



City of Fort Myers
Fort Myers South Street Lime Residuals Removal

B&V Project 196779
B&V File 32.0000
July 22, 2019

Mr. Richard Thompson
City of Fort Myers
2200 Second Street
Fort Myers, Florida 33901

Subject: Dust Monitoring & Sampling Results

Dear Mr. Thompson:

Enclosed is the Dust Monitoring & Sampling results report for the City of Fort Myers South Street property. The report summarizes the air monitoring and sampling that occurred during the construction activities at the site. The results indicate that all dust and arsenic levels were below permissible levels at all times during site activities.

If you have any questions, please contact me at (239) 703-8294.

Very truly yours,
BLACK & VEATCH

Mark E. Martin, P.E.
Project Manager

Dust Monitoring & Sampling

Background

The City of Fort Myers (City) owns a 3.14-acre property located at 3348 South, Fort Myers, Florida. Beginning in November 2018, the City began to voluntarily excavate and remove lime residuals from the entire site. Excavation of the lime residuals began on November 26, 2018 and truck loading and hauling began on December 12, 2018. All excavation, loading and hauling operations were concluded on April 29, 2019. A total of 29,839.5 tons of lime residuals and soil were removed from the site during this period.

Dust Monitoring

During excavation, loading and hauling activity at the site, the City conducted dust monitoring to minimize dust levels and migration of dust offsite. Monitoring was performed when construction activities were taking place on the site. A DustTrak 8355 air monitor was used for all dust monitoring and was calibrated daily. The air monitor was moved daily to a location downwind of construction activities to collect the maximum amount of dust. The dust monitoring results are included as Attachment A.

The OSHA permissible exposure limit (PEL) for dust is 2.5 mg/m³. The dust monitor was set to record particulate matter of 2.5 microns or less (PM2.5) which is the particle size range for dust and arsenic. The daily recorded PM2.5 TWA dust levels were significantly less than the regulated dust level of 2.5 mg/m³ and the PM2.5 maximum was never exceeded.

Air Sampling

To verify airborne arsenic levels contained within the dust, personal air samples were collected from December 12 – 18, 2018. The samples were sent to the SGS Galson laboratory for analysis and the results are included as Attachment B. The OSHA PEL for arsenic is 0.010 mg/m³. The Action Level (AL) for arsenic is 0.005 mg/m³ for an 8-hour TWA. The AL is defined as the level of concentration of a harmful or toxic substance or contaminant that, when exceeded, is considered sufficient to warrant regulatory or remedial action. The results indicate very low levels of arsenic present in the air and arsenic was never detected above the PEL nor the AEL.

In conclusion, during the duration of lime residual removal activities, dust levels were below the OSHA PEL and arsenic levels were below the PEL and AL.

ATTACHMENT A
Dust Monitoring Results

Attachment A - Dust Monitoring Results

Date	Test Start Time	Test Length [D:H:M]	PM2.5 Maximum [mg/m3]*	PM2.5 TWA [mg/m3]**	Weather Condition
10/17/2018	7:34:47 AM	0:03:50	0.013	0.008	Not Recorded
10/17/2018	11:39:44 AM	0:01:00	0.004	0.001	Not Recorded
10/18/2018	11:58:48 AM	0:04:20	0.011	0.018	12:00 am – 74 °F, Mostly Sunny 4:30 pm – 89, Sunny
10/19/2018	NA	NA	NA	NA	NA
10/20/2018	NA	NA	NA	NA	NA
10/21/2018	NA	NA	NA	NA	NA
10/22/2018	7:50:27 AM	0:08:10	0.007	0.012	7:00 am – 69 °F, Clear 5:00 pm – 81, Cloudy
10/23/2018	7:11:57 AM	0:04:30	0.007	0.007	7:00 am – 66 °F, Clear 5:00 pm – 87, Partly Cloudy
10/23/2018	12:52:07 PM	0:01:41	0	0.002	NA
10/24/2018	7:20:50 AM	0:02:55	0.006	0.003	7:00 am – 72 °F, Clear 5:00 pm – 85 °F, Cloudy
10/24/2018	11:08:44 AM	0:05:05	0.009	0.01	NA
10/25/2018	7:03:52 AM	0:09:25	0.001	0.008	7:00 am – 68°F, Clear 5:00 pm – 87 °F, Sunny
10/26/2018	7:05:43 AM	0:07:19	0	0.013	7:00 am – 74 °F, Partly Cloudy 5:00 pm – 85 °F, Partly Cloudy
10/27/2018	NA	NA	NA	NA	NA
10/28/2018	NA	NA	NA	NA	NA
10/29/2018	7:01:58 AM	0:10:15	0.01	0.02	7:00 am – 56 °F, Clear 6:30 pm – 81 °F, Clear
10/30/2018	7:10:18 AM	0:09:55	0.012	0.027	7:00 am – 60 °F, Clear 5:00 pm – 85 °F, Clear
10/31/2018	7:09:47 AM	0:09:20	0.005	0.016	7:00 am – 63 °F, Clear 5:00 pm – 85 °F, Cloudy
11/1/2018	NA	NA	NA	NA	7:00 am – 63 °F, Clear 4:00 pm – 86 °F, Cloudy
11/2/2018	7:01:27 AM	0:08:06	0.033	0.012	7:00 am – 69°F, Clear 3:30 pm – 85°F, Cloudy
11/3/2018	NA	NA	NA	NA	NA
11/4/2018	NA	NA	NA	NA	NA
11/5/2018	7:00:13 AM	0:09:00	0.037	0.01	7:00 am – 70°F, Clear 5:00 pm – 87°F, Partly Cloudy
11/6/2018	7:00:27 AM	0:09:05	0.019	0.008	7:00 am – 70 °F, Clear 5:00 pm – 87°F, Clear
11/7/2018	6:53:28 AM	0:08:30	0.021	0.008	7:00 am – 70 °F, Clear 5:00 pm – 86 °F, Cloudy
11/8/2018	7:12:05 AM	0:08:40	0.023	0.007	7:00 am – 71°F, Fog 5:00 pm – 86 °F, Partly Cloudy
11/9/2018	9:38:54 AM	0:02:05	0.02	0.002	7:00 am – 71 °F, Clear 12:00 noon – 87 °F, Partly Cloudy
11/10/2018	NA	NA	NA	NA	NA
11/11/2018	NA	NA	NA	NA	NA
11/12/2018	7:01:47 AM	0:09:10	0.089	0.018	7:00 am – 71 °F, Clear 6:00 pm – 82 °F, Partly Clear
11/13/2018	7:54:12 AM	0:04:15	0.047	0.007	8:00 am – 72 °F, Clear

* PM2.5 Maximum: is the observed maximum particulate matter concentration in air with a diameter less than 2.5 micrometer.

** PM2.5 TWA: is the time-weighted average of particulate matter concentration in air with a diameter less than 2.5 micrometer.

The OSHA TWA limit for dust is <2.5 mg/m³.

Date	Test Start Time	Test Length [D:H:M]	PM2.5 Maximum [mg/m3]*	PM2.5 TWA [mg/m3]**	Weather Condition
11/13/2018	12:18:16 PM	0:01:30	1.55	0.049	NA
11/14/2018	7:13:22 AM	0:08:30	0.025	0.009	7:00 am – 72 °F, Fog 5:00 pm – 85 °F, Rain
11/15/2018	6:58:28 AM	0:08:45	0.042	0.004	7:00 am – 71°F, Overcast, Drizzle 4:30 pm – 74 °F, Overcast
11/16/2018	7:10:28 AM	0:08:40	0.057	0.009	7:00 am – 53 °F, Clear 4:30 pm – 71 °F, Cloudy
11/17/2018	7:06:02 AM	0:05:35	0.038	0.011	7:00 am – 53 °F, Clear 5:00 pm – xx °F, Cloudy
11/18/2018	NA	NA	NA	NA	NA
11/19/2018	7:00:36 AM	0:00:01	1.5	0	7:00 am – 66 °, Partly cloudy 5:00 pm – 81 °F, Overcast
11/20/2018	7:11:13 AM	0:08:50	0.035	0.012	7:00 am – 69 °F, Partly Cloudy 5:00 pm –82 °F, Partly Cloudy
11/21/2018	7:00:59 AM	0:07:35	0.09	0.02	7:00 am – 65 °F, Clear 3:00 pm – 80 °F, Clear
11/22/2018	NA	NA	NA	NA	NA
11/23/2018	NA	NA	NA	NA	NA
11/24/2018	NA	NA	NA	NA	NA
11/25/2018	NA	NA	NA	NA	NA
11/26/2018	7:05:30 AM	0:09:50	0.033	0.015	7:00 am – 70 °F, Fog 5:00 pm – 80 °F, Partly Cloudy
11/27/2018	7:02:13 AM	0:10:15	0.013	0.007	7:00 am – 66 °F, Overcast 5:00 pm – XX °F, Partly Cloudy
11/28/2018	7:04:09 AM	0:09:13	0.011	0.003	7:00 am – 46 °F, Clear 5:00 pm – 62 °F, Sunny
11/29/2018	7:07:29 AM	0:07:55	0.042	0.008	7:00 am – 43 °F, Partly Cloudy 5:00 pm – 62 °F, Sunny
11/30/2018	6:52:14 AM	0:08:25	0.339	0.014	7:00 am – 58 °F, Clear 4:00 pm – 77 °F,
12/1/2018	NA	NA	NA	NA	NA
12/2/2018	NA	NA	NA	NA	NA
12/3/2018	7:01:20 AM	0:03:30	0.035	0.007	7:00 am – 72 °F, Fog 11:00 pm –83 °F, Sunny
12/4/2018	6:53:36 AM	0:03:00	0.048	0.012	7:00 am – 73 °F, Light rain 10:30 pm –80 °F, Sunny
12/5/2018	6:57:31 AM	0:04:40	0.013	0.005	7:00 am – 60 °F, Clear 12:30 pm – 63 °F, Cloudy
12/6/2018	6:59:55 AM	0:02:45	0.008	0.002	7:00 am – 47 °F, Clear 11:00 am – 65 °F, Sunny
12/7/2018	6:52:19 AM	0:01:40	0.008	0.002	7:00 am – 53 °F, Clear 9:30 am – 64 °F, Sunny
12/8/2018	NA	NA	NA	NA	NA
12/9/2018	NA	NA	NA	NA	NA
12/10/2018	NA	NA	NA	NA	NA
12/11/2018	NA	NA	NA	NA	NA
12/12/2018	6:59:55 AM	0:02:45	0.008	0.002	7:00 am – 43 °F, Clear 5:00 pm – 69 °F, Clear
12/13/2018	6:50:24 AM	0:03:20	0.019	0.004	7:00 am – 60 °F, Clear 5:00 pm –79° F, Clear
12/13/2018	10:20:27 AM	0:05:15	0.048	0.015	
12/14/2018	NA	NA	NA	NA	NA
12/15/2018	NA	NA	NA	NA	NA
12/16/2018	NA	NA	NA	NA	NA

* PM2.5 Maximum: is the observed maximum particulate matter concentration in air with a diameter less than 2.5 micrometer.

** PM2.5 TWA: is the time-weighted average of particulate matter concentration in air with a diameter less than 2.5 micrometer.

The OSHA TWA limit for dust is <2.5 mg/m³.

Date	Test Start Time	Test Length [D:H:M]	PM2.5 Maximum [mg/m3]*	PM2.5 TWA [mg/m3]**	Weather Condition
12/17/2018	6:55:16 AM	0:09:55	0.038	0.013	7:00 am – 53 °F, Fog 5:00 pm –79° F, Clear
12/18/2018	6:50:53 AM	0:10:45	0.103	0.02	7:00 am – 51 °F, Fog 5:00 pm –79° F, Clear
12/19/2018	NA	NA	NA	NA	NA
12/20/2018	NA	NA	NA	NA	NA
12/21/2018	NA	NA	NA	NA	NA
12/22/2018	NA	NA	NA	NA	NA
12/23/2018	NA	NA	NA	NA	NA
12/24/2018	NA	NA	NA	NA	NA
12/25/2018	NA	NA	NA	NA	NA
12/26/2018	NA	NA	NA	NA	NA
12/27/2018	NA	NA	NA	NA	NA
12/28/2018	NA	NA	NA	NA	NA
12/29/2018	NA	NA	NA	NA	NA
12/30/2018	NA	NA	NA	NA	NA
12/31/2018	NA	NA	NA	NA	NA
1/1/2019	NA	NA	NA	NA	NA
1/2/2019	1:21:01 PM	0:03:35	0.04	0.01	NA
1/3/2019	7:41:53 AM	0:08:45	0.03	0.01	NA
1/4/2019	7:49:48 AM	0:07:50	0.029	0.016	7:00 am – 70 °F, Fog 5:00 pm –81° F, Sunny
1/5/2019	NA	NA	NA	NA	NA
1/6/2019	NA	NA	NA	NA	NA
1/7/2019	7:08:34 AM	0:09:55	0.067	0.012	7:00 am – 57 °F, Partly Cloudy 5:00 pm –80° F, Sunny
1/8/2019	6:59:28 AM	0:10:05	0.09	0.019	7:00 am – 61 °F, Partly Cloudy 5:00 pm –81° F, Sunny
1/9/2019	6:57:02 AM	0:11:25	0.031	0.01	7:00 am – 61 °F, Cloudy 5:00 pm –XX° F, Sunny
1/10/2019	7:34:56 AM	0:09:30	0.023	0.009	7:00 am – 45 °F, Clear 5:00 pm –XX° F, Sunny
1/11/2019	7:17:16 AM	0:08:20	0.061	0.011	7:00 am – 45 °F, Clear 4:00 pm –75° F, Sunny
1/12/2019	NA	NA	NA	NA	NA
1/13/2019	NA	NA	NA	NA	NA
1/14/2019	7:09:29 AM	0:09:40	0.029	0.014	7:00 am – 61 °F, Clear 4:00 pm –71° F, Sunny
1/15/2019	7:12:37 AM	0:10:05	0.04	0.016	7:00 am – 54 °F, Overcast 4:00 pm –63° F, Sunny
1/16/2019	6:53:06 AM	0:10:00	0.034	0.017	7:00 am – 46°F, Clear 4:00 pm –xx° F, Sunny
1/17/2019	6:58:42 AM	0:09:45	0.051	0.023	7:00 am – 45°F, Clear 4:00 pm –xx° F, Sunny
1/18/2019	7:00:24 AM	0:08:05	0.057	0.021	7:00 am – 52°F, Clear 3:00 pm –73° F, Sunny
1/19/2019	NA	NA	NA	NA	NA
1/20/2019	NA	NA	NA	NA	NA
1/21/2019	NA	NA	NA	NA	7:00 am – 42°F, Clear 4:00 pm –63° F, Sunny
1/22/2019	7:16:03 AM	0:09:45	0.122	0.018	7:00 am – 50°F, Clear 3:30 pm 76° F, Sunny
1/23/2019	7:15:26 AM	0:09:30	0.08	0.02	7:00 am – 60°F, Clear 4:00 pm 80 ° F, Sunny
1/24/2019	6:51:47 AM	0:02:55	0.022	0.004	7:00 am – 72°F, Overcast 4:00 pm 71 ° F, Sunny

* PM2.5 Maximum: is the observed maximum particulate matter concentration in air with a diameter less than 2.5 micrometer.

** PM2.5 TWA: is the time-weighted average of particulate matter concentration in air with a diameter less than 2.5 micrometer.
The OSHA TWA limit for dust is <2.5 mg/m³.

Date	Test Start Time	Test Length [D:H:M]	PM2.5 Maximum [mg/m3]*	PM2.5 TWA [mg/m3]**	Weather Condition
1/25/2019	6:50:32 AM	0:05:05	0.034	0.006	7:00 am – 57°F, Overcast 11:30 58 pm 71 ° F, Sunny
1/26/2019	NA	NA	NA	NA	NA
1/27/2019	NA	NA	NA	NA	NA
1/28/2019	NA	NA	NA	NA	7:00 am – 48°F, Overcast 3:00 pm 50 ° F, Overcast
1/29/2019	6:53:41 AM	0:09:20	0.05	0.017	7:00 am – 44°F, Clear 5:30 pm - 62°F, Sunny
1/30/2019	9:40:50 AM	0:06:15	0.061	0.011	7:00 am – 57°F, Clear 4:00 pm - 67°F, Sunny
1/31/2019	7:33:42 AM	0:08:30	0.064	0.013	7:00 am – 50°F, Cloudy 4:00 pm - 66°F, Sunny
2/1/2019	7:14:52 AM	0:08:05	0.34	0.024	7:00 am – 63°F, Cloudy 4:00 pm - 79°F, Sunny
2/2/2019	NA	NA	NA	NA	NA
2/3/2019	NA	NA	NA	NA	NA
2/4/2019	NA	NA	NA	NA	7:00 am – 63°F, Cloudy 4:00 pm - 79°F, Sunny
2/5/2019	NA	NA	NA	NA	7:00 am – 61°F, Fog 4:00 pm - 80°F, Sunny
2/6/2019	NA	NA	NA	NA	7:00 am – 60°F, Clear 4:00 pm - 80°F, Sunny

* PM2.5 Maximum: is the observed maximum particulate matter concentration in air with a diameter less than 2.5 micrometer.

** PM2.5 TWA: is the time-weighted average of particulate matter concentration in air with a diameter less than 2.5 micrometer.

The OSHA TWA limit for dust is <2.5 mg/m³.

ATTACHMENT B
Air Sampling Laboratory
Analysis



Mr. Louis Vitone
Black & Veatch
4415 Metro Parkway
Fort Myers, FL 33916

December 27, 2018

Account# 16842

Login# L466900

Dear Mr. Vitone:

Enclosed are the analytical results for the samples received by our laboratory on December 21, 2018. All samples on the chain of custody were received in good condition unless otherwise noted. When possible, non-IOM samples will be retained for 14 days following the date of this report (unless an extension is specifically requested). IOM samples are retained for 7 days.

Please contact client services at (888) 432-5227 if you would like any additional information regarding this report. Thank you for using SGS Galson.

Sincerely,

SGS Galson

Lisa Swab
Laboratory Director

Enclosure(s)



SGS

GALSON

LABORATORY ANALYSIS REPORT

6601 Kirkville Road
 East Syracuse, NY 13057
 (315) 432-5227
 FAX: (315) 437-0571
 www.sgsgalson.com

Client : Black & Veatch Account No.: 16842
 Site : 3348 South Street, Fort Myers, Login No. : L466900
 Project No. : Lime Sludge Removal
 Date Sampled : 12-DEC-18 - 18-DEC-18 Date Analyzed : 26-DEC-18
 Date Received : 21-DEC-18 Report ID : 1110537

Arsenic

Sample ID	Lab ID	Air Vol liter	Total ug	Conc mg/m3
12-12-18-01	L466900-1	335.3	<0.30	<0.00089
12-12-18-02	L466900-2	191.9	<0.30	<0.0016
12-13-18-01	L466900-3	1070	<0.30	<0.00028
12-17-18-01	L466900-4	1226.1	<0.30	<0.00024
12-18-18-01	L466900-5	1270.6	<0.30	<0.00024
12-12-18-BL	L466900-6	NA	<0.30	NA

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Level of quantitation: 0.30 ug Submitted by: JPA/JMR Approved by: KEG
 Analytical Method : mod. NIOSH 7303/mod. OSHA ID-125G; ICP Date : 27-DEC-18 NYS DOH # : 11626
 Collection Media : MCE UW 37mm Supervisor : KEG QC by : KEG

< -Less Than mg -Milligrams m3 -Cubic Meters kg -Kilograms NA -Not Applicable ND -Not Detected
 > -Greater Than ug -Micrograms l -Liters NS -Not Specified ppm -Parts per Million



SGS

GALSON

LABORATORY FOOTNOTE REPORT

6601 Kirkville Road
East Syracuse, NY 13057
(315) 492-8227
FAX: (315) 497-0571
www.sgsгалson.com

Client Name : Black & Veatch
Site : 3348 South Street, Fort Myers,
Project No. : Lime Sludge Removal
Date Sampled : 12-DEC-18 - 18-DEC-18 Account No.: 16842
Date Received: 21-DEC-18 Login No. : L466900
Date Analyzed: 26-DEC-18

L466900 (Report ID: 1110537):

Reported results reflect elemental analysis of the requested metals. Certain compounds may not be solubilized during digestion, resulting in data that is biased low.

SOPs: MT-SOP-27(2), MT-SOP-29(4)

L466900 (Report ID: 1110537):

Accuracy and mean recovery data presented below is based on a 95% confidence interval (k=2). The estimated accuracy applies to the media, technology, and SOP referenced in this report and does not account for the uncertainty associated with the sampling process. The accuracy is based solely on spike recovery data from internal quality control samples. Where N/A appears below, insufficient data is available to provide statistical accuracy and mean recovery values for the associated analyte.

Parameter	Accuracy	Mean Recovery
Arsenic	+/-8.4%	102%



784536385151
 Date: 12/21/18
 Shipper: FEDEX
 Initials: BGF
 Prep: UNKNOWN

L4668 KMS
L466900

New Client?

Report To: Mr. Louis Vitone
 Black and Veatch
 4415 Metro Parkway
 Fort Myers, FL 33916

Invoice To: Accounts Payable
 Black & Veatch
 11401 Lamar Avenue
 Overland Park, KS
 Project No. 196779 1330

Client Account No.:
 16842

Phone No.: 913-458-4516
 Cell No.: 913-707-3934

Phone No.: 913-458-4516
 Email: BVAPMarkView@bv.com, dyrojr@bv.com

Last Syracuse, NY 13057
 Tel: (315) 432-5227
 888-432-LAB5 (5227)
 Fax: (315) 437-0571
 www.galsonlabs.com

83

Email Results to: Shelly Pizzi
 Email address: pizzisa@bv.com, vitonel@bv.com

P.O. No.:
 Credit Card: Card on File Call for Credit Card Info.

Samples submitted using the FreePumpLoan™ Program Samples submitted using the FreeSamplingBadges™ Program

Need Results By:	(surcharge)	Site Name : 3348 South Street, Fort Myers, FL Project : Lime Sludge Removal Sampled by : Louis Vitone					
<input checked="" type="checkbox"/> 5 Business Days	0%	Comments :					
<input type="checkbox"/> 4 Business Days	35%						
<input type="checkbox"/> 3 Business Days	50%						
<input type="checkbox"/> 2 Business Days	75%						
<input type="checkbox"/> Next Day by 6pm	100%						
<input type="checkbox"/> Next Day by Noon	150%	List description of industry or Process/Interferences present in sampling area :		State samples were collected in (e.g., NY)	Please indicate which OEL this data will be used for :		
<input type="checkbox"/> Same Day	200%	Construction <i>all 3pc uv</i>		FL	<input checked="" type="checkbox"/> OSHA PEL <input type="checkbox"/> ACGIH TLV <input type="checkbox"/> Cal OSHA <input type="checkbox"/> MSHA <input type="checkbox"/> Other (specify):		
Sample Identification* (Maximum of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units*: L, mL, min, in2, cm2, ft2	Analysis Requested*	Method Reference*	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
12-12-18-01	12-12-18	37 mm MCE	335.3	L	Arsenic	OSHA ID-125G	excavating
12-12-18-02	12-12-18	37 mm MCE	191.9	L	Arsenic	OSHA ID-125G	excavating
12-13-18-01	12-13-18	37 mm MCE	1070	L	Arsenic	OSHA ID-125G	excavating
12-17-18-01	12-17-18	37 mm MCE	1226.1	L	Arsenic	OSHA ID-125G	excavating
12-18-18-01	12-18-01	37 mm MCE	1270.6	L	Arsenic	OSHA ID-125G	excavating
12-12-18-BL	all days	37 mm MCE					
		<i>BGF 12/21/18</i>					
*Galson Laboratories will substitute our routine/preferred method if it does not match the method listed on the COC unless this box is checked: <input type="checkbox"/> Use method(s) listed on COC							
For metals analysis: if requesting an analyte with the option of a lower LOQ, please indicate if the lower LOQ is required (only available for certain analytes - see SAG) :							
For crystalline silica: form(s) of silica needed must be indicated (Quartz, Cristobalite, and/or Tridymite) * :							
Chain of Custody	Print Name	Signature	Date/Time				
Relinquished by :	<i>LOUIS VITONE</i>	<i>Louis Vitone</i>	12-18-18 7:41 PM				
Received by LAB :	<i>Brett Grenert-Fischer</i>	<i>Brett Grenert-Fischer</i>	12/21/18 1346				
Samples received after 3pm will be considered as next day's business							
* Required fields, failure to complete these fields may result in a delay in your samples being processed.							
Page 1 of 1							