

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

July 13, 2021

Max Knop

K.P. Kauffman

1675 Broadway

Denver, CO 80202

RE: Longmont Farms Unit #5

Work Order #2106413

Enclosed are the results of analyses for samples received by Summit Scientific on 06/22/21 14:32. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, reading "Muri Premer", is displayed on a light purple rectangular background.

Muri Premer For Paul Shrewsbury
President



K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
N (#1)	2106413-01	Soil	06/21/21 08:00	06/22/21 14:32
E (#2)	2106413-02	Soil	06/21/21 08:05	06/22/21 14:32
S (#3)	2106413-03	Soil	06/21/21 08:10	06/22/21 14:32
W (#4)	2106413-04	Soil	06/21/21 08:15	06/22/21 14:32
F (#5)	2106413-05	Soil	06/21/21 08:20	06/22/21 14:32
#6 (BG)	2106413-06	Soil	06/21/21 08:30	06/22/21 14:32
#7 (BG)	2106413-07	Soil	06/21/21 08:35	06/22/21 14:32
#8 (BG)	2106413-08	Soil	06/21/21 08:40	06/22/21 14:32
EC	2106413-09	Soil	06/22/21 10:20	06/22/21 14:32
NC	2106413-10	Soil	06/22/21 10:25	06/22/21 14:32
F	2106413-11	Soil	06/22/21 10:30	06/22/21 14:32
SC	2106413-12	Soil	06/22/21 10:35	06/22/21 14:32
WC	2106413-13	Soil	06/22/21 10:40	06/22/21 14:32

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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.

2106413.1

741 Corporate Circle Suite I ♦ Golden, Colorado 80401

303-277-9310 ♦ 303-374-5933 Fax

Page 1 of 2

Client:	KP Kauffman		
Address:	1675 Broadway, Suite 2800		
City/State/Zip:	Denver, CO 80202		
Phone:	303-825-4822	Fax:	303-825-4825
Sampler Name:	KWS		

Project Manager:	Max Knop
E-Mail:	mknop@kpk.com; mduran@kpk.com
Project Name:	Longmont Farms Unit #5
Project Number:	

				Preservative				Matrix				Analyze For:									
Sample Description	Date Sampled	Time Sampled	Number of Containers	HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	Table 915-1 Suite	Arsenic							Special Instructions	
N (#1)	6/21/2021	8:00	3			x			x			x									
E (#2)	6/21/2021	8:05	3			x			x			x									
S (#3)	6/21/2021	8:10	3			x			x			x									
W (#4)	6/21/2021	8:15	3			x			x			x									
F (#5)	6/21/2021	8:20	3			x			x			x									
#6 (BG)	6/21/2021	8:30	1			x			x				x								
#7 (BG)	6/21/2021	8:35	1			x			x				x								
#8 (BG)	6/21/2021	8:40	1			x			x				x								
																				New inorganic methods	
Relinquished by: <i>Kathy Budd</i> Date/Time: <i>6/22/21 2:32pm</i>				Received by: <i>[Signature]</i> Date/Time: <i>6/22/21 1432</i>				Turn Around Time (Check) Same Day <input type="checkbox"/> 72 Hours <input type="checkbox"/> 24 Hours <input type="checkbox"/> Standard <input checked="" type="checkbox"/> 48 Hours <input type="checkbox"/>												Notes:	
Relinquished by: _____ Date/Time: _____				Received by: _____ Date/Time: _____				Sample Integrity: Temperature Upon Receipt: <u><i>18</i></u> Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>													
Relinquished by: _____ Date/Time: _____				Received in Lab by: _____ Date/Time: _____																	

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303-277-9310 ♦ 303-374-5933 Fax

Client:	KP Kauffman		
Address:	1675 Broadway, Suite 2800		
City/State/Zip:	Denver, CO 80202		
Phone:	303-825-4822	Fax:	303-825-4825
Sampler Name:	KWS		

Project Manager:	Max Knop
E-Mail:	mknop@kpk.com; mduran@kpk.com
Project Name:	Longmont Farms Unit #5
Project Number:	

				Preservative				Matrix				Analyze For:								Special Instructions
Sample Description	Date Sampled	Time Sampled	Number of Containers	HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	Table 915-1 Suite								
EC	6/22/2021	10:20	3		x			x				x								
NC	6/22/2021	10:25	3		x			x				x								
F	6/22/2021	10:30	3		x			x				x								
SC	6/22/2021	10:35	3		x			x				x								
WC	6/22/2021	10:40	3		x			x				x								
Relinquished by: Kathy Budd				Date/Time: 6/22/21 3:32pm		Received by: [Signature]		Date/Time: 6/22/21 1432		Turn Around Time (Check)										Notes:
Relinquished by:				Date/Time:		Received by:		Date/Time:		Same Day <input type="checkbox"/> 72 Hours <input type="checkbox"/> 24 Hours <input type="checkbox"/> Standard <input checked="" type="checkbox"/> 48 Hours <input type="checkbox"/>										
Relinquished by:				Date/Time:		Received in Lab by:		Date/Time:		Sample Integrity: 18 Temperature Upon Receipt: Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>										

2106413

Sample Receipt Checklist

S2 Work Order _____

Client: KP Karffman Client Project ID: Longmont Farms Unit #5Shipped Via: ☐ H.D./P.U./FedEx/UPS/USPS/Other _____ Airbill #: _____Matrix (check all that apply): ☐ Air ☒ Soil/Solid ☐ Water ☐ Other: _____
(Describe)

Temp (°C)	18
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Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ? NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	On ice.
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"/>	
If custody seals are present, are they intact ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form 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 w/ date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace 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 (excluding cooling) ⁽¹⁾ ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<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 in case narrative.JB
Custodian Printed Name or InitialsJohn B.
Signature of Custodian6/22/21
Date/Time



K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

N (#1)
2106413-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/21/21 08:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEF0513	06/24/21	06/25/21	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: **06/21/21 08:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		113 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		111 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.8 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/21/21 08:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEF0512	06/24/21	06/25/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/21/21 08:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		112 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Project: Longmont Farms Unit #5

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Project Manager: Max Knop

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07/13/21 14:31

N (#1)
2106413-01 (Soil)

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PAH by EPA Method 8270D SIM

Date Sampled: **06/21/21 08:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BEG0109	07/07/21	07/11/21	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: **06/21/21 08:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		47.7 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		59.2 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **06/21/21 08:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0646	0.0100	mg/L	1	BEF0586	06/29/21	06/30/21	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **06/21/21 08:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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N (#1)
2106413-01 (Soil)

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Total Metals by EPA 6020B

Arsenic	2.96	0.207	mg/kg dry	1	BEF0531	06/25/21	06/25/21	EPA 6020B
Barium	87.5	0.414	"	"	"	"	"	"
Cadmium	ND	0.207	"	"	"	"	"	"
Copper	9.07	0.414	"	"	"	"	"	"
Lead	6.68	0.207	"	"	"	"	"	"
Nickel	9.38	0.414	"	"	"	"	"	"
Selenium	0.377	0.269	"	"	"	"	"	"
Silver	0.0356	0.0207	"	"	"	"	"	"
Zinc	31.8	0.414	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/21/21 08:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEF0523	06/24/21	06/24/21	EPA 7196A	

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

Date Sampled: **06/21/21 08:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	88.2	0.0517	mg/L dry	1	BEF0534	06/25/21	06/28/21	EPA 6020B	
Magnesium	22.1	0.0517	"	"	"	"	"	"	
Sodium	52.1	0.0517	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **06/21/21 08:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.29	0.00100	units	1	BEF0579	06/29/21	06/29/21	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/21/21 08:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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N (#1)
2106413-01 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

% Solids	96.7	%	1	BEF0515	06/24/21	06/28/21	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **06/21/21 08:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.864	0.0100	mmhos/cm	1	BEF0556	06/28/21	06/28/21	EPA 120.1	

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

Date Sampled: **06/21/21 08:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.12		pH Units	1	BEF0555	06/28/21	06/28/21	EPA 9045D	

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Project Number: [none]
Project Manager: Max Knop

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07/13/21 14:31

E (#2)
2106413-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/21/21 08:05**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEF0513	06/24/21	06/25/21	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: **06/21/21 08:05**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		110 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		109 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.0 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/21/21 08:05**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEF0512	06/24/21	06/25/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/21/21 08:05**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		108 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Project: Longmont Farms Unit #5

Project Number: [none]
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E (#2)
2106413-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/21/21 08:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BEG0109	07/07/21	07/11/21	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: **06/21/21 08:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		46.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		59.8 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **06/21/21 08:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0688	0.0100	mg/L	1	BEF0586	06/29/21	06/30/21	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **06/21/21 08:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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1675 Broadway
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Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

E (#2)
2106413-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	2.88	0.215	mg/kg dry	1	BEF0531	06/25/21	06/25/21	EPA 6020B
Barium	86.2	0.431	"	"	"	"	"	"
Cadmium	ND	0.215	"	"	"	"	"	"
Copper	8.64	0.431	"	"	"	"	"	"
Lead	6.46	0.215	"	"	"	"	"	"
Nickel	9.14	0.431	"	"	"	"	"	"
Selenium	0.432	0.280	"	"	"	"	"	"
Silver	0.0320	0.0215	"	"	"	"	"	"
Zinc	37.4	0.431	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/21/21 08:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEF0523	06/24/21	06/24/21	EPA 7196A	

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

Date Sampled: **06/21/21 08:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	32.1	0.0538	mg/L dry	1	BEF0534	06/25/21	06/28/21	EPA 6020B	
Magnesium	7.53	0.0538	"	"	"	"	"	"	
Sodium	16.5	0.0538	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **06/21/21 08:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.681	0.00100	units	1	BEF0579	06/29/21	06/29/21	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/21/21 08:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

E (#2)
2106413-02 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	92.9	%	1	BEF0515	06/24/21	06/28/21	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **06/21/21 08:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.311	0.0100	mmhos/cm	1	BEF0556	06/28/21	06/28/21	EPA 120.1	

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

Date Sampled: **06/21/21 08:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.27		pH Units	1	BEF0555	06/28/21	06/28/21	EPA 9045D	

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1675 Broadway
Denver CO, 80202

Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

S (#3)
2106413-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/21/21 08:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEF0513	06/24/21	06/25/21	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: **06/21/21 08:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		119 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		112 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.4 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/21/21 08:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEF0512	06/24/21	06/25/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/21/21 08:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		107 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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1675 Broadway
Denver CO, 80202

Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

S (#3)
2106413-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/21/21 08:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BEG0109	07/07/21	07/11/21	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: **06/21/21 08:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		53.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		62.2 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **06/21/21 08:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0771	0.0100	mg/L	1	BEF0586	06/29/21	06/30/21	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **06/21/21 08:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

S (#3)
2106413-03 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	2.70	0.213	mg/kg dry	1	BEF0531	06/25/21	06/25/21	EPA 6020B
Barium	99.4	0.425	"	"	"	"	"	"
Cadmium	ND	0.213	"	"	"	"	"	"
Copper	9.08	0.425	"	"	"	"	"	"
Lead	8.02	0.213	"	"	"	"	"	"
Nickel	9.55	0.425	"	"	"	"	"	"
Selenium	0.516	0.276	"	"	"	"	"	"
Silver	0.0383	0.0213	"	"	"	"	"	"
Zinc	33.3	0.425	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/21/21 08:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEF0523	06/24/21	06/24/21	EPA 7196A	

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

Date Sampled: **06/21/21 08:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	51.5	0.0532	mg/L dry	1	BEF0534	06/25/21	06/29/21	EPA 6020B	
Magnesium	16.4	0.0532	"	"	"	"	"	"	
Sodium	28.1	0.0532	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **06/21/21 08:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.873	0.00100	units	1	BEF0579	06/29/21	06/29/21	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/21/21 08:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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1675 Broadway
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Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

S (#3)
2106413-03 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	94.1	%	1	BEF0515	06/24/21	06/28/21	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **06/21/21 08:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.563	0.0100	mmhos/cm	1	BEF0556	06/28/21	06/28/21	EPA 120.1	

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

Date Sampled: **06/21/21 08:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.14		pH Units	1	BEF0555	06/28/21	06/28/21	EPA 9045D	

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1675 Broadway
Denver CO, 80202

Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

W (#4)
2106413-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/21/21 08:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEF0513	06/24/21	06/25/21	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: **06/21/21 08:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		123 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		107 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.5 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/21/21 08:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEF0512	06/24/21	06/25/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/21/21 08:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		108 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

W (#4)
2106413-04 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/21/21 08:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BEG0109	07/07/21	07/11/21	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: **06/21/21 08:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		48.7 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		58.3 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **06/21/21 08:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0234	0.0100	mg/L	1	BEF0586	06/29/21	06/30/21	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **06/21/21 08:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

W (#4)
2106413-04 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	2.64	0.210	mg/kg dry	1	BEF0531	06/25/21	06/25/21	EPA 6020B
Barium	110	0.421	"	"	"	"	"	"
Cadmium	ND	0.210	"	"	"	"	"	"
Copper	10.1	0.421	"	"	"	"	"	"
Lead	7.70	0.210	"	"	"	"	"	"
Nickel	10.2	0.421	"	"	"	"	"	"
Selenium	0.531	0.274	"	"	"	"	"	"
Silver	0.0408	0.0210	"	"	"	"	"	"
Zinc	33.3	0.421	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/21/21 08:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEF0523	06/24/21	06/24/21	EPA 7196A	

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

Date Sampled: **06/21/21 08:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	26.8	0.0526	mg/L dry	1	BEF0534	06/25/21	06/29/21	EPA 6020B	
Magnesium	7.23	0.0526	"	"	"	"	"	"	
Sodium	14.4	0.0526	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **06/21/21 08:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.637	0.00100	units	1	BEF0579	06/29/21	06/29/21	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/21/21 08:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

W (#4)
2106413-04 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	95.0	%	1	BEF0515	06/24/21	06/28/21	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **06/21/21 08:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.264	0.0100	mmhos/cm	1	BEF0556	06/28/21	06/28/21	EPA 120.1	

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

Date Sampled: **06/21/21 08:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.32		pH Units	1	BEF0555	06/28/21	06/28/21	EPA 9045D	

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

F (#5)
2106413-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/21/21 08:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEF0513	06/24/21	06/25/21	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: **06/21/21 08:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		121 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		106 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.9 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/21/21 08:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEF0512	06/24/21	06/25/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/21/21 08:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		106 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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1675 Broadway
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Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

F (#5)
2106413-05 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/21/21 08:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BEG0109	07/07/21	07/11/21	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: **06/21/21 08:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		51.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		66.8 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **06/21/21 08:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0295	0.0100	mg/L	1	BEF0586	06/29/21	06/30/21	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **06/21/21 08:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

F (#5)
2106413-05 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	2.69	0.217	mg/kg dry	1	BEF0531	06/25/21	06/25/21	EPA 6020B
Barium	105	0.435	"	"	"	"	"	"
Cadmium	ND	0.217	"	"	"	"	"	"
Copper	9.70	0.435	"	"	"	"	"	"
Lead	8.03	0.217	"	"	"	"	"	"
Nickel	9.66	0.435	"	"	"	"	"	"
Selenium	0.480	0.282	"	"	"	"	"	"
Silver	0.0418	0.0217	"	"	"	"	"	"
Zinc	33.4	0.435	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/21/21 08:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEF0523	06/24/21	06/24/21	EPA 7196A	

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

Date Sampled: **06/21/21 08:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	49.2	0.0543	mg/L dry	1	BEF0534	06/25/21	06/29/21	EPA 6020B	
Magnesium	13.9	0.0543	"	"	"	"	"	"	
Sodium	27.0	0.0543	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **06/21/21 08:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.876	0.00100	units	1	BEF0579	06/29/21	06/29/21	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/21/21 08:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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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.



K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

F (#5)
2106413-05 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	92.1	%	1	BEF0515	06/24/21	06/28/21	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **06/21/21 08:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.494	0.0100	mmhos/cm	1	BEF0556	06/28/21	06/28/21	EPA 120.1	

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

Date Sampled: **06/21/21 08:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.26		pH Units	1	BEF0555	06/28/21	06/28/21	EPA 9045D	

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

#6 (BG)
2106413-06 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **06/21/21 08:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	2.73	0.200		mg/kg dry	1	BEF0531	06/25/21	06/26/21	EPA 6020B	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/21/21 08:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	93.6			%	1	BEF0515	06/24/21	06/28/21	Calculation	

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

#7 (BG)
2106413-07 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **06/21/21 08:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	2.59	0.200		mg/kg dry	1	BEF0531	06/25/21	06/26/21	EPA 6020B	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/21/21 08:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	88.8			%	1	BEF0515	06/24/21	06/28/21	Calculation	

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

#8 (BG)
2106413-08 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **06/21/21 08:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	3.56	0.200		mg/kg dry	1	BEF0531	06/25/21	06/26/21	EPA 6020B	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/21/21 08:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	95.6			%	1	BEF0515	06/24/21	06/28/21	Calculation	

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

EC
2106413-09 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/22/21 10:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEF0513	06/24/21	06/25/21	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: **06/22/21 10:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		121 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		100 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.8 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/22/21 10:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEF0512	06/24/21	06/25/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/22/21 10:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		114 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

EC
2106413-09 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/22/21 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BEG0077	07/06/21	07/08/21	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: **06/22/21 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		67.4 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		66.5 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **06/22/21 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.102	0.0100	mg/L	1	BEF0586	06/29/21	06/30/21	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **06/22/21 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

EC
2106413-09 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	3.87	0.206	mg/kg dry	1	BEF0531	06/25/21	06/26/21	EPA 6020B
Barium	103	0.413	"	"	"	"	"	"
Cadmium	ND	0.206	"	"	"	"	"	"
Copper	9.57	0.413	"	"	"	"	"	"
Lead	8.51	0.206	"	"	"	"	"	"
Nickel	9.89	0.413	"	"	"	"	"	"
Selenium	0.496	0.268	"	"	"	"	"	"
Silver	0.0381	0.0206	"	"	"	"	"	"
Zinc	32.7	0.413	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/22/21 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEF0523	06/24/21	06/24/21	EPA 7196A	

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

Date Sampled: **06/22/21 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	20.1	0.0516	mg/L dry	1	BEF0534	06/25/21	06/29/21	EPA 6020B	
Magnesium	6.72	0.0516	"	"	"	"	"	"	
Sodium	22.4	0.0516	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **06/22/21 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.10	0.00100	units	1	BEF0579	06/29/21	06/29/21	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/22/21 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

EC
2106413-09 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	96.9	%	1	BEF0515	06/24/21	06/28/21	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **06/22/21 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.298	0.0100	mmhos/cm	1	BEF0556	06/28/21	06/28/21	EPA 120.1	

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

Date Sampled: **06/22/21 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.40		pH Units	1	BEF0555	06/28/21	06/28/21	EPA 9045D	

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

NC
2106413-10 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/22/21 10:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEF0513	06/24/21	06/25/21	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: **06/22/21 10:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		111 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		107 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.0 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/22/21 10:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEF0512	06/24/21	06/25/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/22/21 10:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		108 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

NC
2106413-10 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/22/21 10:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BEG0077	07/06/21	07/08/21	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: **06/22/21 10:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		40.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		49.1 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **06/22/21 10:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0780	0.0100	mg/L	1	BEF0586	06/29/21	06/30/21	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **06/22/21 10:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

NC
2106413-10 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	2.78	0.206	mg/kg dry	1	BEF0531	06/25/21	06/26/21	EPA 6020B
Barium	101	0.413	"	"	"	"	"	"
Cadmium	ND	0.206	"	"	"	"	"	"
Copper	10.8	0.413	"	"	"	"	"	"
Lead	7.89	0.206	"	"	"	"	"	"
Nickel	10.1	0.413	"	"	"	"	"	"
Selenium	0.585	0.268	"	"	"	"	"	"
Silver	0.0385	0.0206	"	"	"	"	"	"
Zinc	34.1	0.413	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/22/21 10:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEF0523	06/24/21	06/24/21	EPA 7196A	

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

Date Sampled: **06/22/21 10:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	18.4	0.0516	mg/L dry	1	BEF0534	06/25/21	06/29/21	EPA 6020B	
Magnesium	5.13	0.0516	"	"	"	"	"	"	
Sodium	15.4	0.0516	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **06/22/21 10:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.818	0.00100	units	1	BEF0579	06/29/21	06/29/21	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/22/21 10:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

NC
2106413-10 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	97.0	%	1	BEF0515	06/24/21	06/28/21	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **06/22/21 10:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.267	0.0100	mmhos/cm	1	BEF0556	06/28/21	06/28/21	EPA 120.1	

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

Date Sampled: **06/22/21 10:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.26		pH Units	1	BEF0555	06/28/21	06/28/21	EPA 9045D	

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

F
2106413-11 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/22/21 10:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEF0513	06/24/21	06/25/21	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: **06/22/21 10:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		114 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		111 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.2 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/22/21 10:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEF0512	06/24/21	06/25/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/22/21 10:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		109 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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1675 Broadway
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Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

F
2106413-11 (Soil)

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PAH by EPA Method 8270D SIM

Date Sampled: **06/22/21 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BEG0077	07/06/21	07/08/21	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: **06/22/21 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		44.7 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		49.4 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **06/22/21 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0830	0.0100	mg/L	1	BEF0586	06/29/21	06/30/21	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **06/22/21 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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1675 Broadway
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Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

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Total Metals by EPA 6020B

Arsenic	3.51	0.205	mg/kg dry	1	BEF0531	06/25/21	06/26/21	EPA 6020B
Barium	114	0.409	"	"	"	"	"	"
Cadmium	ND	0.205	"	"	"	"	"	"
Copper	10.4	0.409	"	"	"	"	"	"
Lead	8.70	0.205	"	"	"	"	"	"
Nickel	11.0	0.409	"	"	"	"	"	"
Selenium	0.658	0.266	"	"	"	"	"	"
Silver	0.0391	0.0205	"	"	"	"	"	"
Zinc	37.1	0.409	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/22/21 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEF0523	06/24/21	06/24/21	EPA 7196A	

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

Date Sampled: **06/22/21 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	14.0	0.0512	mg/L dry	1	BEF0534	06/25/21	06/29/21	EPA 6020B	
Magnesium	4.11	0.0512	"	"	"	"	"	"	
Sodium	14.6	0.0512	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **06/22/21 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.882	0.00100	units	1	BEF0579	06/29/21	06/29/21	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/22/21 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Project Manager: Max Knop

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F
2106413-11 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

% Solids	97.7	%	1	BEF0515	06/24/21	06/28/21	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **06/22/21 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.209	0.0100	mmhos/cm	1	BEF0556	06/28/21	06/28/21	EPA 120.1	

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

Date Sampled: **06/22/21 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.21		pH Units	1	BEF0555	06/28/21	06/28/21	EPA 9045D	

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Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

SC
2106413-12 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/22/21 10:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEF0513	06/24/21	06/25/21	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: **06/22/21 10:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		112 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		110 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.1 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/22/21 10:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEF0512	06/24/21	06/25/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/22/21 10:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		105 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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2106413-12 (Soil)

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PAH by EPA Method 8270D SIM

Date Sampled: **06/22/21 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BEG0077	07/06/21	07/08/21	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: **06/22/21 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		44.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		45.3 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **06/22/21 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0230	0.0100	mg/L	1	BEF0586	06/29/21	06/30/21	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **06/22/21 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Project Manager: Max Knop

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Total Metals by EPA 6020B

Arsenic	ND	0.205	mg/kg dry	1	BEF0531	06/25/21	06/26/21	EPA 6020B
Barium	ND	0.411	"	"	"	"	"	"
Cadmium	ND	0.205	"	"	"	"	"	"
Copper	ND	0.411	"	"	"	"	"	"
Lead	ND	0.205	"	"	"	"	"	"
Nickel	ND	0.411	"	"	"	"	"	"
Selenium	ND	0.267	"	"	"	"	"	"
Silver	ND	0.0205	"	"	"	"	"	"
Zinc	ND	0.411	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/22/21 10:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEF0523	06/24/21	06/24/21	EPA 7196A	

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

Date Sampled: **06/22/21 10:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	38.5	0.0514	mg/L dry	1	BEF0534	06/25/21	06/29/21	EPA 6020B	
Magnesium	9.58	0.0514	"	"	"	"	"	"	
Sodium	29.3	0.0514	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **06/22/21 10:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Sodium Adsorption Ratio	1.09	0.00100	units	1	BEF0579	06/29/21	06/29/21	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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Project Manager: Max Knop

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Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/22/21 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	97.4		%	1	BEF0515	06/24/21	06/28/21	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **06/22/21 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.440	0.0100	mmhos/cm	1	BEF0556	06/28/21	06/28/21	EPA 120.1	

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

Date Sampled: **06/22/21 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.31		pH Units	1	BEF0555	06/28/21	06/28/21	EPA 9045D	

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Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

WC
2106413-13 (Soil)

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Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/22/21 10:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEF0513	06/24/21	06/25/21	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: **06/22/21 10:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		120 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		110 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.4 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/22/21 10:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEF0512	06/24/21	06/25/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/22/21 10:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		109 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

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WC
2106413-13 (Soil)

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PAH by EPA Method 8270D SIM

Date Sampled: **06/22/21 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BEG0077	07/06/21	07/08/21	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: **06/22/21 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		46.7 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		47.0 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **06/22/21 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0182	0.0100	mg/L	1	BEF0586	06/29/21	06/30/21	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **06/22/21 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Project Number: [none]
Project Manager: Max Knop

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WC
2106413-13 (Soil)

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Total Metals by EPA 6020B

Arsenic	2.52	0.205	mg/kg dry	1	BEF0531	06/25/21	06/26/21	EPA 6020B
Barium	98.6	0.409	"	"	"	"	"	"
Cadmium	ND	0.205	"	"	"	"	"	"
Copper	9.36	0.409	"	"	"	"	"	"
Lead	7.29	0.205	"	"	"	"	"	"
Nickel	9.49	0.409	"	"	"	"	"	"
Selenium	0.699	0.266	"	"	"	"	"	"
Silver	0.0363	0.0205	"	"	"	"	"	"
Zinc	31.6	0.409	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/22/21 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEF0523	06/24/21	06/24/21	EPA 7196A	

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

Date Sampled: **06/22/21 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	38.1	0.0511	mg/L dry	1	BEF0534	06/25/21	06/29/21	EPA 6020B	
Magnesium	9.61	0.0511	"	"	"	"	"	"	
Sodium	19.8	0.0511	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **06/22/21 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.742	0.00100	units	1	BEF0579	06/29/21	06/29/21	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/22/21 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

WC
2106413-13 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	97.8	%	1	BEF0515	06/24/21	06/28/21	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **06/22/21 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.385	0.0100	mmhos/cm	1	BEF0556	06/28/21	06/28/21	EPA 120.1	

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

Date Sampled: **06/22/21 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.26		pH Units	1	BEF0555	06/28/21	06/28/21	EPA 9045D	

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1675 Broadway
Denver CO, 80202

Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEF0513 - EPA 5030 Soil MS

Blank (BEF0513-BLK1)

Prepared: 06/24/21 Analyzed: 06/25/21

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	0.0371		"	0.0400		92.8	23-173			
Surrogate: Toluene-d8	0.0482		"	0.0400		120	20-170			
Surrogate: 4-Bromofluorobenzene	0.0395		"	0.0400		98.8	21-167			

LCS (BEF0513-BS1)

Prepared: 06/24/21 Analyzed: 06/25/21

Benzene	0.0772	0.0020	mg/kg	0.100		77.2	70-130			
Toluene	0.0955	0.0050	"	0.100		95.5	70-130			
Ethylbenzene	0.0941	0.0050	"	0.100		94.1	70-130			
m,p-Xylene	0.185	0.010	"	0.200		92.7	70-130			
o-Xylene	0.0860	0.0050	"	0.100		86.0	70-130			
1,2,4-Trimethylbenzene	0.105	0.0050	"	0.100		105	70-130			
1,3,5-Trimethylbenzene	0.106	0.0050	"	0.100		106	70-130			
Naphthalene	0.0950	0.0038	"	0.100		95.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0263		"	0.0400		65.8	23-173			
Surrogate: Toluene-d8	0.0480		"	0.0400		120	20-170			
Surrogate: 4-Bromofluorobenzene	0.0405		"	0.0400		101	21-167			

Matrix Spike (BEF0513-MS1)

Source: 2106413-01

Prepared: 06/24/21 Analyzed: 06/25/21

Benzene	0.0748	0.0020	mg/kg	0.100	ND	74.8	70-130			
Toluene	0.0818	0.0050	"	0.100	ND	81.8	70-130			
Ethylbenzene	0.0922	0.0050	"	0.100	ND	92.2	70-130			
m,p-Xylene	0.179	0.010	"	0.200	ND	89.6	70-130			
o-Xylene	0.0819	0.0050	"	0.100	ND	81.9	70-130			
1,2,4-Trimethylbenzene	0.0987	0.0050	"	0.100	ND	98.7	70-130			
1,3,5-Trimethylbenzene	0.0989	0.0050	"	0.100	ND	98.9	70-130			
Naphthalene	0.104	0.0038	"	0.100	ND	104	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0256		"	0.0400		64.0	23-173			
Surrogate: Toluene-d8	0.0422		"	0.0400		106	20-170			
Surrogate: 4-Bromofluorobenzene	0.0376		"	0.0400		94.0	21-167			

Summit Scientific

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1675 Broadway
Denver CO, 80202

Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEF0513 - EPA 5030 Soil MS

Matrix Spike Dup (BEF0513-MSD1)

Source: 2106413-01

Prepared: 06/24/21 Analyzed: 06/25/21

Benzene	0.0741	0.0020	mg/kg	0.100	ND	74.1	70-130	1.01	30	
Toluene	0.0749	0.0050	"	0.100	ND	74.9	70-130	8.77	30	
Ethylbenzene	0.0920	0.0050	"	0.100	ND	92.0	70-130	0.228	30	
m,p-Xylene	0.176	0.010	"	0.200	ND	87.8	70-130	2.06	30	
o-Xylene	0.0805	0.0050	"	0.100	ND	80.5	70-130	1.77	30	
1,2,4-Trimethylbenzene	0.0949	0.0050	"	0.100	ND	94.9	70-130	3.91	30	
1,3,5-Trimethylbenzene	0.0956	0.0050	"	0.100	ND	95.6	70-130	3.33	30	
Naphthalene	0.107	0.0038	"	0.100	ND	107	70-130	3.10	30	
Surrogate: 1,2-Dichloroethane-d4	0.0276		"	0.0400		68.9	23-173			
Surrogate: Toluene-d8	0.0384		"	0.0400		95.9	20-170			
Surrogate: 4-Bromofluorobenzene	0.0366		"	0.0400		91.5	21-167			

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1675 Broadway
Denver CO, 80202

Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD	
		Limit	Units		Result	%REC	Limits	RPD	Limit	Notes

Batch BEF0512 - EPA 3550A

Blank (BEF0512-BLK1)

Prepared: 06/24/21 Analyzed: 06/25/21

C10-C28 (DRO)	ND	50	mg/kg
C28-C36 (ORO)	ND	50	"

LCS (BEF0512-BS1)

Prepared: 06/24/21 Analyzed: 06/25/21

C10-C28 (DRO)	540	50	mg/kg	500	108	70-130
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Matrix Spike (BEF0512-MS1)

Source: 2106413-01

Prepared: 06/24/21 Analyzed: 06/25/21

C10-C28 (DRO)	616	50	mg/kg	500	21.1	119	70-130
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Matrix Spike Dup (BEF0512-MSD1)

Source: 2106413-01

Prepared: 06/24/21 Analyzed: 06/25/21

C10-C28 (DRO)	593	50	mg/kg	500	21.1	114	70-130	3.78	20
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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch BEG0077 - EPA 5030 Soil MS

Blank (BEG0077-BLK1)

Prepared: 07/06/21 Analyzed: 07/07/21

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	0.0154		"	0.0333		46.1	40-150			
Surrogate: Fluoranthene-d10	0.0177		"	0.0333		53.2	40-150			

LCS (BEG0077-BS1)

Prepared: 07/06/21 Analyzed: 07/07/21

Acenaphthene	0.0300	0.00500	mg/kg	0.0333	89.9	31-137
Anthracene	0.0294	0.00500	"	0.0333	88.2	30-120
Benzo (a) anthracene	0.0283	0.00500	"	0.0333	85.0	30-120
Benzo (a) pyrene	0.0292	0.00500	"	0.0333	87.6	30-120
Benzo (b) fluoranthene	0.0241	0.00500	"	0.0333	72.2	30-120
Benzo (k) fluoranthene	0.0279	0.00500	"	0.0333	83.6	30-120
Chrysene	0.0290	0.00500	"	0.0333	86.9	30-120
Dibenz (a,h) anthracene	0.0176	0.00500	"	0.0333	52.7	30-120
Fluoranthene	0.0315	0.00500	"	0.0333	94.5	30-120
Fluorene	0.0310	0.00500	"	0.0333	93.1	30-120
Indeno (1,2,3-cd) pyrene	0.0155	0.00500	"	0.0333	46.6	30-120
Pyrene	0.0317	0.00500	"	0.0333	95.2	35-142
1-Methylnaphthalene	0.0308	0.00500	"	0.0333	92.3	35-142
2-Methylnaphthalene	0.0312	0.00500	"	0.0333	93.5	35-142
Surrogate: 2-Methylnaphthalene-d10	0.0308		"	0.0333	92.3	40-150
Surrogate: Fluoranthene-d10	0.0309		"	0.0333	92.8	40-150

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Analyte	Reporting			Spike		Source		%REC		RPD	
	Result	Limit	Units	Level		Result	%REC	Limits	RPD	Limit	Notes

Batch BEG0077 - EPA 5030 Soil MS

Matrix Spike (BEG0077-MS1)

Source: 2106087-01

Prepared: 07/06/21 Analyzed: 07/07/21

Acenaphthene	0.0224	0.00500	mg/kg	0.0333	ND	67.2	31-137				
Anthracene	0.0230	0.00500	"	0.0333	ND	69.1	30-120				
Benzo (a) anthracene	0.0226	0.00500	"	0.0333	ND	67.8	30-120				
Benzo (a) pyrene	0.0220	0.00500	"	0.0333	ND	66.0	30-120				
Benzo (b) fluoranthene	0.0274	0.00500	"	0.0333	ND	82.3	30-120				
Benzo (k) fluoranthene	0.0299	0.00500	"	0.0333	ND	89.8	30-120				
Chrysene	0.0248	0.00500	"	0.0333	ND	74.3	30-120				
Dibenz (a,h) anthracene	0.0133	0.00500	"	0.0333	ND	40.0	30-120				
Fluoranthene	0.0223	0.00500	"	0.0333	ND	66.8	30-120				
Fluorene	0.0232	0.00500	"	0.0333	ND	69.5	30-120				
Indeno (1,2,3-cd) pyrene	0.0124	0.00500	"	0.0333	ND	37.1	30-120				
Pyrene	0.0280	0.00500	"	0.0333	ND	84.1	35-142				
1-Methylnaphthalene	0.0229	0.00500	"	0.0333	ND	68.7	15-130				
2-Methylnaphthalene	0.0235	0.00500	"	0.0333	ND	70.6	15-130				
Surrogate: 2-Methylnaphthalene-d10	0.0443		"	0.0333		133	40-150				
Surrogate: Fluoranthene-d10	0.0392		"	0.0333		117	40-150				

Matrix Spike Dup (BEG0077-MSD1)

Source: 2106087-01

Prepared: 07/06/21 Analyzed: 07/07/21

Acenaphthene	0.0252	0.00500	mg/kg	0.0333	ND	75.7	31-137	11.9	30		
Anthracene	0.0278	0.00500	"	0.0333	ND	83.3	30-120	18.7	30		
Benzo (a) anthracene	0.0273	0.00500	"	0.0333	ND	81.8	30-120	18.7	30		
Benzo (a) pyrene	0.0253	0.00500	"	0.0333	ND	75.9	30-120	14.1	30		
Benzo (b) fluoranthene	0.0323	0.00500	"	0.0333	ND	96.9	30-120	16.4	30		
Benzo (k) fluoranthene	0.0344	0.00500	"	0.0333	ND	103	30-120	14.0	30		
Chrysene	0.0297	0.00500	"	0.0333	ND	89.0	30-120	17.9	30		
Dibenz (a,h) anthracene	0.0154	0.00500	"	0.0333	ND	46.2	30-120	14.4	30		
Fluoranthene	0.0236	0.00500	"	0.0333	ND	70.9	30-120	5.93	30		
Fluorene	0.0264	0.00500	"	0.0333	ND	79.2	30-120	13.1	30		
Indeno (1,2,3-cd) pyrene	0.0136	0.00500	"	0.0333	ND	40.7	30-120	9.40	30		
Pyrene	0.0340	0.00500	"	0.0333	ND	102	35-142	19.2	30		
1-Methylnaphthalene	0.0259	0.00500	"	0.0333	ND	77.6	15-130	12.2	50		
2-Methylnaphthalene	0.0268	0.00500	"	0.0333	ND	80.5	15-130	13.1	50		
Surrogate: 2-Methylnaphthalene-d10	0.0475		"	0.0333		143	40-150				
Surrogate: Fluoranthene-d10	0.0410		"	0.0333		123	40-150				

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEG0109 - EPA 5030 Soil MS

Blank (BEG0109-BLK1)

Prepared: 07/07/21 Analyzed: 07/11/21

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	0.0185		"	0.0333		55.5	40-150			
Surrogate: Fluoranthene-d10	0.0229		"	0.0333		68.7	40-150			

LCS (BEG0109-BS1)

Prepared: 07/07/21 Analyzed: 07/11/21

Acenaphthene	0.0270	0.00500	mg/kg	0.0333		81.1	31-137			
Anthracene	0.0261	0.00500	"	0.0333		78.3	30-120			
Benzo (a) anthracene	0.0261	0.00500	"	0.0333		78.4	30-120			
Benzo (a) pyrene	0.0258	0.00500	"	0.0333		77.3	30-120			
Benzo (b) fluoranthene	0.0271	0.00500	"	0.0333		81.4	30-120			
Benzo (k) fluoranthene	0.0266	0.00500	"	0.0333		79.9	30-120			
Chrysene	0.0255	0.00500	"	0.0333		76.5	30-120			
Dibenz (a,h) anthracene	0.0251	0.00500	"	0.0333		75.2	30-120			
Fluoranthene	0.0250	0.00500	"	0.0333		75.1	30-120			
Fluorene	0.0280	0.00500	"	0.0333		84.0	30-120			
Indeno (1,2,3-cd) pyrene	0.0248	0.00500	"	0.0333		74.3	30-120			
Pyrene	0.0323	0.00500	"	0.0333		96.8	35-142			
1-Methylnaphthalene	0.0260	0.00500	"	0.0333		78.0	35-142			
2-Methylnaphthalene	0.0225	0.00500	"	0.0333		67.4	35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0257		"	0.0333		77.0	40-150			
Surrogate: Fluoranthene-d10	0.0268		"	0.0333		80.4	40-150			

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Analyte	Reporting			Spike		Source		%REC		RPD	
	Result	Limit	Units	Level		Result	%REC	Limits	RPD	Limit	Notes

Batch BEG0109 - EPA 5030 Soil MS

Matrix Spike (BEG0109-MS1)

Source: 2106417-01

Prepared: 07/07/21 Analyzed: 07/11/21

Acenaphthene	0.0254	0.00500	mg/kg	0.0333	ND	76.3	31-137				
Anthracene	0.0261	0.00500	"	0.0333	ND	78.3	30-120				
Benzo (a) anthracene	0.0258	0.00500	"	0.0333	ND	77.4	30-120				
Benzo (a) pyrene	0.0254	0.00500	"	0.0333	ND	76.3	30-120				
Benzo (b) fluoranthene	0.0397	0.00500	"	0.0333	ND	119	30-120				
Benzo (k) fluoranthene	0.0393	0.00500	"	0.0333	ND	118	30-120				
Chrysene	0.0251	0.00500	"	0.0333	ND	75.4	30-120				
Dibenz (a,h) anthracene	0.0248	0.00500	"	0.0333	ND	74.4	30-120				
Fluoranthene	0.0245	0.00500	"	0.0333	ND	73.4	30-120				
Fluorene	0.0268	0.00500	"	0.0333	ND	80.3	30-120				
Indeno (1,2,3-cd) pyrene	0.0245	0.00500	"	0.0333	ND	73.5	30-120				
Pyrene	0.0304	0.00500	"	0.0333	ND	91.1	35-142				
1-Methylnaphthalene	0.0248	0.00500	"	0.0333	ND	74.5	15-130				
2-Methylnaphthalene	0.0221	0.00500	"	0.0333	ND	66.4	15-130				
Surrogate: 2-Methylnaphthalene-d10	0.0248		"	0.0333		74.4	40-150				
Surrogate: Fluoranthene-d10	0.0263		"	0.0333		78.8	40-150				

Matrix Spike Dup (BEG0109-MSD1)

Source: 2106417-01

Prepared: 07/07/21 Analyzed: 07/11/21

Acenaphthene	0.0242	0.00500	mg/kg	0.0333	ND	72.5	31-137	5.11	30		
Anthracene	0.0247	0.00500	"	0.0333	ND	74.0	30-120	5.66	30		
Benzo (a) anthracene	0.0240	0.00500	"	0.0333	ND	72.0	30-120	7.17	30		
Benzo (a) pyrene	0.0236	0.00500	"	0.0333	ND	70.7	30-120	7.63	30		
Benzo (b) fluoranthene	0.0370	0.00500	"	0.0333	ND	111	30-120	7.02	30		
Benzo (k) fluoranthene	0.0368	0.00500	"	0.0333	ND	111	30-120	6.50	30		
Chrysene	0.0232	0.00500	"	0.0333	ND	69.7	30-120	7.87	30		
Dibenz (a,h) anthracene	0.0207	0.00500	"	0.0333	ND	62.2	30-120	17.9	30		
Fluoranthene	0.0233	0.00500	"	0.0333	ND	70.0	30-120	4.82	30		
Fluorene	0.0252	0.00500	"	0.0333	ND	75.5	30-120	6.09	30		
Indeno (1,2,3-cd) pyrene	0.0206	0.00500	"	0.0333	ND	61.9	30-120	17.2	30		
Pyrene	0.0282	0.00500	"	0.0333	ND	84.7	35-142	7.24	30		
1-Methylnaphthalene	0.0227	0.00500	"	0.0333	ND	68.1	15-130	8.97	50		
2-Methylnaphthalene	0.0203	0.00500	"	0.0333	ND	61.0	15-130	8.42	50		
Surrogate: 2-Methylnaphthalene-d10	0.0239		"	0.0333		71.7	40-150				
Surrogate: Fluoranthene-d10	0.0248		"	0.0333		74.3	40-150				

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

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

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEF0586 - EPA 3050B

Blank (BEF0586-BLK1)

Prepared: 06/29/21 Analyzed: 06/30/21

Boron ND 0.0100 mg/L

LCS (BEF0586-BS1)

Prepared: 06/29/21 Analyzed: 06/30/21

Boron 5.13 0.0100 mg/L 5.00 103 80-120

Duplicate (BEF0586-DUP1)

Source: 2106413-01

Prepared: 06/29/21 Analyzed: 06/30/21

Boron 0.0627 0.0100 mg/L 0.0646 3.00 20

Matrix Spike (BEF0586-MS1)

Source: 2106413-01

Prepared: 06/29/21 Analyzed: 06/30/21

Boron 4.76 0.0100 mg/L 5.00 0.0646 93.8 75-125

Matrix Spike Dup (BEF0586-MSD1)

Source: 2106413-01

Prepared: 06/29/21 Analyzed: 06/30/21

Boron 4.87 0.0100 mg/L 5.00 0.0646 96.1 75-125 2.37 25

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

Total Metals by EPA 6020B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEF0531 - EPA 3050B

Blank (BEF0531-BLK1)

Prepared & Analyzed: 06/25/21

Arsenic	ND	0.200	mg/kg wet
Arsenic	ND	0.200	"
Barium	ND	0.400	"
Cadmium	ND	0.200	"
Copper	ND	0.400	"
Lead	ND	0.200	"
Nickel	ND	0.400	"
Selenium	ND	0.260	"
Silver	ND	0.0200	"
Zinc	ND	0.400	"

LCS (BEF0531-BS1)

Prepared & Analyzed: 06/25/21

Arsenic	35.3	0.200	mg/kg wet	40.0	88.3	80-120
Arsenic	35.3	0.200	"	40.0	88.3	80-120
Barium	34.9	0.400	"	40.0	87.3	80-120
Cadmium	1.76	0.200	"	2.00	88.2	80-120
Copper	33.0	0.400	"	40.0	82.4	80-120
Lead	17.1	0.200	"	20.0	85.5	80-120
Nickel	32.8	0.400	"	40.0	81.9	80-120
Selenium	3.28	0.260	"	4.00	82.0	80-120
Silver	1.71	0.0200	"	2.00	85.3	80-120
Zinc	34.9	0.400	"	40.0	87.3	80-120

Duplicate (BEF0531-DUP1)

Source: 2106413-01

Prepared & Analyzed: 06/25/21

Arsenic	2.51	0.207	mg/kg dry	2.96	16.3	20
Arsenic	2.51	0.200	"	2.96	16.3	20
Barium	82.3	0.414	"	87.5	6.17	20
Cadmium	0.110	0.207	"	0.111	0.788	20
Copper	8.92	0.414	"	9.07	1.64	20
Lead	6.84	0.207	"	6.68	2.34	20
Nickel	9.16	0.414	"	9.38	2.44	20
Selenium	0.422	0.269	"	0.377	11.2	20
Silver	0.0344	0.0207	"	0.0356	3.48	20
Zinc	31.3	0.414	"	31.8	1.85	20

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

Total Metals by EPA 6020B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEF0531 - EPA 3050B

Matrix Spike (BEF0531-MS1)		Source: 2106413-01			Prepared & Analyzed: 06/25/21					
Arsenic	39.5	0.207	mg/kg dry	41.4	2.96	88.2	75-125			
Arsenic	39.5	0.200	"	41.4	2.96	88.2	75-125			
Barium	130	0.414	"	41.4	87.5	103	75-125			
Cadmium	1.96	0.207	"	2.07	0.111	89.6	75-125			
Copper	44.3	0.414	"	41.4	9.07	85.1	75-125			
Lead	24.0	0.207	"	20.7	6.68	83.6	75-125			
Nickel	44.2	0.414	"	41.4	9.38	84.3	75-125			
Selenium	4.04	0.269	"	4.14	0.377	88.6	75-125			
Silver	1.80	0.0207	"	2.07	0.0356	85.4	75-125			
Zinc	68.3	0.414	"	41.4	31.8	88.2	75-125			

Matrix Spike Dup (BEF0531-MSD1)		Source: 2106413-01			Prepared & Analyzed: 06/25/21					
Arsenic	39.6	0.200	mg/kg dry	41.4	2.96	88.7	75-125	0.440	25	
Arsenic	39.6	0.207	"	41.4	2.96	88.7	75-125	0.440	25	
Barium	130	0.414	"	41.4	87.5	104	75-125	0.228	25	
Cadmium	1.95	0.207	"	2.07	0.111	89.1	75-125	0.515	25	
Copper	43.9	0.414	"	41.4	9.07	84.1	75-125	0.924	25	
Lead	25.0	0.207	"	20.7	6.68	88.7	75-125	4.34	25	
Nickel	44.2	0.414	"	41.4	9.38	84.3	75-125	0.0125	25	
Selenium	4.39	0.269	"	4.14	0.377	97.1	75-125	8.28	25	
Silver	1.79	0.0207	"	2.07	0.0356	85.0	75-125	0.399	25	
Zinc	71.6	0.414	"	41.4	31.8	96.2	75-125	4.75	25	

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1675 Broadway
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Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEF0523 - 3060A Mod

Blank (BEF0523-BLK1)

Prepared & Analyzed: 06/24/21

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BEF0523-BS1)

Prepared & Analyzed: 06/24/21

Chromium, Hexavalent 26.2 0.30 mg/kg wet 25.0 105 80-120

Duplicate (BEF0523-DUP1)

Source: 2106384-01

Prepared & Analyzed: 06/24/21

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BEF0523-MS1)

Source: 2106384-01

Prepared & Analyzed: 06/24/21

Chromium, Hexavalent 26.0 0.30 mg/kg dry 26.7 ND 97.4 75-125

Matrix Spike Dup (BEF0523-MSD1)

Source: 2106384-01

Prepared & Analyzed: 06/24/21

Chromium, Hexavalent 26.1 0.30 mg/kg dry 26.7 ND 97.8 75-125 0.410 20

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1675 Broadway
Denver CO, 80202

Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

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

Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEF0534 - General Preparation

Blank (BEF0534-BLK1)

Prepared: 06/25/21 Analyzed: 06/28/21

Calcium	ND	0.0500	mg/L wet
Magnesium	ND	0.0500	"
Sodium	ND	0.0500	"

LCS (BEF0534-BS1)

Prepared: 06/25/21 Analyzed: 06/28/21

Calcium	5.33	0.0500	mg/L wet	5.00	107	70-130
Magnesium	5.49	0.0500	"	5.00	110	70-130
Sodium	5.08	0.0500	"	5.00	102	70-130

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

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

Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD	
		Limit	Units		Result	%REC	Limits	RPD	Limit	Notes

Batch BEF0515 - General Preparation

Duplicate (BEF0515-DUP1)		Source: 2106413-01		Prepared: 06/24/21 Analyzed: 06/28/21	
% Solids	96.4		%	96.7	0.319 20

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

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

Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD	
		Limit	Units		Result	%REC	Limits	RPD	Limit	Notes

Batch BEF0556 - General Preparation

Blank (BEF0556-BLK1)

Prepared & Analyzed: 06/28/21

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BEF0556-BS1)

Prepared & Analyzed: 06/28/21

Specific Conductance (EC) 0.143 0.0100 mmhos/cm 0.150 95.1 90-110

Duplicate (BEF0556-DUP1)

Source: 2106376-01

Prepared & Analyzed: 06/28/21

Specific Conductance (EC) 7.91 0.0100 mmhos/cm 7.90 0.0632 20

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

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

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD	
		Limit	Units		Result	%REC	Limits	RPD	Limit	Notes

Batch BEF0555 - General Preparation

LCS (BEF0555-BS1)

Prepared & Analyzed: 06/28/21

pH	9.28	pH Units	9.21	101	95-105
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Duplicate (BEF0555-DUP1)

Source: 2106376-01

Prepared & Analyzed: 06/28/21

pH	8.16	pH Units	8.14	0.245	20
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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Longmont Farms Unit #5

Project Number: [none]
Project Manager: Max Knop

Reported:
07/13/21 14:31

Notes and Definitions

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