ANALYTICAL REPORT

April 14, 2025

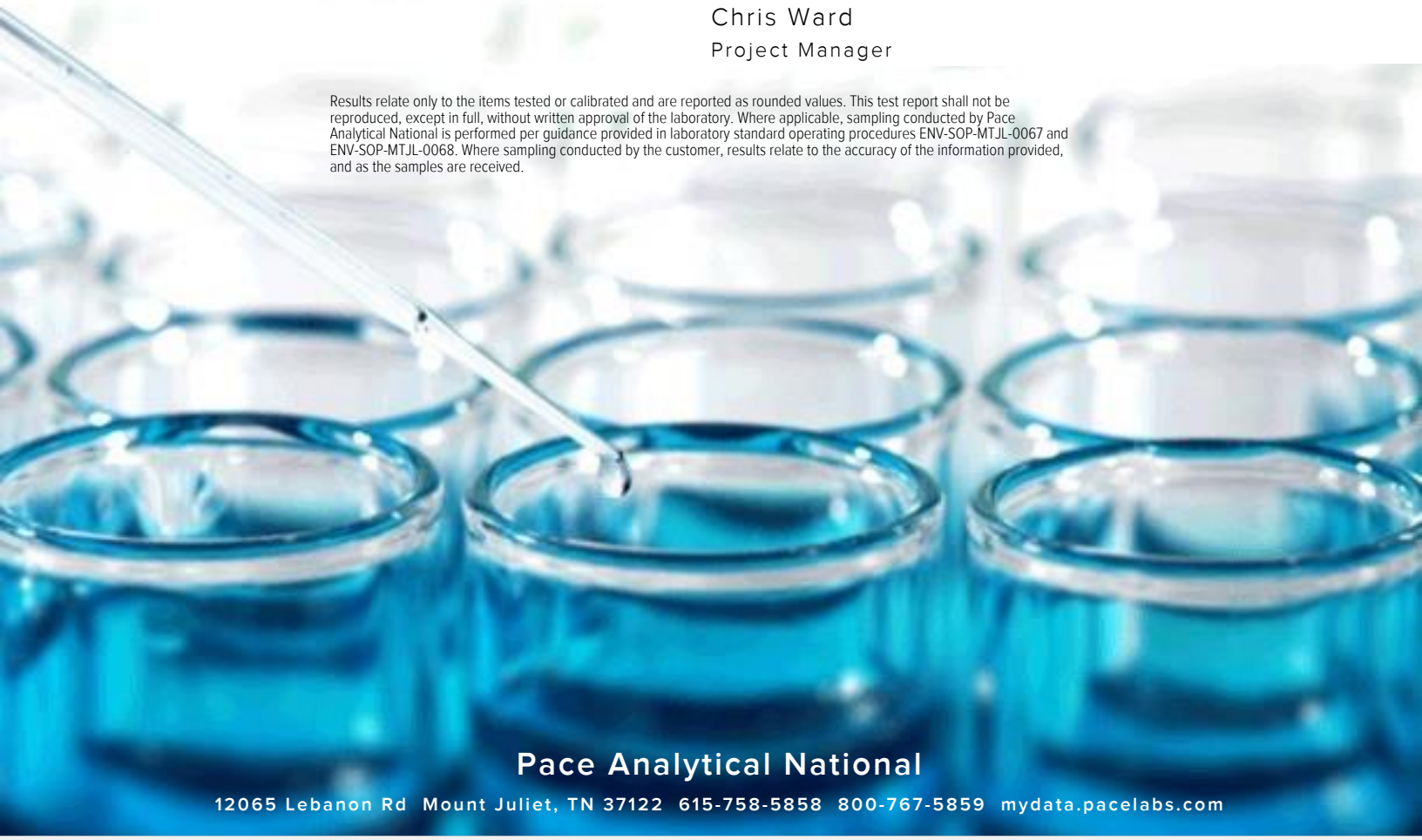
Pace Analytical Services, LLC
2025.04.14 21:39:46 -05'00'
Document is certified

Civitas - CO

Sample Delivery Group:	L1843363
Samples Received:	04/04/2025
Project Number:	P1672CD
Description:	State Bierstadt 4-65 35-24 2AH
Report To:	Sam Vogt / Jacob Evans
	4725 Independence
	Suite 100
	Wheat Ridge, CO 80033

Entire Report Reviewed By: Chris Ward

Chris Ward
Project Manager



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

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SEP-B04 @ 1' L1843363-01 Solid

Collected by: Sean Clarke | Collected date/time: 04/03/25 12:00 | Received date/time: 04/04/25 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9045D	WG2485548	1	04/08/25 17:32	04/08/25 18:30	BJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2488098	1	04/07/25 08:37	04/11/25 21:03	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2485051	1	04/07/25 08:37	04/07/25 23:05	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2485192	1	04/09/25 07:50	04/09/25 16:21	KDB	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2484735	1	04/09/25 07:01	04/09/25 20:28	TKW	Mt. Juliet, TN

SEP-B05 @ 1' L1843363-02 Solid

Collected by: Sean Clarke | Collected date/time: 04/03/25 12:05 | Received date/time: 04/04/25 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9045D	WG2485548	1	04/08/25 17:32	04/08/25 18:30	BJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2488098	1	04/07/25 08:37	04/11/25 21:31	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2485051	1	04/07/25 08:37	04/07/25 23:25	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2485192	1	04/09/25 07:50	04/09/25 14:11	KDB	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2484735	1	04/09/25 07:01	04/09/25 20:46	TKW	Mt. Juliet, TN

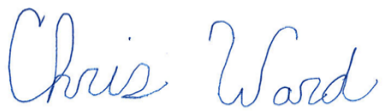
SEP-B06 @ 1' L1843363-03 Solid

Collected by: Sean Clarke | Collected date/time: 04/03/25 12:10 | Received date/time: 04/04/25 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9045D	WG2485548	1	04/08/25 17:32	04/08/25 18:30	BJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2488098	1	04/07/25 08:37	04/11/25 23:32	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2485051	1	04/07/25 08:37	04/07/25 23:44	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2485192	1	04/09/25 07:50	04/09/25 20:06	KKS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2484735	1	04/09/25 07:01	04/09/25 22:43	ALM	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Chris Ward
Project Manager

Project Narrative

Low level toluene contamination found in methanol used in method 8260 soil prep by Pace National from supplier. Due to a lack of other methanol sources and low level of contamination, Pace National proceeded with regular analysis – CMW

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	8.38	T8	1	04/08/2025 18:30	WG2485548

Sample Narrative:

L1843363-01 WG2485548: 8.38 at 20.9C

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	0.0345	B J	0.0217	0.100	1	04/11/2025 21:03	WG2488098
(S) a,a,a-Trifluorotoluene(FID)	*94.3*			*77.0-120*		*04/11/2025 21:03*	WG2488098

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	ND		0.000467	0.00100	1	04/07/2025 23:05	WG2485051
Toluene	0.00280	B J	0.00130	0.00500	1	04/07/2025 23:05	WG2485051
Ethylbenzene	ND		0.000737	0.00250	1	04/07/2025 23:05	WG2485051
Xylenes, Total	ND		0.000880	0.00650	1	04/07/2025 23:05	WG2485051
1,2,4-Trimethylbenzene	ND		0.00158	0.00500	1	04/07/2025 23:05	WG2485051
1,3,5-Trimethylbenzene	ND		0.00200	0.00500	1	04/07/2025 23:05	WG2485051
(S) Toluene-d8	*104*			*75.0-131*		*04/07/2025 23:05*	WG2485051
(S) 4-Bromofluorobenzene	*93.2*			*67.0-138*		*04/07/2025 23:05*	WG2485051
(S) 1,2-Dichloroethane-d4	*93.1*			*70.0-130*		*04/07/2025 23:05*	WG2485051

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	2.13	J	1.61	4.00	1	04/09/2025 16:21	WG2485192
C28-C36 Motor Oil Range	4.29		0.274	4.00	1	04/09/2025 16:21	WG2485192
(S) o-Terphenyl	*39.7*			*18.0-148*		*04/09/2025 16:21*	WG2485192

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acenaphthene	ND		0.00162	0.00600	1	04/09/2025 20:28	WG2484735
Anthracene	ND		0.00163	0.00600	1	04/09/2025 20:28	WG2484735
Benzo(a)anthracene	ND		0.00200	0.00600	1	04/09/2025 20:28	WG2484735
Benzo(b)fluoranthene	ND		0.00275	0.00600	1	04/09/2025 20:28	WG2484735
Benzo(k)fluoranthene	ND		0.00213	0.00600	1	04/09/2025 20:28	WG2484735
Benzo(a)pyrene	ND		0.00163	0.00600	1	04/09/2025 20:28	WG2484735
Chrysene	ND		0.00206	0.00600	1	04/09/2025 20:28	WG2484735
Dibenz(a,h)anthracene	ND		0.00201	0.00600	1	04/09/2025 20:28	WG2484735
Fluoranthene	ND		0.00239	0.00600	1	04/09/2025 20:28	WG2484735
Fluorene	ND		0.00180	0.00600	1	04/09/2025 20:28	WG2484735
Indeno(1,2,3-cd)pyrene	ND		0.00234	0.00600	1	04/09/2025 20:28	WG2484735
1-Methylnaphthalene	ND		0.00219	0.0200	1	04/09/2025 20:28	WG2484735
2-Methylnaphthalene	ND		0.00571	0.0200	1	04/09/2025 20:28	WG2484735
Naphthalene	ND		0.00579	0.0200	1	04/09/2025 20:28	WG2484735
Pyrene	ND		0.00205	0.00600	1	04/09/2025 20:28	WG2484735
(S) p-Terphenyl-d14	*57.8*			*23.0-120*		*04/09/2025 20:28*	WG2484735
(S) Nitrobenzene-d5	*74.8*			*14.0-149*		*04/09/2025 20:28*	WG2484735
(S) 2-Fluorobiphenyl	*71.0*			*34.0-125*		*04/09/2025 20:28*	WG2484735

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	8.15	T8	1	04/08/2025 18:30	WG2485548

Sample Narrative:

L1843363-02 WG2485548: 8.15 at 21.3C

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	0.0231	B J	0.0217	0.100	1	04/11/2025 21:31	WG2488098
(S) a,a,a-Trifluorotoluene(FID)	*97.6*			*77.0-120*		*04/11/2025 21:31*	WG2488098

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	ND		0.000467	0.00100	1	04/07/2025 23:25	WG2485051
Toluene	0.00200	B J	0.00130	0.00500	1	04/07/2025 23:25	WG2485051
Ethylbenzene	ND		0.000737	0.00250	1	04/07/2025 23:25	WG2485051
Xylenes, Total	ND		0.000880	0.00650	1	04/07/2025 23:25	WG2485051
1,2,4-Trimethylbenzene	ND		0.00158	0.00500	1	04/07/2025 23:25	WG2485051
1,3,5-Trimethylbenzene	ND		0.00200	0.00500	1	04/07/2025 23:25	WG2485051
(S) Toluene-d8	*102*			*75.0-131*		*04/07/2025 23:25*	WG2485051
(S) 4-Bromofluorobenzene	*91.6*			*67.0-138*		*04/07/2025 23:25*	WG2485051
(S) 1,2-Dichloroethane-d4	*93.4*			*70.0-130*		*04/07/2025 23:25*	WG2485051

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	ND		1.61	4.00	1	04/09/2025 14:11	WG2485192
C28-C36 Motor Oil Range	ND		0.274	4.00	1	04/09/2025 14:11	WG2485192
(S) o-Terphenyl	*44.5*			*18.0-148*		*04/09/2025 14:11*	WG2485192

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acenaphthene	ND		0.00162	0.00600	1	04/09/2025 20:46	WG2484735
Anthracene	ND		0.00163	0.00600	1	04/09/2025 20:46	WG2484735
Benzo(a)anthracene	ND		0.00200	0.00600	1	04/09/2025 20:46	WG2484735
Benzo(b)fluoranthene	ND		0.00275	0.00600	1	04/09/2025 20:46	WG2484735
Benzo(k)fluoranthene	ND		0.00213	0.00600	1	04/09/2025 20:46	WG2484735
Benzo(a)pyrene	ND		0.00163	0.00600	1	04/09/2025 20:46	WG2484735
Chrysene	ND		0.00206	0.00600	1	04/09/2025 20:46	WG2484735
Dibenz(a,h)anthracene	ND		0.00201	0.00600	1	04/09/2025 20:46	WG2484735
Fluoranthene	ND		0.00239	0.00600	1	04/09/2025 20:46	WG2484735
Fluorene	ND		0.00180	0.00600	1	04/09/2025 20:46	WG2484735
Indeno(1,2,3-cd)pyrene	ND		0.00234	0.00600	1	04/09/2025 20:46	WG2484735
1-Methylnaphthalene	ND		0.00219	0.0200	1	04/09/2025 20:46	WG2484735
2-Methylnaphthalene	ND		0.00571	0.0200	1	04/09/2025 20:46	WG2484735
Naphthalene	ND		0.00579	0.0200	1	04/09/2025 20:46	WG2484735
Pyrene	ND		0.00205	0.00600	1	04/09/2025 20:46	WG2484735
(S) p-Terphenyl-d14	*78.6*			*23.0-120*		*04/09/2025 20:46*	WG2484735
(S) Nitrobenzene-d5	*81.6*			*14.0-149*		*04/09/2025 20:46*	WG2484735
(S) 2-Fluorobiphenyl	*82.2*			*34.0-125*		*04/09/2025 20:46*	WG2484735

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	8.13	T8	1	04/08/2025 18:30	WG2485548

Sample Narrative:

L1843363-03 WG2485548: 8.13 at 20.5C

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	0.0241	B J	0.0217	0.100	1	04/11/2025 23:32	WG2488098
(S) a,a,a-Trifluorotoluene(FID)	*97.6*			*77.0-120*		*04/11/2025 23:32*	WG2488098

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	ND		0.000467	0.00100	1	04/07/2025 23:44	WG2485051
Toluene	0.00185	B J	0.00130	0.00500	1	04/07/2025 23:44	WG2485051
Ethylbenzene	ND		0.000737	0.00250	1	04/07/2025 23:44	WG2485051
Xylenes, Total	ND		0.000880	0.00650	1	04/07/2025 23:44	WG2485051
1,2,4-Trimethylbenzene	ND		0.00158	0.00500	1	04/07/2025 23:44	WG2485051
1,3,5-Trimethylbenzene	ND		0.00200	0.00500	1	04/07/2025 23:44	WG2485051
(S) Toluene-d8	*103*			*75.0-131*		*04/07/2025 23:44*	WG2485051
(S) 4-Bromofluorobenzene	*93.3*			*67.0-138*		*04/07/2025 23:44*	WG2485051
(S) 1,2-Dichloroethane-d4	*92.0*			*70.0-130*		*04/07/2025 23:44*	WG2485051

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	4.36		1.61	4.00	1	04/09/2025 20:06	WG2485192
C28-C36 Motor Oil Range	13.1		0.274	4.00	1	04/09/2025 20:06	WG2485192
(S) o-Terphenyl	*53.5*			*18.0-148*		*04/09/2025 20:06*	WG2485192

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acenaphthene	ND		0.00162	0.00600	1	04/09/2025 22:43	WG2484735
Anthracene	ND		0.00163	0.00600	1	04/09/2025 22:43	WG2484735
Benzo(a)anthracene	ND		0.00200	0.00600	1	04/09/2025 22:43	WG2484735
Benzo(b)fluoranthene	ND		0.00275	0.00600	1	04/09/2025 22:43	WG2484735
Benzo(k)fluoranthene	ND		0.00213	0.00600	1	04/09/2025 22:43	WG2484735
Benzo(a)pyrene	ND		0.00163	0.00600	1	04/09/2025 22:43	WG2484735
Chrysene	ND		0.00206	0.00600	1	04/09/2025 22:43	WG2484735
Dibenz(a,h)anthracene	ND		0.00201	0.00600	1	04/09/2025 22:43	WG2484735
Fluoranthene	ND		0.00239	0.00600	1	04/09/2025 22:43	WG2484735
Fluorene	ND		0.00180	0.00600	1	04/09/2025 22:43	WG2484735
Indeno(1,2,3-cd)pyrene	ND		0.00234	0.00600	1	04/09/2025 22:43	WG2484735
1-Methylnaphthalene	ND		0.00219	0.0200	1	04/09/2025 22:43	WG2484735
2-Methylnaphthalene	ND		0.00571	0.0200	1	04/09/2025 22:43	WG2484735
Naphthalene	ND		0.00579	0.0200	1	04/09/2025 22:43	WG2484735
Pyrene	ND		0.00205	0.00600	1	04/09/2025 22:43	WG2484735
(S) p-Terphenyl-d14	*65.3*			*23.0-120*		*04/09/2025 22:43*	WG2484735
(S) Nitrobenzene-d5	*76.1*			*14.0-149*		*04/09/2025 22:43*	WG2484735
(S) 2-Fluorobiphenyl	*70.1*			*34.0-125*		*04/09/2025 22:43*	WG2484735

L1842398-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1842398-02 04/08/25 18:30 • (DUP) R4196787-2 04/08/25 18:30

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	8.31	8.31	1	0.000		1

Sample Narrative:

OS: 8.31 at 21.3C

DUP: 8.31 at 21.3C

Laboratory Control Sample (LCS)

(LCS) R4196787-1 04/08/25 18:30

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	9.98	99.8	99.0-101	

Sample Narrative:

LCS: 9.98 at 19.3C

Method Blank (MB)

(MB) R4198632-3 04/11/25 17:07

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0337	J	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*97.6*			*77.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4198632-1 04/11/25 15:55 • (LCSD) R4198632-2 04/11/25 16:18

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.00	4.98	5.15	99.6	103	72.0-127			3.36	20
(S) a,a,a-Trifluorotoluene(FID)				*108*	*109*	*77.0-120*				

Method Blank (MB)

(MB) R4197846-3 04/07/25 22:33

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	ND		0.000467	0.00100
Toluene	0.00222	J	0.00130	0.00500
Ethylbenzene	ND		0.000737	0.00250
Xylenes, Total	ND		0.000880	0.00650
1,2,4-Trimethylbenzene	ND		0.00158	0.00500
1,3,5-Trimethylbenzene	ND		0.00200	0.00500
(S) Toluene-d8	*103*			*75.0-131*
(S) 4-Bromofluorobenzene	*91.6*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*90.8*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4197846-1 04/07/25 19:19 • (LCSD) R4197846-2 04/07/25 19:39

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.125	0.107	0.110	85.6	88.0	70.0-123			2.76	20
Toluene	0.125	0.120	0.123	96.0	98.4	75.0-121			2.47	20
Ethylbenzene	0.125	0.110	0.112	88.0	89.6	74.0-126			1.80	20
Xylenes, Total	0.375	0.336	0.345	89.6	92.0	72.0-127			2.64	20
1,2,4-Trimethylbenzene	0.125	0.103	0.107	82.4	85.6	70.0-126			3.81	20
1,3,5-Trimethylbenzene	0.125	0.105	0.108	84.0	86.4	73.0-127			2.82	20
(S) Toluene-d8				*100*	*103*	*75.0-131*				
(S) 4-Bromofluorobenzene				*92.8*	*93.4*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*95.3*	*94.3*	*70.0-130*				

L1843392-19 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1843392-19 04/08/25 05:22 • (MS) R4197846-4 04/08/25 05:41 • (MSD) R4197846-5 04/08/25 06:01

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.500	ND	0.445	0.457	89.0	91.4	4	10.0-149			2.66	37
Toluene	0.500	0.00560	0.469	0.480	92.7	94.9	4	10.0-156			2.32	38
Ethylbenzene	0.500	0.132	0.598	0.606	93.2	94.8	4	10.0-160			1.33	38
Xylenes, Total	1.50	ND	1.38	1.44	92.0	96.0	4	10.0-160			4.26	38
1,2,4-Trimethylbenzene	0.500	ND	0.518	0.504	104	101	4	10.0-160			2.74	36
1,3,5-Trimethylbenzene	0.500	ND	0.500	0.481	100	96.2	4	10.0-160			3.87	38
(S) Toluene-d8					*94.3*	*94.2*		*75.0-131*				
(S) 4-Bromofluorobenzene					*128*	*130*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*92.1*	*94.5*		*70.0-130*				

L1843392-19 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1843392-19 04/08/25 05:22 • (MS) R4197846-4 04/08/25 05:41 • (MSD) R4197846-5 04/08/25 06:01

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %

Sample Narrative:

OS: Non-target compounds too high to run at a lower dilution.

Method Blank (MB)

(MB) R4197384-1 04/09/25 13:32

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	ND		1.61	4.00
C28-C36 Motor Oil Range	ND		0.274	4.00
(S) o-Terphenyl	*58.6*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R4197384-2 04/09/25 13:44

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	28.1	56.2	50.0-150	
(S) o-Terphenyl			*65.9*	*18.0-148*	

L1841553-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1841553-09 04/09/25 17:26 • (MS) R4197384-3 04/09/25 17:40 • (MSD) R4197384-4 04/09/25 17:53

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	49.4	17.6	38.9	48.0	43.1	61.0	1	50.0-150	J6	J3	20.9	20
(S) o-Terphenyl					*58.5*	*71.1*		*18.0-148*				

Method Blank (MB)

(MB) R4197507-2 04/09/25 11:35

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acenaphthene	ND		0.00162	0.00600
Anthracene	ND		0.00163	0.00600
Benzo(a)anthracene	ND		0.00200	0.00600
Benzo(b)fluoranthene	ND		0.00275	0.00600
Benzo(k)fluoranthene	ND		0.00213	0.00600
Benzo(a)pyrene	ND		0.00163	0.00600
Chrysene	ND		0.00206	0.00600
Dibenz(a,h)anthracene	ND		0.00201	0.00600
Fluoranthene	ND		0.00239	0.00600
Fluorene	ND		0.00180	0.00600
Indeno(1,2,3-cd)pyrene	ND		0.00234	0.00600
1-Methylnaphthalene	ND		0.00219	0.0200
2-Methylnaphthalene	ND		0.00571	0.0200
Naphthalene	ND		0.00579	0.0200
Pyrene	ND		0.00205	0.00600
(S) p-Terphenyl-d14	*84.7*			*23.0-120*
(S) Nitrobenzene-d5	*94.4*			*14.0-149*
(S) 2-Fluorobiphenyl	*88.4*			*34.0-125*

Laboratory Control Sample (LCS)

(LCS) R4197507-1 04/09/25 11:16

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	0.0800	0.0664	83.0	50.0-120	
Anthracene	0.0800	0.0709	88.6	50.0-126	
Benzo(a)anthracene	0.0800	0.0777	97.1	45.0-120	
Benzo(b)fluoranthene	0.0800	0.0720	90.0	42.0-121	
Benzo(k)fluoranthene	0.0800	0.0707	88.4	49.0-125	
Benzo(a)pyrene	0.0800	0.0641	80.1	42.0-120	
Chrysene	0.0800	0.0770	96.3	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0676	84.5	47.0-125	
Fluoranthene	0.0800	0.0792	99.0	49.0-129	
Fluorene	0.0800	0.0715	89.4	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0654	81.8	46.0-125	
1-Methylnaphthalene	0.0800	0.0744	93.0	51.0-121	
2-Methylnaphthalene	0.0800	0.0724	90.5	50.0-120	
Naphthalene	0.0800	0.0691	86.4	50.0-120	
Pyrene	0.0800	0.0742	92.8	43.0-123	

Laboratory Control Sample (LCS)

(LCS) R4197507-1 04/09/25 11:16

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
(S) p-Terphenyl-d14			*80.8*	*23.0-120*	
(S) Nitrobenzene-d5			*94.1*	*14.0-149*	
(S) 2-Fluorobiphenyl			*86.3*	*34.0-125*	

L1843372-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1843372-01 04/10/25 21:22 • (MS) R4198101-1 04/10/25 21:39 • (MSD) R4198101-2 04/10/25 21:56

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acenaphthene	0.0772	ND	0.0589	0.0647	76.3	83.4	1	14.0-127			9.39	27
Anthracene	0.0772	ND	0.0599	0.0645	77.6	83.1	1	10.0-145			7.40	30
Benzo(a)anthracene	0.0772	ND	0.0603	0.0645	78.1	83.1	1	10.0-139			6.73	30
Benzo(b)fluoranthene	0.0772	ND	0.0592	0.0643	76.7	82.9	1	10.0-140			8.26	36
Benzo(k)fluoranthene	0.0772	ND	0.0594	0.0653	76.9	84.1	1	10.0-137			9.46	31
Benzo(a)pyrene	0.0772	ND	0.0615	0.0672	79.7	86.6	1	10.0-141			8.86	31
Chrysene	0.0772	ND	0.0655	0.0704	84.8	90.7	1	10.0-145			7.21	30
Dibenz(a,h)anthracene	0.0772	ND	0.0627	0.0690	81.2	88.9	1	10.0-132			9.57	31
Fluoranthene	0.0772	ND	0.0666	0.0702	86.3	90.5	1	10.0-153			5.26	33
Fluorene	0.0772	ND	0.0627	0.0688	81.2	88.7	1	11.0-130			9.28	29
Indeno(1,2,3-cd)pyrene	0.0772	ND	0.0603	0.0670	78.1	86.3	1	10.0-137			10.5	32
1-Methylnaphthalene	0.0772	ND	0.0640	0.0694	82.9	89.4	1	10.0-142			8.10	28
2-Methylnaphthalene	0.0772	ND	0.0611	0.0664	79.1	85.6	1	10.0-137			8.31	28
Naphthalene	0.0772	ND	0.0620	0.0672	80.3	86.6	1	10.0-135			8.05	27
Pyrene	0.0772	ND	0.0657	0.0723	85.1	93.2	1	10.0-148			9.57	35
(S) p-Terphenyl-d14					*75.9*	*77.1*		*23.0-120*				
(S) Nitrobenzene-d5					*84.0*	*84.3*		*14.0-149*				
(S) 2-Fluorobiphenyl					*77.6*	*79.6*		*34.0-125*				

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
T8	Sample(s) received past/too close to holding time expiration.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
Civitas/Tasman - CO
4725 Independence St,
Wheat Ridge, Colorado 80033

Billing Information:
Accounts Payable
650 Southgate Dr.
Windsor, CO 80550

Pres Chk

Project Manager:
Sam Vogt / Costin McQueen

Email: svogt@tasman-geo.com
cmcqueen@civitasresources.com

Project Name: State Bierstadt 4-65 35-34 2AH

Please Circle: PT (MT) CT ET

Phone: 610-405-9078

Lab Project #:

AFE# or C/C: P1672CD

Collected by (print): Sean Clarke

Site/Facility ID #:

Billing Code #: 8311.542

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___Same Day ___Five Day
___Next Day ___5 Day (Rad Only)
___Two Day ___10 Day (Rad Only)
___Three Day

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	# of Containers	Full TABLE915 8ozClr-NoPres	Background TABLE915 8ozClr-NoPres	V8260 (GW TABLE915) 40mL Amb-HCl	Chloride, Sulfate 125mL HDPE-NoPres	TDS 1L-HDPE-NoPres	Table 915-1 Organics 8ozClr-UnPres	pH 8ozClr-UnPres			Remarks	Sample # (lab only)
SEP-B04@1'	Grab	SS	1'	4/3/25	12:00	2						X	X			Table 915-1	-01
SEP-B05@1'	↓	↓	↓	↓	12:05	↓						↓	↓			Organics=	-02
SEP-B06@1'	↓	↓	↓	↓	12:10	↓						↓	↓			VOCs, TPH,	-03
																PAHs	-

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard- terms.pdf

SDG # L1643162

B166

Acctnum: CIVTASBCO
Template: T250702
Prelogin: P1068185
PM: 824 - Chris Ward
PB:

Shipped Via: FedEX Ground

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
pH, EC, SAR by saturated paste preparation method
Boron by hot water soluble preparation method
Table 915-1 Metals - As, Ba, Cd, Cu, Pb, Ni, Se, Ag, Zn, Cr VI

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP X Y __N
COC Signed/Accurate: X Y __N
Bottles arrive intact: X Y __N
Correct bottles used: X Y __N
Sufficient volume sent: X Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
RAD Screen <0.5 mR/hr: X Y __N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes (No) HCL / MeoH TBR	Hold:	Condition: NCF / (OK)
	4/3/25	14:36				
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.8 °C Bottles Received: 6	If preservation required by Login: Date/Time	
	4/3/25	1800	SGA			
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 4/4/25 Time: 0800		
			Christopher DeGallini			