

23-Feb-2016

Roger Bellas Pennsylvania DEP Bureau of Air Quality 12th Floor RCSOB 400 Market Street Harrisburg, PA 17105

Tel: (570) 826-2511 Fax:

Re: Mid Valley High School (MVH)- 2/4/2016

Work Order: 1602349

Dear Roger,

ALS Environmental received 6 samples on 09-Feb-2016 10:17 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 11.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

R ob Nieman

Electronically approved by: Rob Nieman

Rob Nieman Project Manager

> ADDRESS 4388 Glendale Milford Rd Cincinnati, Ohio 45242- | PHONE (513) 733-5336 | FAX (513) 733-5347 ALS GROUP USA, CORP. Part of the ALS Group An ALS Limited Company

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Client:	Pennsylvania DEP Bureau of Air Quality
Project:	Mid Valley High School (MVH)- 2/4/2016
Work Order:	1602349

Work Order Sample Summary

Lab Samp ID <u>Client Sample ID</u>	<u>Matrix</u>	Tag Number	Collection Date	Date Received	Hold
1602349-01 MVH020416-1 / Red	Air		2/4/2016	2/9/2016	
1602349-02 MVH020416-2 / Blue	Air		2/4/2016	2/9/2016	
1602349-03 MVH020416-3 / Green	Air		2/4/2016	2/9/2016	
1602349-04 MVH020416-4 / Orange	Air		2/4/2016	2/9/2016	
1602349-05 MVH020416-5 / Yellow	Air		2/4/2016	2/9/2016	
1602349-06 MVH020416-Summa	Air		2/4/2016	2/9/2016	

Date: 23-Feb-16

Client:	Pennsylvania DEP Bureau of Air Quality	
Project:	Mid Valley High School (MVH)- 2/4/2016	Case Narrative
Work Order:	1602349	

The sample condition upon receipt was acceptable except where noted.

Results relate only to the items tested and are not blank corrected unless indicated.

ALS Enviro	onmental			Dat	te: 23-Feb-16
Client: Project:	Pennsylvania DEP Bu Mid Valley High Sch	-	•		er: 1602349
				Analytical	Results
Lab ID:	1602349-01A		C	ollection Date: 2/4/2016	
Client Sample I	D: MVH020416-1 / R	ed		Matrix: AIR	
Analyses					
	IOSH 6015 MOD.		Method: N6015	Air Volume (L): 96.413	Analyst: ALST
Date Analyzed: 2	/15/2016	µg/sample	Reporting Limit µg/sample	mg/m3	ug/m3
Ammonia		ND	1.2	<0.012	<12
Lab ID:	1602349-03A		C	ollection Date: 2/4/2016	
Client Sample I	D: MVH020416-3 / G	reen		Matrix: AIR	
Analyses					
-	NIOSH 2000 MOD.		Method: N2000	Air Volume (L): 7.195	Analyst: MHW
Date Analyzed: 2	/11/2016		Reporting Limit	~~~/~~ ?	
Methanol		µg/sample	µg/sample	mg/m3 <1.4	ug/m3 <1,400
Lab ID:	1602349-04A		C	ollection Date: 2/4/2016	,
	D: MVH020416-4 / O	range		Matrix: AIR	
Analyses					
METHYLAMINE			Method: O40	Air Volume (L): 10.073	Analyst: MHW
Date Analyzed: 2	/12/2016 17:09	ug/sample	Reporting Limit ug/sample	mg/m3	ug/m3
Methylamine		12	10	1.2	1,200
Lab ID:	1602349-05A		С	ollection Date: 2/4/2016	
Client Sample I	D: MVH020416-5 / Y	ellow		Matrix: AIR	
Analyses					
= =	SHA PV2060 MOD.		Method: 02060	Air Volume (L): 21.585	Analyst: MHW
Date Analyzed: 2	/11/2016	µg/sample	Reporting Limit µg/sample	mg/m3	ug/m3
Triethylamine		µg/sample ND	10	<0.46	<460

QC BATCH REPORT

Client:Pennsylvania DEP Bureau of Air QualityWork Order:1602349Project:Mid Valley High School (MVH)- 2/4/2016

Batch ID: 337	775	Instrument ID: G	C5		Method	: O2060							
MBLK	Sample ID:	MBLK-33775-3377	75				Unit	ts: µg/sar	nple	Analysis	s Date: 2/11	1/2016	
Client ID:			Run ID:	GC5_1	60211A	S	SeqN	o: 12211	72	Prep Date: 2/1	1/2016	DF: 1	
Analyte			Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Triethylamine			ND	10									
LCS	Sample ID:	LCS-33775-33775	i				Unit	ts: µg/sar	nple	Analysis	s Date: 2/11	/2016	
Client ID:			Run ID:	GC5_1	60211A	S	SeqN	o: 12211 7	73	Prep Date: 2/1	1/2016	DF: 1	
Analyte			Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Triethylamine			98.94	10	90.75		0	109	70-130	C)		-
LCSD	Sample ID:	LCSD-33775-3377	75				Unit	ts: µg/sar	nple	Analysis	s Date: 2/11	/2016	
Client ID:			Run ID:	GC5_1	60211A	S		o: 12211		Prep Date: 2/1	1/2016	DF: 1	
Analyte			Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Triethylamine			86.02	10	90.75		0	94.8	70-130	98.94	4 14	20	
The following	g samples w	ere analyzed in thi	s batch:	10	602349-05A								

Client: Work Orde Project:	Pennsylvania DEP Bureau of A er: 1602349 Mid Valley High School (MVI			QC BATCH REPOR
Batch ID: 337	779 Instrument ID: GC10	Metho	d: N2000	
MBLK	Sample ID: MBLK-33779-33779		Units: µg/sample	Analysis Date: 2/11/2016
Client ID:	Run IE	CC10_160211A	SeqNo: 1221182	Prep Date: 2/11/2016 DF: 1
Analyte	Result	PQL SPK Val	SPK Ref Control Value %REC Limit	RPD Ref RPD Value %RPD ^{Limit} Qual
Methanol	ND	10		
LCS	Sample ID: LCS-33779-33779		Units: µg/sample	Analysis Date: 2/11/2016
Client ID:	Run II	C GC10_160211A	SeqNo: 1221183	Prep Date: 2/11/2016 DF: 1
Analyte	Result	PQL SPK Val	SPK Ref Control Value %REC Limit	RPD Ref RPD Value %RPD Limit Qual
Methanol	94.26	10 79.1	0 119 64.1-145	0
LCSD Client ID:	Sample ID: LCSD-33779-33779): GC10 160211A	Units: µg/sample SeqNo: 1221191	Analysis Date: 2/11/2016 Prep Date: 2/11/2016 DF: 1
Analyte	Result	PQL SPK Val	SPK Ref Control Value %REC Limit	RPD Ref RPD Value %RPD ^{Limit} Qual
Methanol	103.2	10 79.1	0 131 64.1-145	94.26 9.1 20
The following	g samples were analyzed in this batch:	1602349-03A		

Client:	Pennsylvania DEP Bureau of Air Quality
Work Order:	1602349
Project:	Mid Valley High School (MVH)- 2/4/2016

QC BATCH REPORT

Method: ETO-11 Batch ID: 33823 Instrument ID: HPLC2 MBLK Sample ID: MBLK-33823-33823 Units: µg/sample Analysis Date: 2/14/2016 09:35 PM Client ID: SeqNo: 1221974 Prep Date: 2/13/2016 DF: 1 Run ID: HPLC2_160214A RPD Ref RPD SPK Ref Control Value Limit Value Limit Analyte Result PQL SPK Val %REC %RPD Qual ND Acetaldehyde 0.10 Acrolein ND 0.10 Formaldehyde ND 0.10 LCS Sample ID: LCS-33823-33823 Units: µg/sample Analysis Date: 2/14/2016 09:35 PM Client ID: Run ID: HPLC2_160214A SeqNo: 1221975 Prep Date: 2/13/2016 DF: 1 RPD SPK Ref Control **RPD** Ref Limit Value Value Limit %RPD Analyte Result PQL SPK Val %REC Qual Formaldehyde 2.223 2 0 70-130 0 0.10 111 LCSD Sample ID: LCSD-33823-33823 Units: µg/sample Analysis Date: 2/14/2016 09:35 PM Client ID: SeqNo: 1221983 Prep Date: 2/13/2016 DF: 1 Run ID: HPLC2_160214A RPD RPD Ref SPK Ref Control Limit Value Limit Value %RPD Qual SPK Val %REC Analyte Result PQL Formaldehyde 2.258 0 70-130 2.223 0.10 2 113 1.56 20 1602349-02A The following samples were analyzed in this batch:

Client: Work Order Project:	: 16	nnsylvania DE 02349 id Valley High		-	•				QC	BATC	H RE	PORT
Batch ID: R125	i951	Instrument I	D: HPLC2		Metho	d: O40						
MBLK S	Sample ID	: MB-R125951-	R125951				Units: ug/sa r	nple	Analysi	s Date: 2/1	2/2016 05:	09 PM
Client ID:			Run II	D: HPLC2	_160212B	S	eqNo: 12221	60	Prep Date:		DF: 1	
Analyte			Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Methylamine			ND	10								
LCS S	Sample ID	: LCS-R125951	-R125951				Units: ug/sa r	nple	Analysi	s Date: 2/1	2/2016 05:	09 PM

SPK Val

SPK Val

1602349-04A

11.48

11.48

SeqNo: 1222161

%REC

123

Units: ug/sample

%REC

126

SeqNo: 1222183

SPK Ref

Value

SPK Ref

Value

0

0

Prep Date:

Prep Date:

RPD Ref

Value

14.15

RPD Ref

Value

Control

Limit

70-130

Control

Limit

70-130

Run ID: HPLC2_160212B

PQL

10

Run ID: HPLC2_160212B

PQL

10

Result

14.15

Result

14.48

Sample ID: LCSD-R125951-R125951

The following samples were analyzed in this batch:

Client ID:

Analyte

LCSD

Analyte

Methylamine

Client ID:

Methylamine

Qual

Qual

DF: 1

DF: 1

20

RPD

Limit

RPD

Limit

%RPD

%RPD

2.33

Analysis Date: 2/12/2016 05:09 PM

0

Client: Work Order: Project:	Pennsylvania DEP 1602349 Mid Valley High S			•				QC	BATC	H REI	PORT
Batch ID: R1260	29 Instrument ID:	SUB		Metho	d: N6015						
MBLK Sa	mple ID: MB-R126029-R1	26029			U	nits: µg/sar	nple	Analys	is Date: 2/1	5/2016	
Client ID:		Run I	D: SUB_1	60215E	Sec	No: 12238	87	Prep Date:		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ammonia		ND	1.2								
LCS Sa Client ID:	Imple ID: LCS-R126029-R		D: SUB_1	60215E		nits: µg/sar ¡No: 122388	•	Analys Prep Date:	is Date: 2/1	5/2016 DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ammonia		23.1	2.0	24.3	0	95.1	74.3-115.	2	0		
LCSD Sa Client ID:	mple ID: LCSD-R126029	Run I	D: SUB_1	60215E		nits: µg/sar ¡No: 12238	•	Analys Prep Date:	is Date: 2/1	5/2016 DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ammonia		23.8	2.0	24.3	0	97.9	74.3-115.	2 23.	1 2.99	20	
The following sa	amples were analyzed in t	his batch:	16	602349-01A							

Client: Project: WorkOrder:	Pennsylvania DEP Bureau of Air Quality Mid Valley High School (MVH)- 2/4/2016 1602349	QUALIFIERS, ACRONYMS, UNITS
Qualifier	Description	
*	Value exceeds Regulatory Limit	
а	Not accredited	
В	Analyte detected in the associated Method Blank above the R	Leporting Limit
Е	Value above quantitation range	
Н	Analyzed outside of Holding Time	
J	Analyte detected below quantitation limit	
n	Not offered for accreditation	
ND	Not Detected at the Reporting Limit	
О	Sample amount is > 4 times amount spiked	
Р	Dual Column results percent difference > 40%	
R	RPD above laboratory control limit	
S	Spike Recovery outside laboratory control limits	
U	Analyzed but not detected above the MDL	
Acronym	Description	
DUP	Method Duplicate	
Е	EPA Method	
LCS	Laboratory Control Sample	
LCSD	Laboratory Control Sample Duplicate	
MBLK	Method Blank	
MDL	Method Detection Limit	
MQL	Method Quantitation Limit	
MS	Matrix Spike	
MSD	Matrix Spike Duplicate	
PDS	Post Digestion Spike	
PQL	Practical Quantitaion Limit	
SDL	Sample Detection Limit	
SW	SW-846 Method	
Units Reported	d Description	
µg/sam	ble	
ppbv		

ppm

Sample Receipt Checklist

Client Name:	PADEP-HARRISBURG		Date/Time	Received: 09	Feb-16 10:1	<u>7</u>
Work Order:	<u>1602349</u>		Received b	y: <u>CE</u>	G	
Checklist compl	eted by: J an Wilcox eSignature	09-Feb-16 Date	Reviewed by:	R ob Nieman		10-Feb-16 Date
Matrices: Carrier name:	<u>FedEx</u>					
Shipping contain	ner/cooler in good condition?	Yes 🔽	No 🗌	Not Present		
Custody seals in	ntact on shipping container/cooler?	Yes	No 🗌	Not Present	\checkmark	
Custody seals in	ntact on sample bottles?	Yes 🔽	No 🗌	Not Present		
Chain of custod	y present?	Yes 🔽	No 🗌			
Chain of custod	y signed when relinquished and received?	Yes 🔽	No 🗌			
Chain of custod	y agrees with sample labels?	Yes 🔽	No 🗌			
Samples in prop	per container/bottle?	Yes 🗸	No 🗌			
Sample containe	ers intact?	Yes 🗸	No 🗌			
Sufficient sample	le volume for indicated test?	Yes 🔽	No 🗌			
All samples rece	eived within holding time?	Yes 🔽	No 🗌			
Container/Temp	Blank temperature in compliance?	Yes 🗸	No 🗌			
Temperature(s)/	/Thermometer(s):	<u>11.0</u>				
Cooler(s)/Kit(s):	:					
Water - VOA via	als have zero headspace?	Yes	No 🗌	No VOA vials sub	mitted	
Water - pH acce	eptable upon receipt?	Yes	No 🗌	N/A		
pH adjusted? pH adjusted by:		Yes	No 📃	N/A		
Login Notes:						

Client Contacted:		Date Contacted:	Person Contacted:	
Contacted By:		Regarding:		
Comments:				
CorrectiveAction:				

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