dup (B1L1721-MSD1)		Source: Y112436-03			Prepared: 12/17/2021 Analyzed: 12/17/2021					
Diesel (C10-C28)	577	25.0	mg/kg	500	ND	115	70-130	8.94	35	
Residual Range Organics (C28-C40)	560	100	"	500	ND	112	70-130	4.05	35	
Surrogate: o-Terphenyl	25		"	24.9		102	50-150			

Origins Laboratory, Inc.



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Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.171  
Project: KMG - Waddell 12-24 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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## 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 B1L1717 - NO PREP

##### Blank (B1L1717-BLK1)

Prepared: 12/17/2021 Analyzed: 12/21/2021

Specific Conductance (EC) 0.000900 0.00500 mmhos/cm

##### Duplicate (B1L1717-DUP1)

Source: Y112415-02

Prepared: 12/17/2021 Analyzed: 12/21/2021

Specific Conductance (EC) 0.522 0.00500 mmhos/cm 0.514 1.60 25

#### Batch B1L1718 - NO PREP

##### Duplicate (B1L1718-DUP1)

Source: Y112415-02

Prepared: 12/17/2021 Analyzed: 12/21/2021

pH 7.82 pH Units 7.89 0.891 25

Origins Laboratory, Inc.



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Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.171  
Project: KMG - Waddell 12-24 WH

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch L591644 - 3550B**

MSD (L 85194-MSD-L591644)		Source: 85194			Prepared: 12/23/2021 Analyzed: 12/27/2021					
Chrysene	0.141	0.00027	mg/Kg	0.166	0.0232	70.9	30-130	11.2	30	
Pyrene	0.113	0.00059	"	0.166	0.0112	61.3	30-130	11.2	30	
Naphthalene	0.265	0.000467	"	0.166	0.142	74	30-130	19.4	30	
Indeno(1,2,3-cd)pyrene	0.195	0.00029	"	0.166	85194	117	30-130	18.4	30	
Fluorene	0.22	0.00029	"	0.166	0.0998	72.4	30-130	27.9	30	
Dibenz(a,h)anthracene	0.218	0.00036	"	0.166	0.000797	131	30-130	15.8	30	*
Benzo(k)fluoranthene	0.11	0.00013	"	0.166	85194	66.2	30-130	14.8	30	
Benzo(b)fluoranthene	0.0744	0.00021	"	0.166	0.000954	44.2	30-130	2.1	30	
Benzo(a)pyrene	0.115	0.00024	"	0.166	0.00243	67.8	30-130	3.5	30	
Benzo(a)anthracene	0.137	0.00041	"	0.166	0.00509	79.4	30-130	8.3	30	
Fluoranthene	0.0938	0.00039	"	0.166	0.00251	54.9	30-130	25.8	30	
1-Methylnaphthalene	0.68	0.00165	"	0.166	0.433	149	30-130	15.3	30	*
Anthracene	0.0432	0.00033	"	0.166	0.0068	21.9	30-130	2.3	30	*
Acenaphthene	0.152	0.0003	"	0.166	0.0368	69.3	30-130	23.5	30	
2-Methylnaphthalene	0.656	0.00039	"	0.166	0.448	125	30-130	20.1	30	
Surrogate: Nitrobenzene-d5	46		"	0.332	138	46	29-110			
Surrogate: 4-Terphenyl-d14	59		"	0.332	148	59	33-122			
Surrogate: 2-Fluorobiphenyl	53		"	0.332	139	53	33-115			

MS (L 85194-MS-L591644)		Source: 85194			Prepared: 12/23/2021 Analyzed: 12/27/2021					
Pyrene	0.101	0.00059	mg/Kg	0.166	0.0112	54	30-130			
Benzo(b)fluoranthene	0.0728	0.00021	"	0.166	0.000954	43.2	30-130			
Benzo(k)fluoranthene	0.0948	0.00013	"	0.166	85194	57.1	30-130			
Chrysene	0.126	0.00027	"	0.166	0.0232	61.9	30-130			
1-Methylnaphthalene	0.583	0.00033	"	0.166	0.433	90.3	30-130			
2-Methylnaphthalene	0.536	0.00039	"	0.166	0.448	53	30-130			
Benzo(a)anthracene	0.126	0.00041	"	0.166	0.00509	72.8	30-130			

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Project: KMG - Waddell 12-24 WH

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch L591644 - 3550B**

MS (L 85194-MS-L591644)		Source: 85194			Prepared: 12/23/2021 Analyzed: 12/27/2021					
Anthracene	0.0422	0.00033	mg/Kg	0.166	0.0068	21.3	30-130			*
Benzo(a)pyrene	0.111	0.00024	"	0.166	0.00243	65.4	30-130			
Dibenz(a,h)anthracene	0.186	0.00036	"	0.166	0.000797	112	30-130			
Naphthalene	0.218	0.000467	"	0.166	0.142	45.7	30-130			
Indeno(1,2,3-cd)pyrene	0.162	0.00029	"	0.166	85194	97.5	30-130			
Fluorene	0.166	0.00029	"	0.166	0.0998	39.8	30-130			
Fluoranthene	0.0723	0.00039	"	0.166	0.00251	42	30-130			
Acenaphthene	0.12	0.0003	"	0.166	0.0368	50.1	30-130			
Surrogate: 2-Fluorobiphenyl	48.1		"	0.332	139	48.1	33-115			
Surrogate: Nitrobenzene-d5	41.5		"	0.332	138	41.5	29-110			
Surrogate: 4-Terphenyl-d14	51.5		"	0.332	148	51.5	33-122			

LCS (LCS-L591644)		Prepared: 12/23/2021 Analyzed: 12/27/2021								
2-Methylnaphthalene	0.0953	0.00039	mg/Kg	0.167		57	30-130			
1-Methylnaphthalene	0.0954	0.00033	"	0.167		57.1	30-130			
Fluoranthene	0.12	0.00039	"	0.167		71.8	30-130			
Acenaphthene	0.101	0.0003	"	0.167		60.4	30-130			
Anthracene	0.11	0.00033	"	0.167		65.8	30-130			
Benzo(a)anthracene	0.109	0.00041	"	0.167		65.2	30-130			
Benzo(a)pyrene	0.117	0.00024	"	0.167		70	30-130			
Benzo(b)fluoranthene	0.0825	0.00021	"	0.167		49.4	30-130			
Benzo(k)fluoranthene	0.0944	0.00013	"	0.167		56.5	30-130			
Pyrene	0.109	0.00059	"	0.167		65.2	30-130			
Dibenz(a,h)anthracene	0.139	0.00036	"	0.167		83.2	30-130			
Fluorene	0.108	0.00029	"	0.167		64.6	30-130			
Indeno(1,2,3-cd)pyrene	0.123	0.00029	"	0.167		73.6	30-130			
Naphthalene	0.0894	0.000467	"	0.167		53.5	30-130			

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Project: KMG - Waddell 12-24 WH

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch L591644 - 3550B**

**LCS (LCS-L591644)**

Prepared: 12/23/2021 Analyzed: 12/27/2021

Chrysene	0.111	0.00027	mg/Kg	0.167		66.4	30-130			
Surrogate: 4-Terphenyl-d14	60.6		"	0.333	60.6		33-122			
Surrogate: 2-Fluorobiphenyl	51		"	0.333	51		33-115			
Surrogate: Nitrobenzene-d5	34.5		"	0.333	34.5		29-110			

**LRB (LRB-L591644)**

Prepared: 12/23/2021 Analyzed: 12/27/2021

Benzo(b)fluoranthene	ND	0.00067	mg/Kg				-			
Benzo(k)fluoranthene	ND	0.00067	"				-			
Chrysene	ND	0.00067	"				-			
Dibenz(a,h)anthracene	ND	0.00067	"				-			
Fluoranthene	ND	0.00067	"				-			
Indeno(1,2,3-cd)pyrene	ND	0.00067	"				-			
Anthracene	ND	0.00067	"				-			
Naphthalene	ND	0.00067	"				-			
Fluorene	ND	0.00067	"				-			
Benzo(a)anthracene	ND	0.00067	"				-			
Acenaphthene	ND	0.00067	"				-			
2-Methylnaphthalene	ND	0.00067	"				-			
1-Methylnaphthalene	ND	0.00067	"				-			
Pyrene	ND	0.00067	"				-			
Benzo(a)pyrene	ND	0.00067	"				-			
Surrogate: Nitrobenzene-d5	42.9		"	0.333	42.9		29-110			
Surrogate: 4-Terphenyl-d14	59.1		"	0.333	59.1		33-122			
Surrogate: 2-Fluorobiphenyl	51		"	0.333	51		33-115			

**Batch L591799 - 3550B**

**MSD (L 87857-MSD-L591799)**

**Source: 87857**

Prepared: 12/27/2021 Analyzed: 12/28/2021

Origins Laboratory, Inc.

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Project: KMG - Waddell 12-24 WH

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch L591799 - 3550B**

<b>MSD (L 87857-MSD-L591799)</b>		<b>Source: 87857</b>			Prepared: 12/27/2021 Analyzed: 12/28/2021					
Indeno(1,2,3-cd)pyrene	0.146	0.00029	mg/Kg	0.166	87857	87.9	30-130	7.8	30	
Fluorene	0.111	0.00029	"	0.166	87857	66.8	30-130	1.8	30	
Naphthalene	0.094	0.000467	"	0.166	87857	56.6	30-130	7.6	30	
Fluoranthene	0.127	0.00039	"	0.166	87857	76.5	30-130	3.2	30	
Pyrene	0.115	0.00059	"	0.166	87857	69.2	30-130	1.7	30	
Anthracene	0.112	0.00033	"	0.166	87857	67.4	30-130	3.6	30	
Chrysene	0.121	0.00027	"	0.166	0.000813	72.4	30-130	2.5	30	
Benzo(a)anthracene	0.12	0.00041	"	0.166	87857	72.2	30-130	6.8	30	
Acenaphthene	0.106	0.0003	"	0.166	87857	63.8	30-130	6	30	
Dibenz(a,h)anthracene	0.167	0.00036	"	0.166	87857	101	30-130	6.8	30	
2-Methylnaphthalene	0.1	0.00039	"	0.166	87857	60.2	30-130	4.3	30	
1-Methylnaphthalene	0.101	0.00033	"	0.166	87857	60.8	30-130	5.7	30	
Benzo(b)fluoranthene	0.112	0.00021	"	0.166	87857	67.4	30-130	5.5	30	
Benzo(k)fluoranthene	0.111	0.00013	"	0.166	87857	66.8	30-130	6.1	30	
Benzo(a)pyrene	0.129	0.00024	"	0.166	87857	77.7	30-130	5.5	30	
Surrogate: Nitrobenzene-d5	37.1		"	0.331	131	37.1	29-110			
Surrogate: 2-Fluorobiphenyl	52.8		"	0.331	170	52.8	33-115			
Surrogate: 4-Terphenyl-d14	62.2		"	0.331	205	62.2	33-122			

<b>MS (L 87857-MS-L591799)</b>		<b>Source: 87857</b>			Prepared: 12/27/2021 Analyzed: 12/28/2021					
Benzo(a)pyrene	0.122	0.00024	mg/Kg	0.166	87857	73.4	30-130			
1-Methylnaphthalene	0.0954	0.00033	"	0.166	87857	57.4	30-130			
2-Methylnaphthalene	0.0957	0.00039	"	0.166	87857	57.6	30-130			
Acenaphthene	0.0998	0.0003	"	0.166	87857	60.1	30-130			
Benzo(a)anthracene	0.112	0.00041	"	0.166	87857	67.4	30-130			
Benzo(b)fluoranthene	0.106	0.00021	"	0.166	87857	63.8	30-130			
Benzo(k)fluoranthene	0.118	0.00013	"	0.166	87857	71	30-130			

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.



WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.171  
Project: KMG - Waddell 12-24 WH

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch L591799 - 3550B**

MS (L 87857-MS-L591799)		Source: 87857			Prepared: 12/27/2021 Analyzed: 12/28/2021					
Chrysene	0.118	0.00027	mg/Kg	0.166	0.000813	70.5	30-130			
Dibenz(a,h)anthracene	0.156	0.00036	"	0.166	87857	93.9	30-130			
Fluoranthene	0.123	0.00039	"	0.166	87857	74	30-130			
Fluorene	0.109	0.00029	"	0.166	87857	65.6	30-130			
Indeno(1,2,3-cd)pyrene	0.135	0.00029	"	0.166	87857	81.3	30-130			
Naphthalene	0.0871	0.000467	"	0.166	87857	52.4	30-130			
Pyrene	0.113	0.00059	"	0.166	87857	68	30-130			
Anthracene	0.108	0.00033	"	0.166	87857	65	30-130			
Surrogate: 2-Fluorobiphenyl	52.4		"	0.332	170	52.4	33-115			
Surrogate: 4-Terphenyl-d14	62.9		"	0.332	205	62.9	33-122			
Surrogate: Nitrobenzene-d5	36.7		"	0.332	131	36.7	29-110			

LCS (LCS-L591799)		Prepared: 12/27/2021 Analyzed: 12/28/2021								
Benzo(k)fluoranthene	0.122	0.00013	mg/Kg	0.167		73	30-130			
Pyrene	0.12	0.00059	"	0.167		71.8	30-130			
Naphthalene	0.0995	0.000467	"	0.167		59.5	30-130			
Indeno(1,2,3-cd)pyrene	0.146	0.00029	"	0.167		87.4	30-130			
Fluorene	0.118	0.00029	"	0.167		70.6	30-130			
Fluoranthene	0.13	0.00039	"	0.167		77.8	30-130			
1-Methylnaphthalene	0.11	0.00033	"	0.167		65.8	30-130			
Chrysene	0.124	0.00027	"	0.167		74.2	30-130			
Benzo(b)fluoranthene	0.108	0.00021	"	0.167		64.6	30-130			
Benzo(a)pyrene	0.131	0.00024	"	0.167		78.4	30-130			
Benzo(a)anthracene	0.122	0.00041	"	0.167		73	30-130			
Anthracene	0.117	0.00033	"	0.167		70	30-130			
Acenaphthene	0.112	0.0003	"	0.167		67	30-130			
2-Methylnaphthalene	0.11	0.00039	"	0.167		65.8	30-130			

Origins Laboratory, Inc.

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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.171  
Project: KMG - Waddell 12-24 WH

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch L591799 - 3550B**

**LCS (LCS-L591799)**

Prepared: 12/27/2021 Analyzed: 12/28/2021

Dibenz(a,h)anthracene	0.173	0.00036	mg/Kg	0.167		104	30-130			
Surrogate: Nitrobenzene-d5	44.7		"	0.333		44.7	29-110			
Surrogate: 2-Fluorobiphenyl	65.7		"	0.333		65.7	33-115			
Surrogate: 4-Terphenyl-d14	73.8		"	0.333		73.8	33-122			

**LRB (LRB-L591799)**

Prepared: 12/27/2021 Analyzed: 12/28/2021

Chrysene	ND	0.00067	mg/Kg				-			
Pyrene	ND	0.00067	"				-			
Acenaphthene	ND	0.00067	"				-			
2-Methylnaphthalene	ND	0.00067	"				-			
1-Methylnaphthalene	ND	0.00067	"				-			
Anthracene	ND	0.00067	"				-			
Benzo(k)fluoranthene	ND	0.00067	"				-			
Benzo(a)anthracene	ND	0.00067	"				-			
Dibenz(a,h)anthracene	ND	0.00067	"				-			
Benzo(a)pyrene	ND	0.00067	"				-			
Indeno(1,2,3-cd)pyrene	ND	0.00067	"				-			
Fluorene	ND	0.00067	"				-			
Fluoranthene	ND	0.00067	"				-			
Benzo(b)fluoranthene	ND	0.00067	"				-			
Naphthalene	ND	0.00067	"				-			
Surrogate: 4-Terphenyl-d14	65.7		"	0.333		65.7	33-122			
Surrogate: 2-Fluorobiphenyl	56.4		"	0.333		56.4	33-115			
Surrogate: Nitrobenzene-d5	43.5		"	0.333		43.5	29-110			

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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.171  
Project: KMG - Waddell 12-24 WH

**Total Metals by 6020B - Quality Control**  
**Waypoint Analytical, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch L591233 - 3050B</b>										
<b>MSD (L 85214-MSD-L591233)</b>		<b>Source: 85214</b>			Prepared: 12/21/2021 Analyzed: 12/27/2021					
Barium	162	0.042	mg/Kg	4.8	124	792	75-125	15.2	80	I*
Zinc	465	2.14	"	24	328	571	75-125	24.6	80	*
Silver	0.416	0.0067	"	0.48	0.0351	87	75-125	1.2	80	
Selenium	3.67	0.103	"	4.8	0.245	76	75-125	1.6	80	
Nickel	7.97	0.0633	"	2.4	6.41	65	75-125	0.3	80	I*
Lead	38.8	0.031	"	2.4	32.8	250	75-125	27.5	80	I*
Cadmium	1.38	0.0259	"	0.48	1.05	69	75-125	4.9	80	*
Arsenic	5.55	0.0855	"	2.4	3.43	88	75-125	7.6	80	
Copper	51.6	0.322	"	2.4	45.4	258	75-125	39.1	80	*
<b>MS (L 85214-MS-L591233)</b>		<b>Source: 85214</b>			Prepared: 12/21/2021 Analyzed: 12/27/2021					
Cadmium	1.45	0.0259	mg/Kg	0.462	1.05	87	75-125			
Zinc	363	2.14	"	23.1	328	152	75-125			*
Barium	139	0.042	"	4.62	124	325	75-125			I*
Copper	34.7	0.322	"	2.31	45.4	NR	75-125			*
Lead	51.2	0.031	"	2.31	32.8	797	75-125			I*
Nickel	7.94	0.0633	"	2.31	6.41	66	75-125			I*
Selenium	3.73	0.103	"	4.62	0.245	81	75-125			
Silver	0.411	0.0067	"	0.462	0.0351	89	75-125			
Arsenic	5.14	0.0855	"	2.31	3.43	74	75-125			*
<b>LCS (LCS-L591233)</b>		Prepared: 12/21/2021 Analyzed: 12/27/2021								
Selenium	4.68	0.103	mg/Kg	5		94	80-120			
Nickel	2.2	0.0633	"	2.5		88	80-120			
Lead	2.15	0.031	"	2.5		86	80-120			
Arsenic	2.31	0.0855	"	2.5		92	80-120			
Barium	4.74	0.042	"	5		95	80-120			

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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.171  
Project: KMG - Waddell 12-24 WH

## Total Metals by 6020B - Quality Control Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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### Batch L591233 - 3050B

#### LCS (LCS-L591233)

Prepared: 12/21/2021 Analyzed: 12/27/2021

Cadmium	0.44	0.0259	mg/Kg	0.5		88	80-120			
Copper	2.19	0.0806	"	2.5		88	80-120			
Zinc	20.3	0.534	"	25		81	80-120			
Silver	0.451	0.0067	"	0.5		90	80-120			

#### LRB (LRB-L591233)

Prepared: 12/21/2021 Analyzed: 12/27/2021

Nickel	ND	0.25	mg/Kg				-			
Zinc	ND	2.5	"				-			
Selenium	ND	0.25	"				-			
Lead	ND	0.25	"				-			
Copper	ND	0.25	"				-			
Cadmium	ND	0.25	"				-			
Barium	ND	0.25	"				-			
Arsenic	ND	0.25	"				-			
Silver	ND	0.25	"				-			

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Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.171  
Project: KMG - Waddell 12-24 WH

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch L591522 -</b>										
<b>DUP (L 98246-DUP)</b>		<b>Source: 98246</b>			Prepared: Analyzed: 12/22/2021					
Chromium, Hexavalent	ND	0.244	mg/Kg		98246	-		0	20	
<b>MS (L 98246-MS)</b>		<b>Source: 98246</b>			Prepared: Analyzed: 12/22/2021					
Chromium, Hexavalent	5.13	0.244	mg/Kg	7.88	98246	65	75-125			*
<b>LCS (LCS)</b>					Prepared: Analyzed: 12/22/2021					
Chromium, Hexavalent	7.02	0.244	mg/Kg	8		88	75-125			
<b>LRB (LRB)</b>					Prepared: Analyzed: 12/22/2021					
Chromium, Hexavalent	ND	0.5	mg/Kg							

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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.171

Project: KMG - Waddell 12-24 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.

I\* [Undefined]

\* 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.

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.*



March 02, 2022

WSP USA

Brian Sulzberger

4600 W. 60th Ave.

Arvada

CO

80003

**Project Name - KMG - Waddell 12-24 WH**

**Project Number - 31403177.171**

Attached are your analytical results for KMG - Waddell 12-24 WH received by Origins Laboratory, Inc. February 24, 2022. This project is associated with Origins project number Y202533-01.

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

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.171

Project: KMG - Waddell 12-24 WH

### CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
N02@6"	Y202533-01	Soil	February 24, 2022 9:25	02/24/2022 15:42

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.*





WSP USA

4600 W. 60th Ave.

Arvada

CO

80003

Brian Sulzberger

Project Number: 31403177.171

Project: KMG - Waddell 12-24 WH

Origins Laboratory

## Sample Receipt Checklist

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

Origins Work Order: Y202533

Client: WSP

Client Project ID: Waddell 12-24

Checklist Completed by: SG

Shipped Via: HD

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

Date/time completed: 2/24/22

Airbill #: N/A

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

Cooler Number/Temperature: 1 / 5.3 °C \_\_\_\_\_ / \_\_\_\_\_ °C \_\_\_\_\_ / \_\_\_\_\_ °C \_\_\_\_\_ / \_\_\_\_\_ °C (Describe)

Thermometer ID: T003

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

Reviewed by (Project Manager) [Signature]

2/24/22  
Date/Time Reviewed

Origins Laboratory, Inc.

[Signature]

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WSP USA  
4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.171  
Project: KMG - Waddell 12-24 WH

N02@6"

2/24/2022 9:25:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.  
Y202533-01 (Soil)

PAH by 8270D SIM

1-Methylnaphthalene	ND	0.000364	0.00067	mg/Kg	1	L601848	02/28/2022	02/28/2022
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Surrogate: 2-Fluorobiphenyl	60.6 %		33-115			"	"	"
Surrogate: 4-Terphenyl-d14	68.2 %		33-122			"	"	"
Surrogate: Nitrobenzene-d5	56.9 %		29-110			"	"	"

pH in Soil by 9045D

pH	7.51			pH Units	1	B2B2504	02/25/2022	02/26/2022
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Origins Laboratory, Inc.



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4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.171  
Project: KMG - Waddell 12-24 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 B2B2504 - NO PREP

Duplicate (B2B2504-DUP1)

Source: Y202506-17

Prepared: 02/25/2022 Analyzed: 02/26/2022

pH	7.07		pH Units		7.23			2.24	25	
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Origins Laboratory, Inc.



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4600 W. 60th Ave.  
Arvada CO 80003

Brian Sulzberger  
Project Number: 31403177.171  
Project: KMG - Waddell 12-24 WH

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch L601848 - 3550B</b>										
<b>MSD (L 97515-MSD-L601848)</b>			<b>Source: 97515</b>		Prepared: 02/28/2022 Analyzed: 02/28/2022					
1-Methylnaphthalene	0.0932	0.000364	mg/Kg	0.166	0.00211	54.8	30-130	4.7	30	
Surrogate: 2-Fluorobiphenyl	64.3		"	0.331	205	64.3	33-115			
Surrogate: 4-Terphenyl-d14	67		"	0.331	216	67	33-122			
Surrogate: Nitrobenzene-d5	58.6		"	0.331	188	58.6	29-110			
<b>MS (L 97515-MS-L601848)</b>			<b>Source: 97515</b>		Prepared: 02/28/2022 Analyzed: 02/28/2022					
1-Methylnaphthalene	0.0977	0.000364	mg/Kg	0.166	0.00211	57.5	30-130			
Surrogate: Nitrobenzene-d5	59.6		"	0.332	188	59.6	29-110			
Surrogate: 2-Fluorobiphenyl	66.2		"	0.332	205	66.2	33-115			
Surrogate: 4-Terphenyl-d14	71.3		"	0.332	216	71.3	33-122			
<b>LCS (LCS-L601848)</b>			Prepared: 02/28/2022 Analyzed: 02/28/2022							
1-Methylnaphthalene	0.106	0.000364	mg/Kg	0.167		63.4	30-130			
Surrogate: 2-Fluorobiphenyl	70.8		"	0.333		70.8	33-115			
Surrogate: 4-Terphenyl-d14	76.5		"	0.333		76.5	33-122			
Surrogate: Nitrobenzene-d5	65.1		"	0.333		65.1	29-110			
<b>LRB (LRB-L601848)</b>			Prepared: 02/28/2022 Analyzed: 02/28/2022							
1-Methylnaphthalene	ND	0.00067	mg/Kg				-			
Surrogate: Nitrobenzene-d5	64.8		"	0.333		64.8	29-110			
Surrogate: 2-Fluorobiphenyl	69		"	0.333		69	33-115			
Surrogate: 4-Terphenyl-d14	72		"	0.333		72	33-122			

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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.

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: 31403177.171

Project: KMG - Waddell 12-24 WH

### Notes and Definitions

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported on a wet weight basis.

Origins Laboratory, Inc.



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