

# **FREMONT ENVIRONMENTAL INC.**

March 23, 2022

Mr. Jacob Evans  
Noble Energy Inc.  
2115 117<sup>th</sup> Avenue  
Greeley, CO 80634

Subject:       **Groundwater Data Submittal**  
CPC Hoshiko 35-1, Hoshiko B 35-14 (AST)  
API # 05-123-12716  
NESW Sec. 35, T5N, R64W  
Weld County, Colorado  
Fremont Project No. C020-049  
Facility #323210, Remediation #15651

Dear Mr. Evans:

Enclosed please find a copy of the above referenced Groundwater Data Submittal for the CPC Hoshiko 35-1, Hoshiko B 35-14 (AST) site in Weld County, Colorado. The enclosed data describes the groundwater quality at the site during the recent quarterly sampling and monitoring event.

Please contact me at (303) 956-8714 if you require any additional information.

Fremont appreciates the opportunity to provide this service.

Sincerely,  
**FREMONT ENVIRONMENTAL INC.**



Paul V. Henehan, P.E.  
Senior Consultant

Enclosure

TABLE 1  
SUMMARY OF GROUNDWATER ELEVATION AND ORGANIC CHEMISTRY DATA  
NOBLE ENERGY INC.  
CPC HOSHIKO 35-1, HOSHIKO B 35-14 (AST PIT), WELD COUNTY, COLORADO  
FREMONT PROJECT C020-049

SAMPLE LOCATION	DATE	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYL BENZENE (µg/L)	TOTAL XYLENES (µg/L)	NAPHTHALENE (µg/L)	1,2,4 TRIMETHYL-BENZENE (µg/L)	1,3,5 TRIMETHYL-BENZENE (µg/L)	TOC ELEVATION (feet)	DEPTH TO GROUND WATER (ft)	GROUND WATER ELEVATION (ft)	FREE PRODUCT THICKNESS (ft)
MW-1	08/31/20	<1.0	<1.0	2.0	40	NA	NA	NA	100.00	4.39	95.61	NP
	11/17/20	<1.0	<1.0	<1.0	<2.0	NA	NA	NA		4.20	95.80	NP
	02/22/21	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0		5.50	94.50	NP
	05/25/21	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0		4.53	95.47	NP
	08/25/21	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0		4.14	95.86	NP
	11/03/21	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0		6.48	93.52	NP
	02/08/22	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0		5.65	94.35	NP
MW-2	08/31/20	1.2	<1.0	300	1800	NA	NA	NA	100.00	4.76	95.24	NP
	11/17/20	<1.0	<1.0	280	1100	NA	NA	NA		4.30	95.70	NP
	02/22/21	1.3	<1.0	400	1400	64	740	130		5.53	94.47	NP
	05/25/21	<1.0	<1.0	<1.0	600	<1.0	2.2	210		4.57	95.43	NP
	08/25/21	<1.0	<1.0	350	640	24	290	3.2		5.43	94.57	NP
	11/03/21	<1.0	<1.0	<1.0	110	<1.0	6.4	<1.0		5.70	94.30	NP
	02/08/22	<1.0	<1.0	160	22	<1.0	46	<1.0		5.88	94.12	NP
MW-3	08/31/20	<1.0	<1.0	<1.0	<2.0	NA	NA	NA	99.97	4.55	95.42	NP
	08/31/20	<1.0	<1.0	<1.0	<2.0	NA	NA	NA		4.48	95.49	NP
	02/22/21	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0		5.45	94.52	NP
	05/25/21	DES	DES	DES	DES	DES	DES	DES		DES	DES	DES
	08/25/21	DES	DES	DES	DES	DES	DES	DES		DES	DES	DES
	02/08/22	DES	DES	DES	DES	DES	DES	DES		DES	DES	DES
	02/08/22	DES	DES	DES	DES	DES	DES	DES		DES	DES	DES
MW-4	08/31/20	<1.0	<1.0	<1.0	1100	NA	NA	NA	100.09	4.58	95.51	NP
	11/17/20	<1.0	<1.0	<1.0	<2.0	NA	NA	NA		4.83	95.26	NP
	02/22/21	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0		5.56	94.53	NP
	05/25/21	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0		4.53	95.56	NP
	08/25/21	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0		4.85	95.24	NP
	11/03/21	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0		5.62	94.47	NP
	02/08/22	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0		5.84	94.25	NP
MW-5	08/31/20	<1.0	<1.0	<1.0	<2.0	NA	NA	NA	100.50	4.87	95.63	NP
	11/17/20	<1.0	<1.0	<1.0	<2.0	NA	NA	NA		5.02	95.48	NP
	02/22/21	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0		5.95	94.55	NP
	05/25/21	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0		4.91	95.59	NP
	08/25/21	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0		4.87	95.63	NP
	11/03/21	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0		5.97	94.53	NP
	02/08/22	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0		6.16	94.34	NP
MW-6	11/17/20	<1.0	<1.0	<1.0	2.2	NA	NA	NA	99.81	7.63	92.18	NP
	02/22/21	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0		5.50	94.31	NP
	05/25/21	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0		4.93	94.88	NP
	08/25/21	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0		5.53	94.28	NP
	11/03/21	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0		5.65	94.16	NP

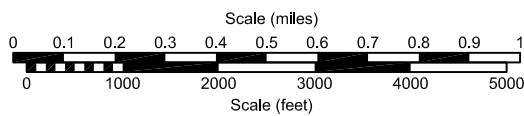
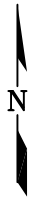
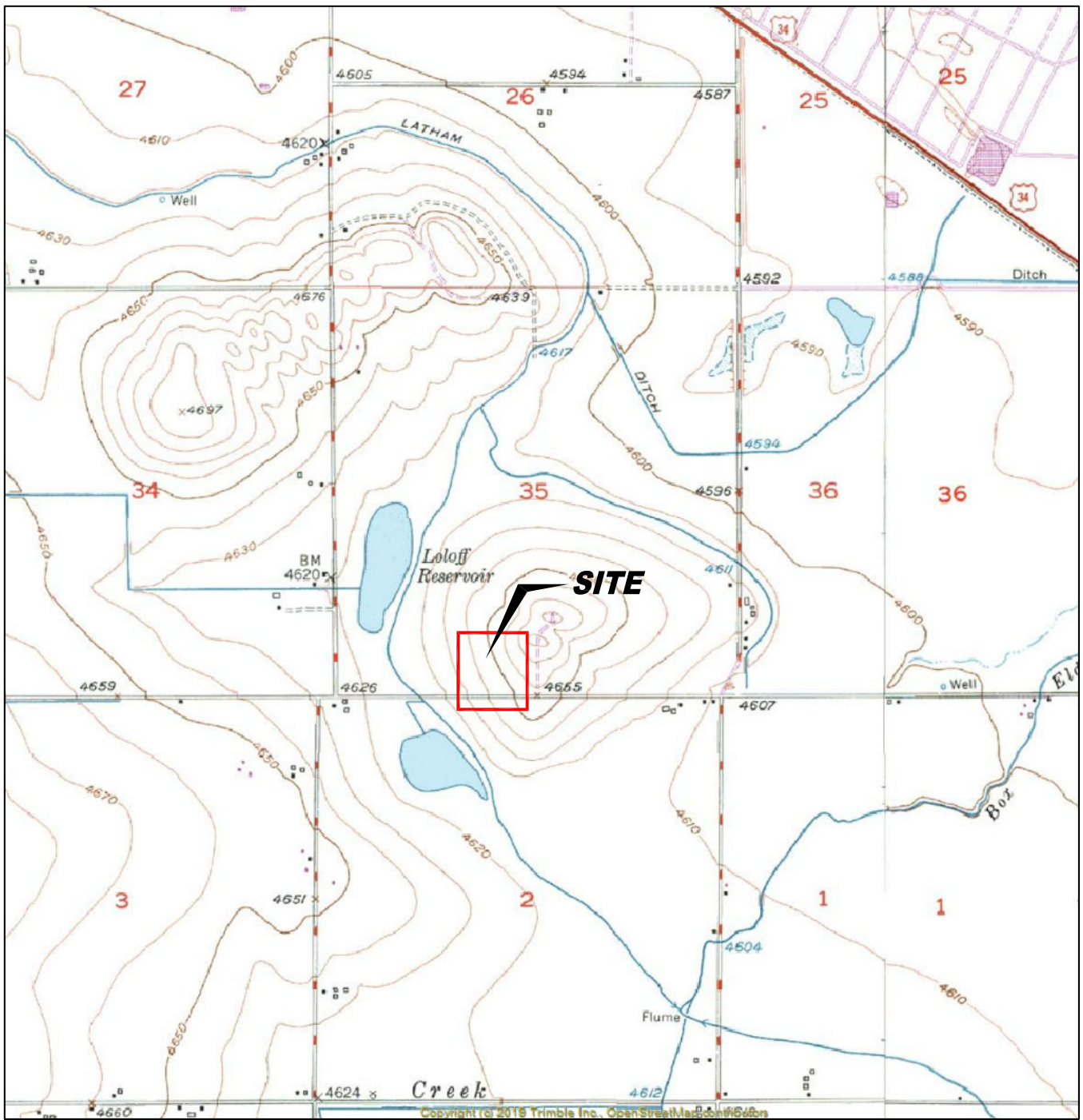
SAMPLE LOCATION	DATE	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYL BENZENE (µg/L)	TOTAL XYLENES (µg/L)	NAPHTHALENE (µg/L)	1,2,4 TRIMETHYL-BENZENE (µg/L)	1,3,5 TRIMETHYL-BENZENE (µg/L)	TOC ELEVATION (feet)	DEPTH TO GROUND WATER (ft)	GROUND WATER ELEVATION (ft)	FREE PRODUCT THICKNESS (ft)
MW-6	02/08/22	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	99.81	5.72	94.09	NP
MW-7	11/19/20	<1.0	<1.0	<1.0	<2.0	NA	NA	NA	100.29	7.95	92.34	NP
	02/22/21	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0		5.84	94.45	NP
	05/25/21	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0		5.10	95.19	NP
	08/25/21	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0		6.70	93.59	NP
	11/03/21	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0		6.45	93.84	NP
	02/08/22	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0		6.42	93.87	NP
Table 915-1 Limits		5	560	700	1,400	140	67	67				

Bold face values exceed the COGCC limits

NP - No Free Product

NS - No Sample

DES - Destroyed



USGS 7.5 MINUTE SERIES (TOPOGRAPHIC)

Figure 1  
SITE LOCATION MAP

**NOBLE ENERGY, INC.**  
**CPC HOSHIKO 35-1, HOSHIKO 35-14 (AST Pit)**  
 SESW Sec. 35 T5N, R64W, 40.348855°, -104.521793°  
 Weld County, Colorado

Project No. <b>C020-049</b>	Prepared by	Drawn by <b>TA</b>
Date <b>3/9/22</b>	Reviewed by <b>JG</b>	Filename <b>20049T</b>





**LEGEND**

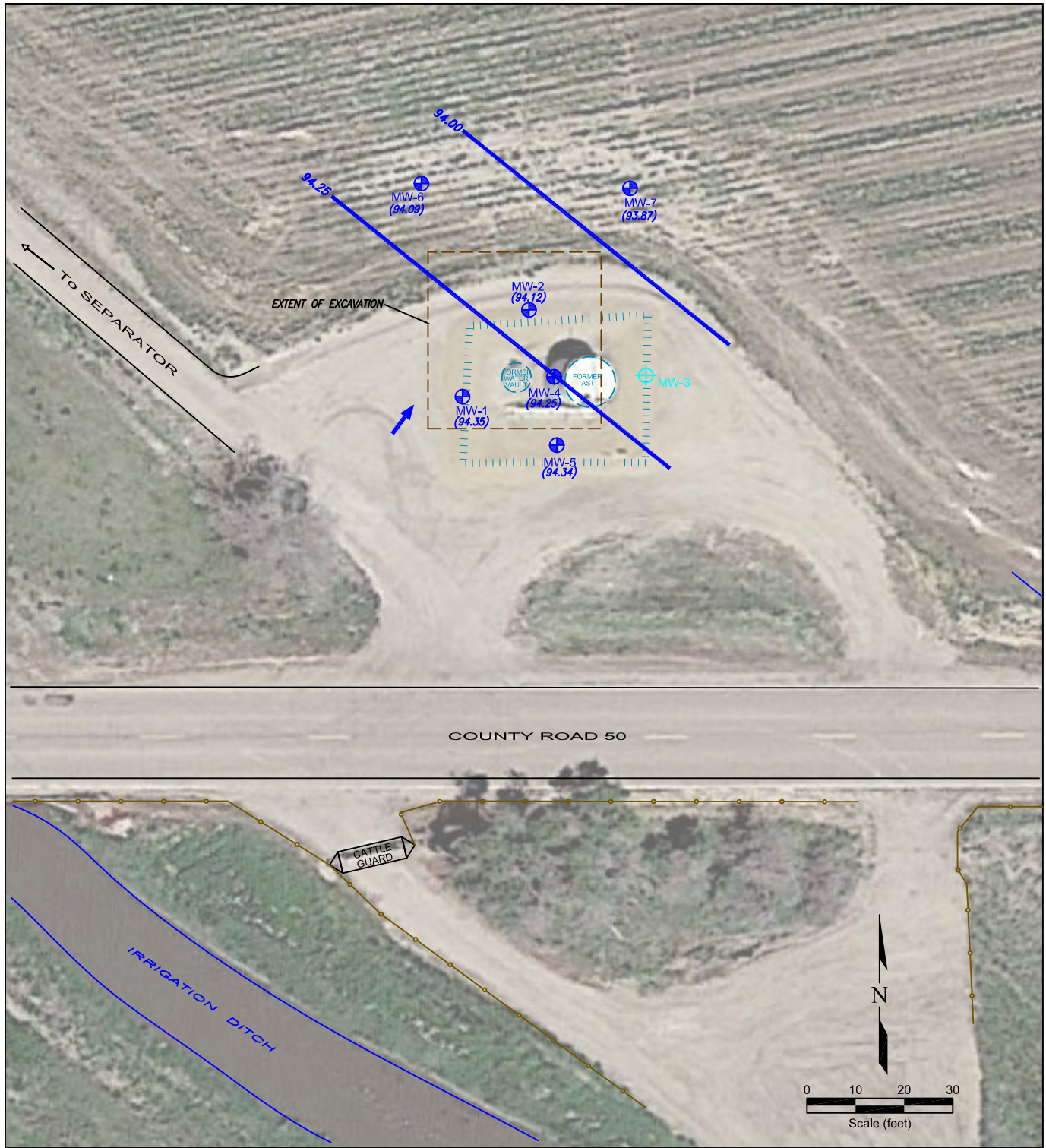
- + MONITORING WELL
- + ABOVE GROUND STORAGE TANK
- + EXTENT OF EXCAVATION
- + CONTAINMENT BERM
- + FENCE LINE
- + FORMER FACILITY
- + DESTROYED MONITORING WELL

**Figure 2  
SITE MAP**

**NOBLE ENERGY, INC.**  
**CPC HOSHIKO 35-1, HOSHIKO 35-14**  
 SESW Sec. 35 T5N, R64W, 40.348855°, -104.521793°  
 Weld County, Colorado

Project No. <b>C020-049</b>	Prepared by TA	Drawn by <b>TA</b>
Date <b>3/9/22</b>	Reviewed by <b>JG</b>	Filename <b>20049R</b>





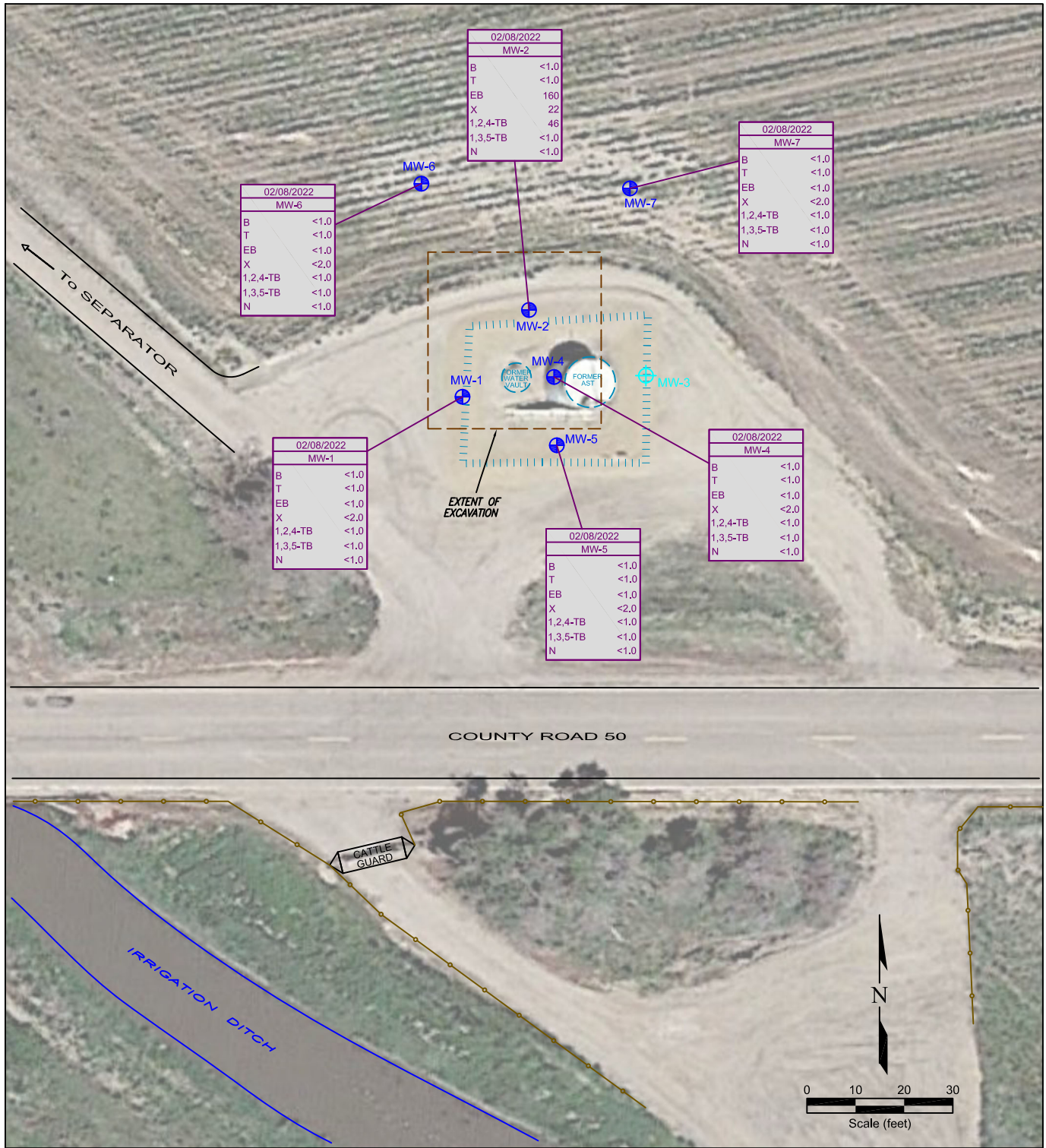
**LEGEND**

- + MONITORING WELL
- ABOVE GROUND STORAGE TANK
- EXTENT OF EXCAVATION
- CONTAINMENT BERM
- + DESTROYED MONITORING WELL
- FORMER FACILITY
- FENCE LINE

- (94.45) GROUND WATER ELEVATION (feet above mean sea level)
- INFERRED GROUND WATER FLOW DIRECTION
- (94.00) WATER TABLE CONTOUR (feet above mean sea level)

Figure 3  
**INFERRED GROUNDWATER ELEVATION MAP**  
 February 8, 2022  
**NOBLE ENERGY, INC.**  
**CPC HOSHIKO 35-1, HOSHIKO 35-14**  
 SESW Sec. 35 T5N, R64W, 40.348855°, -104.521793°  
 Weld County, Colorado

Project No. <b>C020-049</b>	Prepared by TA	Drawn by TA	
Date <b>3/9/22</b>	Reviewed by <b>JG</b>	Filename <b>20049R</b>	



**LEGEND**

- + MONITORING WELL
- + DESTROYED MONITORING WELL
- FORMER ABOVE GROUND STORAGE TANK
- FORMER FACILITY EXTENT OF EXCAVATION
- CONTAINMENT BERM
- FENCE LINE

DATE SAMPLED	SAMPLE ID	CONCENTRATION (ug/L)
02/08/2022	MW-1	
B	BENZENE	<1.0
T	TOLUENE	<1.0
EB	ETHYLBENZENE	<1.0
X	TOTAL XYLENES	<2.0
1,2,4-TB	1,2,4-TRIMETHYLBENZENE	<1.0
1,3,5-TB	1,3,5-TRIMETHYLBENZENE	<1.0
N	NAPHTHALENE	<1.0

**Figure 4**  
**GROUNDWATER CHEMISTRY MAP**  
**February 8, 2022**  
**NOBLE ENERGY, INC.**  
**CPC HOSHIKO 35-1, HOSHIKO 35-14**  
 SESW Sec. 35 T5N, R64W, 40.348855°, -104.521793°  
 Weld County, Colorado

Project No. <b>C020-049</b>	Prepared by	Drawn by <b>TA</b>	
Date <b>3/9/22</b>	Reviewed by <b>JG</b>	Filename <b>20049R</b>	

# Summit Scientific

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4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

February 15, 2022

Paul Henchan

Fremont Environmental

PO Box 1289

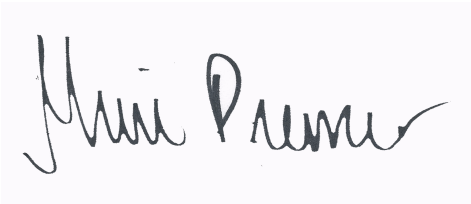
Wellington, CO 80549

RE: Hoshiko 35-1 AST Vault REM #15651

Work Order #2202090

Enclosed are the results of analyses for samples received by Summit Scientific on 02/09/22 15:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, reading "Muri Premer". The signature is written in a cursive style with a large initial "M" and a long, sweeping underline.

Muri Premer For Paul Shrewsbury

President



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Hoshiko 35-1 AST Vault REM #15651

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
02/15/22 13:42

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW1	2202090-01	Water	02/08/22 00:00	02/09/22 15:00
MW2	2202090-02	Water	02/08/22 00:00	02/09/22 15:00
MW4	2202090-03	Water	02/08/22 00:00	02/09/22 15:00
MW5	2202090-04	Water	02/08/22 00:00	02/09/22 15:00
MW6	2202090-05	Water	02/08/22 00:00	02/09/22 15:00
MW7	2202090-06	Water	02/08/22 00:00	02/09/22 15:00

Summit Scientific

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

# Summit Scientific

S<sub>2</sub>

2202090

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

Page 1 of 1

Client: Fremont Environmental Inc.

Project Manager: Paul Henehan

Address: P.O. Box 1289

E-Mail: paulh@fremontenv.com

City/State/Zip: Wellington, CO 80549

ethanb@fremontenv.com jeffj@fremontenv.com



Phone: 303-956-8714

Project Name: Hoshiko 35-1 AST Vault, REM #15651

Sampler Name: JG & EB

Project Number:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested								Special Instructions		
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	BTEXN+TMBS	DRO,RRO	PAHs	pH, EC, SAR	Boron	915-1 metals	Arsenic	BTEXN + TMBS	TDS, Cl, Su		
1	MW1	2/8/22		3	X				X				X										
2	MW2	↓		↓	↓				↓				↓										
3	MW4																						
4	MW5																						
5	MW6																						
6	MW7	↓		↓	↓				↓				↓										
7																							
8																							
9																							
10																							

Relinquished by: 	Date/Time: <u>2/9/22/1500</u>	Received by: 	Date/Time: <u>2922 1500</u>	<b>Turn Around Time (Check)</b> Same Day <input type="checkbox"/> 72 hours 24 hours <input type="checkbox"/> Standard <input checked="" type="checkbox"/> 48 hours <input type="checkbox"/> <b>Sample Integrity:</b> Temperature Upon Receipt: <u>4.0</u> Samples Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>Notes:</b> Bill to Jacob
Relinquished by:	Date/Time:	Received by:	Date/Time:		
Relinquished by:	Date/Time:	Received by:	Date/Time:		

S<sub>2</sub>

2202090

Sample Receipt Checklist

S2 Work Order# \_\_\_\_\_

Client: Fremont Client Project ID: HOSHINO 35-1AST VAULT, REM #15651

Shipped Via:  H.D./P.U./FedEx/UPS/USPS/Other \_\_\_\_\_ Airbill #: \_\_\_\_\_

Matrix (check all that apply):  Air  Soil/Solid  Water  Other: \_\_\_\_\_  
(Describe)

Temp (°C) 4.0

Thermometer ID: G86A9201901378

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C <sup>(1)</sup> ? NOTE: If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	on ICE
Were all samples received intact <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out completely <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) <sup>(1)</sup> ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, etc.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HCl
If samples are acid preserved for metals, is the pH ≤ 2 <sup>(1)</sup> ? Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional Comments (if any):

<sup>(1)</sup> If NO, then contact the client before proceeding with analysis and note in case narrative.

  
Custodian Printed Name or Initials

2.9.22  
Date/Time



Fremont Environmental  
 PO Box 1289  
 Wellington CO, 80549

Project: Hoshiko 35-1 AST Vault REM #15651

Project Number: [none]  
 Project Manager: Paul Henchan

**Reported:**  
 02/15/22 13:42

**MW1**  
**2202090-01 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **02/08/22 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BFB0109	02/10/22	02/11/22	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	
Naphthalene	ND	1.0		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0		"	"	"	"	"	"	

Date Sampled: **02/08/22 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		110 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		102 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		109 %		21-167		"	"	"	"	

Summit Scientific

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



Fremont Environmental  
 PO Box 1289  
 Wellington CO, 80549

Project: Hoshiko 35-1 AST Vault REM #15651

Project Number: [none]  
 Project Manager: Paul Henchan

**Reported:**  
 02/15/22 13:42

**MW2**  
**2202090-02 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **02/08/22 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BFB0109	02/10/22	02/11/22	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>160</b>	1.0		"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>22</b>	2.0		"	"	"	"	"	"	
Naphthalene	ND	1.0		"	"	"	"	"	"	
<b>1,2,4-Trimethylbenzene</b>	<b>46</b>	1.0		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0		"	"	"	"	"	"	

Date Sampled: **02/08/22 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		108 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		102 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		114 %		21-167		"	"	"	"	

Summit Scientific

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Fremont Environmental  
 PO Box 1289  
 Wellington CO, 80549

Project: Hoshiko 35-1 AST Vault REM #15651

Project Number: [none]  
 Project Manager: Paul Henchan

**Reported:**  
 02/15/22 13:42

**MW4**  
**2202090-03 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **02/08/22 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	BFB0109	02/10/22	02/11/22	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	

Date Sampled: **02/08/22 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		104 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		102 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		115 %	21-167		"	"	"	"	

Summit Scientific

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Fremont Environmental  
 PO Box 1289  
 Wellington CO, 80549

Project: Hoshiko 35-1 AST Vault REM #15651

Project Number: [none]  
 Project Manager: Paul Henchan

**Reported:**  
 02/15/22 13:42

**MW5**  
**2202090-04 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **02/08/22 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	BFB0109	02/10/22	02/11/22	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	

Date Sampled: **02/08/22 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		122 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		101 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		108 %	21-167		"	"	"	"	

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Fremont Environmental  
 PO Box 1289  
 Wellington CO, 80549

Project: Hoshiko 35-1 AST Vault REM #15651

Project Number: [none]  
 Project Manager: Paul Henchan

**Reported:**  
 02/15/22 13:42

**MW6**  
**2202090-05 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **02/08/22 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	BFB0109	02/10/22	02/11/22	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	

Date Sampled: **02/08/22 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		108 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		104 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		106 %	21-167		"	"	"	"	

Summit Scientific

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 Wellington CO, 80549

Project: Hoshiko 35-1 AST Vault REM #15651

Project Number: [none]  
 Project Manager: Paul Henchan

**Reported:**  
 02/15/22 13:42

**MW7**  
**2202090-06 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **02/08/22 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	BFB0109	02/10/22	02/11/22	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	

Date Sampled: **02/08/22 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		104 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		103 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		108 %	21-167		"	"	"	"	

Summit Scientific

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Project: Hoshiko 35-1 AST Vault REM #15651

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
02/15/22 13:42

### Volatile Organic Compounds by EPA Method 8260B - Quality Control

#### Summit Scientific

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

#### Batch BFB0109 - EPA 5030 Water MS

##### Blank (BFB0109-BLK1)

Prepared: 02/10/22 Analyzed: 02/11/22

Benzene	ND	1.0	ug/l								
Toluene	ND	1.0	"								
Ethylbenzene	ND	1.0	"								
Xylenes (total)	ND	2.0	"								
Naphthalene	ND	1.0	"								
1,2,4-Trimethylbenzene	ND	1.0	"								
1,3,5-Trimethylbenzene	ND	1.0	"								
<i>Surrogate: 1,2-Dichloroethane-d4</i>	13.0		"	13.3		97.9	23-173				
<i>Surrogate: Toluene-d8</i>	13.4		"	13.3		101	20-170				
<i>Surrogate: 4-Bromofluorobenzene</i>	14.1		"	13.3		105	21-167				

##### LCS (BFB0109-BS1)

Prepared: 02/10/22 Analyzed: 02/11/22

Benzene	40.8	1.0	ug/l	33.3		122	51-132				
Toluene	39.8	1.0	"	33.3		119	51-138				
Ethylbenzene	29.8	1.0	"	33.3		89.4	58-146				
m,p-Xylene	56.7	2.0	"	66.7		85.0	57-144				
o-Xylene	31.2	1.0	"	33.3		93.7	53-146				
Naphthalene	36.7	1.0	"	33.3		110	70-130				
1,2,4-Trimethylbenzene	28.4	1.0	"	33.3		85.3	70-130				
1,3,5-Trimethylbenzene	30.6	1.0	"	33.3		91.7	70-130				
<i>Surrogate: 1,2-Dichloroethane-d4</i>	13.7		"	13.3		103	23-173				
<i>Surrogate: Toluene-d8</i>	13.8		"	13.3		103	20-170				
<i>Surrogate: 4-Bromofluorobenzene</i>	13.9		"	13.3		104	21-167				

##### Matrix Spike (BFB0109-MS1)

Source: 2202096-01

Prepared: 02/10/22 Analyzed: 02/11/22

Benzene	37.6	1.0	ug/l	33.3	ND	113	34-141				
Toluene	46.9	1.0	"	33.3	ND	141	27-151				
Ethylbenzene	39.1	1.0	"	33.3	ND	117	29-160				
m,p-Xylene	69.3	2.0	"	66.7	ND	104	20-166				
o-Xylene	36.8	1.0	"	33.3	ND	110	33-159				
Naphthalene	28.8	1.0	"	33.3	ND	86.4	70-130				
1,2,4-Trimethylbenzene	36.9	1.0	"	33.3	ND	111	70-130				
1,3,5-Trimethylbenzene	35.2	1.0	"	33.3	ND	106	70-130				
<i>Surrogate: 1,2-Dichloroethane-d4</i>	13.4		"	13.3		101	23-173				
<i>Surrogate: Toluene-d8</i>	13.7		"	13.3		103	20-170				
<i>Surrogate: 4-Bromofluorobenzene</i>	14.0		"	13.3		105	21-167				

Summit Scientific

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Project: Hoshiko 35-1 AST Vault REM #15651

Project Number: [none]  
 Project Manager: Paul Henchan

**Reported:**  
 02/15/22 13:42

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**

**Summit Scientific**

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

**Batch BFB0109 - EPA 5030 Water MS**

<b>Matrix Spike Dup (BFB0109-MSD1)</b>	<b>Source: 2202096-01</b>			Prepared: 02/10/22 Analyzed: 02/11/22						
Benzene	40.1	1.0	ug/l	33.3	ND	120	34-141	6.31	30	
Toluene	39.3	1.0	"	33.3	ND	118	27-151	17.7	30	
Ethylbenzene	32.2	1.0	"	33.3	ND	96.5	29-160	19.5	30	
m,p-Xylene	57.6	2.0	"	66.7	ND	86.4	20-166	18.4	30	
o-Xylene	30.5	1.0	"	33.3	ND	91.4	33-159	18.7	30	
Naphthalene	28.4	1.0	"	33.3	ND	85.1	70-130	1.47	30	
1,2,4-Trimethylbenzene	30.9	1.0	"	33.3	ND	92.7	70-130	17.8	30	
1,3,5-Trimethylbenzene	29.3	1.0	"	33.3	ND	88.0	70-130	18.3	30	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>14.7</i>		<i>"</i>	<i>13.3</i>		<i>110</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>14.0</i>		<i>"</i>	<i>13.3</i>		<i>105</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>13.9</i>		<i>"</i>	<i>13.3</i>		<i>104</i>	<i>21-167</i>			

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Project: Hoshiko 35-1 AST Vault REM #15651

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
02/15/22 13:42

### Notes and Definitions

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference