



Ensolum

October 23, 2024

Jeremy Espinoza

11049 W 44th Avenue, Suite 103

Wheat Ridge CO 80033

Project Name - KMG - Reisbeck 9-18, Watada Facility

Project Number - 09A1417939

Attached are your analytical results for KMG - Reisbeck 9-18, Watada Facility received by Origins Laboratory October 22, 2024. This project is associated with Origins project number E410687-01.

The analytical results in the following report were analyzed under the guidelines of EPA Methods. These methods are identified as follows; "SW" are defined in SW-846, "EPA" are defined in 40CFR part 136 and "SM" are defined in the most current revision of Standard Methods For the Examination of Water and Wastewater.

The analytical results apply specifically to the samples and analyses specified per the attached Chain of Custody. As such, this report shall not be reproduced except in full, without the written approval of Origin's laboratory.

Unless otherwise noted, the analytical results for all soil samples are reported on a wet weight basis. All analytical analyses were performed under NELAP guidelines unless noted by a data qualifier.

Any holding time exceedances, deviations from the method specifications or deviations from Origins Laboratory's Standard Operating Procedures are outlined in the case narrative.

Thank you for selecting Origins for your analytical needs. Please contact us with any questions concerning this report, or if we can help with anything at all.

Origins Laboratory
303.433.1322
projectmanager@originslab.com



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



Ensolum

11049 W 44th Avenue, Suite 103

Wheat Ridge CO 80033

Jeremy Espinoza

Project Number: 09A1417939

Project: KMG - Reisbeck 9-18, Watada Facility

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B01@1'	E410687-01	Soil	October 22, 2024 13:08	10/22/2024 16:48

Origins Laboratory

A handwritten signature in black ink that reads "Jen Pellegrini".

Jen Pellegrini, Project Manager

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

Jeremy Espinoza
Project Number: 09A1417939
Project: KMG - Reisbeck 9-18, Watada Facility

ORIGINS
LABORATORY

ORIGINS WORK ORDER #

6410687

Page 1 of 1

Client: Ensolum
Address:

Project Manager: J. Espinoza
Project Name: Reisbeck 9-18, Watada Facility

Key:

Project Number:

09A1417939

W=Water

Collected By:

HK

GW=Groundwater

Telephone Number:

Invoice/Billing Info:

10/24/24

SW=Surface Water

Email Address:

10/24/24

WW=Waste Water

S=Soil | SO=Solid | O=Oil | A=Air | G=Gas | U=Umpres | HCL=Hydrochloric | HNO3=Nitric | H2SO4=Sulfuric | NaOH=Sodium Hydroxide

L=Liquid

#	Sample ID	Date Sampled	Time Sampled	# of Containers	Matrix	Preservative	Analysis												Comments
							H	HA	FA	BA	BO	GO	GA	BA	BO	GO	GA	BA	
1	BOEL	10/22/24	1308	3	S	Ump.	X	X	X	X	X	X	X	X	X	X			
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

Relinquished By: [Signature] Date: 10/22/24 Time: 1648
Received By: [Signature] Date: 10/22/24 Time: 1648
Temp Received: 4/3 Received On Ice? ☒ Yes ☐ No

Jefe Pellegrini

Ensolum

11049 W 44th Avenue, Suite 103

Wheat Ridge CO 80033

Jeremy Espinoza

Project Number: 09A1417939

Project: KMG - Reisbeck 9-18, Watada Facility

Origins Laboratory

F-012207-01-R1

Effective Date: 01/09/12

Sample Receipt Checklist

Origins Work Order: E410687

Client: Ensolum

Client Project ID: Reisbeck

Checklist Completed by: SAH

Shipped Via: HO

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

Date/time completed: 10/22/24

Airbill #: N/A

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

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

Thermometer ID: TOO4

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)	<input 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 ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation and was it checked ⁽¹⁾ ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity)/(pH <2 for samples preserved with HNO ₃ , HCL, H ₂ SO ₄) / (pH >10 for samples preserved with NaAsO ₂ +NaOH, ZnAc+NaOH)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Additional Comments (if any):				

⁽¹⁾If NO, then contact the client before proceeding with analysis and note date/time and person contacted as well as the corrective action to in the additional comments (above) and the case narrative.

Reviewed by (Project Manager) SAH

10/22/24
Date/Time Reviewed

Origins Laboratory

Jen Pellegrini

Jen Pellegrini, Project Manager

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

Jeremy Espinoza
Project Number: 09A1417939
Project: KMG - Reisbeck 9-18, Watada Facility

B01@1'

10/22/2024 1:08:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory E410687-01 (Soil)

DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND		25.0	mg/kg	1	B4J2240	10/22/2024	10/22/2024	U
Residual Range Organics (C28-C40)	ND		100	"	"	"	"	"	U

Surrogate: o-Terphenyl 74.6 % 50-150 " " "

GBTEX+TMBs by 8260D

Gasoline Range Hydrocarbons	ND		0.200	mg/kg	1	B4J2241	10/22/2024	10/22/2024	U
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Surrogate: 1,2-Dichloroethane-d4 83.7 % 70-130 " " "
Surrogate: Toluene-d8 99.6 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 109 % 70-130 " " "

PAH by EPA 8270E extracted via 3580A

1-Methylnaphthalene	ND		0.002	mg/kg	1	B4J2242	10/22/2024	10/22/2024	U
2-Methylnaphthalene	ND		0.002	"	"	"	"	"	U
Acenaphthene	ND		0.020	"	"	"	"	"	U
Anthracene	ND		0.020	"	"	"	"	"	U
Benzo (a) anthracene	0.007		0.005	"	"	"	"	"	
Benzo (a) pyrene	ND		0.020	"	"	"	"	"	U

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10/22/2024 1:08:00PM

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

E410687-01 (Soil)

PAH by EPA 8270E extracted via 3580A

Benzo (b) fluoranthene	ND	0.020	mg/kg	1	B4J2242	10/22/2024	10/22/2024	U
Benzo (k) fluoranthene	ND	0.020	"	"	"	"	"	U
Chrysene	ND	0.020	"	"	"	"	"	U
Dibenz (a,h) anthracene	ND	0.020	"	"	"	"	"	U
Fluoranthene	ND	0.020	"	"	"	"	"	U
Fluorene	ND	0.020	"	"	"	"	"	U
Indeno (1,2,3-cd) pyrene	ND	0.020	"	"	"	"	"	U
Naphthalene	ND	0.002	"	"	"	"	"	U
Pyrene	ND	0.020	"	"	"	"	"	U

Surrogate: Fluorene-d10	100 %	60-130	"	"	"
Surrogate: Anthracene-d10	97.2 %	60-130	"	"	"
Surrogate: Pyrene-d10	96.4 %	60-130	"	"	"
Surrogate: Benzo (a) pyrene-d12	98.6 %	60-130	"	"	"

Table 915 metals by EPA 6020B

Arsenic	3.03	0.246	mg/kg	10	B4J2238	10/22/2024	10/23/2024
Barium	69.1	8.50	"	"	"	"	"
Cadmium	0.471	0.0850	"	"	"	"	"
Copper	16.0	8.50	"	"	"	"	"

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Jeremy Espinoza

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B01@1'

10/22/2024 1:08:00PM

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

E410687-01 (Soil)

Table 915 metals by EPA 6020B

Lead	21.5	0.850	mg/kg	10	B4J2238	10/22/2024	10/23/2024
Nickel	6.41	0.850	"	"	"	"	"
Silver	0.339	0.0850	"	"	"	"	"

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Jeremy Espinoza
Project Number: 09A1417939
Project: KMG - Reisbeck 9-18, Watada Facility

Extractable Petroleum Hydrocarbons by 8015D - Quality Control
Origins Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B4J2240 - EPA 3550B										
Blank (B4J2240-BLK1)					Prepared: 10/22/2024 Analyzed: 10/22/2024					
Diesel (C10-C28)	ND	25.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	100	"							U
Surrogate: o-Terphenyl	21		"	24.9		83.9	50-150			

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Extractable Petroleum Hydrocarbons by 8015D - Quality Control
Origins Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B4J2240 - EPA 3550B

LCS (B4J2240-BS1)

Prepared: 10/22/2024 Analyzed: 10/22/2024

Diesel (C10-C28)	1100	50.0	mg/kg	1000		110	70-130			
Residual Range Organics (C28-C40)	1110	200	"	1000		111	70-130			
Surrogate: o-Terphenyl	54		"	49.8		109	50-150			

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Origins Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B4J2240 - EPA 3550B

Matrix Spike (B4J2240-MS1)		Source: E410686-01			Prepared: 10/22/2024 Analyzed: 10/22/2024					
Diesel (C10-C28)	1110	50.0	mg/kg	1000	347	76.5	70-130			
Residual Range Organics (C28-C40)	1180	200	"	1000	125	106	70-130			
Surrogate: o-Terphenyl	50		"	49.8		101	50-150			

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Extractable Petroleum Hydrocarbons by 8015D - Quality Control
Origins Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B4J2240 - EPA 3550B

Matrix Spike Dup (B4J2240-MSD1)		Source: E410686-01			Prepared: 10/22/2024 Analyzed: 10/22/2024					
Diesel (C10-C28)	1080	50.0	mg/kg	1000	347	73.6	70-130	2.63	35	
Residual Range Organics (C28-C40)	1120	200	"	1000	125	99.9	70-130	5.10	35	
Surrogate: o-Terphenyl	48		"	49.8		95.9	50-150			

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Extractable Petroleum Hydrocarbons by 8015D - Quality Control

Origins Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B4J2241 - EPA 5030 (soil)										
Blank (B4J2241-BLK1)					Prepared: 10/22/2024 Analyzed: 10/22/2024					
1,2,4-Trimethylbenzene	ND	0.00200	mg/kg							U
1,3,5-Trimethylbenzene	ND	0.00200	"							U
Benzene	ND	0.00200	"							U
Ethylbenzene	ND	0.00200	"							U
Naphthalene	ND	0.00380	"							U
Toluene	ND	0.00200	"							U
Xylenes, total	ND	0.00200	"							U
Gasoline Range Hydrocarbons	ND	0.200	"							U
Surrogate: 1,2-Dichloroethane-d4	0.10		"	0.125		83.0	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		102	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		104	70-130			

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Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control

Origins Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B4J2241 - EPA 5030 (soil)

LCS (B4J2241-BS1)

Prepared: 10/22/2024 Analyzed: 10/22/2024

1,2,4-Trimethylbenzene	0.0856	0.00200	mg/kg	0.100		85.6	70-130			
1,3,5-Trimethylbenzene	0.0830	0.00200	"	0.100		83.0	70-130			
Benzene	0.0817	0.00200	"	0.100		81.7	70-130			
Ethylbenzene	0.0850	0.00200	"	0.100		85.0	70-130			
Naphthalene	0.0825	0.00380	"	0.100		82.5	70-130			
Toluene	0.0812	0.00200	"	0.100		81.2	70-130			
o-Xylene	0.0836	0.00200	"	0.100		83.6	70-130			
m,p-Xylene	0.168	0.00400	"	0.200		84.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		88.1	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		100	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		101	70-130			

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Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control

Origins Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B4J2241 - EPA 5030 (soil)

Matrix Spike (B4J2241-MS1)		Source: E410686-01			Prepared: 10/22/2024 Analyzed: 10/22/2024					
1,2,4-Trimethylbenzene	0.0901	0.00200	mg/kg	0.100	ND	90.1	70-130			
1,3,5-Trimethylbenzene	0.0880	0.00200	"	0.100	ND	88.0	70-130			
Benzene	0.0879	0.00200	"	0.100	ND	87.9	70-130			
Ethylbenzene	0.0878	0.00200	"	0.100	ND	87.8	70-130			
Naphthalene	0.0830	0.00380	"	0.100	ND	83.0	70-130			
Toluene	0.0885	0.00200	"	0.100	ND	88.5	70-130			
o-Xylene	0.0887	0.00200	"	0.100	ND	88.7	70-130			
m,p-Xylene	0.176	0.00400	"	0.200	ND	87.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.10		"	0.125		81.9	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		101	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		100	70-130			

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Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control

Origins Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B4J2241 - EPA 5030 (soil)

Matrix Spike Dup (B4J2241-MSD1)		Source: E410686-01			Prepared: 10/22/2024 Analyzed: 10/22/2024					
1,2,4-Trimethylbenzene	0.0820	0.00200	mg/kg	0.100	ND	82.0	70-130	9.44	20	
1,3,5-Trimethylbenzene	0.0799	0.00200	"	0.100	ND	79.9	70-130	9.72	20	
Benzene	0.0786	0.00200	"	0.100	ND	78.6	70-130	11.2	20	
Ethylbenzene	0.0811	0.00200	"	0.100	ND	81.1	70-130	7.98	20	
Naphthalene	0.0763	0.00380	"	0.100	ND	76.3	70-130	8.42	20	
Toluene	0.0747	0.00200	"	0.100	ND	74.7	70-130	17.0	20	
o-Xylene	0.0814	0.00200	"	0.100	ND	81.4	70-130	8.56	20	
m,p-Xylene	0.162	0.00400	"	0.200	ND	81.2	70-130	7.92	20	
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		107	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		95.7	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		104	70-130			

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Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control

Origins Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Metals by EPA 6000/7000 Series Methods - Quality Control

Origins Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B4J2238 - EPA 3050B

Blank (B4J2238-BLK1)

Prepared: 10/22/2024 Analyzed: 10/23/2024

Arsenic	ND	0.290	mg/kg							U
Barium	ND	10.0	"							U
Cadmium	ND	0.100	"							U
Copper	ND	10.0	"							U
Lead	ND	1.00	"							U
Nickel	ND	1.00	"							U
Selenium	ND	0.260	"							U
Silver	ND	0.100	"							U
Zinc	ND	37.0	"							U

LCS (B4J2238-BS1)

Prepared: 10/22/2024 Analyzed: 10/23/2024

Arsenic	5.09	0.290	mg/kg	5.00		102	80-120
Barium	532	10.0	"	500		106	80-120
Cadmium	5.21	0.100	"	5.00		104	80-120
Copper	53.7	10.0	"	50.0		107	80-120
Lead	5.27	1.00	"	5.00		105	80-120
Nickel	5.61	1.00	"	5.00		112	80-120
Selenium	5.24	0.260	"	5.00		105	80-120
Silver	5.56	0.100	"	5.00		111	80-120
Zinc	53.4	37.0	"	50.0		107	80-120

Matrix Spike (B4J2238-MS1)

Source: E410688-06

Prepared: 10/22/2024 Analyzed: 10/23/2024

Origins Laboratory



Jen Pellegrini, Project Manager

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

Jeremy Espinoza
Project Number: 09A1417939
Project: KMG - Reisbeck 9-18, Watada Facility

Metals by EPA 6000/7000 Series Methods - Quality Control

Origins Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B4J2238 - EPA 3050B

Matrix Spike (B4J2238-MS1)		Source: E410688-06			Prepared: 10/22/2024 Analyzed: 10/23/2024					
Arsenic	11.2	0.267	mg/kg	4.60	5.11	133	75-125			QM-07
Barium	664	9.21	"	460	159	110	75-125			
Cadmium	5.01	0.0921	"	4.60	0.277	103	75-125			
Copper	57.6	9.21	"	46.0	11.8	99.6	75-125			
Lead	15.6	0.921	"	4.60	9.77	127	75-125			QM-07
Nickel	19.5	0.921	"	4.60	13.9	122	75-125			
Selenium	5.19	0.239	"	4.60	0.237	108	75-125			
Silver	4.91	0.0921	"	4.60	0.0241	106	75-125			
Zinc	93.2	34.1	"	46.0	45.0	105	75-125			
Matrix Spike Dup (B4J2238-MSD1)		Source: E410688-06			Prepared: 10/22/2024 Analyzed: 10/23/2024					
Arsenic	10.9	0.268	mg/kg	4.63	5.11	124	75-125	3.46	20	
Barium	647	9.26	"	463	159	105	75-125	2.69	20	
Cadmium	4.95	0.0926	"	4.63	0.277	101	75-125	1.10	20	
Copper	57.3	9.26	"	46.3	11.8	98.3	75-125	0.606	20	
Lead	15.9	0.926	"	4.63	9.77	132	75-125	1.56	20	QM-07
Nickel	19.0	0.926	"	4.63	13.9	112	75-125	2.31	20	
Selenium	4.71	0.241	"	4.63	0.237	96.7	75-125	9.64	20	
Silver	4.86	0.0926	"	4.63	0.0241	105	75-125	1.03	20	
Zinc	96.1	34.3	"	46.3	45.0	110	75-125	3.09	20	

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Jeremy Espinoza
Project Number: 09A1417939
Project: KMG - Reisbeck 9-18, Watada Facility

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

Origins Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B4J2242 - EPA 3580

Blank (B4J2242-BLK1)

Prepared: 10/22/2024 Analyzed: 10/22/2024

1-Methylnaphthalene	ND	0.002	mg/kg							U
2-Methylnaphthalene	ND	0.002	"							U
Acenaphthene	ND	0.020	"							U
Anthracene	ND	0.020	"							U
Benzo (a) anthracene	ND	0.005	"							U
Benzo (a) pyrene	ND	0.020	"							U
Benzo (b) fluoranthene	ND	0.020	"							U
Benzo (g,h,i) perylene	ND	0.020	"							U
Benzo (k) fluoranthene	ND	0.020	"							U
Chrysene	ND	0.020	"							U
Dibenz (a,h) anthracene	ND	0.020	"							U
Fluoranthene	ND	0.020	"							U
Fluorene	ND	0.020	"							U
Indeno (1,2,3-cd) pyrene	ND	0.020	"							U
Naphthalene	ND	0.002	"							U
Phenanthrene	ND	0.020	"							U
Pyrene	ND	0.020	"							U
Surrogate: Fluorene-d10	200		ug/kg	200		99.8	60-130			
Surrogate: Anthracene-d10	190		"	200		94.8	60-130			
Surrogate: Pyrene-d10	190		"	200		95.0	60-130			
Surrogate: Benzo (a) pyrene-d12	210		"	200		103	60-130			

LCS (B4J2242-BS1)

Prepared: 10/22/2024 Analyzed: 10/23/2024

1-Methylnaphthalene	0.210	0.002	mg/kg	0.200		105	70-130
2-Methylnaphthalene	0.208	0.002	"	0.200		104	70-130
Acenaphthene	0.205	0.020	"	0.200		102	70-130
Anthracene	0.206	0.020	"	0.200		103	70-130

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

Origins Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B4J2242 - EPA 3580

LCS (B4J2242-BS1)

Prepared: 10/22/2024 Analyzed: 10/23/2024

Benzo (a) anthracene	0.203	0.005	mg/kg	0.200		101	70-130			
Benzo (a) pyrene	0.204	0.020	"	0.200		102	70-130			
Benzo (b) fluoranthene	0.212	0.020	"	0.200		106	70-130			
Benzo (g,h,i) perylene	0.215	0.020	"	0.200		108	70-130			
Benzo (k) fluoranthene	0.227	0.020	"	0.200		113	70-130			
Chrysene	0.203	0.020	"	0.200		101	70-130			
Dibenz (a,h) anthracene	0.218	0.020	"	0.200		109	70-130			
Fluoranthene	0.203	0.020	"	0.200		101	70-130			
Fluorene	0.207	0.020	"	0.200		103	70-130			
Indeno (1,2,3-cd) pyrene	0.215	0.020	"	0.200		107	70-130			
Naphthalene	0.207	0.002	"	0.200		104	70-130			
Phenanthrene	0.211	0.020	"	0.200		106	70-130			
Pyrene	0.201	0.020	"	0.200		101	70-130			
Surrogate: Fluorene-d10	200		ug/kg	200		100	60-130			
Surrogate: Anthracene-d10	200		"	200		97.8	60-130			
Surrogate: Pyrene-d10	190		"	200		96.9	60-130			
Surrogate: Benzo (a) pyrene-d12	200		"	200		101	60-130			

Matrix Spike (B4J2242-MS1)

Source: E410686-01

Prepared: 10/22/2024 Analyzed: 10/22/2024

1-Methylnaphthalene	0.254	0.002	mg/kg	0.200	0.0005	127	70-130			
2-Methylnaphthalene	0.255	0.002	"	0.200	ND	127	70-130			
Acenaphthene	0.250	0.020	"	0.200	ND	125	70-130			
Anthracene	0.251	0.020	"	0.200	0.001	125	70-130			
Benzo (a) anthracene	0.249	0.005	"	0.200	0.004	122	70-130			
Benzo (a) pyrene	0.262	0.020	"	0.200	0.007	128	70-130			
Benzo (b) fluoranthene	0.275	0.020	"	0.200	0.007	134	70-130			QM-07
Benzo (g,h,i) perylene	0.264	0.020	"	0.200	0.007	129	70-130			

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Project: KMG - Reisbeck 9-18, Watada Facility

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

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B4J2242 - EPA 3580

Matrix Spike (B4J2242-MS1)		Source: E410686-01			Prepared: 10/22/2024 Analyzed: 10/22/2024					
Benzo (k) fluoranthene	0.257	0.020	mg/kg	0.200	0.004	126	70-130			
Chrysene	0.254	0.020	"	0.200	0.007	123	70-130			
Dibenz (a,h) anthracene	0.259	0.020	"	0.200	0.003	128	70-130			
Fluoranthene	0.258	0.020	"	0.200	0.008	125	70-130			
Fluorene	0.254	0.020	"	0.200	0.0007	127	70-130			
Indeno (1,2,3-cd) pyrene	0.258	0.020	"	0.200	0.010	124	70-130			
Naphthalene	0.253	0.002	"	0.200	ND	127	70-130			
Phenanthrene	0.254	0.020	"	0.200	0.003	126	70-130			
Pyrene	0.243	0.020	"	0.200	0.008	117	70-130			
Surrogate: Fluorene-d10	200		ug/kg	200		102	60-130			
Surrogate: Anthracene-d10	200		"	200		98.0	60-130			
Surrogate: Pyrene-d10	190		"	200		95.2	60-130			
Surrogate: Benzo (a) pyrene-d12	210		"	200		106	60-130			

Matrix Spike Dup (B4J2242-MSD1)		Source: E410686-01			Prepared: 10/22/2024 Analyzed: 10/22/2024					
1-Methylnaphthalene	0.250	0.002	mg/kg	0.200	0.0005	125	70-130	1.47	20	
2-Methylnaphthalene	0.250	0.002	"	0.200	ND	125	70-130	2.00	20	
Acenaphthene	0.248	0.020	"	0.200	ND	124	70-130	0.744	20	
Anthracene	0.240	0.020	"	0.200	0.001	119	70-130	4.36	20	
Benzo (a) anthracene	0.245	0.005	"	0.200	0.004	121	70-130	1.43	20	
Benzo (a) pyrene	0.254	0.020	"	0.200	0.007	124	70-130	3.12	20	
Benzo (b) fluoranthene	0.262	0.020	"	0.200	0.007	127	70-130	4.66	20	
Benzo (g,h,i) perylene	0.262	0.020	"	0.200	0.007	127	70-130	0.824	20	
Benzo (k) fluoranthene	0.257	0.020	"	0.200	0.004	126	70-130	0.0570	20	
Chrysene	0.259	0.020	"	0.200	0.007	126	70-130	1.66	20	
Dibenz (a,h) anthracene	0.252	0.020	"	0.200	0.003	124	70-130	2.62	20	
Fluoranthene	0.266	0.020	"	0.200	0.008	129	70-130	3.03	20	

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B4J2242 - EPA 3580

Matrix Spike Dup (B4J2242-MSD1)		Source: E410686-01			Prepared: 10/22/2024 Analyzed: 10/22/2024					
Fluorene	0.254	0.020	mg/kg	0.200	0.0007	127	70-130	0.156	20	
Indeno (1,2,3-cd) pyrene	0.253	0.020	"	0.200	0.010	122	70-130	1.77	20	
Naphthalene	0.249	0.002	"	0.200	ND	124	70-130	1.68	20	
Phenanthrene	0.255	0.020	"	0.200	0.003	126	70-130	0.254	20	
Pyrene	0.263	0.020	"	0.200	0.008	128	70-130	8.09	20	
Surrogate: Fluorene-d10	210		ug/kg	200		103	60-130			
Surrogate: Anthracene-d10	200		"	200		97.5	60-130			
Surrogate: Pyrene-d10	200		"	200		99.5	60-130			
Surrogate: Benzo (a) pyrene-d12	200		"	200		101	60-130			

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Jeremy Espinoza

Project Number: 09A1417939

Project: KMG - Reisbeck 9-18, Watada Facility

Notes and Definitions

U Sample is Non-Detect.

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported on a wet weight basis.

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