



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION III  
1650 Arch Street  
Philadelphia, Pennsylvania 19103-2029

Via UPS

April 10, 2014

Jonathan Flesher  
Senior Development Director  
Beatty Development Group, LLC  
1300 Thames Street, Suite 110  
Baltimore, Maryland 21231

**Re: Pre-Construction Air Monitoring Report – Appendix I**

Dear Mr. Flesher:

EPA and MDE (“Agencies”) representatives have reviewed all of the ERG laboratory reports and LDC data validation reports for the pre-construction air monitoring study of March 6 – 21, 2014.

The reports are acceptable and the vast majority of the Cr(VI) data is usable for calculation of the Background Threshold Value (BTV), with one caveat. There was only one case of blank contamination, which occurred with the trip blank for the March 17 samples (0.0582 ng/mL, not adjusted for air volume, since there was none). The data validation report identified the trip blank contamination, but did not apply any qualifiers to the March 17 data, stating “Based on professional judgement, no samples will be qualified based off the uncharacteristically high trip blank contamination.” However, the data users disagree, perhaps because the agencies are more familiar with the fact that the filters are prone to Cr(VI) contamination inherently, which is why the ERG SOP requires stringent pre-cleaning of the filters prior to use. In addition, the March 17 data set contains the highest Cr(VI) concentration obtained in the pre-construction study, which appears to be a suspicious outlier. It is the Agencies opinion that the trip blank contamination is not associated with contamination occurring during transport; if that were the case, presumably other trip blanks from the study would also have been contaminated. Instead, the trip blank contamination is indicative of a batch of filters for which the pre-cleaning process failed to remove all inherent Cr(VI) filter contamination, and this is further shown in the aberrantly high result found in the OAM-2 filter (0.146 ng/m<sup>3</sup>) for March 17. Therefore, it is the Agencies recommendation that the March 17 Cr(VI) results all be qualified “R” based on the trip blank contamination, and excluded from the BTV calculation.

Two issues were identified concerning the LDC data validation reports as follows:

1. The hand-writing in the worksheets is generally clear, but there are instances when numerals border on the illegible. It is requested that future data validation worksheets are carefully checked for legibility prior to submission to the Agencies.

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2. The percent recovery/RPD recalculation hand-writing on the data validation worksheets does not include units. Units must be included on future data validation worksheets.
3. The data validation worksheet for LCS and Dup percent recovery/RPD recalculation for the March 18 samples (SDG 4031920) shows values of 0.476 and 0.463 (presumably ng/m<sup>3</sup>) for the PAM-1 and PAM-1 laboratory duplicate. However, these are not the values shown in the ERG laboratory report for those samples in this SDG; these values are 0.0393 and 0.0402 ng/m<sup>3</sup>. Please explain and correct this worksheet.

Should you have questions or want to discuss the matter further please do not hesitate to contact me at (215) 814-3226.

Sincerely,



Russell H. Fish  
Project Manager  
Office of Remediation

cc: E. Dexter (MDE)  
C. French (Honeywell)



SAMPDATA

SAMPLENAME	LABSAMPID	SAMPDATE	PREPDATE	ANADATE	ANALYTE	CASNUMBER	RESULT	ANOTE	DL	UNITS	LABNAME
OAM 1	4031009-02	3/7/2014	3/10/2014	3/10/2014	Hex Chrome ASTM D7614	1854-02-99	ND	U	0.0036	ng/m <sup>3</sup> Air	Eastern Research Group
OAM 2	4031009-01	3/7/2014	3/10/2014	3/10/2014	Hex Chrome ASTM D7614	1854-02-99	ND	U	0.0036	ng/m <sup>3</sup> Air	Eastern Research Group
PAM-1	4031009-04	3/7/2014	3/10/2014	3/10/2014	Hex Chrome ASTM D7614	1854-02-99	0.0146	U	0.0036	ng/m <sup>3</sup> Air	Eastern Research Group
PAM-1D	4031009-03	3/7/2014	3/10/2014	3/10/2014	Hex Chrome ASTM D7614	1854-02-99	ND	U	0.0036	ng/m <sup>3</sup> Air	Eastern Research Group
PAM-21	4031009-05	3/7/2014	3/10/2014	3/10/2014	Hex Chrome ASTM D7614	1854-02-99	ND	U	0.0036	ng/m <sup>3</sup> Air	Eastern Research Group
PAM-31	4031009-06	3/7/2014	3/10/2014	3/10/2014	Hex Chrome ASTM D7614	1854-02-99	ND	U	0.0036	ng/m <sup>3</sup> Air	Eastern Research Group

SAMPLENAME	LABSAMPID	SAMPDATE	PREPDATE	ANADATE	ANALYTE	SAMPDATE	TOASNUMBER	RESULT	ANOTE	DL	UNITS	LABNAME
OAM 1	4031106-03	3/8/2014	3/11/2014	3/11/2014	Hexavalent Chromium	1854-02-99	1854-02-99	0.0214		0.0036	ng/m³ Air	Eastern Research Group
OAM 1	4031106-07	3/9/2014	3/11/2014	3/11/2014	Hexavalent Chromium	1854-02-99	1854-02-99	0.0185		0.0036	ng/m³ Air	Eastern Research Group
OAM 1	4031106-13	3/10/2014	3/11/2014	3/11/2014	Hexavalent Chromium	1854-02-99	1854-02-99	0.0272		0.0036	ng/m³ Air	Eastern Research Group
OAM 2	4031106-04	3/8/2014	3/11/2014	3/11/2014	Hexavalent Chromium	1854-02-99	1854-02-99	ND	U	0.0036	ng/m³ Air	Eastern Research Group
OAM 2	4031106-08	3/9/2014	3/11/2014	3/11/2014	Hexavalent Chromium	1854-02-99	1854-02-99	0.0234		0.0036	ng/m³ Air	Eastern Research Group
OAM 2	4031106-14	3/10/2014	3/11/2014	3/11/2014	Hexavalent Chromium	1854-02-99	1854-02-99	0.0277		0.0036	ng/m³ Air	Eastern Research Group
PAM-1	4031106-09	3/9/2014	3/11/2014	3/11/2014	Hexavalent Chromium	1854-02-99	1854-02-99	0.0215		0.0036	ng/m³ Air	Eastern Research Group
PAM-1	4031106-15	3/10/2014	3/11/2014	3/11/2014	Hexavalent Chromium	1854-02-99	1854-02-99	0.0572		0.0036	ng/m³ Air	Eastern Research Group
PAM-1D	4031106-06	3/8/2014	3/11/2014	3/11/2014	Hexavalent Chromium	1854-02-99	1854-02-99	0.0192		0.0036	ng/m³ Air	Eastern Research Group
PAM-1D	4031106-12	3/9/2014	3/11/2014	3/11/2014	Hexavalent Chromium	1854-02-99	1854-02-99	0.0251		0.0036	ng/m³ Air	Eastern Research Group
PAM-1D	4031106-18	3/10/2014	3/11/2014	3/11/2014	Hexavalent Chromium	1854-02-99	1854-02-99	0.0476		0.0036	ng/m³ Air	Eastern Research Group
PAM-21	4031106-01	3/8/2014	3/11/2014	3/11/2014	Hexavalent Chromium	1854-02-99	1854-02-99	ND	U	0.0036	ng/m³ Air	Eastern Research Group
PAM-21	4031106-10	3/9/2014	3/11/2014	3/11/2014	Hexavalent Chromium	1854-02-99	1854-02-99	ND	U	0.0036	ng/m³ Air	Eastern Research Group
PAM-21	4031106-16	3/10/2014	3/11/2014	3/11/2014	Hexavalent Chromium	1854-02-99	1854-02-99	ND	U	0.0036	ng/m³ Air	Eastern Research Group
PAM-31	4031106-02	3/8/2014	3/11/2014	3/11/2014	Hexavalent Chromium	1854-02-99	1854-02-99	ND	U	0.0036	ng/m³ Air	Eastern Research Group
PAM-31	4031106-11	3/9/2014	3/11/2014	3/11/2014	Hexavalent Chromium	1854-02-99	1854-02-99	ND	U	0.0036	ng/m³ Air	Eastern Research Group
PAM-31	4031106-17	3/10/2014	3/11/2014	3/11/2014	Hexavalent Chromium	1854-02-99	1854-02-99	ND	U	0.0036	ng/m³ Air	Eastern Research Group

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SAMPLENAME	LABSAMPID	SAMPDATE	PREPDATE	ANADATE	ANALYTE	CASNUMBER	RESULT	ANOTE	IDL	UNITS	LABNAME
OAM 1	4031210-01	3/11/2014	3/13/2014	3/13/2014	Hexavalent Chromium	1854-02-99	0.0494		0.0036	ng/m³ Air	Eastern Research Group
OAM 1	4031301-01	3/12/2014	3/13/2014	3/13/2014	Hexavalent Chromium	1854-02-99	0.0419		0.0036	ng/m³ Air	Eastern Research Group
OAM 2	4031210-02	3/11/2014	3/13/2014	3/13/2014	Hexavalent Chromium	1854-02-99	0.0938		0.0036	ng/m³ Air	Eastern Research Group
OAM 2	4031301-02	3/12/2014	3/13/2014	3/13/2014	Hexavalent Chromium	1854-02-99	0.0659		0.0036	ng/m³ Air	Eastern Research Group
PAM-1	4031210-03	3/11/2014	3/13/2014	3/13/2014	Hexavalent Chromium	1854-02-99	0.0697		0.0036	ng/m³ Air	Eastern Research Group
PAM-1	4031301-03	3/12/2014	3/13/2014	3/13/2014	Hexavalent Chromium	1854-02-99	0.0741		0.0036	ng/m³ Air	Eastern Research Group
PAM-1D	4031210-04	3/11/2014	3/13/2014	3/13/2014	Hexavalent Chromium	1854-02-99	0.0753		0.0036	ng/m³ Air	Eastern Research Group
PAM-1D	4031301-04	3/12/2014	3/13/2014	3/13/2014	Hexavalent Chromium	1854-02-99	0.0771		0.0036	ng/m³ Air	Eastern Research Group
PAM-21	4031210-05	3/11/2014	3/13/2014	3/13/2014	Hexavalent Chromium	1854-02-99	ND	U	0.0032	ng/m³ Air	Eastern Research Group
PAM-21	4031301-05	3/12/2014	3/13/2014	3/13/2014	Hexavalent Chromium	1854-02-99	ND	U	0.0036	ng/m³ Air	Eastern Research Group
PAM-31	4031210-06	3/11/2014	3/13/2014	3/13/2014	Hexavalent Chromium	1854-02-99	ND	U	0.0032	ng/m³ Air	Eastern Research Group
PAM-31	4031301-06	3/12/2014	3/13/2014	3/13/2014	Hexavalent Chromium	1854-02-99	ND	U	0.0036	ng/m³ Air	Eastern Research Group

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SAMPLENAME	LABSAMPID	SAMPDATE	PREPDATE	ANADATE	ANALYTE	CASNUMBER	RESULT	ANOTE	DL	UNITS	LABNAME
OAM 1	4031415-01	3/13/2014	3/18/2014	3/18/2014	Hexavalent Chromium	1854-02-99	0.0162		0.0036	ng/m³ Air	Eastern Research Group
OAM 1	4031707-01	3/14/2014	3/18/2014	3/18/2014	Hexavalent Chromium	1854-02-99	0.0228		0.0036	ng/m³ Air	Eastern Research Group
OAM 2	4031415-02	3/13/2014	3/18/2014	3/18/2014	Hexavalent Chromium	1854-02-99	0.026		0.0036	ng/m³ Air	Eastern Research Group
OAM 2	4031707-02	3/14/2014	3/18/2014	3/18/2014	Hexavalent Chromium	1854-02-99	0.0251		0.0036	ng/m³ Air	Eastern Research Group
PAM-1	4031415-03	3/13/2014	3/18/2014	3/18/2014	Hexavalent Chromium	1854-02-99	0.0239		0.0036	ng/m³ Air	Eastern Research Group
PAM-1	4031707-03	3/14/2014	3/18/2014	3/18/2014	Hexavalent Chromium	1854-02-99	0.0218		0.0036	ng/m³ Air	Eastern Research Group
PAM-1D	4031415-04	3/13/2014	3/18/2014	3/18/2014	Hexavalent Chromium	1854-02-99	0.0197		0.0036	ng/m³ Air	Eastern Research Group
PAM-1D	4031707-04	3/14/2014	3/18/2014	3/18/2014	Hexavalent Chromium	1854-02-99	0.0258		0.0036	ng/m³ Air	Eastern Research Group
PAM-21	4031415-05	3/13/2014	3/18/2014	3/18/2014	Hexavalent Chromium	1854-02-99	ND	U	0.0036	ng/m³ Air	Eastern Research Group
PAM-21	4031707-05	3/14/2014	3/18/2014	3/18/2014	Hexavalent Chromium	1854-02-99	ND	U	0.0036	ng/m³ Air	Eastern Research Group
PAM-31	4031415-06	3/13/2014	3/18/2014	3/18/2014	Hexavalent Chromium	1854-02-99	ND	U	0.0036	ng/m³ Air	Eastern Research Group
PAM-31	4031707-06	3/14/2014	3/18/2014	3/18/2014	Hexavalent Chromium	1854-02-99	ND	U	0.0036	ng/m³ Air	Eastern Research Group

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SAMPLENAME	LABSAMPID	SAMPDATE	PREPDATE	ANADATE	ANALYTE	CASNUMBER	RESULT	ANOTE	DL	UNITS	LABNAME
OAM 1	4031826-01	3/15/2014	3/19/2014	3/19/2014	Hexavalent Chromium	1854-02-99	0.0162			0.0036 ng/m³ Air	Eastern Research Group
OAM 1	4031826-07	3/16/2014	3/19/2014	3/19/2014	Hexavalent Chromium	1854-02-99	ND	U		0.0036 ng/m³ Air	Eastern Research Group
OAM 1	4031826-13	3/17/2014	3/19/2014	3/19/2014	Hexavalent Chromium	1854-02-99	0.0495			0.0036 ng/m³ Air	Eastern Research Group
OAM 2	4031826-02	3/15/2014	3/19/2014	3/19/2014	Hexavalent Chromium	1854-02-99	0.0373			0.0036 ng/m³ Air	Eastern Research Group
OAM 2	4031826-08	3/16/2014	3/19/2014	3/19/2014	Hexavalent Chromium	1854-02-99	0.0149			0.0036 ng/m³ Air	Eastern Research Group
OAM 2	4031826-14	3/17/2014	3/19/2014	3/19/2014	Hexavalent Chromium	1854-02-99	0.146			0.0036 ng/m³ Air	Eastern Research Group
PAM-1	4031826-03	3/15/2014	3/19/2014	3/19/2014	Hexavalent Chromium	1854-02-99	0.0724			0.0036 ng/m³ Air	Eastern Research Group
PAM-1	4031826-09	3/16/2014	3/19/2014	3/19/2014	Hexavalent Chromium	1854-02-99	ND	U		0.0036 ng/m³ Air	Eastern Research Group
PAM-1	4031826-15	3/17/2014	3/19/2014	3/19/2014	Hexavalent Chromium	1854-02-99	0.0603			0.0036 ng/m³ Air	Eastern Research Group
PAM-1D	4031826-04	3/15/2014	3/19/2014	3/19/2014	Hexavalent Chromium	1854-02-99	0.0762			0.0036 ng/m³ Air	Eastern Research Group
PAM-1D	4031826-10	3/16/2014	3/19/2014	3/19/2014	Hexavalent Chromium	1854-02-99	ND	U		0.0036 ng/m³ Air	Eastern Research Group
PAM-21	4031826-05	3/15/2014	3/19/2014	3/19/2014	Hexavalent Chromium	1854-02-99	ND	U		0.0036 ng/m³ Air	Eastern Research Group
PAM-21	4031826-11	3/16/2014	3/19/2014	3/19/2014	Hexavalent Chromium	1854-02-99	ND	U		0.0036 ng/m³ Air	Eastern Research Group
PAM-21	4031826-17	3/17/2014	3/19/2014	3/19/2014	Hexavalent Chromium	1854-02-99	ND	U		0.0036 ng/m³ Air	Eastern Research Group
PAM-31	4031826-06	3/15/2014	3/19/2014	3/19/2014	Hexavalent Chromium	1854-02-99	ND	U		0.0036 ng/m³ Air	Eastern Research Group
PAM-31	4031826-12	3/16/2014	3/19/2014	3/19/2014	Hexavalent Chromium	1854-02-99	ND	U		0.0036 ng/m³ Air	Eastern Research Group
PAM-31	4031826-18	3/17/2014	3/19/2014	3/19/2014	Hexavalent Chromium	1854-02-99	0.0271			0.0036 ng/m³ Air	Eastern Research Group

SAMPLENAME	LABSAMPID	SAMPDATE	PREPDATE	ANADATE	ANALYTE	CASNUMBER	RESULT	ANOTE	DL	UNITS	LABNAME
OAM 1	4031920-01	3/18/2014	3/21/2014	3/21/2014	Hexavalent Chromium	1854-02-99	0.0135		0.0036	ng/m <sup>3</sup> Air	Eastern Research Group
OAM 1	4032021-01	3/19/2014	3/21/2014	3/21/2014	Hexavalent Chromium	1854-02-99	0.0108		0.0036	ng/m <sup>3</sup> Air	Eastern Research Group
OAM 2	4031920-02	3/18/2014	3/21/2014	3/21/2014	Hexavalent Chromium	1854-02-99	0.0148		0.0036	ng/m <sup>3</sup> Air	Eastern Research Group
OAM 2	4032021-02	3/19/2014	3/21/2014	3/21/2014	Hexavalent Chromium	1854-02-99	ND	U	0.0036	ng/m <sup>3</sup> Air	Eastern Research Group
PAM-1	4031920-03	3/18/2014	3/21/2014	3/21/2014	Hexavalent Chromium	1854-02-99	0.0393		0.0036	ng/m <sup>3</sup> Air	Eastern Research Group
PAM-1	4032021-03	3/19/2014	3/21/2014	3/21/2014	Hexavalent Chromium	1854-02-99	0.0224		0.0036	ng/m <sup>3</sup> Air	Eastern Research Group
PAM-1D	4031920-04	3/18/2014	3/21/2014	3/21/2014	Hexavalent Chromium	1854-02-99	0.0374		0.0036	ng/m <sup>3</sup> Air	Eastern Research Group
PAM-1D	4032021-04	3/19/2014	3/21/2014	3/21/2014	Hexavalent Chromium	1854-02-99	0.0247		0.0036	ng/m <sup>3</sup> Air	Eastern Research Group
PAM-21	4031920-05	3/18/2014	3/21/2014	3/21/2014	Hexavalent Chromium	1854-02-99	ND	U	0.0036	ng/m <sup>3</sup> Air	Eastern Research Group
PAM-21	4032021-05	3/19/2014	3/21/2014	3/21/2014	Hexavalent Chromium	1854-02-99	ND	U	0.0036	ng/m <sup>3</sup> Air	Eastern Research Group
PAM-31	4031920-06	3/18/2014	3/21/2014	3/21/2014	Hexavalent Chromium	1854-02-99	ND	U	0.0036	ng/m <sup>3</sup> Air	Eastern Research Group
PAM-31	4032021-06	3/19/2014	3/21/2014	3/21/2014	Hexavalent Chromium	1854-02-99	ND	U	0.0036	ng/m <sup>3</sup> Air	Eastern Research Group



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SAMPLENAME	LABSAMPID	SAMPDATE	PREPDATE	ANADATE	ANALYTE	CASNUMBER	RESULT	ANOTE	DL	UNITS	LABNAME
OAM 1	4032112-01	3/20/2014	3/24/2014	3/24/2014	Hexavalent Chromium	1854-02-99	0.0124		0.0036	ng/m³ Air	Eastern Research Group
OAM 1	4032411-01	3/21/2014	3/24/2014	3/24/2014	Hexavalent Chromium	1854-02-99	0.0111		0.0036	ng/m³ Air	Eastern Research Group
OAM 2	4032112-02	3/20/2014	3/24/2014	3/24/2014	Hexavalent Chromium	1854-02-99	0.0262		0.0036	ng/m³ Air	Eastern Research Group
OAM 2	4032411-02	3/21/2014	3/24/2014	3/24/2014	Hexavalent Chromium	1854-02-99	0.0148		0.0036	ng/m³ Air	Eastern Research Group
PAM-1	4032112-03	3/20/2014	3/24/2014	3/24/2014	Hexavalent Chromium	1854-02-99	0.0355		0.0036	ng/m³ Air	Eastern Research Group
PAM-1	4032411-03	3/21/2014	3/24/2014	3/24/2014	Hexavalent Chromium	1854-02-99	0.0136		0.0036	ng/m³ Air	Eastern Research Group
PAM-1D	4032112-04	3/20/2014	3/24/2014	3/24/2014	Hexavalent Chromium	1854-02-99	0.0298		0.0036	ng/m³ Air	Eastern Research Group
PAM-1D	4032411-04	3/21/2014	3/24/2014	3/24/2014	Hexavalent Chromium	1854-02-99	0.0113		0.0036	ng/m³ Air	Eastern Research Group
PAM-21	4032112-05	3/20/2014	3/24/2014	3/24/2014	Hexavalent Chromium	1854-02-99	ND	U	0.0036	ng/m³ Air	Eastern Research Group
PAM-21	4032411-05	3/21/2014	3/24/2014	3/24/2014	Hexavalent Chromium	1854-02-99	ND	U	0.0036	ng/m³ Air	Eastern Research Group
PAM-31	4032112-06	3/20/2014	3/24/2014	3/24/2014	Hexavalent Chromium	1854-02-99	ND	U	0.0036	ng/m³ Air	Eastern Research Group
PAM-31	4032411-06	3/21/2014	3/24/2014	3/24/2014	Hexavalent Chromium	1854-02-99	ND	U	0.0036	ng/m³ Air	Eastern Research Group

