

Pace Analytical Services, LLC 1241 Bellevue Street - Suite 9 Green Bay, WI 54302 (920)469-2436

May 07, 2019

Kenneth Shimko Meridian Environmental Consulting, LLC 2711 North Elco Rd Fall Creek, WI 54742

RE: Project: JUMP RIVER Pace Project No.: 40186937

Dear Kenneth Shimko:

Enclosed are the analytical results for sample(s) received by the laboratory on May 03, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Brian Basten brian.basten@pacelabs.com (920)469-2436 Project Manager

Enclosures





Pace Analytical Services, LLC 1241 Bellevue Street - Suite 9 Green Bay, WI 54302 (920)469-2436

CERTIFICATIONS

Project: JUMP RIVER Pace Project No.: 40186937

Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302 Florida/NELAP Certification #: E87948 Illinois Certification #: 200050 Kentucky UST Certification #: 82 Louisiana Certification #: 04168 Minnesota Certification #: 055-999-334 New York Certification #: 12064 North Dakota Certification #: R-150 Virginia VELAP ID: 460263 South Carolina Certification #: 83006001 Texas Certification #: T104704529-14-1 Wisconsin Certification #: 405132750 Wisconsin DATCP Certification #: 105-444 USDA Soil Permit #: P330-16-00157 Federal Fish & Wildlife Permit #: LE51774A-0



SAMPLE SUMMARY

Project: JUMP RIVER Pace Project No.: 40186937

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40186937001	STORE	Water	05/01/19 00:00	05/03/19 09:30
40186937002	TRIP BLANK	Water	05/01/19 00:00	05/03/19 09:30



SAMPLE ANALYTE COUNT

Project: JUMP RIVER Pace Project No.: 40186937

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40186937001	STORE	EPA 8260	LAP	12	PASI-G
40186937002	TRIP BLANK	EPA 8260	LAP	12	PASI-G



PROJECT NARRATIVE

Project: JUMP RIVER

Pace Project No.: 40186937

Method: EPA 8260

Description:8260 MSV USTClient:Meridian Environmental Consulting, LLCDate:May 07, 2019

General Information:

2 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.



ANALYTICAL RESULTS

P RIVER

Pace Project No.: 40186937

Sample: STORE	Lab ID:	40186937001	Collecte	d: 05/01/19	9 00:00	Received: 05/03/19 09:30 Matrix: Water						
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual			
8260 MSV UST	Analytical	Method: EPA 8	260									
Benzene	3.2	ug/L	1.0	0.25	1		05/06/19 12:11	71-43-2				
Ethylbenzene	0.73J	ug/L	1.0	0.22	1		05/06/19 12:11	100-41-4				
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		05/06/19 12:11	1634-04-4				
Naphthalene	<1.2	ug/L	5.0	1.2	1		05/06/19 12:11	91-20-3				
Toluene	<0.17	ug/L	5.0	0.17	1		05/06/19 12:11	108-88-3				
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		05/06/19 12:11	95-63-6				
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		05/06/19 12:11	108-67-8				
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		05/06/19 12:11	179601-23-1				
o-Xylene	<0.26	ug/L	1.0	0.26	1		05/06/19 12:11	95-47-6				
Surrogates		-										
Dibromofluoromethane (S)	118	%	70-130		1		05/06/19 12:11	1868-53-7				
Toluene-d8 (S)	97	%	70-130		1		05/06/19 12:11	2037-26-5				
4-Bromofluorobenzene (S)	85	%	70-130		1		05/06/19 12:11	460-00-4				
Sample: TRIP BLANK	Lab ID:	40186937002	Collecte	d: 05/01/19	9 00:00	Received: 0	5/03/19 09:30 Ma	atrix: Water				
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual			
8260 MSV UST	Analytical	Method: EPA 8	260									
Benzene	<0.25	ug/L	1.0	0.25	1		05/06/19 10:19	71-43-2				
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		05/06/19 10:19	100-41-4				
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		05/06/19 10:19	1634-04-4				
Naphthalene	<1.2	ug/L	5.0	1.2	1		05/06/19 10:19	91-20-3				
Toluene	<0.17	ug/L	5.0	0.17	1		05/06/19 10:19	108-88-3				
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		05/06/19 10:19	95-63-6				
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		05/06/19 10:19	108-67-8				
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		05/06/19 10:19	179601-23-1				
o-Xylene	<0.26	ug/L	1.0	0.26	1		05/06/19 10:19	95-47-6				
Surrogates	-	5	-	-								
Dibromofluoromethane (S)	113	%	70-130		1		05/06/19 10:19	1868-53-7	HS			
Toluene-d8 (S)	95	%	70-130		1		05/06/19 10:19	2037-26-5				
4-Bromofluorobenzene (S)	89	%	70-130		1		05/06/19 10:19	460-00-4				



QUALITY CONTROL DATA

Project: JUMP RIVER

Pace Project No.: 40186937

QC Batch:	320391		Analysis Meth	nod: El	PA 8260							
QC Batch Method:	EPA 8260		Analysis Desc	cription: 82	260 MSV UST-WAT	ER						
Associated Lab Sam	ples: 40186937	001, 40186937002										
METHOD BLANK:	1861582		Matrix:	Water								
Associated Lab Sam	ples: 40186937	001, 40186937002										
			Blank	Reporting								
Param	eter	Units	Result	Limit	Analyzed	Qualifiers						
1,2,4-Trimethylbenze	ene	ug/L	<0.84	2.8	05/06/19 07:42							
1,3,5-Trimethylbenze	ene	ug/L	<0.87	2.9	05/06/19 07:42							
Benzene		ug/L	<0.25	1.0	05/06/19 07:42							

Benzene	ug/L	<0.25	1.0	05/06/19 07:42	
Ethylbenzene	ug/L	<0.22	1.0	05/06/19 07:42	
m&p-Xylene	ug/L	<0.47	2.0	05/06/19 07:42	
Methyl-tert-butyl ether	ug/L	<1.2	4.2	05/06/19 07:42	
Naphthalene	ug/L	<1.2	5.0	05/06/19 07:42	
o-Xylene	ug/L	<0.26	1.0	05/06/19 07:42	
Toluene	ug/L	<0.17	5.0	05/06/19 07:42	
4-Bromofluorobenzene (S)	%	84	70-130	05/06/19 07:42	
Dibromofluoromethane (S)	%	121	70-130	05/06/19 07:42	
Toluene-d8 (S)	%	93	70-130	05/06/19 07:42	

LABORATORY CONTROL SAMPLE: 1861583

		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Benzene	ug/L	50	58.3	117	70-130	
Ethylbenzene	ug/L	50	53.5	107	80-124	
m&p-Xylene	ug/L	100	109	109	70-130	
Methyl-tert-butyl ether	ug/L	50	45.8	92	54-137	
o-Xylene	ug/L	50	53.3	107	70-130	
Toluene	ug/L	50	53.4	107	80-126	
4-Bromofluorobenzene (S)	%			99	70-130	
Dibromofluoromethane (S)	%			109	70-130	
Toluene-d8 (S)	%			98	70-130	

ATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1861679 1861680													
			MS	MSD									
		40186979001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max		
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual	
Benzene	ug/L	<0.00025 mg/L	50	50	52.5	53.5	105	107	70-130	2	20		
Ethylbenzene	ug/L	<0.00022 mg/L	50	50	48.3	48.8	97	98	80-125	1	20		
m&p-Xylene	ug/L	<0.47	100	100	100	100	100	100	70-130	0	20		
Methyl-tert-butyl ether	ug/L	0.0039J mg/L	50	50	46.9	44.7	86	82	51-145	5	20		
o-Xylene	ug/L	<0.26	50	50	48.7	49.9	97	100	70-130	2	20		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: JUMP RIVER Pace Project No.: 40186937

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1861679 1861680													
			MS	MSD									
		40186979001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max		
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual	
Toluene	ug/L	<0.00017 mg/L	50	50	49.5	50.4	99	101	80-131	2	20		
4-Bromofluorobenzene (S)	%						97	95	70-130				
Dibromofluoromethane (S)	%						103	105	70-130				
Toluene-d8 (S)	%						98	98	70-130				

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: JUMP RIVER Pace Project No.: 40186937

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-G Pace Analytical Services - Green Bay

ANALYTE QUALIFIERS

HS Results are from sample aliquot taken from VOA vial with headspace (air bubble greater than 6 mm diameter).



40186937002

TRIP BLANK

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Pace Project No.:	JUMP RIVER 40186937				
Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40186937001	STORE	 EPA 8260	320391		

320391

EPA 8260

	(Please Print Clearly)			-	-					UP	PER MID	NEST R	EGION	Page	I of (m
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Project Cont	tact: Key Shink	6	1			www.p	acelabs.col	m					Quote #:		Pag
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Project Num	ber:		A=None	e B=H	CL C=	H2SO4	*Preservation	E=DI Wa	ater F≕Met	hanol	G=NaOH	1	Mail To Company:	MARNER	Ren Carl
Project Nam	e: Jun Bive	~	H=Sodi	ium Bisulfa	ate Solut	ion	I=Sodium 1	hiosulfate	e J=Othe	r			Mail To Address:	m 74 AL BI	00
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Data Packa	lable) MS/MSD	Matrix Air W	Codes = Water		Req	R			-						
	A Level III (billable) C = (billable) C = (billable)	Biota DV Charcoal GV Oil SV	W = Drinking W = Ground V W = Surface V	Water Water Water	lyses	1					-		Invoice To Phone:		
PACE LAB #	CLIENT FIELD ID	Soil WV Sludge WF COLLECT	W = Waste W P = Wipe	MATRIX	Anal	pud					14		CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
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Transmit Pre	elim Rush Results by (complete what you wan	t): A-	Sar	6X			SB3	19	0931)	Ull	20	ta 5/3/15	10430 Receipt Temp =	00 %
Email #1:		Relinguis	shed By:				Date/	lime:		Rece	ived By:		Date/Time:	Sample	Receipt pH
Email #2: Telephone:		Relinguis	shed By:				Date/	Time:		Rece	ived By:		Date/Time:	OK / A	djusted
Fax:														Cooler Cu	stody Seal
sp	Samples on HOLD are subject to ecial pricing and release of liability	Relinquis	shed By:				Date/1	lime:		Rece	ived By:		Date/Time:	Present /9 Intact / I	Not Intact
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Sample Preservation Receipt FormPace Analytical Services, 1241 Bellevue Street, Su Green Bay, WI 54Client Name:MertdianProject #40186937													ll Services, Lାହ Street, Suite Bay, WI 543ଡୁହ ଇ																				
		Al	l conta	ainers r	needing	g prese	rvatio	n have	e been	check	ed and	noted	below:	□Yes	□No	7 ^{N/A}		Lah Si	d #ID	ofpro	arvotiv	on (if .	-U odi	untad):					Initial comp	when leted:		Date/ Time:	Paç
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				Glass	5						Plast	ic					Via	als				Jars		Ge	enera	al	. (mmð<)	5	Act pH ≥9	12	5	usted	Volume
Pace Lab #	AGIU	AG1H	AG4S	AG4U	AGSU	AG2S	BG3U	BP1U	BP2N	BP2Z	BP3U	BP3B	BP3N	BP3S	DG9A	DG9T	NG9U	H6DA	NG9M	VG9D	JGFU	WGFU	WPFU	SP5T	ZPLC	GN	VOA Vials	H2SO4 pH	VaOH+Zn	≤ Hq PH ≥	Hd £ON	H after adj	(mL)
001	Ì														-			2									ŕ				щ		2.5 / 5 / 10
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ACIL	1 lite	r omb	or ala		(DD	111	1 lite	r nloct	io unr	rac	,		DC	0.4	40 ml	amb	05.000	orbio				EU.	4 07	ambar	ion	n yes	IOOR II	rneaus	Sace con	1
AG1H	1 lite	r amb	er gla	iss Iss HC	L			BP	2N	500 r	nL plast	astic H	INO3			DG	9T	40 ml	amb	er Na	Thio			WG	FU	4 oz	clear i	ar unr	res				
AG4S	125 1	nL an	nber g	lass H	12SO4			BP	2Z	500 n	nL pla	stic N	laOH,	Znact	8	VG	9U	40 mI	clear	vial	unpres	6		WP	FU	4 oz	plastic	jar u	pres				
AG4U	120 1	mL an	nber g	lass u	npres			BP	3U	250 n	nL pla	stic u	npres			VG	9H	40 mI	_ clear	vial	HCL												
AG5U	100 i	mL an	nber g	lass u	npres			BP	3B	250 n	nL pla	stic N	aOH			VG	9M	40 ml	_ clear	vial	MeOH	I		SP	5T	120 r	nL pla	stic N	a Thio	sulfat	9		
AG2S BG3U	500 i 250 i	nL an nL clo	nber g ear gla	ass un	pres			BP BP	3N 3S	250 n 250 n	nL pla nL pla	istic H istic H	INO3 12SO4			VG	9D	40 ml	_ clear	vial	DI			ZP	LC GN:	ziplo	c bag						

-

			nent Name:	Document	Revised: 25Apr2018
Pace Analytical	Sample Co	Doci	iment No.:	lss	uing Authority:
1241 Bellevue Street, Green Bay, WI 54302		F-GB-C	C-031-Rev.07	Pace Green Bay Quality Office	
Sample Condition Upon Receipt Form (SCUR)					
			Project #: I	N# · A	0186937
Client Name: Meridian WUH · 40100351					
Courier: CS Logistics Fed Ex Speedee UPS Waltco					
$\Box Client \Box Pace Other: 40186937$					
Tracking #: 781010481586					
Custody Seal on Cooler/Box Present: yes no Seals intact: yes no					
Custody Seal on Samples Present: U yes 1 no Seals intact: yes no					
Thermometer Used SR - NA Type of Ice: Wet Blue Dry None Samples on ice cooling process has begun					
Cooler Temperature Uncorr: /Corr: Q	(D)	. vvet	Bide biy None -1	Samples on	ice, cooling process has begun
Temp Blank Present: Tyes Tao	Biolo	- ogical 1	Tissue is Frozen: 🔲 ye	s⊏no	Person examining contents:
Temp should be above freezing to 6° C. Biota Samples may be received at $\leq 0^{\circ}$ C.					Date: 539 Initials: 04
Chain of Custody Present:		□n/A	1.		
Chain of Custody Filled Out:		□n/A	2. project#, ti	me	0455/3/19
Chain of Custody Relinquished:	ØŸes □No	□n/A	3. po time		Q4651315
Sampler Name & Signature on COC:	EYes DNo	□n/A	4.		
Samples Arrived within Hold Time:	Yes DNo		5.		
- VOA Samples frozen upon receipt	□Yes □No		Date/Time:		
Short Hold Time Analysis (<72hr):			6.		
Rush Turn Around Time Requested:	□Yes □No	-	7.		
Sufficient Volume:			8.		
For Analysis: Pres INo MS/MSD:	Yes 100	□n/A			
Correct Containers Used:	ØYes □No		9.		
-Pace Containers Used:	TYes DNo	□n/A			
-Pace IR Containers Used:	□Yes □No				
Containers Intact:	Yes DNo		10.		
Filtered volume received for Dissolved tests	□Yes □No		11.		
Sample Labels match COC:	□Yes 2No	□n/A	12. 112 only		
-Includes date/time/ID/Analysis Matrix:	N		de	105/3/10	2
Trip Blank Present:	ØYes 🗆 No	 N/A	13. Badden -	+ COCI	ny las
Trip Blank Custody Seals Present	Pres DNo	□n/A			1000 c13/0
Pace Trip Blank Lot # (if purchased): 4/4/	-				
Client Notification/ Resolution:		Data	If check	ed, see attach	ed form for additional comments
Comments/ Resolution:		_Date/			
	- /				
Project Manager Review:	h	N		Date:	5-3-17
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