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ANALYTICAL REPORT

TETRA TECH
CORDELL RENNER
1 S WACKER DRIVE
SUITE 3700
CHICAGO, IL 60606

Project Name: EAST CHICAGO ARCELOR MYSTERY SPILL
Project Phase: EAST CHICAGO, IL
Contract #: 3034
Project #: 3X90260001S051404004
Folder #: 124896
Purchase Order #: 1111200

Arrival Temperature: 4.9
Report Date: 02/01/2017
Date Received: 01/19/2017
Reprint Date: 03/02/2017

CT LAB#: 828856 Sample Description: AM-OF009-02 Client Sample #: Sampled: 01/17/2017 1035

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method	
Inorganic Results													
Chlorine, Residual	0.0300	mg/L	0.02	0.02	0.02	0.02	1.00			1/23/17 15:00	SAW	SM 4500CL	
Oil and Grease	<1.4	mg/L	1.4	2.8	9.2	1.4	1.00	U	01/24/2017 08:30	1/25/17 10:00	BMM	EPA 1664A	^
Phenolics	<14	ug/L	14	25	50	50	1.00	U	01/24/2017 09:00	1/26/17 13:18	MER	EPA 9066	^
Metals Results													
Total Mercury	0.046	ug/L	0.030	0.060	0.12	0.12	1.00	J M	01/26/2017 10:30	1/27/17 11:59	LJF	EPA 7470A	^

CT LAB#: 828860 Sample Description: AM-OF009C-01 Client Sample #: Sampled: 01/17/2017 1040

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method	
Inorganic Results													
Ammonia Nitrogen	1.6	mg/L	0.022	0.10	0.20	0.20	1.00			1/26/17 12:21	LJS	EPA 350.1	^
Total Suspended Solids	<2.0	mg/L	2.0	2.0	2.0	2.0	1.00	U		1/20/17 11:50	SAW	SM 2540D	
Metals Results													

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 828860 Sample Description: AM-OF009C-01 Client Sample #: Sampled: 01/17/2017 1040

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method	
Total Lead	<1.4	ug/L	1.4	2.0	4.0	4.0	1.00	U	01/23/2017 15:00	1/24/17 19:36	NAH	EPA 6010C	^
Total Zinc	<1.6	ug/L	1.6	5.0	10	10	1.00	U	01/23/2017 15:00	1/24/17 19:36	NAH	EPA 6010C	^

CT LAB#: 828861 Sample Description: AM-OF010-02 Client Sample #: Sampled: 01/17/2017 1045

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method	
Inorganic Results													
Chlorine, Residual	0.0400	mg/L	0.02	0.02	0.02	0.02	1.00			1/23/17 15:00	SAW	SM 4500CL	
Oil and Grease	<1.4	mg/L	1.4	2.8	9.3	1.4	1.00	U	01/24/2017 08:30	1/25/17 10:00	BMM	EPA 1664A	^
Phenolics	<14	ug/L	14	25	50	50	1.00	U M	01/24/2017 09:00	1/26/17 13:19	MER	EPA 9066	^
Metals Results													
Total Mercury	<0.030	ug/L	0.030	0.060	0.12	0.12	1.00	U	01/26/2017 10:30	1/27/17 12:08	LJF	EPA 7470A	^

CT LAB#: 828862 Sample Description: AM-OF010C-01 Client Sample #: Sampled: 01/17/2017 1050

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method	
Inorganic Results													
Ammonia Nitrogen	<0.022	mg/L	0.022	0.10	0.20	0.20	1.00	U		1/26/17 12:28	LJS	EPA 350.1	^
Total Suspended Solids	<2.0	mg/L	2.0	2.0	2.0	2.0	1.00	U		1/20/17 11:50	SAW	SM 2540D	
Metals Results													
Total Lead	<1.4	ug/L	1.4	2.0	4.0	4.0	1.00	U	01/23/2017 15:00	1/24/17 20:18	NAH	EPA 6010C	^
Total Zinc	<1.6	ug/L	1.6	5.0	10	10	1.00	U	01/23/2017 15:00	1/24/17 20:18	NAH	EPA 6010C	^

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes:

^ Indicates the laboratory is NELAP accredited for this analyte by the indicated matrix and method. DL (detection limit), LOD (limit of detection), loq (limit of quantitation) as defined by most recent DOD QSM version.

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

This report has been specifically prepared to satisfy project or program requirements. These results are in compliance with NELAC requirements for the parameters where accreditation is required or available, unless noted in the case narrative.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

QC Qualifiers

Code	Description
B	Analyte detected in the associated Method Blank.
C	Toxicity present in BOD sample.
D	Diluted Out.
E	Safe, No Total Coliform detected.
F	Unsafe, Total Coliform detected, no E. Coli detected.
G	Unsafe, Total Coliform detected and E. Coli detected.
H	Holding time exceeded.
I	BOD incubator temperature was outside acceptance limits during test period.
J	Estimated value.
L	Significant peaks were detected outside the chromatographic window.
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.
N	Insufficient BOD oxygen depletion.
O	Complete BOD oxygen depletion.
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.
Q	Laboratory Control Sample outside acceptance limits.
R	See Narrative at end of report.
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.
T	Sample received with improper preservation or temperature.
U	Analyte concentration was below detection limit.
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.
W	Sample amount received was below program minimum.
X	Analyte exceeded calibration range.
Y	Replicate/Duplicate precision outside acceptance limits.
Z	Specified calibration criteria was not met.

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002