Early Saturday Morn, February 9th, 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	02/9/2013
Start Time	0024
Stop Time	0332
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 calm lengths @ 0024
target?	sky
describe background to plume	sky
unique features of plume or stack	—

Weather:

ambient temperature (F)	27°
relative humidity	92 %
wind direction	S
wind speed	12-18 mph
barometric pressure	29.73 in Hg
rain? fog? snow? haze?	fog/snow

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 1-8

sec	0	15	30	45
min	Run 1 Time: 0024			
1	0	0	0	0
2	0	0	0	0
6 3	0	0	0	0
4	0	0	0	0
8 5	0	0	0	0
6	0	5	5	0
6-minute Average:	0.4			
Source Conditions:				
Sun Angle (degrees):				
	Run 2 Time: 0050			
1	0	0	0	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:	0.2			
Source Conditions:				
Sun Angle (degrees):				
	Run 3 Time: 0116			
1	0	0	0	0
2	5	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	5	0
6	0	0	0	0
6-minute Average:	0.4			
Source Conditions:				
Sun Angle (degrees):				
	Run 4 Time: 0142			
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: 0208			
1	0	0	0	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:	0.2			
Source Conditions:				
Sun Angle (degrees):				
	Run 6 Time: 0234			
1	0	0	0	0
2	5	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	5	0	0	0
6-minute Average:	0.4			
Source Conditions:				
Sun Angle (degrees):				
	Run 7 Time: 0300			
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	5
6-minute Average:	0.2			
Source Conditions:				
Sun Angle (degrees):				
	Run 8 Time: 0326			
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	5
5	5	0	0	0
6	0	0	0	0
6-minute Average:	0.4			
Source Conditions:				
Sun Angle (degrees):				

Range of opacity readings: low 0 high 5

Number of readings above 10 % were 0

Observer's Signature

Early Saturday Morn, February 9th, 2013

Visible Emissions Evaluation

Run Number(s) and Description: ACB1 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	02/9/2013
Start Time	352
Stop Time	542
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 cable lengths
target?	sky
describe background to plume	sky
unique features of plume or stack	—
	@ 350
Weather:	
ambient temperature (F)	27°
relative humidity	92%
wind direction	S
wind speed	8-12 mph
barometric pressure	29.79 inHg
rain? fog? snow? haze?	snow/fog
Glasses worn:	
corrective? (Y/N)	yes
sunglasses? (Y/N)	—

sec	0	15	30	45	sec	0	15	30	45
min	Run 9 Time: 352				min	Run 13 Time: 536			
1	0	0	0	0	1	0	0	0	0
2	5	5	5	0	2	0	0	0	0
3	0	0	0	0	3	0	0	0	0
4	0	0	0	0	4	0	0	0	0
5	5	5	5	5	5	0	0	0	0
6	0	0	0	0	6	0	0	0	0
6-minute Average:	1.5				6-minute Average:	0			
Source Conditions:					Source Conditions:				
Sun Angle (degrees):					Sun Angle (degrees):				
	Run 10 Time: 418					Run Time:			
1	0	0	0	0	1				
2	5	0	0	0	2				
3	5	0	0	0	3				
4	0	5	0	0	4				
5	0	0	0	0	5				
6	5	0	0	0	6				
6-minute Average:	0.8				6-minute Average:				
Source Conditions:					Source Conditions:				
Sun Angle (degrees):					Sun Angle (degrees):				
	Run 11 Time: 444					Run Time:			
1	5	5	5	5	1				
2	5	5	5	5	2				
3	5	5	5	5	3				
4	5	5	5	5	4				
5	5	5	5	5	5				
6	5	5	5	5	6				
6-minute Average:	5				6-minute Average:				
Source Conditions:					Source Conditions:				
Sun Angle (degrees):					Sun Angle (degrees):				
	Run 12 Time: 510					Run Time:			
1	0	0	0	0	1				
2	0	0	0	0	2				
3	0	0	0	0	3				
4	0	5	0	0	4				
5	0	0	0	0	5				
6	0	0	0	0	6				
6-minute Average:	0.2				6-minute Average:				
Source Conditions:					Source Conditions:				
Sun Angle (degrees):					Sun Angle (degrees):				

Range of opacity readings: low 0 high 5

Number of readings above 10 % were 0

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

Observer's Signature

UNIT 1

Run Number(s) and Description

 2-9-13

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	2-9-13
Start Time	0700
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	
wind direction	SE
wind speed	~~5~~ 20-25
barometric pressure	
rain? fog? snow? haze?	OVERCAST

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: 0700			
1	10	5	10	5
2	10	10	10	10
3	10	10	5	5
4	10	10	10	15
5	10	10	10	5
6	5	5	10	10
6-minute Average:	8.8			
Source Conditions:				
Sun Angle (degrees):	5			
	Run 2 Time: 720			
1	10	10	10	10
2	10	5	5	10
3	10	10	10	10
4	10	10	15	15
5	10	10	10	10
6	5	5	10	10
6-minute Average:	9.6			
Source Conditions:				
Sun Angle (degrees):	5			
	Run 3 Time: 740			
1	10	10	10	10
2	10	10	10	5
3	10	10	10	10
4	10	10	10	10
5	10	10	10	10
6	5	10	10	10
6-minute Average:	9.6			
Source Conditions:				
Sun Angle (degrees):	10			
	Run 4 Time: 800			
1	10	10	10	10
2	10	10	10	10
3	10	10	10	15
4	15	15	10	10
5	10	10	10	10
6	10	10	15	10
6-minute Average:	10.8			
Source Conditions:				
Sun Angle (degrees):	10			

sec	0	15	30	45
min	Run 5 Time: 820			
1	10	10	10	10
2	10	10	10	10
3	10	10	10	5
4	5	10	10	10
5	10	10	10	10
6	10	10	10	10
6-minute Average:	9.6			
Source Conditions:				
Sun Angle (degrees):	15			
	Run 6 Time: 840			
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:	10.0			
Source Conditions:				
Sun Angle (degrees):	20			
	Run 7 Time: 900			
1	15	15	15	15
2	10	10	10	10
3	15	10	15	15
4	10	10	10	10
5	10	10	10	10
6	10	15	15	10
6-minute Average:	11.9			
Source Conditions:				
Sun Angle (degrees):	25			
	Run 8 Time: 920			
1	10	10	10	10
2	10	10	10	10
3	10	5	5	10
4	10	10	10	10
5	10	10	10	10
6	10	10	10	5
6-minute Average:	9.4			
Source Conditions:				
Sun Angle (degrees):	25			

Range of opacity readings:

low 5 high 15

Number of readings above 10 % were 15

Observer's Signature

UNIT 1

Visible Emissions Evaluation

Run Number(s) and Description: Pg. 2 2-9-13

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	2-9-13
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)	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	
wind direction	NW SE
wind speed	20-25
barometric pressure	
rain? fog? snow? haze?	Overcast
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: 940			
1	10	10	15	15
2	15	10	10	10
3	10	10	10	10
4	10	10	15	10
5	10	10	10	10
6	10	15	15	10
6-minute Average: 11.3				
Source Conditions:				
Sun Angle (degrees): 25				
	Run 10 Time: 1000			
1	10	10	5	5
2	10	10	10	10
3	10	10	10	10
4	10	5	5	5
5	10	10	10	10
6	10	10	10	10
6-minute Average: 9.0				
Source Conditions:				
Sun Angle (degrees): 25				
	Run 11 Time: 1020			
1	10	10	10	10
2	15	15	15	10
3	10	10	10	10
4	15	15	10	10
5	10	10	10	10
6	10	10	10	10
6-minute Average: 11.0				
Source Conditions:				
Sun Angle (degrees): 25				
	Run 12 Time: 1040			
1	10	10	10	10
2	15	15	15	15
3	10	10	10	10
4	10	10	10	15
5	15	10	10	10
6	10	10	10	15
6-minute Average: 11.5				
Source Conditions:				
Sun Angle (degrees): 30				

sec	0	15	30	45
min	Run 13 Time: 1100			
1	10	10	10	10
2	10	10	10	10
3	10	10	10	10
4	10	10	10	10
5	5	10	10	10
6	10	10	10	10
6-minute Average: 9.8				
Source Conditions:				
Sun Angle (degrees): 30				
	Run 14 Time: 1120			
1	15	15	15	15
2	15	10	10	10
3	10	10	10	10
4	15	15	15	15
5	15	10	10	10
6	10	10	10	10
6-minute Average: 12.1				
Source Conditions:				
Sun Angle (degrees): 30				
	Run 15 Time: 1140			
1	15	15	15	15
2	15	15	15	15
3	15	15	15	15
4	10	10	15	15
5	15	15	15	15
6	15	15	15	15
6-minute Average: 14.6				
Source Conditions:				
Sun Angle (degrees): 30				
	Run 16 Time: 1200			
1	10	10	10	5
2	5	5	5	5
3	5	5	10	10
4	10	10	10	10
5	10	10	10	10
6	5	5	5	10
6-minute Average: 7.9				
Source Conditions:				
Sun Angle (degrees): 30				

Range of opacity readings:

low 5 high 15

Number of readings above 10 % were 50

Observer's Signature

AVOGADRO ENVIRONMENTAL CORPORATION, Easton Pa

Visible Emissions Evaluation

UNIT 1

Run Number(s) and Description

 2-9-13

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	2-9-13
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)	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)	32°F
relative humidity	
wind direction	SE
wind speed	20-25
barometric pressure	
rain? fog? snow? haze?	P/ly Cldy (clearing)

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/EA

sec	0	15	30	45
min	Run 1 Time: 1220			
1	5	5	5	10
2	10	10	10	5
3	5	5	5	5
4	5	5	5	5
5	10	10	10	10
6	5	5	5	5

6-minute Average: 6.7

Source Conditions:

Sun Angle (degrees): 50

	Run 1X Time: 1240			
1	5	5	5	5
2	5	10	10	10
3	5	5	5	5
4	5	5	5	10
5	10	10	10	5
6	5	5	5	5

6-minute Average: 6.5

Source Conditions:

Sun Angle (degrees): 50

	Run 19 Time: 1300			
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): 45

	Run 20 Time: 1320			
1	5	5	5	5
2	5	5	5	5
3	20	40	40	20
4	50	20	40	20
5	60	50	60	20
6	20	100	40	20

6-minute Average: 29.6

Source Conditions: Ash removal

Sun Angle (degrees): 40

sec	0	15	30	45
min	Run 21 Time: 1340			
1	40	20	40	50
2	40	60	50	40
3	70	20	100	60
4	80	30	100	50
5	70	30	30	25
6	30	30	40	50

6-minute Average: 50.2

Source Conditions: Ash removal

Sun Angle (degrees): 40

	Run 22 Time: 1400			
1	20	20	15	15
2	15	20	20	20
3	15	20	20	20
4	15	15	15	15
5	15	15	15	20
6	15	15	15	15

6-minute Average: 16.9

Source Conditions: Ash removal

Sun Angle (degrees): 40

	Run 23 Time: 1420			
1	10	10	10	10
2	10	10	10	5
3	5	5	10	10
4	10	15	10	10
5	10	10	10	10
6	5	10	10	10

6-minute Average: 9.4

Source Conditions: restart

Sun Angle (degrees): 20

	Run 24 Time: 1440			
1	5	5	10	10
2	5	5	5	5
3	10	10	10	5
4	5	5	5	5
5	5	5	5	5
6	5	5	5	5

6-minute Average: 4.8

Source Conditions: restart

Sun Angle (degrees): 10

Range of opacity readings:

low 5 high 100

Number of readings above 10 % were 25

35

Observer's Signature

Visible Emissions Evaluation

UNIT 1

Run Number(s) and Description

 2-9-13

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	2-9-13
Start Time	1500
Stop Time	
Distance from observer (ft)	150'
Direction from observer	NE
Stack height (fr. observer's elev.) (ft)	101'
Stack Diameter (in)	27x8
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	Container
unique features of plume or stack	
Weather:	
ambient temperature (F)	35°F
relative humidity	
wind direction	SE
wind speed	20-25
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/DA

sec	0	15	30	45
min	Run 25 Time: 1500			
1	5	10	10	5
2	5	5	5	5
3	10	10	10	10
4	5	5	10	10
5	10	10	10	5
6	5	5	5	5
6-minute Average: 7.3				
Source Conditions:				
Sun Angle (degrees): 5				
	Run 26 Time: 1520			
1	10	10	10	10
2	15	15	10	10
3	10	10	10	10
4	10	10	10	10
5	10	5	5	5
6	5	5	5	5
6-minute Average: 8.5				
Source Conditions:				
Sun Angle (degrees): 5				
	Run 27 Time: 1540			
1	0	0	0	0
2	5	5	5	5
3	0	5	5	5
4	0	0	0	5
5	5	5	5	5
6	5	0	0	0
6-minute Average: 2.7				
Source Conditions:				
Sun Angle (degrees): 10				
	Run 28 Time: 1600			
1	10	10	10	5
2	5	5	5	5
3	5	5	5	5
4	10	10	5	10
5	5	10	5	5
6	5	5	10	5
6-minute Average: 6.7				
Source Conditions:				
Sun Angle (degrees): 15				

sec	0	15	30	45
min	Run 29 Time: 1620			
1	10	10	10	10
2	10	10	10	10
3	10	10	10	10
4	10	10	10	10
5	10	5	5	5
6	10	10	5	5
6-minute Average: 9.0				
Source Conditions:				
Sun Angle (degrees): 20				
	Run 30 Time: 1640			
1	10	10	10	10
2	10	10	10	10
3	5	5	5	10
4	10	10	10	10
5	10	10	10	10
6	10	5	10	10
6-minute Average: 9.2				
Source Conditions:				
Sun Angle (degrees): 20				
	Run 31 Time: 1700			
1	0	0	0	0
2	5	5	5	5
3	5	5	5	5
4	5	0	0	0
5	5	5	5	5
6	5	5	5	0
6-minute Average: 3.3				
Source Conditions:				
Sun Angle (degrees): 25				
	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 2

Observer's Signature

Visible Emissions Evaluation

Act. Night, February 9th, 2013

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	02/9/2013
Start Time	1854
Stop Time	2202
Distance from observer (ft)	200'
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 corex lengths
target?	sky
describe background to plume	sky
unique features of plume or stack	—
	@1854
Weather:	
ambient temperature (F)	25°
relative humidity	42 20
wind direction	S
wind speed	8-14 mph
barometric pressure	30.27 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: ACB1 Runs 1-8

sec	0	15	30	45
min	Run 1 Time: 1854			
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: 1920			
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: 1946			
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 4 Time: 2012			
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: 2038			
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 6 Time: 2104			
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: 2130			
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: 2156			
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 5

Number of readings above 10 % were 0

Observer's Signature

Aft. Night, February 9th, 2013

Run Number(s) and Description: ACB1 Runs 9-12

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	02/9/2013
Start Time	2222
Stop Time	2346
Distance from observer (ft)	200'
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 corex lengths
target?	sky
describe background to plume	sky
unique features of plume or stack	—
	@2220
Weather:	
ambient temperature (F)	24°
relative humidity	43%
wind direction	S
wind speed	8-14 mph
barometric pressure	30.31 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	Whittaw
Observer affiliation	Avogadro Env.

sec	0	15	30	45
min	Run 9	Time: 2222		
1	0	0	0	0
2	0	0	0	5
3	0	0	0	0
4	0	0	0	0
5	0	0	0	5
6	0	0	0	0
6-minute Average:	0.4			
Source Conditions:				
Sun Angle (degrees):				
	Run 10	Time: 2248		
1	0	0	0	0
2	0	0	0	0
3	0	5	5	0
4	0	0	0	0
5	0	0	0	0
6	0	0	5	5
6-minute Average:	0.8			
Source Conditions:				
Sun Angle (degrees):				
	Run 11	Time: 2314		
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):				
	Run 12	Time: 2340		
1	0	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:	0.2			
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 5

Number of readings above 10 % were 0

note: @ ~ 2230, battery in ACB1 became defunct. Josh Price replaced w/extra battery in unused loader. (successfully)

Observer's Signature

Early Saturday Morn., February 9th, 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	02/9/2013
Start Time	0024
Stop Time	0332
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	—
	@ 0024

Weather:

ambient temperature (F)	27°
relative humidity	92 %
wind direction	S
wind speed	pm ~~[illegible]~~ 12-18 mph
barometric pressure	29.73 in Hg
rain? fog? snow? haze?	fog/snow

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: 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):				

sec	0	15	30	45
min	Run 5 Time: 208			
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: 0050			
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: 234			
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: 0116			
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: 300			
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: 0142			
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: 326			
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 0

Number of readings above 10 % were 0

Observer's Signature

Early Saturday Morn., February 9th, 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	02/9/2013
Start Time	352
Stop Time	542
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	—
	@ 350

Weather:

ambient temperature (F)	27°
relative humidity	92%
wind direction	S
wind speed	8-12mph
barometric pressure	29.79 in Hg
rain? fog? snow? haze?	snow/fog

Glasses worn:

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

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

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

sec	0	15	30	45
min	Run 9 Time: 352			
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: 418			
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: 444			
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: 510			
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 13 Time: 536			
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):				
	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

AVOGADRO ENVIRONMENTAL CORPORATION, Easton Pa

UNIT 2

Run Number(s) and Description

 2-9-13

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	2-9-13
Start Time	0700
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	
wind direction	SE
wind speed	~~5 to~~ 20-25
barometric pressure	
rain? fog? snow? haze?	OVERCAST
Glasses worn:	
corrective? (Y/N)	Y
sunglasses? (Y/N)	N

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

sec	0	15	30	45
min	Run 1 Time: 0700			
1	5	5	5	5
2	5	10	10	10
3	10	10	10	10
4	10	10	5	5
5	10	10	10	10
6	10	10	10	10
6-minute Average:			8.5	
Source Conditions:				
Sun Angle (degrees):			5	
	Run 2 Time: 720			
1	5	5	10	10
2	10	10	10	5
3	5	5	5	5
4	5	10	10	10
5	5	5	5	5
6	5	10	10	10
6-minute Average:			7.3	
Source Conditions:				
Sun Angle (degrees):			5	
	Run 3 Time: 740			
1	10	5	5	10
2	5	5	5	5
3	5	5	5	10
4	10	10	10	10
5	5	5	5	5
6	10	10	10	10
6-minute Average:			7.3	
Source Conditions:				
Sun Angle (degrees):			10	
	Run 4 Time: 800			
1	10	10	5	5
2	5	10	10	10
3	5	5	5	5
4	10	10	5	5
5	10	10	10	10
6	5	5	5	5
6-minute Average:			7.3	
Source Conditions:				
Sun Angle (degrees):			10	

sec	0	15	30	45
min	Run 5 Time: 820			
1	10	15	15	15
2	10	10	10	10
3	10	10	10	10
4	10	10	10	10
5	5	5	10	5
6	5	10	10	10
6-minute Average:			9.8	
Source Conditions:				
Sun Angle (degrees):			15	
	Run 6 Time: 840			
1	10	5	5	5
2	5	5	10	10
3	10	10	10	10
4	15	15	10	10
5	10	10	10	10
6	5	5	10	10
6-minute Average:			9.0	
Source Conditions:				
Sun Angle (degrees):			20	
	Run 7 Time: 900			
1	10	10	5	5
2	5	10	10	10
3	10	10	5	5
4	5	10	10	10
5	10	10	10	10
6	5	10	10	10
6-minute Average:			8.5	
Source Conditions:				
Sun Angle (degrees):			20	
	Run 8 Time: 920			
1	10	10	10	5
2	5	5	10	10
3	10	10	10	10
4	10	10	10	5
5	10	10	10	10
6	5	5	5	10
6-minute Average:			8.5	
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 2

Run Number(s) and Description

 2-9-13

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	2-9-13
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)	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	
wind direction	SE
wind speed	20-25
barometric pressure	
rain? fog? snow? haze?	OVERCAST
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: 940			
1	10	10	10	10
2	10	10	10	10
3	10	10	10	10
4	10	5	5	5
5	10	10	10	10
6	5	5	10	10
6-minute Average:	9.0			
Source Conditions:				
Sun Angle (degrees):	25			
	Run 10 Time: 1000			
1	5	5	5	10
2	10	10	10	15
3	15	15	10	10
4	10	10	5	5
5	10	10	5	5
6	5	5	10	10
6-minute Average:	8.8			
Source Conditions:				
Sun Angle (degrees):	25			
	Run 11 Time: 1020			
1	10	10	10	5
2	10	10	10	10
3	10	5	5	10
4	10	10	10	10
5	10	10	5	5
6	5	5	10	10
6-minute Average:	8.5			
Source Conditions:				
Sun Angle (degrees):	25			
	Run 12 Time: 1040			
1	10	10	10	5
2	5	5	5	5
3	5	10	10	10
4	10	10	10	10
5	10	10	5	5
6	10	10	10	10
6-minute Average:	8.3			
Source Conditions:				
Sun Angle (degrees):	30			

sec	0	15	30	45
min	Run 13 Time: 1100			
1	10	10	10	5
2	10	10	10	10
3	5	5	10	10
4	10	10	5	5
5	5	5	5	10
6	10	10	10	10
6-minute Average:	8.3			
Source Conditions:				
Sun Angle (degrees):	30			
	Run 14 Time: 1120			
1	10	10	10	10
2	5	5	5	5
3	5	5	5	5
4	5	5	10	10
5	10	5	5	5
6	5	5	5	5
6-minute Average:	6.5			
Source Conditions:				
Sun Angle (degrees):	30			
	Run 15 Time: 1140			
1	5	5	5	5
2	5	5	5	5
3	10	10	5	5
4	5	5	5	5
5	5	5	5	10
6	10	5	5	5
6-minute Average:	5.8			
Source Conditions:				
Sun Angle (degrees):	30			
	Run 16 Time: 1200			
1	5	5	5	5
2	5	5	5	10
3	10	5	5	5
4	5	5	5	5
5	10	10	5	10
6	10	5	5	5
6-minute Average:	7.5			
Source Conditions:				
Sun Angle (degrees):	30			

Range of opacity readings:
low 5 high 15

Number of readings above 10 % were 3

Mark T Ready
Observer's Signature

Visible Emissions Evaluation

UNIT 2

Run Number(s) and Description

Pg. 3 2-9-13

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	2-9-13
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	WNW SE
wind speed	20-25
barometric pressure	
rain? fog? snow? haze?	PTly cldy (clearing)
Glasses worn:	
corrective? (Y/N)	Y
sunglasses? (Y/N)	N

Observer's name	MARK T. JEFFREY
Observer certification date	10-22-12
Certifying agency	KOOMZ
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	0	0	5	5
4	5	5	5	5
5	5	5	5	5
6	10	5	5	0
6-minute Average:	4.6			
Source Conditions:				
Sun Angle (degrees):	50			
	Run 18 Time: 1240			
1	0	0	0	0
2	0	0	5	5
3	0	0	0	0
4	0	0	0	0
5	5	5	5	0
6	0	5	0	0
6-minute Average:	1.3			
Source Conditions:				
Sun Angle (degrees):	50			
	Run 19 Time: 1300			
1	0	0	0	5
2	5	5	0	0
3	0	0	0	0
4	0	0	0	0
5	5	5	5	5
6	5	0	0	0
6-minute Average:	1.7			
Source Conditions:				
Sun Angle (degrees):	45			
	Run 20 Time: 1320			
1	0	0	0	5
2	5	5	0	0
3	0	0	0	0
4	0	0	0	0
5	5	5	10	10
6	5	5	5	5
6-minute Average:	2.7			
Source Conditions:				
Sun Angle (degrees):	40			

sec	0	15	30	45
min	Run 21 Time: 1340			
1	0	0	0	0
2	0	5	5	5
3	5	5	5	5
4	10	10	5	5
5	0	0	0	0
6	0	5	5	5
6-minute Average:	3.3			
Source Conditions:				
Sun Angle (degrees):	40			
	Run 22 Time: 1400			
1	5	5	5	5
2	5	5	5	5
3	5	5	5	5
4	5	5	10	10
5	10	5	5	5
6	5	5	5	5
6-minute Average:	5.6			
Source Conditions:				
Sun Angle (degrees):	40			
	Run 23 Time: 1420			
1	5	5	5	5
2	5	5	5	5
3	10	10	5	5
4	5	5	5	5
5	5	5	5	5
6	5	10	10	5
6-minute Average:	5.8			
Source Conditions:				
Sun Angle (degrees):	40 20			
	Run 24 Time: 1440			
1	5	5	5	5
2	5	0	0	0
3	5	5	5	0
4	5	5	5	5
5	5	5	5	5
6	5	5	5	5
6-minute Average:	4.2			
Source Conditions:				
Sun Angle (degrees):	10			

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

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	2-9-13
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	SE
wind speed	20-25
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/DA

sec	0	15	30	45
min	Run 21 Time: 1500			
1	5	5	5	5
2	5	5	5	5
3	5	5	5	5
4	5	5	5	10
5	10	5	10	5
6	5	5	5	5
6-minute Average:	5.6			
Source Conditions:				
Sun Angle (degrees):	5			
	Run 26 Time: 1520			
1	5	5	5	5
2	5	5	5	5
3	5	5	5	5
4	10	10	10	5
5	5	5	5	5
6	5	5	5	5
6-minute Average:	5.6			
Source Conditions:				
Sun Angle (degrees):	5			
	Run 27 Time: 1540			
1	5	5	0	0
2	0	0	0	0
3	0	0	0	0
4	0	5	5	5
5	5	0	0	0
6	0	0	5	5
6-minute Average:	1.7			
Source Conditions:				
Sun Angle (degrees):	10			
	Run 25 Time: 1600			
1	0	0	5	0
2	0	0	5	5
3	5	5	5	5
4	0	5	0	5
5	5	5	0	0
6	5	0	5	5
6-minute Average:	2.9			
Source Conditions:				
Sun Angle (degrees):	15			

sec	0	15	30	45
min	Run 29 Time: 1620			
1	0	0	0	0
2	0	0	0	0
3	5	5	5	0
4	0	0	5	5
5	5	5	5	5
6	5	5	5	5
6-minute Average:	2.7			
Source Conditions:				
Sun Angle (degrees):	20			
	Run 30 Time: 1640			
1	5	5	5	10
2	10	10	10	10
3	10	10	10	10
4	5	5	10	10
5	10	5	5	5
6	5	5	10	10
6-minute Average:	7.9			
Source Conditions:				
Sun Angle (degrees):	20			
	Run 31 Time: 1700			
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	5
5	5	0	0	0
6	0	0	0	5
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):				

Range of opacity readings:

low 0 high 10

Number of readings above 10 % were 0

Observer's Signature

Act. Night, February 9th, 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	02/9/2013
Start Time	1854
Stop Time	2202
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	—
	@ 1854

Weather:

ambient temperature (F)	25°
relative humidity	42 %
wind direction	S
wind speed	8-14 mph
barometric pressure	30.27 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	Wilhow
Observer affiliation	Avogadro Env.

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

sec	0	15	30	45
min	Run 1 Time: 1859			
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: 2038			
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: 1920				
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 6 Time: 2104				
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: 1946				
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: 2130				
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 4 Time: 2012				
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: 2156				
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 5

Number of readings above 10 % were 0

Observer's Signature

Lt. Night, February 9th, 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: 02/9/2013
Start Time: 2222
Stop Time: 2346

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: —

@ 2220

Weather:
- ambient temperature (F): 24°
- relative humidity: 43%
- wind direction: S
- wind speed: 8-14mph
- barometric pressure: 30.31 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: WiTHow
Observer affiliation: Avogadro Env.

Run Number(s) and Description: ACB 2 Runs 9-12

sec	0	15	30	45
min	Run 9 Time: 2222			
1	0	0	0	0
2	0	0	0	0
3	5	0	0	0
4	0	5	5	0
5	0	0	0	0
6	0	0	0	5

6-minute Average: 0.8
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: 2248			
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):

	Run 11 Time: 2314			
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):

	Run 12 Time: 2340			
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