

Wellhead Closure Checklist

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

Additional attachments (optional)		Pit Closure		Tank Battery Closure		Flowline Closure		Partially Buried Vault Closure
-----------------------------------	--	-------------	--	----------------------	--	------------------	--	--------------------------------

Site Name & COGCC Facility Number: **Aurora USX AB25-25** Date: **8/16/2021** Remediation Project #: **18240**

Associated Wells: _____ Age of Site: _____ Number of Photos Attached: **6**

Location: (GPS coordinates of wellhead or southeastern most wellhead for multiple) **40.540768, -104.503180** Estimated Facility Size (acres): _____

General Condition of Site: (General observations regarding housekeeping, corrosion, waste management, etc.)
Good - no erosion, waste or debris

USCS Soil Type: **SM** Estimated Depth to Groundwater: **> 6 ft.**

Hydrocarbon Impacted Soils / Spills: (Note estimated size and if impact appears to be surficial or extends to an unknown depth)
None observed

Salt Crusted Soils or Impacted Vegetation: (Note estimated size and if impact appears to be surficial or extends to an unknown depth)
None observed

Wellhead(s)						
Well API	123-25954					
Age						
Condition of surface around wellhead	good					
PID Readings	N/A					
Condition of subsurface (staining present)	good					
PID Readings	2.6 - 33.4					
Sample taken? Location/Sample ID#	see below					
Photo Number(s)	1-6					

Other observations regarding wellheads: **4 sidewall samples, 1 - base sample, 1 - flowline sample
2 - background samples**

Summary

Was impacted soil identified? No Yes - less than 10 cubic yards Yes - more than 10 cubic yards

Total number of samples field screened: **8** Total number of samples collected: **8**

Highest PID Reading: **33.4** Total number of samples submitted to lab for analysis: **5**

If more than 10 cubic yards of impacted soil were observed: _____

Vertical extent: _____ Estimated spill volume: _____

Lateral extent: _____ Volume of soil removed: _____

Is additional investigation required? _____

Was groundwater encountered during the investigation? No Yes - not impacted or in contact with impacted soils Yes - groundwater impacted and/or in contact with impacted soils

Measured depth to groundwater: _____ Was remedial groundwater removal conducted? Yes No

Date Groundwater was encountered: _____ Commencement date of removal: _____

Sheen on groundwater? Yes No Volume of groundwater removed prior to sampling: _____

Free product observed? Yes No Volume of groundwater removed post sampling: _____

Total number of samples collected: _____ Total Volume of groundwater removed: _____



Total number of samples submitted to lab for analysis: _____

Photographic Log



Equipment ID: SS01 @2.5'		Equipment Type: Wellhead		Equipment ID: SS02 @2.5'		Equipment Type: Wellhead	
Material:	Volume:	Contents:		Material:	Volume:	Contents:	
Notes/Conditions:				Notes/Conditions:			

Photographic Log

					
Material:	Volume:	Contents:	Material:	Volume:	Contents:
Notes/Conditions:			Notes/Conditions:		

Photographic Log



Equipment ID: FS01@6'		Equipment Type: Wellhead	
Material: Steel	Volume:	Contents:	
Notes/Conditions:			

Equipment ID: FL01A@6'		Equipment Type: Flowline	
Material: Steel	Volume:	Contents:	
Notes/Conditions:			

TABLE 1
SOIL SAMPLE LOCATIONS
NOBLE ENERGY, INC. - AURORA USX AB25-25

Soil Sample ID	Date	PID (ppm)	Visual	Olfactory	Sample Type (Grab/Lab)	Latitude ¹	Longitude	PDOP
SS01@2.5'	08/16/21	30.5	No Staining	No Odor	Grab	40.54079212	-104.5031795	NC
SS02@2.5'	08/16/21	32.7	No Staining	No Odor	Grab	40.54078846	-104.5031502	NC
SS03@2.5'	08/16/21	33.4	No Staining	No Odor	Grab	40.54075258	-104.5031771	NC
SS04@2.5'	08/16/21	2.6	No Staining	No Odor	Grab	40.54077541	-104.5032097	NC
FS01@6'	08/16/21	22.6	No Staining	No Odor	Lab	40.54077831	-104.503185	NC
FL01A@6'	08/16/21	5.5	No Staining	No Odor	Lab	40.54077133	-104.5031826	NC
SBG01@2.5'	08/16/21	1.6	No Staining	No Odor	Grab	NC	NC	NC
SBG01@6'	08/16/21	12.0	No Staining	No Odor	Grab	NC	NC	NC

Notes:

PID = Photo-ionization detector

ppm = parts per million

PDOP = Position dilution of precision

HC = Hydrocarbon

NC = Not collected

1.) Latitude and longitude coordinates will be provided in decimal degrees with an accuracy and precision of 5 decimals of a degree using the North American Datum ("NAD") of 1983

TABLE 2
SOIL ANALYTICAL DATA
NOBLE ENERGY, INC. - AURORA USX AB25-25

Soil Sample ID	Date	¹ Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	1,2,4 - TMB (mg/kg)	1,3,5 - TMB (mg/kg)	Naphthalene (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benz(a) (mg/kg)	Benzo(a) (mg/kg)	Benzo(b) (mg/kg)	Benzo(k) (mg/kg)	Chrysene (mg/kg)	A,H (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	1,2,3-CD (mg/kg)	Pyrene (mg/kg)	1-M (mg/kg)	2-M (mg/kg)
Residential SSL ²		1.2	490	5.8	58	30	27	2	500			360	1,800	1.1	0.11	1.1	11	110	0.11	240	240	1.1	180	18	24
Protection of Groundwater SSL ^{2,3}		0.0026	0.69	0.78	9.9	0.0081	0.0087	0.0038	500			0.55	6	0.011	0.24	0.3	2.9	9	0.096	8.9	0.54	0.98	1.3	0.006	0.019
FS01@6'	08/16/21	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
FL01A@6'	08/16/21	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500

Soil Sample ID	Date	pH	SAR	EC (mmhos/cm)	Boron (mg/L)
Residential SSL ²		6 - 8.3	<6	<4mmhos/cm	2
FS01@6'	08/16/21	8.22	4.57	3.90	0.317
FL01A@6'	08/16/21	8.17	8.73	5.82	0.551
SBG01@6'	08/16/21	NA	0.102	0.448	NA

Notes:

1. Compounds referenced from 2 CCR 404-1, Table 915-1, effective January 15, 2021.
2. Soil Screening Levels (SSL) referenced from EPA Regional Screening Levels (EPA RSLs) for Chemical Contaminants at Superfund Sites, effective November 2020.
3. SSLs are applicable if a pathway for communication with groundwater is present.

Definitions:

COGCC = Colorado Oil and Gas Conservation Commission

TPH-GRO = Total petroleum hydrocarbons - gasoline range organics

TPH-DRO = Total petroleum hydrocarbons - diesel range organics

TPH-ORO = Total petroleum hydrocarbons - oil range organics

mg/kg = Milligrams per kilogram

SAR = Sodium Adsorption Ratio

EC = Electrical Conductivity

mmhos/cm = Millimhos per centimeter

mg/L = Milligrams per liter

< = Analytical result is less than the indicated laboratory reporting limit

Highlighted results are equal to or exceed the COGCC Table 915-1 standard

1,2,4 - TMB = 1,2,4 Trimethylbenzene

1,3,5 - TMB = 1,3,5 Trimethylbenzene

Benz(a) = Benzantracene

Benzo(b) = Benzofluoranthene

Benzo(k) = Benzofluoranthene

Benzo(a) = Benzopyrene

A,H = Dibenzoanthracene

1,2,3-CD = Indenopyrene

1-M = 1-methylnaphthalene

2-M = 2-methylnaphthalene

NA = Not analyzed



DATE:	10/05/2021
DESIGNED BY:	JW
DRAWN BY:	CA



TASMAN
GEOSCIENCES

Tasman Geosciences, Inc.
 6855 W 119th Avenue
 Broomfield, CO 80020

Noble Energy, Inc. – DJ Basin
 Aurora USX AB25-25 Wellhead
 NESW, Section 25, Township 7 North, Range 64 West
 Weld County, Colorado

Wellhead Closure & Soil
 Analytical Results Map
 (08/16/2021)

FIGURE
 1

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

September 03, 2021

Brandon Bruns

Tasman Geosciences

6855 W. 119th Ave.

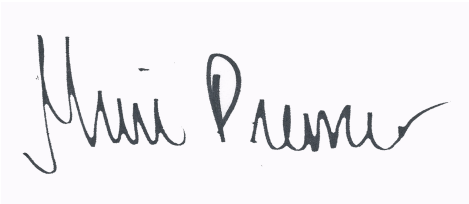
Broomfield, CO 80020

RE: Noble - Aurora USX AB 25-25

Work Order #2108219

Enclosed are the results of analyses for samples received by Summit Scientific on 08/16/21 17:40. 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 initial "M" and a long, sweeping underline.

Muri Premer For Paul Shrewsbury
President



Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Aurora USX AB 25-25

Project Number: 425661580 RC#247037

Project Manager: Brandon Bruns

Reported:
09/03/21 11:32

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FS01@6'	2108219-01	Soil	08/16/21 00:00	08/16/21 17:40
FL01A@6'	2108219-02	Soil	08/16/21 00:00	08/16/21 17:40
SBG01@6'	2108219-04	Soil	08/16/21 00:00	08/16/21 17:40

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.

Sample Receipt Checklist

2108219

S2 Work Order _____

Client: Noble / TASMAN Client Project ID: Aurora USX AB 25-25

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

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

Temp (°C)	<u>10</u>
-----------	-----------

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"/>	<u>on ice</u>
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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" 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.

NG
Custodian Printed Name or Initials

Will Galin
Signature of Custodian

8/16/21
Date/Time



Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Aurora USX AB 25-25

Project Number: 425661580 RC#247037
Project Manager: Brandon Brun

Reported:
09/03/21 11:32

FS01@6'
2108219-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/16/21 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BEH0310	08/18/21	08/19/21	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **08/16/21 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		46.6 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		116 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.5 %		21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/16/21 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BEH0279	08/17/21	08/18/21	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **08/16/21 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl		73.7 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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.



Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Aurora USX AB 25-25

Project Number: 425661580 RC#247037
Project Manager: Brandon Brun

Reported:
09/03/21 11:32

FS01@6'
2108219-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/16/21 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BEH0261	08/17/21	08/18/21	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/16/21 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		79.8 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		63.5 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **08/16/21 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.317	0.0100	mg/L	1	BEH0326	08/19/21	08/23/21	EPA 6020B	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **08/16/21 00:00**

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

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.



Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Aurora USX AB 25-25

Project Number: 425661580 RC#247037
Project Manager: Brandon Brun

Reported:
09/03/21 11:32

FS01@6'
2108219-01 (Soil)

Summit Scientific

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	322	0.0538	mg/L dry	1	BEH0275	08/17/21	08/22/21	EPA 6020B	
Magnesium	212	0.0538	"	"	"	"	"	"	
Sodium	430	0.0538	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **08/16/21 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	4.57	0.00100	units	1	BEH0380	08/23/21	08/23/21	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/16/21 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	93.0		%	1	BEH0358	08/20/21	08/23/21	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **08/16/21 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	3.90	0.0100	mmhos/cm	1	BEH0294	08/18/21	08/18/21	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **08/16/21 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.22		pH Units	1	BEH0292	08/18/21	08/18/21	EPA 9045D	

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.



Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Aurora USX AB 25-25

Project Number: 425661580 RC#247037
Project Manager: Brandon Bruns

Reported:
09/03/21 11:32

FL01A@6'
2108219-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/16/21 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEH0310	08/18/21	08/19/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/16/21 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		42.4 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		123 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/16/21 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEH0279	08/17/21	08/18/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/16/21 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		79.5 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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.



Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Aurora USX AB 25-25

Project Number: 425661580 RC#247037
Project Manager: Brandon Brun

Reported:
09/03/21 11:32

FL01A@6'
2108219-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/16/21 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BEH0261	08/17/21	08/18/21	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/16/21 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		81.8 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		61.2 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **08/16/21 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.551	0.0100	mg/L	1	BEH0326	08/19/21	08/23/21	EPA 6020B	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **08/16/21 00:00**

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

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.



Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Aurora USX AB 25-25

Project Number: 425661580 RC#247037
Project Manager: Brandon Brun

Reported:
09/03/21 11:32

FL01A@6'
2108219-02 (Soil)

Summit Scientific

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	326	0.0582	mg/L dry	1	BEH0275	08/17/21	08/22/21	EPA 6020B	
Magnesium	376	0.0582	"	"	"	"	"	"	
Sodium	975	0.0582	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **08/16/21 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	8.73	0.00100	units	1	BEH0380	08/23/21	08/23/21	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/16/21 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	85.8		%	1	BEH0358	08/20/21	08/23/21	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **08/16/21 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	5.82	0.0100	mmhos/cm	1	BEH0294	08/18/21	08/18/21	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **08/16/21 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.17		pH Units	1	BEH0292	08/18/21	08/18/21	EPA 9045D	

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.



Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Aurora USX AB 25-25

Project Number: 425661580 RC#247037
Project Manager: Brandon Brun

Reported:
09/03/21 11:32

SBG01@6'
2108219-04 (Soil)

Summit Scientific

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **08/16/21 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	15.3	0.0535	mg/L dry	1	BEH0572	08/31/21	09/02/21	EPA 6020B	
Magnesium	2.95	0.0535	"	"	"	"	"	"	
Sodium	1.67	0.0535	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **08/16/21 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Sodium Adsorption Ratio	0.102	0.00100	units	1	BEI0075	09/03/21	09/03/21	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/16/21 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	93.5		%	1	BEH0484	08/26/21	08/28/21	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **08/16/21 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Specific Conductance (EC)	0.448	0.0100	mmhos/cm	1	BEH0574	08/31/21	08/31/21	EPA 120.1	

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.



Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Aurora USX AB 25-25

Project Number: 425661580 RC#247037
Project Manager: Brandon Brun

Reported:
09/03/21 11:32

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 BEH0310 - EPA 5030 Soil MS

Blank (BEH0310-BLK1)

Prepared: 08/18/21 Analyzed: 08/19/21

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0370		"	0.0400		92.5	23-173			
<i>Surrogate: Toluene-d8</i>	0.0499		"	0.0400		125	20-170			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0410		"	0.0400		102	21-167			

LCS (BEH0310-BS1)

Prepared: 08/18/21 Analyzed: 08/19/21

Benzene	0.0910	0.0020	mg/kg	0.100		91.0	70-130			
Toluene	0.111	0.0050	"	0.100		111	70-130			
Ethylbenzene	0.0952	0.0050	"	0.100		95.2	70-130			
m,p-Xylene	0.183	0.010	"	0.200		91.5	70-130			
o-Xylene	0.0991	0.0050	"	0.100		99.1	70-130			
1,2,4-Trimethylbenzene	0.0864	0.0050	"	0.100		86.4	70-130			
1,3,5-Trimethylbenzene	0.0908	0.0050	"	0.100		90.8	70-130			
Naphthalene	0.101	0.0038	"	0.100		101	70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0207		"	0.0400		51.8	23-173			
<i>Surrogate: Toluene-d8</i>	0.0427		"	0.0400		107	20-170			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0394		"	0.0400		98.5	21-167			

Matrix Spike (BEH0310-MS1)

Source: 2108207-01

Prepared: 08/18/21 Analyzed: 08/19/21

Benzene	0.0939	0.0020	mg/kg	0.100	ND	93.9	70-130			
Toluene	0.130	0.0050	"	0.100	ND	130	70-130			
Ethylbenzene	0.0945	0.0050	"	0.100	ND	94.5	70-130			
m,p-Xylene	0.187	0.010	"	0.200	ND	93.3	70-130			
o-Xylene	0.102	0.0050	"	0.100	ND	102	70-130			
1,2,4-Trimethylbenzene	0.0930	0.0050	"	0.100	ND	93.0	70-130			
1,3,5-Trimethylbenzene	0.0888	0.0050	"	0.100	ND	88.8	70-130			
Naphthalene	0.125	0.0038	"	0.100	ND	125	70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0372		"	0.0400		93.0	23-173			
<i>Surrogate: Toluene-d8</i>	0.0498		"	0.0400		124	20-170			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0406		"	0.0400		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.



Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Aurora USX AB 25-25

Project Number: 425661580 RC#247037
Project Manager: Brandon Bruns

Reported:
09/03/21 11:32

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 BEH0310 - EPA 5030 Soil MS

Matrix Spike Dup (BEH0310-MSD1)	Source: 2108207-01			Prepared: 08/18/21 Analyzed: 08/19/21							
Benzene	0.0928	0.0020	mg/kg	0.100	ND	92.8	70-130	1.16	30		
Toluene	0.117	0.0050	"	0.100	ND	117	70-130	10.6	30		
Ethylbenzene	0.0924	0.0050	"	0.100	ND	92.4	70-130	2.31	30		
m,p-Xylene	0.181	0.010	"	0.200	ND	90.6	70-130	2.99	30		
o-Xylene	0.0988	0.0050	"	0.100	ND	98.8	70-130	2.70	30		
1,2,4-Trimethylbenzene	0.0894	0.0050	"	0.100	ND	89.4	70-130	3.95	30		
1,3,5-Trimethylbenzene	0.0975	0.0050	"	0.100	ND	97.5	70-130	9.37	30		
Naphthalene	0.124	0.0038	"	0.100	ND	124	70-130	1.37	30		
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0192</i>		<i>"</i>	<i>0.0400</i>		<i>48.0</i>	<i>23-173</i>				
<i>Surrogate: Toluene-d8</i>	<i>0.0462</i>		<i>"</i>	<i>0.0400</i>		<i>116</i>	<i>20-170</i>				
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0393</i>		<i>"</i>	<i>0.0400</i>		<i>98.3</i>	<i>21-167</i>				

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.



Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Aurora USX AB 25-25

Project Number: 425661580 RC#247037
Project Manager: Brandon Bruns

Reported:
09/03/21 11:32

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 BEH0279 - EPA 3550A

Blank (BEH0279-BLK1)

Prepared: 08/17/21 Analyzed: 08/18/21

C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							

LCS (BEH0279-BS1)

Prepared: 08/17/21 Analyzed: 08/18/21

C10-C28 (DRO)	560	50	mg/kg	500	112	70-130				
---------------	-----	----	-------	-----	-----	--------	--	--	--	--

Matrix Spike (BEH0279-MS1)

Source: 2108219-01

Prepared: 08/17/21 Analyzed: 08/18/21

C10-C28 (DRO)	503	50	mg/kg	500	19.4	96.7	70-130			
---------------	-----	----	-------	-----	------	------	--------	--	--	--

Matrix Spike Dup (BEH0279-MSD1)

Source: 2108219-01

Prepared: 08/17/21 Analyzed: 08/18/21

C10-C28 (DRO)	534	50	mg/kg	500	19.4	103	70-130	5.91	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.



Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Aurora USX AB 25-25

Project Number: 425661580 RC#247037
Project Manager: Brandon Brun

Reported:
09/03/21 11:32

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BEH0261 - EPA 5030 Soil MS

Blank (BEH0261-BLK1)

Prepared: 08/17/21 Analyzed: 08/18/21

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
Surrogate: 2-Methylnaphthalene-d10	0.0335		"	0.0333		100	40-150			
Surrogate: Fluoranthene-d10	0.0256		"	0.0333		76.7	40-150			

LCS (BEH0261-BS1)

Prepared: 08/17/21 Analyzed: 08/18/21

Acenaphthene	0.0257	0.00500	mg/kg	0.0333		77.1	31-137			
Anthracene	0.0232	0.00500	"	0.0333		69.7	30-120			
Benzo (a) anthracene	0.0248	0.00500	"	0.0333		74.3	30-120			
Benzo (a) pyrene	0.0258	0.00500	"	0.0333		77.3	30-120			
Benzo (b) fluoranthene	0.0295	0.00500	"	0.0333		88.4	30-120			
Benzo (k) fluoranthene	0.0302	0.00500	"	0.0333		90.5	30-120			
Chrysene	0.0242	0.00500	"	0.0333		72.6	30-120			
Dibenz (a,h) anthracene	0.0247	0.00500	"	0.0333		74.1	30-120			
Fluoranthene	0.0224	0.00500	"	0.0333		67.2	30-120			
Fluorene	0.0270	0.00500	"	0.0333		81.1	30-120			
Indeno (1,2,3-cd) pyrene	0.0265	0.00500	"	0.0333		79.6	30-120			
Pyrene	0.0240	0.00500	"	0.0333		72.0	35-142			
1-Methylnaphthalene	0.0245	0.00500	"	0.0333		73.5	35-142			
2-Methylnaphthalene	0.0203	0.00500	"	0.0333		60.8	35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0319		"	0.0333		95.7	40-150			
Surrogate: Fluoranthene-d10	0.0257		"	0.0333		77.0	40-150			

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.



Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Aurora USX AB 25-25

Project Number: 425661580 RC#247037
Project Manager: Brandon Brun

Reported:
09/03/21 11:32

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BEH0261 - EPA 5030 Soil MS

Matrix Spike (BEH0261-MS1)	Source: 2108092-01			Prepared: 08/17/21 Analyzed: 08/18/21					
Acenaphthene	0.0233	0.00500	mg/kg	0.0333	ND	70.0	31-137		
Anthracene	0.0217	0.00500	"	0.0333	ND	65.0	30-120		
Benzo (a) anthracene	0.0227	0.00500	"	0.0333	ND	68.0	30-120		
Benzo (a) pyrene	0.0233	0.00500	"	0.0333	ND	69.8	30-120		
Benzo (b) fluoranthene	0.0265	0.00500	"	0.0333	ND	79.5	30-120		
Benzo (k) fluoranthene	0.0268	0.00500	"	0.0333	ND	80.4	30-120		
Chrysene	0.0222	0.00500	"	0.0333	ND	66.5	30-120		
Dibenz (a,h) anthracene	0.0221	0.00500	"	0.0333	ND	66.2	30-120		
Fluoranthene	0.0207	0.00500	"	0.0333	ND	62.0	30-120		
Fluorene	0.0245	0.00500	"	0.0333	ND	73.6	30-120		
Indeno (1,2,3-cd) pyrene	0.0239	0.00500	"	0.0333	ND	71.7	30-120		
Pyrene	0.0217	0.00500	"	0.0333	ND	65.0	35-142		
1-Methylnaphthalene	0.0234	0.00500	"	0.0333	ND	70.1	15-130		
2-Methylnaphthalene	0.0193	0.00500	"	0.0333	ND	57.8	15-130		
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0310</i>		"	<i>0.0333</i>		<i>92.9</i>	<i>40-150</i>		
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0238</i>		"	<i>0.0333</i>		<i>71.5</i>	<i>40-150</i>		

Matrix Spike Dup (BEH0261-MSD1)	Source: 2108092-01			Prepared: 08/17/21 Analyzed: 08/18/21					
Acenaphthene	0.0226	0.00500	mg/kg	0.0333	ND	67.7	31-137	3.30	30
Anthracene	0.0207	0.00500	"	0.0333	ND	62.1	30-120	4.55	30
Benzo (a) anthracene	0.0225	0.00500	"	0.0333	ND	67.6	30-120	0.612	30
Benzo (a) pyrene	0.0233	0.00500	"	0.0333	ND	69.9	30-120	0.116	30
Benzo (b) fluoranthene	0.0266	0.00500	"	0.0333	ND	79.7	30-120	0.206	30
Benzo (k) fluoranthene	0.0272	0.00500	"	0.0333	ND	81.7	30-120	1.68	30
Chrysene	0.0220	0.00500	"	0.0333	ND	66.1	30-120	0.608	30
Dibenz (a,h) anthracene	0.0220	0.00500	"	0.0333	ND	65.9	30-120	0.448	30
Fluoranthene	0.0202	0.00500	"	0.0333	ND	60.6	30-120	2.22	30
Fluorene	0.0239	0.00500	"	0.0333	ND	71.8	30-120	2.46	30
Indeno (1,2,3-cd) pyrene	0.0239	0.00500	"	0.0333	ND	71.8	30-120	0.187	30
Pyrene	0.0220	0.00500	"	0.0333	ND	66.1	35-142	1.64	30
1-Methylnaphthalene	0.0216	0.00500	"	0.0333	ND	64.7	15-130	8.00	50
2-Methylnaphthalene	0.0177	0.00500	"	0.0333	ND	53.2	15-130	8.31	50
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0281</i>		"	<i>0.0333</i>		<i>84.4</i>	<i>40-150</i>		
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0232</i>		"	<i>0.0333</i>		<i>69.6</i>	<i>40-150</i>		

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.



Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Aurora USX AB 25-25

Project Number: 425661580 RC#247037
Project Manager: Brandon Bruns

Reported:
09/03/21 11:32

Total Metals by EPA 6020B Hot Water Soluble Extraction - Quality Control
Summit Scientific

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

Batch BEH0326 - EPA 3050B

Blank (BEH0326-BLK1)

Prepared: 08/19/21 Analyzed: 08/23/21

Boron ND 0.0100 mg/L

LCS (BEH0326-BS1)

Prepared: 08/19/21 Analyzed: 08/23/21

Boron 5.50 0.0100 mg/L 5.00 110 80-120

Duplicate (BEH0326-DUP1)

Source: 2108207-01

Prepared: 08/19/21 Analyzed: 08/23/21

Boron 0.174 0.0100 mg/L 0.165 5.25 20

Matrix Spike (BEH0326-MS1)

Source: 2108207-01

Prepared: 08/19/21 Analyzed: 08/23/21

Boron 5.63 0.0100 mg/L 5.00 0.165 109 75-125

Matrix Spike Dup (BEH0326-MSD1)

Source: 2108207-01

Prepared: 08/19/21 Analyzed: 08/23/21

Boron 5.40 0.0100 mg/L 5.00 0.165 105 75-125 4.12 25

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.





Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Aurora USX AB 25-25

Project Number: 425661580 RC#247037
Project Manager: Brandon Brun

Reported:
09/03/21 11:32

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction - Quality Control
Summit Scientific

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

Batch BEH0275 - General Preparation

Blank (BEH0275-BLK1)

Prepared: 08/17/21 Analyzed: 08/22/21

Calcium	ND	0.0500	mg/L wet							
Magnesium	ND	0.0500	"							
Sodium	ND	0.0500	"							

LCS (BEH0275-BS1)

Prepared: 08/17/21 Analyzed: 08/22/21

Calcium	6.08	0.0500	mg/L wet	5.00	122	70-130				
Magnesium	5.57	0.0500	"	5.00	111	70-130				
Sodium	5.55	0.0500	"	5.00	111	70-130				

Batch BEH0572 - General Preparation

Blank (BEH0572-BLK1)

Prepared: 08/31/21 Analyzed: 09/02/21

Calcium	ND	0.0500	mg/L wet							
Magnesium	ND	0.0500	"							
Sodium	ND	0.0500	"							

LCS (BEH0572-BS1)

Prepared: 08/31/21 Analyzed: 09/02/21

Calcium	5.46	0.0500	mg/L wet	5.00	109	70-130				
Magnesium	5.22	0.0500	"	5.00	104	70-130				
Sodium	5.17	0.0500	"	5.00	103	70-130				

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.



Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Aurora USX AB 25-25

Project Number: 425661580 RC#247037
Project Manager: Brandon Bruns

Reported:
09/03/21 11:32

Physical Parameters by APHA/ASTM/EPA Methods - Quality Control
Summit Scientific

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

Batch BEH0358 - General Preparation

Duplicate (BEH0358-DUP1)		Source: 2108159-01		Prepared: 08/20/21 Analyzed: 08/23/21	
% Solids	83.9		%	81.5	2.96 20

Batch BEH0484 - General Preparation

Duplicate (BEH0484-DUP1)		Source: 2108219-04		Prepared: 08/26/21 Analyzed: 08/28/21	
% Solids	93.5		%	93.5	0.00691 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.



Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Aurora USX AB 25-25
Project Number: 425661580 RC#247037
Project Manager: Brandon Brun

Reported:
09/03/21 11:32

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction - Quality Control
Summit Scientific

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

Batch BEH0294 - General Preparation

Blank (BEH0294-BLK1)		Prepared & Analyzed: 08/18/21									
Specific Conductance (EC)	ND	0.0100	mmhos/cm								
LCS (BEH0294-BS1)		Prepared & Analyzed: 08/18/21									
Specific Conductance (EC)	0.138	0.0100	mmhos/cm	0.150	92.3	90-110					
Duplicate (BEH0294-DUP1)		Source: 2108219-01		Prepared & Analyzed: 08/18/21							
Specific Conductance (EC)	3.89	0.0100	mmhos/cm	3.90			0.128	20			

Batch BEH0574 - General Preparation

Blank (BEH0574-BLK1)		Prepared & Analyzed: 08/31/21									
Specific Conductance (EC)	ND	0.0100	mmhos/cm								
LCS (BEH0574-BS1)		Prepared & Analyzed: 08/31/21									
Specific Conductance (EC)	0.156	0.0100	mmhos/cm	0.150	104	90-110					
Duplicate (BEH0574-DUP1)		Source: 2108219-04		Prepared & Analyzed: 08/31/21							
Specific Conductance (EC)	0.440	0.0100	mmhos/cm	0.448			1.96	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.



Tasman Geosciences
 6855 W. 119th Ave.
 Broomfield CO, 80020

Project: Noble - Aurora USX AB 25-25

Project Number: 425661580 RC#247037
 Project Manager: Brandon Bruns

Reported:
 09/03/21 11:32

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction - Quality Control

Summit Scientific

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

Batch BEH0292 - General Preparation

LCS (BEH0292-BS1)

Prepared & Analyzed: 08/18/21

pH 9.21 pH Units 9.21 100 95-105

Duplicate (BEH0292-DUP1)

Source: 2108219-01

Prepared & Analyzed: 08/18/21

pH 8.22 pH Units 8.22 0.00 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.



Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Aurora USX AB 25-25

Project Number: 425661580 RC#247037

Project Manager: Brandon Bruns

Reported:
09/03/21 11:32

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