

LEGEND

 Site Location

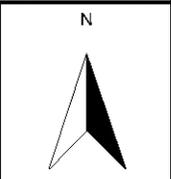


Figure 1
Location Site Map
October 5, 2020 LBK

**North Platte I-21
Location ID: 455363
NESW Sec 21, T5N, R63W, 6th PM
Weld County, Colorado**



Aerial photograph courtesy of COGIS

- LEGEND**
- X Release Location
 - Release Footprint
 - Sample Locations



Figure 2
Site Map
October 12, 2020 LBK

**North Platte I-21
Location ID: 455363
NESW Sec 21, T5N, R63W, 6th PM
Weld County, Colorado**



October 16, 2020

Bonanza Creek Energy, Inc.

Luke Kelly

410 17th St, Suite 1400

Denver CO 80211

Project Name - NP I-21

Project Number - [none]

Attached are your analytical results for NP I-21 received by Origins Laboratory, Inc. October 12, 2020. This project is associated with Origins project number Y010151-01.

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

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

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

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

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

Origins Laboratory, Inc.
303.433.1322
o-squad@oelabinc.com



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

Bonanza Creek Energy, Inc.

410 17th St, Suite 1400

Denver CO 80211

Luke Kelly

Project Number: [none]

Project: NP I-21

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS01(N) 6-12"	Y010151-01	Soil	October 6, 2020 11:00	10/12/2020 08:05
SS02 (6-12")	Y010151-02	Soil	October 6, 2020 11:05	10/12/2020 08:05
SS03 (6-12")	Y010151-03	Soil	October 6, 2020 11:10	10/12/2020 08:05
SS04 (6-12")	Y010151-04	Soil	October 6, 2020 11:15	10/12/2020 08:05

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Bonanza Creek Energy, Inc.

410 17th St, Suite 1400

Denver CO 80211

Luke Kelly

Project Number: [none]

Project: NP I-21

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: Yo10151

Client: Bonanza

Client Project ID: NPT-21

Checklist Completed by: KDK

Shipped Via: HD
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Date/time completed: 10-12-2020

Airbill #: N/A

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

Cooler Number/Temperature: 1, 7.3 °C / _____ °C / _____ °C (Describe)

Thermometer ID: 1003

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ?		-		
Is there ice present (document if blue ice is used)	-			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)			-	
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)			-	
Were all samples received intact ⁽¹⁾ ?	-			
Was adequate sample volume provided ⁽¹⁾ ?	-			
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?			-	
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	-			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<i>jm</i>	X		there are only 4 samples, not 5
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?				
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	-			
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.			-	
Are samples preserved that require preservation and was it checked ⁽¹⁾ ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity)/(pH <2 for samples preserved with HNO ₃ , HCl, H ₂ SO ₄) / (pH >10 for samples preserved with NaAsO ₂ +NaOH, ZnAc+NaOH)			-	
Additional Comments (if any):				

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

Reviewed by *jm* (Project Manager)

Date/Time Reviewed

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Bonanza Creek Energy, Inc.
 410 17th St, Suite 1400
 Denver CO 80211

Luke Kelly
 Project Number: [none]
 Project: NP I-21

SS01(N) 6-12"

10/6/2020 11:00:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-----------------	-------	----------	-------	---------	----------	----------	-------

Origins Laboratory, Inc.
Y010151-01 (Soil)

BTEX by EPA 8260D

Benzene	ND	0.050	mg/kg	25	BOJ1203	KDK	10/12/2020	10/12/2020	U
Toluene	ND	0.050	"	"	"	KDK	"	"	U
Ethylbenzene	ND	0.050	"	"	"	KDK	"	"	U
Xylenes, total	ND	0.050	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	85.8 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	107 %	70-130			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	94.9 %	70-130			"	"	"	"	

GRO (TVPH)/DRO (TEPH) by EPA 8015D

Gasoline (C6-C10)	ND	50.0	mg/kg	1	BOJ1204	KDK	10/12/2020	10/12/2020	U
Diesel (C10-C28)	ND	50.0	"	"	"	KDK	"	"	U

Surrogate: o-Terphenyl	75.6 %	50-150			"	"	"	"	
------------------------	--------	--------	--	--	---	---	---	---	--

Metals (Saturated Paste Prep)

Calcium	1.73		me/L	1	[none]		10/13/2020	10/16/2020	
Magnesium	0.83		"	"	"		"	"	
Sodium	1.22		"	"	"		"	"	

pH in Soil by EPA 9045D

pH	9.13		pH Units	1	BOJ1205	DJL	10/12/2020	10/12/2020	
----	------	--	----------	---	---------	-----	------------	------------	--

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Bonanza Creek Energy, Inc.

410 17th St, Suite 1400

Denver CO 80211

Luke Kelly

Project Number: [none]

Project: NP I-21

SS01(N) 6-12"

10/6/2020 11:00:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	--------------------	-------	----------	-------	---------	----------	----------	-------

Origins Laboratory, Inc.
Y010151-01 (Soil)

SAR by 20B Saturated Paste

SAR	1.08			1	[none]		10/13/2020	10/16/2020	
-----	------	--	--	---	--------	--	------------	------------	--

Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.0609	0.00500	mmhos/cm	1	BOJ1206	DJL	10/12/2020	10/12/2020	
---------------------------	--------	---------	----------	---	---------	-----	------------	------------	--

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Bonanza Creek Energy, Inc.

410 17th St, Suite 1400

Denver CO 80211

Luke Kelly

Project Number: [none]

Project: NP I-21

SS02 (6-12")

10/6/2020 11:05:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-----------------	-------	----------	-------	---------	----------	----------	-------

Origins Laboratory, Inc.
Y010151-02 (Soil)

BTEX by EPA 8260D

Benzene	ND	0.050	mg/kg	25	BOJ1203	KDK	10/12/2020	10/13/2020	U
Toluene	ND	0.050	"	"	"	KDK	"	"	U
Ethylbenzene	ND	0.050	"	"	"	KDK	"	"	U
Xylenes, total	ND	0.050	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	104 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	115 %	70-130			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	98.6 %	70-130			"	"	"	"	

GRO (TVPH)/DRO (TEPH) by EPA 8015D

Gasoline (C6-C10)	ND	50.0	mg/kg	1	BOJ1204	KDK	10/12/2020	10/13/2020	U
Diesel (C10-C28)	ND	50.0	"	"	"	KDK	"	10/13/2020	U

Surrogate: o-Terphenyl	85.5 %	50-150			"	"	"	"	
------------------------	--------	--------	--	--	---	---	---	---	--

Metals (Saturated Paste Prep)

Calcium	10.12		me/L	1	[none]		10/13/2020	10/16/2020	
Magnesium	7.76		"	"	"		"	"	
Sodium	7.44		"	"	"		"	"	

pH in Soil by EPA 9045D

pH	8.47		pH Units	1	BOJ1205	DJL	10/12/2020	10/12/2020	
----	------	--	----------	---	---------	-----	------------	------------	--

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Bonanza Creek Energy, Inc.

410 17th St, Suite 1400

Denver CO 80211

Luke Kelly

Project Number: [none]

Project: NP I-21

SS02 (6-12")

10/6/2020 11:05:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	--------------------	-------	----------	-------	---------	----------	----------	-------

Origins Laboratory, Inc.
Y010151-02 (Soil)

SAR by 20B Saturated Paste

SAR	2.49			1	[none]		10/13/2020	10/16/2020	
-----	------	--	--	---	--------	--	------------	------------	--

Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.0407	0.00500	mmhos/cm	1	BOJ1206	DJL	10/12/2020	10/12/2020	
---------------------------	--------	---------	----------	---	---------	-----	------------	------------	--

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Bonanza Creek Energy, Inc.
 410 17th St, Suite 1400
 Denver CO 80211

Luke Kelly
 Project Number: [none]
 Project: NP I-21

SS03 (6-12")

10/6/2020 11:10:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-----------------	-------	----------	-------	---------	----------	----------	-------

Origins Laboratory, Inc.
Y010151-03 (Soil)

BTEX by EPA 8260D

Benzene	ND	0.050	mg/kg	25	BOJ1203	KDK	10/12/2020	10/13/2020	U
Toluene	ND	0.050	"	"	"	KDK	"	"	U
Ethylbenzene	ND	0.050	"	"	"	KDK	"	"	U
Xylenes, total	ND	0.050	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	96.9 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	109 %	70-130			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	97.4 %	70-130			"	"	"	"	

GRO (TVPH)/DRO (TEPH) by EPA 8015D

Gasoline (C6-C10)	ND	50.0	mg/kg	1	BOJ1204	KDK	10/12/2020	10/13/2020	U
Diesel (C10-C28)	ND	50.0	"	"	"	KDK	"	10/13/2020	U

Surrogate: o-Terphenyl	87.1 %	50-150			"	"	"	"	
------------------------	--------	--------	--	--	---	---	---	---	--

Metals (Saturated Paste Prep)

Calcium	1.62		me/L	1	[none]		10/13/2020	10/16/2020	
Magnesium	0.65		"	"	"		"	"	
Sodium	3.54		"	"	"		"	"	

pH in Soil by EPA 9045D

pH	8.66		pH Units	1	BOJ1205	DJL	10/12/2020	10/12/2020	
----	------	--	----------	---	---------	-----	------------	------------	--

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Bonanza Creek Energy, Inc.

410 17th St, Suite 1400

Denver CO 80211

Luke Kelly

Project Number: [none]

Project: NP I-21

SS03 (6-12")

10/6/2020 11:10:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	--------------------	-------	----------	-------	---------	----------	----------	-------

Origins Laboratory, Inc.
Y010151-03 (Soil)

SAR by 20B Saturated Paste

SAR	3.32			1	[none]		10/13/2020	10/16/2020	
-----	------	--	--	---	--------	--	------------	------------	--

Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.0700	0.00500	mmhos/cm	1	BOJ1206	DJL	10/12/2020	10/12/2020	
---------------------------	--------	---------	----------	---	---------	-----	------------	------------	--

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Bonanza Creek Energy, Inc.

410 17th St, Suite 1400

Denver CO 80211

Luke Kelly

Project Number: [none]

Project: NP I-21

SS04 (6-12")

10/6/2020 11:15:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-----------------	-------	----------	-------	---------	----------	----------	-------

Origins Laboratory, Inc.
Y010151-04 (Soil)

BTEX by EPA 8260D

Benzene	ND	0.050	mg/kg	25	BOJ1203	KDK	10/12/2020	10/13/2020	U
Toluene	ND	0.050	"	"	"	KDK	"	"	U
Ethylbenzene	ND	0.050	"	"	"	KDK	"	"	U
Xylenes, total	ND	0.050	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	104 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	108 %	70-130			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	97.9 %	70-130			"	"	"	"	

GRO (TVPH)/DRO (TEPH) by EPA 8015D

Gasoline (C6-C10)	ND	50.0	mg/kg	1	BOJ1204	KDK	10/12/2020	10/13/2020	U
Diesel (C10-C28)	ND	50.0	"	"	"	KDK	"	"	U

Surrogate: o-Terphenyl	90.7 %	50-150			"	"	"	"	
------------------------	--------	--------	--	--	---	---	---	---	--

Metals (Saturated Paste Prep)

Calcium	2.18		me/L	1	[none]		10/13/2020	10/16/2020	
Magnesium	2.26		"	"	"		"	"	
Sodium	0.30		"	"	"		"	"	

pH in Soil by EPA 9045D

pH	8.67		pH Units	1	BOJ1205	DJL	10/12/2020	10/12/2020	
----	------	--	----------	---	---------	-----	------------	------------	--

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Bonanza Creek Energy, Inc.

410 17th St, Suite 1400

Denver CO 80211

Luke Kelly

Project Number: [none]

Project: NP I-21

SS04 (6-12")

10/6/2020 11:15:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	--------------------	-------	----------	-------	---------	----------	----------	-------

Origins Laboratory, Inc.
Y010151-04 (Soil)

SAR by 20B Saturated Paste

SAR	0.20			1	[none]		10/13/2020	10/16/2020	
-----	------	--	--	---	--------	--	------------	------------	--

Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.0230	0.00500	mmhos/cm	1	BOJ1206	DJL	10/12/2020	10/12/2020	
---------------------------	--------	---------	----------	---	---------	-----	------------	------------	--

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Bonanza Creek Energy, Inc.

410 17th St, Suite 1400

Denver CO 80211

Luke Kelly

Project Number: [none]

Project: NP I-21

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

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

Batch B0J1203 - EPA 5030 (soil)

Blank (B0J1203-BLK1)

Prepared: 10/12/2020 Analyzed: 10/12/2020

Benzene	ND	0.002	mg/kg							U
Toluene	ND	0.002	"							U
Ethylbenzene	ND	0.002	"							U
Xylenes, total	ND	0.002	"							U
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125	91.9		70-130			
Surrogate: Toluene-d8	0.14		"	0.125	110		70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125	105		70-130			

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Bonanza Creek Energy, Inc.

410 17th St, Suite 1400

Denver CO 80211

Luke Kelly

Project Number: [none]

Project: NP I-21

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

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

Batch B0J1203 - EPA 5030 (soil)

LCS (B0J1203-BS1)

Prepared: 10/12/2020 Analyzed: 10/12/2020

Benzene	0.042	0.002	mg/kg	0.0500		83.9	70-130			
Toluene	0.048	0.002	"	0.0500		95.6	70-130			
Ethylbenzene	0.054	0.002	"	0.0500		108	70-130			
m,p-Xylene	0.113	0.004	"	0.100		113	70-130			
o-Xylene	0.055	0.002	"	0.0500		111	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		93.8	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		107	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		105	70-130			

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Bonanza Creek Energy, Inc.

410 17th St, Suite 1400

Denver CO 80211

Luke Kelly

Project Number: [none]

Project: NP I-21

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

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

Batch B0J1203 - EPA 5030 (soil)

Matrix Spike (B0J1203-MS1)	Source: Y010151-01			Prepared: 10/12/2020 Analyzed: 10/12/2020						
Benzene	0.042	0.002	mg/kg	0.0500	ND	83.8	70-130			
Toluene	0.050	0.002	"	0.0500	0.002	95.2	70-130			
Ethylbenzene	0.052	0.002	"	0.0500	ND	105	70-130			
m,p-Xylene	0.109	0.004	"	0.100	0.005	104	70-130			
o-Xylene	0.054	0.002	"	0.0500	0.002	105	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		86.2	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		107	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		103	70-130			

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Bonanza Creek Energy, Inc.

410 17th St, Suite 1400

Denver CO 80211

Luke Kelly

Project Number: [none]

Project: NP I-21

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

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

Batch B0J1203 - EPA 5030 (soil)

Matrix Spike Dup (B0J1203-MSD1)	Source: Y010151-01			Prepared: 10/12/2020 Analyzed: 10/12/2020						
Benzene	0.044	0.002	mg/kg	0.0500	ND	88.5	70-130	5.53	20	
Toluene	0.050	0.002	"	0.0500	0.002	94.9	70-130	0.320	20	
Ethylbenzene	0.055	0.002	"	0.0500	ND	111	70-130	5.24	20	
m,p-Xylene	0.114	0.004	"	0.100	0.005	109	70-130	4.24	20	
o-Xylene	0.057	0.002	"	0.0500	0.002	111	70-130	5.11	20	
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		85.9	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		105	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		105	70-130			

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Bonanza Creek Energy, Inc.

410 17th St, Suite 1400

Denver CO 80211

Luke Kelly

Project Number: [none]

Project: NP I-21

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B0J1204 - EPA 3580										
Blank (B0J1204-BLK1)										
					Prepared: 10/12/2020 Analyzed: 10/13/2020					
Gasoline (C6-C10)	ND	25.0	mg/kg							U
Diesel (C10-C28)	ND	25.0	"							U
Surrogate: o-Terphenyl	24		"	25.0		95.2	50-150			

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Bonanza Creek Energy, Inc.

410 17th St, Suite 1400

Denver CO 80211

Luke Kelly

Project Number: [none]

Project: NP I-21

Extractable Petroleum Hydrocarbons by 8015D - Quality Control
Origins Laboratory, Inc.

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

Batch B0J1204 - EPA 3580

LCS (B0J1204-BS1)

Prepared: 10/12/2020 Analyzed: 10/12/2020

Gasoline (C6-C10)	1030	50.0	mg/kg	1000		103	70-130			
Diesel (C10-C28)	910	50.0	"	1000		91.0	70-130			
Surrogate: o-Terphenyl	53		"	50.0		106	50-150			

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Bonanza Creek Energy, Inc.

410 17th St, Suite 1400

Denver CO 80211

Luke Kelly

Project Number: [none]

Project: NP I-21

Extractable Petroleum Hydrocarbons by 8015D - Quality Control
Origins Laboratory, Inc.

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

Batch B0J1204 - EPA 3580

Matrix Spike (B0J1204-MS1)	Source: Y010140-01			Prepared: 10/12/2020 Analyzed: 10/12/2020						
Gasoline (C6-C10)	1040	50.0	mg/kg	1000	50.9	98.9	70-130			
Diesel (C10-C28)	931	50.0	"	1000	57.8	87.3	70-130			
Surrogate: o-Terphenyl	51		"	50.0		102	50-150			

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Bonanza Creek Energy, Inc.

410 17th St, Suite 1400

Denver CO 80211

Luke Kelly

Project Number: [none]

Project: NP I-21

Extractable Petroleum Hydrocarbons by 8015D - Quality Control
Origins Laboratory, Inc.

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

Batch B0J1204 - EPA 3580

Matrix Spike Dup (B0J1204-MSD1)	Source: Y010140-01		Prepared: 10/12/2020 Analyzed: 10/12/2020							
Gasoline (C6-C10)	1050	50.0	mg/kg	1000	50.9	99.9	70-130	0.976	35	
Diesel (C10-C28)	916	50.0	"	1000	57.8	85.8	70-130	1.64	35	
Surrogate: o-Terphenyl	50		"	50.0		101	50-150			

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Bonanza Creek Energy, Inc.

410 17th St, Suite 1400

Denver CO 80211

Luke Kelly

Project Number: [none]

Project: NP I-21

Extractable Petroleum Hydrocarbons by 8015D - Quality Control
Origins Laboratory, Inc.

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

Classical Chemistry Parameters - Quality Control
Origins Laboratory, Inc.

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

Batch B0J1205 - NO PREP

Duplicate (B0J1205-DUP1)

Source: Y010150-01

Prepared: 10/12/2020 Analyzed: 10/12/2020

pH	7.41		pH Units		7.50			1.21	25	
----	------	--	----------	--	------	--	--	------	----	--

Batch B0J1206 - NO PREP

Blank (B0J1206-BLK1)

Prepared: 10/12/2020 Analyzed: 10/12/2020

Specific Conductance (EC)	0.000300	0.00500	mmhos/cm							
---------------------------	----------	---------	----------	--	--	--	--	--	--	--

Duplicate (B0J1206-DUP1)

Source: Y010151-01

Prepared: 10/12/2020 Analyzed: 10/12/2020

Specific Conductance (EC)	0.0494	0.00500	mmhos/cm		0.0609			20.9	25	
---------------------------	--------	---------	----------	--	--------	--	--	------	----	--

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Bonanza Creek Energy, Inc.
410 17th St, Suite 1400
Denver CO 80211

Luke Kelly
Project Number: [none]
Project: NP I-21

Notes and Definitions

U Sample is Non-Detect.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.