J.C. Broderick & Associates, Inc.

Environmental / Construction Consulting & Testing

1775 Expressway Drive North
Hauppauge, NY 11788
631.584.5492
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August 8, 2019

Mr. Severino Fasulo
Syosset Central School District
99 Pell Lane
Syosset, New York 11791

Re: Sampling and Analysis of Suspect Mercury Containing Flooring
Dance Studio (AHERA ID 2294)
Syosset High School
70 South Woods Road
Syosset, New York 11791
Sampling Date: July 1, 2019

JCB#: 19-43280

Dear Mr. Fasulo:

J.C. Broderick & Associates, Inc. (JCB) was retained to perform sampling and analysis of the suspect mercury containing flooring within the above referenced subject space.

The sampling was performed by physically coring the full depth of the floor material. Samples were assigned individual identification numbers, logged into a chain of custody document, and delivered to an independent laboratory for analysis of total mercury content.

As indicated in the June 11, 2019 letter from the New York State Education Department regarding mercury-containing flooring, the results of the analysis were compared with the levels set forth in the Minnesota Department of Health's Guidance document "Mercury Flooring Testing and Mitigation: Guidance for Environmental Professionals." This guidance document states that if a floor contains less than 1 part per million (ppm) mercury, it can be assumed that the flooring was not manufactured using a mercury-containing catalyst.

The results of the sampling revealed the following:

- No sample results revealed mercury concentrations greater than 1 ppm.

Attached please find a copy of the laboratory analytical report detailing the findings. If there are any questions or if more information is needed, please contact our office.

Sincerely,

Bryan Ezelius
J. C. Broderick & Associates, Inc.

Edward McGuire
J. C. Broderick & Associates, Inc.

Laboratory Results

J.C. Broderick & Associates, Inc.
Environmental Consulting & Testing
1775 Expressway Drive North
Hauppauge, New York 11788

Technical Report

prepared for:

J.C. Broderick
1775 North Express Drive
Hauppauge NY, 11788
Attention: Bryan Ezelius

Report Date: 07/09/2019
Client Project ID: 19-43280
York Project (SDG) No.: 19G0027

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J.C. Broderick
1775 North Express Drive
Hauppauge NY, 11788
Attention: Bryan Ezelius

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on July 01, 2019 with a temperature of 5.8 C. The project was identified as your project: **19-43280**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Sample and Analysis Qualifiers section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the Sample and Data Qualifiers Relating to This Work Order section of this report and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

York Sample ID	Client Sample ID	Matrix	Date Collected	Date Received
19G0027-01	1	Bulk Material	06/27/2019	07/01/2019
19G0027-02	2	Bulk Material	06/27/2019	07/01/2019

General Notes for York Project (SDG) No.: 19G0027

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All analyses conducted met method or Laboratory SOP requirements. See the Sample and Data Qualifiers Section for further information.
6. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
7. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.
8. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058.

Approved By: 

Date: 07/09/2019

Benjamin Gulizia
Laboratory Director

Sample Information

Client Sample ID: 1 **York Sample ID:** 19G0027-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19G0027	19-43280	Bulk Material	June 27, 2019 12:00 am	07/01/2019

Mercury TCLP by 7473

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 water

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		mg/L	0.000200	1	EPA 7473/1311	07/03/2019 12:24	07/03/2019 14:59	SY
							Certifications:	CTDOH,NJDEP,PADEP,NELAC-NY10854		

TCLP Extraction for METALS EPA 1311

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW 846-1311 TCLP ext. for metals

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	TCLP Extraction	Completed		N/A	1.00	1	EPA 1311	07/02/2019 15:33	07/03/2019 10:11	TAJ
							Certifications:	NELAC-NY10854,CTDOH,NJDEP,PADEP		

Sample Information

Client Sample ID: 2 **York Sample ID:** 19G0027-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19G0027	19-43280	Bulk Material	June 27, 2019 12:00 am	07/01/2019

Mercury by 7473

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 soil

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	**Mercury**	**0.0546**		mg/kg dry	0.0300	1	EPA 7473	07/02/2019 12:03	07/02/2019 14:27	SY
							Certifications:	CTDOH,NJDEP,NELAC-NY10854,PADEP		

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	*** % Solids**	**100**		%	0.100	1	SM 2540G	07/09/2019 11:19	07/09/2019 15:53	JTV
							Certifications:	CTDOH		

Sample and Data Qualifiers Relating to This Work Order

EXT-COMP Completed

Definitions and Other Explanations

*	Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.
ND	NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)
RL	REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
LOQ	LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence. This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses.
LOD	LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.
MDL	METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.
Reported to	This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.
NR	Not reported
RPD	Relative Percent Difference
Wet	The data has been reported on an as-received (wet weight) basis
Low Bias	Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
High Bias	High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
Non-Dir.	Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.

For analyses by EPA SW-846-8270D, the Limit of Quantitation (LOQ) reported for benzidine is based upon the lowest standard used for calibration and is not a verified LOQ due to this compound's propensity for oxidative losses during extraction/concentration procedures and non-reproducible chromatographic performance.

19G0027

BULK SAMPLING CHAIN OF CUSTODY RECORD

SITE: Syosset High School
ADDRESS: 70 South Woods, Syosset, New York 11791
DATE: 6/27/2019
CLIENT: Syosset Central School District
PROJECT # : 19-43280

☐ ANALYZE EACH MATERIAL TO 1ST POSITIVE

SAMPLER'S NAME : Jarett Boniface
SAMPLER'S SIGN:
LABORATORY : York
TURNAROUND TIME : (CIRCLE ONE) 24 HOUR | 12 HOUR | 6 HOUR | RUSH | (OTHER 3 Days)
MANAGER: Bryan Ezelius

SAMPLE #	HM #	MATERIAL DESCRIPTION	SPACE ID / LOCATION	ANALYSIS METHOD
1		Rubber Flooring	Wrestling Room/Dance Room (2294)	TCLP Mercury
2		Rubber Flooring	Wrestling Room/Dance Room (2294)	Total Mercury

SUBMITTED BY (PRINT)	SIGNATURE	DATE	TIME	RECEIVED BY (PRINT)	SIGNATURE	DATE	TIME
				K BARKER	K Barker	7-1-19	1PM
COMMENTS				ANALYST (PRINT)	SIGNATURE	DATE	TIME

K Barker 7-1-19 1730 Lab-TGale 7-1-19 1730 5.8°C

J.C. BRODERICK & ASSOCIATES
1775 Expressway Drive North ♦ HAUPPAUGE ♦ NEW YORK, 11788 ♦ PHONE: (631) 584-5492 ♦ FAX: (631) 584-3395