

Wellhead Closure Checklist

COGCC Rule 911.a.(4) Environmental Site Closure Assessment Field Form

Additional attachments (optional):		Pit Closure --		Tank Battery Closure --		Flowline Closure --		Partially Buried Vault Closure --	
Site Name & COGCC Facility Number: Frenzel B #15-25		Date: 10-21-22					Remediation Project #: 24600		
Associated Wells: 05-123-24009		Age of Site: years					Number of Photos Attached: 2		
Location: (GPS coordinates of wellhead or southeastern most wellhead for multiple) 40.395921 / -104.540770							Estimated Facility Size (acres):		
General Condition of Site: (General observations regarding housekeeping, corrosion, waste management, etc.) Good condition									
USCS Soil Type: SC				Estimated Depth to Groundwater: 4.5'					
Hydrocarbon Impacted Soils / Spills: (Note estimated size and if impact appears to be surficial or extends to an unknown depth) None observed									
Salt Crusted Soils or Impacted Vegetation: (Note estimated size and if impact appears to be surficial or extends to an unknown depth) None observed									
Wellhead(s)									
Well API	05-123-24009								
Age	years								
Condition of surface around wellhead	Good - Per Crew								
PID Readings	N/A - Excavated upon arrival								
Condition of subsurface (staining present)	Good - No odor/no staining								
PID Readings	4.3	59.3	27.6	46.2					
Sample taken? Location/Sample ID#	WH-SS-01	WH-SS-02	WH-SS-03	WH-SS-04					
Photo Number(s)	See photo log								
Other observations regarding wellheads: Well casing removed from excavation following assessment									
Summary									
Was impacted soil identified? <input checked="" type="checkbox"/> No Yes - less than 10 cubic yards Yes - more than 10 cubic yards									
Total number of samples field screened: 4				Total number of samples collected: 4					
Highest PID Reading: 59.3				Total number of samples submitted to lab for analysis: 4					
If more than 10 cubic yards of impacted soil were observed:									
Vertical extent:				N/A					
Lateral extent:									
Estimated spill volume:				Volume of soil removed:					
Is additional investigation required?									
Was groundwater encountered during the investigation? No <input checked="" type="checkbox"/> Yes - not impacted or in contact with impacted soils Yes - groundwater impacted and/or in contact with impacted soils									
Measured depth to groundwater: 4.5'				Was remedial groundwater removal conducted? Yes <input checked="" type="checkbox"/> No					
Date Groundwater was encountered: 10-21-22				Commencement date of removal:					
Sheen on groundwater? Yes <input checked="" type="checkbox"/> No				Volume of groundwater removed prior to sampling: N/A					
Free product observed? Yes <input checked="" type="checkbox"/> No				Volume of groundwater removed post sampling: N/A					
Total number of samples collected: 1				Total Volume of groundwater removed:					
Total number of samples submitted to lab for analysis: 1									



FIGURES

Figure 1: Topographic Site Location Map

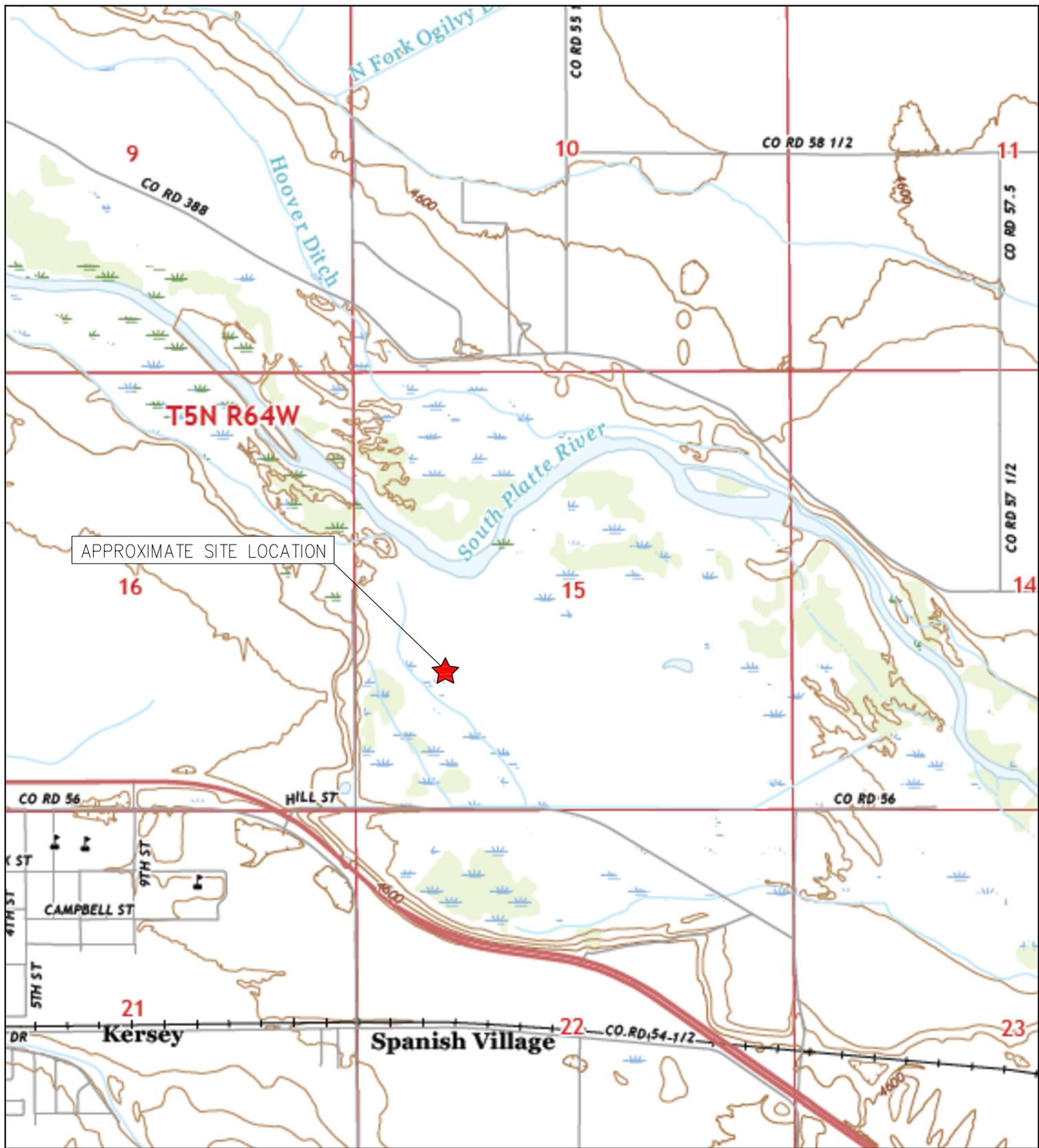
Figure 2: Aerial Site Location Map

Figure 3: Soil Analytical Map

Figure 4: Polycyclic Aromatic Hydrocarbons Map

Figure 5: Metals in Soil Map

Figure 6: Grab Groundwater Analytical Map



APPROXIMATE SITE LOCATION



TOPOGRAPHIC SITE LOCATION MAP
 FRENZEL B #15-25
 CLOSURE ASSESSMENT
 40.395921 / -104.540770
 NW¼ SW¼ SEC.15 T5N R64W 6PM
 WELD COUNTY, COLORADO
 API # 05-123-24009
 REMEDIATION # 24600



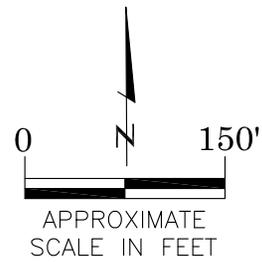
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LEGEND

- FORMER FRENZEL B #15-25 WELLHEAD (PLUGGED AND ABANDONED)
- ASSOCIATED SEPARATOR
- APPROXIMATE FLOWLINE LOCATION



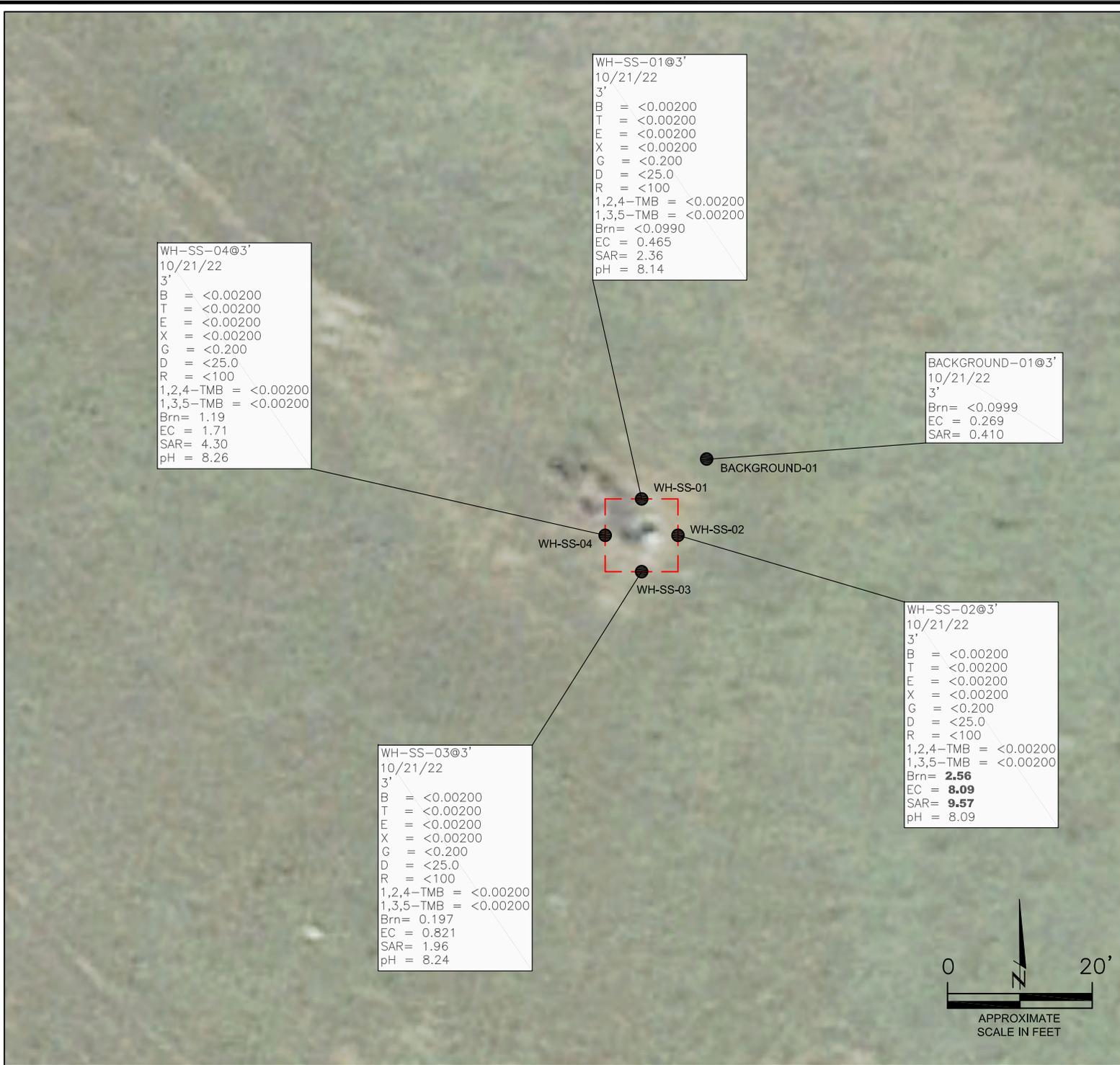
AERIAL SITE LOCATION MAP
 FRENZEL B #15-25
 CLOSURE ASSESSMENT
 40.395921 / -104.540770
 NW¼ SW¼ SEC.15 T5N R64W 6PM
 WELD COUNTY, COLORADO
 API # 05-123-24009
 REMEDIATION # 24600

FIGURE NO.
2

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LEGEND

--- WELLHEAD 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)

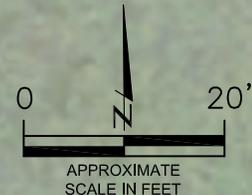
mg/kg = MILLIGRAMS PER KILOGRAM
mg/L = MILLIGRAMS PER LITER
mmhos/cm = MILLIMHOS PER CENTIMETER

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

NOTES:
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.

COGCC = COLORADO OIL AND GAS CONSERVATION COMMISSION



SOIL ANALYTICAL MAP
FRENZEL B #15-25
CLOSURE ASSESSMENT
40.395921 / -104.540770
NW¼ SW¼ SEC.15 T5N R64W 6PM
WELD COUNTY, COLORADO
API # 05-123-24009
REMEDIAION # 24600

FIGURE NO.
3

DRAWN BY:
IM

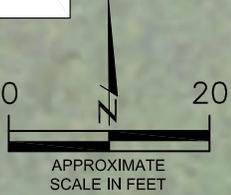
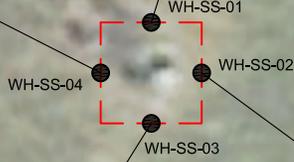
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WH-SS-04@3'
10/21/22
3'
ND = <0.00067
1-Methylnaphthalene = 0.00408
2-Methylnaphthalene = 0.0019
Acenaphthene = 0.00183
Anthracene = 0.00189
Benzo(a)anthracene = ND
Benzo(a)pyrene = ND
Benzo(b)fluoranthene = ND
Benzo(k)fluoranthene = 0.00063
Chrysene = 0.00148
Dibenzo(a,h)anthracene = ND
Fluoranthene = 0.00121
Fluorene = 0.00456
Indeno(1,2,3-CD)pyrene = ND
Naphthalene = 0.00122
Pyrene = 0.0105

WH-SS-01@3'
10/21/22
3'
ND = <0.00067
1-Methylnaphthalene = ND
2-Methylnaphthalene = ND
Acenaphthene = ND
Anthracene = ND
Benzo(a)anthracene = ND
Benzo(a)pyrene = ND
Benzo(b)fluoranthene = ND
Benzo(k)fluoranthene = ND
Chrysene = ND
Dibenzo(a,h)anthracene = ND
Fluoranthene = ND
Fluorene = ND
Indeno(1,2,3-CD)pyrene = ND
Naphthalene = ND
Pyrene = ND

WH-SS-03@3'
10/21/22
3'
ND = <0.00067
1-Methylnaphthalene = 0.00172
2-Methylnaphthalene = 0.00119
Acenaphthene = 0.00092
Anthracene = 0.0013
Benzo(a)anthracene = ND
Benzo(a)pyrene = ND
Benzo(b)fluoranthene = ND
Benzo(k)fluoranthene = ND
Chrysene = 0.000881
Dibenzo(a,h)anthracene = ND
Fluoranthene = 0.000881
Fluorene = 0.00306
Indeno(1,2,3-CD)pyrene = ND
Naphthalene = 0.000943
Pyrene = 0.00688

WH-SS-02@3'
10/21/22
3'
ND = <0.00335
1-Methylnaphthalene = 0.00446
2-Methylnaphthalene = ND
Acenaphthene = ND
Anthracene = ND
Benzo(a)anthracene = ND
Benzo(a)pyrene = 0.00236
Benzo(b)fluoranthene = ND
Benzo(k)fluoranthene = ND
Chrysene = ND
Dibenzo(a,h)anthracene = ND
Fluoranthene = ND
Fluorene = 0.00381
Indeno(1,2,3-CD)pyrene = ND
Naphthalene = ND
Pyrene = 0.00651



LEGEND

--- WELLHEAD ASSESSMENT BOUNDARIES

● APPROXIMATE LOCATION OF SOIL SAMPLES SUBMITTED FOR LABORATORY ANALYSIS

PARAMETERS

SAMPLE LOCATION
DATE SAMPLE COLLECTED
APPROXIMATE DEPTH
POLYCYCLIC AROMATIC HYDROCARBONS (PAHs) (mg/kg)

mg/kg = MILLIGRAMS PER KILOGRAM

ND = NON-DETECT

NOTES:
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.

COGCC = COLORADO OIL AND GAS CONSERVATION COMMISSION

POLYCYCLIC AROMATIC HYDROCARBONS MAP
FRENZEL B #15-25
CLOSURE ASSESSMENT
40.395921 / -104.540770
NW¼ SW¼ SEC.15 T5N R64W 6PM
WELD COUNTY, COLORADO
API # 05-123-24009
REMEDATION # 24600

FIGURE NO.
4

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LEGEND

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

PARAMETERS

SAMPLE LOCATION
DATE SAMPLE COLLECTED
APPROXIMATE DEPTH
Arsenic = (mg/kg)
Barium = (mg/kg)
Cadmium = (mg/kg)
Chromium (VI) = (mg/kg)
Copper = (mg/kg)
Lead = (mg/kg)
Nickel = (mg/kg)
Selenium = (mg/kg)
Silver = (mg/kg)
Zinc = (mg/kg)

mg/kg = MILLIGRAMS PER KILOGRAM

NA - NOT ANALYZED

(NS) - NOT SAMPLED

NOTES:

VALUES PRESENTED WITH A LESS THAN SYMBOL (<) DID NOT CONTAIN CONCENTRATIONS AT/OR ABOVE LABORATORY REPORTING LIMITS AND/OR MINIMUM DETECTION LIMITS.

VALUES PRESENTED IN **BOLD** EXCEED COGCC TABLE 915-1 REGULATORY LIMITS.

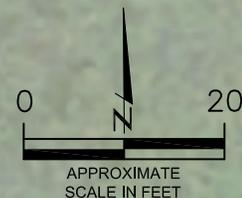
*VALUES EXCEED COGCC TABLE 915-1 PROTECTION OF GROUNDWATER SOIL SCREENING LEVELS.

**ACHIEVABLE PRACTICAL QUANTITATIVE LIMITS FOR HEXAVALENT CHROMIUM (Cr VI) IN SOILS IS IN THE RANGE OF 0.1 TO 1 mg/kg.

***ARSENIC IS NATURALLY OCCURRING IN COLORADO. LOCAL CLEAN-UP LEVEL (0.179 mg/kg) is 1.25*BACKGROUND (0.143 mg/kg).

COGCC = COLORADO OIL AND GAS CONSERVATION COMMISSION

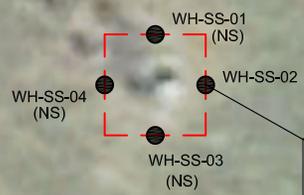
METALS IN SOIL MAP
 FRENZEL B #15-25
 CLOSURE ASSESSMENT
 40.395921 / -104.540770
 NW¼ SW¼ SEC.15 T5N R64W 6PM
 WELD COUNTY, COLORADO
 API # 05-123-24009
 REMEDIATION # 24600



BACKGROUND-01@3'
 10/21/22
 3'

Arsenic = 0.143***
 Barium = 22.8
 Cadmium = <0.0951
 Chromium (VI) = NA
 Copper = <9.51
 Lead = <9.51
 Nickel = <9.51
 Selenium = <0.0951
 Silver = <0.0961
 Zinc = <95.1

BACKGROUND-01



WH-SS-02@3'
 10/21/22
 3'

Arsenic = **2.91*****
 Barium = **95.0***
 Cadmium = 0.155
 Chromium (VI) = <0.244**
 Copper = 10.5
 Lead = **16.9***
 Nickel = <9.64
 Selenium = **0.323***
 Silver = <0.0964
 Zinc = <96.4

FIGURE NO.
5

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LEGEND

--- WELLHEAD ASSESSMENT BOUNDARIES

● APPROXIMATE LOCATION OF GRAB GROUNDWATER SAMPLE SUBMITTED FOR LABORATORY ANALYSIS
GW-01

PARAMETERS

GROUNDWATER SAMPLE LOCATION
 DATE
 B = BENZENE (µg/L)
 T = TOLUENE (µg/L)
 E = ETHYLBENZENE (µg/L)
 X = TOTAL XYLENES (µg/L)
 N = NAPHTHALENE (µg/L)
 1,2,4-TMB = 1,2,4-TRIMETHYLBENZENE (µg/L)
 1,3,5-TMB = 1,3,5-TRIMETHYLBENZENE (µg/L)

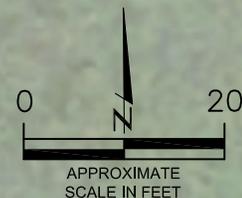
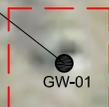
µg/L = MICROGRAMS PER LITER

NOTES:
VALUES PRESENTED WITH A LESS THAN SYMBOL (<) DID NOT CONTAIN CONCENTRATIONS AT OR ABOVE THE LABORATORY REPORTING LIMIT.

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

COGCC = COLORADO OIL AND GAS CONSERVATION COMMISSION

GW-01
 10/21/22
 B = **32.5**
 T = 39.4
 E = 7.06
 X = 46.1
 N = 3.17
 1,2,4-TMB = 18.4
 1,3,5-TMB = 7.50



GRAB GROUNDWATER ANALYTICAL MAP
 FRENZEL B #15-25
 CLOSURE ASSESSMENT
 40.395921 / -104.540770
 NW¼ SW¼ SEC.15 T5N R64W 6PM
 WELD COUNTY, COLORADO
 API # 05-123-24009
 REMEDIATION # 24600

FIGURE NO.

6

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TABLES

Table 1: Photoionization Detector Reading Summary

Table 2: Soil Analytical Results Summary

Table 3: Groundwater Analytical Results Summary

TABLE 1
PHOTOIONIZATION DETECTOR READING SUMMARY
FRENZEL B #15-25
CLOSURE ASSESSMENT
40.395921 / -104.540770
NW¼ SW¼ SEC.15 T5N R64W 6PM
WELD COUNTY, COLORADO
API # 05-123-24009
REMEDATION # 24600

Sample Location (Latitude/Longitude)	Date	Approximate Depth (feet)	PID Reading (ppm-v)	Lab Submission (Y/N)
WH-SS-01 @ 3' (40.395930 / -104.540755)	10/21/22	3	4.3	Y
WH-SS-02 @ 3' (40.395916 / -104.540738)	10/21/22	3	59.3	Y
WH-SS-03 @ 3' (40.395901 / -104.540755)	10/21/22	3	27.6	Y
WH-SS-04 @ 3' (40.395916 / -104.540771)	10/21/22	3	46.2	Y
Background-01 @ 3' (40.395946 / -104.540719)	10/21/22	3	15.3	Y
(Y/N) = Yes or No ppm-v = parts per million by volume PID = Photoionization Detector				

TABLE 2
 SOIL ANALYTICAL RESULTS
 FRENZEL B #15-25
 CLOSURE ASSESSMENT
 40.395921 / -104.540770
 NW¼ SW¼ SEC. 15 T6N R64W 6PM
 WELD COUNTY, COLORADO
 API # 05-123-24009
 REMEDIATION # 24600

Sample Location		WH-SS-01 @ 3'	WH-SS-02 @ 3'	WH-SS-03 @ 3'	WH-SS-04 @ 3'	Background-01 @ 3'
(Latitude / Longitude)		(40.395930 / -104.540755)	(40.395916 / -104.540738)	(40.395901 / -104.540755)	(40.395916 / -104.540771)	(40.395946 / -104.540719)
Sample Date		10/21/2022	10/21/2022	10/21/2022	10/21/2022	10/21/2022
Sample Depth		3	3	3	3	3
PID Reading (ppm-v)		4.3	59.3	27.6	46.2	15.3
Regulatory Limits						
Chemical of Concern	Units	COGCC Table 915-1 RSSLs	COGCC Table 915-1 GSSLs	Local Clean-Up Level		
VOCs						
Benzene	mg/kg	1.2	0.0026	--	<0.00200	<0.00200
Toluene	mg/kg	490	0.69	--	<0.00200	<0.00200
Ethylbenzene	mg/kg	5.8	0.78	--	<0.00200	<0.00200
Total Xylenes	mg/kg	58	9.9	--	<0.00200	<0.00200
1,2,4-Trimethylbenzene	mg/kg	30	0.0081	--	<0.00200	<0.00200
1,3,5-Trimethylbenzene	mg/kg	27	0.0087	--	<0.00200	<0.00200
TOTAL PETROLEUM HYDROCARBONS						
TPH-GRO	mg/kg	500	--	--	<0.200	<0.200
TPH-DRO	mg/kg	500	--	--	<25.0	<25.0
TPH-RRO	mg/kg	500	--	--	<100	<100
POLYCYCLIC AROMATIC HYDROCARBONS						
1-Methyl-naphthalene	mg/kg	18	0.006	--	<0.00067	0.00446
2-Methyl-naphthalene	mg/kg	24	0.019	--	<0.00067	<0.00335
Acenaphthene	mg/kg	360	0.55	--	<0.00067	0.00092
Anthracene	mg/kg	1800	5.8	--	<0.00067	0.0013
Benzo(a)-anthracene	mg/kg	1.1	0.011	--	<0.00067	<0.00067
Benzo(a)-pyrene	mg/kg	0.11	0.24	--	<0.00067	<0.00067
Benzo(b)-fluoranthene	mg/kg	1.1	0.3	--	<0.00067	<0.00067
Benzo(k)-fluoranthene	mg/kg	11	2.9	--	<0.00067	<0.00067
Chrysene	mg/kg	110	9	--	<0.00067	0.00081
Dbenzo(a,h)-anthracene	mg/kg	0.11	0.096	--	<0.00067	<0.00067
Fluoranthene	mg/kg	240	8.9	--	<0.00067	0.00081
Fluorene	mg/kg	240	0.54	--	<0.00067	0.00306
Indeno(1,2,3-cd)-pyrene	mg/kg	1.1	0.98	--	<0.00067	<0.00067
Naphthalene	mg/kg	2	0.0038	--	<0.00067	0.000943
Pyrene	mg/kg	180	1.3	--	<0.00067	0.00651
SOIL SUITABILITY (Inorganics)						
Boron	mg/L	2	--	--	<0.0990	2.56
pH	standard unit	6-8.3	--	--	8.14	8.09
Sodium Adsorption Ratio (SAR)	--	<6	--	--	2.36	9.57
Specific Conductance (EC)	mmhos/cm	<4	--	--	0.465	8.09
METALS						
Arsenic	mg/kg	0.68***	0.29***	0.179***	NA	2.91***
Barium	mg/kg	15000	82	--	NA	95.0*
Cadmium	mg/kg	71	0.38	--	NA	0.155
Copper	mg/kg	3100	46	--	NA	10.5
Lead	mg/kg	400	14	--	NA	16.9*
Nickel	mg/kg	1500	26	--	NA	<9.64
Selenium	mg/kg	390	0.26	--	NA	0.323*
Silver	mg/kg	390	0.8	--	NA	<0.0964
Zinc	mg/kg	23000	370	--	NA	<96.4
Hexavalent Chromium	mg/kg	0.3**	0.00067**	0.1 to 1.0**	NA	<0.244**
COGCC = Colorado Oil and Gas Conservation Commission						
mg/kg = milligrams per kilogram		NA - Not Analyzed				
mmhos/cm = millimhos per centimeter		VOCs - Volatile Organic Compounds				
PID = Photoionization Detector		RSSLs = Residential Soil Screening Levels				
SAR = Sodium Adsorption Ratio		GSSLs = Protection of Groundwater Soil Screening Levels				
Specific Conductance (EC)		TPH-GRO = Total Petroleum Hydrocarbons - Gasoline Range Organics				
TPH-DRO = Total Petroleum Hydrocarbons - Diesel Range Organics		TPH-RRO = Total Petroleum Hydrocarbons - Residual Range Organics				
Notes:						
Values presented with a less than symbol (<) did not contain concentrations at or above the laboratory reporting limit and/or minimum detection limit.						
Values presented in BOLD exceed COGCC Table 915-1 Regulatory Limits. Values presented with asterisk (*) exceed COGCC Table 915-1 GSSLs.						
**Achievable practical quantitative limits for Hexavalent Chromium in soils is in the range of 0.1 to 1 mg/kg.						
***Arsenic is naturally occurring in Colorado. The Local Clean-up Level (0.179 mg/kg) is 1.25 * Background (0.143 mg/kg).						

TABLE 5
GROUNDWATER ANALYTICAL RESULTS SUMMARY
FRENZEL B #15-25
CLOSURE ASSESSMENT
40.395921 / -104.540770
NW¼ SW¼ SEC.15 T5N R64W 6PM
WELD COUNTY, COLORADO
API # 05-123-24009
REMEDATION # 24600

Sample Location (Latitude/Longitude)	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Naphthalene (µg/L)	1,2,4- Trimethylbenzene (µg/L)	1,3,5 - Trimethylbenzene (µg/L)
COGCC Table 915-1 Regulatory Limits (µg/L)		5	560	700	1,400	140	67	67
GW-01 (40.395914 / -104.540752)	10/21/22	32.5	39.4	7.06	46.1	3.17	18.4	7.50

COGCC = Colorado Oil and Gas Conservation Commission

µg/L - micrograms per liter

Note: Values presented with a less than symbol (<) indicate concentrations were not observed at or above the laboratory reporting limit.

Values presented in **bold** typeface exceed COGCC Table 915-1 regulatory limits for that compound.





ATTACHMENT A

Photo Log

Frenzel B #15-25
API # 05-123-24009
Remediation # 24600

Closure Assessment

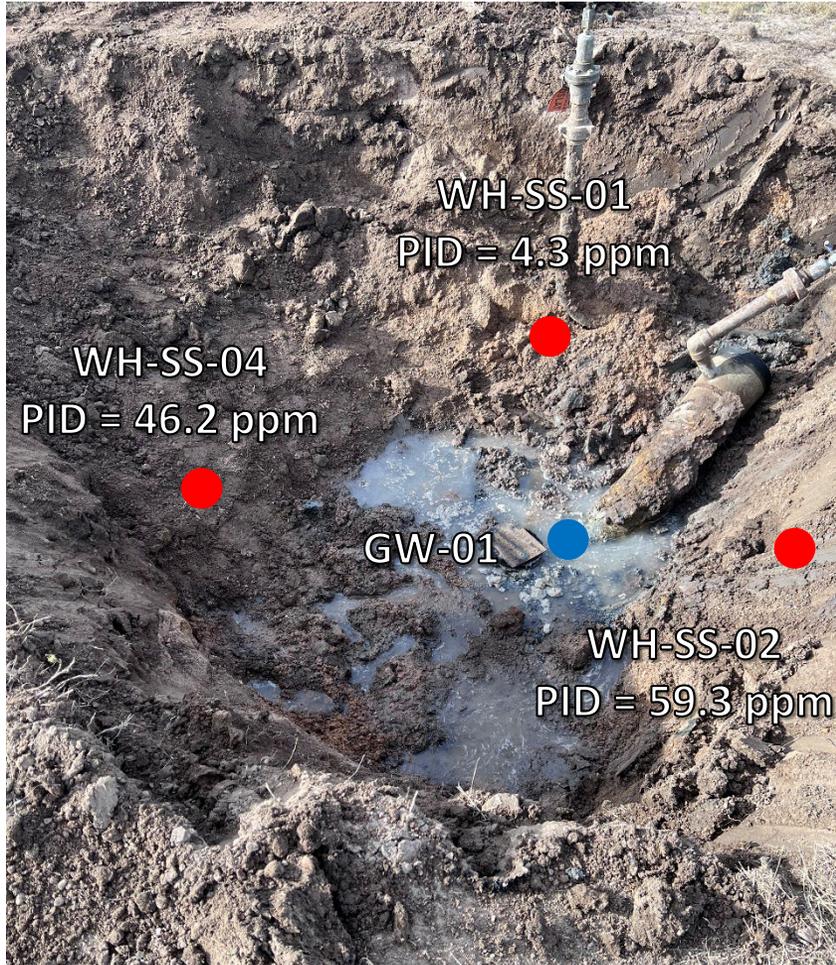
October 2022



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Wellhead Excavation – 10/21/22



Looking north

No petroleum hydrocarbon staining or odor observed

Groundwater observed at approximately 4.5 feet bgs



Looking west

No petroleum hydrocarbon staining or odor observed

Groundwater observed at approximately 4.5 feet bgs



ATTACHMENT B

Laboratory Analytical Reports



November 16, 2022

Eagle Environmental Consulting, Inc.

Martin C Eckert III

8000 W 44th Ave

Wheat Ridge CO 80033

Project Name - Noble - Frenzel B 15-25

Project Number - [none]

Attached are your analytical results for Noble - Frenzel B 15-25 received by Origins Laboratory, Inc. October 21, 2022. This project is associated with Origins project number Y210523-01.

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



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

Martin C Eckert III
Project Number: [none]
Project: Noble - Frenzel B 15-25

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
WH-SS-01@3'	Y210523-01	Soil	October 21, 2022 9:28	10/21/2022 11:47
WH-SS-02@3'	Y210523-02	Soil	October 21, 2022 9:30	10/21/2022 11:47
WH-SS-03@3'	Y210523-03	Soil	October 21, 2022 9:32	10/21/2022 11:47
WH-SS-04@3'	Y210523-04	Soil	October 21, 2022 9:34	10/21/2022 11:47

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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: Noble - Frenzel B 15-25

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: 4210523

Client: Eagle Environmental
 Client Project ID: Frenzel B #15-25

Checklist Completed by: ISH/DE

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

Date/time completed: 10/24/12

Airbill #: N/A

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

Cooler Number/Temperature: 1 / 1.2 °C / _____ °C / _____ °C (Describe) _____ °C

Thermometer ID: T004

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ?	X			
Is there ice present (document if blue ice is used)	X			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		X		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		X		
Were all samples received intact ⁽¹⁾ ?	X			
Was adequate sample volume provided ⁽¹⁾ ?	X			
Are short holding time analytes or samples with HTS due within 48 hours present ⁽¹⁾ ?		X		
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	X			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	X			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	X			
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	X			
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.			X	
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)			X	
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.

OP
 Reviewed by (Project Manager)

10/24/12
 Date/Time Reviewed

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Frenzel B 15-25

WH-SS-01@3'
10/21/2022 9:28:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y210523-01 (Soil)

Boron (DTPA Sorbitol)

Boron	ND		0.0990	mg/L	1	B2J2512	10/25/2022	10/26/2022	U
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND		25.0	mg/kg	1	B2J2624	10/26/2022	10/29/2022	U
Residual Range Organics (C28-C40)	ND		100	"	"	"	"	"	U

Surrogate: *o*-Terphenyl 89.5 % 50-150 " " "

GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND		0.00200	mg/kg	1	B2J2519	10/25/2022	10/31/2022	U
1,3,5-Trimethylbenzene	ND		0.00200	"	"	"	"	"	U
Benzene	ND		0.00200	"	"	"	"	"	U
Ethylbenzene	ND		0.00200	"	"	"	"	"	U
Toluene	ND		0.00200	"	"	"	"	"	U
Xylenes, total	ND		0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND		0.200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4 83.7 % 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: Noble - Frenzel B 15-25

WH-SS-01@3'

10/21/2022 9:28:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y210523-01 (Soil)

GBTEX+TMBs by 8260D

Surrogate: Toluene-d8	100 %		70-130			B2J25 19	10/25/2022	10/31/2022	
Surrogate: 4-Bromofluorobenzene	97.6 %		70-130			"	"	"	

Metals by Saturated Paste by EPA 6010

Calcium	1.67		0.499	meq/L	10	[CALC]	10/25/2022	10/26/2022	
Magnesium	1.53		0.823	"	"	"	"	"	
Sodium	2.99		0.435	"	"	"	"	"	

PAH by 8270D SIM

1-Methylnaphthalene	ND	0.000364	0.00067	mg/Kg	1	L645331	10/26/2022	10/28/2022	
2-Methylnaphthalene	ND	0.000645	0.00067	"	"	"	"	"	
Acenaphthene	ND	0.000304	0.00067	"	"	"	"	"	
Anthracene	ND	0.000334	0.00067	"	"	"	"	"	
Benzo(a)anthracene	ND	0.000493	0.00067	"	"	"	"	"	
Benzo(a)pyrene	ND	0.000468	0.00067	"	"	"	"	"	
Benzo(b)fluoranthene	ND	0.000585	0.00067	"	"	"	"	"	
Benzo(k)fluoranthene	ND	0.000437	0.00067	"	"	"	"	"	
Chrysene	ND	0.000624	0.00067	"	"	"	"	"	
Dibenz(a,h)anthracene	ND	0.000614	0.00067	"	"	"	"	"	
Fluoranthene	ND	0.000394	0.00067	"	"	"	"	"	

Origins Laboratory, Inc.



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Martin C Eckert III
 Project Number: [none]
 Project: Noble - Frenzel B 15-25

WH-SS-01@3'
10/21/2022 9:28:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, LLC.
Y210523-01 (Soil)

PAH by 8270D SIM

Fluorene	ND	0.000286	0.00067	mg/Kg	1	L645331	10/26/2022	10/28/2022	
Indeno(1,2,3-cd)pyrene	ND	0.000627	0.00067	"	"	"	"	"	
Naphthalene	ND	0.000484	0.00067	"	"	"	"	"	
Pyrene	ND	0.000643	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	59.2 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	72.1 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	59.5 %		29-110			"	"	"	

pH in Soil by 9045D

pH	8.14			pH Units	1	B2J2515	10/25/2022	10/26/2022	
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SAR by 20B Saturated Paste

SAR	2.36			SAR	1	B2J2508	10/25/2022	10/26/2022	
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.465		0.00500	mmhos/cm	1	B2J2515	10/25/2022	10/26/2022	
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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: Noble - Frenzel B 15-25

WH-SS-02@3'

10/21/2022 9:30:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y210523-02 (Soil)

Boron (DTPA Sorbitol)

Boron	2.56		0.100	mg/L	1	B2J2512	10/25/2022	10/26/2022	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND		25.0	mg/kg	1	B2J2624	10/26/2022	10/29/2022	U
Residual Range Organics (C28-C40)	ND		100	"	"	"	"	"	U

Surrogate: o-Terphenyl	65.4 %		50-150			"	"	"	
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GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND		0.00200	mg/kg	1	B2J2519	10/25/2022	10/31/2022	U
1,3,5-Trimethylbenzene	ND		0.00200	"	"	"	"	"	U
Benzene	ND		0.00200	"	"	"	"	"	U
Ethylbenzene	ND		0.00200	"	"	"	"	"	U
Toluene	ND		0.00200	"	"	"	"	"	U
Xylenes, total	ND		0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND		0.200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	89.8 %		70-130			"	"	"	
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Eagle Environmental Consulting, Inc.
 8000 W 44th Ave
 Wheat Ridge CO 80033

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Frenzel B 15-25

WH-SS-02@3'

10/21/2022 9:30:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y210523-02 (Soil)

GBTEX+TMBs by 8260D

Surrogate: Toluene-d8	98.6 %		70-130			B2J25 19	10/25/2022	10/31/2022	
Surrogate: 4-Bromofluorobenzene	100 %		70-130			"	"	"	

Metals by Saturated Paste by EPA 6010

Calcium	19.3		0.499	meq/L	10	[CALC]	10/25/2022	10/26/2022	
Magnesium	27.4		0.823	"	"	"	"	"	
Sodium	46.3		0.435	"	"	"	"	"	

PAH by 8270D SIM

1-Methylnaphthalene	0.00446	0.00182	0.00335	mg/Kg	5	L645331	10/26/2022	10/28/2022	
2-Methylnaphthalene	ND	0.00323	0.00335	"	"	"	"	"	
Acenaphthene	ND	0.00152	0.00335	"	"	"	"	"	
Anthracene	ND	0.00167	0.00335	"	"	"	"	"	
Benzo(a)anthracene	ND	0.00247	0.00335	"	"	"	"	"	
Benzo(a)pyrene	0.00236	0.00234	0.00335	"	"	"	"	"	J
Benzo(b)fluoranthene	ND	0.00293	0.00335	"	"	"	"	"	
Benzo(k)fluoranthene	ND	0.00219	0.00335	"	"	"	"	"	
Chrysene	ND	0.00312	0.00335	"	"	"	"	"	
Dibenz(a,h)anthracene	ND	0.00307	0.00335	"	"	"	"	"	
Fluoranthene	ND	0.00197	0.00335	"	"	"	"	"	
Fluorene	0.00381	0.00143	0.00335	"	"	"	"	"	

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

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Frenzel B 15-25

WH-SS-02@3'
10/21/2022 9:30:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, LLC.
Y210523-02 (Soil)

PAH by 8270D SIM

Indeno(1,2,3-cd)pyrene	ND	0.00314	0.00335	mg/Kg	5	L645331	10/26/2022	10/28/2022	
Naphthalene	ND	0.00242	0.00335	"	"	"	"	"	
Pyrene	0.00651	0.00322	0.00335	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	70.3 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	84.4 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	62.7 %		29-110			"	"	"	

pH in Soil by 9045D

pH	8.09			pH Units	1	B2J2515	10/25/2022	10/26/2022	
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SAR by 20B Saturated Paste

SAR	9.57			SAR	1	B2J2508	10/25/2022	10/26/2022	
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	8.09		0.00500	mmhos/cm	1	B2J2515	10/25/2022	10/26/2022	
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Table 915 metals by EPA 6020B

Arsenic	2.91		0.0964	mg/kg	10	B2K0819	11/08/2022	11/08/2022	
Barium	95.0		9.64	"	"	"	"	"	

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: Noble - Frenzel B 15-25

WH-SS-02@3'

10/21/2022 9:30:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y210523-02 (Soil)

Table 915 metals by EPA 6020B

Cadmium	0.155		0.0964	mg/kg	10	B2K0819	11/08/2022	11/08/2022	
Copper	10.5		9.64	"	"	"	"	"	
Lead	16.9		9.64	"	"	"	"	"	
Nickel	ND		9.64	"	"	"	"	"	U
Selenium	0.323		0.0964	"	"	"	"	"	
Silver	ND		0.0964	"	"	"	"	"	U
Zinc	ND		96.4	"	"	"	"	"	U

Total Metals by 7196A

Chromium, Hexavalent	ND	0.244	0.5	mg/Kg	1	L648591	10/21/2022	11/14/2022	
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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: Noble - Frenzel B 15-25

WH-SS-03@3'
10/21/2022 9:32:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y210523-03 (Soil)

Boron (DTPA Sorbitol)

Boron	0.197		0.101	mg/L	1	B2J2512	10/25/2022	10/26/2022	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND		25.0	mg/kg	1	B2J2624	10/26/2022	10/29/2022	U
Residual Range Organics (C28-C40)	ND		100	"	"	"	"	"	U

Surrogate: o-Terphenyl	80.0 %		50-150			"	"	"	
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GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND		0.00200	mg/kg	1	B2J2519	10/25/2022	10/31/2022	U
1,3,5-Trimethylbenzene	ND		0.00200	"	"	"	"	"	U
Benzene	ND		0.00200	"	"	"	"	"	U
Ethylbenzene	ND		0.00200	"	"	"	"	"	U
Toluene	ND		0.00200	"	"	"	"	"	U
Xylenes, total	ND		0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND		0.200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	88.5 %		70-130			"	"	"	
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 8000 W 44th Ave
 Wheat Ridge CO 80033

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Frenzel B 15-25

WH-SS-03@3'

10/21/2022 9:32:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y210523-03 (Soil)

GBTEX+TMBs by 8260D

Surrogate: Toluene-d8	98.6 %		70-130			B2J25 19	10/25/2022	10/31/2022	
Surrogate: 4-Bromofluorobenzene	102 %		70-130			"	"	"	

Metals by Saturated Paste by EPA 6010

Calcium	2.72		0.499	meq/L	10	[CALC]	10/25/2022	10/26/2022	
Magnesium	2.01		0.823	"	"	"	"	"	
Sodium	3.01		0.435	"	"	"	"	"	

PAH by 8270D SIM

1-Methylnaphthalene	0.00172	0.000364	0.00067	mg/Kg	1	L645331	10/26/2022	10/28/2022	
2-Methylnaphthalene	0.00119	0.000645	0.00067	"	"	"	"	"	
Acenaphthene	0.00092	0.000304	0.00067	"	"	"	"	"	
Anthracene	0.0013	0.000334	0.00067	"	"	"	"	"	
Benzo(a)anthracene	ND	0.000493	0.00067	"	"	"	"	"	
Benzo(a)pyrene	ND	0.000468	0.00067	"	"	"	"	"	
Benzo(b)fluoranthene	ND	0.000585	0.00067	"	"	"	"	"	
Benzo(k)fluoranthene	ND	0.000437	0.00067	"	"	"	"	"	
Chrysene	0.000881	0.000624	0.00067	"	"	"	"	"	
Dibenz(a,h)anthracene	ND	0.000614	0.00067	"	"	"	"	"	
Fluoranthene	0.000881	0.000394	0.00067	"	"	"	"	"	
Fluorene	0.00306	0.000286	0.00067	"	"	"	"	"	

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Frenzel B 15-25

WH-SS-03@3'
10/21/2022 9:32:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, LLC.
Y210523-03 (Soil)

PAH by 8270D SIM

Indeno(1,2,3-cd)pyrene	ND	0.000627	0.00067	mg/Kg	1	L645331	10/26/2022	10/28/2022	
Naphthalene	0.000943	0.000484	0.00067	"	"	"	"	"	
Pyrene	0.00688	0.000643	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	61.7 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	76.6 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	62.3 %		29-110			"	"	"	

pH in Soil by 9045D

pH	8.24			pH Units	1	B2J2515	10/25/2022	10/26/2022	
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SAR by 20B Saturated Paste

SAR	1.96			SAR	1	B2J2508	10/25/2022	10/26/2022	
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.821		0.00500	mmhos/cm	1	B2J2515	10/25/2022	10/26/2022	
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Jen Pellegrini For Noelle Doyle Mathis, President

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

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Frenzel B 15-25

WH-SS-04@3'

10/21/2022 9:34:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y210523-04 (Soil)

Boron (DTPA Sorbitol)

Boron	1.19		0.0999	mg/L	1	B2J2604	10/26/2022	10/27/2022	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND		25.0	mg/kg	1	B2J2624	10/26/2022	10/29/2022	U
Residual Range Organics (C28-C40)	ND		100	"	"	"	"	"	U

Surrogate: o-Terphenyl	65.8 %		50-150			"	"	"	
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GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND		0.00200	mg/kg	1	B2J2519	10/25/2022	10/31/2022	U
1,3,5-Trimethylbenzene	ND		0.00200	"	"	"	"	"	U
Benzene	ND		0.00200	"	"	"	"	"	U
Ethylbenzene	ND		0.00200	"	"	"	"	"	U
Toluene	ND		0.00200	"	"	"	"	"	U
Xylenes, total	ND		0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND		0.200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	88.9 %		70-130			"	"	"	
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Jen Pellegrini For Noelle Doyle Mathis, President

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

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Frenzel B 15-25

WH-SS-04@3'

10/21/2022 9:34:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y210523-04 (Soil)

GBTEX+TMBs by 8260D

Surrogate: Toluene-d8	98.5 %		70-130			B2J25 19	10/25/2022	10/31/2022	
Surrogate: 4-Bromofluorobenzene	101 %		70-130			"	"	"	

Metals by Saturated Paste by EPA 6010

Calcium	4.36		0.499	meq/L	10	[CALC]	10/25/2022	10/26/2022	
Magnesium	4.77		0.823	"	"	"	"	"	
Sodium	9.18		0.435	"	"	"	"	"	

PAH by 8270D SIM

1-Methylnaphthalene	0.00408	0.000364	0.00067	mg/Kg	1	L645331	10/26/2022	10/28/2022	
2-Methylnaphthalene	0.0019	0.000645	0.00067	"	"	"	"	"	
Acenaphthene	0.00183	0.000304	0.00067	"	"	"	"	"	
Anthracene	0.00189	0.000334	0.00067	"	"	"	"	"	
Benzo(a)anthracene	ND	0.000493	0.00067	"	"	"	"	"	
Benzo(a)pyrene	ND	0.000468	0.00067	"	"	"	"	"	
Benzo(b)fluoranthene	ND	0.000585	0.00067	"	"	"	"	"	
Benzo(k)fluoranthene	0.00063	0.000437	0.00067	"	"	"	"	"	J
Chrysene	0.00148	0.000624	0.00067	"	"	"	"	"	
Dibenz(a,h)anthracene	ND	0.000614	0.00067	"	"	"	"	"	
Fluoranthene	0.00121	0.000394	0.00067	"	"	"	"	"	
Fluorene	0.00456	0.000286	0.00067	"	"	"	"	"	

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Eagle Environmental Consulting, Inc.
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 Wheat Ridge CO 80033

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Frenzel B 15-25

WH-SS-04@3'
10/21/2022 9:34:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, LLC.
Y210523-04 (Soil)

PAH by 8270D SIM

Indeno(1,2,3-cd)pyrene	ND	0.000627	0.00067	mg/Kg	1	L645331	10/26/2022	10/28/2022	
Naphthalene	0.00122	0.000484	0.00067	"	"	"	"	"	
Pyrene	0.0105	0.000643	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	64.8 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	82.7 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	58.8 %		29-110			"	"	"	

pH in Soil by 9045D

pH	8.26			pH Units	1	B2J2515	10/25/2022	10/26/2022	
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SAR by 20B Saturated Paste

SAR	4.30			SAR	1	B2J2508	10/25/2022	10/26/2022	
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	1.71		0.00500	mmhos/cm	1	B2J2515	10/25/2022	10/26/2022	
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Eagle Environmental Consulting, Inc.
 8000 W 44th Ave
 Wheat Ridge CO 80033

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Frenzel B 15-25

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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Batch B2J2519 - EPA 5030 (soil)

Blank (B2J2519-BLK1)

Prepared: 10/25/2022 Analyzed: 10/29/2022

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg							U
1,3,5-Trimethylbenzene	ND	0.00200	"							U
Benzene	ND	0.00200	"							U
Ethylbenzene	ND	0.00200	"							U
Naphthalene	ND	0.00380	"							U
Toluene	ND	0.00200	"							U
Xylenes, total	ND	0.00200	"							U
Gasoline Range Hydrocarbons	ND	0.200	"							U
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125	93.9		70-130			
Surrogate: Toluene-d8	0.13		"	0.125	101		70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125	101		70-130			

Origins Laboratory, Inc.



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Martin C Eckert III
 Project Number: [none]
 Project: Noble - Frenzel B 15-25

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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Batch B2J2519 - EPA 5030 (soil)

LCS (B2J2519-BS1)

Prepared: 10/25/2022 Analyzed: 10/29/2022

1,2,4-Trimethylbenzene	0.111	0.00200	mg/kg	0.100		111	70-130			
1,3,5-Trimethylbenzene	0.111	0.00200	"	0.100		111	70-130			
Benzene	0.102	0.00200	"	0.100		102	70-130			
Ethylbenzene	0.105	0.00200	"	0.100		105	70-130			
Naphthalene	0.101	0.00380	"	0.100		101	70-130			
Toluene	0.104	0.00200	"	0.100		104	70-130			
o-Xylene	0.0991	0.00200	"	0.100		99.1	70-130			
m,p-Xylene	0.215	0.00400	"	0.200		107	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		92.8	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		102	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		99.2	70-130			

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Eagle Environmental Consulting, Inc.
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Martin C Eckert III
 Project Number: [none]
 Project: Noble - Frenzel B 15-25

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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Batch B2J2519 - EPA 5030 (soil)

Matrix Spike (B2J2519-MS1)	Source: Y210495-01			Prepared: 10/25/2022 Analyzed: 10/29/2022						
1,2,4-Trimethylbenzene	1.31	0.00200	mg/kg	0.100	7.12	NR	70-130			QM-07
1,3,5-Trimethylbenzene	0.772	0.00200	"	0.100	2.78	NR	70-130			QM-07
Benzene	0.169	0.00200	"	0.100	0.212	NR	70-130			QM-07
Ethylbenzene	0.102	0.00200	"	0.100	0.305	NR	70-130			QM-07
Naphthalene	0.260	0.00380	"	0.100	0.301	NR	70-130			QM-07
Toluene	1.28	0.00200	"	0.100	0.964	313	70-130			QM-07
o-Xylene	2.10	0.00200	"	0.100	8.90	NR	70-130			QM-07
m,p-Xylene	2.60	0.00400	"	0.200	13.4	NR	70-130			QM-07
Surrogate: 1,2-Dichloroethane-d4	0.19		"	0.125		155	70-130			QM-07
Surrogate: Toluene-d8	0.13		"	0.125		103	70-130			
Surrogate: 4-Bromofluorobenzene	0.36		"	0.125		290	70-130			QM-07

Origins Laboratory, Inc.



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Martin C Eckert III
 Project Number: [none]
 Project: Noble - Frenzel B 15-25

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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Batch B2J2519 - EPA 5030 (soil)

Matrix Spike Dup (B2J2519-MSD1)	Source: Y210495-01			Prepared: 10/25/2022 Analyzed: 10/29/2022						
1,2,4-Trimethylbenzene	1.43	0.00200	mg/kg	0.100	7.12	NR	70-130	8.37	20	QM-07
1,3,5-Trimethylbenzene	0.957	0.00200	"	0.100	2.78	NR	70-130	21.3	20	QM-07
Benzene	0.186	0.00200	"	0.100	0.212	NR	70-130	9.35	20	QM-07
Ethylbenzene	0.210	0.00200	"	0.100	0.305	NR	70-130	69.0	20	QM-07
Naphthalene	0.392	0.00380	"	0.100	0.301	91.3	70-130	40.3	20	QM-07
Toluene	1.34	0.00200	"	0.100	0.964	376	70-130	4.75	20	QM-07
o-Xylene	2.22	0.00200	"	0.100	8.90	NR	70-130	5.42	20	QM-07
m,p-Xylene	2.71	0.00400	"	0.200	13.4	NR	70-130	4.01	20	QM-07
Surrogate: 1,2-Dichloroethane-d4	0.16		"	0.125		129	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		104	70-130			
Surrogate: 4-Bromofluorobenzene	0.34		"	0.125		272	70-130			QM-07

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Eagle Environmental Consulting, Inc.
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Martin C Eckert III
 Project Number: [none]
 Project: Noble - Frenzel B 15-25

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 B2J2624 - EPA 3550B										
Blank (B2J2624-BLK1)										
					Prepared: 10/26/2022 Analyzed: 10/28/2022					
Diesel (C10-C28)	ND	25.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	100	"							U
Surrogate: o-Terphenyl	18		"	24.9		70.4	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: Noble - Frenzel B 15-25

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 B2J2624 - EPA 3550B

LCS (B2J2624-BS1)

Prepared: 10/26/2022 Analyzed: 11/01/2022

Diesel (C10-C28)	1020	50.0	mg/kg	1000		102	70-130			
Residual Range Organics (C28-C40)	828	200	"	1000		82.8	70-130			
Surrogate: o-Terphenyl	48		"	49.8		96.7	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: Noble - Frenzel B 15-25

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 B2J2624 - EPA 3550B

Matrix Spike (B2J2624-MS1)	Source: Y210518-01			Prepared: 10/26/2022 Analyzed: 10/28/2022						
Diesel (C10-C28)	1050	50.0	mg/kg	1000	ND	105	70-130			
Residual Range Organics (C28-C40)	722	200	"	1000	ND	72.2	70-130			
Surrogate: o-Terphenyl	47		"	49.8		95.4	50-150			

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

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Frenzel B 15-25

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 B2J2624 - EPA 3550B

Matrix Spike Dup (B2J2624-MSD1)	Source: Y210518-01		Prepared: 10/26/2022 Analyzed: 10/28/2022							
Diesel (C10-C28)	1100	50.0	mg/kg	1000	ND	110	70-130	4.97	35	
Residual Range Organics (C28-C40)	744	200	"	1000	ND	74.4	70-130	2.96	35	
<i>Surrogate: o-Terphenyl</i>	41		"	49.8		82.3	50-150			

Origins Laboratory, Inc.



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Eagle Environmental Consulting, Inc.
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 Wheat Ridge CO 80033

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Frenzel B 15-25

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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Metals by EPA 6000/7000 Series Methods - 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 B2K0819 - EPA 3050B

Blank (B2K0819-BLK1)

Prepared: 11/08/2022 Analyzed: 11/08/2022

Arsenic	ND	0.000100	mg/kg							U
Barium	ND	0.0100	"							U
Cadmium	ND	0.000100	"							U
Copper	ND	0.0100	"							U
Lead	ND	0.0100	"							U
Nickel	ND	0.0100	"							U
Selenium	ND	0.000100	"							U
Silver	ND	0.000100	"							U
Zinc	ND	0.100	"							U

LCS (B2K0819-BS1)

Prepared: 11/08/2022 Analyzed: 11/08/2022

Arsenic	0.0514	0.000100	mg/kg	0.0500		103	80-120			
Barium	4.92	0.0100	"	5.00		98.4	80-120			
Cadmium	0.0506	0.000100	"	0.0500		101	80-120			
Copper	0.550	0.0100	"	0.500		110	80-120			
Lead	0.0505	0.0100	"	0.0500		101	80-120			
Nickel	0.0535	0.0100	"	0.0500		107	80-120			
Selenium	0.0518	0.000100	"	0.0500		104	80-120			
Silver	0.0533	0.000100	"	0.0500		107	80-120			
Zinc	0.527	0.100	"	0.500		105	80-120			

Matrix Spike (B2K0819-MS1)

Source: Y211139-01

Prepared: 11/08/2022 Analyzed: 11/08/2022

Origins Laboratory, Inc.



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Martin C Eckert III
 Project Number: [none]
 Project: Noble - Frenzel B 15-25

Metals by EPA 6000/7000 Series Methods - 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 B2K0819 - EPA 3050B

Matrix Spike (B2K0819-MS1)		Source: Y211139-01			Prepared: 11/08/2022 Analyzed: 11/08/2022					
Arsenic	5.50	0.0919	mg/kg	4.60	0.543	108	75-125			
Barium	490	9.19	"	460	10.3	104	75-125			
Cadmium	4.76	0.0919	"	4.60	0.0252	103	75-125			
Copper	53.9	9.19	"	46.0	1.22	114	75-125			
Lead	6.67	9.19	"	4.60	2.05	101	75-125			U
Nickel	6.03	9.19	"	4.60	0.823	113	75-125			U
Selenium	4.60	0.0919	"	4.60	ND	100	75-125			
Silver	4.91	0.0919	"	4.60	0.0193	106	75-125			
Zinc	57.3	91.9	"	46.0	ND	125	75-125			U

Matrix Spike Dup (B2K0819-MSD1)		Source: Y211139-01			Prepared: 11/08/2022 Analyzed: 11/08/2022					
Arsenic	6.45	0.0956	mg/kg	4.78	0.543	124	75-125	15.9	20	
Barium	507	9.56	"	478	10.3	104	75-125	3.39	20	
Cadmium	5.03	0.0956	"	4.78	0.0252	105	75-125	5.53	20	
Copper	56.0	9.56	"	47.8	1.22	115	75-125	3.91	20	
Lead	7.18	9.56	"	4.78	2.05	108	75-125	7.41	20	U
Nickel	7.24	9.56	"	4.78	0.823	134	75-125	18.2	20	QM-07, U
Selenium	4.85	0.0956	"	4.78	ND	102	75-125	5.45	20	
Silver	5.21	0.0956	"	4.78	0.0193	109	75-125	5.88	20	
Zinc	63.7	95.6	"	47.8	ND	133	75-125	10.5	20	QM-07, U

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: Noble - Frenzel B 15-25

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 B2J2508 - Saturated Paste Metals										
Blank (B2J2508-BLK1)					Prepared: 10/25/2022 Analyzed: 10/26/2022					
Calcium PPM	ND	10.0	mg/L							U
SAR	0.00		SAR							U
Magnesium PPM	ND	10.0	mg/L							U
Sodium PPM	ND	10.0	"							U
Duplicate (B2J2508-DUP1)		Source: Y210518-02			Prepared: 10/25/2022 Analyzed: 10/26/2022					
SAR	0.00		SAR		26.0			200	200	U
Calcium PPM	337	10.0	mg/L		342			1.43	50	
Magnesium PPM	60.0	10.0	"		61.7			2.76	50	
Sodium PPM	2160	10.0	"		1990			8.30	50	
Batch B2J2512 - DTPA Sorbitol Preparation										
Blank (B2J2512-BLK1)					Prepared: 10/25/2022 Analyzed: 10/26/2022					
Boron	ND	0.100	mg/L							U
Duplicate (B2J2512-DUP1)		Source: Y210517-20			Prepared: 10/25/2022 Analyzed: 10/26/2022					
Boron	1.16	0.100	mg/L		1.15			1.21	50	
Batch B2J2604 - DTPA Sorbitol Preparation										
Blank (B2J2604-BLK1)					Prepared: 10/26/2022 Analyzed: 10/27/2022					
Boron	ND	0.100	mg/L							U
Duplicate (B2J2604-DUP1)		Source: Y210523-04			Prepared: 10/26/2022 Analyzed: 10/27/2022					
Boron	0.915	0.999	mg/L		1.19			26.1	50	U

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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: Noble - Frenzel B 15-25

Saturated Paste - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B2J2515 - NO PREP										
Blank (B2J2515-BLK1)					Prepared: 10/25/2022 Analyzed: 10/26/2022					
Specific Conductance (EC)	ND	0.00500	mmhos/cm							U
pH	0.00		pH Units							U
Duplicate (B2J2515-DUP1)		Source: Y210518-02			Prepared: 10/25/2022 Analyzed: 10/26/2022					
pH	8.00		pH Units		7.91			1.13	25	
Specific Conductance (EC)	12.1	0.00500	mmhos/cm		11.9			2.05	25	

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Frenzel B 15-25

Total Metals by 7196A - Quality Control
Waypoint Analytical, LLC.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch L648591 -										
DUP (L 89374-DUP)		Source: 89374			Prepared: Analyzed: 11/14/2022					
Chromium, Hexavalent	ND	0.5	mg/Kg		<0.500		-	0	20	
MS (L 89374-MS)		Source: 89374			Prepared: Analyzed: 11/14/2022					
Chromium, Hexavalent	34	2.5	mg/Kg	39.3	< 0.244	87	75-125			
MSD (L 89374-MSD)		Source: 89374			Prepared: Analyzed: 11/14/2022					
Chromium, Hexavalent	538	50	mg/Kg	678	<24.4	79	75-125			
LCS (LCS)					Prepared: Analyzed: 11/14/2022					
Chromium, Hexavalent	6.8	0.5	mg/Kg	8		85	75-125			
LRB (LRB)					Prepared: Analyzed: 11/14/2022					
Chromium, Hexavalent	ND	0.5	mg/Kg				-			

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Frenzel B 15-25

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch L645331 - 3550B

MSD (L 82834-MSD-L645331)		Source: 82834			Prepared: 10/26/2022 Analyzed: 10/28/2022					
Pyrene	0.139	0.00335	mg/Kg	0.164	<0.00322	84.7	30-130	2.9	30	
Benzo(b)fluoranthene	0.0959	0.00335	"	0.164	<0.00293	58.4	30-130	1.1	30	
Benzo(a)pyrene	0.141	0.00335	"	0.164	<0.00234	85.9	30-130	3.6	30	
1-Methylnaphthalene	0.114	0.00335	"	0.164	<0.00182	69.5	30-130	13.1	30	
2-Methylnaphthalene	0.113	0.00335	"	0.164	<0.00323	68.9	30-130	0.8	30	
Acenaphthene	0.116	0.00335	"	0.164	<0.00152	70.7	30-130	7.4	30	
Chrysene	0.133	0.00335	"	0.164	<0.00312	81	30-130	0.7	30	
Benzo(a)anthracene	0.127	0.00335	"	0.164	<0.00247	77.4	30-130	1.5	30	
Benzo(k)fluoranthene	0.0889	0.00335	"	0.164	<0.00219	54.2	30-130	1	30	
Dibenz(a,h)anthracene	0.0989	0.00335	"	0.164	<0.00307	60.3	30-130	2.3	30	
Fluoranthene	0.14	0.00335	"	0.164	<0.00197	85.3	30-130	1.4	30	
Fluorene	0.128	0.00335	"	0.164	<0.00143	78	30-130	0.7	30	
Indeno(1,2,3-cd)pyrene	0.0873	0.00335	"	0.164	<0.00314	53.2	30-130	4	30	
Naphthalene	0.118	0.00335	"	0.164	<0.00242	71.9	30-130	2.5	30	
Anthracene	0.134	0.00335	"	0.164	<0.00167	81.7	30-130	1.5	30	
Surrogate: 2-Fluorobiphenyl	71.1		"	0.329	242	71.1	33-115			
Surrogate: 4-Terphenyl-d14	86		"	0.329	272	86	33-122			
Surrogate: Nitrobenzene-d5	48		"	0.329	208	48	29-110			

MS (L 82834-MS-L645331)		Source: 82834			Prepared: 10/26/2022 Analyzed: 10/28/2022					
Naphthalene	0.115	0.00335	mg/Kg	0.166	<0.00242	69.2	30-130			
Anthracene	0.132	0.00335	"	0.166	<0.00167	79.5	30-130			
Fluoranthene	0.138	0.00335	"	0.166	<0.00197	83.1	30-130			
1-Methylnaphthalene	0.13	0.00335	"	0.166	<0.00182	78.3	30-130			
2-Methylnaphthalene	0.114	0.00335	"	0.166	<0.00323	68.6	30-130			
Indeno(1,2,3-cd)pyrene	0.0838	0.00335	"	0.166	<0.00314	50.4	30-130			
Pyrene	0.135	0.00335	"	0.166	<0.00322	81.3	30-130			

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Frenzel B 15-25

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch L645331 - 3550B

MS (L 82834-MS-L645331)	Source: 82834		Prepared: 10/26/2022 Analyzed: 10/28/2022							
Benzo(a)anthracene	0.125	0.00335	mg/Kg	0.166	<0.00247	75.3	30-130			
Benzo(a)pyrene	0.136	0.00335	"	0.166	<0.00234	81.9	30-130			
Benzo(b)fluoranthene	0.0948	0.00335	"	0.166	<0.00293	57.1	30-130			
Benzo(k)fluoranthene	0.088	0.00335	"	0.166	<0.00219	53	30-130			
Chrysene	0.134	0.00335	"	0.166	<0.00312	80.7	30-130			
Dibenz(a,h)anthracene	0.0966	0.00335	"	0.166	<0.00307	58.1	30-130			
Fluorene	0.129	0.00335	"	0.166	<0.00143	77.7	30-130			
Acenaphthene	0.125	0.00335	"	0.166	<0.00152	75.3	30-130			
Surrogate: Nitrobenzene-d5	63.4		"	0.331	208	63.4	29-110			
Surrogate: 2-Fluorobiphenyl	79.1		"	0.331	242	79.1	33-115			
Surrogate: 4-Terphenyl-d14	85.4		"	0.331	272	85.4	33-122			

LCS (LCS-L645331)	Prepared: 10/26/2022 Analyzed: 10/28/2022									
Naphthalene	0.116	0.00067	mg/Kg	0.167		69.4	30-130			
Benzo(b)fluoranthene	0.126	0.00067	"	0.167		75.4	30-130			
1-Methylnaphthalene	0.137	0.00067	"	0.167		82	30-130			
2-Methylnaphthalene	0.136	0.00067	"	0.167		81.4	30-130			
Acenaphthene	0.122	0.00067	"	0.167		73	30-130			
Anthracene	0.133	0.00067	"	0.167		79.6	30-130			
Pyrene	0.135	0.00067	"	0.167		80.8	30-130			
Benzo(a)pyrene	0.138	0.00067	"	0.167		82.6	30-130			
Benzo(k)fluoranthene	0.114	0.00067	"	0.167		68.2	30-130			
Chrysene	0.13	0.00067	"	0.167		77.8	30-130			
Dibenz(a,h)anthracene	0.152	0.00067	"	0.167		91	30-130			
Fluoranthene	0.138	0.00067	"	0.167		82.6	30-130			
Fluorene	0.129	0.00067	"	0.167		77.2	30-130			
Indeno(1,2,3-cd)pyrene	0.138	0.00067	"	0.167		82.6	30-130			

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Frenzel B 15-25

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch L645331 - 3550B

LCS (LCS-L645331)

Prepared: 10/26/2022 Analyzed: 10/28/2022

Benzo(a)anthracene	0.137	0.00067	mg/Kg	0.167		82	30-130			
Surrogate: Nitrobenzene-d5	54.6		"	0.333		54.6	29-110			
Surrogate: 2-Fluorobiphenyl	83.4		"	0.333		83.4	33-115			
Surrogate: 4-Terphenyl-d14	81.9		"	0.333		81.9	33-122			

LRB (LRB-L645331)

Prepared: 10/26/2022 Analyzed: 10/28/2022

Anthracene	ND	0.00067	mg/Kg				-			
Pyrene	ND	0.00067	"				-			
Benzo(k)fluoranthene	ND	0.00067	"				-			
1-Methylnaphthalene	ND	0.00067	"				-			
2-Methylnaphthalene	ND	0.00067	"				-			
Acenaphthene	ND	0.00067	"				-			
Benzo(a)pyrene	ND	0.00067	"				-			
Benzo(b)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	"				-			
Benzo(a)anthracene	ND	0.00067	"				-			
Surrogate: 2-Fluorobiphenyl	59.4		"	0.333		59.4	33-115			
Surrogate: 4-Terphenyl-d14	78		"	0.333		78	33-122			
Surrogate: Nitrobenzene-d5	56.4		"	0.333		56.4	29-110			

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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

Martin C Eckert III
Project Number: [none]
Project: Noble - Frenzel B 15-25

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.

J Estimated Value. Analyte below reported quantitation limit.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported on a wet weight basis.

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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.



November 07, 2022

Eagle Environmental Consulting, Inc.

Martin C Eckert III

8000 W 44th Ave

Wheat Ridge CO 80033

Project Name - Noble - Frenzel B 15-25

Project Number - [none]

Attached are your analytical results for Noble - Frenzel B 15-25 received by Origins Laboratory, Inc. October 21, 2022. This project is associated with Origins project number Y210546-01.

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: Noble - Frenzel B 15-25

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GW-01	Y210546-01	Water	October 21, 2022 9:40	10/21/2022 11:47

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: Noble - Frenzel B 15-25

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: 4210546

Client: Eagle Environmental
 Client Project ID: Frenzel B #15-25

Checklist Completed by: JSH/DE

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

Date/time completed: 10/24/22

Airbill #: HL

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

Cooler Number/Temperature: 1 / 37 °C / _____ °C / _____ °C (Describe) _____ °C

Thermometer ID: T004

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ?	X			
Is there ice present (document if blue ice is used)	X			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		X		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		X		
Were all samples received intact ⁽¹⁾ ?	X			
Was adequate sample volume provided ⁽¹⁾ ?	X			
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?		X		
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	X			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	X			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	X			
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	X			
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.		X		
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 HNO3, HCL, H2SO4) / (pH > 10 for samples preserved with NaAsO2+NaOH, ZnAc+NaOH)	X			not checked
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: JSH (Project Manager)

Date/Time Reviewed: 10-26-22

Origins Laboratory, Inc.

J. Bynon

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: Noble - Frenzel B 15-25

GW-01

10/21/2022 9:40:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y210546-01 (Water)

BTEX+N+TMBs by 8260D

1,2,4-Trimethylbenzene	18.4	2.00	ug/L	1	B2J2516	JSM	10/25/2022	10/27/2022	
1,3,5-Trimethylbenzene	7.50	2.00	"	"	"	JSM	"	"	
Benzene	32.5	1.00	"	"	"	JSM	"	"	
Ethylbenzene	7.06	1.00	"	"	"	JSM	"	"	
Naphthalene	3.17	2.00	"	"	"	JSM	"	"	
Toluene	39.4	1.00	"	"	"	JSM	"	"	
Xylenes, total	46.1	1.00	"	"	"	JSM	"	"	

Surrogate: 1,2-Dichloroethane-d4	100 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	79.7 %	70-130			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	79.9 %	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: Noble - Frenzel B 15-25

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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Batch B2J2516 - EPA 5030B (Water)

Blank (B2J2516-BLK1)

Prepared: 10/25/2022 Analyzed: 10/25/2022

1,2,4-Trimethylbenzene	ND	2.00	ug/L							U
1,3,5-Trimethylbenzene	ND	2.00	"							U
Benzene	ND	1.00	"							U
Ethylbenzene	ND	1.00	"							U
Naphthalene	ND	2.00	"							U
Toluene	ND	1.00	"							U
Xylenes, total	ND	1.00	"							U
Surrogate: 1,2-Dichloroethane-d4	67		"	62.5	107		70-130			
Surrogate: Toluene-d8	60		"	62.5	96.3		70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5	101		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: Noble - Frenzel B 15-25

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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Batch B2J2516 - EPA 5030B (Water)

LCS (B2J2516-BS1)

Prepared: 10/25/2022 Analyzed: 10/25/2022

1,2,4-Trimethylbenzene	54.1	2.00	ug/L	50.0		108	70-130			
1,3,5-Trimethylbenzene	56.2	2.00	"	50.0		112	70-130			
Benzene	54.4	1.00	"	50.0		109	70-130			
Ethylbenzene	56.3	1.00	"	50.0		113	70-130			
m,p-Xylene	109	2.00	"	100		109	70-130			
Naphthalene	42.9	2.00	"	50.0		85.7	70-130			
o-Xylene	54.1	1.00	"	50.0		108	70-130			
Toluene	52.1	1.00	"	50.0		104	70-130			
Surrogate: 1,2-Dichloroethane-d4	65		"	62.5		104	70-130			
Surrogate: Toluene-d8	61		"	62.5		98.0	70-130			
Surrogate: 4-Bromofluorobenzene	60		"	62.5		96.8	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: Noble - Frenzel B 15-25

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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Batch B2J2516 - EPA 5030B (Water)

Matrix Spike (B2J2516-MS1)	Source: Y210546-01			Prepared: 10/25/2022 Analyzed: 10/25/2022						
1,2,4-Trimethylbenzene	53.9	2.00	ug/L	50.0	18.4	71.1	70-130			QM-07
1,3,5-Trimethylbenzene	54.0	2.00	"	50.0	7.50	92.9	70-130			
Benzene	53.1	1.00	"	50.0	32.5	41.2	70-130			QM-07
Ethylbenzene	56.6	1.00	"	50.0	7.06	99.1	70-130			
m,p-Xylene	108	2.00	"	100	30.0	78.4	70-130			QM-07
Naphthalene	46.7	2.00	"	50.0	3.17	87.1	70-130			
o-Xylene	53.4	1.00	"	50.0	16.1	74.5	70-130			
Toluene	52.4	1.00	"	50.0	39.4	26.1	70-130			QM-07
Surrogate: 1,2-Dichloroethane-d4	62		"	62.5		99.1	70-130			
Surrogate: Toluene-d8	64		"	62.5		102	70-130			
Surrogate: 4-Bromofluorobenzene	59		"	62.5		95.0	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.

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

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Frenzel B 15-25

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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Batch B2J2516 - EPA 5030B (Water)

Matrix Spike Dup (B2J2516-MSD1)	Source: Y210546-01			Prepared: 10/25/2022 Analyzed: 10/25/2022						
1,2,4-Trimethylbenzene	55.3	2.00	ug/L	50.0	18.4	73.8	70-130	2.53	20	QM-07
1,3,5-Trimethylbenzene	57.0	2.00	"	50.0	7.50	98.9	70-130	5.41	20	
Benzene	55.4	1.00	"	50.0	32.5	45.9	70-130	4.33	20	QM-07
Ethylbenzene	59.4	1.00	"	50.0	7.06	105	70-130	4.88	20	
m,p-Xylene	113	2.00	"	100	30.0	82.6	70-130	3.80	20	QM-07
Naphthalene	48.7	2.00	"	50.0	3.17	91.1	70-130	4.17	20	
o-Xylene	55.2	1.00	"	50.0	16.1	78.1	70-130	3.30	20	
Toluene	55.2	1.00	"	50.0	39.4	31.6	70-130	5.11	20	QM-07
Surrogate: 1,2-Dichloroethane-d4	63		"	62.5		100	70-130			
Surrogate: Toluene-d8	63		"	62.5		101	70-130			
Surrogate: 4-Bromofluorobenzene	59		"	62.5		93.8	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: Noble - Frenzel B 15-25

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.

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.



November 22, 2022

Eagle Environmental Consulting, Inc.

Martin C Eckert III

8000 W 44th Ave

Wheat Ridge CO 80033

Project Name - Noble - Frenzel B 15-25

Project Number - [none]

Attached are your analytical results for Noble - Frenzel B 15-25 received by Origins Laboratory, Inc. November 11, 2022. This project is associated with Origins project number Y211357-01.

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: Noble - Frenzel B 15-25

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Background-01@3'	Y211357-01	Soil	October 21, 2022 9:38	11/11/2022 14:05

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.

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

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Frenzel B 15-25

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

Sample Receipt Checklist

Origins Work Order: 7211357 Client: Eagle Environmental
 Client Project ID: Frenzel B H15-25

Checklist Completed by: JAH/EAS Shipped Via: HO
(UPS, FedEx, Hand Delivered, Pick-up, etc.)
 Date/time completed: 11/14/22 Airbill #: n/a

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

Cooler Number/Temperature: 1 1.2 °C / _____ °C / _____ °C (Describe) _____ °C

Thermometer ID: TD04

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: JAH (Project Manager) Date/Time Reviewed: 11-15-22

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: Noble - Frenzel B 15-25

Background-01@3'
10/21/2022 9:38:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y211357-01 (Soil)

Boron (DTPA Sorbitol)

Boron	ND	0.0999	mg/L	1	B2K1503	KAP	11/15/2022	11/16/2022	
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Metals by Saturated Paste by EPA 6010

Calcium	0.797	0.499	meq/L	10	[CALC]	KAP	11/16/2022	11/17/2022	
Magnesium	ND	0.823	"	"	"	KAP	"	"	
Sodium	ND	0.435	"	"	"	KAP	"	"	

SAR by 20B Saturated Paste

SAR	0.410		SAR	1	B2K1605	KAP	"	"	
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.269	0.00500	mmhos/cm	1	B2K1614	HJD	11/16/2022	11/17/2022	
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Table 915 metals by EPA 6020B

Arsenic	0.143	0.0951	mg/kg	10	B2K1514	CIH	11/15/2022	11/17/2022	
Barium	22.8	9.51	"	"	"	CIH	"	"	
Cadmium	ND	0.0951	"	"	"	CIH	"	"	
Copper	ND	9.51	"	"	"	CIH	"	"	
Lead	ND	9.51	"	"	"	CIH	"	"	
Nickel	ND	9.51	"	"	"	CIH	"	"	

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: Noble - Frenzel B 15-25

Background-01@3'
10/21/2022 9:38:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y211357-01 (Soil)

Table 915 metals by EPA 6020B

Selenium	ND	0.0951	mg/kg	10	B2K1514	CIH	11/15/2022	11/17/2022	
Silver	ND	0.0951	"	"	"	CIH	"	"	
Zinc	ND	95.1	"	"	"	CIH	"	"	

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: Noble - Frenzel B 15-25

Metals by EPA 6000/7000 Series Methods - 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 B2K1514 - EPA 3050B

Blank (B2K1514-BLK1)

Prepared: 11/15/2022 Analyzed: 11/17/2022

Arsenic	ND	0.000100	mg/kg							
Barium	ND	0.0100	"							
Cadmium	ND	0.000100	"							
Copper	ND	0.0100	"							
Lead	ND	0.0100	"							
Nickel	ND	0.0100	"							
Selenium	ND	0.000100	"							
Silver	ND	0.000100	"							
Zinc	ND	0.100	"							

LCS (B2K1514-BS1)

Prepared: 11/15/2022 Analyzed: 11/17/2022

Arsenic	0.0497	0.000100	mg/kg	0.0500		99.3	80-120			
Barium	5.17	0.0100	"	5.00		103	80-120			
Cadmium	0.0511	0.000100	"	0.0500		102	80-120			
Copper	0.532	0.0100	"	0.500		106	80-120			
Lead	0.0534	0.0100	"	0.0500		107	80-120			
Nickel	0.0534	0.0100	"	0.0500		107	80-120			
Selenium	0.0502	0.000100	"	0.0500		100	80-120			
Silver	0.0531	0.000100	"	0.0500		106	80-120			
Zinc	0.506	0.100	"	0.500		101	80-120			

Matrix Spike (B2K1514-MS1)

Source: Y211251-04

Prepared: 11/15/2022 Analyzed: 11/17/2022

Arsenic	16.1	0.0967	mg/kg	4.83	13.8	46.0	75-125			QM-07
Barium	870	9.67	"	483	244	130	75-125			QM-07
Cadmium	4.90	0.0967	"	4.83	0.285	95.5	75-125			
Copper	69.0	9.67	"	48.3	21.2	98.9	75-125			
Lead	22.3	9.67	"	4.83	16.9	113	75-125			

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: Noble - Frenzel B 15-25

Metals by EPA 6000/7000 Series Methods - 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 B2K1514 - EPA 3050B

Matrix Spike (B2K1514-MS1)

Source: Y211251-04

Prepared: 11/15/2022 Analyzed: 11/17/2022

Nickel	25.6	9.67	mg/kg	4.83	20.4	108	75-125			
Selenium	5.49	0.0967	"	4.83	0.461	104	75-125			
Silver	5.38	0.0967	"	4.83	0.0566	110	75-125			
Zinc	107	96.7	"	48.3	64.9	87.6	75-125			

Matrix Spike Dup (B2K1514-MSD1)

Source: Y211251-04

Prepared: 11/15/2022 Analyzed: 11/17/2022

Arsenic	12.5	0.0950	mg/kg	4.75	13.8	NR	75-125	25.2	20	QM-07, QR-DUP
Barium	898	9.50	"	475	244	138	75-125	3.12	20	QM-07
Cadmium	4.90	0.0950	"	4.75	0.285	97.1	75-125	0.00335	20	
Copper	67.2	9.50	"	47.5	21.2	96.8	75-125	2.64	20	
Lead	24.2	9.50	"	4.75	16.9	156	75-125	8.32	20	QM-07
Nickel	22.6	9.50	"	4.75	20.4	46.2	75-125	12.6	20	QM-07
Selenium	5.72	0.0950	"	4.75	0.461	111	75-125	4.14	20	
Silver	5.57	0.0950	"	4.75	0.0566	116	75-125	3.41	20	
Zinc	107	95.0	"	47.5	64.9	88.3	75-125	0.343	20	

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: Noble - Frenzel B 15-25

Classical Chemistry Parameters - 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 B2K1503 - DTPA Sorbitol Preparation

Blank (B2K1503-BLK1)

Prepared: 11/15/2022 Analyzed: 11/16/2022

Boron ND 0.100 mg/L

Duplicate (B2K1503-DUP1)

Source: Y211357-01

Prepared: 11/15/2022 Analyzed: 11/16/2022

Boron 0.0251 0.0989 mg/L 0.0224 11.6 50

Batch B2K1605 - Saturated Paste Metals

Blank (B2K1605-BLK1)

Prepared: 11/16/2022 Analyzed: 11/17/2022

SAR 0.00 SAR
 Calcium PPM ND 10.0 mg/L
 Magnesium PPM ND 10.0 "
 Sodium PPM ND 10.0 "

Duplicate (B2K1605-DUP1)

Source: Y211357-01

Prepared: 11/16/2022 Analyzed: 11/17/2022

SAR 0.00 SAR 0.410 200 200
 Calcium PPM 13.0 10.0 mg/L 16.0 20.7 50
 Magnesium PPM 2.67 10.0 " 3.20 18.2 50
 Sodium PPM 6.37 10.0 " 6.86 7.42 50

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: Noble - Frenzel B 15-25

Saturated Paste - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B2K1614 - Saturated Paste pH/EC										
Blank (B2K1614-BLK1)					Prepared: 11/16/2022 Analyzed: 11/17/2022					
Specific Conductance (EC)	ND	0.00500	mmhos/cm							
Duplicate (B2K1614-DUP1)		Source: Y211357-01			Prepared: 11/16/2022 Analyzed: 11/17/2022					
Specific Conductance (EC)	0.269	0.00500	mmhos/cm		0.269			0.00	25	

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: Noble - Frenzel B 15-25

Notes and Definitions

QR-DUP RPD exceeds QC acceptance criteria, this indicates source sample is not homogenous.

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.

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.