Visible Emissions Evaluation

Early Thurs. Morning, January 10th, 2013

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

Unit 2, Unit 1 = offline

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
Date of Observation	01/10/2013
Start Time	0012
Stop Time	0320
Distance from observer (ft)	300'
Direction from observer	NNW
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 convex lengths
target?	Sky
describe background to plume	"
unique features of plume or stack	
	@ 0012
Weather:	
ambient temperature (F)	47°
relative humidity	53%
wind direction	E
wind speed	8-10 mph
barometric pressure	30.23 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 1 Time: 0012

min	sec 0	15	30	45
1	5			
2	0			
3				
4				
5				
6				

6-minute Average: 0.8
Source Conditions: ACB 2
Sun Angle (degrees): 1/m. cap.

Run 2 Time: 0038

min	sec 0	15	30	45
1	5	5	5	5
2				
3				
4				
5				
6				

6-minute Average: 5
Source Conditions: "
Sun Angle (degrees): "

Run 3 Time: 0104

min	sec 0	15	30	45
1	0	0	0	0
2	0			
3				
4				
5				
6				

6-minute Average: 0
Source Conditions: "
Sun Angle (degrees): "

Run 4 Time: 0130

min	sec 0	15	30	45
1	5			
2	0	5	0	0
3	0			
4				
5				
6				

6-minute Average: 1.9
Source Conditions:
Sun Angle (degrees): "

Run 5 Time: 0156

min	sec 0	15	30	45
1	5			
2	10	10	10	10
3	5			
4	5			
5				
6				

6-minute Average: 5.8
Source Conditions: "
Sun Angle (degrees): "

Run 6 Time: 222

min	sec 0	15	30	45
1	5			
2				
3				
4				
5				
6				

6-minute Average: 5
Source Conditions: "
Sun Angle (degrees): "

Run 7 Time: 248

min	sec 0	15	30	45
1	0			
2				
3				
4				
5				
6				

6-minute Average: 0
Source Conditions: "
Sun Angle (degrees): "

Run 8 Time: 0314

min	sec 0	15	30	45
1	0			
2	5			
3	5			
4	5			
5	10			
6	5			

6-minute Average: 5.8
Source Conditions: "
Sun Angle (degrees): "

Range of opacity readings: low 0 high 10

Number of readings above 10 % were 0

Observer's Signature

Visible Emissions Evaluation

Early Thurs. Morning, January 10th, 2013

Run Number(s) and Description: U2 Runs 9-13, U1 = offline

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
Date of Observation	01/10/2013
Start Time	0340
Stop Time	0536
Distance from observer (ft)	300'
Direction from observer	NNW
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	"
unique features of plume or stack	—
Weather:	@340
ambient temperature (F)	42°
relative humidity	59%
wind direction	E
wind speed	4-6 mph
barometric pressure	30.32 in Hg
rain? fog? snow? haze?	clear
Glasses worn:	
corrective? (Y/N)	yes
sunglasses? (Y/N)	—

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

sec	0	15	30	45
min	Run 9 Time: 0340			
1	0			
2	0			
3	0			
4	0			
5	0			
6	10			
6-minute Average:	1.7			
Source Conditions:	ACB 2			
Sun Angle (degrees):				

sec	0	15	30	45
min	Run 13 Time: 530			
1	5			
2				
3				
4				
5				
6				
6-minute Average:	5			
Source Conditions:	ACB 2			
Sun Angle (degrees):				

	Run 10 Time: 0406
1	5
2	
3	
4	
5	
6	0
6-minute Average:	4.2
Source Conditions:	ACB 2
Sun Angle (degrees):	

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

	Run 11 Time: 0432
1	0
2	
3	
4	
5	
6	
6-minute Average:	0
Source Conditions:	ACB 2
Sun Angle (degrees):	

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

	Run 12 Time: 0504
1	10
2	10
3	5
4	10
5	15
6	20
6-minute Average:	
Source Conditions:	ACB 2
~~Sun Angle (degrees):~~	pecking ash

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

Range of opacity readings: low 0 high 20

Number of readings above 10 % were 8

Observer's Signature

Visible Emissions Evaluation

UNIT 1

Run Number(s) and Description Pg. 1 1-10-13

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	1-10-13
Start Time	720
Stop Time	945
Distance from observer (ft)	~~125'~~ 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)	40°F
relative humidity	40%
wind direction	~~29~~ ESE
wind speed	10-15
barometric pressure	29.85
rain? fog? snow? haze?	CLEAR
Glasses worn:	
corrective? (Y/N)	Y
sunglasses? (Y/N)	N

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

sec	0	15	30	45
min	Run 1 Time: 720			
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	5	5
5	0	5	5	0
6	0	5	0	0
6-minute Average:			1.0	
Source Conditions:			ST BY	
Sun Angle (degrees):			10	
	Run 2 Time: 740			
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:			ST BY	
Sun Angle (degrees):			10	
	Run 3 Time: 800			
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:			ST BY	
Sun Angle (degrees):			10	
	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:			ST BY	
Sun Angle (degrees):			10	

sec	0	15	30	45
min	Run 5 Time: 840			
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:			ST BY	
Sun Angle (degrees):			10	
	Run 6 Time: 900			
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:			ST BY	
Sun Angle (degrees):			50	
	Run 7 Time: 920			
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:			ST BY	
Sun Angle (degrees):			60	
	Run 8 Time: 940			
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:			ST BY	
Sun Angle (degrees):			60	

Range of opacity readings:

low 0 high 5

Number of readings above 10 % were 0

Observer's Signature

Visible Emissions Evaluation

UNIT 1

Run Number(s) and Description

Pg. 2 1-10-13

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	1-10-13
Start Time	1000
Stop Time	
Distance from observer (ft)	160'
Direction from observer	NE
Stack height (fr. observer's elev.) (ft)	10'
Stack Diameter (in)	27.17 x 8.42
Description of plume:	
continuous? fugitive? intermittent?	CONT
color	white
water drops present? (Y/N)	N
attached steam plume? (Y/N)	N
detached steam plume? (Y/N)	N
secondary plume? (Y/N)	N
point where opacity read	Top Edge
target?	
describe background to plume	CONTAINERS
unique features of plume or stack	
Weather:	
ambient temperature (F)	50°F
relative humidity	40%
wind direction	S
wind speed	10-15
barometric pressure	29.85
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 2 Time: 1000			
1	0	0	0	0
2	0	5	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:	ST BY			
Sun Angle (degrees):	55			
	Run 6 Time: 1020			
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:	ST by			
Sun Angle (degrees):	55			
	Run 10 Time: 1040			
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:	ST By			
Sun Angle (degrees):	50			
	Run 12 Time: 1100			
1	0	0	0	0
2	0	0	0	10
3	10	5	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:	1.0			
Source Conditions:	ST By			
Sun Angle (degrees):	50			

sec	0	15	30	45
min	Run 3 Time: 1120			
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:	ST By			
Sun Angle (degrees):	30			
	Run 7 Time: 1140			
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:	ST By			
Sun Angle (degrees):	30			
	Run 9 Time: 1200			
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:	ST By			
Sun Angle (degrees):	25			
	Run 11 Time: 1220			
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:	ST by			
Sun Angle (degrees):	25			

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

 1-10-13

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	1-10-13
Start Time	1240
Stop Time	
Distance from observer (ft)	160'
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)	50°F
relative humidity	40%
wind direction	S
wind speed	10-15
barometric pressure	29.85
rain? fog? snow? haze?	PTly cldy

Glasses worn:

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

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

sec	0	15	30	45
min	Run 17 Time: 1240			
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:	ST BY			
Sun Angle (degrees):	25			
	Run 18 Time: 1300			
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:	ST BY			
Sun Angle (degrees):	25			
	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:	ST BY			
Sun Angle (degrees):	25			
	Run 20 Time: 1340			
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:	ST BY			
Sun Angle (degrees):	20			

sec	0	15	30	45
min	Run 21 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:	ST BY			
Sun Angle (degrees):	15			
	Run 22 Time: 1420			
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:				
Source Conditions:	ST BY			
Sun Angle (degrees):	15			
	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:	ST BY			
Sun Angle (degrees):	10			
	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:	ST BY			
Sun Angle (degrees):	10			

Range of opacity readings:

low 0 high 0

Number of readings above 10 % were 0

Observer's Signature

Visible Emissions Evaluation

UNIT 1

Run Number(s) and Description

 1-10-13

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	1-10-13
Start Time	1520
Stop Time	
Distance from observer (ft)	160'
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)	55°F
relative humidity	40%
wind direction	S
wind speed	10-15
barometric pressure	29.85
rain? fog? snow? haze?	Pty Cldy
Glasses worn:	
corrective? (Y/N)	Y
sunglasses? (Y/N)	N

sec	0	15	30	45
min	Run 25 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:	ST BY			
Sun Angle (degrees):	10			
	Run 26 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:	ST BY			
Sun Angle (degrees):	10			
	Run 27 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:	ST BY			
Sun Angle (degrees):	5			
	Run 28 Time: 1620			
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:	ST BY			
Sun Angle (degrees):	5			

sec	0	15	30	45
min	Run 29 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:	ST BY			
Sun Angle (degrees):	5			
	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 name	MARK T. READY
Observer certification date	10-22-12
Certifying agency	KOONTZ
Observer affiliation	AVOGADRO/IDA

Observer's Signature

Visible Emissions Evaluation

Early Thurs. Morning, [illegible]

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

Unit 2, Unit 1 = off line

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
Date of Observation	01/10/2013
Start Time	0012
Stop Time	0320
Distance from observer (ft)	300'
Direction from observer	NNW
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 convex lengths
target?	sky
describe background to plume	"
unique features of plume or stack	
	@0012
Weather:	
ambient temperature (F)	47°
relative humidity	53%
wind direction	E
wind speed	8-10mph
barometric pressure	30.23 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 1 Time: 0012

min	sec 0	15	30	45
1	5			
2	0			
3				
4				
5				
6				

6-minute Average: 0.8
Source Conditions: ACB 2
Sun Angle (degrees): Tim. cap.

Run 2 Time: 0038

min	sec 0	15	30	45
1	5	5	5	5
2				
3				
4				
5				
6				

6-minute Average: 5
Source Conditions: "
Sun Angle (degrees): "

Run 3 Time: 0104

min	sec 0	15	30	45
1	0	0	0	0
2	0			
3				
4				
5				
6				

6-minute Average: 0
Source Conditions: "
Sun Angle (degrees): "

Run 4 Time: 0130

min	sec 0	15	30	45
1	5			
2	0	5	0	0
3	0			
4				
5				
6				

6-minute Average: 1.9
Source Conditions:
Sun Angle (degrees): "

Run 5 Time: 0156

min	sec 0	15	30	45
1	5			
2	10	10	10	10
3	5			
4	5			
5				
6				

6-minute Average: 5.8
Source Conditions: "
Sun Angle (degrees): "

Run 6 Time: 222

min	sec 0	15	30	45
1	5			
2				
3				
4				
5				
6				

6-minute Average: 5
Source Conditions: "
Sun Angle (degrees): "

Run 7 Time: 248

min	sec 0	15	30	45
1	0			
2				
3				
4				
5				
6				

6-minute Average: 0
Source Conditions: "
Sun Angle (degrees): "

Run 8 Time: 0314

min	sec 0	15	30	45
1	0			
2	5			
3	5			
4	5			
5	10			
6	5			

6-minute Average: 5.8
Source Conditions: "
Sun Angle (degrees): "

Range of opacity readings:
low 0 high 10

Number of readings above 10 % were 0

Observer's Signature

Visible Emissions Evaluation

Early Thurs. Morning, January 10th, 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
Date of Observation	01/10/2013
Start Time	0340
Stop Time	0536
Distance from observer (ft)	300'
Direction from observer	NNW
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 canex lengths
target?	sky
describe background to plume	"
unique features of plume or stack	—
Weather:	@340
ambient temperature (F)	42°
relative humidity	59%
wind direction	E
wind speed	4-6 mph
barometric pressure	30.32 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: U2 Runs 9-13, U1 = offline

sec	0	15	30	45

min	Run 9 Time: 0340	Run 13 Time: 530
1	0	5
2	0	
3	0	
4	0	
5	0	
6	10	
6-minute Average:	1.7	5
Source Conditions:	ACB 2	ACB 2
Sun Angle (degrees):		

	Run 10 Time: 0406	Run Time:
1	5	
2		
3		
4		
5		
6	0	
6-minute Average:	4.2	
Source Conditions:	ACB 2	
Sun Angle (degrees):		

	Run 11 Time: 0432	Run Time:
1	0	
2		
3		
4		
5		
6		
6-minute Average:	0	
Source Conditions:	ACB 2	
Sun Angle (degrees):		

	Run 12 Time: 0504	Run Time:
1	10	
2	10	
3	5	
4	10	
5	15	
6	20	
6-minute Average:		
Source Conditions:	ACB 2	
~~Sun Angle (degrees):~~	parking ash	Sun Angle (degrees):

Range of opacity readings: low 0 high 20

Number of readings above 10 % were 8

Observer's Signature

AVOGADRO ENVIRONMENTAL CORPORATION, Easton Pa

Visible Emissions Evaluation

UNIT 2

Run Number(s) and Description

 1-10-13

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	1-10-13
Start Time	720
Stop Time	945
Distance from observer (ft)	~~125~~ 100'
Direction from observer	NW
Stack height (fr. observer's elev.) (ft)	10'
Stack Diameter (in)	27.17 x 8.42
Description of plume:	
continuous? fugitive? intermittent?	CONT.
color	WHITE
water drops present? (Y/N)	N
attached steam plume? (Y/N)	N
detached steam plume? (Y/N)	N
secondary plume? (Y/N)	N
point where opacity read	10' Downwind
target?	
describe background to plume	Containers
unique features of plume or stack	
Weather:	
ambient temperature (F)	40°F
relative humidity	40%
wind direction	E
wind speed	10-15
barometric pressure	29.85
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 1 Time: 720			
1	0	0	0	0
2	0	5	5	0
3	5	5	0	0
4	5	5	0	5
5	0	5	5	0
6	0	5	0	0
6-minute Average: 2.1				
Source Conditions:				
Sun Angle (degrees): 10				
	Run 2 Time: 740			
1	5	5	0	10
2	10	5	0	5
3	0	5	10	15
4	5	15	0	0
5	0	0	0	10
6	0	0	0	0
6-minute Average: 4.2				
Source Conditions:				
Sun Angle (degrees): 10				
	Run 3 Time: 800			
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 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	10	15	10
6	5	0	10	10
6-minute Average: 2.5				
Source Conditions:				
Sun Angle (degrees): 10				

sec	0	15	30	45
min	Run 5 Time: 840			
1	10	5	5	5
2	0	0	10	0
3	10	15	5	15
4	10	10	5	5
5	10	10	10	5
6	5	5	10	10
6-minute Average: 7.3				
Source Conditions:				
Sun Angle (degrees): 10				
	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): 50				
	Run 7 Time: 920			
1	10	10	10	5
2	5	5	5	5
3	10	15	15	15
4	5	10	15	10
5	10	15	5	10
6	5	5	5	5
6-minute Average: 8.8				
Source Conditions:				
Sun Angle (degrees): 60				
	Run 8 Time: 940			
1	5	5	5	5
2	5	5	5	5
3	5	5	5	5
4	5	0	5	0
5	0	5	0	0
6	10	15	0	0
6-minute Average: 4.2				
Source Conditions:				
Sun Angle (degrees): 60				

Range of opacity readings:

low 0 high 15

Number of readings above 10 % were 9

Observer's Signature

Visible Emissions Evaluation

UNIT 2

Run Number(s) and Description

 1-10-13

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	1-10-13
Start Time	1000
Stop Time	
Distance from observer (ft)	160'
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)	50°F
relative humidity	40%
wind direction	S
wind speed	10-15
barometric pressure	29.85
rain? fog? snow? haze?	PTly Cldy

Glasses worn:

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

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

sec	0	15	30	45
min	Run 9 Time: 1000			
1	0	10	0	5
2	5	5	10	5
3	5	5	0	5
4	0	0	0	5
5	0	0	0	0
6	0	0	0	0
6-minute Average:	2.5			
Source Conditions:				
Sun Angle (degrees):	55			
	Run 10 Time: 1020			
1	0	0	0	5
2	10	10	0	0
3	0	0	0	0
4	5	5	0	0
5	0	5	0	0
6	0	5	0	0
6-minute Average:	1.9			
Source Conditions:				
Sun Angle (degrees):	55			
	Run 11 Time: 1040			
1	0	0	0	0
2	5	5	10	5
3	0	0	15	5
4	0	5	10	15
5	0	0	0	0
6	10	0	0	0
6-minute Average:	3.5			
Source Conditions:				
Sun Angle (degrees):	50			
	Run 12 Time: 1100			
1	5	5	5	5
2	5	10	5	5
3	5	5	5	5
4	0	5	5	0
5	5	5	5	5
6	5	0	0	5
6-minute Average:	4.4			
Source Conditions:				
Sun Angle (degrees):	50			

sec	0	15	30	45
min	Run 13 Time: 1120			
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):	30			
	Run 14 Time: 1140			
1	0	0	5	10
2	10	10	5	5
3	0	0	0	0
4	5	0	0	0
5	5	0	0	0
6	0	5	0	0
6-minute Average:	2.5			
Source Conditions:				
Sun Angle (degrees):	30			
	Run 15 Time: 1200			
1	0	0	0	5
2	0	0	0	0
3	0	0	0	0
4	5	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:	0.4			
Source Conditions:				
Sun Angle (degrees):	25			
	Run 16 Time: 1220			
1	0	0	0	5
2	0	0	5	0
3	0	10	0	0
4	5	5	5	5
5	0	0	0	10
6	0	10	5	10
6-minute Average:	3.1			
Source Conditions:				
Sun Angle (degrees):	25			

Range of opacity readings:

low 0 high 15

Number of readings above 10 % were 2

Observer's Signature

Visible Emissions Evaluation

UNIT 2

Run Number(s) and Description

 1-10-13

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	1-10-13
Start Time	1240
Stop Time	
Distance from observer (ft)	160'
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)	50°F
relative humidity	40%
wind direction	S
wind speed	10-15
barometric pressure	29.85
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 17 Time: 1240			
1	5	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	0	0
6-minute Average:				0.4
Source Conditions:				
Sun Angle (degrees):				25
	Run 18 Time: 1300			
1	0	0	0	0
2	0	0	0	0
3	0	0	0	5
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):				25
	Run 19 Time: 1320			
1	0	0	5	0
2	0	0	0	0
3	0	0	0	0
4	5	0	0	5
5	0	5	5	5
6	5	5	5	5
6-minute Average:				2.1
Source Conditions:				
Sun Angle (degrees):				25
	Run 20 Time: 1340			
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:				0
Source Conditions:				
Sun Angle (degrees):				20

sec	0	15	30	45
min	Run 21 Time: 1400			
1	0	10	15	10
2	5	0	5	5
3	5	5	5	15
4	5	5	15	10
5	10	5	0	10
6	5	5	5	10
6-minute Average:				6.9
Source Conditions:				
Sun Angle (degrees):				15
	Run 22 Time: 1420			
1	5	5	5	5
2	5	5	5	5
3	10	5	10	5
4	5	5	5	0
5	5	5	5	5
6	5	5	5	5
6-minute Average:				5.2
Source Conditions:				
Sun Angle (degrees):				15
	Run 23 Time: 1440			
1	5	0	0	0
2	5	5	5	0
3	10	10	5	5
4	0	0	0	0
5	0	5	0	0
6	0	5	0	0
6-minute Average:				2.5
Source Conditions:				
Sun Angle (degrees):				10
	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):				10

Range of opacity readings:

low 0 high 15

Number of readings above 10 % were 3

Observer's Signature

Visible Emissions Evaluation

UNIT 2

Run Number(s) and Description

 1-10-13

Facility Name	ECC EBF
AVOGADRO Project No.	12-9191
Location (city, state)	Brooklyn NY
Type of Facility	
Control Equipment / Emission Source	ACB
Date of Observation	1-10-13
Start Time	1520
Stop Time	
Distance from observer (ft)	160'
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)	55°F
relative humidity	40%
wind direction	S
wind speed	10-15
barometric pressure	29.85
rain? fog? snow? haze?	PTly cldy

Glasses worn:

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

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

sec	0	15	30	45
min	Run 25 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):	10			
	Run 26 Time:		1540	
1	10	10	10	10
2	5	10	5	10
3	10	10	10	10
4	5	15	10	10
5	10	10	5	5
6	10	5	10	15
6-minute Average:	9.2			
Source Conditions:				
Sun Angle (degrees):	10			
	Run 27 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):	5			
	Run 28 Time:		1620	
1	0	0	0	0
2	0	0	0	0
3	5	5	0	5
4	5	5	5	0
5	5	5	5	0
6	10	15	5	5
6-minute Average:	3.3			
Source Conditions:				
Sun Angle (degrees):	5			

sec	0	15	30	45
min	Run 24 Time:		1640	
1	5	5	5	10
2	5	0	10	5
3	0	0	10	0
4	10	5	10	5
5	5	10	5	5
6	10	10	10	10
6-minute Average:				
Source Conditions:				
Sun Angle (degrees):	5			
	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 3

Observer's Signature

Nighttime ACB 2 only running ACB 1 offline

Thursday van is

Visible Emissions Evaluation

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

Facility Name	ECC/Floyd Bennet Field
AMEC ~~AVOGADRO~~ Project No.	648013100S
Location (city, state)	Brooklyn, NY
Type of Facility	Nat'l Park
Control Equipment / Emission Source	Air Curtain Burner ACB-2
Date of Observation	1/10/13
Start Time	1900
Stop Time	2208
Distance from observer (ft)	~300'
Direction from observer (Magnetic North) Deg	317°/68°
Stack height (fr. observer's elev.) (ft)	8'
Stack Diameter (in)	20' x 8'

(See notes at bottom)

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	~30ft ↑ 15' →
target?	sky
describe background to plume	sky
unique features of plume or stack	some embers

Weather:

ambient temperature (F)	43°
relative humidity	40%
wind direction	NNE
wind speed	9.9-3.2 mph
barometric pressure	30.51
rain? fog? snow? haze?	none

Glasses worn:

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

Observer's name	Robert Bush
Observer certification date	1/6/13
Certifying agency	Whitlow
Observer affiliation	AMEC

Run 1 Time: 1900

min	sec 0	15	30	45
1	5	5	0	5
2	5	5	5	5
317°3	5	0	0	5
4	5	10	10	5
5	10	15	10	10
6	10	5	15	10

6-minute Average: 6%
Source Conditions: Capacity
Sun Angle (degrees): —

Run 2 Time: 1926 (See Run 2 notes)

min	sec 0	15	30	45
1	5	5	5	5
2	10	15	15	10
68°3	5	5	5	5
4	5	0	5	5
5	5	10	0	10
6	15	10	20	20

6-minute Average: 8.1%
Source Conditions: Capacity
Sun Angle (degrees): —

Run 3 Time: 1952

min	sec 0	15	30	45
1	10	5	5	5
2	5	5	10	10
317°3	10	15	20	15
4	20	20	20	10
5	15	15	25	30
6	25	20	20	15

6-minute Average: 14.6%
Source Conditions: Capacity
Sun Angle (degrees): —

Run 4 Time: 2018

min	sec 0	15	30	45
1	0	0	5	5
2	0	0	0	0
68°3	0	0	5	5
4	5	5	5	5
5	5	10	10	10
6	5	5	5	5

6-minute Average: 4.0%
Source Conditions: Capacity
Sun Angle (degrees): —

Run 5 Time: 2044

min	sec 0	15	30	45
1	5	5	5	5
2	0	5	5	0
68°3	0	0	0	0
4	0	5	10	5
5	5	0	5	5
6	5	0	5	0

6-minute Average: 3.1%
Source Conditions: Capacity
Sun Angle (degrees): —

Run 6 Time: 2110

min	sec 0	15	30	45
1	5	5	5	5
2	0	5	5	5
68°3	5	5	10	10
4	5	5	5	10
5	10	5	5	5
6	5	10	5	5

6-minute Average: 5.8%
Source Conditions: Capacity
Sun Angle (degrees): —

Run 7 Time: 2136

min	sec 0	15	30	45
1	5	5	10	5
2	0	0	0	5
68°3	5	5	5	5
4	5	10	5	10
5	5	5	10	5
6	5	5	5	10

6-minute Average: 5.4%
Source Conditions: Capacity
Sun Angle (degrees): —

Run 8 Time: 2202

min	sec 0	15	30	45
1	5	5	5	5
2	10	5	10	5
317°3	15	20	20	15
4	15	10	15	10
5	15	15	10	10
6	5	10	5	5

6-minute Average: 10.2%
Source Conditions: Capacity
Sun Angle (degrees): —

Range of opacity readings: low 0 high 30

Number of readings above 10 % were 26

Observer's Signature

Run 2 Direction = ~~PLB~~ 68°
Background blue camera
All else the same

AMEC ~~AVOGADRO ENVIRONMENTAL CORPORATION, Easton Pa.~~

Run 3: back to original position (trailer) (317°)

All directions from observer are written in the 3-minute cell for each 6 min observation

Run 4: 68° → Stay @ 68° for to run 7

Run 8 → back to 317°

Nighttime ACB-4 ACB-1 only offline → repairs began ~2130

Visible Emissions Evaluation

Run Number(s) and Description (Runs): 1/10/13: 9-12 | 1/11/13: 1-4

1/11/13 → start here

Facility Name	ECC/Floyd Bennet Field
AMEC ~~AVOGADRO~~ Project No.	648013.005
Location (city, state)	Brooklyn, NY
Type of Facility	Nat'l Park
Control Equipment / Emission Source	ACB-2
Date of Observation	1/10/13
Start Time	2228 1/10
Stop Time	0136 1/11
Distance from observer (ft)	~300'
Direction from observer	317°/68°
Stack height (fr. observer's elev.) (ft)	8'
Stack Diameter (in)	20'x8'

See 3 min. call for exact boat

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	~30 ft ↑
target?	sky/~~blue~~ R2B
describe background to plume	sky/~~blue~~ R2B
unique features of plume or stack	some embers

Weather:

ambient temperature (F)	40°
relative humidity	50%
wind direction	NNE
wind speed	2.75-3.25 mph
barometric pressure	30.54 in
rain? fog? snow? haze?	none

Glasses worn:

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

Observer's name	Robert Bush
Observer certification date	1/6/13
Certifying agency	Whiffow
Observer affiliation	AMEC

sec	0	15	30	45
min	Run 9	Time: 2228		
1	5	5	5	5
2	5	5	5	5
317°3	5	30	10	10
4	5	5	10	10
5	5	5	5	5
6	5	5	5	5
6-minute Average:	6.9%			
Source Conditions:	Capacity			
Sun Angle (degrees):	—			

sec	0	15	30	45
min	Run 1	Time: 0012		
1	0	5	5	5
2	10	10	15	15
317°3	15	15	15	10
4	10	10	5	10
5	5	15	15	15
6	10	10	10	10
6-minute Average:	10.2%			
Source Conditions:	Capacity			
Sun Angle (degrees):	—			

	Run 10	Time: 2254		
1	5	5	5	10
2	10	10	15	10
317°3	10	5	5	10
4	5	5	5	5
5	5	5	5	5
6	5	5	5	5
6-minute Average:	6.7%			
Source Conditions:	Capacity			
Sun Angle (degrees):	—			

	Run 2	Time: 0038		
1	5	5	5	5
2	5	5	5	5
317°3	5	5	10	10
4	10	10	10	10
5	10	15	10	10
6	5	10	5	5
6-minute Average:	7.5%			
Source Conditions:	Capacity			
Sun Angle (degrees):	—			

	Run 11	Time: 2320		
1	5	5	5	5
2	5	5	5	5
317°3	5	5	5	5
4	10	10	10	5
5	10	10	10	5
6	10	5	5	5
6-minute Average:	6.5%			
Source Conditions:	Capacity			
Sun Angle (degrees):	—			

	Run 3	Time: 0104		
1	5	5	5	5
2	5	5	5	5
3	5	5	5	5
4	5	5	5	5
5	5	10	5	10
6	10	5	5	5
6-minute Average:	5.6%			
Source Conditions:	Capacity			
Sun Angle (degrees):	—			

	Run 12	Time: 2346		
1	5	5	5	10
2	10	10	10	10
317°3	10	5	5	5
4	5	10	5	10
5	10	10	10	10
6	15	10	5	10
6-minute Average:	8.3%			
Source Conditions:	Capacity			
Sun Angle (degrees):	—			

	Run 4	Time: 0130		
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:	Capacity			
Sun Angle (degrees):	—			

Range of opacity readings: low 0 high 30

Number of readings above 10 % were 11

Observer's Signature

~~AVOGADRO ENVIRONMENTAL CORPORATION, Easton Pa~~

AMEC