Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

October 09, 2024

Brian Humphrey
Phillips 66
6900 E Layton Ave/ Suite 900
Denver, CO 80237

RE: Four Parmlee (H-6-9) 3/2024
Work Order #2410055

Enclosed are the results of analyses for samples received by Summit Scientific on 10/02/24 17:47. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Natalie Tessier For Paul Shrewsbury
President

S2

Phillips 66 6900 E Layton Ave/ Suite 900 Denver CO, 80237	Project: Four Parmlee (H-6-9) 3/2024 Project Number: [none] Project Manager: Brian Humphrey	**Reported:** 10/09/24 08:40

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW02@30'	2410055-01	Soil	10/02/24 08:30	10/02/24 17:47
MW02@58.5'	2410055-02	Soil	10/02/24 09:48	10/02/24 17:47
MW03@49'	2410055-03	Soil	10/02/24 13:18	10/02/24 17:47
MW03@53.5'	2410055-04	Soil	10/02/24 13:20	10/02/24 17:47

Summit Scientific

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.

SUMMIT SCIENTIFIC

4653 Table Mountain Drive
Golden, CO 80403
303-277-9310

Lab ID	Page 1 of 1
2410055	

		Send Data To:	Send Invoice To:
Client:	Tasman	Project Manager: Stephen Weathers, Brian Humprey	Company: Tasman
Address:	6855 W 119th Ave	E-Mail: stephen.weathers@pbb.com	Project Name/Location: Four Parmlee (H-6-9) 03/24
City/State/Zip:	Broomfield / CO / 80220	bhumphrey@tasman-geo.com	AFE#:
Phone:	303-487-1228	Project Name: Four Parmlee (H-6-9) 03/24	PO/Billing Codes:
Sampler Name:	B. Ulrich	Project Number:	Contact: Brian Humprey

					Preservative				Matrix				Analysis Requested								Special Instructions
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO3	None	Other ___	Water	Soil	Air-Canister #	Other ___	Full table 9151								
1	MW02@30'	10-2-24	0830	2			X			X			X								
2	MW02@58.5'	↓	0948	↓			↓			↓			↓								
3	MW03@49'	↓	1318	↓			↓			↓			↓								
4	MW03@53.5'	↓	1320	↓			↓			↓			↓								
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
13																					
14																					
15																					

Relinquished by:	Date/Time:	Received by:	Date/Time:	TAT Business Days		Field DO		Notes:
[signature]	10-2-24 1712	Tasman Lockbox	10-2-24 1712	Same Day		Field EC		
Tasman Lockbox	10/2/24 1747	[signature]	10/2/24 1747	1 Day		Field ORP		
Relinquished by:	Date/Time:	Received by:	Date/Time:	2 Days		Field pH		
				3 Days		Field Temp.		
				Standard	X	Field Turb.		

Temperature Upon Receipt: 7.7	Corrected Temperature 6	IR gun #: 1	HNO3 lot #:

S2

Sample Receipt Checklist

S2 Work Order# 2410055

Client: Tasman Client Project ID: Four Parmlee (H-6-9) 03/24

Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other [ ] Airbill #: [ ]

[ ] [–] [ ] [ ] [ ]

Matrix (Check all that apply) Air [ ] Soil/Solid [ ] Water [ ] Other [ ]

Temp (°C) [7.7] Thermometer # [A]

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°C? (1) NOTE: If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	–			ON ICE
If custody seals are present, are they intact? (1)	–			
Are samples due within 48 hours present?		–		
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe^{2+}), Hexavalent Chromium (Cr^{6+}, Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen		–		
Is a chain-of-custody (COC) form present and filled out Completely? (1)	–			
Is the COC properly relinquished by the client w/ date and time recorded? (1)	–			
Were all samples received intact? (1)	✓			
Was adequate sample volume provided? (1)	✓			
Does the COC agree with the number and type of sample bottles received? (1)	✓			
Do the sample IDs on the bottle labels match the COC?(1)	✓			
For volatiles in water – is there headspace present? **If yes, contact client and note in narrative.**			✓	
Are samples preserved that require preservation **(excluding cooling)?** (1) Note the type of preservative in the comments column – HCl, H_2SO_4, NaOH, HNO_3, etc.			✓	
If samples are acid preserved for metals, is the pH ≤ 2? (1) Record the pH in Comments.			✓	
If dissolved metals are requested, were samples field filtered?			✓	
Additional Comments (if any):				
(1) If NO, then contact the client before proceeding with analysis and note in case narrative.				

AS — Custodian Printed Name

10/2/24 — Date/Time

Phillips 66 6900 E Layton Ave/ Suite 900 Denver CO, 80237	Project: Four Parmlee (H-6-9) 3/2024 Project Number: [none] Project Manager: Brian Humphrey	**Reported:** 10/09/24 08:40

MW02@30'

2410055-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/02/24 08:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHJ0225	10/04/24	10/05/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **10/02/24 08:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0416	*104 %*	*50-150*		"	"	"	"	
Surrogate: Toluene-d8	0.0411	*103 %*	*50-150*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0398	*99.4 %*	*50-150*		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/02/24 08:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHJ0227	10/04/24	10/08/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/02/24 08:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	10.8	*86.1 %*	*30-150*		"	"	"	"	

PAH by EPA Method 8270D SIM

S2

Phillips 66 6900 E Layton Ave/ Suite 900 Denver CO, 80237	Project: Four Parmlee (H-6-9) 3/2024 Project Number: [none] Project Manager: Brian Humphrey	**Reported:** 10/09/24 08:40

MW02@30'

2410055-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/02/24 08:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHJ0188	10/04/24	10/05/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/02/24 08:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0187	*56.1 %*	*40-150*		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0179	*53.7 %*	*40-150*		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/02/24 08:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHJ0212	10/04/24	10/07/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/02/24 08:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Summit Scientific

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.

S2

Phillips 66 6900 E Layton Ave/ Suite 900 Denver CO, 80237	Project: Four Parmlee (H-6-9) 3/2024 Project Number: [none] Project Manager: Brian Humphrey	**Reported:** 10/09/24 08:40

MW02@30'

2410055-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	**1.86**	0.200	mg/kg dry	1	BHJ0223	10/04/24	10/08/24	EPA 6020B	
Barium	**15.5**	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	**0.666**	0.400	"	"	"	"	"	"	
Lead	**2.64**	0.200	"	"	"	"	"	"	
Nickel	**1.31**	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	**8.35**	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/02/24 08:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ0179	10/03/24	10/04/24	EPA 7196A	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **10/02/24 08:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	**12.9**	0.0500	mg/L dry	1	BHJ0162	10/03/24	10/05/24	EPA 6020B	
Magnesium	**1.11**	0.0500	"	"	"	"	"	"	
Sodium	**5.91**	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/02/24 08:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	**0.424**	0.00100	units	1	BHJ0264	10/07/24	10/07/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

S2

Phillips 66 6900 E Layton Ave/ Suite 900 Denver CO, 80237	Project: Four Parmlee (H-6-9) 3/2024 Project Number: [none] Project Manager: Brian Humphrey	**Reported:** 10/09/24 08:40

MW02@30'

2410055-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/02/24 08:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**94.9**		%	1	BHJ0209	10/04/24	10/04/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/02/24 08:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	**0.0479**	0.0100	mmhos/cm	1	BHJ0163	10/03/24	10/04/24	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **10/02/24 08:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	**5.38**		pH Units	1	BHJ0164	10/03/24	10/04/24	EPA 9045D	

S2

Phillips 66 6900 E Layton Ave/ Suite 900 Denver CO, 80237	Project: Four Parmlee (H-6-9) 3/2024 Project Number: [none] Project Manager: Brian Humphrey	**Reported:** 10/09/24 08:40

MW02@58.5'

2410055-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/02/24 09:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHJ0225	10/04/24	10/05/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **10/02/24 09:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0427	*107 %*	*50-150*		"	"	"	"	
Surrogate: Toluene-d8	0.0404	*101 %*	*50-150*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0407	*102 %*	*50-150*		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/02/24 09:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHJ0227	10/04/24	10/08/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/02/24 09:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	8.06	*64.5 %*	*30-150*		"	"	"	"	

PAH by EPA Method 8270D SIM

S2

Phillips 66 6900 E Layton Ave/ Suite 900 Denver CO, 80237	Project: Four Parmlee (H-6-9) 3/2024 Project Number: [none] Project Manager: Brian Humphrey	**Reported:** 10/09/24 08:40

MW02@58.5'

2410055-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/02/24 09:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHJ0188	10/04/24	10/05/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	**0.00621**	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/02/24 09:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0250	*75.1 %*	*40-150*		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0231	*69.4 %*	*40-150*		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/02/24 09:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHJ0212	10/04/24	10/07/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/02/24 09:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Summit Scientific

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.

Phillips 66 6900 E Layton Ave/ Suite 900 Denver CO, 80237	Project: Four Parmlee (H-6-9) 3/2024 Project Number: [none] Project Manager: Brian Humphrey	**Reported:** 10/09/24 08:40

MW02@58.5'

2410055-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	**5.87**	0.200	mg/kg dry	1	BHJ0223	10/04/24	10/08/24	EPA 6020B	
Barium	**35.0**	0.400	"	"	"	"	"	"	
Cadmium	**0.267**	0.200	"	"	"	"	"	"	
Copper	**19.2**	0.400	"	"	"	"	"	"	
Lead	**16.5**	0.200	"	"	"	"	"	"	
Nickel	**15.3**	0.400	"	"	"	"	"	"	
Silver	**0.116**	0.0200	"	"	"	"	"	"	
Zinc	**75.0**	0.400	"	"	"	"	"	"	
Selenium	**0.292**	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/02/24 09:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ0179	10/03/24	10/04/24	EPA 7196A	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **10/02/24 09:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	**107**	0.0500	mg/L dry	1	BHJ0162	10/03/24	10/05/24	EPA 6020B	
Magnesium	**34.0**	0.0500	"	"	"	"	"	"	
Sodium	**11.1**	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/02/24 09:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	**0.239**	0.00100	units	1	BHJ0264	10/07/24	10/07/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/02/24 09:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Summit Scientific

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.

S2

Phillips 66 6900 E Layton Ave/ Suite 900 Denver CO, 80237	Project: Four Parmlee (H-6-9) 3/2024 Project Number: [none] Project Manager: Brian Humphrey	**Reported:** 10/09/24 08:40

MW02@58.5'

2410055-02 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**86.4**		%	1	BHJ0209	10/04/24	10/04/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/02/24 09:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	**0.210**	0.0100	mmhos/cm	1	BHJ0163	10/03/24	10/04/24	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **10/02/24 09:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	**9.12**		pH Units	1	BHJ0164	10/03/24	10/04/24	EPA 9045D	

S2

Phillips 66 6900 E Layton Ave/ Suite 900 Denver CO, 80237	Project: Four Parmlee (H-6-9) 3/2024 Project Number: [none] Project Manager: Brian Humphrey	**Reported:** 10/09/24 08:40

MW03@49'

2410055-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/02/24 13:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHJ0225	10/04/24	10/05/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **10/02/24 13:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0434	*109 %*	*50-150*		"	"	"	"	
Surrogate: Toluene-d8	0.0409	*102 %*	*50-150*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0424	*106 %*	*50-150*		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/02/24 13:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHJ0227	10/04/24	10/08/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/02/24 13:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	9.59	*76.7 %*	*30-150*		"	"	"	"	

PAH by EPA Method 8270D SIM

S2

Phillips 66 6900 E Layton Ave/ Suite 900 Denver CO, 80237	Project: Four Parmlee (H-6-9) 3/2024 Project Number: [none] Project Manager: Brian Humphrey	**Reported:** 10/09/24 08:40

MW03@49'

2410055-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/02/24 13:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHJ0188	10/04/24	10/05/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/02/24 13:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0193	*57.8 %*	*40-150*		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0190	*56.9 %*	*40-150*		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/02/24 13:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHJ0212	10/04/24	10/07/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/02/24 13:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Summit Scientific

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.

S2

Phillips 66 6900 E Layton Ave/ Suite 900 Denver CO, 80237	Project: Four Parmlee (H-6-9) 3/2024 Project Number: [none] Project Manager: Brian Humphrey	**Reported:** 10/09/24 08:40

MW03@49'

2410055-03 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	**1.91**	0.200	mg/kg dry	1	BHJ0223	10/04/24	10/08/24	EPA 6020B	
Barium	**96.7**	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	**1.25**	0.400	"	"	"	"	"	"	
Lead	**5.62**	0.200	"	"	"	"	"	"	
Nickel	**1.18**	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	**9.98**	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/02/24 13:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ0179	10/03/24	10/04/24	EPA 7196A	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **10/02/24 13:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	**18.6**	0.0500	mg/L dry	1	BHJ0162	10/03/24	10/05/24	EPA 6020B	
Magnesium	**3.81**	0.0500	"	"	"	"	"	"	
Sodium	**4.37**	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/02/24 13:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	**0.241**	0.00100	units	1	BHJ0264	10/07/24	10/07/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Natalie Gessin

S2

Phillips 66 6900 E Layton Ave/ Suite 900 Denver CO, 80237	Project: Four Parmlee (H-6-9) 3/2024 Project Number: [none] Project Manager: Brian Humphrey	**Reported:** 10/09/24 08:40

MW03@49'

2410055-03 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/02/24 13:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**82.0**		%	1	BHJ0209	10/04/24	10/04/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/02/24 13:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	**0.0806**	0.0100	mmhos/cm	1	BHJ0163	10/03/24	10/04/24	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **10/02/24 13:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	**7.83**		pH Units	1	BHJ0164	10/03/24	10/04/24	EPA 9045D	

Phillips 66 6900 E Layton Ave/ Suite 900 Denver CO, 80237	Project: Four Parmlee (H-6-9) 3/2024 Project Number: [none] Project Manager: Brian Humphrey	**Reported:** 10/09/24 08:40

MW03@53.5'

2410055-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/02/24 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHJ0225	10/04/24	10/05/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **10/02/24 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0401	*100 %*	*50-150*		"	"	"	"	
Surrogate: Toluene-d8	0.0390	*97.6 %*	*50-150*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0408	*102 %*	*50-150*		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/02/24 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHJ0227	10/04/24	10/08/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/02/24 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	7.24	*58.0 %*	*30-150*		"	"	"	"	

PAH by EPA Method 8270D SIM

S2

Phillips 66 6900 E Layton Ave/ Suite 900 Denver CO, 80237	Project: Four Parmlee (H-6-9) 3/2024 Project Number: [none] Project Manager: Brian Humphrey	**Reported:** 10/09/24 08:40

MW03@53.5'

2410055-04 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/02/24 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHJ0188	10/04/24	10/05/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/02/24 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0186	*55.8 %*	*40-150*		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0173	*51.9 %*	*40-150*		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/02/24 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHJ0212	10/04/24	10/07/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/02/24 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Summit Scientific

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.

Phillips 66 6900 E Layton Ave/ Suite 900 Denver CO, 80237	Project: Four Parmlee (H-6-9) 3/2024 Project Number: [none] Project Manager: Brian Humphrey	**Reported:** 10/09/24 08:40

MW03@53.5'

2410055-04 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	**2.11**	0.181	mg/kg dry	1	BHJ0223	10/04/24	10/08/24	EPA 6020B	
Barium	**72.8**	0.362	"	"	"	"	"	"	
Cadmium	**0.225**	0.181	"	"	"	"	"	"	
Copper	**22.7**	0.362	"	"	"	"	"	"	
Lead	**16.8**	0.181	"	"	"	"	"	"	
Nickel	**10.2**	0.362	"	"	"	"	"	"	
Silver	**0.115**	0.0181	"	"	"	"	"	"	
Zinc	**48.3**	0.362	"	"	"	"	"	"	
Selenium	**0.429**	0.236	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/02/24 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ0179	10/03/24	10/04/24	EPA 7196A	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **10/02/24 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	**127**	0.0500	mg/L dry	1	BHJ0162	10/03/24	10/05/24	EPA 6020B	
Magnesium	**26.1**	0.0500	"	"	"	"	"	"	
Sodium	**3.64**	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/02/24 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	**0.0769**	0.00100	units	1	BHJ0264	10/07/24	10/07/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/02/24 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Summit Scientific

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.

S2

Phillips 66 6900 E Layton Ave/ Suite 900 Denver CO, 80237	Project: Four Parmlee (H-6-9) 3/2024 Project Number: [none] Project Manager: Brian Humphrey	**Reported:** 10/09/24 08:40

MW03@53.5'

2410055-04 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**81.1**		%	1	BHJ0209	10/04/24	10/04/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/02/24 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	**0.0572**	0.0100	mmhos/cm	1	BHJ0163	10/03/24	10/04/24	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **10/02/24 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	**7.71**		pH Units	1	BHJ0164	10/03/24	10/04/24	EPA 9045D	

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BHJ0225 - EPA 5030 Soil MS										
Blank (BHJ0225-BLK1)				Prepared & Analyzed: 10/04/24						
Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	*0.0417*		*"*	*0.0400*		*104*	*50-150*			
Surrogate: Toluene-d8	*0.0400*		*"*	*0.0400*		*99.9*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0411*		*"*	*0.0400*		*103*	*50-150*			
LCS (BHJ0225-BS1)				Prepared & Analyzed: 10/04/24						
Benzene	0.107	0.0020	mg/kg	0.100		107	70-130			
Toluene	0.109	0.0050	"	0.100		109	70-130			
Ethylbenzene	0.110	0.0050	"	0.100		110	70-130			
m,p-Xylene	0.226	0.010	"	0.200		113	70-130			
o-Xylene	0.112	0.0050	"	0.100		112	70-130			
1,2,4-Trimethylbenzene	0.108	0.0050	"	0.100		108	70-130			
1,3,5-Trimethylbenzene	0.108	0.0050	"	0.100		108	70-130			
Naphthalene	0.105	0.0038	"	0.100		105	70-130			
Surrogate: 1,2-Dichloroethane-d4	*0.0410*		*"*	*0.0400*		*103*	*50-150*			
Surrogate: Toluene-d8	*0.0413*		*"*	*0.0400*		*103*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0404*		*"*	*0.0400*		*101*	*50-150*			
Matrix Spike (BHJ0225-MS1)	**Source: 2410052-01**			Prepared: 10/04/24 Analyzed: 10/05/24						
Benzene	0.102	0.0020	mg/kg	0.100	ND	102	70-130			
Toluene	0.104	0.0050	"	0.100	ND	104	70-130			
Ethylbenzene	0.105	0.0050	"	0.100	ND	105	70-130			
m,p-Xylene	0.211	0.010	"	0.200	ND	106	70-130			
o-Xylene	0.105	0.0050	"	0.100	ND	105	70-130			
1,2,4-Trimethylbenzene	0.100	0.0050	"	0.100	ND	100	70-130			
1,3,5-Trimethylbenzene	0.102	0.0050	"	0.100	ND	102	70-130			
Naphthalene	0.0937	0.0038	"	0.100	ND	93.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	*0.0439*		*"*	*0.0400*		*110*	*50-150*			
Surrogate: Toluene-d8	*0.0410*		*"*	*0.0400*		*102*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0388*		*"*	*0.0400*		*97.1*	*50-150*			

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BHJ0225 - EPA 5030 Soil MS										
Matrix Spike Dup (BHJ0225-MSD1)	**Source: 2410052-01**			Prepared: 10/04/24 Analyzed: 10/05/24						
Benzene	0.0982	0.0020	mg/kg	0.100	ND	98.2	70-130	3.69	30	
Toluene	0.0996	0.0050	"	0.100	ND	99.6	70-130	4.79	30	
Ethylbenzene	0.101	0.0050	"	0.100	ND	101	70-130	3.40	30	
m,p-Xylene	0.202	0.010	"	0.200	ND	101	70-130	4.59	30	
o-Xylene	0.0997	0.0050	"	0.100	ND	99.7	70-130	5.16	30	
1,2,4-Trimethylbenzene	0.0982	0.0050	"	0.100	ND	98.2	70-130	1.76	30	
1,3,5-Trimethylbenzene	0.0970	0.0050	"	0.100	ND	97.0	70-130	5.15	30	
Naphthalene	0.0977	0.0038	"	0.100	ND	97.7	70-130	4.26	30	
Surrogate: 1,2-Dichloroethane-d4	*0.0418*		*"*	*0.0400*		*104*	*50-150*			
Surrogate: Toluene-d8	*0.0409*		*"*	*0.0400*		*102*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0396*		*"*	*0.0400*		*98.9*	*50-150*			

Phillips 66 6900 E Layton Ave/ Suite 900 Denver CO, 80237	Project: Four Parmlee (H-6-9) 3/2024 Project Number: [none] Project Manager: Brian Humphrey	**Reported:** 10/09/24 08:40

Extractable Petroleum Hydrocarbons by 8015 - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BHJ0227 - EPA 3550A										
Blank (BHJ0227-BLK1)				Prepared: 10/04/24 Analyzed: 10/08/24						
C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: o-Terphenyl	*8.23*		*"*	*12.5*		*65.9*	*30-150*			
LCS (BHJ0227-BS1)				Prepared: 10/04/24 Analyzed: 10/08/24						
C10-C28 (DRO)	400	50	mg/kg	500		80.0	70-130			
Surrogate: o-Terphenyl	*7.17*		*"*	*12.5*		*57.4*	*30-150*			
Matrix Spike (BHJ0227-MS1)	**Source: 2410052-01**			Prepared: 10/04/24 Analyzed: 10/08/24						
C10-C28 (DRO)	354	50	mg/kg	500	ND	70.8	70-130			
Surrogate: o-Terphenyl	*6.79*		*"*	*12.5*		*54.3*	*30-150*			
Matrix Spike Dup (BHJ0227-MSD1)	**Source: 2410052-01**			Prepared: 10/04/24 Analyzed: 10/08/24						
C10-C28 (DRO)	449	50	mg/kg	500	ND	89.8	70-130	23.7	20	QR-02
Surrogate: o-Terphenyl	*7.35*		*"*	*12.5*		*58.8*	*30-150*			

Phillips 66 6900 E Layton Ave/ Suite 900 Denver CO, 80237	Project: Four Parmlee (H-6-9) 3/2024 Project Number: [none] Project Manager: Brian Humphrey	**Reported:** 10/09/24 08:40

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BHJ0188 - EPA 5030 Soil MS										
Blank (BHJ0188-BLK1)				Prepared & Analyzed: 10/04/24						
Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
Surrogate: 2-Methylnaphthalene-d10	*0.0235*		*"*	*0.0333*		*70.4*	*40-150*			
Surrogate: Fluoranthene-d10	*0.0205*		*"*	*0.0333*		*61.6*	*40-150*			
LCS (BHJ0188-BS1)				Prepared & Analyzed: 10/04/24						
Acenaphthene	0.0256	0.00500	mg/kg	0.0333		76.7	31-137			
Anthracene	0.0259	0.00500	"	0.0333		77.7	30-120			
Benzo (a) anthracene	0.0251	0.00500	"	0.0333		75.4	30-120			
Benzo (a) pyrene	0.0229	0.00500	"	0.0333		68.7	30-120			
Benzo (b) fluoranthene	0.0230	0.00500	"	0.0333		69.0	30-120			
Benzo (k) fluoranthene	0.0240	0.00500	"	0.0333		72.1	30-120			
Chrysene	0.0271	0.00500	"	0.0333		81.3	30-120			
Dibenz (a,h) anthracene	0.0199	0.00500	"	0.0333		59.7	30-120			
Fluoranthene	0.0237	0.00500	"	0.0333		71.0	30-120			
Fluorene	0.0254	0.00500	"	0.0333		76.3	30-120			
Indeno (1,2,3-cd) pyrene	0.0224	0.00500	"	0.0333		67.3	30-120			
Pyrene	0.0250	0.00500	"	0.0333		74.9	35-142			
1-Methylnaphthalene	0.0240	0.00500	"	0.0333		71.9	35-142			
2-Methylnaphthalene	0.0245	0.00500	"	0.0333		73.5	35-142			
Surrogate: 2-Methylnaphthalene-d10	*0.0242*		*"*	*0.0333*		*72.6*	*40-150*			
Surrogate: Fluoranthene-d10	*0.0230*		*"*	*0.0333*		*69.1*	*40-150*			

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BHJ0188 - EPA 5030 Soil MS										
Matrix Spike (BHJ0188-MS1)	**Source: 2410042-01**			Prepared & Analyzed: 10/04/24						
Acenaphthene	0.0219	0.00500	mg/kg	0.0333	ND	65.8	31-137			
Anthracene	0.0222	0.00500	"	0.0333	ND	66.5	30-120			
Benzo (a) anthracene	0.0216	0.00500	"	0.0333	ND	64.9	30-120			
Benzo (a) pyrene	0.0191	0.00500	"	0.0333	ND	57.3	30-120			
Benzo (b) fluoranthene	0.0186	0.00500	"	0.0333	ND	55.8	30-120			
Benzo (k) fluoranthene	0.0196	0.00500	"	0.0333	ND	58.7	30-120			
Chrysene	0.0223	0.00500	"	0.0333	ND	66.9	30-120			
Dibenz (a,h) anthracene	0.0170	0.00500	"	0.0333	ND	51.0	30-120			
Fluoranthene	0.0199	0.00500	"	0.0333	ND	59.6	30-120			
Fluorene	0.0218	0.00500	"	0.0333	ND	65.4	30-120			
Indeno (1,2,3-cd) pyrene	0.0185	0.00500	"	0.0333	ND	55.5	30-120			
Pyrene	0.0210	0.00500	"	0.0333	ND	62.9	35-142			
1-Methylnaphthalene	0.0194	0.00500	"	0.0333	ND	58.1	15-130			
2-Methylnaphthalene	0.0208	0.00500	"	0.0333	ND	62.3	15-130			
Surrogate: 2-Methylnaphthalene-d10	*0.0199*		*"*	*0.0333*		*59.6*	*40-150*			
Surrogate: Fluoranthene-d10	*0.0193*		*"*	*0.0333*		*57.8*	*40-150*			
Matrix Spike Dup (BHJ0188-MSD1)	**Source: 2410042-01**			Prepared & Analyzed: 10/04/24						
Acenaphthene	0.0203	0.00500	mg/kg	0.0333	ND	60.8	31-137	7.88	30	
Anthracene	0.0211	0.00500	"	0.0333	ND	63.2	30-120	5.09	30	
Benzo (a) anthracene	0.0219	0.00500	"	0.0333	ND	65.6	30-120	1.09	30	
Benzo (a) pyrene	0.0185	0.00500	"	0.0333	ND	55.6	30-120	3.04	30	
Benzo (b) fluoranthene	0.0178	0.00500	"	0.0333	ND	53.4	30-120	4.38	30	
Benzo (k) fluoranthene	0.0181	0.00500	"	0.0333	ND	54.3	30-120	7.73	30	
Chrysene	0.0224	0.00500	"	0.0333	ND	67.1	30-120	0.260	30	
Dibenz (a,h) anthracene	0.0175	0.00500	"	0.0333	ND	52.5	30-120	3.08	30	
Fluoranthene	0.0196	0.00500	"	0.0333	ND	58.8	30-120	1.31	30	
Fluorene	0.0204	0.00500	"	0.0333	ND	61.3	30-120	6.52	30	
Indeno (1,2,3-cd) pyrene	0.0194	0.00500	"	0.0333	ND	58.3	30-120	4.94	30	
Pyrene	0.0182	0.00500	"	0.0333	ND	54.6	35-142	14.2	30	
1-Methylnaphthalene	0.0196	0.00500	"	0.0333	ND	58.7	15-130	1.09	50	
2-Methylnaphthalene	0.0215	0.00500	"	0.0333	ND	64.6	15-130	3.62	50	
Surrogate: 2-Methylnaphthalene-d10	*0.0205*		*"*	*0.0333*		*61.5*	*40-150*			
Surrogate: Fluoranthene-d10	*0.0188*		*"*	*0.0333*		*56.4*	*40-150*			

Phillips 66 6900 E Layton Ave/ Suite 900 Denver CO, 80237	Project: Four Parmlee (H-6-9) 3/2024 Project Number: [none] Project Manager: Brian Humphrey	**Reported:** 10/09/24 08:40

Total Metals by EPA 6020B Hot Water Soluble Extraction - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BHJ0212 - EPA 3050B										
Blank (BHJ0212-BLK1)				Prepared: 10/04/24 Analyzed: 10/07/24						
Boron	ND	2.00	mg/L							
LCS (BHJ0212-BS1)				Prepared: 10/04/24 Analyzed: 10/07/24						
Boron	4.96	2.00	mg/L	5.00		99.3	80-120			
Duplicate (BHJ0212-DUP1)		**Source: 2410055-01**		Prepared: 10/04/24 Analyzed: 10/07/24						
Boron	0.0402	2.00	mg/L		0.0898			76.4	20	QR-01
Matrix Spike (BHJ0212-MS1)		**Source: 2410055-01**		Prepared: 10/04/24 Analyzed: 10/07/24						
Boron	4.67	2.00	mg/L	5.04	0.0898	90.9	75-125			
Matrix Spike Dup (BHJ0212-MSD1)		**Source: 2410055-01**		Prepared: 10/04/24 Analyzed: 10/07/24						
Boron	5.09	2.00	mg/L	5.04	0.0898	99.3	75-125	8.69	25	

S2

Phillips 66 6900 E Layton Ave/ Suite 900 Denver CO, 80237	Project: Four Parmlee (H-6-9) 3/2024 Project Number: [none] Project Manager: Brian Humphrey	**Reported:** 10/09/24 08:40

Total Metals by EPA 6020B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BHJ0223 - EPA 3050B										
Blank (BHJ0223-BLK1)				Prepared: 10/04/24 Analyzed: 10/08/24						
Arsenic	ND	0.200	mg/kg wet							
Barium	ND	0.400	"							
Cadmium	ND	0.200	"							
Copper	ND	0.400	"							
Lead	ND	0.200	"							
Nickel	ND	0.400	"							
Silver	ND	0.0200	"							
Zinc	ND	0.400	"							
Selenium	ND	0.260	"							
LCS (BHJ0223-BS1)				Prepared: 10/04/24 Analyzed: 10/08/24						
Arsenic	38.4	0.200	mg/kg wet	39.1		98.4	80-120			
Barium	40.1	0.400	"	39.1		103	80-120			
Cadmium	1.74	0.200	"	1.95		89.1	80-120			
Copper	36.5	0.400	"	39.1		93.5	80-120			
Lead	18.0	0.200	"	19.5		92.2	80-120			
Nickel	36.5	0.400	"	39.1		93.6	80-120			
Silver	1.81	0.0200	"	1.95		92.5	80-120			
Zinc	36.5	0.400	"	39.1		93.5	80-120			
Selenium	3.96	0.260	"	3.91		101	80-120			
Duplicate (BHJ0223-DUP1)		**Source: 2410050-01**		Prepared: 10/04/24 Analyzed: 10/08/24						
Arsenic	5.94	0.200	mg/kg dry		6.56			9.90	20	
Barium	119	0.400	"		126			5.72	20	
Cadmium	0.238	0.200	"		0.234			1.48	20	
Copper	11.1	0.400	"		11.6			4.97	20	
Lead	9.41	0.200	"		10.1			6.64	20	
Nickel	12.7	0.400	"		13.5			5.94	20	
Silver	0.0478	0.0200	"		0.0511			6.61	20	
Zinc	41.8	0.400	"		44.6			6.48	20	
Selenium	0.182	0.260	"		0.194			5.97	20	

Total Metals by EPA 6020B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BHJ0223 - EPA 3050B										
Matrix Spike (BHJ0223-MS1)	**Source: 2410050-01**			Prepared: 10/04/24 Analyzed: 10/08/24						
Arsenic	45.8	0.200	mg/kg dry	44.5	6.56	88.1	75-125			
Barium	153	0.400	"	44.5	126	59.4	75-125			QM-05
Cadmium	2.09	0.200	"	2.23	0.234	83.2	75-125			
Copper	49.0	0.400	"	44.5	11.6	83.8	75-125			
Lead	27.9	0.200	"	22.3	10.1	80.0	75-125			
Nickel	51.4	0.400	"	44.5	13.5	85.1	75-125			
Silver	1.92	0.0200	"	2.23	0.0511	84.0	75-125			
Zinc	81.9	0.400	"	44.5	44.6	83.6	75-125			
Selenium	3.47	0.260	"	4.45	0.194	73.5	75-125			QM-05
Matrix Spike Dup (BHJ0223-MSD1)	**Source: 2410050-01**			Prepared: 10/04/24 Analyzed: 10/08/24						
Arsenic	52.7	0.200	mg/kg dry	48.1	6.56	96.0	75-125	14.1	25	
Barium	169	0.400	"	48.1	126	89.0	75-125	10.2	25	
Cadmium	2.38	0.200	"	2.41	0.234	89.2	75-125	13.1	25	
Copper	55.4	0.400	"	48.1	11.6	91.0	75-125	12.3	25	
Lead	30.7	0.200	"	24.1	10.1	85.8	75-125	9.57	25	
Nickel	58.2	0.400	"	48.1	13.5	93.0	75-125	12.4	25	
Silver	2.22	0.0200	"	2.41	0.0511	90.2	75-125	14.4	25	
Zinc	88.7	0.400	"	48.1	44.6	91.7	75-125	8.07	25	
Selenium	3.99	0.260	"	4.81	0.194	78.9	75-125	14.0	25	

Phillips 66 6900 E Layton Ave/ Suite 900 Denver CO, 80237	Project: Four Parmlee (H-6-9) 3/2024 Project Number: [none] Project Manager: Brian Humphrey	**Reported:** 10/09/24 08:40

Hexavalent Chromium by EPA Method 7196 - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BHJ0179 - 3060A_Mod										
Blank (BHJ0179-BLK1)				Prepared: 10/03/24 Analyzed: 10/04/24						
Chromium, Hexavalent	ND	0.30	mg/kg wet							
LCS (BHJ0179-BS1)				Prepared: 10/03/24 Analyzed: 10/04/24						
Chromium, Hexavalent	26.2	0.30	mg/kg wet	25.0		105	80-120			
Duplicate (BHJ0179-DUP1)		**Source: 2410035-21**		Prepared: 10/03/24 Analyzed: 10/04/24						
Chromium, Hexavalent	ND	0.30	mg/kg dry		ND				20	
Matrix Spike (BHJ0179-MS1)		**Source: 2410035-21**		Prepared: 10/03/24 Analyzed: 10/04/24						
Chromium, Hexavalent	31.1	0.30	mg/kg dry	28.8	ND	108	75-125			
Matrix Spike Dup (BHJ0179-MSD1)		**Source: 2410035-21**		Prepared: 10/03/24 Analyzed: 10/04/24						
Chromium, Hexavalent	30.2	0.30	mg/kg dry	28.8	ND	105	75-125	3.01	20	

Phillips 66 6900 E Layton Ave/ Suite 900 Denver CO, 80237	Project: Four Parmlee (H-6-9) 3/2024 Project Number: [none] Project Manager: Brian Humphrey	**Reported:** 10/09/24 08:40

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BHJ0162 - General Preparation										
Blank (BHJ0162-BLK1)				Prepared: 10/03/24 Analyzed: 10/04/24						
Calcium	ND	0.0500	mg/L wet							
Magnesium	ND	0.0500	"							
Sodium	ND	0.0500	"							
LCS (BHJ0162-BS1)				Prepared: 10/03/24 Analyzed: 10/04/24						
Calcium	4.75	0.0500	mg/L wet	5.00		95.0	70-130			
Magnesium	4.76	0.0500	"	5.00		95.1	70-130			
Sodium	4.67	0.0500	"	5.00		93.4	70-130			

Phillips 66 6900 E Layton Ave/ Suite 900 Denver CO, 80237	Project: Four Parmlee (H-6-9) 3/2024 Project Number: [none] Project Manager: Brian Humphrey	**Reported:** 10/09/24 08:40

Physical Parameters by APHA/ASTM/EPA Methods - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BHJ0209 - General Preparation										
Duplicate (BHJ0209-DUP1)	**Source: 2410042-01**			Prepared & Analyzed: 10/04/24						
% Solids	92.5		%		92.8			0.416	20	

S2

Phillips 66 6900 E Layton Ave/ Suite 900 Denver CO, 80237	Project: Four Parmlee (H-6-9) 3/2024 Project Number: [none] Project Manager: Brian Humphrey	**Reported:** 10/09/24 08:40

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BHJ0163 - General Preparation										
Blank (BHJ0163-BLK1)				Prepared: 10/03/24 Analyzed: 10/04/24						
Specific Conductance (EC)	ND	0.0100	mmhos/cm							
LCS (BHJ0163-BS1)				Prepared: 10/03/24 Analyzed: 10/04/24						
Specific Conductance (EC)	0.156	0.0100	mmhos/cm	0.150		104	95-105			
Duplicate (BHJ0163-DUP1)		**Source: 2410002-01**		Prepared: 10/03/24 Analyzed: 10/04/24						
Specific Conductance (EC)	0.235	0.0100	mmhos/cm		0.242			2.94	20	

Phillips 66 6900 E Layton Ave/ Suite 900 Denver CO, 80237	Project: Four Parmlee (H-6-9) 3/2024 Project Number: [none] Project Manager: Brian Humphrey	**Reported:** 10/09/24 08:40

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BHJ0164 - General Preparation										
LCS (BHJ0164-BS1)				Prepared: 10/03/24 Analyzed: 10/04/24						
pH	9.17		pH Units	9.18		99.9	95-105			
Duplicate (BHJ0164-DUP1)		**Source: 2410002-01**		Prepared: 10/03/24 Analyzed: 10/04/24						
pH	7.73		pH Units		7.86			1.67	20	

Phillips 66 6900 E Layton Ave/ Suite 900 Denver CO, 80237	Project: Four Parmlee (H-6-9) 3/2024 Project Number: [none] Project Manager: Brian Humphrey	**Reported:** 10/09/24 08:40

Notes and Definitions

QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
QR-01	Analyses are not controlled on RPD values from sample concentrations below the reporting limit. Sample results were accepted based on LCS and/or LCSD recoveries and/or RPD values.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. Sample results were accepted based on LCS and/or LCSD recoveries and/or RPD values.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference