Monday Early Morning – February 4, 2013

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	ACB 1
Date of Observation	2/4/2013
Start Time	0000
Stop Time	0308
Distance from observer (ft)	150'
Direction from observer	E
Stack height (fr. observer's elev.) (ft)	9'
Stack Diameter (in)	27' x 9'
Description of plume:	
continuous? fugitive? intermittent?	Continuous
color	White
water drops present? (Y/N)	No
attached steam plume? (Y/N)	No
detached steam plume? (Y/N)	No
secondary plume? (Y/N)	No
point where opacity read	1-3 Conex Lengths
target?	Sky
describe background to plume	Sky
unique features of plume or stack	—
Weather:	
ambient temperature (F)	29 °F
relative humidity	62 %
wind direction	SW
wind speed	5-10 mph
barometric pressure	29.82 in
rain? fog? snow? haze?	clear
Glasses worn:	
corrective? (Y/N)	No
sunglasses? (Y/N)	No

Observer's name	Aaron T. Johnson
Observer certification date	NJ# 1/6/2013
Certifying agency	Whitlow Enterprises
Observer affiliation	Avogadro Env. Corp.

Run Number(s) and Description

ACB 1 – Runs # 1 – 8

sec	0	15	30	45
min	Run 1 Time: 0000			
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):				
	Run 2 Time: 0006			
1	5	5	5	5
2	5	5	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: 5				
Source Conditions:				
Sun Angle (degrees):				
	Run 3 Time: 0012			
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):				
	Run 4 Time: 0018			
1	5	5	5	5
2	0	5	0	0
3	0	0	5	0
4	0	5	0	5
5	5	0	5	0
6	0	0	5	5
6-minute Average: 2.5				
Source Conditions:				
Sun Angle (degrees):				

sec	0	15	30	45
min	Run 5 Time: 0024			
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):				
	Run 6 Time: 0030			
1	5	5	5	5
2	5	5	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: 5				
Source Conditions:				
Sun Angle (degrees):				
	Run 7 Time: 0036			
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):				
	Run 8 Time: 0042			
1	5	5	5	5
2	5	5	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: 5				
Source Conditions:				
Sun Angle (degrees):				

Range of opacity readings: low 0 high 5

Number of readings above 10 % were 0

Aaron T. Johnson

Observer's Signature

Monday Morning - February 4, 2013

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	ACB 1
Date of Observation	2/4/2013
Start Time	0328
Stop Time	
Distance from observer (ft)	150'
Direction from observer	E
Stack height (fr. observer's elev.) (ft)	91'
Stack Diameter (in)	27'x9'
Description of plume:	
continuous? fugitive? intermittent?	Continuous
color	White
water drops present? (Y/N)	No
attached steam plume? (Y/N)	No
detached steam plume? (Y/N)	No
secondary plume? (Y/N)	No
point where opacity read	1-3 Conex Lengths
target?	Sky
describe background to plume	Sky
unique features of plume or stack	—
Weather:	
ambient temperature (F)	25 °F
relative humidity	41 %
wind direction	NW
wind speed	5-15 mph
barometric pressure	29.9 in
rain? fog? snow? haze?	clear
Glasses worn:	
corrective? (Y/N)	No
sunglasses? (Y/N)	No

Observer's name	Aaron T. Johnson
Observer certification date	1/6/2013
Certifying agency	Whitlow Enterprises
Observer affiliation	Avogadro Env. Corp.

Run Number(s) and Description

ACB 1 - Runs # 9 - 13

sec	0	15	30	45
min	Run 9 Time: 0328			
1	5	5	5	5
2	5	5	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:	5			
Source Conditions:				
Sun Angle (degrees):				
	Run 10 Time: 0334			
1	5	5	5	5
2	5	5	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:	5			
Source Conditions:				
Sun Angle (degrees):				
	Run 11 Time: 0340			
1	5	5	5	5
2	5	5	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:	5			
Source Conditions:				
Sun Angle (degrees):				
	Run 12 Time: 0346			
1	5	5	5	5
2	5	5	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:	5			
Source Conditions:				
Sun Angle (degrees):				
	Run Time:			
1				
2				
3				
4				
5				
6				
6-minute Average:				
Source Conditions:				
Sun Angle (degrees):				

sec	0	15	30	45
min	Run 9 Time: 0328			
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):				
	Run 10 Time: 0334			
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):				
	Run 11 Time: 0340			
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):				
	Run 12 Time: 0346			
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):				
	Run Time:			
1				
2				
3				
4				
5				
6				
6-minute Average:				
Source Conditions:				
Sun Angle (degrees):				

Range of opacity readings:

low 0 high 5

Number of readings above 10 % were 0

Observer's Signature

AVOGADRO ENVIRONMENTAL CORPORATION, Easton Pa

Visible Emissions Evaluation

UNIT 1

Run Number(s) and Description

 2-4-13

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	2-4-13
Start Time	705
Stop Time	
Distance from observer (ft)	120
Direction from observer	N
Stack height (fr. observer's elev.) (ft)	10'
Stack Diameter (in)	27 x 8
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	TOP EDGE
target?	
describe background to plume	CONTAINERS
unique features of plume or stack	
Weather:	
ambient temperature (F)	28°F
relative humidity	
wind direction	SE
wind speed	10-15
barometric pressure	30.00
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

sec	0	15	30	45
min	Run 1 Time: 705			
1	10	10	10	10
2	5	5	10	10
3	10	10	10	10
4	10	10	10	5
5	10	10	10	5
6	10	10	10	10
6-minute Average:	9.2			
Source Conditions:				
Sun Angle (degrees):	5			
	Run 2 Time: 720			
1	15	15	15	10
2	10	10	10	10
3	10	5	5	10
4	5	5	5	10
5	5	10	10	10
6	5	10	10	10
6-minute Average:	9.2			
Source Conditions:				
Sun Angle (degrees):	5			
	Run 3 Time: 740			
1	5	5	5	10
2	10	10	10	10
3	5	5	10	5
4	10	10	10	15
5	10	10	10	10
6	5	5	10	10
6-minute Average:	8.5			
Source Conditions:				
Sun Angle (degrees):	0			
	Run 4 Time: 800			
1	15	15	10	10
2	5	5	5	5
3	5	5	5	10
4	10	5	10	5
5	5	5	10	10
6	5	5	5	10
6-minute Average:	7.5			
Source Conditions:				
Sun Angle (degrees):	5			

sec	0	15	30	45
min	Run 5 Time: 820			
HOT	10	10	10	10
2	10	10	10	10
3	10	5	5	10
4	10	5	5	5
5	5	5	10	5
6	5	10	5	5
6-minute Average:	7.7			
Source Conditions:				
Sun Angle (degrees):	5			
	Run 6 Time: 840			
1	5	5	10	10
2	10	5	5	5
3	5	5	10	10
4	10	10	5	5
5	5	5	5	5
6	5	5	5	5
6-minute Average:	6.5			
Source Conditions:				
Sun Angle (degrees):	10			
	Run 7 Time: 900			
1	5	10	5	5
2	10	10	10	10
3	5	5	10	10
4	5	5	10	5
5	10	10	10	10
6	5	10	5	5
6-minute Average:	7.7			
Source Conditions:				
Sun Angle (degrees):	10			
	Run 8 Time: 920			
1	5	5	5	5
2	5	10	10	5
3	5	5	5	5
4	5	5	10	10
5	10	10	5	5
6	5	5	5	5
6-minute Average:	6.3			
Source Conditions:				
Sun Angle (degrees):	10			

Range of opacity readings:

low 5 high 15

Number of readings above 10 % were 6

Observer's Signature

UNIT 1

Run Number(s) and Description

 2-4-13

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	2-4-13
Start Time	940
Stop Time	
Distance from observer (ft)	100'
Direction from observer	NW
Stack height (fr. observer's elev.) (ft)	10'
Stack Diameter (in)	26 x 8
Description of plume:	
continuous? fugitive? intermittent?	Continuous
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	Top edge
target?	
describe background to plume	Containers
unique features of plume or stack	
Weather:	
ambient temperature (F)	28°F
relative humidity	
wind direction	SE
wind speed	@ 15-20
barometric pressure	30.00
rain? fog? snow? haze?	CLEAR
Glasses worn:	
corrective? (Y/N)	Y
sunglasses? (Y/N)	N

Observer's name	MARK J. READY
Observer certification date	10-22-12
Certifying agency	Koontz
Observer affiliation	AVOGADRO/DA

sec	0	15	30	45
min	Run 9 Time: 940			
1	5	10	10	10
2	10	10	5	5
3	5	10	10	10
4	10	10	10	15
5	10	10	5	5
6	5	10	10	10
6-minute Average:			8.8	
Source Conditions:				
Sun Angle (degrees):			10	
	Run 10 Time: 1000			
1	5	5	10	10
2	5	5	5	5
3	5	5	10	10
4	10	10	5	5
5	5	5	5	5
6	5	5	10	5
6-minute Average:			6.5	
Source Conditions:				
Sun Angle (degrees):			10	
	Run 11 Time: 1020			
1	10	10	5	5
2	5	5	5	5
3	5	10	10	5
4	5	5	5	5
5	5	5	5	5
6	10	5	5	5
6-minute Average:			6.0	
Source Conditions:				
Sun Angle (degrees):			10	
	Run 12 Time: 1040			
1	10	10	10	5
2	5	5	5	5
3	10	5	5	10
4	10	10	10	10
5	5	5	10	10
6	10	10	10	10
6-minute Average:			8.1	
Source Conditions:				
Sun Angle (degrees):			10	

sec	0	15	30	45
min	Run 13 Time: 1100			
1	15	15	10	10
2	10	10	15	10
3	10	10	10	10
4	10	10	5	5
5	10	5	5	5
6	10	10	10	10
6-minute Average:			9.6	
Source Conditions:				
Sun Angle (degrees):			15	
	Run 14 Time: 1120			
1	10	10	5	5
2	10	10	10	10
3	10	10	5	5
4	5	5	5	5
5	10	5	5	10
6	10	10	5	10
6-minute Average:			7.7	
Source Conditions:				
Sun Angle (degrees):			20	
	Run 15 Time: 1140			
1	5	10	5	5
2	5	5	5	5
3	5	5	5	5
4	5	10	10	10
5	5	5	5	5
6	5	10	5	10
6-minute Average:			6.3	
Source Conditions:				
Sun Angle (degrees):			20	
	Run 16 Time: 1200			
1	5	5	5	5
2	10	5	5	5
3	10	10	5	5
4	5	5	5	5
5	10	10	5	5
6	10	5	5	10
6-minute Average:			6.5	
Source Conditions:				
Sun Angle (degrees):			25	

Range of opacity readings:

low 5 high 15

Number of readings above 10 % were 5

Observer's Signature

UNIT 1

Visible Emissions Evaluation

Run Number(s) and Description: Pg. 3 2-4-13

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	2-4-13
Start Time	1220
Stop Time	
Distance from observer (ft)	150'
Direction from observer	NE
Stack height (fr. observer's elev.) (ft)	10'
Stack Diameter (in)	26 x 8
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	Top Edge
target?	
describe background to plume	Containers
unique features of plume or stack	
Weather:	
ambient temperature (F)	32°F
relative humidity	
wind direction	E
wind speed	15-20
barometric pressure	30.00
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

sec	0	15	30	45
min	Run 17 Time: 1220			
1	5	5	10	10
2	5	5	5	5
3	5	5	10	5
4	5	5	5	5
5	10	5	5	5
6	5	5	5	10
6-minute Average:	6.0			
Source Conditions:				
Sun Angle (degrees):	55			
	Run 18 Time: 1240			
1	10	10	5	5
2	15	10	10	10
3	10	15	5	5
4	5	5	10	10
5	10	10	15	15
6	5	5	5	10
6-minute Average:	9.0			
Source Conditions:				
Sun Angle (degrees):	55			
	Run 19 Time: 1300			
1	10	10	10	10
2	5	10	10	10
3	10	10	15	5
4	10	10	5	5
5	10	10	10	10
6	10	10	10	10
6-minute Average:	9.0			
Source Conditions:				
Sun Angle (degrees):	50			
	Run 20 Time: 1320			
1	5	5	10	10
2	10	10	5	5
3	5	5	5	10
4	10	10	5	5
5	5	5	5	5
6	5	10	5	5
6-minute Average:	6.7			
Source Conditions:				
Sun Angle (degrees):	50			

sec	0	15	30	45
min	Run 21 Time: 1340			
1	10	5	5	5
2	10	5	5	10
3	5	5	5	5
4	5	5	5	10
5	5	5	5	5
6	5	5	5	10
6-minute Average:	6.0			
Source Conditions:				
Sun Angle (degrees):	40			
	Run 22 Time: 1400			
1	5	5	5	5
2	10	5	5	5
3	5	10	10	5
4	5	5	5	5
5	5	5	5	5
6	5	10	5	5
6-minute Average:	5.8			
Source Conditions:				
Sun Angle (degrees):	40			
	Run 23 Time: 1420			
1	5	5	5	5
2	5	5	5	10
3	5	5	5	0
4	5	5	5	5
5	5	5	5	5
6	5	5	5	5
6-minute Average:	5.0			
Source Conditions:				
Sun Angle (degrees):	40			
	Run 24 Time: 1440			
1	5	10	10	10
2	5	5	5	10
3	10	10	10	10
4	10	5	5	5
5	10	10	10	10
6	10	5	5	5
6-minute Average:	7.9			
Source Conditions:				
Sun Angle (degrees):	20			

Range of opacity readings:
low 5 high 15

Number of readings above 10 % were 4

Observer's Signature

AVOGADRO ENVIRONMENTAL CORPORATION, Easton Pa

UNIT 1

Run Number(s) and Description

 2-4-13

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	2-4-13
Start Time	1500
Stop Time	
Distance from observer (ft)	150'
Direction from observer	NE
Stack height (fr. observer's elev.) (ft)	10'
Stack Diameter (in)	27 x 8
Description of plume:	
continuous? fugitive? intermittent?	CONTINUOUS
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	Top Edge
target?	
describe background to plume	Containers
unique features of plume or stack	
Weather:	
ambient temperature (F)	35°F
relative humidity	
wind direction	E
wind speed	10-15
barometric pressure	30.00
rain? fog? snow? haze?	PTly Cldy
Glasses worn:	
corrective? (Y/N)	Y
sunglasses? (Y/N)	N

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

sec	0	15	30	45	sec	0	15	30	45
min	Run 25 Time: 1500				min 29	Run 35 Time: 1620			
1	5	5	5	10	1	10	10	10	15
2	10	10	10	10	2	10	10	10	10
3	10	10	10	10	3	10	10	10	10
4	10	10	5	10	4	10	10	10	5
5	10	10	10	10	5	10	10	5	10
6	10	5	5	5	6	10	10	10	10
6-minute Average:	8.5				6-minute Average:	9.8			
Source Conditions:					Source Conditions:				
Sun Angle (degrees):	15				Sun Angle (degrees):	10			
26	Run ~~30~~ Time: 1520				30	Run ~~34~~ Time: 1640			
1	10	10	10	10	1	5	5	10	10
2	10	10	10	10	2	10	10	10	10
3	10	10	10	10	3	10	5	5	10
4	10	5	5	10	4	10	5	5	5
5	10	10	10	10	5	5	10	10	10
6	10	10	5	10	6	10	10	10	10
6-minute Average:	9.4				6-minute Average:	8.3			
Source Conditions:					Source Conditions:				
Sun Angle (degrees):	15				Sun Angle (degrees):	5			
27	Run ~~31~~ Time: 1540					Run 36 Time: 1700			
1	10	10	10	10	1	5	5	5	5
2	5	5	10	10	2	5	5	5	5
3	10	5	5	5	3	10	10	5	5
4	5	5	5	5	4	5	5	5	5
5	5	5	5	5	5	10	5	5	5
6	5	5	5	10	6	5	5	5	5
6-minute Average:	6.7				6-minute Average:	5.6			
Source Conditions:					Source Conditions:				
Sun Angle (degrees):	10				Sun Angle (degrees):	5			
28	Run ~~32~~ Time: 1600					Run Time:			
1	10	10	10	10	1				
2	10	10	10	10	2				
3	10	15	10	10	3				
4	10	10	10	10	4				
5	10	10	10	5	5				
6	5	5	5	5	6				
6-minute Average:	9.2				6-minute Average:				
Source Conditions:					Source Conditions:				
Sun Angle (degrees):	10				Sun Angle (degrees):				

Range of opacity readings:

low 5 high 15

Number of readings above 10 % were 2

Observer's Signature

Visible Emissions Evaluation

Monday Night February 4th, 2013

Run Number(s) and Description: ACB1 Runs 1-8

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	ACB 1
Date of Observation	02/4/2013
Start Time	1932
Stop Time	2240
Distance from observer (ft)	200'
Direction from observer	E
Stack height (fr. observer's elev.) (ft)	9'
Stack Diameter (in)	27'x9'
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 crane lengths
target?	sky
describe background to plume	sky
unique features of plume or stack	—
	@1840
Weather:	
ambient temperature (F)	29°
relative humidity	37%
wind direction	SE
wind speed	3-8 mph
barometric pressure	29.97 inHg
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	Whittow
Observer affiliation	Avogadro Env.

sec	0	15	30	45
min	**Run 1 Time: 1932**			
1	5	5	5	5
2	10	10	10	10
3	5	5	5	5
4	10	10	5	10
5	5	5	5	10
6	10	10	10	10
6-minute Average: 7.5				
Source Conditions:				
Sun Angle (degrees):				
	Run 2 Time: 1958			
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: adding fuel				
Sun Angle (degrees):				
	Run 3 Time: 2024			
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: adding fuel				
Sun Angle (degrees):				
	Run 4 Time: 2050			
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):				

sec	0	15	30	45
min	**Run 5 Time: 2116**			
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	5	5	5	5
5	5	5	5	5
6	5	5	5	5
6-minute Average: 2.5				
Source Conditions:				
Sun Angle (degrees):				
	Run 6 Time: 2142			
1	5	5	5	5
2	5	5	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: 5				
Source Conditions:				
Sun Angle (degrees):				
	Run 7 Time: 2208			
1	5	5	5	5
2	5	5	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: 5				
Source Conditions:				
Sun Angle (degrees):				
	Run 8 Time: 2234			
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):				

Range of opacity readings: low 0 high 10

Number of readings above 10 % were 0

Observer's Signature

Monday M. February 4th, 2013

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	ACB 1
Date of Observation	02/4/2013
Start Time	2300
Stop Time	2358
Distance from observer (ft)	200'
Direction from observer	E
Stack height (fr. observer's elev.) (ft)	9'
Stack Diameter (in)	27'x9'
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 exit lengths
target?	sky
describe background to plume	sky
unique features of plume or stack	—
	@2300
Weather:	
ambient temperature (F)	29°
relative humidity	49%
wind direction	N
wind speed	3-6 mph
barometric pressure	29.99 inHg
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: ACB 1 Runs 9-11

sec	0	15	30	45
min	Run 9	Time:	2300	
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):				
	Run 10	Time:	2326	
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):				
	Run 11	Time:	2352	
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):				
	Run	Time:		
1				
2				
3				
4				
5				
6				
6-minute Average:				
Source Conditions:				
Sun Angle (degrees):				

sec	0	15	30	45
min	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):				
	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 0

Number of readings above 10 % were 0

Observer's Signature

Monday Early Morning - February 4, 2013

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	ACB 2
Date of Observation	2/4/2013
Start Time	0000
Stop Time	0308
Distance from observer (ft)	150'
Direction from observer	E
Stack height (fr. observer's elev.) (ft)	8'
Stack Diameter (in)	20' x 8'
Description of plume:	
continuous? fugitive? intermittent?	Continuous
color	White
water drops present? (Y/N)	No
attached steam plume? (Y/N)	No
detached steam plume? (Y/N)	No
secondary plume? (Y/N)	No
point where opacity read	1-3 Conex Lengths
target?	Sky
describe background to plume	Sky
unique features of plume or stack	—
Weather:	
ambient temperature (F)	29 °F
relative humidity	62 %
wind direction	SW
wind speed	5-10 mph
barometric pressure	29.82 in
rain? fog? snow? haze?	clear
Glasses worn:	
corrective? (Y/N)	No
sunglasses? (Y/N)	No

Observer's name	Aaron T. Johnson
Observer certification date	1/6/2013
Certifying agency	Whitlow Enterprises
Observer affiliation	Avogadro Env. Corp.

Run Number(s) and Description: ACB 2 - Runs # 1 - 8

sec	0	15	30	45
min	Run 1 Time: 0000			
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):				
	Run 2 Time: 0036			
1	5	5	5	5
2	5	5	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: 5				
Source Conditions:				
Sun Angle (degrees):				
	Run 3 Time: 0112			
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):				
	Run 4 Time: 0146			
1	5	5	5	5
2	5	5	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: 5				
Source Conditions:				
Sun Angle (degrees):				

sec	0	15	30	45
min	Run 5 Time: 0220			
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):				
	Run 6 Time: 0254			
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):				
	Run 7 Time: 0328			
1	5	5	5	5
2	5	5	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: 5				
Source Conditions:				
Sun Angle (degrees):				
	Run 8 Time: 0402			
1	5	5	5	5
2	5	5	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: 5				
Source Conditions:				
Sun Angle (degrees):				

Range of opacity readings: low 0 high 5

Number of readings above 10 % were 0

Observer's Signature

Monday Morning - February 4, 2013

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	ACB 2
Date of Observation	2/4/2013
Start Time	0328
Stop Time	
Distance from observer (ft)	150'
Direction from observer	E
Stack height (fr. observer's elev.) (ft)	8'
Stack Diameter (in)	20'x8'
Description of plume:	
continuous? fugitive? intermittent?	Continuous
color	White
water drops present? (Y/N)	No
attached steam plume? (Y/N)	No
detached steam plume? (Y/N)	No
secondary plume? (Y/N)	No
point where opacity read	1-3 Conex Lengths
target?	Sky
describe background to plume	Sky
unique features of plume or stack	—
Weather:	
ambient temperature (F)	25 °F
relative humidity	41 %
wind direction	NW
wind speed	5-15 mph
barometric pressure	29.9 in
rain? fog? snow? haze?	clear
Glasses worn:	
corrective? (Y/N)	No
sunglasses? (Y/N)	No

Observer's name	Aaron T. Johnson
Observer certification date	1/6/2013
Certifying agency	Whitlow Enterprises
Observer affiliation	Avogadro Env. Corp.

Run Number(s) and Description

ACB 2 - Runs # 9 - 13

sec	0	15	30	45
min	Run 9 Time: 0328			
1	5	5	5	5
2	5	5	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: 5				
Source Conditions:				
Sun Angle (degrees):				

sec	0	15	30	45
min	Run 10 Time: 0334			
1	5	5	5	5
2	5	5	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: 5				
Source Conditions:				
Sun Angle (degrees):				

	Run 11 Time: 0340			
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):				

	Run 12 Time: 0346			
1	5	5	5	5
2	5	5	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: 5				
Source Conditions:				
Sun Angle (degrees):				

	Run 13 Time: 0352			
1	5	5	5	5
2	5	5	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: 5				
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):				

Range of opacity readings: low 0 high 5

Number of readings above 10 % were 0

Observer's Signature

AVOGADRO ENVIRONMENTAL CORPORATION, Easton Pa

Visible Emissions Evaluation

UNIT 2

Run Number(s) and Description

Pg. 1 2-4-13

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	2-4-13
Start Time	705
Stop Time	
Distance from observer (ft)	120
Direction from observer	N
Stack height (fr. observer's elev.) (ft)	10'
Stack Diameter (in)	20 x 8
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	Top Edge
target?	
describe background to plume	CONTAINERS
unique features of plume or stack	
Weather:	
ambient temperature (F)	28
relative humidity	
wind direction	SE
wind speed	10-15
barometric pressure	30.00
rain? fog? snow? haze?	CLEAR
Glasses worn:	
corrective? (Y/N)	Y
sunglasses? (Y/N)	N

Observer's name	MARK J READY
Observer certification date	10-22-12
Certifying agency	KOOMIT2
Observer affiliation	AVOGADRO/DA

sec	0	15	30	45
min	Run 1 Time: 705			
1	5	5	5	5
2	5	5	5	5
3	5	5	5	5
4	5	5	10	10
5	10	10	5	5
6	5	5	10	10
6-minute Average:			6.3	
Source Conditions:				
Sun Angle (degrees):			5	
	Run 2 Time: 720			
1	5	5	5	10
2	5	5	5	5
3	5	5	10	5
4	5	5	5	5
5	5	5	5	5
6	5	5	5	10
6-minute Average:			5.6	
Source Conditions:				
Sun Angle (degrees):			5	
	Run 3 Time: 740			
1	5	5	10	5
2	5	5	5	5
3	5	0	5	5
4	5	5	5	5
5	5	5	5	5
6	5	5	0	5
6-minute Average:			4.8	
Source Conditions:				
Sun Angle (degrees):			0	
	Run 4 Time: 800			
1	15	15	10	10
2	10	10	10	10
3	10	10	10	10
4	10	10	5	10
5	5	5	10	10
6	5	10	10	10
6-minute Average:			9.6	
Source Conditions:				
Sun Angle (degrees):			5	

sec	0	15	30	45
min	Run 5 Time: 820			
1	5	5	10	5
2	5	5	5	10
3	5	5	5	5
4	5	5	5	5
5	5	5	5	5
6	5	5	10	5
6-minute Average:			5.6	
Source Conditions:				
Sun Angle (degrees):			5	
	Run 6 Time: 840			
1	5	5	5	5
2	5	10	10	5
3	5	5	5	5
4	5	5	10	10
5	5	5	5	5
6	5	5	5	5
6-minute Average:			5.8	
Source Conditions:				
Sun Angle (degrees):			10	
	Run 7 Time: 900			
1	5	5	5	5
2	0	0	5	5
3	5	5	5	5
4	5	5	5	0
5	0	5	5	5
6	5	5	5	5
6-minute Average:			4.2	
Source Conditions:				
Sun Angle (degrees):			10	
	Run 8 Time: 920			
1	5	5	5	5
2	5	5	5	5
3	5	0	0	5
4	5	5	5	5
5	5	5	5	5
6	5	0	0	5
6-minute Average:			4.2	
Source Conditions:				
Sun Angle (degrees):			10	

Range of opacity readings:

low 0 high 15

Number of readings above 10 % were 2

Observer's Signature

UNIT 2

Run Number(s) and Description

 2-14-13

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	2-4-13
Start Time	940
Stop Time	
Distance from observer (ft)	100'
Direction from observer	NW
Stack height (fr. observer's elev.) (ft)	101
Stack Diameter (in)	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	Top edge
target?	
describe background to plume	Containers
unique features of plume or stack	
Weather:	
ambient temperature (F)	28°F
relative humidity	
wind direction	SE
wind speed	15-20
barometric pressure	30.00
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 12-22-10
Certifying agency	KOOMTZ
Observer affiliation	AVOGADRO/DA

sec	0	15	30	45
min	Run 9 Time: 940			
1	5	5	5	5
2	5	10	10	10
3	5	5	5	5
4	10	10	5	5
5	5	5	5	5
6	10	10	10	10
6-minute Average:	6.9			
Source Conditions:				
Sun Angle (degrees):	10			
	Run 10 Time: 1000			
1	5	5	5	5
2	5	5	5	5
3	0	0	5	5
4	5	0	5	0
5	5	5	5	5
6	5	5	5	5
6-minute Average:	4.2			
Source Conditions:				
Sun Angle (degrees):	10			
	Run 11 Time: 1020			
1	0	5	5	5
2	0	0	0	5
3	5	5	5	5
4	5	5	0	0
5	5	5	5	0
6	0	0	0	0
6-minute Average:	2.7			
Source Conditions:				
Sun Angle (degrees):	10			
	Run 12 Time: 1040			
1	10	10	10	10
2	10	10	10	10
3	5	5	5	10
4	5	10	10	10
5	10	10	5	5
6	10	10	5	5
6-minute Average:	8.3			
Source Conditions:				
Sun Angle (degrees):	10			

sec	0	15	30	45
min	Run 13 Time: 1100			
1	10	10	5	5
2	10	10	10	10
3	10	10	15	10
4	10	10	10	10
5	10	10	10	10
6	10	10	10	10
6-minute Average:	9.8			
Source Conditions:				
Sun Angle (degrees):	15			
	Run 14 Time: 1120			
1	5	5	5	5
2	10	10	5	5
3	5	5	5	5
4	5	5	5	10
5	10	10	10	5
6	5	10	10	5
6-minute Average:	6.7			
Source Conditions:				
Sun Angle (degrees):	20			
	Run 15 Time: 1140			
1	10	5	10	10
2	10	10	5	5
3	10	5	5	5
4	10	10	10	10
5	10	5	5	10
6	10	10	10	5
6-minute Average:	8.1			
Source Conditions:				
Sun Angle (degrees):	20			
	Run 16 Time: 1200			
1	10	10	10	10
2	10	10	10	10
3	10	10	10	5
4	5	5	10	10
5	5	5	10	5
6	10	10	10	5
6-minute Average:	8.1			
Source Conditions:				
Sun Angle (degrees):	25			

Range of opacity readings:

low 0 high 10

Number of readings above 10 % were 0

Mark T. Ready

Observer's Signature

UNIT 2

Run Number(s) and Description Pg. 3 2-4-13

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	2-4-13
Start Time	1220
Stop Time	
Distance from observer (ft)	150'
Direction from observer	NE
Stack height (fr. observer's elev.) (ft)	10'
Stack Diameter (in)	20 x 8
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	Top Edge
target?	
describe background to plume	Containers
unique features of plume or stack	
Weather:	
ambient temperature (F)	32°F
relative humidity	
wind direction	E
wind speed	15-20
barometric pressure	30.00
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	ECONTZ
Observer affiliation	AVOGADRO/DA

sec	0	15	30	45
min	Run 17 Time: 1220			
1	5	5	5	5
2	5	5	5	5
3	5	5	5	5
4	5	10	10	5
5	5	5	5	5
6	5	5	5	5
6-minute Average:			5.4	
Source Conditions:				
Sun Angle (degrees):			55	
	Run 18 Time: 1240			
1	5	5	5	10
2	5	5	5	5
3	10	10	5	5
4	5	5	5	10
5	5	5	10	5
6	5	5	5	5
6-minute Average:			6.0	
Source Conditions:				
Sun Angle (degrees):			55	
	Run 19 Time: 1300			
1	5	5	5	5
2	10	10	10	5
3	5	5	5	5
4	5	5	5	10
5	10	10	5	5
6	5	5	10	5
6-minute Average:			6.5	
Source Conditions:				
Sun Angle (degrees):			50	
	Run 20 Time: 1320			
1	5	5	5	5
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:			5.4	
Source Conditions:				
Sun Angle (degrees):			50	

sec	0	15	30	45
min	Run 21 Time: 1340			
1	10	10	10	10
2	10	5	10	10
3	10	5	5	10
4	10	5	10	10
5	10	10	10	5
6	10	10	10	5
6-minute Average:			8.8	
Source Conditions:				
Sun Angle (degrees):			40	
	Run Time:			
1	5	5	5	5
2	5	5	10	10
3	5	5	5	5
4	5	10	5	5
5	5	5	5	5
6	5	5	5	5
6-minute Average:			5.6	
Source Conditions:				
Sun Angle (degrees):			40	
	Run 23 Time: 1420			
1	15	10	10	10
2	10	10	10	5
3	5	5	10	10
4	5	10	10	10
5	10	10	10	15
6	15	10	10	10
6-minute Average:			9.8	
Source Conditions:				
Sun Angle (degrees):			40	
	Run 24 Time: 1440			
1	5	5	5	5
2	5	5	5	0
3	5	5	5	5
4	5	10	10	5
5	5	5	5	5
6	5	5	10	5
6-minute Average:			5.4	
Source Conditions:				
Sun Angle (degrees):			20	

Range of opacity readings:
low 0 high 15

Number of readings above 10 % were 3

Observer's Signature

AVOGADRO ENVIRONMENTAL CORPORATION, Easton Pa

Visible Emissions Evaluation

UNIT 2
Run Number(s) and Description

 2-4-13

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	2-4-13
Start Time	1500
Stop Time	
Distance from observer (ft)	150'
Direction from observer	NE
Stack height (fr. observer's elev.) (ft)	10'
Stack Diameter (in)	20 x 8
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	Top Edge
target?	
describe background to plume	Containers
unique features of plume or stack	
Weather:	
ambient temperature (F)	35°F
relative humidity	
wind direction	E
wind speed	10-15
barometric pressure	30.00
rain? fog? snow? haze?	PTly Cldy
Glasses worn:	
corrective? (Y/N)	Y
sunglasses? (Y/N)	N

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

sec	0	15	30	45
min	Run 25 Time: 1500			
1	5	5	5	5
2	5	5	5	5
3	5	5	5	5
4	10	10	5	5
5	5	5	5	5
6	5	10	5	5
6-minute Average:			5.6	
Source Conditions:				
Sun Angle (degrees):			15	
	Run 26 Time: 1520			
1	10	10	5	10
2	5	10	10	10
3	10	10	10	10
4	10	5	10	10
5	10	10	10	10
6	10	5	5	10
6-minute Average:			9.0	
Source Conditions:				
Sun Angle (degrees):			15	
	Run 27 Time: 1540			
1	0	5	5	5
2	0	0	5	5
3	5	5	5	10
4	10	10	5	5
5	5	5	5	5
6	5	5	10	5
6-minute Average:			5.2	
Source Conditions:				
Sun Angle (degrees):			10	
	Run 28 Time: 1600			
1	10	10	10	5
2	5	5	5	5
3	10	10	10	10
4	10	10	5	10
5	10	10	10	10
6	5	5	10	10
6-minute Average:			8.3	
Source Conditions:				
Sun Angle (degrees):			10	

sec	0	15	30	45
min	Run 29 Time: 1620			
1	5	5	5	5
2	5	10	10	10
3	5	5	5	5
4	5	5	5	5
5	5	5	5	5
6	10	10	10	5
6-minute Average:			6.3	
Source Conditions:				
Sun Angle (degrees):			10	
	Run 30 Time: 1640			
1	10	10	10	10
2	10	10	10	10
3	10	10	10	10
4	15	10	10	10
5	10	10	10	10
6	5	5	10	10
6-minute Average:			9.8	
Source Conditions:				
Sun Angle (degrees):			5	
	Run 31 Time: 1700			
1	5	5	10	10
2	10	5	5	5
3	5	5	5	5
4	5	0	0	5
5	5	5	5	5
6	5	5	5	5
6-minute Average:			5.2	
Source Conditions:				
Sun Angle (degrees):			5	
	Run Time:			
1				
2				
3				
4				
5				
6				
6-minute Average:				
Source Conditions:				
Sun Angle (degrees):				

Range of opacity readings:
low 0 high 10

Number of readings above 10 % were 0

Observer's Signature

Monday Night February 4th, 2013

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	ACB 2
Date of Observation	02/4/2013
Start Time	1932
Stop Time	2240
Distance from observer (ft)	200'
Direction from observer	E
Stack height (fr. observer's elev.) (ft)	8'
Stack Diameter (in)	20'x 8'
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	sky
unique features of plume or stack	—
	@ 1840
Weather:	
ambient temperature (F)	29°
relative humidity	37%
wind direction	SE
wind speed	3-8 mph
barometric pressure	29.97 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: ACB 2 Runs - 1-8

sec	0	15	30	45
min	Run 1 Time: 1932			
1	5	5	5	5
2	5	5	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: 5				
Source Conditions:				
Sun Angle (degrees):				
	Run 2 Time: 1958			
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):				
	Run 3 Time: 2024			
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):				
	Run 4 Time: 2050			
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):				

sec	0	15	30	45
min	Run 5 Time: 2116			
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):				
	Run 6 Time: 2142			
1	5	5	5	5
2	5	5	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: 5				
Source Conditions:				
Sun Angle (degrees):				
	Run 7 Time: 2208			
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):				
	Run 8 Time: 2234			
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:				
Source Conditions:				
Sun Angle (degrees):				

Range of opacity readings: low 0 high 5

Number of readings above 10 % were 0%

Observer's Signature

AVOGADRO ENVIRONMENTAL CORPORATION, Easton Pa

Monday Night February 4th, 2013

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	ACB 2
Date of Observation	02/4/2013
Start Time	2300
Stop Time	2358
Distance from observer (ft)	200'
Direction from observer	E
Stack height (fr. observer's elev.) (ft)	8'
Stack Diameter (in)	20' x 8'
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	sky
unique features of plume or stack	—
	@2300
Weather:	
ambient temperature (F)	29°
relative humidity	49%
wind direction	N
wind speed	3-6 mph
barometric pressure	29.99 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

ACB 2 Runs 9-11

sec	0	15	30	45	sec	0	15	30	45
min	Run 9 Time: 2300				min	Run Time:			
1	10	10	10	10	1				
2	5	5	5	5	2				
3	10	10	10	10	3				
4	5	5	5	5	4				
5	5	5	5	5	5				
6	5	5	5	5	6				
6-minute Average:	6.7				6-minute Average:				
Source Conditions:	burning dwn				Source Conditions:				
Sun Angle (degrees):					Sun Angle (degrees):				
	Run 10 Time: 2326					Run Time:			
1	0	0	0	0	1				
2	0	0	0	0	2				
3	0	0	0	0	3				
4	0	0	0	0	4				
5	0	0	0	0	5				
6	0	0	0	0	6				
6-minute Average:	0				6-minute Average:				
Source Conditions:					Source Conditions:				
Sun Angle (degrees):					Sun Angle (degrees):				
	Run 11 Time: 2352					Run Time:			
1	0	0	0	0	1				
2	0	0	0	0	2				
3	0	0	0	0	3				
4	0	0	0	0	4				
5	0	0	0	0	5				
6	0	0	0	0	6				
6-minute Average:	0				6-minute Average:				
Source Conditions:					Source Conditions:				
Sun Angle (degrees):					Sun Angle (degrees):				
	Run Time:					Run Time:			
1					1				
2					2				
3					3				
4					4				
5					5				
6					6				
6-minute Average:					6-minute Average:				
Source Conditions:					Source Conditions:				
Sun Angle (degrees):					Sun Angle (degrees):				

Range of opacity readings:

low 0 high 10

Number of readings above 10 % were 0

Observer's Signature

AVOGADRO ENVIRONMENTAL CORPORATION, Easton Pa