



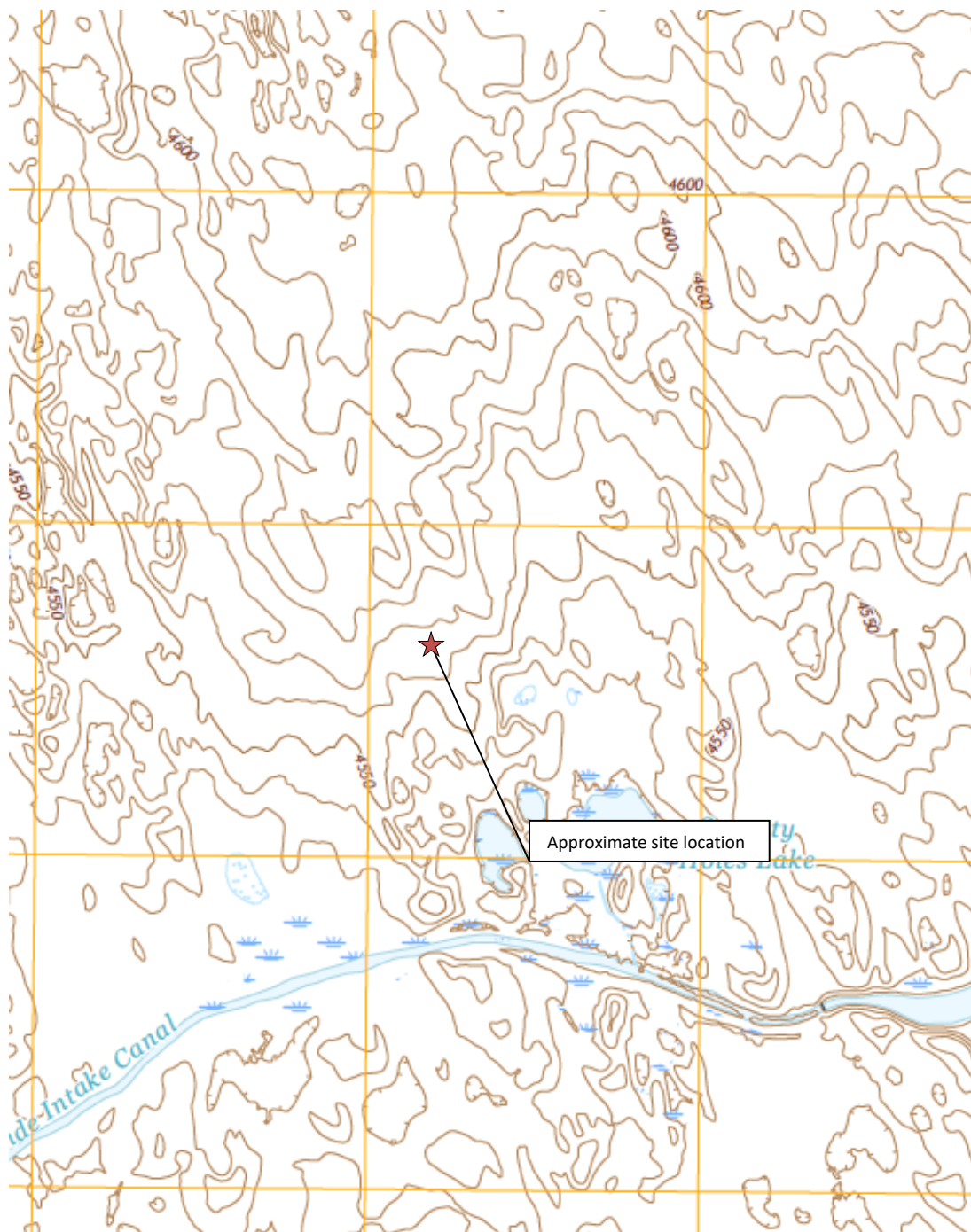
FIGURES

Figure 1: Topographic Site Location Map

Figure 2: Aerial Site Location Map

Figure 3: Soil Analytical Map

Figure 4: Polycyclic Aromatic Hydrocarbons Map



Topographic Site Location Map

State Seventy Holes P-4
 Surface Release
 40.348648 / -104.326501
 NW¼ NE¼ SEC.4 T4N R62W 6PM
 Weld County, Colorado
 Location ID 433884
 Spill ID 480321



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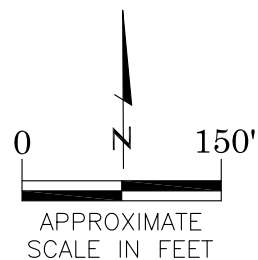
Source: USGS 7.5 Minute Topographic
 Map, Dearfield, CO Quadrangle 2019

Figure 1



LEGEND

- APPROXIMATE PAD BOUNDARIES (AS OF 2016)
- APPROXIMATE RELEASE LOCATION



AERIAL SITE LOCATION MAP
 STATE SEVENTY HOLES P-4
 SURFACE RELEASE
 40.348648 / -104.326501
 NW1/4 NE1/4 SEC.4 T4N R62W 6PM
 WELD COUNTY, COLORADO
 LOCATION ID 433884
 SPILL ID 480321

DATE:
 08/10/21

FIG. NO.
 2

DRAWN BY:
 AMN



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SS-03@0-0.25'
08/02/21
0-0.25'
B = <0.00200
T = <0.00200
E = <0.00200
X = <0.00200
G = <0.200
D = <50.0
R = <200
1,2,4-TMB = <0.00200
1,3,5-TMB = <0.00200
Brn= <0.199
EC = 0.343
SAR= 0.232
pH = 8.06

SS-04@0-0.25'
08/02/21
0-0.25'
B = <0.00200
T = <0.00200
E = <0.00200
X = <0.00200
G = <0.200
D = <50.0
R = <200
1,2,4-TMB = <0.00200
1,3,5-TMB = <0.00200
Brn= <0.200
EC = 0.488
SAR= 0.0260
pH = 7.24

SS-01@0-0.25'
08/02/21
0-0.25'
B = <0.00200
T = <0.00200
E = <0.00200
X = <0.00200
G = <0.200
D = <50.0
R = <200
1,2,4-TMB = <0.00200
1,3,5-TMB = <0.00200
Brn= <0.202
EC = 0.229
SAR= 0.0950
pH = 7.39

SS-02@0-0.25'
08/02/21
0-0.25'
B = <0.00200
T = <0.00200
E = <0.00200
X = <0.00200
G = <0.200
D = <50.0
R = <200
1,2,4-TMB = <0.00200
1,3,5-TMB = <0.00200
Brn= <0.199
EC = 0.307
SAR= 0.0403
pH = 8.09

LEGEND

- APPROXIMATE RELEASE/ASSESSMENT BOUNDARIES
- APPROXIMATE LOCATION OF SOIL SAMPLES
SUBMITTED FOR LABORATORY ANALYSIS

PARAMETERS

SAMPLE LOCATION
DATE
DEPTH (FEET)
B = BENZENE (mg/kg)
T = TOLUENE (mg/kg)
E = ETHYLBENZENE (mg/kg)
X = TOTAL XYLENES (mg/kg)
G = TPH-GRO (mg/kg)
D = TPH-DRO (mg/kg)
R = TPH-RRO (mg/kg)
1,2,4-TMB = 1,2,4 TRIMETHYLBENZENE (mg/kg)
1,3,5-TMB = 1,3,5 TRIMETHYLBENZENE (mg/kg)
Brn= BORON (mg/L)
EC = SPECIFIC CONDUCTANCE (mmhos/cm)
SAR= SODIUM ADSORPTION RATIO
pH = pH (pH UNITS)

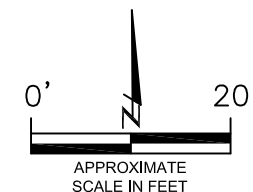
mg/kg = MILLIGRAMS PER KILOGRAM
mg/L = MILLIGRAMS PER LITER

TPH-GRO = TOTAL PETROLEUM HYDROCARBONS - GASOLINE RANGE ORGANICS
TPH-DRO = TOTAL PETROLEUM HYDROCARBONS - DIESEL RANGE ORGANICS
TPH-RRO = TOTAL PETROLEUM HYDROCARBONS - RESIDUAL RANGE ORGANICS

NOTE:
VALUES PRESENTED WITH A LESS THAN SYMBOL (<) DID NOT CONTAIN CONCENTRATIONS AT OR ABOVE LABORATORY REPORTING LIMITS

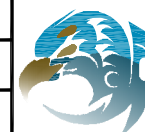
VALUES PRESENTED IN **BOLD** VALUES CONTAIN CONCENTRATIONS EXCEEDING COGCC TABLE 915-1 VALUES

COGCC = COLORADO OIL AND GAS CONSERVATION COMMISSION



SOIL ANALYTICAL MAP
STATE SEVENTY HOLES P-4
SURFACE RELEASE
40.348648 / -104.326501
NW1/4 NE1/4 SEC.4 T4N R62W 6PM
WELD COUNTY, COLORADO
LOCATION ID 433884
SPILL ID 480321

DATE:
08/10/21
DRAWN BY:
AMN
FIG.
NO. 3



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8000 W 44th Ave, Wheat Ridge, CO 80033
Ph: 303-433-0479 • F: 303-325-5449

SS-03@0-0.25'
08/02/21
0-0.25'

1-Methylnaphthalene = <0.00067
2-Methylnaphthalene = <0.00067
Acenaphthene = <0.00067
Anthracene = <0.00067
Benzo(a)anthracene = <0.00067
Benzo(a)pyrene = <0.00067
Benzo(b)fluoranthene = <0.00067
Benzo(k)fluoranthene = <0.00067
Chrysene = <0.00067
Dibenzo(a,h)anthracene = <0.00067
Fluoranthene = <0.00067
Fluorene = <0.00067
Indeno(1,2,3-CD)pyrene = <0.00067
Naphthalene = <0.00067
Pyrene = <0.00067

SS-04

SS-04@0-0.25'
08/02/21
0-0.25'

1-Methylnaphthalene = <0.00067
2-Methylnaphthalene = <0.00067
Acenaphthene = <0.00067
Anthracene = <0.00067
Benzo(a)anthracene = <0.00067
Benzo(a)pyrene = <0.00067
Benzo(b)fluoranthene = <0.00067
Benzo(k)fluoranthene = <0.00067
Chrysene = <0.00067
Dibenzo(a,h)anthracene = <0.00067
Fluoranthene = <0.00067
Fluorene = <0.00067
Indeno(1,2,3-CD)pyrene = <0.00067
Naphthalene = <0.00067
Pyrene = <0.00067

SS-03

SS-02

SS-02@0-0.25'
08/02/21
0-0.25'

1-Methylnaphthalene = <0.00335
2-Methylnaphthalene = <0.00335
Acenaphthene = <0.00335
Anthracene = <0.00335
Benzo(a)anthracene = <0.00335
Benzo(a)pyrene = <0.00335
Benzo(b)fluoranthene = <0.00335
Benzo(k)fluoranthene = <0.00335
Chrysene = <0.00335
Dibenzo(a,h)anthracene = <0.00335
Fluoranthene = <0.00335
Fluorene = <0.00335
Indeno(1,2,3-CD)pyrene = <0.00335
Naphthalene = <0.00335
Pyrene = <0.00335

SS-01

SS-01@0-0.25'
08/02/21
0-0.25'

1-Methylnaphthalene = <0.00067
2-Methylnaphthalene = <0.00067
Acenaphthene = <0.00067
Anthracene = <0.00067
Benzo(a)anthracene = <0.00067
Benzo(a)pyrene = <0.00067
Benzo(b)fluoranthene = <0.00067
Benzo(k)fluoranthene = <0.00067
Chrysene = <0.00067
Dibenzo(a,h)anthracene = <0.00067
Fluoranthene = <0.00067
Fluorene = <0.00067
Indeno(1,2,3-CD)pyrene = <0.00067
Naphthalene = <0.00067
Pyrene = <0.00067

LEGEND

--- APPROXIMATE RELEASE/ASSESSMENT BOUNDARIES

● APPROXIMATE LOCATION OF SOIL SAMPLES
SUBMITTED FOR LABORATORY ANALYSIS

PARAMETERS

SAMPLE LOCATION
DATE SAMPLE COLLECTED
APPROXIMATE DEPTH

POLYCYCLIC AROMATIC HYDROCARBONS (PAHs)

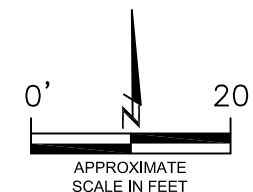
NOTE:
CONCENTRATIONS PRESENTED IN mg/kg

mg/kg = MILLIGRAMS PER KILOGRAM

NOTE:
VALUES PRESENTED WITH A LESS THAN SYMBOL (<) DID NOT
CONTAIN CONCENTRATIONS AT OR ABOVE LABORATORY
DETECTION LIMITS

VALUES PRESENTED IN **BOLD** EXCEED COGCC TABLE 915-1
REGULATORY LIMITS FOR THAT COMPOUND

COGCC - COLORADO OIL AND GAS CONSERVATION COMMISSION

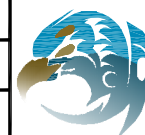


POLYCYCLIC AROMATIC HYDROCARBONS MAP
STATE SEVENTY HOLES P-4
SURFACE RELEASE
40.348648 / -104.326501
NW1/4 NE1/4 SEC.4 T4N R62W 6PM
WELD COUNTY, COLORADO
LOCATION ID 433884
SPILL ID 480321

DATE:
08/10/21

DRAWN BY:
AMN

FIG.
NO. 2



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8000 W 44th Ave, Wheat Ridge, CO 80033
Ph: 303-433-0479 • F: 303-325-5449



TABLES

Table 1: Photoionization Detector Reading Summary

Table 2: Soil Analytical Results Summary

Table 3: Polycyclic Aromatic Hydrocarbons Analytical Results Summary

TABLE 1
PHOTOIONIZATION DETECTOR READING SUMMARY
STATE SEVENTY HOLES P-4
SURFACE RELEASE
40.348648 / -104.326501
NW1/4 NE1/4 SEC.4 T4N R62W 6PM
WELD COUNTY, COLORADO
LOCATION ID 433884
SPILL ID 480321

Sample Location (Latitude/Longitude)	Date	Approximate Depth (feet)	PID Reading (ppm-v)	Lab Submission (Y/N)
SS-01 @ 0-0.25' (40.348668 / -104.326509)	08/02/21	0-0.25	8.5	Y
SS-02 @ 0-0.25' (40.348745 / -104.326502)	08/02/21	0-0.25	6.3	Y
SS-03 @ 0-0.25' (40.348836 / -104.326490)	08/02/21	0-0.25	0.0	Y
SS-04 @ 0-0.25' (40.348896 / -104.326486)	08/02/21	0-0.25	0.0	Y
(Y/N) = Yes or No ppm-v = parts per million by volume PID = Photoionization Detector				

TABLE 2
SOIL ANALYTICAL RESULTS SUMMARY
STATE SEVENTY HOLES P-4
SURFACE RELEASE
40.348648 / -104.326501
NW1/4 NE1/4 SEC.4 T4N R62W 6PM
WELD COUNTY, COLORADO
LOCATION ID 433884
SPILL ID 480321

Sample Location (Latitude/Longitude)	Date	Approximate Depth (feet)	PID Reading (ppm-v)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-RRO (mg/kg)	1,2,4- Trimethylbenzene (mg/kg)	1,3,5- Trimethylbenzene (mg/kg)	Boron (mg/L)	Specific Conductance (mmhos/cm)	pH (pH units)	SAR
COGCC Table 915-1 Residential Screening Levels				1.2	490	5.8	58	500			30	27	2	<4	6-8.3	<6
SS-01 @ 0-0.25' (40.348668 / -104.326509)	08/02/21	0-0.25	8.5	<0.00200	<0.00200	<0.00200	<0.00600	<0.200	<50.0	<200	<0.00200	<0.00200	<0.202	0.229	7.39	0.0950
SS-02 @ 0-0.25' (40.348745 / -104.326502)	08/02/21	0-0.25	6.3	<0.00200	<0.00200	<0.00200	<0.00600	<0.200	<50.0	<200	<0.00200	<0.00200	<0.199	0.307	8.09	0.0403
SS-03 @ 0-0.25' (40.348836 / -104.326490)	08/02/21	0-0.25	0.0	<0.00200	<0.00200	<0.00200	<0.00600	<0.200	<50.0	<200	<0.00200	<0.00200	<0.199	0.343	8.06	0.232
SS-04 @ 0-0.25' (40.348896 / -104.326486)	08/02/21	0-0.25	0.0	<0.00200	<0.00200	<0.00200	<0.00600	<0.200	<50.0	<200	<0.00200	<0.00200	<0.200	0.488	7.24	0.0260
COGCC = Colorado Oil and Gas Conservation Commission mg/L = milligrams per liter mg/kg = milligrams per kilogram mmhos/cm = millimhos per centimeter SAR = Sodium Adsorption Ratio ppm-v = parts per million by volume Note: Values presented with a less than symbol (<) did not contain concentrations at or above the laboratory reporting limit. Note: Values presented in BOLD contained concentrations exceeding applicable COGCC Table 915-1 Regulatory Limits																

TABLE 3
POLYCYCLIC AROMATIC HYDROCARBONS ANALYTICAL RESULTS SUMMARY
STATE SEVENTY HOLES P-4
SURFACE RELEASE
40.348648 / -104.326501
NW1/4 NE1/4 SEC.4 T4N R62W 6PM
WELD COUNTY, COLORADO
LOCATION ID 433884
SPILL ID 480321

Sample Location (Latitude/Longitude)	Date	Approximate Depth (feet)	1-Methyl- naphthalene (mg/kg)	2-Methyl- naphthalene (mg/kg)	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benzo(a)- anthracene (mg/kg)	Benzo(a)-pyrene (mg/kg)	Benzo(b)- fluoranthene (mg/kg)	Benzo(k)- fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo(a,h)- anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Ideno(1,2,3-cd) pyrene (mg/kg)	Naphthalene (mg/kg)	Pyrene (mg/kg)
COGCC Table 915-1 Residential Screening Levels			18	24	360	1,800	1.1	0.11	1.1	11	110	0.11	240	240	1.1	2	180
SS-01 @ 0-0.25' (40.348668 / -104.326509)	08/02/21	0-0.25	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067
SS-02 @ 0-0.25' (40.348745 / -104.326502)	08/02/21	0-0.25	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335
SS-03 @ 0-0.25' (40.348836 / -104.326490)	08/02/21	0-0.25	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067
SS-04 @ 0-0.25' (40.348896 / -104.326486)	08/02/21	0-0.25	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067
COGCC = Colorado Oil and Gas Conservation Commission mg/kg = milligrams per kilogram Note: Values presented with a less than symbol (<) did not contain concentrations at or above the laboratory reporting limit. Note: Values presented in BOLD contained concentrations exceeding applicable COGCC Table 915-1 Regulatory Limits																	



ATTACHMENT A

Photo Log

State Seventy Holes P-4

Location ID 433884

Spill ID 480321

Release Assessment

August 2021



EAGLE
ENVIRONMENTAL
CONSULTING, INC.
8000 W 44th Ave, Wheat Ridge, CO 80033
Ph: 303-433-0479 • F: 303-325-5449



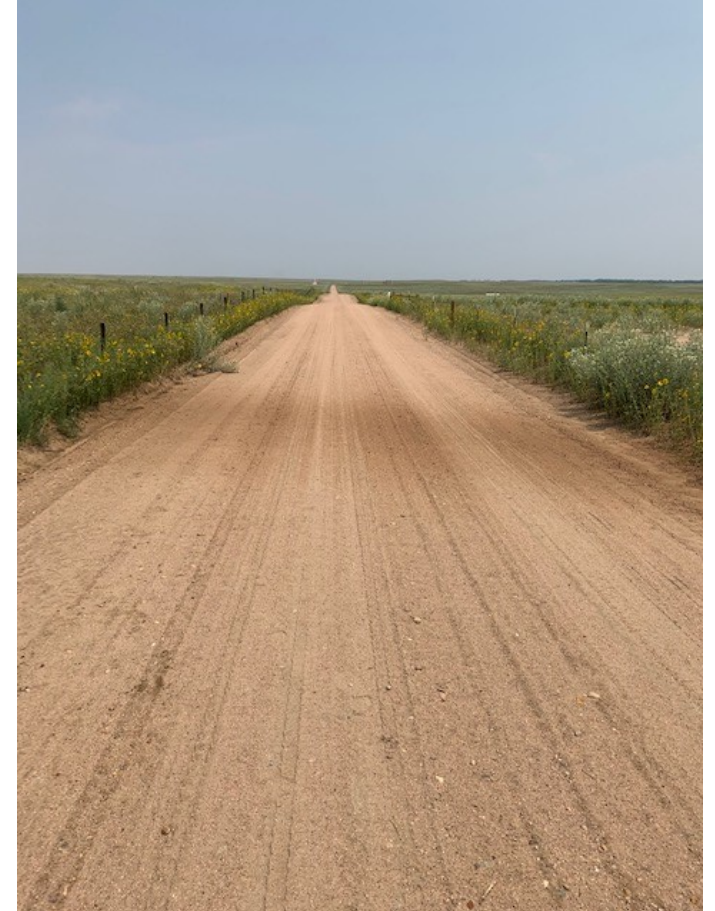
Surface Release – 7/24/21



Looking north
Surface staining associated with compressor
release (mist)



Looking southwest
Surface staining associated with compressor
release (mist)



Looking west
Surface staining associated with compressor
release (mist) - offpad

Confirmation Sampling – 08/02/21



Looking southeast
No petroleum hydrocarbon staining odor observed



Looking south from road
No petroleum hydrocarbon staining odor observed

Confirmation Sampling – 08/02/21



Looking north

No petroleum hydrocarbon staining odor observed



ATTACHMENT B

Laboratory Analytical Report



August 10, 2021

Eagle Environmental Consulting, Inc.

Martin C Eckert III

8000 W 44th Ave

Wheat Ridge CO 80033

Project Name - Bonanza - State Seventy Holes P-4 Project Number - [none]

Attached are your analytical results for Bonanza - State Seventy Holes P-4 received by Origins Laboratory, Inc. August 02, 2021. This project is associated with Origins project number Y108009-01.

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

Eagle Environmental Consulting, Inc.

8000 W 44th Ave

Wheat Ridge CO 80033

Martin C Eckert III

Project Number: [none]

Project: Bonanza - State Seventy Holes P-4

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS-01@0-0.25'	Y108009-01	Soil	August 2, 2021 10:47	08/02/2021 12:53
SS-02@0-0.25'	Y108009-02	Soil	August 2, 2021 10:53	08/02/2021 12:53
SS-03@0-0.25'	Y108009-03	Soil	August 2, 2021 11:04	08/02/2021 12:53
SS-04@0-0.25'	Y108009-04	Soil	August 2, 2021 11:08	08/02/2021 12:53

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.

Eagle Environmental Consulting, Inc.
8000 W 44th Ave
Wheat Ridge CO 80033

Martin C Eckert III
Project Number: [none]
Project: Bonanza - State Seventy Holes P-4

Origins Laboratory

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

Origins Work Order: Y108009 Sample Receipt Checklist

Client: Eagle
Client Project ID: State 70 Holes P-4

Checklist Completed by: JG
Date/time completed: 8/12/12

Shipped Via: HD
(UPS, FedEx, Hand Delivered, Pick-up, etc.)
Airbill #: N/A

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

Cooler Number/Temperature: 1/3.5 °C 1 °C 1 °C 1 °C (Describe)

Thermometer ID: T003

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

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

Reviewed by (Project Manager) JM

8-3-21
Date/Time Reviewed

Origins Laboratory, Inc.

Jordan A. Merrill

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.

Eagle Environmental Consulting, Inc.
8000 W 44th Ave
Wheat Ridge CO 80033

Martin C Eckert III
Project Number: [none]
Project: Bonanza - State Seventy Holes P-4

SS-01@0-0.25'
8/2/2021 10:47:00AM

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

Origins Laboratory, Inc.
Y108009-01 (Soil)

Boron (DTPA Sorbitol)

Boron	ND	0.202	mg/L	1	B1H0617	JMA	08/06/2021	08/09/2021	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	50.0	mg/kg	1	B1H0405	DJL	08/04/2021	08/05/2021	U
Residual Range Organics (C28-C40)	ND	200	"	"	"	DJL	"	"	U

Surrogate: o-Terphenyl	77.4 %	50-150			"	"	"	
------------------------	--------	--------	--	--	---	---	---	--

GBTEX+TMBs

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B1H0408	KDK	08/04/2021	08/06/2021	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	KDK	"	"	U
Benzene	ND	0.00200	"	"	"	KDK	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	KDK	"	"	U
Toluene	ND	0.00200	"	"	"	KDK	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	KDK	"	"	U
Xylenes, total	ND	0.00200	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	116 %	70-130			"	"	"	
Surrogate: Toluene-d8	86.7 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	104 %	70-130			"	"	"	

Origins Laboratory, Inc.



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Eagle Environmental Consulting, Inc.
8000 W 44th Ave
Wheat Ridge CO 80033

Martin C Eckert III
Project Number: [none]
Project: Bonanza - State Seventy Holes P-4

SS-01@0-0.25'
8/2/2021 10:47:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y108009-01 (Soil)

Metals by Saturated Paste

Calcium	2.08	0.0499	meq/L	1	[CALC]	CJM	08/05/2021	08/06/2021
Magnesium	0.291	0.0823	"	"	"	CJM	"	"
Sodium	0.104	0.0435	"	"	"	CJM	"	"

PAH by 8270D SIM

1-Methylnaphthalene	ND	0.00067	mg/Kg	1	L567280		08/04/2021	08/04/2021
2-Methylnaphthalene	ND	0.00067	"	"	"		"	"
Acenaphthene	ND	0.00067	"	"	"		"	"
Anthracene	ND	0.00067	"	"	"		"	"
Benzo(a)anthracene	ND	0.00067	"	"	"		"	"
Benzo(a)pyrene	ND	0.00067	"	"	"		"	"
Benzo(b)fluoranthene	ND	0.00067	"	"	"		"	"
Benzo(k)fluoranthene	ND	0.00067	"	"	"		"	"
Chrysene	ND	0.00067	"	"	"		"	"
Dibenz(a,h)anthracene	ND	0.00067	"	"	"		"	"
Fluoranthene	ND	0.00067	"	"	"		"	"
Fluorene	ND	0.00067	"	"	"		"	"
Indeno(1,2,3-cd)pyrene	ND	0.00067	"	"	"		"	"
Naphthalene	ND	0.00067	"	"	"		"	"
Pyrene	ND	0.00067	"	"	"		"	"

Origins Laboratory, Inc.



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Eagle Environmental Consulting, Inc.
8000 W 44th Ave
Wheat Ridge CO 80033

Martin C Eckert III
Project Number: [none]
Project: Bonanza - State Seventy Holes P-4

SS-01@0-0.25'
8/2/2021 10:47:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.
Y108009-01 (Soil)

PAH by 8270D SIM

Surrogate: 2-Fluorobiphenyl	79 %	33-115			L5672 80	08/04/2021	08/04/2021
Surrogate: 4-Terphenyl-d14	77.1 %	33-122			"	"	"
Surrogate: Nitrobenzene-d5	70.4 %	29-110			"	"	"

pH in Soil by EPA 9045D

pH	7.39	pH Units	1	B1H0416	DTP	08/04/2021	08/04/2021
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SAR by 20B Saturated Paste

SAR	0.0950	SAR	1	B1H0514	CJM	08/05/2021	08/06/2021
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.229	0.00500 mmhos/cm	1	B1H0428	DTP	08/04/2021	08/04/2021
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Origins Laboratory, Inc.



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Eagle Environmental Consulting, Inc.
8000 W 44th Ave
Wheat Ridge CO 80033

Martin C Eckert III
Project Number: [none]
Project: Bonanza - State Seventy Holes P-4

SS-02@0-0.25'
8/2/2021 10:53:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y108009-02 (Soil)

Boron (DTPA Sorbitol)

Boron	ND	0.199	mg/L	1	B1H0617	JMA	08/06/2021	08/09/2021	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	50.0	mg/kg	1	B1H0405	DJL	08/04/2021	08/05/2021	U
Residual Range Organics (C28-C40)	ND	200	"	"	"	DJL	"	"	U

Surrogate: o-Terphenyl	82.7 %	50-150			"	"	"	
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GBTEX+TMBs

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B1H0408	KDK	08/04/2021	08/06/2021	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	KDK	"	"	U
Benzene	ND	0.00200	"	"	"	KDK	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	KDK	"	"	U
Toluene	ND	0.00200	"	"	"	KDK	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	KDK	"	"	U
Xylenes, total	ND	0.00200	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	122 %	70-130			"	"	"	
Surrogate: Toluene-d8	93.7 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	103 %	70-130			"	"	"	

Origins Laboratory, Inc.



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Eagle Environmental Consulting, Inc.
8000 W 44th Ave
Wheat Ridge CO 80033

Martin C Eckert III
Project Number: [none]
Project: Bonanza - State Seventy Holes P-4

SS-02@0-0.25'

8/2/2021 10:53:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y108009-02 (Soil)

Metals by Saturated Paste

Calcium	1.91	0.0499	meq/L	1	[CALC]	CJM	08/05/2021	08/06/2021
Magnesium	0.424	0.0823	"	"	"	CJM	"	"
Sodium	0.0435	0.0435	"	"	"	CJM	"	"

PAH by 8270D SIM

1-Methylnaphthalene	ND	0.00335	mg/Kg	5	L567280		08/04/2021	08/04/2021
2-Methylnaphthalene	ND	0.00335	"	"	"		"	"
Acenaphthene	ND	0.00335	"	"	"		"	"
Anthracene	ND	0.00335	"	"	"		"	"
Benzo(a)anthracene	ND	0.00335	"	"	"		"	"
Benzo(a)pyrene	ND	0.00335	"	"	"		"	"
Benzo(b)fluoranthene	ND	0.00335	"	"	"		"	"
Benzo(k)fluoranthene	ND	0.00335	"	"	"		"	"
Chrysene	ND	0.00335	"	"	"		"	"
Dibenz(a,h)anthracene	ND	0.00335	"	"	"		"	"
Fluoranthene	ND	0.00335	"	"	"		"	"
Fluorene	ND	0.00335	"	"	"		"	"
Indeno(1,2,3-cd)pyrene	ND	0.00335	"	"	"		"	"
Naphthalene	ND	0.00335	"	"	"		"	"
Pyrene	ND	0.00335	"	"	"		"	"

Origins Laboratory, Inc.



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Eagle Environmental Consulting, Inc.
8000 W 44th Ave
Wheat Ridge CO 80033

Martin C Eckert III
Project Number: [none]
Project: Bonanza - State Seventy Holes P-4

SS-02@0-0.25'
8/2/2021 10:53:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.
Y108009-02 (Soil)

PAH by 8270D SIM

Surrogate: 2-Fluorobiphenyl	72.8 %	33-115			L5672 80	08/04/2021	08/04/2021
Surrogate: 4-Terphenyl-d14	67 %	33-122			"	"	"
Surrogate: Nitrobenzene-d5	63.6 %	29-110			"	"	"

pH in Soil by EPA 9045D

pH	8.09	pH Units	1	B1H0416	DTP	08/04/2021	08/04/2021
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SAR by 20B Saturated Paste

SAR	0.0403	SAR	1	B1H0514	CJM	08/05/2021	08/06/2021
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.307	0.00500 mmhos/cm	1	B1H0428	DTP	08/04/2021	08/04/2021
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Origins Laboratory, Inc.



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Eagle Environmental Consulting, Inc.
8000 W 44th Ave
Wheat Ridge CO 80033

Martin C Eckert III
Project Number: [none]
Project: Bonanza - State Seventy Holes P-4

SS-03@0-0.25'
8/2/2021 11:04:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y108009-03 (Soil)

Boron (DTPA Sorbitol)

Boron	ND	0.199	mg/L	1	B1H0617	JMA	08/06/2021	08/09/2021	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	50.0	mg/kg	1	B1H0405	DJL	08/04/2021	08/05/2021	U
Residual Range Organics (C28-C40)	ND	200	"	"	"	DJL	"	"	U

Surrogate: o-Terphenyl	79.1 %	50-150			"	"	"	
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GBTEX+TMBs

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B1H0408	KDK	08/04/2021	08/06/2021	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	KDK	"	"	U
Benzene	ND	0.00200	"	"	"	KDK	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	KDK	"	"	U
Toluene	ND	0.00200	"	"	"	KDK	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	KDK	"	"	U
Xylenes, total	ND	0.00200	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	117 %	70-130			"	"	"	
Surrogate: Toluene-d8	90.8 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	102 %	70-130			"	"	"	

Origins Laboratory, Inc.



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Eagle Environmental Consulting, Inc.
8000 W 44th Ave
Wheat Ridge CO 80033

Martin C Eckert III
Project Number: [none]
Project: Bonanza - State Seventy Holes P-4

SS-03@0-0.25'

8/2/2021 11:04:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y108009-03 (Soil)

Metals by Saturated Paste

Calcium	3.41	0.0499	meq/L	1	[CALC]	CJM	08/05/2021	08/06/2021
Magnesium	0.548	0.0823	"	"	"	CJM	"	"
Sodium	0.327	0.0435	"	"	"	CJM	"	"

PAH by 8270D SIM

1-Methylnaphthalene	ND	0.00067	mg/Kg	1	L567280		08/04/2021	08/04/2021
2-Methylnaphthalene	ND	0.00067	"	"	"		"	"
Acenaphthene	ND	0.00067	"	"	"		"	"
Anthracene	ND	0.00067	"	"	"		"	"
Benzo(a)anthracene	ND	0.00067	"	"	"		"	"
Benzo(a)pyrene	ND	0.00067	"	"	"		"	"
Benzo(b)fluoranthene	ND	0.00067	"	"	"		"	"
Benzo(k)fluoranthene	ND	0.00067	"	"	"		"	"
Chrysene	ND	0.00067	"	"	"		"	"
Dibenz(a,h)anthracene	ND	0.00067	"	"	"		"	"
Fluoranthene	ND	0.00067	"	"	"		"	"
Fluorene	ND	0.00067	"	"	"		"	"
Indeno(1,2,3-cd)pyrene	ND	0.00067	"	"	"		"	"
Naphthalene	ND	0.00067	"	"	"		"	"
Pyrene	ND	0.00067	"	"	"		"	"

Origins Laboratory, Inc.



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Eagle Environmental Consulting, Inc.
8000 W 44th Ave
Wheat Ridge CO 80033

Martin C Eckert III
Project Number: [none]
Project: Bonanza - State Seventy Holes P-4

SS-03@0-0.25'

8/2/2021 11:04:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.
Y108009-03 (Soil)

PAH by 8270D SIM

Surrogate: 2-Fluorobiphenyl	74.9 %	33-115			L5672 80	08/04/2021	08/04/2021
Surrogate: 4-Terphenyl-d14	75.8 %	33-122			"	"	"
Surrogate: Nitrobenzene-d5	71 %	29-110			"	"	"

pH in Soil by EPA 9045D

pH	8.06	pH Units	1	B1H0416	DTP	08/04/2021	08/04/2021
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SAR by 20B Saturated Paste

SAR	0.232	SAR	1	B1H0514	CJM	08/05/2021	08/06/2021
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.343	0.00500 mmhos/cm	1	B1H0428	DTP	08/04/2021	08/04/2021
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Origins Laboratory, Inc.



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Eagle Environmental Consulting, Inc.
8000 W 44th Ave
Wheat Ridge CO 80033

Martin C Eckert III
Project Number: [none]
Project: Bonanza - State Seventy Holes P-4

SS-04@0-0.25'
8/2/2021 11:08:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y108009-04 (Soil)

Boron (DTPA Sorbitol)

Boron	ND	0.200	mg/L	1	B1H0617	JMA	08/06/2021	08/09/2021	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	50.0	mg/kg	1	B1H0405	DJL	08/04/2021	08/05/2021	U
Residual Range Organics (C28-C40)	ND	200	"	"	"	DJL	"	"	U

Surrogate: o-Terphenyl	84.4 %	50-150			"	"	"	
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GBTEX+TMBs

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B1H0408	KDK	08/04/2021	08/06/2021	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	KDK	"	"	U
Benzene	ND	0.00200	"	"	"	KDK	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	KDK	"	"	U
Toluene	ND	0.00200	"	"	"	KDK	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	KDK	"	"	U
Xylenes, total	ND	0.00200	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	121 %	70-130			"	"	"	
Surrogate: Toluene-d8	91.4 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	105 %	70-130			"	"	"	

Origins Laboratory, Inc.



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Eagle Environmental Consulting, Inc.
8000 W 44th Ave
Wheat Ridge CO 80033

Martin C Eckert III
Project Number: [none]
Project: Bonanza - State Seventy Holes P-4

SS-04@0-0.25'

8/2/2021 11:08:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y108009-04 (Soil)

Metals by Saturated Paste

Calcium	2.68	0.0499	meq/L	1	[CALC]	CJM	08/05/2021	08/06/2021
Magnesium	1.17	0.0823	"	"	"	CJM	"	"
Sodium	ND	0.0435	"	"	"	CJM	"	"

PAH by 8270D SIM

1-Methylnaphthalene	ND	0.00067	mg/Kg	1	L567280		08/04/2021	08/04/2021
2-Methylnaphthalene	ND	0.00067	"	"	"		"	"
Acenaphthene	ND	0.00067	"	"	"		"	"
Anthracene	ND	0.00067	"	"	"		"	"
Benzo(a)anthracene	ND	0.00067	"	"	"		"	"
Benzo(a)pyrene	ND	0.00067	"	"	"		"	"
Benzo(b)fluoranthene	ND	0.00067	"	"	"		"	"
Benzo(k)fluoranthene	ND	0.00067	"	"	"		"	"
Chrysene	ND	0.00067	"	"	"		"	"
Dibenz(a,h)anthracene	ND	0.00067	"	"	"		"	"
Fluoranthene	ND	0.00067	"	"	"		"	"
Fluorene	ND	0.00067	"	"	"		"	"
Indeno(1,2,3-cd)pyrene	ND	0.00067	"	"	"		"	"
Naphthalene	ND	0.00067	"	"	"		"	"
Pyrene	ND	0.00067	"	"	"		"	"

Origins Laboratory, Inc.



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Eagle Environmental Consulting, Inc.
8000 W 44th Ave
Wheat Ridge CO 80033

Martin C Eckert III
Project Number: [none]
Project: Bonanza - State Seventy Holes P-4

SS-04@0-0.25'

8/2/2021 11:08:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.
Y108009-04 (Soil)

PAH by 8270D SIM

Surrogate: 2-Fluorobiphenyl	67.8 %	33-115			L5672 80	08/04/2021	08/04/2021
Surrogate: 4-Terphenyl-d14	68.7 %	33-122			"	"	"
Surrogate: Nitrobenzene-d5	61.1 %	29-110			"	"	"

pH in Soil by EPA 9045D

pH	7.24	pH Units	1	B1H0416	DTP	08/04/2021	08/04/2021
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SAR by 20B Saturated Paste

SAR	0.0260	SAR	1	B1H0514	CJM	08/05/2021	08/06/2021
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.488	0.00500 mmhos/cm	1	B1H0428	DTP	08/04/2021	08/04/2021
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Origins Laboratory, Inc.



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Eagle Environmental Consulting, Inc.

8000 W 44th Ave

Wheat Ridge CO 80033

Martin C Eckert III

Project Number: [none]

Project: Bonanza - State Seventy Holes P-4

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 B1H0405 - EPA 3550B										
Blank (B1H0405-BLK1)					Prepared: 08/04/2021 Analyzed: 08/05/2021					
Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	39		"	50.0		77.8	50-150			

Origins Laboratory, Inc.

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Eagle Environmental Consulting, Inc.
8000 W 44th Ave
Wheat Ridge CO 80033

Martin C Eckert III
Project Number: [none]
Project: Bonanza - State Seventy Holes P-4

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
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Batch B1H0405 - EPA 3550B

LCS (B1H0405-BS1)

Prepared: 08/04/2021 Analyzed: 08/05/2021

Diesel (C10-C28)	865	50.0	mg/kg	1000		86.5	70-130			
Residual Range Organics (C28-C40)	879	200	"	1000		87.9	70-130			
Surrogate: o-Terphenyl	42		"	50.0		84.6	50-150			

Origins Laboratory, Inc.



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Eagle Environmental Consulting, Inc.

8000 W 44th Ave

Wheat Ridge CO 80033

Martin C Eckert III

Project Number: [none]

Project: Bonanza - State Seventy Holes P-4

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
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Batch B1H0405 - EPA 3550B

Matrix Spike (B1H0405-MS1)		Source: Y108005-02			Prepared: 08/04/2021 Analyzed: 08/05/2021					
Diesel (C10-C28)	1000	50.0	mg/kg	1000	ND	100	70-130			
Residual Range Organics (C28-C40)	1050	200	"	1000	ND	105	70-130			
Surrogate: o-Terphenyl	48		"	50.0		95.9	50-150			

Origins Laboratory, Inc.



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Eagle Environmental Consulting, Inc.

8000 W 44th Ave

Wheat Ridge CO 80033

Martin C Eckert III

Project Number: [none]

Project: Bonanza - State Seventy Holes P-4

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
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Batch B1H0405 - EPA 3550B

Matrix Spike Dup (B1H0405-MSD1)		Source: Y108005-02			Prepared: 08/04/2021 Analyzed: 08/05/2021					
Diesel (C10-C28)	909	50.0	mg/kg	1000	ND	90.9	70-130	9.67	35	
Residual Range Organics (C28-C40)	1010	200	"	1000	ND	101	70-130	3.89	35	
Surrogate: o-Terphenyl	44		"	50.0		88.1	50-150			

Origins Laboratory, Inc.



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Eagle Environmental Consulting, Inc.
8000 W 44th Ave
Wheat Ridge CO 80033

Martin C Eckert III
Project Number: [none]
Project: Bonanza - State Seventy Holes P-4

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 B1H0408 - EPA 5030 (soil)										
Blank (B1H0408-BLK1)					Prepared: 08/04/2021 Analyzed: 08/06/2021					
1,2,4-Trimethylbenzene	ND	0.00200	mg/kg							U
Naphthalene	ND	0.0100	"							U
1,3,5-Trimethylbenzene	ND	0.00200	"							U
Benzene	ND	0.00200	"							U
Ethylbenzene	ND	0.00200	"							U
Toluene	ND	0.00200	"							U
Gasoline Range Hydrocarbons	ND	0.200	"							U
Xylenes, total	ND	0.00200	"							U
Surrogate: 1,2-Dichloroethane-d4	0.15		"	0.125	117		70-130			
Surrogate: Toluene-d8	0.12		"	0.125	93.1		70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125	104		70-130			

Origins Laboratory, Inc.



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Eagle Environmental Consulting, Inc.
8000 W 44th Ave
Wheat Ridge CO 80033

Martin C Eckert III
Project Number: [none]
Project: Bonanza - State Seventy Holes P-4

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 B1H0408 - EPA 5030 (soil)										
LCS (B1H0408-BS1)					Prepared: 08/04/2021 Analyzed: 08/06/2021					
1,2,4-Trimethylbenzene	0.0583	0.00200	mg/kg	0.0500		117	70-130			
Naphthalene	0.0547	0.0100	"	0.0500		109	70-130			
1,3,5-Trimethylbenzene	0.0585	0.00200	"	0.0500		117	70-130			
Benzene	0.0601	0.00200	"	0.0500		120	70-130			
Ethylbenzene	0.0538	0.00200	"	0.0500		108	70-130			
m,p-Xylene	0.115	0.00400	"	0.100		115	70-130			
o-Xylene	0.0561	0.00200	"	0.0500		112	70-130			
Toluene	0.0541	0.00200	"	0.0500		108	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.15		"	0.125		118	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		92.9	70-130			
Surrogate: 4-Bromofluorobenzene	0.14		"	0.125		110	70-130			

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Martin C Eckert III
Project Number: [none]
Project: Bonanza - State Seventy Holes P-4

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 B1H0408 - EPA 5030 (soil)										
Matrix Spike (B1H0408-MS1)		Source: Y108009-01			Prepared: 08/04/2021 Analyzed: 08/06/2021					
1,2,4-Trimethylbenzene	0.0520	0.00200	mg/kg	0.0500	ND	104	70-130			
Naphthalene	0.0439	0.0100	"	0.0500	0.00244	83.0	70-130			
1,3,5-Trimethylbenzene	0.0551	0.00200	"	0.0500	ND	110	70-130			
Benzene	0.0632	0.00200	"	0.0500	ND	126	70-130			
Ethylbenzene	0.0519	0.00200	"	0.0500	ND	104	70-130			
m,p-Xylene	0.108	0.00400	"	0.100	ND	108	70-130			
o-Xylene	0.0545	0.00200	"	0.0500	ND	109	70-130			
Toluene	0.0549	0.00200	"	0.0500	ND	110	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.15		"	0.125		120	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		92.1	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		102	70-130			

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Project: Bonanza - State Seventy Holes P-4

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 B1H0408 - EPA 5030 (soil)										
Matrix Spike Dup (B1H0408-MSD1)		Source: Y108009-01			Prepared: 08/04/2021 Analyzed: 08/06/2021					
1,2,4-Trimethylbenzene	0.0578	0.00200	mg/kg	0.0500	ND	116	70-130	10.5	20	
Naphthalene	0.0503	0.0100	"	0.0500	0.00244	95.8	70-130	13.6	20	
1,3,5-Trimethylbenzene	0.0610	0.00200	"	0.0500	ND	122	70-130	10.2	20	
Benzene	0.0698	0.00200	"	0.0500	ND	140	70-130	9.90	20	QM-07
Ethylbenzene	0.0574	0.00200	"	0.0500	ND	115	70-130	10.1	20	
m,p-Xylene	0.119	0.00400	"	0.100	ND	119	70-130	9.90	20	
o-Xylene	0.0609	0.00200	"	0.0500	ND	122	70-130	11.1	20	
Toluene	0.0613	0.00200	"	0.0500	ND	123	70-130	10.9	20	
Surrogate: 1,2-Dichloroethane-d4	0.15		"	0.125		118	70-130			
Surrogate: Toluene-d8	0.11		"	0.125		89.8	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		97.2	70-130			

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8000 W 44th Ave
Wheat Ridge CO 80033

Martin C Eckert III
Project Number: [none]
Project: Bonanza - State Seventy Holes P-4

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
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Saturated Paste - Quality Control

Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1H0416 - NO PREP

Duplicate (B1H0416-DUP1)		Source: Y107610-01			Prepared: 08/04/2021 Analyzed: 08/04/2021					
pH	8.15		pH Units		8.18			0.367	25	

Batch B1H0428 - NO PREP

Blank (B1H0428-BLK1)		Prepared: 08/04/2021 Analyzed: 08/04/2021								
Specific Conductance (EC)	0.00300	0.00500	mmhos/cm							
Duplicate (B1H0428-DUP1)		Source: Y107301-14			Prepared: 08/04/2021 Analyzed: 08/04/2021					
Specific Conductance (EC)	1.70	0.00500	mmhos/cm		1.84			7.89	25	

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Martin C Eckert III
Project Number: [none]
Project: Bonanza - State Seventy Holes P-4

PAH by 8270D SIM - Quality Control
Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch L567280 - 3550B

MSD (L 98094-MSD-L567280)		Source: Y108009-04			Prepared: 08/04/2021 Analyzed: 08/04/2021					
Benzo(a)anthracene	0.129	0.000441	mg/Kg	0.166	<0.000441	77.7	30-130	0.7	30	
Anthracene	0.132	0.000426	"	0.166	<0.000426	79.5	30-130	2.2	30	
Acenaphthene	0.123	0.000431	"	0.166	<0.000431	74	30-130	0.8	30	
2-Methylnaphthalene	0.121	0.000542	"	0.166	<0.000542	72.8	30-130	0.8	30	
Chrysene	0.14	0.000256	"	0.166	<0.000256	84.3	30-130	0.7	30	
1-Methylnaphthalene	0.122	0.00048	"	0.166	<0.000480	73.4	30-130	0.8	30	
Pyrene	0.136	0.000387	"	0.166	<0.000387	81.9	30-130	1.4	30	
Naphthalene	0.118	0.000467	"	0.166	<0.000467	71	30-130	2.5	30	
Indeno(1,2,3-cd)pyrene	0.131	0.000344	"	0.166	<0.000344	78.9	30-130	9.4	30	
Fluorene	0.126	0.000501	"	0.166	<0.000501	75.9	30-130	0	30	
Fluoranthene	0.136	0.000529	"	0.166	<0.000529	81.9	30-130	0	30	
Dibenz(a,h)anthracene	0.138	0.000279	"	0.166	<0.000279	83.1	30-130	8.3	30	
Benzo(b)fluoranthene	0.112	0.000138	"	0.166	<0.000138	67.4	30-130	6	30	
Benzo(k)fluoranthene	0.115	0.000486	"	0.166	<0.000486	69.2	30-130	1.7	30	
Benzo(a)pyrene	0.136	0.000133	"	0.166	<0.000133	81.9	30-130	2.1	30	
Surrogate: 4-Terphenyl-d14	77.1		"	0.332	228	77.1	33-122			
Surrogate: 2-Fluorobiphenyl	77.1		"	0.332	225	77.1	33-115			
Surrogate: Nitrobenzene-d5	68.6		"	0.332	203	68.6	29-110			

MS (L 98094-MS-L567280)		Source: Y108009-04			Prepared: 08/04/2021 Analyzed: 08/04/2021					
Benzo(a)pyrene	0.139	0.000133	mg/Kg	0.166	<0.000133	83.7	30-130			
Chrysene	0.139	0.000256	"	0.166	<0.000256	83.7	30-130			
Pyrene	0.134	0.000387	"	0.166	<0.000387	80.7	30-130			
Naphthalene	0.121	0.000467	"	0.166	<0.000467	72.8	30-130			
Indeno(1,2,3-cd)pyrene	0.144	0.000344	"	0.166	<0.000344	86.7	30-130			
Fluorene	0.126	0.000501	"	0.166	<0.000501	75.9	30-130			
Fluoranthene	0.136	0.000529	"	0.166	<0.000529	81.9	30-130			

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Martin C Eckert III
Project Number: [none]
Project: Bonanza - State Seventy Holes P-4

PAH by 8270D SIM - Quality Control
Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch L567280 - 3550B

MS (L 98094-MS-L567280)		Source: Y108009-04			Prepared: 08/04/2021 Analyzed: 08/04/2021					
Dibenz(a,h)anthracene	0.15	0.000279	mg/Kg	0.166	<0.000279	90.3	30-130			
Benzo(b)fluoranthene	0.119	0.000138	"	0.166	<0.000138	71.6	30-130			
Benzo(a)anthracene	0.13	0.000441	"	0.166	<0.000441	78.3	30-130			
Anthracene	0.135	0.000426	"	0.166	<0.000426	81.3	30-130			
Acenaphthene	0.124	0.000431	"	0.166	<0.000431	74.6	30-130			
2-Methylnaphthalene	0.122	0.000542	"	0.166	<0.000542	73.4	30-130			
Benzo(k)fluoranthene	0.117	0.000486	"	0.166	<0.000486	70.4	30-130			
1-Methylnaphthalene	0.123	0.00048	"	0.166	<0.000480	74	30-130			
Surrogate: Nitrobenzene-d5	70.4		"	0.332	203	70.4	29-110			
Surrogate: 2-Fluorobiphenyl	78		"	0.332	225	78	33-115			
Surrogate: 4-Terphenyl-d14	77.4		"	0.332	228	77.4	33-122			

LCS (LCS-L567280)		Prepared: 08/04/2021 Analyzed: 08/04/2021								
Dibenz(a,h)anthracene	0.153	0.000279	mg/Kg	0.167		91.6	30-130			
Fluoranthene	0.132	0.000529	"	0.167		79	30-130			
Pyrene	0.132	0.000387	"	0.167		79	30-130			
Fluorene	0.125	0.000501	"	0.167		74.8	30-130			
Indeno(1,2,3-cd)pyrene	0.146	0.000344	"	0.167		87.4	30-130			
Chrysene	0.137	0.000256	"	0.167		82	30-130			
Naphthalene	0.12	0.000467	"	0.167		71.8	30-130			
Benzo(b)fluoranthene	0.131	0.000138	"	0.167		78.4	30-130			
Benzo(a)pyrene	0.136	0.000133	"	0.167		81.4	30-130			
Benzo(a)anthracene	0.129	0.000441	"	0.167		77.2	30-130			
Acenaphthene	0.12	0.000431	"	0.167		71.8	30-130			
2-Methylnaphthalene	0.119	0.000542	"	0.167		71.2	30-130			
1-Methylnaphthalene	0.121	0.00048	"	0.167		72.4	30-130			
Anthracene	0.133	0.000426	"	0.167		79.6	30-130			

Origins Laboratory, Inc.



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Martin C Eckert III
Project Number: [none]
Project: Bonanza - State Seventy Holes P-4

PAH by 8270D SIM - Quality Control
Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch L567280 - 3550B										
LCS (LCS-L567280)					Prepared: 08/04/2021 Analyzed: 08/04/2021					
Benzo(k)fluoranthene	0.123	0.000486	mg/Kg	0.167		73.6	30-130			
Surrogate: Nitrobenzene-d5	75.9		"	0.333		75.9	29-110			
Surrogate: 4-Terphenyl-d14	81.9		"	0.333		81.9	33-122			
Surrogate: 2-Fluorobiphenyl	82.8		"	0.333		82.8	33-115			
LRB (LRB-L567280)					Prepared: 08/04/2021 Analyzed: 08/04/2021					
Chrysene	ND	0.00067	mg/Kg				-			
Dibenz(a,h)anthracene	ND	0.00067	"				-			
Fluoranthene	ND	0.00067	"				-			
Fluorene	ND	0.00067	"				-			
Benzo(k)fluoranthene	ND	0.00067	"				-			
Naphthalene	ND	0.00067	"				-			
Indeno(1,2,3-cd)pyrene	ND	0.00067	"				-			
Benzo(b)fluoranthene	ND	0.00067	"				-			
Benzo(a)pyrene	ND	0.00067	"				-			
Benzo(a)anthracene	ND	0.00067	"				-			
Acenaphthene	ND	0.00067	"				-			
2-Methylnaphthalene	ND	0.00067	"				-			
1-Methylnaphthalene	ND	0.00067	"				-			
Pyrene	ND	0.00067	"				-			
Anthracene	ND	0.00067	"				-			
Surrogate: Nitrobenzene-d5	62.7		"	0.333		62.7	29-110			
Surrogate: 4-Terphenyl-d14	82.8		"	0.333		82.8	33-122			
Surrogate: 2-Fluorobiphenyl	76.8		"	0.333		76.8	33-115			

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8000 W 44th Ave

Wheat Ridge CO 80033

Martin C Eckert III

Project Number: [none]

Project: Bonanza - State Seventy Holes P-4

Notes and Definitions

U Sample is Non-Detect.

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

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

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