Visible Emissions Evaluation

Friday Early Morn, January 18th, 2013

Run Number(s) and Description: ACB 1 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	01/18/2013
Start Time	0030
Stop Time	0338
Distance from observer (ft)	100'
Direction from observer	E
Stack height (fr. observer's elev.) (ft)	9'
Stack Diameter (in)	27" x 9"
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	—
Weather:	
ambient temperature (F)	35°
relative humidity	56%
wind direction	S
wind speed	2-6mph
barometric pressure	30.03in
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	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: 0056			
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: 0122			
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	5	5	5	5
5	0	0	0	0
6	5	5	5	5
6-minute Average: 1.7				
Source Conditions:				
Sun Angle (degrees):				
	Run 4 Time: 0148			
1	10	10	10	10
2	10	10	10	10
3	10	10	10	10
4	10	10	10	10
5	5	5	5	5
6	5	5	5	5
6-minute Average: 8.3				
Source Conditions:				
Sun Angle (degrees):				

sec	0	15	30	45
min	Run 5 Time: 0214			
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	0	0	0	0
6-minute Average: 4.2				
Source Conditions:				
Sun Angle (degrees):				
	Run 6 Time: 0240			
1	10	5	5	10
2	10	5	10	10
3	5	10	5	10
4	10	10	5	10
5	5	5	5	5
6	0	0	0	0
6-minute Average: 6.3				
Source Conditions:				
Sun Angle (degrees):				
	Run 7 Time: 0306			
1	5	5	5	5
2	5	5	5	5
3	5	5	5	5
4	5	5	5	5
5	10	5	5	0
6	5	5	5	5
6-minute Average: 5				
Source Conditions:				
Sun Angle (degrees):				
	Run 8 Time: 0332			
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	5	5	5	5
6-minute Average: 9.2				
Source Conditions:				
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

Visible Emissions Evaluation

Friday Early Morning, January 18th, 2013

Run Number(s) and Description: ACB 1 Runs 9-13

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	01/18/2013
Start Time	0402
Stop Time	0552
Distance from observer (ft)	100'
Direction from observer	E
Stack height (fr. observer's elev.) (ft)	9'
Stack Diameter (in)	27' x 9'
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 corner lengths @400
target?	sky
describe background to plume	sky
unique features of plume or stack	—
Weather:	
ambient temperature (F)	30°
relative humidity	51%
wind direction	SE
wind speed	calm
barometric pressure	30.11 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.

sec	0	15	30	45
min	Run 9 Time: 0402			
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:				
Sun Angle (degrees):				
	Run 10 Time: 0428			
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: 0454			
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: 0520			
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:				
Sun Angle (degrees):				

sec	0	15	30	45
min	Run 13 Time: 0546			
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:				
Sun Angle (degrees):				
	Run Time:			
1				
2				
3				
4				
5				
6				
6-mipute 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 5 high 10

Number of readings above 10 % were 0

Observer's Signature

AVOGADRO ENVIRONMENTAL CORPORATION, Easton Pa

UNIT 1

Run Number(s) and Description

 1-18-13

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	1-18-13
Start Time	0720
Stop Time	
Distance from observer (ft)	100'
Direction from observer	NW
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)	30°F
relative humidity	50%
wind direction	SE
wind speed	10-20
barometric pressure	
rain? fog? snow? haze?	PTly Cldy
Glasses worn:	
corrective? (Y/N)	Y
sunglasses? (Y/N)	N

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

sec	0	15	30	45
min	Run 1 Time: 0720			
1	5	10	5	5
2	5	10	10	10
3	10	5	5	5
4	5	5	5	5
5	5	5	5	5
6	0	0	0	0
6-minute Average:	5.2			
Source Conditions:				
Sun Angle (degrees):	5			
	Run 2 Time: 740			
1	0	5	5	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	5	5	0
6-minute Average:	0.8			
Source Conditions:				
Sun Angle (degrees):	5			
	Run 3 Time: 800			
1	0	5	0	0
2	5	0	0	0
3	0	0	0	0
4	0	0	0	0
5	5	0	0	0
6	0	0	0	0
6-minute Average:	0.4			
Source Conditions:				
Sun Angle (degrees):	0			
	Run 4 Time: 820			
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):	0			

sec	0	15	30	45
min	Run 5 Time: 840			
1	5	5	5	5
2	5	5	0	0
3	5	5	5	0
4	5	0	0	0
5	0	5	5	0
6	0	5	5	0
6-minute Average:	2.9			
Source Conditions:				
Sun Angle (degrees):	5			
	Run 6 Time: 900			
1	5	5	5	5
2	5	0	5	5
3	5	5	10	5
4	5	5	10	5
5	5	10	10	10
6	5	5	10	5
6-minute Average:	6.0			
Source Conditions:				
Sun Angle (degrees):	5			
	Run 7 Time: 920			
1	10	5	10	5
2	5	5	5	5
3	5	5	5	10
4	5	5	5	5
5	5	5	5	5
6	5	5	5	5
6-minute Average:	5.16			
Source Conditions:				
Sun Angle (degrees):	5			
	Run 8 Time: 940			
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:	5.0			
Source Conditions:				
Sun Angle (degrees):	5			

Range of opacity readings: low 0 high 10

Number of readings above 10 % were 0

Observer's Signature

UNIT 1

Run Number(s) and Description

 1-18-13

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	1-18-13
Start Time	1000
Stop Time	
Distance from observer (ft)	150'
Direction from observer	NNW
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)	30°F
relative humidity	50%
wind direction	TO: S
wind speed	10-15-20
barometric pressure	
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	KOONTZ
Observer affiliation	AVOGADRO / DA

sec	0	15	30	45
min	Run 9 Time: 1000			
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:			5.0	
Source Conditions:				
Sun Angle (degrees):			65	
	Run 10 Time: 1020			
1	5	10	5	5
2	5	5	10	5
3	10	10	5	5
4	5	5	5	5
5	5	5	5	5
6	5	5	5	5
6-minute Average:			5.8	
Source Conditions:				
Sun Angle (degrees):			65	
	Run 11 Time: 1040			
1	5	0	0	5
2	5	5	5	0
3	0	0	0	0
4	5	5	5	0
5	0	0	0	0
6	0	5	5	5
6-minute Average:			2.3	
Source Conditions:				
Sun Angle (degrees):			60	
	Run 12 Time: 1100			
1	5	5	5	0
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:			4.8	
Source Conditions:				
Sun Angle (degrees):			60	

sec	0	15	30	45
min	Run 13 Time: 1120			
1	5	5	5	0
2	5	5	0	0
3	5	5	5	5
4	5	10	10	5
5	10	5	5	0
6	5	5	10	10
6-minute Average:			5.2	
Source Conditions:				
Sun Angle (degrees):			55	
	Run 14 Time: 1140			
1	5	5	5	10
2	5	5	10	5
3	5	5	5	5
4	10	5	5	5
5	10	5	5	5
6	5	5	5	5
6-minute Average:			5.8	
Source Conditions:				
Sun Angle (degrees):			55	
	Run 15 Time: 1200			
1	10	10	5	10
2	5	5	5	5
3	5	5	5	5
4	5	10	5	5
5	5	5	5	5
6	5	5	5	5
6-minute Average:			5.8	
Source Conditions:				
Sun Angle (degrees):			50	
	Run 16 Time: 1220			
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:			5.0	
Source Conditions:				
Sun Angle (degrees):			50	

Range of opacity readings:

low 0 high 10

Number of readings above 10 % were 0

Observer's Signature

UNIT 1

Run Number(s) and Description

 1-18-13

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	1-18-13
Start Time	1240
Stop Time	
Distance from observer (ft)	150'
Direction from observer	~~NW~~ NE
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)	35 ~~30~~ °F
relative humidity	50%
wind direction TO:	SE
wind speed	10-15
barometric pressure	
rain? fog? snow? haze?	Mostly Sunny
Glasses worn:	
corrective? (Y/N)	Y
sunglasses? (Y/N)	N

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

sec	0	15	30	45
min	Run 17 Time:	1240		
1	5	5	5	5
2	5	5	5	5
3	0	5	5	5
4	5	5	5	0
5	5	5	5	5
6	5	5	5	5
6-minute Average:	4.6			
Source Conditions:				
Sun Angle (degrees):	50			
	Run 18 Time:	1300		
1	5	10	5	5
2	5	5	5	5
3	10	5	5	5
4	10	10	5	5
5	5	5	5	5
6	10	5	5	10
6-minute Average:	6.3			
Source Conditions:				
Sun Angle (degrees):	45			
	Run 19 Time:	1320		
1	5	5	5	5
2	5	5	0	5
3	5	5	5	5
4	5	5	5	5
5	5	5	5	5
6	5	5	5	5
6-minute Average:	4.8			
Source Conditions:				
Sun Angle (degrees):	45			
	Run 20 Time:	1340		
1	5	5	0	0
2	5	5	5	5
3	5	0	5	5
4	5	5	5	5
5	0	0	5	5
6	5	5	5	5
6-minute Average:	4.0			
Source Conditions:				
Sun Angle (degrees):	40			

sec	0	15	30	45
min	Run 21 Time:	1400		
1	0	0	0	0
2	0	0	0	0
3	5	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:	0.2			
Source Conditions:				
Sun Angle (degrees):	40			
	Run 22 Time:	1420		
1	5	5	15	15
2	5	15	15	15
3	15	10	10	15
4	10	10	10	10
5	10	5	5	5
6	10	5	10	5
6-minute Average:	9.8			
Source Conditions:				
Sun Angle (degrees):	35			
	Run 23 Time:	1440		
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):	25			
	Run 24 Time:	1500		
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):	25			

Range of opacity readings:

low 0 high 15

Number of readings above 10 % were 7

Observer's Signature

UNIT 1

Pg. 4 1-18-13

Visible Emissions Evaluation

Run Number(s) and Description

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	1-18-13
Start Time	1520
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?	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	50%
wind direction	TO: SE
wind speed	10-15
barometric pressure	
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/IDA

sec	0	15	30	45
min	Run 20 Time: 1520			
1	0	15	10	5
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:	1.3			
Source Conditions:				
Sun Angle (degrees):	0			
	Run 22 Time: 1540			
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):	0			
	Run 23 Time: 1600			
1	0	0	0	5
2	5	5	5	5
3	5	5	5	5
4	5	0	5	5
5	5	5	5	5
6	5	5	5	5
6-minute Average:	4.2			
Source Conditions:				
Sun Angle (degrees):	0			
	Run 24 Time: 1620			
1	0	0	0	0
2	0	0	0	0
3	0	5	5	5
4	0	0	0	5
5	5	10	5	5
6	0	0	0	0
6-minute Average:	1.5			
Source Conditions:				
Sun Angle (degrees):	AM 10			

sec	0	15	30	45
min	Run 30 Time: 1640			
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):	10			
	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 15

Number of readings above 10 % were 1

Observer's Signature

AVOGADRO ENVIRONMENTAL CORPORATION, Easton Pa

Friday Night, January 18th 2013

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

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	01/18/2013
Start Time	1924
Stop Time	2244
Distance from observer (ft)	100'
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 conex lengths
target?	sky
describe background to plume	sky
unique features of plume or stack	—
Weather:	@1920
ambient temperature (F)	29°
relative humidity	31°
wind direction	N
wind speed	2-7 mph
barometric pressure	30.50 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: 1924			
1	10	15	10	15
2	10	15	15	15
3	10	15	15	10
4	10	15	15	15
5	10	15	15	10
6	10	10	15	15
6-minute Average: 12.9 (beginning down)				
Source Conditions: ash removal				
Sun Angle (degrees): necessary*				
	Run 2 Time: 2002			
1	10	10	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: 5.8				
Source Conditions:				
Sun Angle (degrees):				
	Run 3 Time: 2028			
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	10	10	10	10
6-minute Average: 5.8				
Source Conditions:				
Sun Angle (degrees):				
	Run 4 Time: 2054			
1	15	15	15	25
2	20	20	20	20
3	35	15	15	30
4	20	25	30	30
5	15	20	40	15
6	20	25	15	40
6-minute Average: 22.5				
Source Conditions: ash removal				
Sun Angle (degrees):				

sec	0	15	30	45
min	Run 5 Time: 2120			
1	15	15	20	20
2	20	20	20	20
3	20	20	20	20
4	15	15	15	15
5	15	15	15	15
6	15	15	15	15
6-minute Average: 17.1				
Source Conditions: starting up				
Sun Angle (degrees): ash removal				
	Run 6 Time: 2146			
1	15	15	15	15
2	15	15	15	15
3	25	15	15	15
4	15	15	15	15
5	15	15	15	15
6	20	15	20	20
6-minute Average: 16.0				
Source Conditions:				
Sun Angle (degrees):				
	Run 7 Time: 2212			
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: getting up to				
Sun Angle (degrees): temp.				
	Run 8 Time: 2238			
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 40

Number of readings above 10 % were 86

Observer's Signature

Visible Emissions Evaluation

Friday Night, January 18th, 2013

Run Number(s) and Description: ACB 1 Runs 9-10

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	01/18/2013
Start Time	2302
Stop Time	2334
Distance from observer (ft)	100'
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 cone lengths
target?	sky
describe background to plume	sky
unique features of plume or stack	—
Weather: @2300	
ambient temperature (F)	30°
relative humidity	44%
wind direction	N
wind speed	<5 mph
barometric pressure	30.46 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	Whittow
Observer affiliation	Avogadro Env.

sec	0	15	30	45
min	Run 9	Time: 2302		
1	0	0	0	0
2	0	0	0	0
3	0	0	5	0
4	0	0	0	0
5	5	0	0	0
6	0	0	0	0
6-minute Average: 0.4				
Source Conditions: up to temp				
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 10	Time: 2328			
1	0	0	0	0
2	5	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: 0.4				
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):				

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

Friday Early Morn, January 18th 2013

Run Number(s) and Description: ACB 2 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 2
Date of Observation	01/18/2013
Start Time	0030
Stop Time	0338
Distance from observer (ft)	100'
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	—
Weather:	
ambient temperature (F)	35°
relative humidity	56%
wind direction	S
wind speed	2-6mph
barometric pressure	30.03
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	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: 0056			
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	10	5	10	10
6-minute Average: 5.6				
Source Conditions:				
Sun Angle (degrees):				
	Run 3 Time: 0122			
1	5	5	5	5
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: 3.3				
Source Conditions:				
Sun Angle (degrees):				
	Run 4 Time: 0148			
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: 0214			
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	5	0	5	0
6-minute Average: 0.4				
Source Conditions:				
Sun Angle (degrees):				
	Run 6 Time: 0240			
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: 0306			
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: 0332			
1	5	0	0	0
2	5	5	5	5
3	5	5	5	5
4	5	5	5	5
5	0	0	0	0
6	0	0	0	0
6-minute Average: 2.7				
Source Conditions:				
Sun Angle (degrees):				

Range of opacity readings: low 0 high 10

Number of readings above 10 % were 0

Observer's Signature

Friday, Early Morning, January 18th, 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	01/18/2013
Start Time	0402
Stop Time	0552
Distance from observer (ft)	100'
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	—
Weather:	@400
ambient temperature (F)	30°
relative humidity	51%
wind direction	SE
wind speed	Calm
barometric pressure	30.11 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	WhiTHow
Observer affiliation	Avogadro Env.

Run Number(s) and Description: ACB 2 Runs 9-13

sec	0	15	30	45
min	Run 9 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):				
	Run 10 Time: 0428			
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: 0454			
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: 0520			
1	6	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 13 Time: 0546			
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:				
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 10

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

 1-18-13

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	1-18-13
Start Time	0720
Stop Time	
Distance from observer (ft)	100'
Direction from observer	NW
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)	30°F
relative humidity	50%
wind direction To:	SE
wind speed	10-20
barometric pressure	
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	KOONTZ
Observer affiliation	AVOGADRO/DA

sec	0	15	30	45
min	Run 1 Time: 0720			
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):	5			
	Run 2 Time: 740			
1	0	5	5	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	5	0	0
6-minute Average:	0.6			
Source Conditions:				
Sun Angle (degrees):	5			
	Run 3 Time: 800			
1	5	5	0	0
2	5	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	5	0	0
6	0	0	0	0
6-minute Average:	0.8			
Source Conditions:				
Sun Angle (degrees):	0			
	Run 4 Time: 820			
1	10	0	0	0
2	5	5	5	0
3	0	0	0	5
4	0	0	0	0
5	0	5	0	0
6	0	0	0	0
6-minute Average:	1.0			
Source Conditions:				
Sun Angle (degrees):	0			

sec	0	15	30	45
min	Run 5 Time: 840			
1	5	5	5	5
2	5	0	0	5
3	5	5	0	5
4	5	0	0	0
5	0	0	5	0
6	5	5	5	0
6-minute Average:	2.9			
Source Conditions:				
Sun Angle (degrees):	5			
	Run 6 Time: 900			
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:	5.0			
Source Conditions:				
Sun Angle (degrees):	5			
	Run 7 Time: 920			
1	0	5	5	5
2	5	5	5	5
3	5	5	5	5
4	5	5	5	5
5	5	5	5	5
6	0	0	0	0
6-minute Average:	4.0			
Source Conditions:				
Sun Angle (degrees):	5			
	Run 8 Time: 940			
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:	5.0			
Source Conditions:				
Sun Angle (degrees):	5			

Range of opacity readings:

low 0 high 10

Number of readings above 10 % were 0

Observer's Signature

UNIT 2

Run Number(s) and Description

 1-18-13

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	1-18-13
Start Time	1000
Stop Time	
Distance from observer (ft)	150'
Direction from observer	NNW
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)	30°F
relative humidity	50%
wind direction	S
wind speed	10-15-20
barometric pressure	
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	KOONTZ
Observer affiliation	AVOGADRO / DA

sec	0	15	30	45
min	Run 9 Time: 1000			
1	5	5	5	5
2	5	10	5	5
3	5	5	5	5
4	5	5	5	5
5	5	5	10	5
6	10	5	5	5
6-minute Average:	5.6			
Source Conditions:				
Sun Angle (degrees):	65			
	Run 10 Time: 1020			
1	10	10	10	5
2	10	5	5	10
3	10	10	10	5
4	10	5	5	5
5	5	5	5	5
6	5	5	5	5
6-minute Average:	6.9			
Source Conditions:				
Sun Angle (degrees):	65			
	Run 11 Time: 1040			
1	5	5	5	5
2	5	5	5	0
3	0	0	0	0
4	5	5	5	0
5	0	0	0	0
6	5	5	0	0
6-minute Average:	2.5			
Source Conditions:				
Sun Angle (degrees):	60			
	Run 12 Time: 1100			
1	5	5	5	5
2	10	5	5	5
3	5	5	10	10
4	5	5	5	5
5	5	5	5	5
6	5	5	5	5
6-minute Average:	5.6			
Source Conditions:				
Sun Angle (degrees):	60			

sec	0	15	30	45
min	Run 13 Time: 1120			
1	5	5	0	5
2	5	5	0	0
3	5	5	0	0
4	5	0	0	5
5	10	5	0	0
6	5	5	5	5
6-minute Average:	3.3			
Source Conditions:				
Sun Angle (degrees):	55			
	Run 14 Time: 1140			
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:	5.0			
Source Conditions:				
Sun Angle (degrees):	55			
	Run 15 Time: 1200			
1	10	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:	5.2			
Source Conditions:				
Sun Angle (degrees):	50			
	Run 16 Time: 1220			
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:	5.0			
Source Conditions:				
Sun Angle (degrees):	50			

Range of opacity readings:

low 0 high 10

Number of readings above 10 % were 0

Observer's Signature

UNIT 2

Pg. 3 1-18-13

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	1-18-13
Start Time	1240
Stop Time	
Distance from observer (ft)	150'
Direction from observer	~~NW~~ 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)	30°F
relative humidity	50%
wind direction	SE
wind speed	10-15
barometric pressure	
rain? fog? snow? haze?	Mostly Sunny
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

sec	0	15	30	45
min	Run 17 Time: 1240			
1	0	0	5	0
2	0	0	5	5
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:	0.6			
Source Conditions:				
Sun Angle (degrees):	50			
	Run 18 Time: 1300			
1	0	0	5	5
2	5	5	5	5
3	0	5	0	0
4	0	0	5	0
5	0	0	0	0
6	0	0	0	5
6-minute Average:	1.9			
Source Conditions:				
Sun Angle (degrees):	45			
	Run 19 Time: 1320			
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):	45			
	Run 20 Time: 1340			
1	5	5	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:	0.4			
Source Conditions:				
Sun Angle (degrees):	40			

sec	0	15	30	45
min	Run 22 Time: 1400			
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):	40			
	Run 23 Time: 1420			
1	5	5	5	5
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:	0.8			
Source Conditions:				
Sun Angle (degrees):	35			
	Run 24 Time: 1440			
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):	25			
	Run 25 Time: 1500			
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):	25			

Range of opacity readings:
low 0 high 5

Number of readings above 10 % were 0

Observer's Signature

UNIT 2

Pg. 4 1-18-13

Visible Emissions Evaluation

Run Number(s) and Description

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	1-18-13
Start Time	1520
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	50%
wind direction	TO: SE
wind speed	10-15
barometric pressure	
rain? fog? snow? haze?	CLEAR
Glasses worn:	
corrective? (Y/N)	Y
sunglasses? (Y/N)	N

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

sec	0	15	30	45
min	Run 26 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			
Source Conditions:				
Sun Angle (degrees):	0			
	Run 27 Time: 1540			
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):	0			
	Run 28 Time: 1600			
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):	0			
	Run 29 Time: 1620			
1	0	5	10	5
2	0	10	5	5
3	10	10	5	5
4	0	0	0	5
5	5	10	5	5
6	5	5	5	5
6-minute Average:	5.0			
Source Conditions:				
Sun Angle (degrees):	10			

sec	0	15	30	45
min	Run 30 Time: 1640			
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):	10			
	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 10

Number of readings above 10 % were 0

Observer's Signature

AVOGADRO ENVIRONMENTAL CORPORATION, Easton Pa

Visible Emissions Evaluation

Friday Night, January 18th, 2013

Run Number(s) and Description: ACB 2 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 2
Date of Observation	01/18/2013
Start Time	1924
Stop Time	2244
Distance from observer (ft)	100'
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	—
	@1920
Weather:	
ambient temperature (F)	29°
relative humidity	31%
wind direction	N
wind speed	27mph
barometric pressure	30.50 in
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	WhitHow
Observer affiliation	Avogadro Env.

sec	0	15	30	45
min	Run 1 Time: 1924			
1	0	0	0	0
2	5	5	5	5
3	0	0	0	0
4	5	5	5	5
5	0	0	0	0
6	0	0	0	0
6-minute Average: 1.7				
Source Conditions:				
Sun Angle (degrees):				
	Run 2 Time: 2002			
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: 2028			
1	0	0	0	0
2	0	0	0	0
3	5	5	5	5
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average: 0.8				
Source Conditions:				
Sun Angle (degrees):				
	Run 4 Time: 2054			
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: 2120			
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: 2146			
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: 2212			
1	10	10	10	10
2	10	10	10	10
3	15	10	10	10
4	10	10	10	10
5	5	5	5	5
6	5	5	5	5
6-minute Average: 8.5				
Source Conditions:				
Sun Angle (degrees):				
	Run 8 Time: 2238			
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 15 jr

Number of readings above 10 % were 1

Observer's Signature

AVOGADRO ENVIRONMENTAL CORPORATION, Easton Pa

Friday Night, January 18th 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	01/18/2013
Start Time	2302
Stop Time	2334
Distance from observer (ft)	100'
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)	30°
relative humidity	44%
wind direction	N
wind speed	<5 mph
barometric pressure	30.46 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	WhiteHow
Observer affiliation	Avogadro Env.

Run Number(s) and Description: ACB 2 Runs 9-10

sec	0	15	30	45
min	Run 9	Time: 2302		
1	0	0	0	0
2	0	0	0	0
3	0	5	0	0
4	0	0	0	0
5	5	0	0	0
6	0	0	5	0
6-minute Average:	0.6			
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 10	Time: 2328		
1	0	0	0	0
2	0	0	0	0
3	0	5	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	5
6-minute Average:	0.4			
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):				

	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