

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

September 10, 2021

Russell Beam

RPG Resources (SWN)

1313 Ben Meris Ave

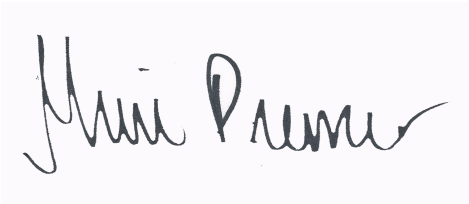
Broomfield, CO 80020

RE: Pond Liner Removal

Work Order #2108460

Enclosed are the results of analyses for samples received by Summit Scientific on 08/31/21 10:20. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink on a light purple background. The signature is written in a cursive style and reads "Muri Premier".

Muri Premier For Paul Shrewsbury
President



RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
P1-1	2108460-01	Soil	08/30/21 11:55	08/31/21 10:20
P1-2	2108460-02	Soil	08/30/21 12:00	08/31/21 10:20
P1-3	2108460-03	Soil	08/30/21 12:05	08/31/21 10:20
P1-4	2108460-04	Soil	08/30/21 12:10	08/31/21 10:20
P1-5	2108460-05	Soil	08/30/21 12:25	08/31/21 10:20
P2-1	2108460-06	Soil	08/30/21 11:20	08/31/21 10:20
P2-2	2108460-07	Soil	08/30/21 11:25	08/31/21 10:20
P2-3	2108460-08	Soil	08/30/21 11:30	08/31/21 10:20
P2-4	2108460-09	Soil	08/30/21 11:40	08/31/21 10:20
P2-5	2108460-10	Soil	08/30/21 11:45	08/31/21 10:20
P3-1	2108460-11	Soil	08/30/21 10:50	08/31/21 10:20
P3-2	2108460-12	Soil	08/30/21 10:55	08/31/21 10:20
P3-3	2108460-13	Soil	08/30/21 11:00	08/31/21 10:20
P3-4	2108460-14	Soil	08/30/21 11:05	08/31/21 10:20
P3-5	2108460-15	Soil	08/30/21 11:10	08/31/21 10:20

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303-277-9310

2108460.1

Page 1 of 2

Client: RPB Resources (SWN)

Project Manager: Russell Beam

Address: 1313 Ben Nevis Ave

E-Mail: rbeam@rpgres.com

City/State/Zip: Broomfield, CO 80020

Phone: 303-249-2051

Project Name: Pond Liner Removal

Sampler Name: Russell Beam

Project Number:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested								Special Instructions				
					HCl	HNO ₃	None	Other	Water	Soil	Air-Canister #	Other	Full Table	Table 915	Table 915	Table 915	Table 915	Table 915	Table 915	Table 915		Table 915			
1	P1-1	8/30/21	11:55	3			X			X				X											
2	P1-2	"	12:00	2			X			X					X	X									
3	P1-3	"	12:05	2			X			X					X	X									
4	P1-4	"	12:10	2			X			X					X	X									
5	P1-5	"	12:25	2			X			X					X	X									
6	P2-1	"	11:20	3			X			X				X											
7	P2-2	"	11:25	2			X			X					X	X									
8	P2-3	"	11:30	2			X			X					X	X									
9	P2-4	"	11:40	2			X			X					X	X									
10	P2-5	"	11:45	2			X			X					X	X									

Relinquished by:	Date/Time:	Received by:	Date/Time:	Turn Around Time	(Check)	Notes:
Russell Beam	8/31/21 10:20	[Signature]	8/31/21 1020	Same Day	72 hours	TAT as soon
Relinquished by:	Date/Time:	Received by:	Date/Time:	24 hours	Standard	as possible. Refr
Relinquished by:	Date/Time:	Received by:	Date/Time:	48 hours		to Parl.
				Sample Integrity:		JB 8/31
				Temperature Upon Receipt:	10.2	
				Samples Intact:	Yes No	

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2108460.2

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310

Page 2 of 2

Client: RPR Resources / (SUN)

Project Manager: Russell Beam

Address: 1313 Bonaville Ave

E-Mail: rbeam@rprres.com

City/State/Zip: Broomfield, CO 80020

Phone: 303-249-2051

Project Name: Pond Liner Removal

Sampler Name: Russell Beam

Project Number:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested								Special Instructions	
					HCl	HNO ₃	None	Other	Water	Soil	Air-Canister #	Other	FULL TABLE 915 Suite	TABLE 915 Inorganics	TPH-C6-36 BTEX + NAPHTH + THBS							
1	P3-1	8/30/21	10:50	3			X			X				X								
2	P3-2	"	10:55	2			X			X					X	X						
3	P3-3	"	11:00	2			X			X					X	X						
4	P3-4	"	11:05	2			X			X					X	X						
5	P3-5	"	11:10	2			X			X					X	X						
6																						
7																						
8																						
9																						
10																						

Relinquished by: Russell Beam	Date/Time: 8/31/21 10:20	Received by: <i>[Signature]</i>	Date/Time: 8/31/21 1020	Turn Around Time (Check) Same Day _____ 72 hours _____ 24 hours _____ Standard _____ 48 hours _____	Notes: TAT As soon as possible. Refer to paul. JB 8/31
Relinquished by:	Date/Time:	Received by:	Date/Time:	Sample Integrity: Temperature Upon Receipt: 10.2 Samples Intact: (Yes) No	
Relinquished by:	Date/Time:	Received by:	Date/Time:		

Sample Receipt Checklist

S2 Work Order 2108460
 Client: RPG Resources / Suras Client Project ID: Pond Liner Removal

Shipped Via: ☒ H.D./P.U./FedEx/UPS/USPS/Other ☐ Airbill #: _____

Matrix (check all that apply): ☐ Air ☒ Soil/Solid ☐ Water ☐ Other: _____
 (Describe)

Temp (°C) 10.2

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 Initials

[Signature]
 Signature of Custodian

8/31/21
 Date/Time



RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

P1-1
2108460-01 (Soil)

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Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/30/21 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEI0022	09/01/21	09/01/21	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: **08/30/21 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		108 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.9 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.2 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/30/21 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEI0023	09/01/21	09/01/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/30/21 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		85.3 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

P1-1
2108460-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/30/21 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BEI0005	09/01/21	09/03/21	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: **08/30/21 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		61.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		51.0 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **08/30/21 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.347	0.0100	mg/L	1	BEI0039	09/02/21	09/05/21	EPA 6020B	

Total Metals by EPA 6020B

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P1-1
2108460-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **08/30/21 11:55**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	2.07	0.224	mg/kg dry	1	BEI0111	09/07/21	09/09/21	EPA 6020B	
Barium	19.0	0.448	"	"	"	"	"	"	
Cadmium	ND	0.224	"	"	"	"	"	"	
Copper	5.63	0.448	"	"	"	"	"	"	
Lead	6.03	0.224	"	"	"	"	"	"	
Nickel	6.87	0.448	"	"	"	"	"	"	
Selenium	0.885	0.291	"	"	"	"	"	"	
Silver	ND	0.0224	"	"	"	"	"	"	
Zinc	32.5	0.448	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **08/30/21 11:55**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEI0153	09/08/21	09/08/21	EPA 7196A	

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

Date Sampled: **08/30/21 11:55**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	5.56	0.0560	mg/L dry	1	BEI0126	09/07/21	09/10/21	EPA 6020B	
Magnesium	2.07	0.0560	"	"	"	"	"	"	
Sodium	8.04	0.0560	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **08/30/21 11:55**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Sodium Adsorption Ratio	0.739	0.00100	units	1	BEI0209	09/10/21	09/10/21	Calculation	

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09/10/21 14:49

P1-1
2108460-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/30/21 11:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	89.2			%	1	BEI0082	09/03/21	09/03/21	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **08/30/21 11:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	1.11	0.0100		mmhos/cm	1	BEI0143	09/08/21	09/08/21	EPA 120.1	

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

Date Sampled: **08/30/21 11:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	10.1			pH Units	1	BEI0142	09/08/21	09/08/21	EPA 9045D	

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1313 Ben Meris Ave
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Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

P1-2
2108460-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/30/21 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEI0022	09/01/21	09/01/21	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: **08/30/21 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		102 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		106 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.9 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/30/21 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEI0023	09/01/21	09/01/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/30/21 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		84.0 %	30-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

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1313 Ben Meris Ave
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P1-2
2108460-02 (Soil)

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Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **08/30/21 12:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Boron	0.0848	0.0100		mg/L	1	BEI0039	09/02/21	09/05/21	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **08/30/21 12:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	2.84	0.227		mg/kg dry	1	BEI0111	09/07/21	09/09/21	EPA 6020B	
Barium	72.9	0.454		"	"	"	"	"	"	
Cadmium	ND	0.227		"	"	"	"	"	"	
Copper	9.43	0.454		"	"	"	"	"	"	
Lead	8.03	0.227		"	"	"	"	"	"	
Nickel	8.36	0.454		"	"	"	"	"	"	
Selenium	1.09	0.295		"	"	"	"	"	"	
Silver	0.0395	0.0227		"	"	"	"	"	"	
Zinc	43.8	0.454		"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **08/30/21 12:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BEI0153	09/08/21	09/08/21	EPA 7196A	

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

Date Sampled: **08/30/21 12:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	14.2	0.0567		mg/L dry	1	BEI0126	09/07/21	09/10/21	EPA 6020B	
Magnesium	1.90	0.0567		"	"	"	"	"	"	
Sodium	1.80	0.0567		"	"	"	"	"	"	

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Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

P1-2
2108460-02 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **08/30/21 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.119	0.00100	units	1	BEI0209	09/10/21	09/10/21	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/30/21 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	88.2		%	1	BEI0082	09/03/21	09/03/21	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **08/30/21 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.230	0.0100	mmhos/cm	1	BEI0143	09/08/21	09/08/21	EPA 120.1	

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

Date Sampled: **08/30/21 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	9.12		pH Units	1	BEI0142	09/08/21	09/08/21	EPA 9045D	

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Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

P1-3
2108460-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/30/21 12:05**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEI0022	09/01/21	09/01/21	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: **08/30/21 12:05**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		96.4 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		101 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.0 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/30/21 12:05**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEI0023	09/01/21	09/01/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/30/21 12:05**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		76.5 %	30-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Summit Scientific

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

P1-3
2108460-03 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **08/30/21 12:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Boron	0.319	0.0100		mg/L	1	BEI0039	09/02/21	09/05/21	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **08/30/21 12:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	4.91	0.247		mg/kg dry	1	BEI0111	09/07/21	09/09/21	EPA 6020B	
Barium	141	0.495		"	"	"	"	"	"	
Cadmium	ND	0.247		"	"	"	"	"	"	
Copper	11.5	0.495		"	"	"	"	"	"	
Lead	10.1	0.247		"	"	"	"	"	"	
Nickel	9.78	0.495		"	"	"	"	"	"	
Selenium	1.30	0.322		"	"	"	"	"	"	
Silver	0.0621	0.0247		"	"	"	"	"	"	
Zinc	48.2	0.495		"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **08/30/21 12:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BEI0153	09/08/21	09/08/21	EPA 7196A	

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

Date Sampled: **08/30/21 12:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	112	0.0619		mg/L dry	1	BEI0126	09/07/21	09/10/21	EPA 6020B	
Magnesium	11.0	0.0619		"	"	"	"	"	"	
Sodium	19.1	0.0619		"	"	"	"	"	"	

Summit Scientific

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

P1-3
2108460-03 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **08/30/21 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.461	0.00100	units	1	BEI0209	09/10/21	09/10/21	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/30/21 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	80.8		%	1	BEI0082	09/03/21	09/03/21	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **08/30/21 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.991	0.0100	mmhos/cm	1	BEI0143	09/08/21	09/08/21	EPA 120.1	

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

Date Sampled: **08/30/21 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	9.46		pH Units	1	BEI0142	09/08/21	09/08/21	EPA 9045D	

Summit Scientific

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

P1-4
2108460-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/30/21 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEI0022	09/01/21	09/01/21	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: **08/30/21 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		100 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		103 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.0 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/30/21 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEI0023	09/01/21	09/01/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/30/21 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		80.0 %	30-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Summit Scientific

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

P1-4
2108460-04 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **08/30/21 12:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	0.418	0.0100	mg/L	1	BEI0039	09/02/21	09/05/21	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **08/30/21 12:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	4.24	0.229	mg/kg dry	1	BEI0111	09/07/21	09/09/21	EPA 6020B	
Barium	200	0.458	"	"	"	"	"	"	
Cadmium	ND	0.229	"	"	"	"	"	"	
Copper	9.39	0.458	"	"	"	"	"	"	
Lead	8.28	0.229	"	"	"	"	"	"	
Nickel	8.95	0.458	"	"	"	"	"	"	
Selenium	1.06	0.298	"	"	"	"	"	"	
Silver	0.0550	0.0229	"	"	"	"	"	"	
Zinc	39.2	0.458	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **08/30/21 12:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEI0153	09/08/21	09/08/21	EPA 7196A	

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

Date Sampled: **08/30/21 12:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	14.4	0.0573	mg/L dry	1	BEI0126	09/07/21	09/10/21	EPA 6020B	
Magnesium	2.01	0.0573	"	"	"	"	"	"	
Sodium	33.1	0.0573	"	"	"	"	"	"	

Summit Scientific



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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

P1-4
2108460-04 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **08/30/21 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.17	0.00100	units	1	BEI0209	09/10/21	09/10/21	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/30/21 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	87.3		%	1	BEI0082	09/03/21	09/03/21	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **08/30/21 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.98	0.0100	mmhos/cm	1	BEI0143	09/08/21	09/08/21	EPA 120.1	

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

Date Sampled: **08/30/21 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	9.77		pH Units	1	BEI0142	09/08/21	09/08/21	EPA 9045D	

Summit Scientific

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

P1-5
2108460-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/30/21 12:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEI0022	09/01/21	09/01/21	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: **08/30/21 12:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		112 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		104 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.6 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/30/21 12:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEI0023	09/01/21	09/01/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/30/21 12:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		78.4 %	30-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Summit Scientific

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

P1-5
2108460-05 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **08/30/21 12:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Boron	0.785	0.0100		mg/L	1	BEI0039	09/02/21	09/05/21	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **08/30/21 12:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	2.31	0.207		mg/kg dry	1	BEI0111	09/07/21	09/09/21	EPA 6020B	
Barium	85.6	0.415		"	"	"	"	"	"	
Cadmium	ND	0.207		"	"	"	"	"	"	
Copper	5.69	0.415		"	"	"	"	"	"	
Lead	8.13	0.207		"	"	"	"	"	"	
Nickel	6.07	0.415		"	"	"	"	"	"	
Selenium	0.802	0.270		"	"	"	"	"	"	
Silver	ND	0.0207		"	"	"	"	"	"	
Zinc	30.0	0.415		"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **08/30/21 12:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BEI0153	09/08/21	09/08/21	EPA 7196A	

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

Date Sampled: **08/30/21 12:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	102	0.0519		mg/L dry	1	BEI0126	09/07/21	09/10/21	EPA 6020B	
Magnesium	7.53	0.0519		"	"	"	"	"	"	
Sodium	33.3	0.0519		"	"	"	"	"	"	

Summit Scientific

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

P1-5
2108460-05 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **08/30/21 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.857	0.00100	units	1	BEI0209	09/10/21	09/10/21	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/30/21 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	96.4		%	1	BEI0082	09/03/21	09/03/21	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **08/30/21 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	4.79	0.0100	mmhos/cm	1	BEI0143	09/08/21	09/08/21	EPA 120.1	

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

Date Sampled: **08/30/21 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	10.7		pH Units	1	BEI0142	09/08/21	09/08/21	EPA 9045D	

Summit Scientific

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

P2-1
2108460-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/30/21 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEI0022	09/01/21	09/02/21	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: **08/30/21 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		102 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		106 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.8 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/30/21 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEI0023	09/01/21	09/01/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/30/21 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		76.8 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

P2-1
2108460-06 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/30/21 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BEI0005	09/01/21	09/03/21	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: **08/30/21 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		67.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		61.0 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **08/30/21 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0751	0.0100	mg/L	1	BEI0039	09/02/21	09/05/21	EPA 6020B	

Total Metals by EPA 6020B

Summit Scientific

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

P2-1
2108460-06 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **08/30/21 11:20**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	3.62	0.227	mg/kg dry	1	BEI0111	09/07/21	09/09/21	EPA 6020B	
Barium	143	0.454	"	"	"	"	"	"	
Cadmium	ND	0.227	"	"	"	"	"	"	
Copper	13.2	0.454	"	"	"	"	"	"	
Lead	9.89	0.227	"	"	"	"	"	"	
Nickel	10.7	0.454	"	"	"	"	"	"	
Selenium	1.23	0.295	"	"	"	"	"	"	
Silver	0.0528	0.0227	"	"	"	"	"	"	
Zinc	55.5	0.454	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **08/30/21 11:20**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEI0153	09/08/21	09/08/21	EPA 7196A	

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

Date Sampled: **08/30/21 11:20**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	24.6	0.0567	mg/L dry	1	BEI0126	09/07/21	09/10/21	EPA 6020B	
Magnesium	2.86	0.0567	"	"	"	"	"	"	
Sodium	0.241	0.0567	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **08/30/21 11:20**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Sodium Adsorption Ratio	0.0123	0.00100	units	1	BEI0209	09/10/21	09/10/21	Calculation	

Summit Scientific

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

P2-1
2108460-06 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/30/21 11:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	88.1			%	1	BEI0082	09/03/21	09/03/21	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **08/30/21 11:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.222	0.0100		mmhos/cm	1	BEI0143	09/08/21	09/08/21	EPA 120.1	

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

Date Sampled: **08/30/21 11:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.73			pH Units	1	BEI0142	09/08/21	09/08/21	EPA 9045D	

Summit Scientific

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

P2-2
2108460-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/30/21 11:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEI0022	09/01/21	09/02/21	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: **08/30/21 11:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		105 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		106 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.8 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/30/21 11:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEI0023	09/01/21	09/01/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/30/21 11:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		75.8 %	30-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Summit Scientific

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

P2-2
2108460-07 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **08/30/21 11:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	0.123	0.0100	mg/L	1	BEI0039	09/02/21	09/05/21	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **08/30/21 11:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	4.15	0.230	mg/kg dry	1	BEI0111	09/07/21	09/09/21	EPA 6020B	
Barium	163	0.459	"	"	"	"	"	"	
Cadmium	ND	0.230	"	"	"	"	"	"	
Copper	12.7	0.459	"	"	"	"	"	"	
Lead	10.3	0.230	"	"	"	"	"	"	
Nickel	10.7	0.459	"	"	"	"	"	"	
Selenium	1.17	0.299	"	"	"	"	"	"	
Silver	0.0554	0.0230	"	"	"	"	"	"	
Zinc	48.3	0.459	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **08/30/21 11:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEI0153	09/08/21	09/08/21	EPA 7196A	

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

Date Sampled: **08/30/21 11:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	22.3	0.0574	mg/L dry	1	BEI0126	09/07/21	09/10/21	EPA 6020B	
Magnesium	3.06	0.0574	"	"	"	"	"	"	
Sodium	7.69	0.0574	"	"	"	"	"	"	

Summit Scientific

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

P2-2
2108460-07 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **08/30/21 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.405	0.00100	units	1	BEI0209	09/10/21	09/10/21	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/30/21 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	87.1		%	1	BEI0082	09/03/21	09/03/21	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **08/30/21 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.583	0.0100	mmhos/cm	1	BEI0143	09/08/21	09/08/21	EPA 120.1	

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

Date Sampled: **08/30/21 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	9.03		pH Units	1	BEI0142	09/08/21	09/08/21	EPA 9045D	

Summit Scientific

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

P2-3
2108460-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/30/21 11:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEI0022	09/01/21	09/02/21	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: **08/30/21 11:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		99.2 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		109 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/30/21 11:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEI0023	09/01/21	09/01/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/30/21 11:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		79.5 %	30-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Summit Scientific

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

P2-3
2108460-08 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **08/30/21 11:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	0.155	0.0100	mg/L	1	BEI0039	09/02/21	09/05/21	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **08/30/21 11:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	4.00	0.219	mg/kg dry	1	BEI0111	09/07/21	09/09/21	EPA 6020B	
Barium	246	0.438	"	"	"	"	"	"	
Cadmium	ND	0.219	"	"	"	"	"	"	
Copper	15.7	0.438	"	"	"	"	"	"	
Lead	9.73	0.219	"	"	"	"	"	"	
Nickel	13.5	0.438	"	"	"	"	"	"	
Selenium	1.03	0.285	"	"	"	"	"	"	
Silver	0.0516	0.0219	"	"	"	"	"	"	
Zinc	57.7	0.438	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **08/30/21 11:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEI0153	09/08/21	09/08/21	EPA 7196A	

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

Date Sampled: **08/30/21 11:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	66.5	0.0548	mg/L dry	1	BEI0126	09/07/21	09/10/21	EPA 6020B	
Magnesium	5.94	0.0548	"	"	"	"	"	"	
Sodium	11.5	0.0548	"	"	"	"	"	"	

Summit Scientific



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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

P2-3
2108460-08 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **08/30/21 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.363	0.00100	units	1	BEI0209	09/10/21	09/10/21	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/30/21 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	91.3		%	1	BEI0082	09/03/21	09/03/21	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **08/30/21 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.651	0.0100	mmhos/cm	1	BEI0143	09/08/21	09/08/21	EPA 120.1	

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

Date Sampled: **08/30/21 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	9.47		pH Units	1	BEI0142	09/08/21	09/08/21	EPA 9045D	

Summit Scientific

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

P2-4
2108460-09 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/30/21 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEI0022	09/01/21	09/02/21	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: **08/30/21 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		86.7 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		103 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.2 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/30/21 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEI0023	09/01/21	09/01/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/30/21 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		85.3 %	30-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Summit Scientific

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

P2-4
2108460-09 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **08/30/21 11:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	0.192	0.0100	mg/L	1	BEI0039	09/02/21	09/05/21	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **08/30/21 11:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	2.82	0.207	mg/kg dry	1	BEI0111	09/07/21	09/09/21	EPA 6020B	
Barium	142	0.414	"	"	"	"	"	"	
Cadmium	ND	0.207	"	"	"	"	"	"	
Copper	7.35	0.414	"	"	"	"	"	"	
Lead	7.20	0.207	"	"	"	"	"	"	
Nickel	7.11	0.414	"	"	"	"	"	"	
Selenium	1.05	0.269	"	"	"	"	"	"	
Silver	0.0377	0.0207	"	"	"	"	"	"	
Zinc	33.5	0.414	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **08/30/21 11:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEI0153	09/08/21	09/08/21	EPA 7196A	

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

Date Sampled: **08/30/21 11:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	28.2	0.0518	mg/L dry	1	BEI0126	09/07/21	09/10/21	EPA 6020B	
Magnesium	3.91	0.0518	"	"	"	"	"	"	
Sodium	15.7	0.0518	"	"	"	"	"	"	

Summit Scientific

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

P2-4
2108460-09 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **08/30/21 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.734	0.00100	units	1	BEI0209	09/10/21	09/10/21	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/30/21 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	96.6		%	1	BEI0082	09/03/21	09/03/21	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **08/30/21 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.653	0.0100	mmhos/cm	1	BEI0143	09/08/21	09/08/21	EPA 120.1	

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

Date Sampled: **08/30/21 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	9.77		pH Units	1	BEI0142	09/08/21	09/08/21	EPA 9045D	

Summit Scientific

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

P2-5
2108460-10 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/30/21 11:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEI0022	09/01/21	09/02/21	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: **08/30/21 11:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		95.0 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		106 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.1 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/30/21 11:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEI0023	09/01/21	09/02/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/30/21 11:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		86.9 %	30-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Summit Scientific

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

P2-5
2108460-10 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **08/30/21 11:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	0.0921	0.0100	mg/L	1	BEI0039	09/02/21	09/05/21	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **08/30/21 11:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	3.20	0.218	mg/kg dry	1	BEI0111	09/07/21	09/09/21	EPA 6020B	
Barium	126	0.437	"	"	"	"	"	"	
Cadmium	ND	0.218	"	"	"	"	"	"	
Copper	9.74	0.437	"	"	"	"	"	"	
Lead	8.43	0.218	"	"	"	"	"	"	
Nickel	8.03	0.437	"	"	"	"	"	"	
Selenium	1.54	0.284	"	"	"	"	"	"	
Silver	0.0454	0.0218	"	"	"	"	"	"	
Zinc	39.8	0.437	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **08/30/21 11:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEI0153	09/08/21	09/08/21	EPA 7196A	

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

Date Sampled: **08/30/21 11:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	34.2	0.0546	mg/L dry	1	BEI0126	09/07/21	09/10/21	EPA 6020B	
Magnesium	4.99	0.0546	"	"	"	"	"	"	
Sodium	2.96	0.0546	"	"	"	"	"	"	

Summit Scientific



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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

P2-5
2108460-10 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **08/30/21 11:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.125	0.00100	units	1	BEI0209	09/10/21	09/10/21	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/30/21 11:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	91.6		%	1	BEI0082	09/03/21	09/03/21	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **08/30/21 11:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	3.08	0.0100	mmhos/cm	1	BEI0143	09/08/21	09/08/21	EPA 120.1	

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

Date Sampled: **08/30/21 11:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.03		pH Units	1	BEI0142	09/08/21	09/08/21	EPA 9045D	

Summit Scientific

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

P3-1
2108460-11 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/30/21 10:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEI0022	09/01/21	09/02/21	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: **08/30/21 10:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		95.6 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		104 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.2 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/30/21 10:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEI0023	09/01/21	09/02/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/30/21 10:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		92.3 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

P3-1
2108460-11 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/30/21 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BEI0005	09/01/21	09/03/21	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: **08/30/21 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		61.8 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		53.3 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **08/30/21 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.283	0.0100	mg/L	1	BEI0039	09/02/21	09/05/21	EPA 6020B	

Total Metals by EPA 6020B

Summit Scientific

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

P3-1
2108460-11 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **08/30/21 10:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	1.20	0.240	mg/kg dry	1	BEI0111	09/07/21	09/09/21	EPA 6020B	
Barium	95.7	0.480	"	"	"	"	"	"	
Cadmium	0.505	0.240	"	"	"	"	"	"	
Copper	35.4	0.480	"	"	"	"	"	"	
Lead	20.2	0.240	"	"	"	"	"	"	
Nickel	15.4	0.480	"	"	"	"	"	"	
Selenium	1.54	0.312	"	"	"	"	"	"	
Silver	0.126	0.0240	"	"	"	"	"	"	
Zinc	96.2	0.480	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **08/30/21 10:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEI0153	09/08/21	09/08/21	EPA 7196A	

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

Date Sampled: **08/30/21 10:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	18.6	0.0600	mg/L dry	1	BEI0126	09/07/21	09/10/21	EPA 6020B	
Magnesium	3.89	0.0600	"	"	"	"	"	"	
Sodium	9.45	0.0600	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **08/30/21 10:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Sodium Adsorption Ratio	0.520	0.00100	units	1	BEI0209	09/10/21	09/10/21	Calculation	

Summit Scientific

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

P3-1
2108460-11 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/30/21 10:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	83.4			%	1	BEI0082	09/03/21	09/03/21	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **08/30/21 10:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	1.01	0.0100		mmhos/cm	1	BEI0143	09/08/21	09/08/21	EPA 120.1	

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

Date Sampled: **08/30/21 10:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.74			pH Units	1	BEI0142	09/08/21	09/08/21	EPA 9045D	

Summit Scientific

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

P3-2
2108460-12 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/30/21 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEI0022	09/01/21	09/02/21	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: **08/30/21 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		110 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		106 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.4 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/30/21 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEI0023	09/01/21	09/02/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/30/21 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		86.5 %	30-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Summit Scientific

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

P3-2
2108460-12 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **08/30/21 10:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Boron	1.18	0.0100		mg/L	1	BEI0039	09/02/21	09/05/21	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **08/30/21 10:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	3.80	0.245		mg/kg dry	1	BEI0111	09/07/21	09/09/21	EPA 6020B	
Barium	179	0.490		"	"	"	"	"	"	
Cadmium	ND	0.245		"	"	"	"	"	"	
Copper	13.5	0.490		"	"	"	"	"	"	
Lead	11.7	0.245		"	"	"	"	"	"	
Nickel	12.1	0.490		"	"	"	"	"	"	
Selenium	1.31	0.318		"	"	"	"	"	"	
Silver	0.0734	0.0245		"	"	"	"	"	"	
Zinc	55.4	0.490		"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **08/30/21 10:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BEI0153	09/08/21	09/08/21	EPA 7196A	

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

Date Sampled: **08/30/21 10:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	54.9	0.0612		mg/L dry	1	BEI0126	09/07/21	09/10/21	EPA 6020B	
Magnesium	10.9	0.0612		"	"	"	"	"	"	
Sodium	26.5	0.0612		"	"	"	"	"	"	

Summit Scientific

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

P3-2
2108460-12 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **08/30/21 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.855	0.00100	units	1	BEI0209	09/10/21	09/10/21	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/30/21 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	81.7		%	1	BEI0082	09/03/21	09/03/21	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **08/30/21 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.81	0.0100	mmhos/cm	1	BEI0143	09/08/21	09/08/21	EPA 120.1	

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

Date Sampled: **08/30/21 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	9.92		pH Units	1	BEI0142	09/08/21	09/08/21	EPA 9045D	

Summit Scientific

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

P3-3
2108460-13 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/30/21 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEI0022	09/01/21	09/02/21	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: **08/30/21 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		123 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		110 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.5 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/30/21 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEI0023	09/01/21	09/02/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/30/21 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		86.7 %	30-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Summit Scientific

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

P3-3
2108460-13 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **08/30/21 11:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Boron	0.567	0.0100		mg/L	1	BEI0039	09/02/21	09/05/21	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **08/30/21 11:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	4.29	0.214		mg/kg dry	1	BEI0111	09/07/21	09/09/21	EPA 6020B	
Barium	158	0.429		"	"	"	"	"	"	
Cadmium	ND	0.214		"	"	"	"	"	"	
Copper	6.76	0.429		"	"	"	"	"	"	
Lead	7.84	0.214		"	"	"	"	"	"	
Nickel	8.30	0.429		"	"	"	"	"	"	
Selenium	1.05	0.279		"	"	"	"	"	"	
Silver	0.0495	0.0214		"	"	"	"	"	"	
Zinc	34.8	0.429		"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **08/30/21 11:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BEI0153	09/08/21	09/08/21	EPA 7196A	

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

Date Sampled: **08/30/21 11:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	84.7	0.0536		mg/L dry	1	BEI0126	09/07/21	09/10/21	EPA 6020B	
Magnesium	10.9	0.0536		"	"	"	"	"	"	
Sodium	33.2	0.0536		"	"	"	"	"	"	

Summit Scientific



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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

P3-3
2108460-13 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **08/30/21 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.902	0.00100	units	1	BEI0209	09/10/21	09/10/21	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/30/21 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	93.3		%	1	BEI0082	09/03/21	09/03/21	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **08/30/21 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.25	0.0100	mmhos/cm	1	BEI0143	09/08/21	09/08/21	EPA 120.1	

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

Date Sampled: **08/30/21 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	9.50		pH Units	1	BEI0142	09/08/21	09/08/21	EPA 9045D	

Summit Scientific

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

P3-4
2108460-14 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/30/21 11:05**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEI0022	09/01/21	09/02/21	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: **08/30/21 11:05**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		91.3 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		102 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.6 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/30/21 11:05**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEI0023	09/01/21	09/02/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/30/21 11:05**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		84.7 %	30-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Summit Scientific

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

P3-4
2108460-14 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **08/30/21 11:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Boron	0.252	0.0100		mg/L	1	BEI0039	09/02/21	09/05/21	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **08/30/21 11:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	3.76	0.230		mg/kg dry	1	BEI0111	09/07/21	09/09/21	EPA 6020B	
Barium	167	0.459		"	"	"	"	"	"	
Cadmium	0.271	0.230		"	"	"	"	"	"	
Copper	18.1	0.459		"	"	"	"	"	"	
Lead	12.7	0.230		"	"	"	"	"	"	
Nickel	12.9	0.459		"	"	"	"	"	"	
Selenium	1.33	0.298		"	"	"	"	"	"	
Silver	0.0962	0.0230		"	"	"	"	"	"	
Zinc	64.2	0.459		"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **08/30/21 11:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BEI0153	09/08/21	09/08/21	EPA 7196A	

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

Date Sampled: **08/30/21 11:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	39.6	0.0574		mg/L dry	1	BEI0126	09/07/21	09/10/21	EPA 6020B	
Magnesium	6.67	0.0574		"	"	"	"	"	"	
Sodium	12.6	0.0574		"	"	"	"	"	"	

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

P3-4
2108460-14 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **08/30/21 11:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.488	0.00100	units	1	BEI0209	09/10/21	09/10/21	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/30/21 11:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	87.1		%	1	BEI0082	09/03/21	09/03/21	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **08/30/21 11:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.737	0.0100	mmhos/cm	1	BEI0143	09/08/21	09/08/21	EPA 120.1	

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

Date Sampled: **08/30/21 11:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	9.33		pH Units	1	BEI0142	09/08/21	09/08/21	EPA 9045D	

Summit Scientific

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

P3-5
2108460-15 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/30/21 11:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEI0022	09/01/21	09/02/21	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: **08/30/21 11:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		115 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		103 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.4 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/30/21 11:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEI0023	09/01/21	09/02/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/30/21 11:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		90.3 %	30-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Summit Scientific

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

P3-5
2108460-15 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **08/30/21 11:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Boron	0.442	0.0100		mg/L	1	BEI0039	09/02/21	09/05/21	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **08/30/21 11:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	2.03	0.220		mg/kg dry	1	BEI0111	09/07/21	09/09/21	EPA 6020B	
Barium	138	0.440		"	"	"	"	"	"	
Cadmium	0.288	0.220		"	"	"	"	"	"	
Copper	23.7	0.440		"	"	"	"	"	"	
Lead	14.3	0.220		"	"	"	"	"	"	
Nickel	13.0	0.440		"	"	"	"	"	"	
Selenium	1.15	0.286		"	"	"	"	"	"	
Silver	0.106	0.0220		"	"	"	"	"	"	
Zinc	70.2	0.440		"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **08/30/21 11:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BEI0153	09/08/21	09/08/21	EPA 7196A	

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

Date Sampled: **08/30/21 11:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	56.3	0.0550		mg/L dry	1	BEI0126	09/07/21	09/10/21	EPA 6020B	
Magnesium	10.7	0.0550		"	"	"	"	"	"	
Sodium	33.4	0.0550		"	"	"	"	"	"	

Summit Scientific

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

P3-5
2108460-15 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **08/30/21 11:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.07	0.00100	units	1	BEI0209	09/10/21	09/10/21	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/30/21 11:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	90.9		%	1	BEI0082	09/03/21	09/03/21	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **08/30/21 11:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.23	0.0100	mmhos/cm	1	BEI0143	09/08/21	09/08/21	EPA 120.1	

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

Date Sampled: **08/30/21 11:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	9.48		pH Units	1	BEI0142	09/08/21	09/08/21	EPA 9045D	

Summit Scientific

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

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 BEI0022 - EPA 5030 Soil MS

Blank (BEI0022-BLK1)

Prepared & Analyzed: 09/01/21

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	0.0282		"	0.0400		70.6		23-173		
Surrogate: Toluene-d8	0.0399		"	0.0400		99.8		20-170		
Surrogate: 4-Bromofluorobenzene	0.0394		"	0.0400		98.4		21-167		

LCS (BEI0022-BS1)

Prepared & Analyzed: 09/01/21

Benzene	0.0587	0.0020	mg/kg	0.0750		78.3		70-130		
Toluene	0.0839	0.0050	"	0.0750		112		70-130		
Ethylbenzene	0.0787	0.0050	"	0.0750		105		70-130		
m,p-Xylene	0.156	0.010	"	0.150		104		70-130		
o-Xylene	0.0843	0.0050	"	0.0750		112		70-130		
1,2,4-Trimethylbenzene	0.0807	0.0050	"	0.0750		108		70-130		
1,3,5-Trimethylbenzene	0.0826	0.0050	"	0.0750		110		70-130		
Naphthalene	0.0877	0.0038	"	0.0750		117		70-130		
Surrogate: 1,2-Dichloroethane-d4	0.0305		"	0.0400		76.3		23-173		
Surrogate: Toluene-d8	0.0420		"	0.0400		105		20-170		
Surrogate: 4-Bromofluorobenzene	0.0394		"	0.0400		98.6		21-167		

Matrix Spike (BEI0022-MS1)

Source: 2108460-01

Prepared & Analyzed: 09/01/21

Benzene	0.0814	0.0020	mg/kg	0.0750	ND	109		70-130		
Toluene	0.0674	0.0050	"	0.0750	ND	89.9		70-130		
Ethylbenzene	0.0635	0.0050	"	0.0750	ND	84.7		70-130		
m,p-Xylene	0.126	0.010	"	0.150	ND	83.9		70-130		
o-Xylene	0.0694	0.0050	"	0.0750	ND	92.6		70-130		
1,2,4-Trimethylbenzene	0.0656	0.0050	"	0.0750	ND	87.5		70-130		
1,3,5-Trimethylbenzene	0.0842	0.0050	"	0.0750	ND	112		70-130		
Naphthalene	0.0854	0.0038	"	0.0750	ND	114		70-130		
Surrogate: 1,2-Dichloroethane-d4	0.0338		"	0.0400		84.4		23-173		
Surrogate: Toluene-d8	0.0421		"	0.0400		105		20-170		
Surrogate: 4-Bromofluorobenzene	0.0396		"	0.0400		99.0		21-167		

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

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 BEI0022 - EPA 5030 Soil MS

Matrix Spike Dup (BEI0022-MSD1)	Source: 2108460-01			Prepared & Analyzed: 09/01/21						
Benzene	0.0892	0.0020	mg/kg	0.0750	ND	119	70-130	9.07	30	
Toluene	0.0781	0.0050	"	0.0750	ND	104	70-130	14.7	30	
Ethylbenzene	0.0791	0.0050	"	0.0750	ND	105	70-130	21.9	30	
m,p-Xylene	0.156	0.010	"	0.150	ND	104	70-130	21.1	30	
o-Xylene	0.0842	0.0050	"	0.0750	ND	112	70-130	19.2	30	
1,2,4-Trimethylbenzene	0.0805	0.0050	"	0.0750	ND	107	70-130	20.3	30	
1,3,5-Trimethylbenzene	0.0811	0.0050	"	0.0750	ND	108	70-130	3.70	30	
Naphthalene	0.0939	0.0038	"	0.0750	ND	125	70-130	9.50	30	
Surrogate: 1,2-Dichloroethane-d4	0.0329		"	0.0400		82.3	23-173			
Surrogate: Toluene-d8	0.0407		"	0.0400		102	20-170			
Surrogate: 4-Bromofluorobenzene	0.0388		"	0.0400		97.0	21-167			

Summit Scientific

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BEI0023 - EPA 3550A

Blank (BEI0023-BLK1)

Prepared: 09/01/21 Analyzed: 09/02/21

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

LCS (BEI0023-BS1)

Prepared: 09/01/21 Analyzed: 09/02/21

C10-C28 (DRO)	561	50	mg/kg	500	112	70-130					
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Matrix Spike (BEI0023-MS1)

Source: 2108460-01

Prepared: 09/01/21 Analyzed: 09/02/21

C10-C28 (DRO)	521	50	mg/kg	500	14.6	101	70-130				
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Matrix Spike Dup (BEI0023-MSD1)

Source: 2108460-01

Prepared: 09/01/21 Analyzed: 09/02/21

C10-C28 (DRO)	515	50	mg/kg	500	14.6	100	70-130	1.10	20		
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Summit Scientific

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

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 BEI0005 - EPA 5030 Soil MS

Blank (BEI0005-BLK1)

Prepared: 09/01/21 Analyzed: 09/03/21

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	0.0240		"	0.0333		72.1	40-150			
Surrogate: Fluoranthene-d10	0.0207		"	0.0333		62.2	40-150			

LCS (BEI0005-BS1)

Prepared: 09/01/21 Analyzed: 09/03/21

Acenaphthene	0.0191	0.00500	mg/kg	0.0333		57.4	31-137			
Anthracene	0.0197	0.00500	"	0.0333		59.1	30-120			
Benzo (a) anthracene	0.0206	0.00500	"	0.0333		61.7	30-120			
Benzo (a) pyrene	0.0197	0.00500	"	0.0333		59.0	30-120			
Benzo (b) fluoranthene	0.0218	0.00500	"	0.0333		65.4	30-120			
Benzo (k) fluoranthene	0.0213	0.00500	"	0.0333		63.8	30-120			
Chrysene	0.0189	0.00500	"	0.0333		56.8	30-120			
Dibenz (a,h) anthracene	0.0199	0.00500	"	0.0333		59.8	30-120			
Fluoranthene	0.0180	0.00500	"	0.0333		54.0	30-120			
Fluorene	0.0203	0.00500	"	0.0333		60.8	30-120			
Indeno (1,2,3-cd) pyrene	0.0219	0.00500	"	0.0333		65.7	30-120			
Pyrene	0.0174	0.00500	"	0.0333		52.1	35-142			
1-Methylnaphthalene	0.0209	0.00500	"	0.0333		62.6	35-142			
2-Methylnaphthalene	0.0166	0.00500	"	0.0333		49.7	35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0196		"	0.0333		58.8	40-150			
Surrogate: Fluoranthene-d10	0.0178		"	0.0333		53.5	40-150			

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.



RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BEI0005 - EPA 5030 Soil MS

Matrix Spike (BEI0005-MS1)

Source: 2108460-01

Prepared: 09/01/21 Analyzed: 09/03/21

Acenaphthene	0.0203	0.00500	mg/kg	0.0333	ND	61.0	31-137		
Anthracene	0.0211	0.00500	"	0.0333	ND	63.3	30-120		
Benzo (a) anthracene	0.0244	0.00500	"	0.0333	ND	73.2	30-120		
Benzo (a) pyrene	0.0226	0.00500	"	0.0333	ND	67.9	30-120		
Benzo (b) fluoranthene	0.0246	0.00500	"	0.0333	ND	73.9	30-120		
Benzo (k) fluoranthene	0.0223	0.00500	"	0.0333	ND	66.9	30-120		
Chrysene	0.0224	0.00500	"	0.0333	ND	67.1	30-120		
Dibenz (a,h) anthracene	0.0235	0.00500	"	0.0333	ND	70.6	30-120		
Fluoranthene	0.0189	0.00500	"	0.0333	ND	56.7	30-120		
Fluorene	0.0217	0.00500	"	0.0333	ND	65.2	30-120		
Indeno (1,2,3-cd) pyrene	0.0248	0.00500	"	0.0333	ND	74.5	30-120		
Pyrene	0.0197	0.00500	"	0.0333	ND	59.2	35-142		
1-Methylnaphthalene	0.0207	0.00500	"	0.0333	ND	62.2	15-130		
2-Methylnaphthalene	0.0152	0.00500	"	0.0333	ND	45.6	15-130		
Surrogate: 2-Methylnaphthalene-d10	0.0184		"	0.0333		55.3	40-150		
Surrogate: Fluoranthene-d10	0.0188		"	0.0333		56.5	40-150		

Matrix Spike Dup (BEI0005-MSD1)

Source: 2108460-01

Prepared: 09/01/21 Analyzed: 09/03/21

Acenaphthene	0.0192	0.00500	mg/kg	0.0333	ND	57.7	31-137	5.63	30
Anthracene	0.0200	0.00500	"	0.0333	ND	60.1	30-120	5.16	30
Benzo (a) anthracene	0.0218	0.00500	"	0.0333	ND	65.4	30-120	11.4	30
Benzo (a) pyrene	0.0204	0.00500	"	0.0333	ND	61.3	30-120	10.3	30
Benzo (b) fluoranthene	0.0231	0.00500	"	0.0333	ND	69.2	30-120	6.62	30
Benzo (k) fluoranthene	0.0210	0.00500	"	0.0333	ND	63.0	30-120	5.94	30
Chrysene	0.0200	0.00500	"	0.0333	ND	59.9	30-120	11.3	30
Dibenz (a,h) anthracene	0.0214	0.00500	"	0.0333	ND	64.1	30-120	9.68	30
Fluoranthene	0.0178	0.00500	"	0.0333	ND	53.5	30-120	5.80	30
Fluorene	0.0204	0.00500	"	0.0333	ND	61.1	30-120	6.46	30
Indeno (1,2,3-cd) pyrene	0.0226	0.00500	"	0.0333	ND	67.9	30-120	9.29	30
Pyrene	0.0179	0.00500	"	0.0333	ND	53.6	35-142	9.92	30
1-Methylnaphthalene	0.0187	0.00500	"	0.0333	ND	56.2	15-130	10.1	50
2-Methylnaphthalene	0.0137	0.00500	"	0.0333	ND	41.2	15-130	10.0	50
Surrogate: 2-Methylnaphthalene-d10	0.0181		"	0.0333		54.3	40-150		
Surrogate: Fluoranthene-d10	0.0181		"	0.0333		54.3	40-150		

Summit Scientific

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

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 BEI0039 - EPA 3050B

Blank (BEI0039-BLK1)

Prepared: 09/02/21 Analyzed: 09/05/21

Boron ND 0.0100 mg/L

LCS (BEI0039-BS1)

Prepared: 09/02/21 Analyzed: 09/05/21

Boron 5.08 0.0100 mg/L 5.00 102 80-120

Duplicate (BEI0039-DUP1)

Source: 2108436-01

Prepared: 09/02/21 Analyzed: 09/05/21

Boron 0.0687 0.0100 mg/L 0.0824 18.1 20

Matrix Spike (BEI0039-MS1)

Source: 2108436-01

Prepared: 09/02/21 Analyzed: 09/05/21

Boron 5.04 0.0100 mg/L 5.00 0.0824 99.2 75-125

Matrix Spike Dup (BEI0039-MSD1)

Source: 2108436-01

Prepared: 09/02/21 Analyzed: 09/05/21

Boron 5.28 0.0100 mg/L 5.00 0.0824 104 75-125 4.70 25

Summit Scientific

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

Total Metals by EPA 6020B - Quality Control

Summit Scientific

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

Batch BEI0111 - EPA 3050B

Blank (BEI0111-BLK1)

Prepared: 09/07/21 Analyzed: 09/09/21

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	"
Selenium	ND	0.260	"
Silver	ND	0.0200	"
Zinc	ND	0.400	"

LCS (BEI0111-BS1)

Prepared: 09/07/21 Analyzed: 09/09/21

Arsenic	45.9	0.200	mg/kg wet	40.0	115	80-120
Barium	47.5	0.400	"	40.0	119	80-120
Cadmium	2.26	0.200	"	2.00	113	80-120
Copper	47.1	0.400	"	40.0	118	80-120
Lead	19.4	0.200	"	20.0	97.0	80-120
Nickel	46.8	0.400	"	40.0	117	80-120
Selenium	4.67	0.260	"	4.00	117	80-120
Silver	1.93	0.0200	"	2.00	96.6	80-120
Zinc	40.6	0.400	"	40.0	101	80-120

Duplicate (BEI0111-DUP1)

Source: 2108460-01

Prepared: 09/07/21 Analyzed: 09/09/21

Arsenic	1.80	0.224	mg/kg dry	2.07	14.0	20
Barium	17.1	0.448	"	19.0	10.7	20
Cadmium	0.0353	0.224	"	0.0314	11.6	20
Copper	4.92	0.448	"	5.63	13.5	20
Lead	5.24	0.224	"	6.03	13.9	20
Nickel	6.19	0.448	"	6.87	10.5	20
Selenium	0.790	0.291	"	0.885	11.4	20
Silver	0.0181	0.0224	"	0.0170	6.41	20
Zinc	28.6	0.448	"	32.5	12.5	20

Summit Scientific

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

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 BEI0111 - EPA 3050B

Matrix Spike (BEI0111-MS1)

Source: 2108460-01

Prepared: 09/07/21 Analyzed: 09/09/21

Arsenic	50.9	0.224	mg/kg dry	44.8	2.07	109	75-125
Barium	55.0	0.448	"	44.8	19.0	80.3	75-125
Cadmium	2.54	0.224	"	2.24	0.0314	112	75-125
Copper	49.7	0.448	"	44.8	5.63	98.4	75-125
Lead	27.8	0.224	"	22.4	6.03	97.0	75-125
Nickel	54.7	0.448	"	44.8	6.87	107	75-125
Selenium	6.30	0.291	"	4.48	0.885	121	75-125
Silver	2.06	0.0224	"	2.24	0.0170	91.0	75-125
Zinc	67.8	0.448	"	44.8	32.5	78.8	75-125

Matrix Spike Dup (BEI0111-MSD1)

Source: 2108460-01

Prepared: 09/07/21 Analyzed: 09/09/21

Arsenic	51.6	0.224	mg/kg dry	44.8	2.07	110	75-125	1.41	25
Barium	52.7	0.448	"	44.8	19.0	75.2	75-125	4.25	25
Cadmium	2.38	0.224	"	2.24	0.0314	105	75-125	6.43	25
Copper	56.0	0.448	"	44.8	5.63	112	75-125	12.0	25
Lead	27.1	0.224	"	22.4	6.03	94.1	75-125	2.41	25
Nickel	55.5	0.448	"	44.8	6.87	108	75-125	1.42	25
Selenium	5.94	0.291	"	4.48	0.885	113	75-125	5.77	25
Silver	1.94	0.0224	"	2.24	0.0170	85.9	75-125	5.76	25
Zinc	83.6	0.448	"	44.8	32.5	114	75-125	20.9	25

Summit Scientific

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

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 BEI0153 - 3060A Mod

Blank (BEI0153-BLK1)

Prepared & Analyzed: 09/08/21

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BEI0153-BS1)

Prepared & Analyzed: 09/08/21

Chromium, Hexavalent 24.5 0.30 mg/kg wet 25.0 98.0 80-120

Duplicate (BEI0153-DUP1)

Source: 2108107-08

Prepared & Analyzed: 09/08/21

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BEI0153-MS1)

Source: 2108107-08

Prepared & Analyzed: 09/08/21

Chromium, Hexavalent 35.7 0.30 mg/kg dry 31.8 ND 112 75-125

Matrix Spike Dup (BEI0153-MSD1)

Source: 2108107-08

Prepared & Analyzed: 09/08/21

Chromium, Hexavalent 36.3 0.30 mg/kg dry 31.8 ND 114 75-125 1.77 20

Summit Scientific

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

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

Summit Scientific

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

Batch BEI0126 - General Preparation

Blank (BEI0126-BLK1)

Prepared: 09/07/21 Analyzed: 09/10/21

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

LCS (BEI0126-BS1)

Prepared: 09/07/21 Analyzed: 09/10/21

Calcium	5.52	0.0500	mg/L wet	5.00	110	70-130
Magnesium	5.18	0.0500	"	5.00	104	70-130
Sodium	5.12	0.0500	"	5.00	102	70-130

Summit Scientific

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

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

Summit Scientific

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

Batch BEI0082 - General Preparation

Duplicate (BEI0082-DUP1)

Source: 2108460-01

Prepared & Analyzed: 09/03/21

% Solids	89.3	%	89.2	0.115	20
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Summit Scientific

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

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

Summit Scientific

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

Batch BEI0143 - General Preparation

Blank (BEI0143-BLK1)

Prepared & Analyzed: 09/08/21

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BEI0143-BS1)

Prepared & Analyzed: 09/08/21

Specific Conductance (EC) 0.162 0.0100 mmhos/cm 0.150 108 90-110

Duplicate (BEI0143-DUP1)

Source: 2108460-01

Prepared & Analyzed: 09/08/21

Specific Conductance (EC) 1.11 0.0100 mmhos/cm 1.11 0.450 20

Summit Scientific

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

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

Summit Scientific

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

Batch BEI0142 - General Preparation

LCS (BEI0142-BS1)

Prepared & Analyzed: 09/08/21

pH	9.09	pH Units	9.21	98.7	95-105
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Duplicate (BEI0142-DUP1)

Source: 2108460-01

Prepared & Analyzed: 09/08/21

pH	10.2	pH Units	10.1	0.492	20
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Summit Scientific

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RPG Resources (SWN)
1313 Ben Meris Ave
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]
Project Manager: Russell Beam

Reported:
09/10/21 14:49

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