ERM

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10 July 2019

Justin Starr, P.G.
Remedial Bureau C
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway
Albany, NY 12233-7014

Reference: Former Macbeth Kollmorgen Facility, NYSDEC Site No. 3-36-037

Subject: MW-12 Quarterly Monitoring – First Quarter 2019

Dear Mr. Starr:

In accordance with the monitoring requirements outlined for the above referenced site in the March 1997 Record of Decision (ROD) and subsequently modified during the September 14, 2001 conference call with Mr. John Rashak (NYSDEC) and H2M, bedrock monitoring well MW-12 was sampled on 19 March 2019 by ERM at the request of Fortive. After gauging water levels at 14 of the 15 on-site monitoring wells, MW-12 was purged and sampled via low-flow sampling methodology. MW-1 has been damaged but a water level was able to be collected. A request for the abandonment of MW-1 has been approved by the NYSDEC. ERM anticipates MW-1 will be abandoned in 2019. ERM could not locate monitoring well MW-16R during the quarterly monitoring event. Groundwater elevations and contour maps will be presented in the 2019 Periodic Review Report (PRR).

SGS Accutest Laboratories (NYSDOH ID # 10983) analyzed the sample for volatile organic compounds using United States Environmental Protection Agency (EPA) Method SW-846 8260C.

The first quarter 2019 analytical results indicate that trichloroethene (TCE) and total 1,2-dichloroethene (total 1,2-DCE) were detected at concentrations above the New York State Groundwater Quality Standards (NYSGQS). These concentrations (summarized on the following table) are consistent with results from the four previous quarters.

MW-12 Groundwater Sampling Summary

Compound	1/23/18	4/11/18	7/18/18	10/17/18	3/19/19	NYSGQS
TCE	**65.1**	**62.1**	**59.7**	**42.4**	**86.7**	5
Total 1,2-DCE	**136.1**	**179.3**	**124.5**	**51.0**	**184.6**	5

Notes: **Bold** = exceeds NYSGQS
Results reported in micrograms per liter (µg/L)

The full laboratory analytical report for the March 2019 sampling event is attached. An EQuIS Electronic Data Deliverable (EDD) will be sent to the NYSDEC prior to submittal of the next PRR.

If you have any questions, please call me at (631) 756-8960.

Yours sincerely,

Karen Pickering
Senior Project Manager

Enclosure: SGS Laboratories Analytical Report for MW-12

cc: David Bozaan, Fortive Corporation
Ernie Rossano, ERM
Joe Robb, ERM

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

ERM, Inc.

Fortive, New Windsor, NY

0501429

SGS Job Number: JC84837

Sampling Date: 03/19/19

Report to:

ERM, Inc.

brice.lynch@erm.com

ATTN: Brice Lynch

Total number of pages in report: 11

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Brian McGuire
General Manager

Client Service contact: Tammy McCloskey 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

Sections:

1 2 3 4 5

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Sample Summary

ERM, Inc.

Job No: JC84837

Fortive, New Windsor, NY
Project No: 0501429

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
JC84837-1	03/19/19	14:40	MF	03/20/19	AQ	Ground Water	MW-12-031919

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	ERM, Inc.	**Job No**	JC84837
Site:	Fortive, New Windsor, NY	**Report Date**	4/3/2019 4:11:09 PM

On 03/20/2019, 1 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 0.3 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC84837 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Volatiles By Method SW846 8260C

Matrix: AQ **Batch ID:** V2E6704

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC85056-8MS, JC85056-9DUP were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: JC84837
Account: ERM, Inc.
Project: Fortive, New Windsor, NY
Collected: 03/19/19

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC84837-1	**MW-12-031919**					
cis-1,2-Dichloroethene		182	1.0	0.51	ug/l	SW846 8260C
trans-1,2-Dichloroethene		2.6	1.0	0.54	ug/l	SW846 8260C
Trichloroethene		86.7	1.0	0.53	ug/l	SW846 8260C

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: MW-12-031919
Lab Sample ID: JC84837-1
Matrix: AQ - Ground Water
Method: SW846 8260C
Project: Fortive, New Windsor, NY

Date Sampled: 03/19/19
Date Received: 03/20/19
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E151496.D	1	03/26/19 15:14	ED	n/a	n/a	V2E6704
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	182	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	2.6	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-12-031919
Lab Sample ID: JC84837-1
Matrix: AQ - Ground Water
Method: SW846 8260C
Project: Fortive, New Windsor, NY

Date Sampled: 03/19/19
Date Received: 03/20/19
Percent Solids: n/a

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	86.7	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-120%
17060-07-0	1,2-Dichloroethane-D4	93%		81-124%
2037-26-5	Toluene-D8	106%		80-120%
460-00-4	4-Bromofluorobenzene	99%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

SGS

GW

CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX: 732-329-3499/3480
www.sgs.com/ehsusa

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FED-EX Tracking # | Bottle Order Control #
SGS Quote # | SGS Job # JC84837

Client / Reporting Information	Project Information	
Company Name: ERM	Project Name: FORTIVE	
Street Address: 105 MAXESS Rd. Ste. 316	Street: 87 Little Britain Rd	Billing Information (If different from Report to)
City / State / Zip: MELVILLE NY 11747	City / State: NEW WINDSOR NY	Company Name
Project Contact / E-mail: KAREN.PICKERING@ERM.COM	Project #: 0501429	Street Address
Phone #: 631-756-8900	Client Purchase Order #	City / State / Zip
Sampler(s) Name(s) / Phone #: M. FRANKEL 347527-0691	Project Manager: KAREN PICKERING	Attention:

Requested Analysis: V8260TCL20

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; SED - Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB - Field Blank; EB - Equipment Blank; RB - Rinse Blank; TB - Trip Blank

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Date	Time	Sampled by	Grab (G) Comp (C)	Matrix	# of bottles	HCl	NaOH	HNO_3	H_2SO_4	NONE	DI Water	MEOH	ENCORE	V8260TCL20	LAB USE ONLY
1	MW-12-031919		3/19/19	1440	MF	G	GW	3	3								X	V664

Turn Around Time (Business Days)

- [ ] 10 Business Days
- [ ] 5 Business Days
- [ ] 3 Business Days*
- [ ] 2 Business Days*
- [ ] 1 Business Day*
- [ ] Other

Approved By (SGS PM): / Date:

All data available via Lablink

* Approval needed for 1-3 Business Day TAT

Deliverable

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] NJ Reduced (Level 3)
- [ ] Full Tier I (Level 4)
- [ ] Commercial "C"
- [ ] NJ DKQP
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] MA MCP Criteria______
- [ ] CT RCP Criteria______
- [ ] State Forms
- [ ] EDD Format ________
- [ ] DOD-QSM5

Commercial "A" = Results only; Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions

INITIAL ASESSMENT 3B
LABEL VERIFICATION________

http://www.sgs.com/en/terms-and-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by:	Date / Time:	Received By:	Relinquished By:	Date / Time:	Received By:
1 [signature]	3/19/19 1120	1 Chris Lau	2 Chris Lau	3/20/19 1830	2 [signature]
3		3	4		4
5		5	Custody Seal # 15300	☒ Intact ☐ Not intact	Preserved where applicable ☐; Therm. ID: ; On Ice ☒; Cooler Temp. °C 1.3 °C IR

EHSA-QAC-0023-02-FORM-Dayton - Standard COC.xlsx

5.1

5

JC84837: Chain of Custody
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SGS Sample Receipt Summary

Job Number: JC84837 **Client:** ERM, INCORPORATED **Project:** FORTIVE, NEW WINDSOR, NY

Date / Time Received: 3/20/2019 6:30:00 PM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (1.3);

Cooler Temps (Corrected) °C: Cooler 1: (0.3);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 206717 pH 12+: 208717 Other: (Specify)

Comments

SM089-03
Rev. Date 12/7/17

JC84837: Chain of Custody
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