

Environmental Programs Coordinator Appleton Wastewater Treatment Facility 2006 East Newberry Street Appleton, Wisconsin 54915-2758

Attn: Mr. Brian Kreski (electronic)

Phone: (920) 832-2353 Mobile: (920) 419-0649 Fax: (920) 832-5949

Re: 2018 First Quarter Compliance Monitoring Report, Industrial User (Wastewater Discharge) Permit #15-21

N.W. Mauthe Superfund Site 725 South Outagamie Street Appleton, Wisconsin Terracon Project No. 58117057 BRRTS No. 02-45-000127

Dear Mr. Kreski:

Terracon Consultants, Inc. (Terracon) is pleased to submit this quarterly process compliance report for the N.W. Mauthe Superfund site, 725 South Outagamie Street, Appleton, Wisconsin. This report is submitted in conformance with the City of Appleton Industrial User No. 15-21, issued on May 31, 2015. This report covers the period of January 1, 2018, through March 31, 2018, which included monthly effluent compliance monitoring sampling. The monthly results are summarized in the attached Table 1.

The flow monitoring and sampling activities were conducted monthly at the effluent discharge point, prior to Outfall 001. During this reporting period, local limit compliance monitoring samples were not collected by either the City of Appleton or Terracon. Historical results are presented in the attached Table 2.

As noted in the 2012 Fourth Quarter Process Compliance Report the system was replumbed in October 2012. Consequently, a greater volume of water is retained within the equalization tank and sampling occurs directly from the port on the equalization tank discharge pipe. Due to the improvement in the system plumbing, Terracon has collected the composite effluent sample directly from the tank effluent piping during the 2018 sampling events.

Approximately 250 milliliters (mL) of the collected sample was transferred to a new, clean 250-mL plastic bottle provided by the laboratory. This unfiltered and unpreserved sample was



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## 2018 First Quarter Compliance Monitoring Report

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submitted to Pace Analytical (Pace) laboratory (Green Bay, Wisconsin) for analysis of hexavalent chromium. An additional aliquot of the original sample was filtered through a 0.45 micron (µm) filter and then transferred to a clean, new 250-mL plastic bottle with nitric acid preservative provided by the laboratory. This filtered, preserved sample was submitted to Pace for analysis of total dissolved chromium. The laboratory analytic test reports and chain-of-custody record for each of the three monthly sampling rounds (January, February, and March 2018) are attached. After the laboratory samples were prepared, the pH of the remaining collected discharge sample was measured with an Oakton pHTestrs.

The attached table summarizes the total metered discharge readings, pH measurements, and laboratory test results. Monthly discharge totals were calculated by linear interpolation of the actual meter readings. Total discharge during the reporting period was 57,083 gallons with a mean daily flow of approximately 634 gallons per day. Based on the laboratory results, there were no exceedances during this reporting period from Outfall 001.

Scott A. Hodgson, P.G. performed all the sample collection and monitoring during this reporting period. The following certification statement is required by Section 2 0-106, Chapter 20, Utilities:

"I (Scott Hodgson) certify under penalty of law that this document and all attachments were prepared under my direction or supervision in conformance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

## **2018 First Quarter Compliance Monitoring Report**

N.W. Mauthe Superfund Site Appleton, Wisconsin April 3, 2018 Terracon Project No. 58117057



Please call (920-791-9206) or email (<u>sahodgson@terracon.com</u>) if you have any questions or comments regarding the information provided or need additional information.

Sincerely,



Scott A. Hodgson, P.G. Senior Project Manager

SAH:sah/N:\Projects\2011\58117057\Working Files\Pre-Treatment Permit\Process Compliance reports\Terracon 2018\First Quarter\First Quarter 2018 Process Compliance.doc

Attachments: Table 1

Table 2

Laboratory Analytic Test Reports

Copies to: Jennifer Borski, WDNR-Oshkosh (Electronic)

File

# TABLE 1 Influent - Effluent Compliance Summary

N.W. Mauthe Superfund Site Appleton, Wisconsin Terracon Project No. 58117057

			OUTF	ALL 001				Mai	nhole	#1	Ma	nhole	#2
Date Actual	Date For Linear Interpolation	Metered Discharge Reading (gallons)	Gallons Discharged Between Meter Reading	Monthly Discharge (gallons)	рН	Hexavalent Chromium Lab Analysis (mg/L) [Local Limit 4.5 mg/L]	Total Chromium Lab Analysis (mg/L) [Local Limit 7.0 mg/L]	Flow Totalizer #1 Reading (gallons)	рН	Hexavalent Chromium Hach Test Kit (mg/L)	Flow Totalizer #2 Reading (gallons)	рН	Hexavalent Chromium Hach Test Kit (mg/L)
	interpolation			45,078	pii	4.0 mg/Lj		. ,	Pi.	rut (mg/L)	,	p	rut (mg/L)
02/01/16 02/10/16		14,533,138 14,562,012	33,850 28,874	45,078	8.1	0.87	0.215 0.858	1,971,254 1,973,902	7.6	0.61	4,316,580 4,324,057	8.1	0.70
02/10/16		14,601,368	39,356		0.1	0.67	0.656	1,982,872	7.0	0.61	4,359,110	0.1	0.70
02/23/10	03/01/16	14,602,713	39,330	February			Pounds Cr	1,302,072			4,555,110		
03/01/16	20,0 1, 10	14,603,747	2,379	70,091			0.501	1,983,300			4,361,401		
03/10/16		14,625,282	21,535	,	7.9	0.63	0.609	1,988,471	7.3	1.44	4,380,928	7.4	0.37
03/31/16		14,728,685	103,403					2,017,845			4,463,804		
	04/01/16	14,733,540		March			Pounds Cr						
04/02/16		14,751,888	23,203	130,827			0.663	2,023,638			4,482,114		
04/06/16		14,770,034	18,146		7.8	0.38	0.244	2,029,748	7.2	0.53	4,495,836	7.2	0.24
05/00/40	05/01/16	14,827,634	04.700	April			Pounds Cr	0.057.050			4.500.070		
05/03/16		14,834,742	64,708	94,094	7.0	0.70	0.191	2,057,059	7.0	0.47	4,539,976	7.4	0.00
05/12/16 05/17/16		14,846,704 14,856,181	19,070 9,477		7.6	0.70	0.645	2,062,615 2,067,406	7.2	0.47	4,547,811 4,553,472	7.1	0.69
03/17/16	06/01/16	14,889,570	9,477	May			Pounds Cr	2,067,406			4,555,472		
06/06/16	00/01/10	14,902,417	46,236	61,936			0.333	2,086,371			4,585,701		
06/08/16		14,906,067	3,650	01,000	7.5	0.43	0.406	2,088,096	7.1	0.69	4,587,959	7.1	0.25
06/19/16		14,946,108	40,041				21111	2,101,451			4,617,396		
	07/01/16	14,980,911	,	June			Pounds Cr						
07/01/16		14,983,214	37,106	91,341			0.309	2,113,474			4,646,051		
07/07/16		14,998,455	15,241		7.4	0.50	0.430	2,119,487	7.0	0.87	4,656,766	7.1	0.20
07/31/16		15,036,518	38,063					2,138,364			4,681,191		
	08/01/16	15,036,760		July			Pounds Cr						
08/01/16		15,037,244	726	55,849			0.200	2,138,788			4,682,282		
08/11/16		15,047,013	9,769		7.4	0.61	0.583	2,144,319	7.1	0.98	4,687,103	7.1	0.12
08/24/16	00/04/40	15,065,460	18,447	A 1				2,152,060			4,700,186		
00/00/40	09/01/16	15,080,715	45 770	August			Pounds Cr	0.450.707			4 700 500		-
09/02/16 09/08/16		15,081,239 15,093,858	15,779 12,619	43,955	7.2	0.41	0.213 0.355	2,159,787 2,164,508	7.1	0.60	4,709,523 4,718,876	6.9	0.17
09/08/16		15,117,114	23,256		1.2	0.41	0.333	2,173,196	7.1	0.60	4,716,876	0.9	0.17
09/30/16		15,161,513	44,399					2,170,130			4,766,164		
00/00/10	10/01/16	15,162,610	,000	September			Pounds Cr	2,100,001			1,1 00,101		
10/01/16		15,162,976	1,463	81,895			0.242	2,190,896			4,766,917		
10/05/16		15,170,280	7,304	-	7.5	0.76	0.707	2,194,329	7.1	1.17	4,771,417	7.2	0.24
	11/01/16	15,218,316		October			Pounds Cr						
11/01/16		15,218,916	48,636	55,706			0.328	2,214,974			4,803,706		
11/09/16		15,231,072	12,156		7.7	0.58	0.550	2,221,415	7.3	1.02	4,810,434	7.2	0.17
11/30/16		15,257,768	26,696					2,231,705			4,829,512		
40/04/40	12/01/16	15,259,593	4.047	November			Pounds Cr	0.000.005			4 000 040		
12/01/16 12/08/16		15,262,085	4,317 16,074	41,277	7.7	0.90	<b>0.189</b> 0.832	2,233,005 2,240,348	7.4	1.41	4,832,948	7.3	0.26
12/06/16	01/01/17	15,278,159 15,320,273	16,074	December	7.7	0.90	Pounds Cr	2,240,346	7.4	1.41	4,843,138	1.3	0.20
01/05/17	01/01/17	15,328,203	50,044	60,680			0.420						
01/05/17		15,328,203	30,044	55,000		1.00	0.420	2,259,750	7.5	1.44	4,878,940	7.4	0.47
01/31/17		15,387,622	59,419				2.300	2,272,198	0		4,933,594	<u> </u>	J. 17
	02/01/17	15,387,845	,	January			Pounds Cr	. ,					
02/01/17		15,388,387	765	67,572			0.504	2,272,625			4,933,971		
02/09/17		15,399,455	11,068		7.8	0.56	0.542	2,277,351	7.5	0.99	4,941,836	7.1	0.13
	03/01/17	15,452,749		February			Pounds Cr						
03/08/17		15,476,369	76,914	64,904			0.305						
03/08/17		15,476,369	0		7.8	0.59	0.539	2,302,121	7.3	1.14	5,002,178	7.3	0.26
03/14/17		15,497,125	20,756					2,309,539			5,016,906		
03/25/17		15,528,765	31,640					2,321,231			5,039,669		
03/29/17	04/04/47	15,542,291	13,526	Marah			Dounds C	2,325,638			5,049,699		<b> </b>
04/02/17	04/01/17	15,558,808 15,562,275	19,984	March 106,059			Pounds Cr 0.476	2,333,037			5,064,049		
04/02/17		15,582,526	20,251	100,033	7.7	0.43	0.476	2,333,037	7.3	0.57	5,064,049	7.3	0.27
04/27/17		15,676,954	94,428		· · ·	0.70	0.700	2,372,953	7.5	0.57	5,146,405	7.0	0.27

# TABLE 1 Influent - Effluent Compliance Summary

N.W. Mauthe Superfund Site Appleton, Wisconsin Terracon Project No. 58117057

			OUTF	ALL 001				Mai	nhole	#1	Ма	nhole	e #2
Date Actual	Date For Linear Interpolation	Metered Discharge Reading (gallons)	Gallons Discharged Between Meter Reading	Monthly Discharge (gallons)	pН	Hexavalent Chromium Lab Analysis (mg/L) [Local Limit 4.5 mg/L]	Total Chromium Lab Analysis (mg/L) [Local Limit 7.0 mg/L]	Flow Totalizer #1 Reading (gallons)	pН	Hexavalent Chromium Hach Test Kit (mg/L)	Flow Totalizer #2 Reading (gallons)	рН	Hexavalent Chromium Hach Test Kit (mg/L)
	05/01/17	15,703,639		April			Pounds Cr						
05/04/17		15,728,166	51,212	144,831			0.488						
05/04/17		15,728,166	0		7.6	0.28	0.257	2,387,552	7.1	0.36	5,185,807	6.8	0.21
	06/01/17	15,796,047		May			Pounds Cr						
06/08/17		15,812,038	83,872	92,408			0.198						
06/08/17		15,812,038	0		7.5	0.35	0.325	2,421,837	7.1	0.36	5,243,312	7.2	0.16
	07/01/17	15,888,740		June			Pounds Cr						
07/01/17		15,891,390	79,352	92,693			0.251						
07/06/17		15,902,647	11,257		7.5	0.57	0.525	2,453,044	7.1	0.69	5,309,639	7.0	0.50
07/31/17		15,945,154	42,507					2,472,011			5,337,122		
	08/01/17	15,945,504		July			Pounds Cr						
08/01/17		15,945,880	726	56,764			0.248	2,472,438			5,337,492		
08/09/17		15,958,437	12,557		7.4	0.68	0.624	2,478,016	7.0	0.66	5,347,291	6.9	0.38
	09/01/17	15,992,489		August			Pounds Cr						
09/07/17		16,001,926	43,489	46,985			0.244	2,472,438			5,337,492		
09/07/17		16,001,926	0		7.4	0.50	0.488	2,497,770	7.1	0.68	5,375,524	6.9	0.14
09/29/17		16,031,780	29,854					2,510,609			5,395,101		
	10/01/17	16,034,956		September			Pounds Cr						
10/03/17		16,035,404	3,624	42,467			0.173	2,512,318			5,397,338		
10/05/17		16,037,996	2,592		7.5	0.44	0.410	2,513,176	7.1	1.14	5,399,232	6.7	0.12
	11/01/17	16,080,246		October			Pounds Cr						
11/07/17		16,090,463	52,467	45,290			0.155	2,536,891			5,436,850		
11/09/17		16,092,667	2,204		7.6	0.76	0.718	2,538,180	7.2	0.99	5,437,985	7.2	0.22
11/15/17		16,098,379	5,712					2,541,643			5,441,055		
11/30/17		16,109,689	11,310					2,549,030			5,450,173		
	12/01/17	16,110,147		November			Pounds Cr						
12/03/17		16,112,117	2,428	29,901			0.179	2,550,308			5,451,687		
12/07/17		16,115,265	3,148		7.4	0.82	0.755	2,551,590	7.4	1.29	5,453,973	7.4	0.20
12/14/17		16,121,000	5,735					2,551,590			5,453,973		
12/31/17		16,131,936	10,936					2,560,147			5,464,203		
	01/01/18	16,132,116		December			Pounds Cr						
01/01/18	·	16,132,328	392	21,969			0.138	2,560,571			5,464,203		
01/04/18		16,133,697	1,369			0.78	0.734	2,560,993		0.41	5,465,331		0.04
	02/01/18	16,144,665		January			Pounds Cr						
02/01/18		16,144,863	11,166	12,549			0.077	2,566,068			5,472,876		
02/08/18		16,147,315	2,452		7.8	0.75	0.906	2,567,326	7.4	1.68	5,474,376	7.2	0.16
02/28/18		16,155,889	8,574					2,570,306			5,481,207		
	03/01/18	16,156,053		February			Pounds Cr						
03/01/18	·	16,156,211	322	11,388			0.086	2,570,306			5,481,586		
03/08/18	·	16,163,746	7,535		7.7	0.52	0.526	2,574,570	7.4	0.78	5,485,747	7.2	0.20
03/27/18		16,183,153	19,407					2,585,717			5,495,623		
03/31/18		16,188,615	5,462					2,472,869*			5,499,048		
	04/01/18	16, 189, 199		March			Pounds Cr						
04/01/18		16,190,057	1,442	33,146			0.145	2,473,316			5,500,204		

Italicized red type metered discharge reading was calculated by linear interpolation to 12 midnight.

Industrial User (Waster	water Discharge) Permit 12-21	Outfall 001 Effluent Limits
рН	Hexavalent Chromium	Total Chromium
Between 5.0 and 12.4 s.u.	<4.5 mg/L	<7.0 mg/L

<sup>\*</sup> On 3/31/18, the MH1 flowmeter face was blank. Upon replacing the batteries, the totalizer reading reverted to 2,472,869 gallons, a difference of -112,848 gallons from the previous known total.

## TABLE 2 City of Appleton Compliance Limits, Outfall 001 N.W. Mauthe Superfund Site - Appleton, WI

					Chromium							Hexavalent
		Aluminum	Arsenic	Cadmium	Total	Copper	Cyanide	Lead	Mercury	Nickel	Zinc	Chromium
		(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Permit #12	2-21 Limits	70	1.0	0.3	7.0	3.5	1.0	2.0	0.002	2.0	10.0	4.5
Sampler	Sample Date											
CH2M Hill	02/20/97	<.02	<.003	<.00050	0.04	<.01	<.00001	<.005	<.0002	<.005	0.0051	<.01
CH2M Hill	03/24/98	0.0152	<.002	<.00004	0.0637	<.0095	<.0017	<.0006	<.000015	<.0095	0.0046	0.1000
Appleton Appleton	04/29/98 10/07/98	<.011 <.011	<.002 <.002	<.005 0.0050	0.2200 0.1700	<.05 <.05	0.0020 <.001	<.1 <.1	<.0002 <.0002	<.04 <.04	<.005 0.0250	NA NA
MCO	03/18/99	<.009	<.002	<.00031	NA	.00068****	<.0001	<.0024	<.0002	.00351****	<.012	<.0036
Appleton	03/18/99	<.011	<.002	<.005	<0.05	<.05	0.0010	0.1000	<.00005	0.0400	0.0180	NA
Appleton	09/21/99	<.011	<.002	<.005	<.05	<.05	0.0030	<.1	<.00015	<.04	0.0080	NA
Appleton	02/15/00	<.015	<.0020	<.005	0.0900	<.05	<.001	<.1	<.00013	<.04	0.0280	NA
MCO	03/13/00	<.009	<.003	<.00031	0.1400	<.0006	<.0044	<.0024	<.00005	0.0012	<.012	NA
Appleton MCO	02/21/01 03/01/01	<0.15 <.034	<.002 <.0027	<.005 .012 ****	0.11 0.25	<.05 .0088 ****	0.001 <.0033	<.1 <.17	<.00013 <.00005	<.04 .036 ****	0.042 0.015	NA <.0036
Appleton	10/02/01	0.016	<.0027	<.005	0.25	<.05	<.0033	<.17	<.00013	<.04	0.015	<.0036 NA
MCO	03/19/02	<.034	<.0027	<.0075	0.36	<.0077	<.0027	<.17	<.00015	<.017	<.012	<.0036
Appleton	05/02/02	<.049	<.012	<.014	0.362	<.015	<.0014	<.060	<.00011	<.011	<.009	NA
Appleton	11/12/02	0.027	<.0082	<.00053	0.23	<.009	<.0007	<.00084	<.000028	0.0044	0.0081	NA
Appleton	02/11/03	<0.027	<.0082	<.00053	0.086	<.0009	<.0014	<.0013	<.000028	0.0036	<.0025	NA
Appleton	03/24/03 10/23/03	<.045 0.0045	<.0027 0.0013	<.0088 <0.0001	0.13 0.221	0.075 <0.0008	<.0050 <0.005	<.16 <0.0006	<.000050 0.0002	<.019 <0.025	<.0044	<.0036 NA
Appleton Appleton	03/24/04	< 0.0045	<0.0013	<0.0001	0.221	<0.0060	<0.0050	<0.006	<0.00025	<0.025	<0.010 <0.010	NA NA
Appleton	11/09/04	0.0071	<0.0020	<0.001	0.13	0.0008	<0.005	<0.10	<0.0002	0.0013	<0.010	NA
MCO	08/08/05	0.023	<0.0035	<0.0003	0.039	0.0019	<0.0037	<0.0011	<0.000026	<0.0044	0.0024	<0.005
Appleton	11/05/06	0.0052	<0.0012	<0.0001	0.088	<0.0005	<0.005	<0.0008	<0.0002	0.0017	<0.010	NA
Appleton	02/23/06	0.0021	<0.0012	<0.0001	0.08	<0.0005	<0.0005	<0.0008	<0.0002	0.0022	<0.010	NA
MCO	03/23/06	<0.20	<0.0076	<0.00074	0.32	0.0018	0.0043	<0.0034	<0.000026	0.0033	<0.020	NA 0.050
Appleton Appleton	06/27/06 10/05/06	<0.200 0.037	<0.0076 <0.00011	<0.00074 <0.0001	0.700 4.575	0.0016 0.0068	<0.0094 0.01	<0.0034 <0.001	<0.000072 <0.0002	0.0021 0.0026	<0.020 <0.010	<0.350 NA
Appleton	03/22/07	< 0.037	<0.007	<0.001	1.9	3.5	<0.004	<0.03	<0.0002	<0.0020	<0.010	NA NA
MCO	04/02/07	0.0383	0.00024	0.000086	1.41	0.0041	<0.0094	0.00013	<0.00019	0.0035	0.009	NA
Appleton	12/04/07	< 0.07	<0.001	<0.01	3.4	<0.01	0.008	< 0.03	<0.0002	< 0.04	<0.01	1.5
Appleton	01/16/08	0.21	<0.005	<0.01	<0.03	0.02	0.017	0.06	0.0003	<0.04	0.04	NA
OMNNI	04/08/08	0.0114	0.00043	0.00011	0.864	0.0043	0.014 J	0.000095 J	<0.0001	0.0024	0.0071	0.063
Appleton Appleton	08/19/08 03/31/09	<0.08 <0.09	<0.001 <0.012	<0.01 <0.01	0.95 0.99	<0.01 <0.01	0.005 <0.008	<0.03 <0.05	0.0002 <0.0002	<0.02 <0.02	<0.01 <0.01	NA NA
OMNNI	04/07/09	<0.0151	0.003 J	0.00040 J	0.33	0.0024 J	<0.0060	<0.0014	<0.0002	0.0016 J	0.0137 J	0.84
Appleton	09/22/09	<0.08	<0.006	<0.01	2.3	<0.01	<0.008	<0.05	<0.0002	<0.02	<0.01	NA
Appleton	03/02/10	<0.06	< 0.002	<0.01	1.6	<0.01	<0.008	<0.03	<0.0002	<0.01	<0.01	NA
OMNNI	04/06/10	0.0501 J	<0.0014	0.00043 J	1.16	0.0024 J	<0.0061	<0.00075	<0.0001	0.0023 J	0.0046 J	1.3
Appleton	11/02/10	<0.10	<0.010	<0.01	0.71	<0.01	<0.008	<0.03	<0.0002	<0.01	<0.01	NA
Appleton OMNNI	02/24/11 04/05/11	<0.08 0.0725 J	<0.001 0.0025 J	<0.01 <0.00026	1.5 0.401	<0.01 0.0028 J	0.008 <0.0061	<0.04 <0.0014	<0.0002 <0.00010	<0.02 0.00053 J	<0.01 0.0023 J	NA 0.40
Appleton	10/26/11	<0.08	< 0.0025 5	<0.01	1.2	<0.00203	0.007	<0.0014	<0.00010	<0.02	<0.00233	NA
Appleton	03/21/12	<0.11	<0.004	<0.01	1.3	0.01	0.007	<0.04	<0.0002	<0.02	<0.01	NA
Terracon	04/05/12	<0.0695	<0.0047	<0.00039	0.696	0.014 J	<0.0061	<0.0014	<0.00010	0.001 J	<0.0053	0.83
Appleton	10/04/12	0.0865	0.0051	0.00049	1.43	0.0028 J	0.026	0.0022	0.0001	0.00019 J	<0.0053	NA
Terracon	04/11/13	0.078	<0.004	<0.00048	0.431	0.0024 J	<0.0038	<0.027	<0.00010	0.00013 J	<0.0024	0.42
Appleton Appleton	04/17/13 11/20/13	<0.0714 <0.0714	<0.0042 <0.0042	<0.00048 <0.00048	0.279 1.13	0.0029 J 0.0018 J	<0.0038 0.0044 J	<0.027 <0.027	<0.00010 <0.00010	0.00062 J 0.00085 J	<0.0024 0.0034 J	NA NA
Appleton	04/15/14	0.119 J	<0.0042	<0.0048	0.27	0.0016 J	< 0.060	<0.027	<0.00010	< 0.0013	<0.0058	NA NA
Terracon	05/13/14	0.116 J	<0.0068	<0.001	0.273	0.0034 J	<0.060	0.0040 J	<0.00010	<0.0013	0.0064 J	0.28
Appleton	9/24/2014	<0.0655	<0.0068	<0.001	0.757	<0.0034	<0.010	<0.0016	<0.00010	<0.0013	<0.0058	NA
Terracon	4/15/2015	0.054 J	<0.0072	<0.00060	0.858	0.0041 J	<0.010	<0.0030	<0.00010	<0.0014	0.0026 J	0.92
Appleton	6/3/2015	<0.0655	<0.0068	<0.001	0.504	<0.0034	<0.020	<0.0016	<0.00010	0.0013 J	<0.0058	NA
Appleton Terracon	10/21/2015 5/12/2016	0.105 J 0.0637 J	<0.0068 <0.0072	<0.0010 <0.00060	0.676 0.645	<0.0034 <0.0036	<0.010 <0.0068	0.0024 J <0.0030	<0.00010 <0.00013	<0.0013 0.0018 J	0.0078 J <0.0013	0.70
Appleton	5/12/2016	<0.090	<0.0072	<0.000	0.530	<0.0036	<0.006	<0.0030	<0.00013	<0.020	<0.0013	NA
Appleton	11/1/2016	<0.090	<0.001	<0.010	0.560	<0.010	<0.007	<0.030	<0.0002	<0.020	<0.010	NA
Appleton	4/27/2017	<0.060	<0.001	<0.010	0.370	<0.010	0.007	<0.030	<0.0002	<0.020	<0.010	NA
Terracon	6/8/2017	<0.0555	<0.0083	<0.0013	0.345	<0.0063	<0.0068	<0.0043	<0.00013	<0.0026	<0.0093	0.35
Appleton	11/9/2017	<0.060	0.001	0.010	0.770	<0.010	<0.007	<0.030	<0.0002	<0.020	<0.010	NA





January 10, 2018

Scott Hodgson Terracon, Inc. - Franklin 9856 South 57th Street Franklin, WI 53132

RE: Project: 58117057 MAUTHE

Pace Project No.: 40163110

## Dear Scott Hodgson:

Enclosed are the analytical results for sample(s) received by the laboratory on January 04, 2018. 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,

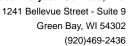
Dan Milewsky dan.milewsky@pacelabs.com (920)469-2436

Project Manager

Day Mileny

Enclosures







### **CERTIFICATIONS**

Project: 58117057 MAUTHE

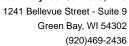
Pace Project No.: 40163110

#### **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



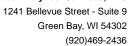


## **SAMPLE SUMMARY**

Project: 58117057 MAUTHE

Pace Project No.: 40163110

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40163110001	OUTFALL-001	Water	01/04/18 07:45	01/04/18 13:40



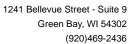


## **SAMPLE ANALYTE COUNT**

Project: 58117057 MAUTHE

Pace Project No.: 40163110

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40163110001	OUTFALL-001	EPA 6010	JLD	1	PASI-G
		SM 3500-Cr B (Online)	DDY	1	PASI-G





## **SUMMARY OF DETECTION**

Project: 58117057 MAUTHE

Pace Project No.: 40163110

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40163110001	OUTFALL-001	_				
EPA 6010 SM 3500-Cr B (Online)	Chromium, Dissolved Chromium, Hexavalent	734 0.78	ug/L mg/L	10.0 0.086	01/09/18 12:45 01/04/18 14:20	





#### **PROJECT NARRATIVE**

Project: 58117057 MAUTHE

Pace Project No.: 40163110

Method: **EPA 6010** 

Description: 6010 MET ICP, Dissolved Client: Terracon, Inc. - Franklin Date: January 10, 2018

#### **General Information:**

1 sample was analyzed for EPA 6010. 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.

#### 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:**

Green Bay, WI 54302 (920)469-2436



Pace Analytical www.pacelabs.com

#### **PROJECT NARRATIVE**

Project: 58117057 MAUTHE

Pace Project No.: 40163110

Method: SM 3500-Cr B (Online)
Description: Chromium, Hexavalent
Client: Terracon, Inc. - Franklin
Date: January 10, 2018

#### **General Information:**

1 sample was analyzed for SM 3500-Cr B (Online). 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.

#### Method Blank:

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

#### **Laboratory Control Spike:**

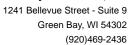
All laboratory control spike compounds were within QC limits with any exceptions noted below.

#### 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**

Project: 58117057 MAUTHE

Pace Project No.: 40163110

Date: 01/10/2018 09:32 AM

Sample: OUTFALL-001	Lab ID:	40163110001	Collecte	d: 01/04/18	3 07:45	Received: 01	/04/18 13:40 Ma	atrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical	Method: EPA 6	6010						
Chromium, Dissolved	734	ug/L	10.0	2.5	1		01/09/18 12:45	7440-47-3	
Chromium, Hexavalent	Analytical	Method: SM 35	500-Cr B (O	nline)					
Chromium, Hexavalent	0.78	mg/L	0.086	0.026	5		01/04/18 14:20		



#### **QUALITY CONTROL DATA**

EPA 6010

Analysis Method:

Project: 58117057 MAUTHE

Pace Project No.: 40163110

Date: 01/10/2018 09:32 AM

QC Batch: 278760

QC Batch Method: EPA 6010 Analysis Description: ICP Metals, Trace, Dissolved

Associated Lab Samples: 40163110001

METHOD BLANK: 1637105 Matrix: Water

Associated Lab Samples: 40163110001

Blank Reporting
Parameter Units Result Limit Analyzed Qualifiers

Chromium, Dissolved ug/L <2.5 10.0 01/09/18 12:40

LABORATORY CONTROL SAMPLE: 1637106

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers Chromium, Dissolved ug/L 500 522 104 80-120

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1637107 1637108

MS MSD 40163110001 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Result Conc. Conc. Result Result % Rec % Rec Limits RPD RPD Qual Chromium, Dissolved 500 75-125 0 20 ug/L 734 500 1240 1240 101 102

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.



#### **QUALITY CONTROL DATA**

Project: 58117057 MAUTHE

Pace Project No.: 40163110

Date: 01/10/2018 09:32 AM

QC Batch: 278533

QC Batch Method: SM 3500-Cr B (Online)

Associated Lab Samples: 40163110001

Analysis Method: SM 3500-Cr B (Online)

Analysis Description: Chromium, Hexavalent by 3500

Qualifiers

METHOD BLANK: 1636065 Matrix: Water

Associated Lab Samples: 40163110001

Blank Reporting
Parameter Units Result Limit Analyzed

Chromium, Hexavalent mg/L <0.0051 0.017 01/04/18 14:20

LABORATORY CONTROL SAMPLE: 1636066

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers Chromium, Hexavalent mg/L 0.32 106 90-110

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1636067 1636068

MS MSD 40163110001 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Result Conc. Conc. Result Result % Rec % Rec Limits RPD RPD Qual 90-110 20 Chromium, Hexavalent mg/L 0.78 1.5 1.5 2.4 2.3 109 103

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.

(920)469-2436



#### **QUALIFIERS**

Project: 58117057 MAUTHE

Pace Project No.: 40163110

#### **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 and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

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**

Date: 01/10/2018 09:32 AM

PASI-G Pace Analytical Services - Green Bay



Green Bay, WI 54302 (920)469-2436

## **QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 58117057 MAUTHE

Pace Project No.: 40163110

Date: 01/10/2018 09:32 AM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40163110001	OUTFALL-001	EPA 6010	278760		
40163110001	OUTFALL-001	SM 3500-Cr B (Online)	278533		

Will Location   CHAIN   COURT   CUSTODY   COURTS   COUR	CHAIN OF CUSTODY  About a series of the seri	Company Name: Town						UPPER MIDWEST REGION MN: 612-607-1700 WI: 93	UPPER MIDWEST REGION MN: 612-607-1700 WI: 920-469-2436	,	Page 1 of	41 Ì0
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Machine   Mach		$\dashv$		A=None B=	HCL C=H2SO4	"Preservation D=HNO3	fer		Mail To Compan			
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1				FILTERED? (YES/NO)		2						
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CLIENT FIELD ID	CLIENT FIELD ID	<del>nominatoru</del> s	d on S = Soil ole SI = Sludge	WW = Waste Water WP = Wipe		(,2 <sub>1</sub>	distriction			LABC	-	# 9
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## **Sample Condition Upon Receipt**

Pace Analytical Services, LLC. - Green Bay WI 1241 Bellevue Street, Suite 9 Green Bay, WI 54302

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Client Name: Terrocon  Courier: Fed Ex FUPS Client Pace  Tracking #:  Custody Seal on Cooler/Box Present: Fyes  Custody Seal on Samples Present: Fyes  Packing Material: Bubble Wrap Bub  Thermometer Used  Cooler Temperature Uncorr: /Corr:  Temp Blank Present: Fyes No  Temp should be above freezing to 6°C.  Biota Samples may be received at ≤ 0°C.	no no oble Bag	Seals Seals	intact:	T yes no	40163110		Market
Custody Seal on Cooler/Box Present: yes Custody Seal on Samples Present: yes Cacking Material: Bubble Wrap Bub Chermometer Used Cooler Temperature Uncorr: /Corr: Cemp Blank Present: yes no Cemp should be above freezing to 6°C.	no no oble Bag	Seals Seals	intact:	T yes no	40163110		APPENDENT TO SERVICE A TO SERVICE AT THE SERVICE AT
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Temp should be above freezing to 6°C.			_Biolog	gical Tissue is Fro			
,					no no	Person examining	contents:
nota Samples may be received at 50 C.				Comments:		Initials: KN/	<u> </u>
Chain of Custody Present:	Yes	□No	□n/a	1.			
Chain of Custody Filled Out:	Yes	□No	□n/a	2.			
Chain of Custody Relinquished:	Yes	□No	□n/a	3.			
Sampler Name & Signature on COC:	∠Yes	□No	□n/a	4.			***************************************
Samples Arrived within Hold Time:	Yes	□No	□n/a	5.			
- VOA Samples frozen upon receipt	□Yes	□No		Date/Time:			
Short Hold Time Analysis (<72hr):	Yes	□No	□n/a	6.			
Rush Turn Around Time Requested:	□Yes	ZN0	□n/a	7.			
Sufficient Volume:	□Yes ✓	ZN0	□n/a	8. M maly	nsD v	em 114/18	
Correct Containers Used:	√Pes	□No	□n/a	9.			
-Pace Containers Used:	Yes	□No	□n/a				
-Pace IR Containers Used:	□Yes	□No	₽N7A				
Containers Intact:	Yes	□No	□n/a	10.			
Filtered volume received for Dissolved tests	₽Yes	□No	□n/a	11.			
Sample Labels match COC:	√EYes	□No	□n/a	12.			
-Includes date/time/ID/Analysis Matrix:	ائير_						
Il containers needing preservation have been checked Non-Compliance noted in 13.)	Ves	□No	□n/a	13. HNO3	H2SO4 T	NaOH   NaOH	+ZnAct
All containers needing preservation are found to be in							
ompliance with EPA recommendation. HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	Yes	□No	□n/a				
xceptions: VOA, coliform, TOC, TOX, TOH,	□Yes	— Ø\n^		7KAA / I	_ab Std #ID of	Date/ Time:	***************************************
&G, WIDROW, Phenolics, OTHER:  Headspace in VOA Vials ( >6mm):	□Yes		Γ2Ν/A		JI GOGI VALIVE	7,1110.	
rip Blank Present:	□Yes		ZNA				
rip Blank Custody Seals Present	□Yes		<b>Z</b> N/A				
Pace Trip Blank Lot # (if purchased):			·				
Client Notification/ Resolution:				If c	hecked, see attache	ed form for additional co	mments
Person Contacted:			Date/	Time:			
Comments/ Resolution:							





February 15, 2018

Scott Hodgson Terracon, Inc. - Franklin 9856 South 57th Street Franklin, WI 53132

RE: Project: 58117057 MAUTHE

Pace Project No.: 40164475

## Dear Scott Hodgson:

Enclosed are the analytical results for sample(s) received by the laboratory on February 08, 2018. 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,

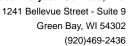
Dan Milewsky dan.milewsky@pacelabs.com (920)469-2436

Project Manager

Day Mileny

Enclosures







#### **CERTIFICATIONS**

Project: 58117057 MAUTHE

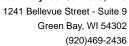
Pace Project No.: 40164475

#### **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



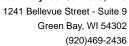


## **SAMPLE SUMMARY**

Project: 58117057 MAUTHE

Pace Project No.: 40164475

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40164475001	OUTFALL-001	Water	02/08/18 07:30	02/08/18 12:50



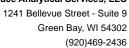


## **SAMPLE ANALYTE COUNT**

Project: 58117057 MAUTHE

Pace Project No.: 40164475

Lab ID	Sample ID	Method	Analysts	Analytes Analysts Reported Laborate	
40164475001	OUTFALL-001	EPA 6010	JLD	1	PASI-G
		SM 3500-Cr B (Online)	DEY	1	PASI-G



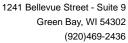


## **SUMMARY OF DETECTION**

Project: 58117057 MAUTHE

Pace Project No.: 40164475

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40164475001	OUTFALL-001					
EPA 6010 SM 3500-Cr B (Online)	Chromium, Dissolved Chromium, Hexavalent	906 0.75	ug/L mg/L	10.0 0.086	02/13/18 17:28 02/08/18 13:25	MO





#### **PROJECT NARRATIVE**

Project: 58117057 MAUTHE

Pace Project No.: 40164475

Method: EPA 6010

Description: 6010 MET ICP, Dissolved
Client: Terracon, Inc. - Franklin
Date: February 15, 2018

#### **General Information:**

1 sample was analyzed for EPA 6010. 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.

#### 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:**

(920)469-2436



#### **PROJECT NARRATIVE**

Project: 58117057 MAUTHE

Pace Project No.: 40164475

Method: SM 3500-Cr B (Online)
Description: Chromium, Hexavalent
Client: Terracon, Inc. - Franklin
Date: February 15, 2018

#### **General Information:**

1 sample was analyzed for SM 3500-Cr B (Online). 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.

#### 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.

QC Batch: 280873

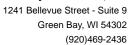
A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 40164475001

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 1647086)
  - Chromium, Hexavalent

#### **Additional Comments:**

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





## **ANALYTICAL RESULTS**

Project: 58117057 MAUTHE

Pace Project No.: 40164475

Date: 02/15/2018 11:03 AM

Sample: OUTFALL-001	Lab ID:	40164475001	Collecte	d: 02/08/18	3 07:30	Received: 02	/08/18 12:50 Ma	atrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved Analytical Method: EPA 60		010							
Chromium, Dissolved	906	ug/L	10.0	2.5	1		02/13/18 17:28	7440-47-3	
Chromium, Hexavalent	Analytical Method: SM 3500-Cr B (Online)								
Chromium, Hexavalent	0.75	mg/L	0.086	0.026	5		02/08/18 13:25		MO



#### **QUALITY CONTROL DATA**

Project: 58117057 MAUTHE

Pace Project No.: 40164475

QC Batch: 281099

Associated Lab Samples:

Chromium, Dissolved

Chromium, Dissolved

Date: 02/15/2018 11:03 AM

QC Batch Method: EPA 6010 Analysis Method: EPA 6010

Analysis Description:

ICP Metals, Trace, Dissolved

METHOD BLANK: 1648114

Matrix: Water

Associated Lab Samples: 40164475001

> Blank Result

Reporting

Parameter Units

40164475001

Limit

Analyzed Qualifiers

Chromium, Dissolved <2.5 10.0 02/13/18 16:37 ug/L

LABORATORY CONTROL SAMPLE: 1648115

> Spike Parameter Units Conc.

LCS LCS Result % Rec

% Rec Limits

80-120

Qualifiers

1648116

1648117

500

MS MSD

500

40164373001 Spike Spike Result Conc. Conc. <2.5

MSD Result

491

100

MS MSD

% Rec Limits RPD

Max RPD

Parameter Units

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:

ug/L

ug/L

500 500

MS Result 485

% Rec 97 % Rec 98

75-125

Qual 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.



#### **QUALITY CONTROL DATA**

Project: 58117057 MAUTHE

Pace Project No.: 40164475

Date: 02/15/2018 11:03 AM

QC Batch: 280873

QC Batch Method: SM 3500-Cr B (Online)

Associated Lab Samples: 40164475001

Analysis Method: SM 3500-Cr B (Online)

Analysis Description: Chromium, Hexavalent by 3500

METHOD BLANK: 1647084 Matrix: Water

Associated Lab Samples: 40164475001

Blank Reporting
Parameter Units Result Limit Analyzed Qualifiers

Chromium, Hexavalent mg/L <0.0051 0.017 02/08/18 13:25

LABORATORY CONTROL SAMPLE: 1647085

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers Chromium, Hexavalent mg/L 0.31 104 90-110

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1647086 1647087

MS MSD 40164475001 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Result Conc. Conc. Result Result % Rec % Rec Limits RPD RPD Qual 0.75 2.4 90-110 20 M0 Chromium, Hexavalent mg/L 1.5 1.5 2.4 113 107

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.

(920)469-2436



#### **QUALIFIERS**

Project: 58117057 MAUTHE

Pace Project No.: 40164475

#### **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 and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

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**

Date: 02/15/2018 11:03 AM

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

(920)469-2436



## **QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 58117057 MAUTHE

Pace Project No.: 40164475

Date: 02/15/2018 11:03 AM

Lab ID Sample ID		QC Batch Method	QC Batch	Analytical Method	Analytical Batch	
40164475001	OUTFALL-001	EPA 6010	281099			
40164475001	OUTFALL-001	SM 3500-Cr B (Online)	280873			

Rage 13 of 15 Profile # Present/Not Present Cooler Custody Seal Receipt Temp = ADT Intact / Not Intact Sample Receipt pH PACE Project No. ₹ OK / Adjusted 2/6447S LAB COMMENTS (Lab Use Only) Page 9 Invoice To Company: Invoice To Contact: Invoice To Address: Mail To Company: Invoice To Phone: Mail To Contact: Mail To Address: M Date/Time Date/Time: Date/Time: COMMENTS MN: 612-607-1700 WI: 920-469-2436 Quote #: CERT UPPER MIDWEST REGION SE SE B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH Referred By Received By: Received By: CHAIN OF CUSTODY J=Other 0830 l=Sodium Thiosulfate Pace Analytical www.pacelebs.com Bate/Time: Date/Time: Date/Time: H=Sodium Bisulfate Solution YIN Analyses Requested 1/6/18/0730 ww PRESERVATION (CODE)\* W = Water
DW = Drinking Water
GW = Ground Water
SW = Surface Water
WW = Waste Water MATRIX FILTERED? (YES/NO) Matrix Codes dge WP = Wipe elinquished By: Relinquished By: Let M. Hodow Program: Scott A. Hodgson A ≂ Air B = Biota C = Charcoal O = Oil S = Soil 5 cott 170 dg son 414-209-7240 Transmit Prelim Rush Results by (complete what you want): Rush Turnaround Time Requested - Prelims M. IMaukep (Rush TAT subject to approval/surcharge) On your sample (billable)
NOT needed on erracon (Please Print Clearly) CLENT FIELD ID 58117057 MS/MSD OUT FALL-DOI Mauthe special pricing and release of liability Samples on HOLD are subject to 43 Date Needed: Data Package Options EPA Level III ☐ EPA Level IV Sampled By (Sign): Sampled By (Print): Branch/Location: Company Name: Project Contact: Project Number: Project Name: Project State: PACE LAB# Felephone: Phone: Email #1: Email #2:

C019a(27Jun2006)

CONCINA

Green Bay, WI 54302 Pace Analytical Services, LC 1241 Bellevue Street, Suffe 9

Sample Preservation Receipt Form

クロドルコング Project #

Client Name:

All containers needing preservation have been checked and noted below: prescrive and all Alb of preservation (if pH adjusted):

K Chatel initial when completed:

2.5 / 5 / 10 Volume Œ) H after adjusted 19OH pH ≥12 e≤ Hq toA nZ+HOsi 12504 pH <2 (mm3<) elsiV AOV CM General **SPLC T2**42 **MPFU** Jars **MGFU** neen Q69A MG9A MC9H Vials **N69**A T690 DG9A **BP3S** ВЬЗИ **Bb3C** Plastic **DE4 BP2Z BP2N** Urqa BG3N **VGSS NSDA** Glass N⊅9∀ YC42 HIDA Lab # GalU 014 002 004 005 900 800 600 010 013 015 016 019 003 700 012 017 018 011 90 070

Headspace in VOA Vials (>6mm): □Yes □No pN/A \*If yes look in headspace column Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other:

120 mL plastic Na Thiosulfate 4 oz amber jar unpres 4 oz plastic jar unpres 4 oz clear jar unpres ziploc bag WPFU WGFU JGFU ZPLC SP5T

40 mL clear vial unpres

VG9U VG9H VG9M VG9D

500 mL plastic NaOH, Znact

500 mL plastic HNO3

**BP2N BP2Z** 

1 liter plastic unpres

250 mL plastic unpres

BP3U **BP3C** BP3N

AG4U 120 mL amber glass unpres 100 mL amber glass unpres

AGSU AG2S

500 mL amber glass H2SO4

BG3U 250 mL clear glass unpres

125 mL amber glass H2SO4

AG4S

AG1H 1 liter amber glass HCL

1 liter amber glass

AG10

250 mL plastic NaOH 250 mL plastic HNO3 250 mL plastic H2SO4

**BP3S** 

DG9T

40 mL clear vial HCL

40 mL amber ascorbic 40 mL amber Na Thio

DG9A

40 mL clear vial MeOH

40 mL clear vial DI

Ë

Page 1 of

Pace Analytical

Document Name: Sample Condition Upon Receipt (SCUR)

Document Revised: 31Jan2018

Document No.: F-GB-C-031-rev.06

Issuing Authority: Pace Green Bay Quality Office

1241 Bellevue Street, Green Bay, WI 54302

## Sample Condition Upon Receipt Form (SCUR)

Courier: CS Logistics Fed Ex Spe Client Pace Other:  Tracking #:  Custody Seal on Cooler/Box Present: Ye	#: WO#: 40164475			
Custody Seal on Samples Present: Tyes				
Packing Material:	<i>p</i> 1			
Thermometer Used SR - N/A	Type of Ice: Wer Blue Dry None	Samples on ice, cooling process has begun		
Cooler Temperature Uncorr: ROT ICorr	<del>"                                    </del>			
Temp Blank Present:  yes no	Biological Tissue is Frozen:	9 - 10		
Temp should be above freezing to 6°C.  Biota Samples may be received at ≤ 0°C.	D. Anno and the contract of th	Date:		
Chain of Custody Present:	ØYes □No □N/A 1.			
Chain of Custody Filled Out:	Äyes □No □N/A 2.			
Chain of Custody Relinquished:	ØYes □No □N/A 3.			
Sampler Name & Signature on COC:				
Samples Arrived within Hold Time:	Yes ONO ON/A 5.			
- VOA Samples frozen upon receipt	/ □Yes □No Date/Time:			
Short Hold Time Analysis (<72hr):	ØYes □No □N/A 6.			
Rush Turn Around Time Requested:	□Yes ØNo □N/A 7.			
Sufficient Volume: Aye DNo □N/A MS/IV	ISD □Yes ZNo □N/A 8.			
Correct Containers Used:	Yes ONO ON/A 9.			
-Pace Containers Used:	Øyes □No □N/A			
-Pace IR Containers Used:	□Yes □No ØN/A			
Containers Intact:	Øyes □No □N/A 10.			
Filtered volume received for Dissolved tests	□Yes □No ØN/A 11.			
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix:	ØYes □No □N/A 12.			
Trip Blank Present:	□Yes □No ØN/A 13.			
Trip Blank Custody Seals Present	□Yes □No ☑N/A			
Pace Trip Blank Lot # (if purchased):	/			
Client Notification/ Resolution:  Person Contacted:  Comments/ Resolution:		checked, see attached form for additional comments		
	for Pn	Date: 2/8//8		





March 15, 2018

Scott Hodgson Terracon, Inc. - Franklin 9856 South 57th Street Franklin, WI 53132

RE: Project: 58117057 MAUTHE

Pace Project No.: 40165639

## Dear Scott Hodgson:

Enclosed are the analytical results for sample(s) received by the laboratory on March 08, 2018. 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,

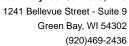
Dan Milewsky dan.milewsky@pacelabs.com (920)469-2436

Project Manager

Day Mileny

Enclosures







# **CERTIFICATIONS**

Project: 58117057 MAUTHE

Pace Project No.: 40165639

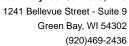
# **Green Bay Certification IDs**

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



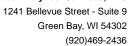


# **SAMPLE SUMMARY**

Project: 58117057 MAUTHE

Pace Project No.: 40165639

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40165639001	OUTFALL-001	Water	03/08/18 07:45	03/08/18 09:45



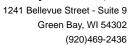


# **SAMPLE ANALYTE COUNT**

Project: 58117057 MAUTHE

Pace Project No.: 40165639

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40165639001	OUTFALL-001	EPA 6010	JLD	1	PASI-G
		SM 3500-Cr B (Online)	DEY	1	PASI-G





# **SUMMARY OF DETECTION**

Project: 58117057 MAUTHE

Pace Project No.: 40165639

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40165639001	OUTFALL-001					
EPA 6010 SM 3500-Cr B (Online)	Chromium, Dissolved Chromium, Hexavalent	526 0.52	ug/L mg/L	10.0 0.086	03/09/18 15:04 03/08/18 15:05	



Green Bay, WI 54302 (920)469-2436

## **PROJECT NARRATIVE**

Project: 58117057 MAUTHE

Pace Project No.: 40165639

Method: EPA 6010

Description: 6010 MET ICP, Dissolved
Client: Terracon, Inc. - Franklin
Date: March 15, 2018

## **General Information:**

1 sample was analyzed for EPA 6010. 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.

#### 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:**

(920)469-2436



# **PROJECT NARRATIVE**

Project: 58117057 MAUTHE

Pace Project No.: 40165639

Method: SM 3500-Cr B (Online)
Description: Chromium, Hexavalent
Client: Terracon, Inc. - Franklin
Date: March 15, 2018

## **General Information:**

1 sample was analyzed for SM 3500-Cr B (Online). 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.

#### 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.

QC Batch: 282798

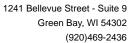
A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 40165616001

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 1656647)
  - Chromium, Hexavalent
- MSD (Lab ID: 1656648)
  - · Chromium, Hexavalent

## **Additional Comments:**

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





# **ANALYTICAL RESULTS**

Project: 58117057 MAUTHE

Pace Project No.: 40165639

Date: 03/15/2018 08:29 AM

Sample: OUTFALL-001	Lab ID:	40165639001	Collecte	d: 03/08/18	3 07:45	Received: 03	/08/18 09:45 Ma	atrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical	Method: EPA 6	010						
Chromium, Dissolved	526	ug/L	10.0	2.5	1		03/09/18 15:04	7440-47-3	
Chromium, Hexavalent	Analytical	Analytical Method: SM 3500-Cr B (Online)							
Chromium, Hexavalent	0.52	mg/L	0.086	0.026	5		03/08/18 15:05		



## **QUALITY CONTROL DATA**

Project: 58117057 MAUTHE

Pace Project No.: 40165639

Date: 03/15/2018 08:29 AM

QC Batch: 282899 Analysis Method: EPA 6010

QC Batch Method: EPA 6010 Analysis Description: ICP Metals, Trace, Dissolved

Associated Lab Samples: 40165639001

METHOD BLANK: 1657063 Matrix: Water

Associated Lab Samples: 40165639001

Parameter Units Result Limit Analyzed Qualifiers

Chromium, Dissolved ug/L <2.5 10.0 03/09/18 14:59

LABORATORY CONTROL SAMPLE: 1657064

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers Chromium, Dissolved ug/L 500 496 99 80-120

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1657066 1657067

MS MSD 40165639001 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Result Conc. Conc. Result Result % Rec % Rec Limits RPD RPD Qual Chromium, Dissolved 500 1010 1020 75-125 20 ug/L 526 500 97 99

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.



## **QUALITY CONTROL DATA**

58117057 MAUTHE Project:

Pace Project No.: 40165639

QC Batch: 282798

QC Batch Method:

SM 3500-Cr B (Online)

Analysis Method:

SM 3500-Cr B (Online)

Analysis Description: Chromium, Hexavalent by 3500

Associated Lab Samples: 40165639001

METHOD BLANK: 1656645 Matrix: Water

Associated Lab Samples:

40165639001

mg/L

Blank Result Reporting

Parameter

Units

Limit

Analyzed

Qualifiers

Chromium, Hexavalent

Chromium, Hexavalent

Chromium, Hexavalent

Date: 03/15/2018 08:29 AM

mg/L

< 0.0051

0.017 03/08/18 11:00

LABORATORY CONTROL SAMPLE: 1656646

Parameter

Parameter

Units mg/L Spike Conc.

LCS Result

LCS % Rec

99

% Rec Limits

90-110

Qualifiers

1656647

1656648

MS

0.30

MS

MSD Spike

MSD Result

MS MSD % Rec % Rec % Rec Limits

Max RPD RPD

20 M0

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:

40165616001 Spike Units Result Conc. <1.3

Conc. 75 75

Result <1.3 <1.3

0

90-110 0

Qual

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.

(920)469-2436



## **QUALIFIERS**

Project: 58117057 MAUTHE

Pace Project No.: 40165639

#### **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 and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

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**

Date: 03/15/2018 08:29 AM

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

(920)469-2436



# **QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 58117057 MAUTHE

Pace Project No.: 40165639

Date: 03/15/2018 08:29 AM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40165639001	OUTFALL-001	EPA 6010	282899	-	
40165639001	OUTFALL-001	SM 3500-Cr B (Online)	282798		

Page 13 of 15 Profile # Present/Not Present Gooter Custody Seal Sample Receipt pH Intach Mot Inter ₹ OK / Adjusted 5019 eceipt Temp ≖ LAB COMMENTS (Lab Use Only) Page Invoice To Company: Invoice To Contact: Invoice To Address: Mail To Company: 3/8/K Invoice To Phone: Mail To Contact: Mail To Address: Date/Time: COMMENTS MN: 612-607-1700 WI: 920-469-2436 Quote #: CLENT UPPER MIDWEST REGION G=NaOH tecepted By: Received By: CHAIN OF CUSTODY B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol J=Other K 0830 I=Sodium Thiosulfate Pace Analytical www.pacelebs.com STATION STATES Date/Time: Date/Time 318/18 1-250 /250 Chromium X TUTEL Chambun H=Sodium Bisulfate Solution YIN Pick Analyses Requested PRESERVATION (CODE)\* puished By Mall W = Water
DW = Drinking Water
GW = Ground Water
SW = Surface Water
WW = Waste Water 3/8/18 0745 WW FILTERED? (YES/NO) A=None Matrix Codes Sludge WP = Wipe Relinquished By: Relinquished By: elinquished By: Lioth A. Noden DATE C = Charcoal O = Oil S = Soil Program: Scott A. Hodgson A = Air B = Biota Scott Hodgson @ 414-309-Te40 Transmit Prelim Rush Results by (complete what you want): Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge) On your sample NOT needed on M: Iwaulter (Please Print Clearly) (billable) 58117057 MS/MSD Ct racon Marthe pecial pricing and release of llability OUTFALCE Samples on HOLD are subject to 3 Date Needed: Data Package Options EPA Level III ☐ EPA Level IV Sampled By (Print): Sampled By (Sign): Branch/Location: Company Name: Project Number: Project Contact: Project Name: Project State: PACE LAB# Telephone: Phone: 00 Email #1: Email #2: # 0 #

CRICINAL

Pace Analytical Services, u্র্যুচ 1241 Bellevue Street, Suite Green Bay, WI 54392

Sample Preservation Receipt Form

Client Name: I & Male N

All containers needing preservation have been checked and noted below: 🍞 es 🗠 No 🖰 N/A Lab Std #ID of preservation (if pH adjusted):

Initial when

Раде

Project #

2.5 / 5 / 10 Volume (mL) Hafter adjusted S≥ Hq EON VAOH pH 212 e≤ Hq tɔA n∑+HOsV ISSO4 PH S2 (mm8<) slsiV AOV CM General **SPLC T2**42 **NPFU** Jars MCEN UGFU C69A MG9A **NG9H** Vials NG9V T690 A69a **BP35 BP3N Bb3C Plastic BP3U BP2Z BP2N** UIAB Bean **YGSS USDA** Glass **NPSY** YG42 **HIDA** Uray Lab# Pace 002 003 004 005 001 900 007 800 600 010 012 014 013 015 016 018 21 017 019 020

Headspace in VOA Vials (>6mm) : □Yes □No □M/A \*If yes look in headspace column Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other: 1 liter plastic unpres BP1U AG1H 1 liter amber glass HCL 1 liter amber glass AG1U

120 mL plastic Na Thiosulfate 4 oz amber jar unpres 4 oz plastic jar unpres 4 oz clear jar unpres ziploc bag GN: WGFU WPFU SP5T ZPLC JGFU 40 mL clear vial unpres 40 mL clear vial MeOH 40 mL amber ascorbic 40 mL amber Na Thio 40 mL clear vial HCL 40 mL clear vial DI DG9A VG9U VG9H VG9M VG9D DG9T 500 mL plastic NaOH, Znact 250 mL plastic unpres 250 mL plastic NaOH 250 mL plastic HNO3 250 mL plastic H2SO4 500 mL plastic HNO3 BP3U **BP2N** ВРЗС BP2Z **BP3N BP3S** 4G5U 100 mL amber glass unpres 125 mL amber glass H2SO4 120 mL amber glass unpres 500 mL amber glass H2SO4 250 mL clear glass unpres

AG4U

AG4S

AG2S BG3U Page  $_{1}$  of  ${\cal X}$ 

Pace Analytical

Document Name: Sample Condition Upon Receipt (SCUR)

Document Revised: 31Jan2018

1241 Bellevue Street, Green Bay, WI 54302

Document No.: F-GB-C-031-rev.06

Issuing Authority: Pace Green Bay Quality Office

# Sample Condition Upon Receipt Form (SCUR)

T-04 (1)	Project	#:	
Client Name: 12 (a Co/)		MO# : 40	0165639
Courier: CS Logistics Fed Ex Speed	dee F UPS F Waltco	MOH. T	010003
Client Pace Other:	, , , , , , , , , , , , , , , , , , , ,		
Tracking #:		40165639	
Custody Seal on Cooler/Box Present:  yes	no Seals intact: Ves no	The second secon	
Custody Seal on Samples Present:  yes	no Seals intact: Tyes T no	<u> </u>	
Packing Material: Bubble Wrap Bub	oble Bags None Cother		
Thermometer Used SR - NA	Type of Ice: Wet Blue Dry None	Samples or	ice, cooling process has begun
Cooler Temperature Uncorr: Por ICorr:			5 (
Temp Blank Present:  yes no	Biological Tissue is Frozen	: TyesTno	Person examining contents:
Temp should be above freezing to $6^{\circ}$ C. Biota Samples may be received at $\leq 0^{\circ}$ C.			Date: 3/8//8
			Initials:
Chain of Custody Present:	Yes No N/A 1.		
Chain of Custody Filled Out:	□/Yes □No □N/A 2.		
Chain of Custody Relinquished:	Øyes □No □N/A 3.		
Sampler Name & Signature on COC:	Øyes □No □N/A 4.		
Samples Arrived within Hold Time:	ØYes □No □N/A 5.		
<ul> <li>VOA Samples frozen upon receipt</li> </ul>	□Yes □No Date/Time:		
Short Hold Time Analysis (<72hr):	ØYes □No □N/A 6.		
Rush Turn Around Time Requested:	□Yes ØNo □N/A 7.		
Sufficient Volume: □Yes □No □N/A MS/MS[	D □Yes □N/A 8.		
Correct Containers Used:	Yes ONO ON/A 9.		
-Pace Containers Used:	Yes ONO ON/A		
-Pace IR Containers Used:	Yes No N/A		
Containers Intact:	ØYes □No □N/A 10.		
Filtered volume received for Dissolved tests	ØYes □No □N/A 11.		
Sample Labels match COC:	Yes □No □N/A 12.		
-Includes date/time/ID/Analysis Matrix:	'W _		
Frip Blank Present:	□Yes ☑No □N/A 13.		A
Frip Blank Custody Seals Present	□Yes □No ZIN/A		
Pace Trip Blank Lot # (if purchased):			
Client Notification/ Resolution:	If	checked, see attache	d form for additional comments
Person Contacted:Comments/ Resolution:	Date/Time:		
- Testination	-		
Project Manager Review:	A Mas		2010
. Tojout manager Review:	LOV DIVI	Date:	3/8/18