Visible Emissions Evaluation

Run Number(s) and Description: Tuesday Early Morning, January 8th 2013 — Runs 1-4

Facility Name	ECC-Floyd Bennett Field
AVOGADRO Project No.	12-9191
Location (city, state)	Brooklyn, NY
Type of Facility	Debris Removal
Control Equipment / Emission Source	ACBs
Date of Observation	01/08/2013
Start Time	0030
Stop Time	0154
Distance from observer (ft)	300'
Direction from observer	NNW
Stack height (fr. observer's elev.) (ft)	9'
Stack Diameter (in)	27'x9', 20x8'
Description of plume:	
continuous? fugitive? intermittent?	cont
color	white
water drops present? (Y/N)	N
attached steam plume? (Y/N)	N
detached steam plume? (Y/N)	N
secondary plume? (Y/N)	N
point where opacity read	1-3 conex lengths
target?	sky
describe background to plume	"
unique features of plume or stack	—
Weather:	@ 0030
ambient temperature (F)	34°
relative humidity	72%
wind direction	E
wind speed	1-3 mph
barometric pressure	30.40 in Hg
rain? fog? snow? haze?	clear
Glasses worn:	
corrective? (Y/N)	yes
sunglasses? (Y/N)	—

Observer's name	Joshua Wagner
Observer certification date	Night 12/20/2012
Certifying agency	Whitlow
Observer affiliation	Avogadro Env.

sec	0	15	30	45
min	Run 1 Time: 0030			
1	0	0	5	0
2	0	5	0	0
3	5	10	10	5
4	10	10	5	0
5	0	5	0	0
6	5	5	0	0
6-minute Average: 3.3				
Source Conditions: ACB1				
Sun Angle (degrees):				

sec	0	15	30	45
min	Run 3 Time: 0122			
1	0	0	5	0
2	5	0	0	0
3	0	0	5	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average: 0.6				
Source Conditions: ACB1				
Sun Angle (degrees):				

	Run 1 Time: 0030			
1	5	5	0	5
2	5	0	5	5
3	0	5	5	0
4	5	0	5	0
5	5	0	5	5
6	0	0	0	0
6-minute Average: 2.7				
Source Conditions: ACB 2				
Sun Angle (degrees):				

	Run 3 Time: 0122			
1	0	0	5	0
2	5	0	0	5
3	0	0	5	0
4	5	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average: 1.0				
Source Conditions: ACB 2				
Sun Angle (degrees):				

	Run 2 Time: 0056			
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	5	0
5	5	0	0	0
6	5	0	0	
6-minute Average: 0.8				
Source Conditions: ACB1				
Sun Angle (degrees):				

	Run 4 Time: 0148			
1	5	5	0	0
2	5	0	5	5
3	0	5	0	0
4	0	0	0	0
5	0	5	0	0
6	5	0	5	0
6-minute Average: 1.9				
Source Conditions: ACB1				
Sun Angle (degrees):				

	Run 2 Time: 0056			
1	0	0	5	5
2	10	10	5	5
3	10	10	15	15
4	20	20	15	10
5	10	5	5	5
6	0	0	0	0
6-minute Average: 7.1				
Source Conditions: ACB2				
Sun Angle (degrees):				

	Run 4 Time: 0148			
1	10	10	10	10
2	5	5	0	0
3	5	0	5	0
4	0	0	0	0
5	0	0	0	0
6	5	0	0	0
6-minute Average: 2.7				
Source Conditions: ACB 2				
Sun Angle (degrees):				

Range of opacity readings: low 0 high 20

Number of readings above 10 % were 5

Observer's Signature

UNIT #1 #2

Early Morning Tuesday, January 8th 2013, Runs 5-8

Visible Emissions Evaluation

Facility Name	ECC-Floyd Bennett Field
AVOGADRO Project No.	12-9191
Location (city, state)	Brooklyn, NY
Type of Facility	Debris Removal
Control Equipment / Emission Source	ACBs
Date of Observation	01/08/2013
Start Time	0220
Stop Time	0346
Distance from observer (ft)	300'
Direction from observer	NNW
Stack height (fr. observer's elev.) (ft)	9'
Stack Diameter (in)	27'x9', 20'x8'
Description of plume:	
continuous? fugitive? intermittent?	cont
color	white
water drops present? (Y/N)	N
attached steam plume? (Y/N)	N
detached steam plume? (Y/N)	N
secondary plume? (Y/N)	N
point where opacity read	1-3 convex lengths
target?	sky
describe background to plume	"
unique features of plume or stack	—
Weather:	@220
ambient temperature (F)	32°
relative humidity	85%
wind direction	E
wind speed	1-6 mph
barometric pressure	30.39 in Hg
rain? fog? snow? haze?	Clear
Glasses worn:	
corrective? (Y/N)	yes
sunglasses? (Y/N)	—

Observer's name	Joshua Wagner
Observer certification date	Night 12/20/2012
Certifying agency	Whitlow
Observer affiliation	Avogadro Env.

Run Number(s) and Description: 2013, Runs 5-8

sec	0	15	30	45
min	Run 5 Time: 220			
1	5	5	0	0
2	5	5	0	0
3	0	0	0	0
4	5	0	0	0
5	5	0	0	0
6	5	0	5	0
6-minute Average: 1.7				
Source Conditions: ACB 1				
Sun Angle (degrees):				

sec	0	15	30	45
min	Run 7 Time: 0312			
1	0	0	0	5
2	0	5	0	0
3	5	5	0	0
4	0	0	5	0
5	5	0	0	0
6	0	0	0	0
6-minute Average: 1.3				
Source Conditions: ACB 1				
Sun Angle (degrees):				

Run 5 Time: 0220				
1	5	5	0	0
2	0	0	0	0
3	5	0	0	5
4	0	5	0	0
5	5	0	0	5
6	0	5	0	5
6-minute Average: 1.9				
Source Conditions: ACB 2				
Sun Angle (degrees):				

Run 7 Time: 0312				
1	0	0	0	0
2	5	0	0	0
3	0	0	5	0
4	5	0	0	0
5	5	0	0	0
6	0	0	0	0
6-minute Average: 0.8				
Source Conditions: ACB 2				
Sun Angle (degrees):				

Run 6 Time: 0246				
1	0	5	0	5
2	0	5	5	0
3	0	5	0	0
4	5	0	0	0
5	5	0	5	0
6	5	0	0	5
6-minute Average: 2.1				
Source Conditions: ACB 1				
Sun Angle (degrees):				

Run 8 Time: 0340				
1	0	0	0	5
2	0	5	0	0
3	0	0	0	5
4	0	5	0	0
5	0	0	0	5
6	0	5	0	0
6-minute Average: 1.3				
Source Conditions: ACB 1				
Sun Angle (degrees):				

Run 6 Time: 0246				
1	0	0	0	0
2	0	0	0	5
3	0	0	0	0
4	0	0	10	10
5	10	15	15	10
6	5	5	5	10
6-minute Average: 3.3				
Source Conditions: ACB 2				
Sun Angle (degrees):				

Run 8 Time: 0340				
1	0	0	5	0
2	0	5	0	0
3	0	0	5	0
4	5	0	0	0
5	0	0	0	5
6	0	0	5	5
6-minute Average: 1.5				
Source Conditions: ACB 2				
Sun Angle (degrees):				

Range of opacity readings: low 0 high 15

Number of readings above 10 % were 2

Observer's Signature

AVOGADRO ENVIRONMENTAL CORPORATION, Easton Pa

Visible Emissions Evaluation

Facility Name	ECC-Floyd Bennett Field
AVOGADRO Project No.	12-9191
Location (city, state)	Brooklyn, NY
Type of Facility	Debris Removal
Control Equipment / Emission Source	ACBs
Date of Observation	01/08/2013
Start Time	0406
Stop Time	0536
Distance from observer (ft)	300'
Direction from observer	NNW
Stack height (fr. observer's elev.) (ft)	9'
Stack Diameter (in)	27'x9', 7.5'x20'
Description of plume:	
continuous? fugitive? intermittent?	cont
color	white
water drops present? (Y/N)	N
attached steam plume? (Y/N)	N
detached steam plume? (Y/N)	N
secondary plume? (Y/N)	N
point where opacity read	1-3 convex lengths
target?	sky
describe background to plume	"
unique features of plume or stack	—
	@430
Weather:	
ambient temperature (F)	34°
relative humidity	81%
wind direction	E
wind speed	0-2mph
barometric pressure	30.38 in Hg
rain? fog? snow? haze?	clear
Glasses worn:	
corrective? (Y/N)	yes
sunglasses? (Y/N)	—

Observer's name	Joshua Wagner
Observer certification date	Night 12/20/2012
Certifying agency	Whitlow
Observer affiliation	Avogadro Env.

UPIT #1 #2

Run Number(s) and Description: Monday Early Morning, January 8th 2013, Runs 9-12

TUBS Day 2.

sec	0	15	30	45
min	Run 9 Time: 0406			
1	5	0	5	0
2	0	5	0	5
3	0	0	5	0
4	5	0	0	5
5	0	5	0	5
6	5	0	5	5
6-minute Average:	2.5			
Source Conditions:	ACB1			
Sun Angle (degrees):				

sec	0	15	30	45
min	Run 11 Time: 0458			
1	0	0	0	0
2	0	5	0	0
3	5	0	5	5
4	10	5	5	5
5	5	5	5	5
6	5	5	5	5
6-minute Average:	3.5			
Source Conditions:	ACB1			
Sun Angle (degrees):				

	Run 9 Time: 0406			
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	5	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:	0.2			
Source Conditions:	ACB2			
Sun Angle (degrees):				

	Run 11 Time: 0458			
1	0	0	0	0
2	0	5	0	0
3	0	0	5	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:	0.4			
Source Conditions:	ACB2			
Sun Angle (degrees):				

	Run 10 Time: 0432			
1	0	5	5	0
2	0	5	0	0
3	5	0	0	5
4	5	5	5	5
5	0	5	5	5
6	10	10	5	10
6-minute Average:	4.0			
Source Conditions:	ACB1			
Sun Angle (degrees):				

	Run 12 Time: 0530			
1	0	0	0	0
2	0	0	0	0
3	0	5	0	0
4	0	0	0	0
5	0	5	0	0
6	5	0	0	0
6-minute Average:	0.6			
Source Conditions:	ACB1			
Sun Angle (degrees):				

	Run 10 Time: 0432			
1	0	0	0	0
2	0	5	0	0
3	5	0	5	0
4	5	0	5	0
5	0	0	0	5
6	5	0	0	5
6-minute Average:	1.7			
Source Conditions:	ACB 2			
Sun Angle (degrees):	—			

	Run 12 Time: 0530			
1	0	0	0	0
2	0	0	0	0
3	5	5	10	10
4	10	10	10	10
5	15	15	10	10
6	5	5	5	5
6-minute Average:	5.8			
Source Conditions:	ACB 2			
Sun Angle (degrees):				

Range of opacity readings: low 0 high 15

Number of readings above 10 % were 2

Observer's Signature

AVOGADRO ENVIRONMENTAL CORPORATION, Easton Pa

Visible Emissions Evaluation

UNIT 1

Run Number(s) and Description

pg 1 1-8-13

Facility Name	ECC/Floyd Bennett Field
AVOGADRO Project No.	12-9191
Location (city, state)	Brooklyn, NY
Type of Facility	national park
Control Equipment / Emission Source	ACB #1
Date of Observation	1/8/13
Start Time	0720
Stop Time	0906
Distance from observer (ft)	100'
Direction from observer	NW
Stack height (fr. observer's elev.) (ft)	10'
Stack Diameter (in)	no stack
Description of plume:	
continuous? fugitive? intermittent?	intermit.
color	gray
water drops present? (Y/N)	N
attached steam plume? (Y/N)	N
detached steam plume? (Y/N)	N
secondary plume? (Y/N)	N
point where opacity read	top of burner
target?	
describe background to plume	shipping crates
unique features of plume or stack	no stack
Weather:	
ambient temperature (F)	35°
relative humidity	
wind direction	west
wind speed	10 mph
barometric pressure	
rain? fog? snow? haze?	no
Glasses worn:	
corrective? (Y/N)	N
sunglasses? (Y/N)	N

Observer's name	William Reamy
Observer certification date	10/10/12
Certifying agency	Whitlow Enter.
Observer affiliation	Stack Hawk Envir.

sec	0	15	30	45
min	Run	Time:	0720	
1	5	10	5	5
2	10	10	5	5
3	10	10	5	5
4	10	5	5	5
5	10	5	10	15
6	10	10	10	10
6-minute Average:			7.9	
Source Conditions:				
Sun Angle (degrees):			no sun	
	Run	Time:	0740	
1	15	10	15	10
2	10	10	10	5
3	5	10	10	15
4	10	10	10	5
5	10	5	5	10
6	5	5	10	5
6-minute Average:			9.0	
Source Conditions:				
Sun Angle (degrees):			-20	
	Run	Time:	0800	
1	20	20	25	15
2	15	10	15	20
3	15	15	15	15
4	15	10	10	10
5	10	15	5	10
6	10	15	10	10
6-minute Average:			13.8	
Source Conditions:				
Sun Angle (degrees):			-20	
	Run	Time:	0820	
1	0	5	5	0
2	10	5	5	5
3	10	10	5	5
4	5	5	5	10
5	5	15	5	5
6	5	5	20	15
6-minute Average:			6.9	
Source Conditions:				
Sun Angle (degrees):			-15	

sec	0	15	30	45
min	Run	Time:	0840	
1	5	10	5	10
2	10	5	15	5
3	10	5	10	5
4	5	10	5	5
5	5	5	10	15
6	10	15	15	20
6-minute Average:			9.0	
Source Conditions:				
Sun Angle (degrees):			-15	
	Run	Time:	0900	
1	0	10	5	5
2	5	5	5	0
3	5	0	5	5
4	5	5	5	5
5	5	5	0	5
6	5	0	5	0
6-minute Average:			4.0	
Source Conditions:				
Sun Angle (degrees):			-15	
	Run	Time:		
1				
2				
3				
4				
5				
6				
6-minute Average:				
Source Conditions:				
Sun Angle (degrees):				
	Run	Time:		
1				
2				
3				
4				
5				
6				
6-minute Average:				
Source Conditions:				
Sun Angle (degrees):				

Range of opacity readings:

low 0 high 25

Number of readings above 10 % were 26

W H Reamy

Observer's Signature

Visible Emissions Evaluation

UNIT 1
Run Number(s) and Description

 1-8-13

Facility Name	ECC FBF
AVOGADRO Project No.	12-9191
Location (city, state)	Brooklyn MI
Type of Facility	
Control Equipment / Emission Source	ACB
Date of Observation	1-8-13
Start Time	920
Stop Time	1105
Distance from observer (ft)	125'
Direction from observer	N
Stack height (fr. observer's elev.) (ft)	10'
Stack Diameter (in)	27.17 x 5.42
Description of plume:	
continuous? fugitive? intermittent?	Cont.
color	White
water drops present? (Y/N)	N
attached steam plume? (Y/N)	N
detached steam plume? (Y/N)	N
secondary plume? (Y/N)	N
point where opacity read	10' Downwind
target?	
describe background to plume	Containers
unique features of plume or stack	
Weather:	
ambient temperature (F)	45°F
relative humidity	40%
wind direction	NE
wind speed	5-10
barometric pressure	30.03
rain? fog? snow? haze?	Clear
Glasses worn:	
corrective? (Y/N)	Y
sunglasses? (Y/N)	N

Observer's name	MARK TI READY
Observer certification date	10-22-12
Certifying agency	KOONTZ
Observer affiliation	AVOGADRO / DA

sec	0	15	30	45
min	Run	Time: 920		
1	15	15	10	10
2	10	15	15	15
3	15	15	15	15
4	15	15	15	15
5	15	15	15	15
6	15	15	15	15
6-minute Average:		14.4		
Source Conditions:				
Sun Angle (degrees):		15		
	Run	Time: 940		
1	15	15	15	15
2	10	15	15	10
3	10	10	10	10
4	15	10	10	10
5	15	10	15	15
6	10	10	10	15
6-minute Average:		11.3		
Source Conditions:				
Sun Angle (degrees):		15		
	Run	Time: 1000		
1	5	5	10	5
2	5	5	10	5
3	5	10	5	5
4	10	5	5	5
5	5	5	5	5
6	5	5	10	10
6-minute Average:		6.3 ~~10 20~~		
Source Conditions:				
Sun Angle (degrees):		10		
	Run	Time: 1020		
1	5	10	0	5
2	5	5	5	5
3	10	5	5	5
4	5	5	10	5
5	5	5	5	5
6	10	5	5	5
6-minute Average:		5.6		
Source Conditions:				
Sun Angle (degrees):		5		

sec	0	15	30	45
min	Run	Time: 1040		
1	0	0	0	0
2	0	5	10	0
3	5	0	0	0
4	10	5	0	0
5	0	0	5	0
6	0	0	5	0
6-minute Average:		1.9		
Source Conditions:				
Sun Angle (degrees):		~~0~~		
	Run	Time: 1100		
1	10	5	0	5
2	5	5	0	5
3	5	5	10	5
4	5	5	5	5
5	5	5	5	5
6	10	5	5	5
6-minute Average:		5.2		
Source Conditions:				
Sun Angle (degrees):		~~0~~		
	Run	Time:		
1				
2				
3				
4				
5				
6				
6-minute Average:				
Source Conditions:				
Sun Angle (degrees):				
	Run	Time:		
1				
2				
3				
4				
5				
6				
6-minute Average:				
Source Conditions:				
Sun Angle (degrees):				

Range of opacity readings:
low ~~0~~ high 15

Number of readings above 10 % were 32

Mark Ready
Observer's Signature

Visible Emissions Evaluation

Facility Name	ECC/Floyd Bennett Field
AVOGADRO Project No.	12-9191
Location (city, state)	Brooklyn, NY
Type of Facility	national park
Control Equipment / Emission Source	ACB #1
Date of Observation	1/8/13
Start Time	1120
Stop Time	1306
Distance from observer (ft)	100'
Direction from observer	NW
Stack height (fr. observer's elev.) (ft)	10'
Stack Diameter (in)	no stack
Description of plume:	
continuous? fugitive? intermittent?	interm.
color	gray
water drops present? (Y/N)	N
attached steam plume? (Y/N)	N
detached steam plume? (Y/N)	N
secondary plume? (Y/N)	N
point where opacity read	top of burner
target?	
describe background to plume	shipping crates
unique features of plume or stack	no stack
Weather:	
ambient temperature (F)	45°
relative humidity	
wind direction	W
wind speed	5-10 mph
barometric pressure	
rain? fog? snow? haze?	no
Glasses worn:	
corrective? (Y/N)	N
sunglasses? (Y/N)	N

Observer's name	William Reamy
Observer certification date	10/10/12
Certifying agency	Whitlow Enterp.
Observer affiliation	Stack Hawk Envir.

Run Number(s) and Description: UNIT 1 Pg 3 1-8-13

sec	0	15	30	45
min	Run	Time:	11:20	
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:	0.0			
Source Conditions:				
Sun Angle (degrees):	+10			
	Run	Time:	11:40	
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:	0.0			
Source Conditions:				
Sun Angle (degrees):	+15			
	Run	Time:	12:00	
1	15	15	10	10
2	10	5	5	5
3	10	10	10	5
4	5	10	10	5
5	10	10	5	5
6	10	10	5	10
6-minute Average:	8.5			
Source Conditions:				
Sun Angle (degrees):	+20			
	Run	Time:	12:20	
1	0	0	0	5
2	0	5	0	0
3	5	0	5	0
4	5	0	5	5
5	0	0	5	0
6	5	0	0	10
6-minute Average:	2.3			
Source Conditions:				
Sun Angle (degrees):	+20			

sec	0	15	30	45
min	Run	Time:	12:40	
1	0	10	0	0
2	0	0	0	10
3	0	10	20	20
4	10	0	20	10
5	10	0	10	0
6	10	10	5	5
6-minute Average:	7.5			
Source Conditions:				
Sun Angle (degrees):	+25			
	Run	Time:	13:00	
1	5	0	0	10
2	10	10	5	5
3	10	5	10	5
4	5	5	5	10
5	10	5	5	5
6	5	0	5	5
6-minute Average:	5.8			
Source Conditions:				
Sun Angle (degrees):	+25			
	Run	Time:		
1				
2				
3				
4				
5				
6				
6-minute Average:				
Source Conditions:				
Sun Angle (degrees):				
	Run	Time:		
1				
2				
3				
4				
5				
6				
6-minute Average:				
Source Conditions:				
Sun Angle (degrees):				

Range of opacity readings: low 0 high 20

Number of readings above 10 % were 5

W H Reamy

Observer's Signature

Visible Emissions Evaluation

Facility Name	ECC FBF
AVOGADRO Project No.	12 9191
Location (city, state)	Brooklyn NY
Type of Facility	
Control Equipment / Emission Source	ACB
Date of Observation	1-8-13
Start Time	1340
Stop Time	
Distance from observer (ft)	150'
Direction from observer	NE
Stack height (fr. observer's elev.) (ft)	10'
Stack Diameter (in)	27.17 x 8.42

Description of plume:

continuous? fugitive? intermittent?	Cont.
color	White
water drops present? (Y/N)	N
attached steam plume? (Y/N)	N
detached steam plume? (Y/N)	N
secondary plume? (Y/N)	N
point where opacity read	10' Downwind
target?	
describe background to plume	Containers
unique features of plume or stack	

Weather:

ambient temperature (F)	50°F
relative humidity	40%
wind direction	E
wind speed	5-10
barometric pressure	30.03
rain? fog? snow? haze?	Clear

Glasses worn:

corrective? (Y/N)	Y
sunglasses? (Y/N)	N

Observer's name	MARK T. READY
Observer certification date	10-22-12
Certifying agency	KOONTZ
Observer affiliation	AVOGADRO/DA

Run Number(s) and Description: UNIT VII 1

 1-8-13

sec	0	15	30	45
min	Run	Time:	1320	
1	10	15	10	5
2	10	10	10	10
3	10	10	10	5
4	5	5	5	10
5	5	5	5	5
6	5	10	10	5
6-minute Average:			7.9	
Source Conditions:				
Sun Angle (degrees):			10	
	Run	Time:	1340	
1	5	5	5	5
2	5	5	5	5
3	5	10	5	5
4	5	5	5	5
5	5	5	0	0
6	5	5	5	5
6-minute Average:			4.3	
Source Conditions:				
Sun Angle (degrees):			15	
	Run	Time:	1400	
1	10	5	10	10
2	10	10	5	5
3	10	10	10	5
4	10	10	5	5
5	10	5	10	5
6	5	10	5	5
6-minute Average:			7.7	
Source Conditions:				
Sun Angle (degrees):			15	
	Run	Time:	1420	
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:			0	
Source Conditions:				
Sun Angle (degrees):			20	

sec	0	15	30	45
min	Run	Time:	1440	
1	0	0	0	0
2	15	15	15	5
3	0	0	0	5
4	0	0	5	5
5	5	5	5	0
6	0	0	0	0
6-minute Average:			3.3	
Source Conditions:				
Sun Angle (degrees):			25	
	Run	Time:	1500	
1	0	0	5	0
2	0	0	0	0
3	0	0	0	0
4	5	0	0	0
5	0	5	0	0
6	0	0	0	0
6-minute Average:			0.6	
Source Conditions:				
Sun Angle (degrees):			25	
	Run	Time:		
1				
2				
3				
4				
5				
6				
6-minute Average:				
Source Conditions:				
Sun Angle (degrees):				
	Run	Time:		
1				
2				
3				
4				
5				
6				
6-minute Average:				
Source Conditions:				
Sun Angle (degrees):				

Range of opacity readings: low 0 high 15

Number of readings above 10 % were 4

Observer's Signature

Visible Emissions Evaluation

Facility Name	Ecc/Floyd Bennett Field
AVOGADRO Project No.	12-9191
Location (city, state)	Brooklyn, NY
Type of Facility	national park
Control Equipment / Emission Source	ACB #1
Date of Observation	1/8/13
Start Time	1520
Stop Time	
Distance from observer (ft)	150'
Direction from observer	N
Stack height (fr. observer's elev.) (ft)	10'
Stack Diameter (in)	no stack
Description of plume:	
continuous? fugitive? intermittent?	intermit.
color	gray
water drops present? (Y/N)	N
attached steam plume? (Y/N)	N
detached steam plume? (Y/N)	N
secondary plume? (Y/N)	N
point where opacity read	top of burner
target?	
describe background to plume	Shipping crates
unique features of plume or stack	no stack
Weather:	
ambient temperature (F)	40-45°
relative humidity	
wind direction	W
wind speed	5-10 mph
barometric pressure	
rain? fog? snow? haze?	no
Glasses worn:	
corrective? (Y/N)	N
sunglasses? (Y/N)	N

Observer's name	William Reamy
Observer certification date	10-10-12
Certifying agency	Whitlow Enterp.
Observer affiliation	Stack Hawk Envir.

Run Number(s) and Description: UNIT 1 Pg. 5 ~~T-134~~ 1-8-13

sec	0	15	30	45
min	Run	Time:	1520	
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:			0.0	
Source Conditions:				
Sun Angle (degrees):			+30	
	Run	Time:	1540	
1	10	10	15	5
2	5	10	10	5
3	0	5	0	5
4	5	5	10	5
5	0	15	10	10
6	15	10	15	15
6-minute Average:			8.1	
Source Conditions:				
Sun Angle (degrees):			+30	
	Run	Time:	1600	
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	5
5	0	0	0	0
6	0	0	0	0
6-minute Average:			0.2	
Source Conditions:				
Sun Angle (degrees):			+35	
	Run	Time:	1620	
1	10	15	15	15
2	15	20	15	15
3	20	10	15	15
4	15	10	15	15
5	10	10	10	10
6	5	5	15	10
6-minute Average:			12.9	
Source Conditions:				
Sun Angle (degrees):			+40	

sec	0	15	30	45
min	Run	Time:	1640	
1	5	5	5	5
2	5	0	5	5
3	5	5	5	5
4	10	0	5	10
5	5	10	5	5
6	5	5	5	5
6-minute Average:			5.2	
Source Conditions:				
Sun Angle (degrees):			no sun	
	Run	Time:	1700	
1				
2				
3				
4				
5				
6				
6-minute Average:				
Source Conditions:				
Sun Angle (degrees):				
	Run	Time:		
1				
2				
3				
4				
5				
6				
6-minute Average:				
Source Conditions:				
Sun Angle (degrees):				
	Run	Time:		
1				
2				
3				
4				
5				
6				
6-minute Average:				
Source Conditions:				
Sun Angle (degrees):				

PARK

Range of opacity readings: low 0 high 20

Number of readings above 10 % were 19

W H Reamy

Observer's Signature

Visible Emissions Evaluation

Tuesday Night, January 8th 2013

Run Number(s) and Description: Runs 1-4

Units 1 & 2

Facility Name	ECC-Floyd Bennett Field
AVOGADRO Project No.	12-9191
Location (city, state)	Brooklyn, NY
Type of Facility	Debris Removal
Control Equipment / Emission Source	ACBs
Date of Observation	01/08/2013
Start Time	1920
Stop Time	2044
Distance from observer (ft)	300'
Direction from observer	NNW
Stack height (fr. observer's elev.) (ft)	9'
Stack Diameter (in)	27'x9', 20'x8'
Description of plume:	
continuous? fugitive? intermittent?	cont
color	White
water drops present? (Y/N)	N
attached steam plume? (Y/N)	N
detached steam plume? (Y/N)	N
secondary plume? (Y/N)	N
point where opacity read	1-3 convex lengths
target?	sky
describe background to plume	"
unique features of plume or stack	—
	@ 1920
Weather:	
ambient temperature (F)	42°
relative humidity	67%
wind direction	E
wind speed	7-3mph
barometric pressure	30.39 in Hg
rain? fog? snow? haze?	clear
Glasses worn:	
corrective? (Y/N)	yes
sunglasses? (Y/N)	—

Observer's name	Joshua Wagner
Observer certification date	Night 12/20/2012
Certifying agency	Whitlow
Observer affiliation	Avogadro Env.

sec	0	15	30	45
min	Run 1 Time: 1920			
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:	0			
Source Conditions:	ACB 1			
Sun Angle (degrees):				

sec	0	15	30	45
min	Run 3 Time: 2012			
1	5	5	5	5
2	5	5	5	5
3	0	5	0	5
4	0	5	0	5
5	0	0	5	0
6	0	0	5	0
6-minute Average:	2.9			
Source Conditions:	ACB 1			
Sun Angle (degrees):				

	Run 1 Time: 1920			
1	5	5	5	5
2	10	10	5	5
3	5	5	5	5
4	5	5	5	5
5	5	5	5	5
6	5	5	5	5
6-minute Average:	10.4			
Source Conditions:	ACB 2			
Sun Angle (degrees):				

	Run 3 Time: 2012			
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:	0			
Source Conditions:	ACB 2			
Sun Angle (degrees):				

	Run 2 Time: 1946			
1	10	10	10	10
2	10	10	10	10
3	5	5	5	5
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:	4.2			
Source Conditions:	ACB 1			
Sun Angle (degrees):				

	Run 4 Time: [illegible] 2038			
1	10	10	10	10
2	10	10	10	10
3	5	5	5	5
4	5	5	5	5
5	10	5	10	5
6	10	5	10	5
6-minute Average:	7.5			
Source Conditions:	ACB 1			
Sun Angle (degrees):				

	Run 2 Time: 1946			
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	5	0	5
6	0	0	0	5
6-minute Average:	0.6			
Source Conditions:	ACB 2			
Sun Angle (degrees):				

	Run 4 Time: 2038			
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:	0			
Source Conditions:	ACB 2			
Sun Angle (degrees):				

Range of opacity readings: low 0 high 10

Number of readings above 10 % were 0

Observer's Signature

Visible Emissions Evaluation

Tuesday Night, January 8th, 2013

Run Number(s) and Description: Runs 5-8

Units 1 & 2

Facility Name	ECC-Floyd Bennett Field
AVOGADRO Project No.	12-9191
Location (city, state)	Brooklyn, NY
Type of Facility	Debris Removal
Control Equipment / Emission Source	ACBs
Date of Observation	01/08/2013
Start Time	2110
Stop Time	2236
Distance from observer (ft)	300'
Direction from observer	NNW
Stack height (fr. observer's elev.) (ft)	9'
Stack Diameter (in)	27'x9', 20'x8'
Description of plume:	
continuous? fugitive? intermittent?	cont
color	white
water drops present? (Y/N)	N
attached steam plume? (Y/N)	N
detached steam plume? (Y/N)	N
secondary plume? (Y/N)	N
point where opacity read	1-3 varies lengths
target?	sky
describe background to plume	"
unique features of plume or stack	—
	@2110
Weather:	
ambient temperature (F)	41°
relative humidity	73%
wind direction	E
wind speed	0-3mph
barometric pressure	30.40 in Hg
rain? fog? snow? haze?	clear
Glasses worn:	
corrective? (Y/N)	yes
sunglasses? (Y/N)	—

Observer's name	Joshua Wagner
Observer certification date	Night 12/20/2012
Certifying agency	Whitlow
Observer affiliation	Avogadro Env.

sec	0	15	30	45
min	Run 5 Time: 2110			
1	10	10	10	10
2	5	5	5	5
3	5	5	5	5
4	5	5	5	5
5	10	5	5	10
6	5	5	5	5
6-minute Average: 6.3				
Source Conditions: ACB 1				
Sun Angle (degrees):				

sec	0	15	30	45
min	Run 7 Time: 2202			
1	0	0	0	5
2	0	5	0	0
3	0	5	0	0
4	5	0	0	0
5	0	0	5	0
6	0	5	0	0
6-minute Average: 1.3				
Source Conditions: ACB 1				
Sun Angle (degrees):				

	Run 5 Time: 2110			
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average: 0				
Source Conditions: ACB 2				
Sun Angle (degrees):				

	Run 7 Time: 2202			
1	0	0	0	5
2	0	0	5	0
3	0	0	0	5
4	0	0	5	0
5	5	0	0	0
6	0	5	0	0
6-minute Average: 1.3				
Source Conditions: ACB 2				
Sun Angle (degrees):				

	Run 6 Time: 2136			
1	0	0	0	0
2	5	0	0	0
3	0	0	5	0
4	0	5	0	0
5	0	0	0	5
6	0	0	5	0
6-minute Average: 1.0				
Source Conditions: ACB 1				
Sun Angle (degrees):				

	Run 8 Time: 2230			
1	10	10	10	10
2	15	15	15	15
3	10	10	10	10
4	10	10	10	10
5	10	10	10	10
6	10	10	10	10
6-minute Average: 10.8				
Source Conditions: ACB 1				
Sun Angle (degrees):				

	Run 6 Time: 2136			
1	0	0	0	0
2	0	0	5	0
3	0	5	0	0
4	5	0	0	0
5	0	5	0	0
6	0	0	5	0
6-minute Average: 1.0				
Source Conditions: ACB 2				
Sun Angle (degrees):				

	Run 8 Time: 2230			
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average: 0				
Source Conditions: ACB 2				
Sun Angle (degrees):				

Range of opacity readings:

low 0 high 15

Number of readings above 10 % were 4

Observer's Signature

Visible Emissions Evaluation

Tuesday Night, January 8th, 2013

Run Number(s) and Description: Runs 9-11

Units 1 & 2

Facility Name	ECC-Floyd Bennett Field
AVOGADRO Project No.	12-9191
Location (city, state)	Brooklyn, NY
Type of Facility	Debris Removal
Control Equipment / Emission Source	ACBs
Date of Observation	01/08/2013
Start Time	2256
Stop Time	2356
Distance from observer (ft)	300'
Direction from observer	NNW
Stack height (fr. observer's elev.) (ft)	9'
Stack Diameter (in)	27'x9', 20'x8'
Description of plume:	
continuous? fugitive? intermittent?	cont
color	white
water drops present? (Y/N)	N
attached steam plume? (Y/N)	N
detached steam plume? (Y/N)	N
secondary plume? (Y/N)	N
point where opacity read 1-3	convex lengths
target?	sky
describe background to plume	"
unique features of plume or stack	—
Weather:	@2300
ambient temperature (F)	35°
relative humidity	81%
wind direction	E
wind speed	0-3mph
barometric pressure	30.41 in Hg
rain? fog? snow? haze?	clear
Glasses worn:	
corrective? (Y/N)	yes
sunglasses? (Y/N)	—

Observer's name	Joshua Wagner
Observer certification date	Night 12/20/2012
Certifying agency	Whitlow
Observer affiliation	Avogadro Env.

sec	0	15	30	45
min	Run 9 Time: 2256			
1	10	10	10	10
2	10	10	10	10
3	10	10	10	10
4	10	10	10	10
5	10	10	10	10
6	10	10	10	10
6-minute Average:	10			
Source Conditions:	ACB 1			
Sun Angle (degrees):				

sec	0	15	30	45
min	Run 11 Time: 2350			
1	10	10	10	10
2	10	10	10	10
3	5	10	5	10
4	5	10	5	10
5	5	10	10	5
6	10	5	10	5
6-minute Average:				
Source Conditions:	ACB 1			
Sun Angle (degrees):				

Run 9 Time: 2256				
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	5	0	0	0
5	0	0	5	0
6	0	5	0	0
6-minute Average:	0.6			
Source Conditions:	ACB 2			
Sun Angle (degrees):				

Run 11 Time: 2350				
1	0	0	0	0
2	5	0	0	0
3	0	5	0	0
4	0	0	0	5
5	0	0	0	0
6	5	0	0	0
6-minute Average:	0.8			
Source Conditions:	ACB 2			
Sun Angle (degrees):				

Run 10 Time: 2322				
1	15	15	15	15
2	15	15	15	15
3	15	15	15	15
4	10	10	10	10
5	10	10	10	10
6	10	10	15	15
6-minute Average:	12.9			
Source Conditions:	ACB 1			
Sun Angle (degrees):				

Run Time:				
1				
2				
3				
4				
5				
6				
6-minute Average:				
Source Conditions:	ACB 1			
Sun Angle (degrees):				

Run 10 Time: 2322				
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:	0			
Source Conditions:	ACB 2			
Sun Angle (degrees):				

Run Time:				
1				
2				
3				
4				
5				
6				
6-minute Average:				
Source Conditions:	ACB 2			
Sun Angle (degrees):				

Range of opacity readings: low 0 high 15

Number of readings above 10 % were 14

Observer's Signature