

FREMONT ENVIRONMENTAL INC.

December 29, 2020

Mr. Jacob Evans
Noble Energy Inc.
2115 117th Ave,
Greeley, CO 80634

Subject: **Site Investigation Report**
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 Site Investigation Report for the CPC Hoshiko 35-1, Hoshiko B 35-14 (AST) site in Weld County, Colorado. The enclosed report describes site investigation and sampling efforts to assess soil and groundwater quality at the site.

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. Henahan, P.E.
Senior Consultant

Enclosure

1759 REDWING LANE, BROOMFIELD, CO 80020
(303) 956-8714 (DIRECT)

SITE INVESTIGATION REPORT

NOBLE ENERGY INC.

CPC HOSHIKO 35-1, HOSHIKO B35-14 (AST)

WELD COUNTY, COLORADO

FREMONT PROJECT NO. C020-049

FACILITY #323210, REMEDIATION #15651

Prepared by:

**Fremont Environmental Inc.
1759 Redwing Lane
Broomfield, CO 80020
(303) 956-8714**

December 29, 2020

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SITE INVESTIGATION REPORT
NOBLE ENERGY INC.
CPC HOSHIKO 35-1, HOSHIKO B35-14 (AST)
WELD COUNTY, COLORADO
FREMONT PROJECT NO. C020-049
FACILITY #323210, REMEDIATION #15651

1.0 INTRODUCTION

The purpose of this document is to present information collected during a site investigation at the CPC Hoshiko 35-1, Hoshiko B 35-14 (AST) release location in Weld County, Colorado. Impacted soil and groundwater were identified at the water vault location during its abandonment. Seven monitoring wells were installed at this site during a site investigation that occurred on August 28, 2020 and November 17, 2020 to delineate the magnitude and extent of subsurface impacts.

2.0 BACKGROUND INFORMATION

2.1 Site Location

The CPC Hoshiko 35-1, Hoshiko B 35-14 (AST) site is located approximately 3.5 miles southeast of Kersey, Colorado in Weld County as shown on Figure 1. The site is located in an agricultural area approximately one quarter mile east of the intersection of County Road 50 and County Road 57. The location is further described as the SE $\frac{1}{4}$ of the SW $\frac{1}{4}$ of Section 35, Township 5N, Range 64W.

2.2 Site History

The site's excavation area consisted of the former CPC Hoshiko 35-1, Hoshiko B 35-14 (AST) water vault. The CPC Hoshiko 35-1 well was drilled in 1985 to a vertical depth of approximately 6,860 feet. Soil impacts were identified at the water vault location during its abandonment.

During the facility abandonment, a limited excavation to preliminarily delineate the source impacts was undertaken. One groundwater sample and six soil samples were collected from the excavation sidewalls, floor and test pits and were analyzed for petroleum constituents. The groundwater sample collected from the excavation floor exceeded the Colorado Oil and Gas Conservation Commission's (COGCC's) Table 910-1 standard of 5 ug/L for dissolved benzene with a concentration of 13 ug/L. In addition, a soil sample collected from the eastern wall of the water vault excavation exceeded the COGCC's Table 910-1 standard of 500 mg/kg for total petroleum hydrocarbons (TPH) with a concentration of 940 mg/kg. As a result, a site investigation to determine the extent of subsurface impacts was conducted.

3.0 SITE INVESTIGATION ACTIVITIES

3.1 Soil Borings/Monitoring Wells

A two-day site investigation was conducted at the facility on August 28, 2020 and November 17, 2020. A total of seven soil borings were advanced utilizing a Geoprobe rig. The seven borings were completed as flush-mounted 1-inch diameter monitoring wells. These borings/monitoring wells were used to delineate the extent of soil and groundwater impacts at the site. The locations of the monitoring wells are illustrated on the attached figures.

Generally, the subsurface consists of sandy clay that extends to a depth of approximately four feet. The sandy clay is underlain by saturated, well-graded, sand, extending to eight feet below ground surface, transitioning to clay between eight to 12 feet. The maximum depth of the borings was 12 feet. Groundwater is present across the site at a depth of approximately five feet. Geologic cross sections illustrating the soil lithology are presented on Figure 4.

The 1-inch diameter monitoring wells were constructed with 10 feet sections of well screen that were placed at a total depth of approximately 12 feet and completed at the ground surface with flush-mounted vaults. Soil samples from each of the borings were evaluated in the field using a photoionization detector (PID). Logs of the monitoring wells are presented in Appendix A.

Soil samples were collected from each of the borings and sent to Summit Scientific, Inc. in Golden, Colorado for the analyses of benzene, toluene, ethylbenzene and xylenes (BTEX), naphthalene, total petroleum hydrocarbons-gasoline range organics (TPH-GRO), and TPH-diesel range organics (TPH-DRO).

Soil impacts above the COGCC's Table 910-1 standards for BTEX, naphthalene, TPH-GRO and TPH-DRO were not observed in the seven borings advanced on site. The soil chemistry is presented on Figure 5 and summarized in Table 1. The laboratory's report is provided in Appendix C.

3.2 Groundwater Monitoring

Groundwater levels were measured in the seven monitoring wells on November 17, 2020 in accordance with the Sampling Plan included in Appendix B. The data are summarized in Table 2.

Water table contours inferred from the November 2020 data are illustrated on Figure 6. Based on these data, groundwater is inferred to flow to the north. The water table gradient was calculated at approximately 0.079 feet per foot (ft/ft) for the November 2020 data.

3.3 Groundwater Sampling and Analysis

Groundwater samples were collected from the seven monitoring wells on November 17, 2020. All groundwater samples were submitted to Summit Scientific, Inc. for analyses of BTEX by EPA Method 8260B.

The groundwater concentrations for the seven monitoring wells were below their respective COGCC Table 910-1 standards. The groundwater chemistry is shown on Figure 7 and is summarized in Table 2. A copy of the laboratory's report is presented in Appendix C.

4.0 DISCUSSION

A site investigation was conducted at the CPC Hoshiko 35-1, Hoshiko B 35-14 (AST) location between August 28, 2020 and November 17, 2020 as a result of an historical release from the former water vault. Seven soil boings were advanced and completed as monitoring wells on site to delineate the magnitude and extent of soil and groundwater impacts.

Groundwater impacts above the COGCC Table 910-1 standards were not observed and have been completely delineated during the site investigation. No additional excavation has been conducted following the facility's abandonment.

The data collected from the monitoring wells indicate that the groundwater flows to the north. Further, the BTEX concentrations in the seven monitoring wells were less than the COGCC Table 910-1 standards. Points of compliance have been established in all directions at the site.

5.0 REMARKS

The discussion and conclusions contained in this report represent our professional opinions. These opinions are based on currently available information and are arrived at in accordance with currently accepted hydrogeologic and engineering practices at this time and location. Other than this, no warranty is implied or intended.

This report was prepared by **FREMONT ENVIRONMENTAL INC.**



12/29/20

Date _____

Ethan D. Black

Geologist

Reviewed by:



12/29/20

Date _____

Paul V. Henehan, P.E.
Senior Consultant

TABLES

TABLE 1
SUMMARY OF SOIL 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 SAMPLED	DEPTH ft	BENZENE mg/kg	TOLUENE mg/kg	ETHYL BENZENE mg/kg	TOTAL XYLENES mg/kg	NAPHTH-ALENE mg/kg	TPH-GRO mg/kg	TPH-DRO mg/kg
MW-1 4 Ft	08/28/20	4	<0.0020	<0.0050	<0.0050	<0.010	<0.010	<50	<50
MW-2 4 Ft	08/28/20	4	<0.0020	<0.0050	<0.0050	<0.010	<0.010	<50	70
MW-3 4 Ft	08/28/20	4	<0.0020	<0.0050	<0.0050	<0.010	<0.010	<50	<50
MW-4 6 Ft	08/28/20	6	<0.0020	<0.0050	<0.0050	0.011	<0.010	<50	80
MW-5 6 Ft	08/28/20	6	<0.0020	<0.0050	<0.0050	<0.010	<0.010	<50	<50
MW-6 5 Ft	11/17/20	5	<0.0020	<0.0050	<0.0050	<0.010	<0.010	<50	<50
MW-7 5 Ft	11/17/20	5	<0.0020	<0.0050	<0.0050	<0.010	<0.010	<50	<50
COGCC Table 910-1 Concentrations			0.17	85	100	175	23	500*	500*

The TPH-GRO and TPH-DRO concentrations are added together; if the sum of the two is >500 mg/kg, this exceeds the COGCC Table 910-1 limit

Bold face values exceed the COGCC limits

TABLE 2
SUMMARY OF GROUNDWATER CHEMISTRY DATA
NOBLE ENERGY INC.
CPC HOSHIKO 35-1, HOSHIKO B 35-14 (AST PIT), WELD COUNTY, COLORADO
FREMONT PROJECT C020-049

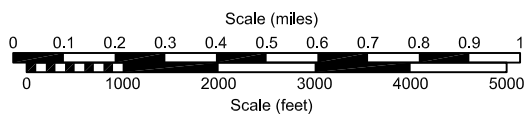
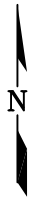
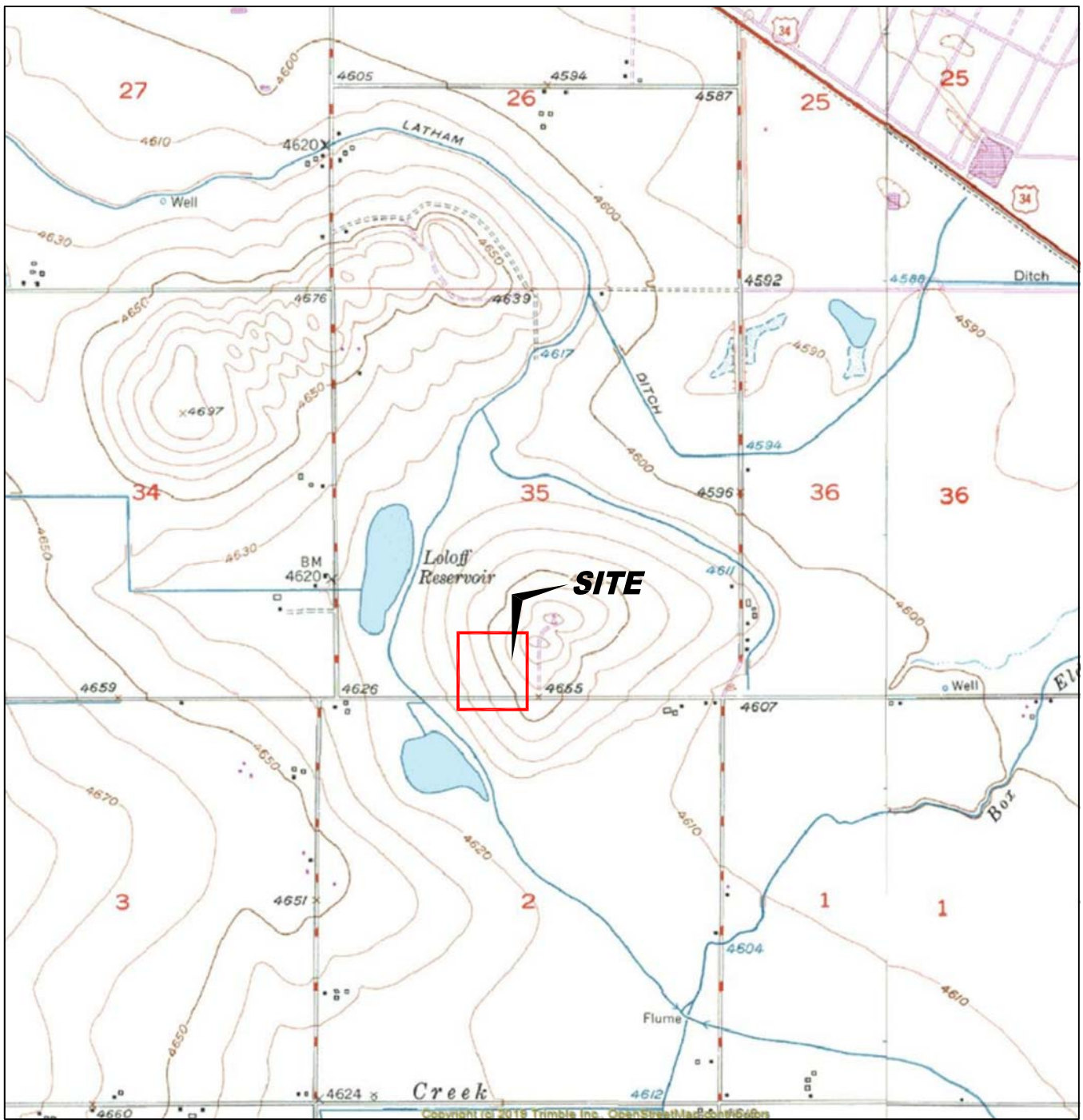
SAMPLE LOCATION	DATE	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYL BENZENE (µg/L)	TOTAL XYLENES (µg/L)	TOC ELEVATION (feet)	DEPTH TO GROUND WATER (ft)	GROUND WATER ELEVATION (ft)	FREE PRODUCT THICKNESS (ft)
MW-1	08/31/20	<1.0	<1.0	2.0	40	100.00	4.39	95.61	NP
	11/17/20	<1.0	<1.0	<1.0	<2.0		4.20	95.80	NP
MW-2	08/31/20	1.2	<1.0	300	1800	100.00	4.76	95.24	NP
	11/17/20	<1.0	<1.0	280	1100		4.30	95.70	NP
MW-3	08/31/20	<1.0	<1.0	<1.0	<2.0	99.97	4.55	95.42	NP
	08/31/20	<1.0	<1.0	<1.0	<2.0		4.48	95.49	NP
MW-4	08/31/20	<1.0	<1.0	<1.0	1100	100.09	4.58	95.51	NP
	11/17/20	<1.0	<1.0	<1.0	<2.0		4.83	95.26	NP
MW-5	08/31/20	<1.0	<1.0	<1.0	<2.0	100.50	4.87	95.63	NP
	11/17/20	<1.0	<1.0	<1.0	<2.0		5.02	95.48	NP
MW-6	11/17/20	<1.0	<1.0	<1.0	2.2	99.81	7.63	92.18	NP
MW-7	11/19/20	<1.0	<1.0	<1.0	<2.0	100.29	7.95	92.34	NP
Table 910-1 Limits		5	560	700	1,400				

Bold face values exceed the COGCC limits

NP - No Free Product

NS - No Sample

FIGURES



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. C020-049	Prepared by	Drawn by TA
Date 12/18/20	Reviewed by EB	Filename 20049T





LEGEND

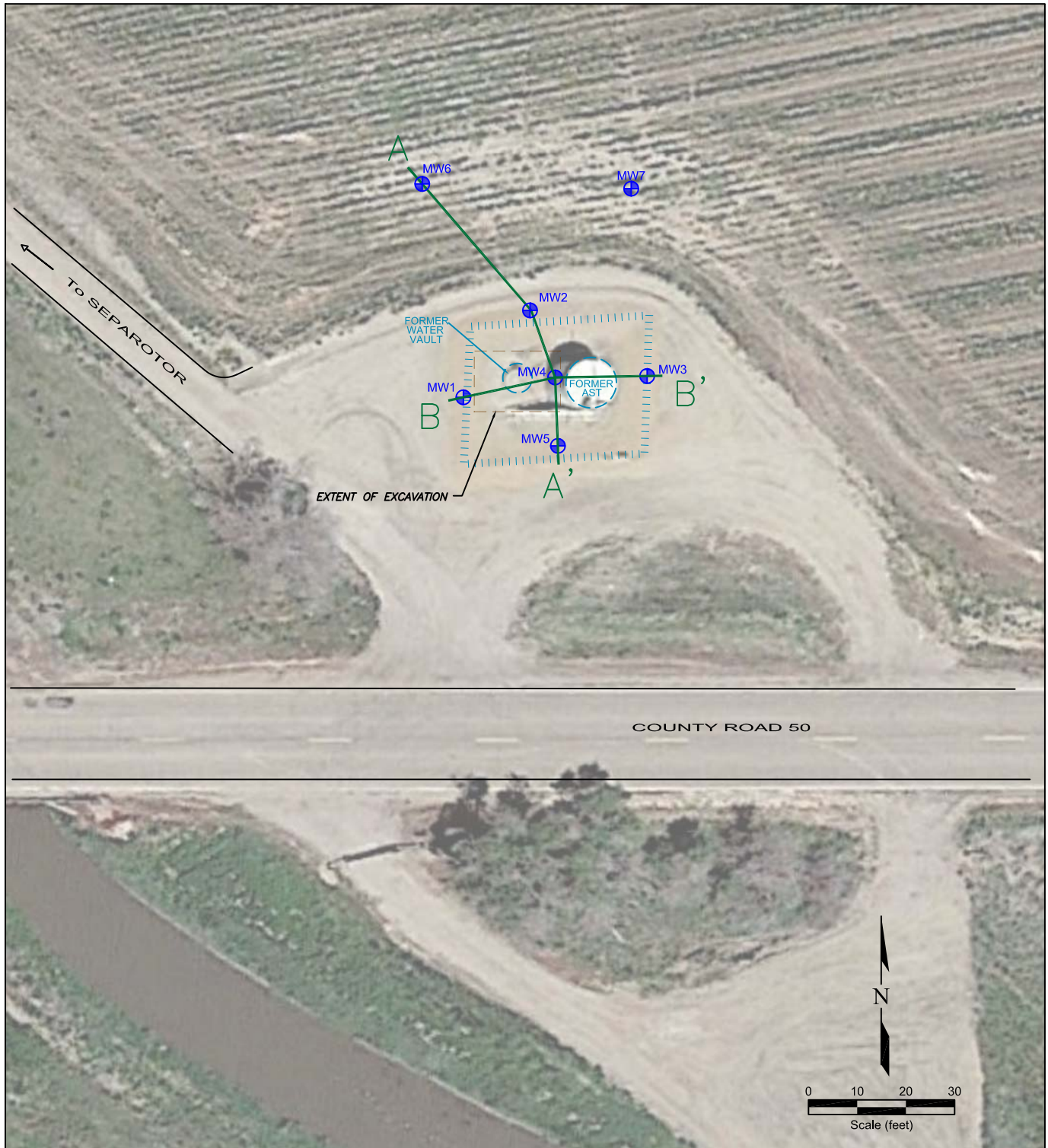
-  MONITORING WELL
-  ABOVE GROUND STORAGE TANK
-  FORMER FACILITY
-  EXTENT OF EXCAVATION
-  CONTAINMENT BERM

**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. C020-049	Prepared by	Drawn by TA
Date 12/18/20	Reviewed by EB	Filename 20049Q





LEGEND





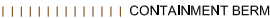

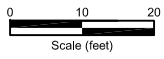
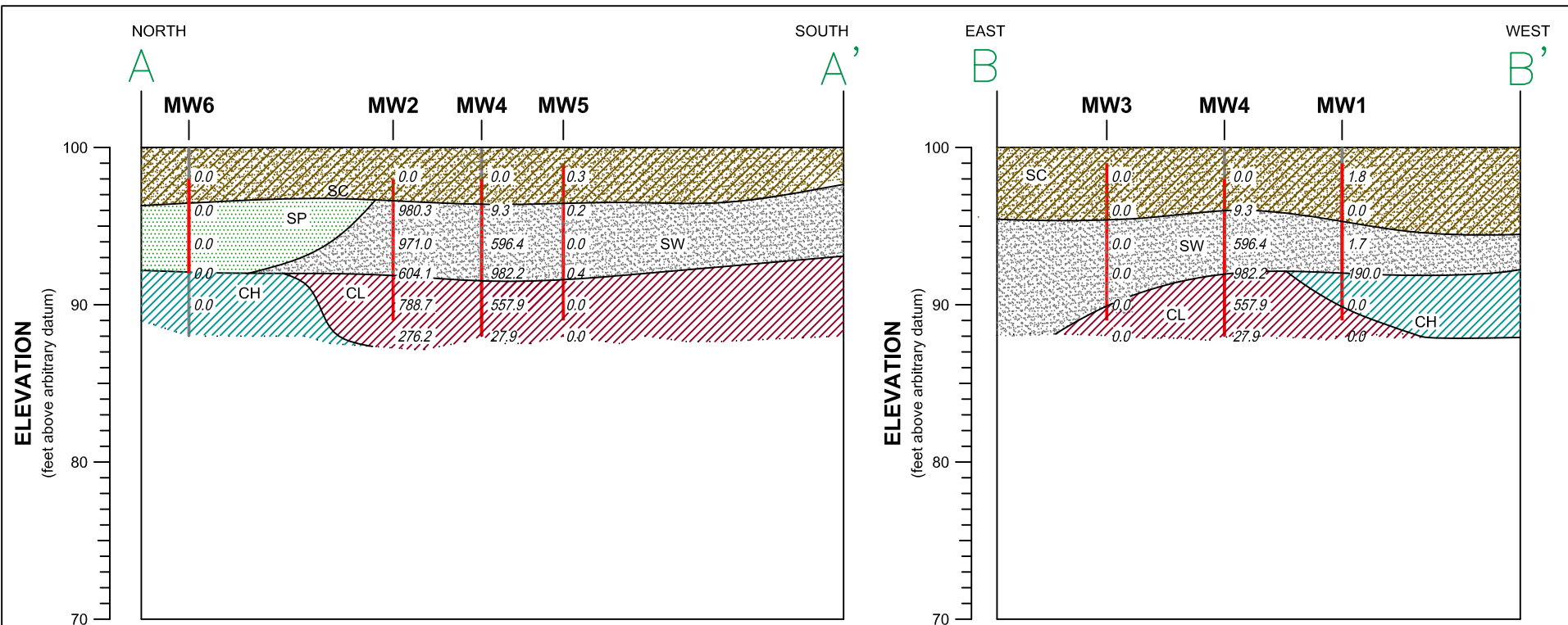
-  MONITORING WELL
-  ABOVE GROUND STORAGE TANK
-  FORMER FACILITY
-  EXTENT OF EXCAVATION
-  CONTAINMENT BERM
-  CUT LINE FOR CROSS SECTION

Figure 3
CROSS SECTION

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

Project No. C020-049	Prepared by	Drawn by TA
Date 12/18/20	Reviewed by EB	Filename 20049Q





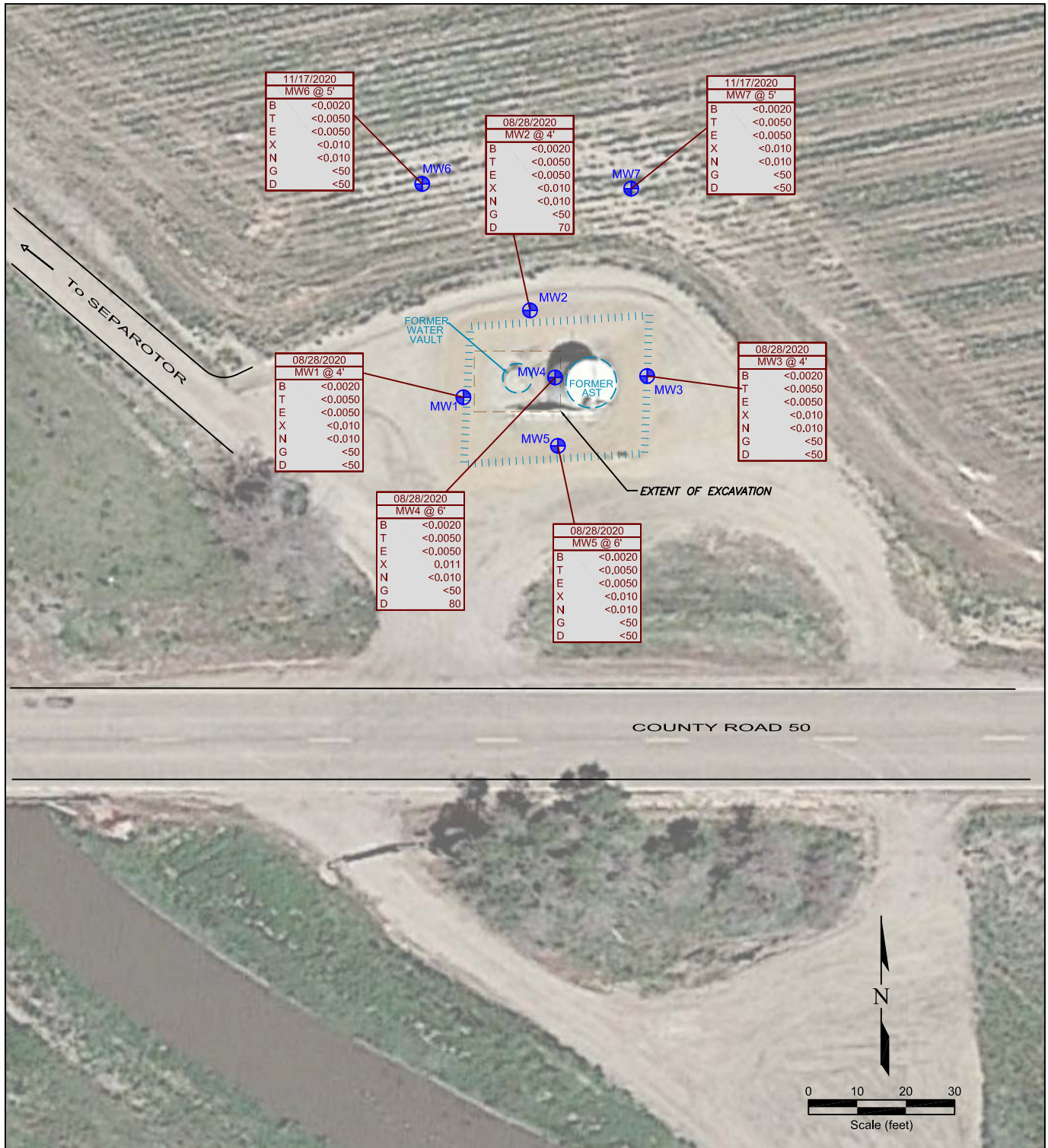
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CH	Clay, high plasticity	SW	Sand, well-graded	Topsoil
CL	Clay, low plasticity	SP	Sand, poorly-graded	Asphalt
MH	Silt, high plasticity	SC	Sand, clayey	Concrete
ML	Silt, low plasticity	SM	Sand silty	Basin fill
CH-MH	Clay, silty high plasticity	GW	Gravel, well-graded	Claystone
CL-ML	Clay, silty, low plasticity	GP	Gravel, poorly-graded	Siltstone
MH-CH	Silt, clayey high plasticity	GC	Gravel, clayey	Shale
ML-CL	Silt, clayey low plasticity	GM	Gravel, silty	Sandstone

Figure 4
CROSS SECTION A-A' and B-B'

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

Project No. C020-049	Prepared by TA	Drawn by TA
Date 12/28/20	Reviewed by EB	Filename 20049X



LEGEND

	MONITORING WELL	<table border="1"><tr><td>08/28/2020</td><td>DATE SAMPLED</td></tr><tr><td>MW1 @ 4'</td><td>SAMPLE ID and DEPTH</td></tr><tr><td>B <0.0020</td><td>BENZENE (mg/kg)</td></tr><tr><td>T <0.0050</td><td>TOLUENE (mg/kg)</td></tr><tr><td>E <0.0050</td><td>ETHYLBENZENE (mg/kg)</td></tr><tr><td>X <0.010</td><td>TOTAL XYLENES (mg/kg)</td></tr><tr><td>N <0.010</td><td>NAPHTHALENE (mg/kg)</td></tr><tr><td>G <50</td><td>TPH-GRO (mg/kg)</td></tr><tr><td>D <50</td><td>TPH-DRO (mg/kg)</td></tr></table>	08/28/2020	DATE SAMPLED	MW1 @ 4'	SAMPLE ID and DEPTH	B <0.0020	BENZENE (mg/kg)	T <0.0050	TOLUENE (mg/kg)	E <0.0050	ETHYLBENZENE (mg/kg)	X <0.010	TOTAL XYLENES (mg/kg)	N <0.010	NAPHTHALENE (mg/kg)	G <50	TPH-GRO (mg/kg)	D <50	TPH-DRO (mg/kg)
08/28/2020	DATE SAMPLED																			
MW1 @ 4'	SAMPLE ID and DEPTH																			
B <0.0020	BENZENE (mg/kg)																			
T <0.0050	TOLUENE (mg/kg)																			
E <0.0050	ETHYLBENZENE (mg/kg)																			
X <0.010	TOTAL XYLENES (mg/kg)																			
N <0.010	NAPHTHALENE (mg/kg)																			
G <50	TPH-GRO (mg/kg)																			
D <50	TPH-DRO (mg/kg)																			
	ABOVE GROUND STORAGE TANK																			
	FORMER FACILITY																			
	EXTENT OF EXCAVATION																			
	CONTAINMENT BERM																			

Figure 5
SOIL CHEMISTRY MAP
August 28, 2020 and November 17, 2020

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

Project No. C020-049	Prepared by	Drawn by TA	
Date 12/18/20	Reviewed by EB	Filename 20049Q	



LEGEND










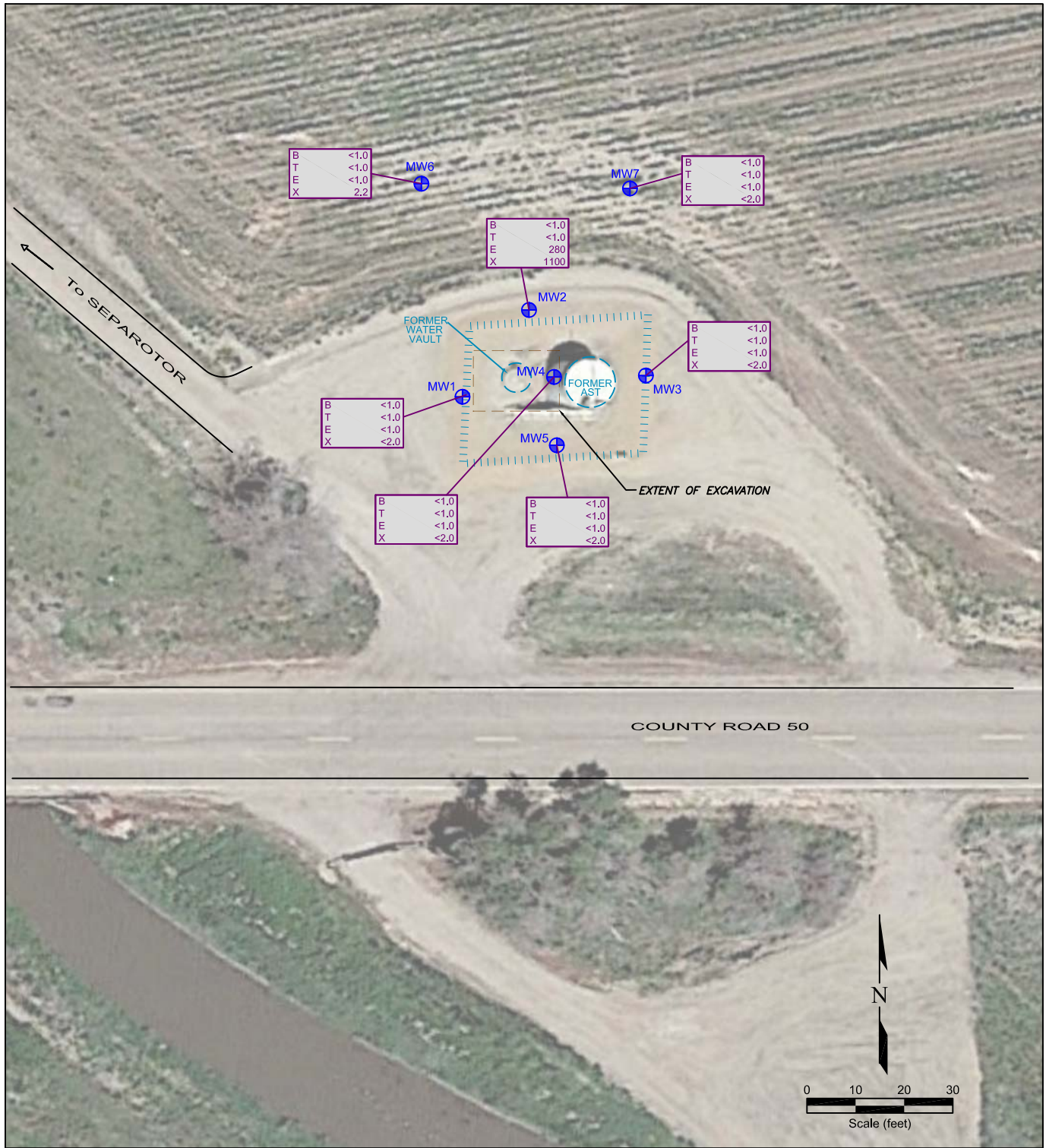
-  MONITORING WELL
-  ABOVE GROUND STORAGE TANK
-  FORMER FACILITY
-  EXTENT OF EXCAVATION
-  CONTAINMENT BERM
-  (95.26) GROUND WATER ELEVATION (feet above mean sea level)
-  INFERRED GROUND WATER FLOW DIRECTION
-  95.75 WATER TABLE CONTOUR (feet above mean sea level)

Figure 6
INFERRED GROUNDWATER ELEVATION MAP
 November 17, 2020
NOBLE ENERGY, INC.
CPC HOSHIKO 35-1, HOSHIKO 35-14
 SESW Sec. 35 T5N, R64W, 40.348855°, -104.521793°
 Weld County, Colorado

Project No. C020-049	Prepared by	Drawn by TA	
Date 12/28/20	Reviewed by EB	Filename 20049Q	



LEGEND

- MONITORING WELL
 - ABOVE GROUND STORAGE TANK
 - FORMER FACILITY
 - EXTENT OF EXCAVATION
 - CONTAINMENT BERM
- | | | |
|---|------|----------------------|
| B | <1.0 | BENZENE (ug/L) |
| T | <1.0 | TOLUENE (ug/L) |
| E | <1.0 | ETHYLBENZENE (ug/L) |
| X | <2.0 | TOTAL XYLENES (ug/L) |

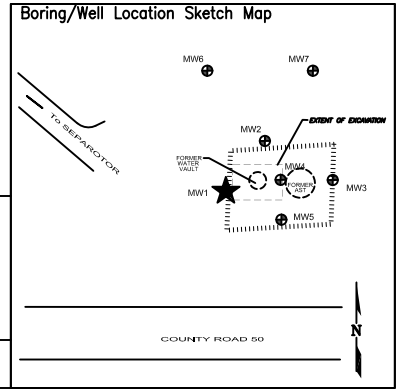
Figure 7
GROUNDWATER CHEMISTRY MAP
 November 17, 2020
NOBLE ENERGY, INC.
CPC HOSHIKO 35-1, HOSHIKO 35-14
 SESW Sec. 35 T5N, R64W, 40.348855°, -104.521793°
 Weld County, Colorado

Project No. C020-049	Prepared by	Drawn by TA	
Date 12/28/20	Reviewed by EB	Filename 20049Q	

APPENDIX A
BORING LOGS



BORING/WELL CONSTRUCTION LOG



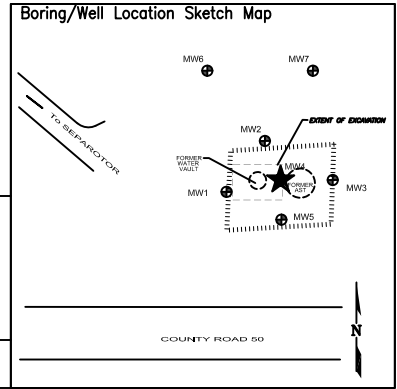
Page 1 of 1

Boring/Well No. MW-1		Total Depth 12'	Location Noble Energy, Inc. Hoshiko 35-1, Hoshiko 35-14 SE SW Sec 35, T5N, R64W Weld County, Colorado			
Project No./Name C020-049 / Noble CPC Hoshiko 35-1, Hoshiko 35-14		Drilling Contractor/Driller DrillPro				
Geologist/Office Ethan Black / Fremont Environmental, Inc.		Approved By				
Drilling Equipment/Method Hurricane		Size/Type of Bit 2.5" direct push	Sampling Method direct push	Start/Finish Date 8/28/20		
Well Installed? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Casing Mtrl./Dia. PVC/1"	Screen: Type Slotted Mtrl. PVC Length 10' Dia. 1" Slot Size 0.010"				
Elevation of: (ft. above datum)	Ground Surface .	Top of Well Casing 100.00	Top of Screen .	Bottom of Screen .	Ground Water Surface/Date Measured 4.39 8/31/20	

DEPTH (feet)	WELL CONSTRUCTION		LITHOLOGY		Penetration Rate (blows/6")	Recovery (%)	Sample Interval (feet)	PID Values (ppm)
			GRAPHIC LOG	VISUAL DESCRIPTION				
5	Bentonite	Blank	SC	Sandy clay: brown, plastic, moist			1.8	
	#10-20 Silica Sand	1" Screen		- saturated			0.0	
			SW	Sand: beige and tan, medium to fine, saturated - gray at 6.5' - black from 6.5' to 7.5'			1.7	
10			CH	Clay: beige, plastic, moist - oxidized			190.0	
15							0.0	
20							0.0	
								TD 12'



BORING/WELL CONSTRUCTION LOG



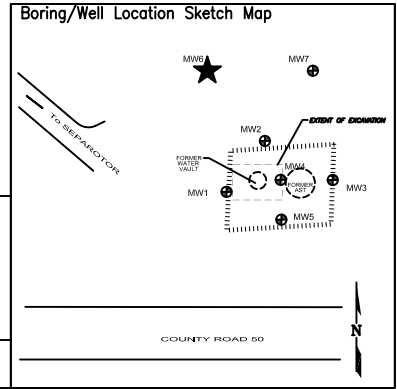
Page 1 of 1

Boring/Well No. MW-4		Total Depth 12'	Location Noble Energy, Inc. Hoshiko 35-1, Hoshiko 35-14 SE SW Sec 35, T5N, R64W Weld County, Colorado			
Project No./Name C020-049 / Noble CPC Hoshiko 35-1, Hoshiko 35-14		Drilling Contractor/Driller DrillPro				
Geologist/Office Ethan Black / Fremont Environmental, Inc.		Approved By				
Drilling Equipment/Method Hurricane		Size/Type of Bit 2.5" direct push	Sampling Method direct push	Start/Finish Date 8/28/20		
Well Installed? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Casing Mtrl./Dia. PVC/1"	Screen: Type Slotted Mtrl. PVC Length 10' Dia. 1" Slot Size 0.010"				
Elevation of: (ft. above datum)	Ground Surface .	Top of Well Casing 100.09	Top of Screen .	Bottom of Screen .	Ground Water Surface/Date Measured 4.58 8/31/20	

DEPTH (feet)	WELL CONSTRUCTION		LITHOLOGY		Penetration Rate (blows/6")	Recovery (%)	Sample Interval (feet)	PID Values (ppm)
			GRAPHIC LOG	VISUAL DESCRIPTION				
5	Bentonite	1" Blank	SC	Sandy clay: brown, plastic, moist			0.0	
	#10-20 Silica Sand	1" Screen	SW	Sand: black, medium to fine, saturated - wet @ 6.5'			9.3 596.4	
	10		CL	Clay: tan, non-plastic, slightly moist, oxidized			982.2 557.9	
15							27.9	
20								



BORING/WELL CONSTRUCTION LOG



Page 1 of 1

Boring/Well No. MW-6		Total Depth 10.5'	Location Noble Energy, Inc. Hoshiko 35-1, Hoshiko 35-14 SE SW Sec 35, T5N, R64W Weld County, Colorado			
Project No./Name C020-049 / Noble CPC Hoshiko 35-1, Hoshiko 35-14		Drilling Contractor/Driller DrillPro				
Geologist/Office Ethan Black / Fremont Environmental, Inc.		Approved By				
Drilling Equipment/Method Hurricane		Size/Type of Bit 2.5" direct push	Sampling Method direct push	Start/Finish Date 11/17/20		
Well Installed? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Casing Mtrl./Dia. PVC/1"	Screen: Type Slotted Mtrl. PVC Length 10' Dia. 1" Slot Size 0.010"				
Elevation of: (ft. above datum)	Ground Surface .	Top of Well Casing 99.81	Top of Screen .	Bottom of Screen .	Ground Water Surface/Date Measured 7.95 11/17/20	

DEPTH (feet)	WELL CONSTRUCTION		LITHOLOGY		Penetration Rate (blows/6")	Recovery (%)	Sample Interval (feet)	PID Values (ppm)
			GRAPHIC LOG	VISUAL DESCRIPTION				
5	Bentonite	1" Blank	SC	Sandy clay: brown, fine sand, non-plastic, moist, calcareous			0.0	
	#10-20 Silica Sand	1" Screen	SP	Sand: brown to tan, fine to very fine, moist, wet at 5' - increasing coarse sand with depth			0.0	
			CH	Clay: light brown, oxidized, plastic, gray inclusions - non-plastic at 9' - refusal @ 10.5' - TD 10.5'			0.0	
10								
15								
20								

APPENDIX B

SAMPLING PLAN

SAMPLING METHODS AND PROCEDURES

Water Level Measurements

All groundwater level measurements will be obtained using an electric measuring device, which indicates when a probe is in contact with groundwater. Measurements will be obtained by lowering the device into the well until the water surface had been encountered, and by measuring the distance from the top of the inside riser pipe to the probe. All of the measurements will be recorded to the nearest 0.01 ft. To minimize cross-contamination, the water level indicator will be decontaminated with isopropyl alcohol and distilled water between each well.

Monitoring Well Sampling

All monitoring wells were sampled from the “cleanest” to the “most contaminated” according to the protocols listed below.

Field Protocol

- Step 1 Measure water level in each well.
- Step 2 Purge each monitoring well by evacuating a minimum of three well bore volumes using a disposable polyethylene bailer.
- Step 3 Collect water samples using a disposable polyethylene bailer.
- Step 4 Cool samples to approximately 4°C for transportation.
- Step 5 Store water samples and transport to a specific laboratory, following all documentation and chain-of-custody procedures.

Upon completion of groundwater sampling, a chain-of-custody log will be completed. Chain-of-custody records include the following information: project, project number, shipped by, shipped to, suspected hazard, sampling point, location, field identification number, date collected, sample type, number of containers, analysis required, and sampler's signature.

The chain-of-custody records will be shipped with the samples to the laboratory. Upon arrival at the laboratory the samples will be checked in and signed by the appropriate laboratory personnel. Laboratory identification numbers will be noted on the chain-of-custody record. Upon completion of the laboratory analysis, the completed chain-of-custody record will be returned to the project manager.

Analytical Methods

The following list identifies the various chemical constituents and analytical methods which will be used for their quantification.

<u>Chemical Parameter</u>	<u>Method</u>
Benzene, Toluene, Ethylbenzene and Total Xylenes (BTEX)	EPA Method – 8260B

APPENDIX C

LABORATORY DOCUMENTATION

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

September 10, 2020

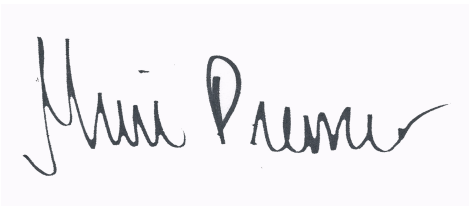
Paul Henchan
Fremont Environmental
PO Box 1289
Wellington, CO 80549

RE: Noble - Hoshiko 35-14 (AST)

Work Order #2008277

Enclosed are the results of analyses for samples received by Summit Scientific on 08/28/20 15:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Muri Premer". The signature is written in a cursive style with a large, stylized initial "M".

Muri Premer For Paul Shrewsbury
President



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Hoshiko 35-14 (AST)

Project Number: [none]
Project Manager: Paul Henchan

Reported:
09/10/20 13:53

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1 4FT	2008277-01	Soil	08/28/20 00:00	08/28/20 15:00
MW-2 4FT	2008277-02	Soil	08/28/20 00:00	08/28/20 15:00
MW-3 4FT	2008277-03	Soil	08/28/20 00:00	08/28/20 15:00
MW-4 6FT	2008277-04	Soil	08/28/20 00:00	08/28/20 15:00
MW-5 6FT	2008277-05	Soil	08/28/20 00:00	08/28/20 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

S₂

2008277

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

Page 1 of 1

Client: FREMONT ENVIRONMENTAL Project Manager: PAUL HENEHAN
 Address: PO Box 1289 E-Mail: PAUL@FREMONTENV.COM & ETHAN@FREMONTENV.COM
 City/State/Zip: Wellington CO 80549 Project Name: Noble - Hoshiko 35-H (AST)
 Phone: 303-956-8714 Project Number:
 Sampler Name:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix		Analysis Requested				Special Instructions
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	GDSTEX	NAPHTHALENE	
1	MW-1 4FT	8/28/20		1			X			X		X			
2	MW-2 4FT														
3	MW-3 4FT														
4	MW-4 6FT														
5	MW-5 6FT														
6															
7															
8															
9															
10															

Relinquished by: <u>Ethan Black</u>	Date/Time: <u>8/28/20 15:00</u>	Received by: <u>[Signature]</u>	Date/Time: <u>08-28-20 15:00</u>	Turn Around Time (Check) Same Day _____ 72 hours 24 hours _____ Standard <u>X</u> 48 hours _____ Sample Integrity: Temperature Upon Receipt: <u>6.3</u> Samples Intact: <u>(Yes)</u> No	Notes: <u>ON ICE</u>
Relinquished by:	Date/Time:	Received by:	Date/Time:		
Relinquished by:	Date/Time:	Received by:	Date/Time:		

Sample Receipt Checklist

S2 Work Order 2008277

Client: Fremont Environmental Client Project ID: Noble-Hoshiko35-14(AST)

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

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

Temp (°C)	6.3
-----------	-----


Thermometer ID: 61857155-K

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

Additional Comments (if any):

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

MP
Custodian Printed Name or Initials


Signature of Custodian

8/28/20
Date/Time



Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Hoshiko 35-14 (AST)

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 09/10/20 13:53

MW-1 4FT
2008277-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/28/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	2008310	08/31/20	09/01/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **08/28/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		86.7 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		95.6 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.6 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/28/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	2009073	09/08/20	09/08/20	EPA 8015M	

Date Sampled: **08/28/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		113 %	30-150		"	"	"	"	

Summit Scientific

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



Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Hoshiko 35-14 (AST)

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 09/10/20 13:53

MW-2 4FT
2008277-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/28/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	2008310	08/31/20	09/01/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **08/28/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		88.7 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		108 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		141 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/28/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	70	50	mg/kg	1	2009073	09/08/20	09/08/20	EPA 8015M	

Date Sampled: **08/28/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		116 %	30-150		"	"	"	"	

Summit Scientific

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



Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Hoshiko 35-14 (AST)

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 09/10/20 13:53

MW-3 4FT
2008277-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/28/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	2008310	08/31/20	09/02/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **08/28/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		89.0 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		105 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.4 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/28/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	2009073	09/08/20	09/08/20	EPA 8015M	

Date Sampled: **08/28/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		122 %	30-150		"	"	"	"	

Summit Scientific

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



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Hoshiko 35-14 (AST)

Project Number: [none]
Project Manager: Paul Henchan

Reported:
09/10/20 13:53

MW-4 6FT
2008277-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/28/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	2008310	08/31/20	09/02/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.011	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **08/28/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		86.0 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		109 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		148 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/28/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	80	50	mg/kg	1	2009073	09/08/20	09/08/20	EPA 8015M	

Date Sampled: **08/28/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		117 %	30-150		"	"	"	"	

Summit Scientific

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



Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Hoshiko 35-14 (AST)

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 09/10/20 13:53

MW-5 6FT
2008277-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/28/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	2008310	08/31/20	09/02/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **08/28/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		88.2 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		104 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.2 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/28/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	2009073	09/08/20	09/08/20	EPA 8015M	

Date Sampled: **08/28/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		114 %	30-150		"	"	"	"	

Summit Scientific

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



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Hoshiko 35-14 (AST)

Project Number: [none]
Project Manager: Paul Henchan

Reported:
09/10/20 13:53

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 2008310 - EPA 5030 Soil MS

Blank (2008310-BLK1)

Prepared: 08/31/20 Analyzed: 09/01/20

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
Naphthalene	ND	0.010	"							
Gasoline Range Hydrocarbons	ND	50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0347		"	0.0400		86.8	23-173			
Surrogate: Toluene-d8	0.0398		"	0.0400		99.5	20-170			
Surrogate: 4-Bromofluorobenzene	0.0371		"	0.0400		92.7	21-167			

LCS (2008310-BS1)

Prepared: 08/31/20 Analyzed: 09/01/20

Benzene	0.126	0.0020	mg/kg	0.100		126	70-130			
Toluene	0.110	0.0050	"	0.100		110	70-130			
Ethylbenzene	0.117	0.0050	"	0.100		117	70-130			
m,p-Xylene	0.191	0.010	"	0.200		95.5	70-130			
o-Xylene	0.105	0.0050	"	0.100		105	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0306		"	0.0400		76.5	23-173			
Surrogate: Toluene-d8	0.0420		"	0.0400		105	20-170			
Surrogate: 4-Bromofluorobenzene	0.0370		"	0.0400		92.6	21-167			

Matrix Spike (2008310-MS1)

Source: 2008277-01

Prepared: 08/31/20 Analyzed: 09/01/20

Benzene	0.0919	0.0020	mg/kg	0.100	ND	91.9	70-130			
Toluene	0.111	0.0050	"	0.100	ND	111	70-130			
Ethylbenzene	0.121	0.0050	"	0.100	ND	121	70-130			
m,p-Xylene	0.224	0.010	"	0.200	0.00399	110	70-130			
o-Xylene	0.109	0.0050	"	0.100	ND	109	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0294		"	0.0400		73.6	23-173			
Surrogate: Toluene-d8	0.0404		"	0.0400		101	20-170			
Surrogate: 4-Bromofluorobenzene	0.0357		"	0.0400		89.2	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: Noble - Hoshiko 35-14 (AST)

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 09/10/20 13:53

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch 2008310 - EPA 5030 Soil MS

Matrix Spike Dup (2008310-MSD1)

Source: 2008277-01

Prepared: 08/31/20 Analyzed: 09/01/20

Benzene	0.0859	0.0020	mg/kg	0.100	ND	85.9	70-130	6.72	30	
Toluene	0.0976	0.0050	"	0.100	ND	97.6	70-130	13.2	30	
Ethylbenzene	0.107	0.0050	"	0.100	ND	107	70-130	11.9	30	
m,p-Xylene	0.203	0.010	"	0.200	0.00399	99.5	70-130	9.85	30	
o-Xylene	0.0981	0.0050	"	0.100	ND	98.1	70-130	10.7	30	
Surrogate: 1,2-Dichloroethane-d4	0.0304		"	0.0400		76.0	23-173			
Surrogate: Toluene-d8	0.0412		"	0.0400		103	20-170			
Surrogate: 4-Bromofluorobenzene	0.0363		"	0.0400		90.7	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: Noble - Hoshiko 35-14 (AST)

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 09/10/20 13:53

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch 2009073 - EPA 3550A

Blank (2009073-BLK1)

Prepared & Analyzed: 09/08/20

C10-C28 (DRO) ND 50 mg/kg

LCS (2009073-BS1)

Prepared & Analyzed: 09/08/20

C10-C28 (DRO) 534 50 mg/kg 500 107 70-130

Matrix Spike (2009073-MS1)

Source: 2008277-01

Prepared & Analyzed: 09/08/20

C10-C28 (DRO) 519 50 mg/kg 500 36.2 96.6 70-130

Matrix Spike Dup (2009073-MSD1)

Source: 2008277-01

Prepared & Analyzed: 09/08/20

C10-C28 (DRO) 507 50 mg/kg 500 36.2 94.3 70-130 2.31 20

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: Noble - Hoshiko 35-14 (AST)

Project Number: [none]
Project Manager: Paul Henchan

Reported:
09/10/20 13:53

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

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

November 30, 2020

Paul Henchan

Fremont Environmental

PO Box 1289

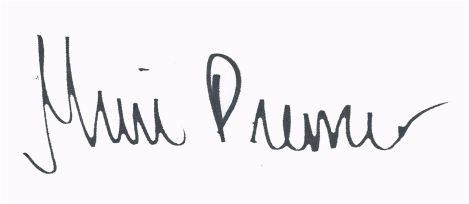
Wellington, CO 80549

RE: Noble - CPC Hoshiko 35-1 (AST)

Work Order #2011209

Enclosed are the results of analyses for samples received by Summit Scientific on 11/17/20 17:00-11/19/20 16:30.
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: Noble - CPC Hoshiko 35-1 (AST)

Project Number: [none]
Project Manager: Paul Henchan

Reported:
11/30/20 12:11

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-6 5FT	2011209-01	Soil	11/17/20 00:00	11/17/20 17:00
MW-7 5FT	2011209-02	Soil	11/17/20 00:00	11/17/20 17:00
MW-1	2011209-03	Water	11/17/20 00:00	11/17/20 17:00
MW-2	2011209-04	Water	11/17/20 00:00	11/17/20 17:00
MW-3	2011209-05	Water	11/17/20 00:00	11/17/20 17:00
MW-4	2011209-06	Water	11/17/20 00:00	11/17/20 17:00
MW-5	2011209-07	Water	11/17/20 00:00	11/17/20 17:00
MW-6	2011209-08	Water	11/17/20 00:00	11/17/20 17:00
MW-7	2011253-01	Water	11/19/20 00:00	11/19/20 16:30

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

2011209

741 Corporate Circle Suite I ♦ Golden, Colorado 80401
303-277-9310 ♦ 303-374-5933 Fax

Page 1 of 1

Client: FREMONT
Address: PO BOX 1289
City/State/Zip: WELLINGTON, CO 80574
Phone: 303-956-8714 Fax:
Sampler Name: EB/PH

Project Manager: HENEHAN
E-Mail: paulh@fremontenv.com, ethanh@fremontenv.com
Project Name: Noble - CPC Heshiko 35-1 (AST)
Project Number:

AST

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix				Analyze For:						Special Instructions		
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	BTEX	GRD/DRO	NAPHTHALENE	SAR	EC	PH			
MW-6 SPT	11/17/20	4h	1			X		X					X	X	X					
MW-7 SPT			1			X		X					X	X	X					
MW-1			2																	
MW-2																				
MW-3																				
MW-4																				
MW-5																				
MW-6																				

Relinquished by: <u>PAUL HENEHAN</u>	Date/Time: <u>11/17/20 1700</u>	Received by: <u>[Signature]</u>	Date/Time: <u>11/17/20 1700</u>	Turn Around Time (Check)	Notes:
Relinquished by:	Date/Time:	Received by:	Date/Time:	Same Day <input type="checkbox"/> 72 Hours <input type="checkbox"/> 24 Hours <input type="checkbox"/> Standard <input checked="" type="checkbox"/> 48 Hours <input type="checkbox"/>	
Relinquished by:	Date/Time:	Received in Lab by:	Date/Time:	Sample Integrity: Temperature Upon Receipt: <u>3.4</u> Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

Summit Scientific

2011253

S₂

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310 ♦ 303-374-5933 (f)

Page 1 of 1

Client: Fremont Environmental

Project Manager: Paul Henehan

Address: P.O Box 1289

E-Mail: paulh@fremontenv.com, ethanb@fremontenv.com

City/State/Zip: Wellington, CO 80549

Bill to: Jacob

Phone: 303-956-8714

Project Name: Noble - Hoshiko 35-1 (AST)

Sampler Name: 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	BTEX	Naphthalene	GRO	DRO	SAR	EC		pH	
1	MW-7	11/19/20		2			X		X				X								
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					

Relinquished by: <u>Ethan Blad</u>	Date/Time: <u>11/19/20 1630</u>	Received by: <u>[Signature]</u>	Date/Time: <u>11/19/2020 1630</u>	Turn Around Time (Check)	Notes: Please add to 11/17/20 samples and combine reports.
Relinquished by:	Date/Time:	Received by:	Date/Time:	Same Day <input type="checkbox"/> 72 hours 24 hours <input type="checkbox"/> Standard <input checked="" type="checkbox"/> 48 hours <input type="checkbox"/>	
Relinquished by:	Date/Time:	Received by:	Date/Time:	Sample Integrity: <u>3.8</u> Temperature Upon Receipt: <u>3.8</u> Samples Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

Sample Receipt Checklist

S2 Work Order 2011209

Client: FREMONT ENVIRONMENTAL Client Project ID: NOBLE - CPC HOSHIKO 35-1

Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other Airbill #: (AST)

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

Temp (°C)	3.4
-----------	-----

Thermometer ID: 61857155-K

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

Additional Comments (if any):

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

RZ
Custodian Printed Name or Initials

Signature of Custodian

11/17/20
Date/Time

2011253

Sample Receipt Checklist

S2 Work Order _____

Client: FREMONT Client Project ID: NOBLE - HOSHIKO 35 - 1 (AST)

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

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

Temp (°C)	3.8
-----------	-----

Thermometer ID: 61857155-K

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

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

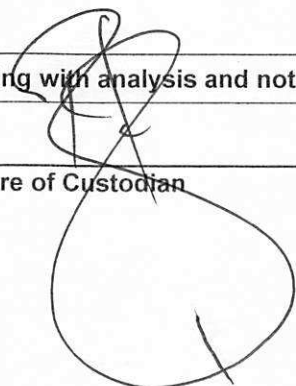
RZ

Custodian Printed Name or Initials

Signature of Custodian

11/19/20

Date/Time





Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Hoshiko 35-1 (AST)

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 11/30/20 12:11

MW-6 5FT
2011209-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **11/17/20 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BDK0236	11/19/20	11/20/20	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
Naphthalene	ND	0.010		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50		"	"	"	"	"	"	

Date Sampled: **11/17/20 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		104 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		92.1 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.9 %		21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **11/17/20 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BDK0238	11/19/20	11/21/20	EPA 8015M	

Date Sampled: **11/17/20 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl		94.8 %		30-150		"	"	"	"	

Summit Scientific

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



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Hoshiko 35-1 (AST)

Project Number: [none]
Project Manager: Paul Henchan

Reported:
11/30/20 12:11

MW-7 5FT
2011209-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **11/17/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BDK0236	11/19/20	11/20/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **11/17/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		108 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.7 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.7 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **11/17/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BDK0238	11/19/20	11/21/20	EPA 8015M	

Date Sampled: **11/17/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		97.3 %	30-150		"	"	"	"	

Summit Scientific

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Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Hoshiko 35-1 (AST)

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 11/30/20 12:11

MW-1
2011209-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **11/17/20 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BDK0260	11/20/20	11/21/20	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	

Date Sampled: **11/17/20 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		95.3 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		92.4 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %		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: Noble - Hoshiko 35-1 (AST)

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 11/30/20 12:11

MW-2
2011209-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **11/17/20 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BDK0260	11/20/20	11/21/20	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	280	10		"	10	"	"	"	"	
Xylenes (total)	1100	20		"	"	"	"	"	"	

Date Sampled: **11/17/20 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		105 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		94.3 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %		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: Noble - Hoshiko 35-1 (AST)

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 11/30/20 12:11

MW-3
2011209-05 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **11/17/20 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BDK0260	11/20/20	11/21/20	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	

Date Sampled: **11/17/20 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		106 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		98.7 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.2 %		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: Noble - Hoshiko 35-1 (AST)

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 11/30/20 12:11

MW-4
2011209-06 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **11/17/20 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BDK0260	11/20/20	11/21/20	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	

Date Sampled: **11/17/20 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		101 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		97.1 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %		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: Noble - Hoshiko 35-1 (AST)

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 11/30/20 12:11

MW-5
2011209-07 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **11/17/20 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BDK0260	11/20/20	11/21/20	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	

Date Sampled: **11/17/20 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		101 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		96.8 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %		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: Noble - Hoshiko 35-1 (AST)

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 11/30/20 12:11

MW-6
2011209-08 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **11/17/20 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BDK0260	11/20/20	11/21/20	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	2.2	2.0		"	"	"	"	"	"	

Date Sampled: **11/17/20 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		94.6 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		88.6 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.5 %		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: Noble - Hoshiko 35-1 (AST)

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 11/30/20 12:11

MW-7
2011253-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **11/19/20 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BDK0294	11/24/20	11/25/20	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	

Date Sampled: **11/19/20 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		110 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		83.0 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		88.6 %		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: Noble - Hoshiko 35-1 (AST)

Project Number: [none]
Project Manager: Paul Henchan

Reported:
11/30/20 12:11

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 BDK0236 - EPA 5030 Soil MS

Blank (BDK0236-BLK1)

Prepared: 11/19/20 Analyzed: 11/20/20

Benzene	ND	0.0020	mg/kg								
Toluene	ND	0.0050	"								
Ethylbenzene	ND	0.0050	"								
Xylenes (total)	ND	0.010	"								
Naphthalene	ND	0.010	"								
Gasoline Range Hydrocarbons	ND	50	"								
Surrogate: 1,2-Dichloroethane-d4	0.0404		"	0.0400		101	23-173				
Surrogate: Toluene-d8	0.0370		"	0.0400		92.5	20-170				
Surrogate: 4-Bromofluorobenzene	0.0403		"	0.0400		101	21-167				

LCS (BDK0236-BS1)

Prepared: 11/19/20 Analyzed: 11/20/20

Benzene	0.0866	0.0020	mg/kg	0.100		86.6	70-130				
Toluene	0.0795	0.0050	"	0.100		79.5	70-130				
Ethylbenzene	0.110	0.0050	"	0.100		110	70-130				
m,p-Xylene	0.219	0.010	"	0.200		109	70-130				
o-Xylene	0.113	0.0050	"	0.100		113	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0410		"	0.0400		102	23-173				
Surrogate: Toluene-d8	0.0375		"	0.0400		93.8	20-170				
Surrogate: 4-Bromofluorobenzene	0.0393		"	0.0400		98.3	21-167				

Matrix Spike (BDK0236-MS1)

Source: 2011209-01

Prepared: 11/19/20 Analyzed: 11/20/20

Benzene	0.0864	0.0020	mg/kg	0.100	ND	86.4	70-130				
Toluene	0.0802	0.0050	"	0.100	ND	80.2	70-130				
Ethylbenzene	0.107	0.0050	"	0.100	ND	107	70-130				
m,p-Xylene	0.214	0.010	"	0.200	0.00423	105	70-130				
o-Xylene	0.110	0.0050	"	0.100	ND	110	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0428		"	0.0400		107	23-173				
Surrogate: Toluene-d8	0.0378		"	0.0400		94.5	20-170				
Surrogate: 4-Bromofluorobenzene	0.0397		"	0.0400		99.2	21-167				

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Hoshiko 35-1 (AST)

Project Number: [none]
Project Manager: Paul Henchan

Reported:
11/30/20 12:11

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 BDK0236 - EPA 5030 Soil MS

Matrix Spike Dup (BDK0236-MSD1)

Source: 2011209-01

Prepared: 11/19/20 Analyzed: 11/20/20

Benzene	0.0823	0.0020	mg/kg	0.100	ND	82.3	70-130	4.91	30	
Toluene	0.0790	0.0050	"	0.100	ND	79.0	70-130	1.47	30	
Ethylbenzene	0.109	0.0050	"	0.100	ND	109	70-130	1.39	30	
m,p-Xylene	0.216	0.010	"	0.200	0.00423	106	70-130	1.04	30	
o-Xylene	0.111	0.0050	"	0.100	ND	111	70-130	0.544	30	
Surrogate: 1,2-Dichloroethane-d4	0.0404		"	0.0400		101	23-173			
Surrogate: Toluene-d8	0.0371		"	0.0400		92.8	20-170			
Surrogate: 4-Bromofluorobenzene	0.0390		"	0.0400		97.5	21-167			

Batch BDK0260 - EPA 5030 Water MS

Blank (BDK0260-BLK1)

Prepared & Analyzed: 11/20/20

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	2.0	"							
Surrogate: 1,2-Dichloroethane-d4	10.3		"	13.3		77.2	23-173			
Surrogate: Toluene-d8	12.2		"	13.3		91.4	20-170			
Surrogate: 4-Bromofluorobenzene	12.8		"	13.3		96.4	21-167			

LCS (BDK0260-BS1)

Prepared & Analyzed: 11/20/20

Benzene	43.0	1.0	ug/l	41.7		103	51-132			
Toluene	45.1	1.0	"	41.7		108	51-138			
Ethylbenzene	54.0	1.0	"	41.7		130	58-146			
m,p-Xylene	110	2.0	"	83.3		132	57-144			
o-Xylene	53.0	1.0	"	41.7		127	53-146			
Surrogate: 1,2-Dichloroethane-d4	10.5		"	13.3		78.9	23-173			
Surrogate: Toluene-d8	12.6		"	13.3		94.1	20-170			
Surrogate: 4-Bromofluorobenzene	12.6		"	13.3		94.7	21-167			

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Hoshiko 35-1 (AST)

Project Number: [none]
Project Manager: Paul Henchan

Reported:
11/30/20 12:11

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 BDK0260 - EPA 5030 Water MS

Matrix Spike (BDK0260-MS1)

Source: 2011209-03

Prepared & Analyzed: 11/20/20

Benzene	44.2	1.0	ug/l	41.7	ND	106	34-141			
Toluene	46.1	1.0	"	41.7	ND	111	27-151			
Ethylbenzene	53.5	1.0	"	41.7	ND	128	29-160			
m,p-Xylene	110	2.0	"	83.3	1.51	130	20-166			
o-Xylene	53.0	1.0	"	41.7	ND	127	33-159			
Surrogate: 1,2-Dichloroethane-d4	12.7		"	13.3		95.6	23-173			
Surrogate: Toluene-d8	12.8		"	13.3		96.0	20-170			
Surrogate: 4-Bromofluorobenzene	13.2		"	13.3		98.9	21-167			

Matrix Spike Dup (BDK0260-MSD1)

Source: 2011209-03

Prepared & Analyzed: 11/20/20

Benzene	41.9	1.0	ug/l	41.7	ND	101	34-141	5.23	30	
Toluene	44.4	1.0	"	41.7	ND	107	27-151	3.82	30	
Ethylbenzene	53.5	1.0	"	41.7	ND	128	29-160	0.0747	30	
m,p-Xylene	110	2.0	"	83.3	1.51	130	20-166	0.391	30	
o-Xylene	53.4	1.0	"	41.7	ND	128	33-159	0.733	30	
Surrogate: 1,2-Dichloroethane-d4	10.9		"	13.3		81.6	23-173			
Surrogate: Toluene-d8	12.7		"	13.3		95.2	20-170			
Surrogate: 4-Bromofluorobenzene	13.4		"	13.3		100	21-167			

Batch BDK0294 - EPA 5030 Water MS

Blank (BDK0294-BLK1)

Prepared: 11/24/20 Analyzed: 11/25/20

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	2.0	"							
Surrogate: 1,2-Dichloroethane-d4	12.6		"	13.3		94.7	23-173			
Surrogate: Toluene-d8	13.4		"	13.3		101	20-170			
Surrogate: 4-Bromofluorobenzene	7.33		"	13.3		55.0	21-167			

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Hoshiko 35-1 (AST)

Project Number: [none]
Project Manager: Paul Henchan

Reported:
11/30/20 12:11

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 BDK0294 - EPA 5030 Water MS

LCS (BDK0294-BS1)

Prepared: 11/24/20 Analyzed: 11/25/20

Benzene	28.0	1.0	ug/l	33.3		83.9	51-132			
Toluene	35.1	1.0	"	33.3		105	51-138			
Ethylbenzene	27.6	1.0	"	33.3		82.8	58-146			
m,p-Xylene	56.2	2.0	"	66.7		84.2	57-144			
o-Xylene	27.2	1.0	"	33.3		81.7	53-146			
Surrogate: 1,2-Dichloroethane-d4	13.4		"	13.3		100	23-173			
Surrogate: Toluene-d8	13.1		"	13.3		98.1	20-170			
Surrogate: 4-Bromofluorobenzene	9.78		"	13.3		73.4	21-167			

Matrix Spike (BDK0294-MS1)

Source: 2011252-01

Prepared: 11/24/20 Analyzed: 11/25/20

Benzene	26.4	1.0	ug/l	33.3	ND	79.3	34-141			
Toluene	33.2	1.0	"	33.3	ND	99.5	27-151			
Ethylbenzene	43.5	1.0	"	33.3	ND	131	29-160			
m,p-Xylene	73.1	2.0	"	66.7	ND	110	20-166			
o-Xylene	25.6	1.0	"	33.3	ND	76.7	33-159			
Surrogate: 1,2-Dichloroethane-d4	13.2		"	13.3		98.8	23-173			
Surrogate: Toluene-d8	13.4		"	13.3		100	20-170			
Surrogate: 4-Bromofluorobenzene	8.34		"	13.3		62.6	21-167			

Matrix Spike Dup (BDK0294-MSD1)

Source: 2011252-01

Prepared: 11/24/20 Analyzed: 11/25/20

Benzene	26.7	1.0	ug/l	33.3	ND	80.2	34-141	1.09	30	
Toluene	35.7	1.0	"	33.3	ND	107	27-151	7.40	30	
Ethylbenzene	35.2	1.0	"	33.3	ND	105	29-160	21.3	30	
m,p-Xylene	58.0	2.0	"	66.7	ND	87.1	20-166	23.0	30	
o-Xylene	27.4	1.0	"	33.3	ND	82.4	33-159	7.17	30	
Surrogate: 1,2-Dichloroethane-d4	13.8		"	13.3		104	23-173			
Surrogate: Toluene-d8	14.6		"	13.3		110	20-170			
Surrogate: 4-Bromofluorobenzene	8.20		"	13.3		61.5	21-167			

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Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Hoshiko 35-1 (AST)

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 11/30/20 12:11

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BDK0238 - EPA 3550A

Blank (BDK0238-BLK1)

Prepared: 11/19/20 Analyzed: 11/21/20

C10-C28 (DRO) ND 50 mg/kg

LCS (BDK0238-BS1)

Prepared: 11/19/20 Analyzed: 11/21/20

C10-C28 (DRO) 471 50 mg/kg 500 94.3 70-130

Matrix Spike (BDK0238-MS1)

Source: 2011209-01

Prepared: 11/19/20 Analyzed: 11/21/20

C10-C28 (DRO) 533 50 mg/kg 500 16.6 103 70-130

Matrix Spike Dup (BDK0238-MSD1)

Source: 2011209-01

Prepared: 11/19/20 Analyzed: 11/21/20

C10-C28 (DRO) 476 50 mg/kg 500 16.6 91.8 70-130 11.4 20

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Hoshiko 35-1 (AST)

Project Number: [none]
Project Manager: Paul Henchan

Reported:
11/30/20 12:11

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