UNIT #1

Monday, January 7th 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
Date of Observation	01/07/2013
Start Time	0020
Stop Time	0328
Distance from observer (ft)	300'
Direction from observer	NNW
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	"
unique features of plume or stack	—

Weather: @0020 @0320

ambient temperature (F)	43°
relative humidity	51%
wind direction	E
wind speed	6-8mph 3-5mph
barometric pressure	30.06 in Hg
rain? fog? snow? haze?	clear

Glasses worn:

corrective? (Y/N)	Y
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: Early Morning Runs 1-8

sec	0	15	30	45
Run 1 Time: 0020				
1	5	5	5	5
2	5	5	5	5
3	10	10	10	5
4	5	5	10	10
5	5	5	5	5
6	5	0	5	5
6-minute Average: 5.8				
Source Conditions:				
Sun Angle (degrees): —				

sec	0	15	30	45
Run 5 Time: 0204				
1	10	10	10	10
2	5	5	10	10
3	5	5	10	10
4	10	10	10	15
5	15	10	15	10
6	10	10	10	10
6-minute Average: 9.8				
Source Conditions:				
Sun Angle (degrees): —				

Run 2 Time: 0046				
1	0	0	0	0
2	0	0	5	5
3	0	0	0	0
4	0	5	0	5
5	0	5	0	5
6	5	5	0	0
6-minute Average: 1.7				
Source Conditions:				
Sun Angle (degrees): —				

Run 6 Time: 0230				
1	5	5	5	5
2	10	10	5	5
3	10	10	5	5
4	5	5	5	5
5	5	5	5	5
6	5	5	0	0
6-minute Average: 5.4				
Source Conditions:				
Sun Angle (degrees):				

Run 3 Time: 0112				
1	10	10	5	10
2	10	5	10	5
3	10	10	10	15
4	10	10	10	10
5	15	10	10	10
6	10	5	10	10
6-minute Average: 9.6				
Source Conditions:				
Sun Angle (degrees): —				

Run 7 Time: 0256				
1	5	10	10	10
2	15	15	10	10
3	15	15	15	15
4	10	15	15	15
5	10	10	10	10
6	10	10	10	10
6-minute Average: 11.7				
Source Conditions:				
Sun Angle (degrees): —				

Run 4 Time: 0138				
1	10	10	10	10
2	15	15	15	10
3	10	15	15	10
4	10	10	10	10
5	10	10	10	10
6	10	5	5	5
6-minute Average: 10.4				
Source Conditions:				
Sun Angle (degrees): —				

Run 8 Time: 0322				
1	10	10	10	10
2	10	10	10	10
3	10	10	5	5
4	15	10	10	10
5	10	10	5	5
6	5	5	5	5
6-minute Average: 8.5				
Source Conditions:				
Sun Angle (degrees): —				

Range of opacity readings: low 0 high 15

Number of readings above 10 % were 19

Observer's Signature

UNIT #1 Monday, January 7th, 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
Date of Observation	01/07/2013
Start Time	0350
Stop Time	0540
Distance from observer (ft)	300'
Direction from observer	NNW
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	"
unique features of plume or stack	—
Weather:	@0350
ambient temperature (F)	38°
relative humidity	62%
wind direction	E
wind speed	4-8 mph
barometric pressure	30.10 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: Early Morning Runs 9-13

sec	0	15	30	45
Run 9 Time: 0350				
1 min	5	5	5	5
2	5	5	5	5
3	5	5	5	5
4	10	5	10	5
5	5	5	5	10
6	5	5	5	5
6-minute Average: 5.6				
Source Conditions:				
Sun Angle (degrees): —				
Run 10 Time: 0416				
1	10	10	10	10
2	5	5	10	10
3	5	5	10	10
4	10	10	5	5
5	5	5	5	10
6	5	10	5	5
6-minute Average: 7.5				
Source Conditions:				
Sun Angle (degrees): —				
Run 11 Time: 0442				
1	10	10	10	10
2	10	10	10	10
3	10	10	10	10
4	15	15	15	15
5	10	10	10	10
6	15	15	15	15
6-minute Average: 11.7				
Source Conditions:				
Sun Angle (degrees): —				
Run 12 Time: 0508				
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	5	10	10	10
6-minute Average: 9.6				
Source Conditions:				
Sun Angle (degrees): —				

sec	0	15	30	45
Run 13 Time: 0534				
1 min	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 5 high 15

Number of readings above 10 % were 8

Observer's Signature

Visible Emissions Evaluation

Facility Name	ECC
AVOGADRO Project No.	
Location (city, state)	
Type of Facility	
Control Equipment / Emission Source	
Date of Observation	1/7/2013
Start Time	7:20
Stop Time	9:46
Distance from observer (ft)	
Direction from observer	N
Stack height (fr. observer's elev.) (ft)	6 ft
Stack Diameter (in)	
Description of plume:	
continuous? fugitive? intermittent?	intermittent
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	Above bin
target?	N/A
describe background to plume	
unique features of plume or stack	N/A
Weather:	
ambient temperature (F)	37°
relative humidity	
wind direction	
wind speed	
barometric pressure	
rain? fog? snow? haze?	N/A
Glasses worn:	
corrective? (Y/N)	N
sunglasses? (Y/N)	N

Observer's name	Nadine Powell
Observer certification date	
Certifying agency	PSU
Observer affiliation	Avogadro

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

Hour 1

sec	0	15	30	45
min	Run 1	Time:	7:20-7:26	
1	0	0	0	0
2	0	0	0	5
3	0	0	5	0
4	0	0	0	0
5	0	0	0	0
6	0	0	5	5
6-minute Average:				
Source Conditions:	Cont. burn			
Sun Angle (degrees):	45°			

sec	0	15	30	45
min	Run 2	Time:	7:40-7:46	
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	5	0	0
5	5	5	0	0
6	0	0	0	0
6-minute Average:				
Source Conditions:	Cont. burn			
Sun Angle (degrees):	45°			

sec	0	15	30	45
min	Run 3	Time:	8:00-8:06	
1	0	0	0	0
2	0	5	5	5
3	5	5	0	0
4	0	0	5	0
5	5	5	0	5
6	5	0	0	5
6-minute Average:				
Source Conditions:	Cont. burn			
Sun Angle (degrees):	45°			

sec	0	15	30	45
min	Run 4	Time:	8:20-8:26	
1	0	0	0	0
2	0	0	0	0
3	0	0	0	5
4	0	10	5	5
5	0	0	0	10
6	0	10	5	5
6-minute Average:				
Source Conditions:	addition of material			
Sun Angle (degrees):	45°			

Hour 2

sec	0	15	30	45
min	Run 5	Time:	8:40-8:46	
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:	Cont. burn			
Sun Angle (degrees):	35°			

sec	0	15	30	45
min	Run 6	Time:	9:00-9:06	
1	5	5	5	5
2	0	0	5	0
3	0	0	5	0
4	0	0	0	0
5	5	5	10	5
6	0	0	0	5
6-minute Average:				
Source Conditions:	Some material addition			
Sun Angle (degrees):	35°			

sec	0	15	30	45
min	Run 7	Time:	9:20-9:26	
1	0	0	0	0
2	0	0	0	0
3	0	0	5	0
4	10	0	0	5
5	5	0	5	0
6	5	5	5	5
6-minute Average:				
Source Conditions:	Some material addition			
Sun Angle (degrees):	35°			

sec	0	15	30	45
min	Run 8	Time:	9:40-9:46	
1	0	0	0	0
2	5	10	0	0
3	0	0	10	0
4	0	5	5	0
5	5	5	5	0
6	5	0	5	5
6-minute Average:				
Source Conditions:	Some addition			
Sun Angle (degrees):				

Range of opacity readings: low 0 high 10

Number of readings above 10 % were 0

Observer's Signature

Unit 1 Runs 9-16

Visible Emissions Evaluation

Facility Name	ECC
AVOGADRO Project No.	12-9191
Location (city, state)	Brooklyn, NY
Type of Facility	
Control Equipment / Emission Source	ACB
Date of Observation	1/7/2013
Start Time	10:00
Stop Time	1225
Distance from observer (ft)	175'
Direction from observer	NE
Stack height (fr. observer's elev.) (ft)	10'
Stack Diameter (in)	27.17 x 8.92
Description of plume:	
continuous? fugitive? intermittent?	intermittent
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	Above trim
target?	N/A
describe background to plume	Containers
unique features of plume or stack	N/A
Weather:	
ambient temperature (F)	37°
relative humidity	40%
wind direction	E
wind speed	10-15
barometric pressure	30.02
rain? fog? snow? haze?	CLEAR
Glasses worn:	MTR NADINE
corrective? (Y/N)	Y
sunglasses? (Y/N)	N

Observer's name	Nadine Bouvet
Observer certification date	
Certifying agency	PSU
Observer affiliation	Avogadro

MARK J. READY
10-22-12
KOONITZ
Avogadro/DA

Run Number(s) and Description: Hour 3

sec	0	15	30	45	sec	0	15	30	45
min	Run 9 Time: 10:00-10:06				min	Run 13 Time: 1120			
1	0	0	5	10	1	5	0	5	5
2	0	5	5	10	2	0	5	0	0
3	5	5	10	5	3	5	0	5	10
4	5	5	5	5	4	10	0	0	0
5	0	5	5	5	5	10	5	5	5
6	0	5	0	5	6	10	5	5	5
6-minute Average:	4.4				6-minute Average:	4.2			
Source Conditions:	Some addition				Source Conditions:				
Sun Angle (degrees):	20°				Sun Angle (degrees):	40			
min	Run 10 Time: 10:20-10:26				min	Run 14 Time: 1140			
1	0	0	0	0	1	5	5	5	5
2	0	0	5	0	2	0	0	0	0
3	0	0	0	0	3	0	5	5	0
4	5	0	0	0	4	0	0	5	0
5	0	0	0	0	5	5	5	0	0
6	0	0	0	0	6	5	5	5	5
6-minute Average:	0.4				6-minute Average:	2.7			
Source Conditions:	cont. burn				Source Conditions:				
Sun Angle (degrees):	20°				Sun Angle (degrees):	35			
min	Run 11 Time: 1040				min	Run 15 Time: 1200			
1	5	5	0	0	1	0	0	0	0
2	0	5	0	0	2	0	0	0	0
3	0	0	0	0	3	0	5	5	0
4	5	0	0	0	4	5	5	5	0
5	0	0	10	10	5	0	0	0	0
6	10	5	5	5	6	0	0	0	0
6-minute Average:	2.7				6-minute Average:	1.0			
Source Conditions:					Source Conditions:				
Sun Angle (degrees):	40				Sun Angle (degrees):	25			
min	Run 12 Time: 1100				min	Run 16 Time: 1220			
1	0	0	0	5	1	10	5	5	0
2	0	5	0	0	2	0	5	5	5
3	5	5	0	0	3	0	0	5	5
4	0	0	0	0	4	0	5	5	0
5	0	0	0	5	5	5	0	0	5
6	5	5	0	0	6	0	5	5	5
6-minute Average:	1.5				6-minute Average:	3.3			
Source Conditions:					Source Conditions:				
Sun Angle (degrees):	40				Sun Angle (degrees):	25			

Range of opacity readings: low 0 high 10

Number of readings above 10 % were 0

Observer's Signature

WTF #1

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	1-7-13
Start Time	1240
Stop Time	
Distance from observer (ft)	175'
Direction from observer	NE
Stack height (fr. observer's elev.) (ft)	10'
Stack Diameter (in)	20.17 x 8.42

Description of plume:

continuous? fugitive? intermittent?	Conti
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)	52°F
relative humidity	40%
wind direction	E
wind speed	10-15
barometric pressure	30.02
rain? fog? snow? haze?	clear

Glasses worn:

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

Observer's name	
Observer certification date	
Certifying agency	
Observer affiliation	

Mark T. Ready
10-22-12
Koontz
Avogadro/DA

Run Number(s) and Description: Page 3 1-7-13

sec	0	15	30	45
min	Run 17 Time:	1240		
MTR 1	10	10	15	10
2	5	5	10	5
3	5	5	10	10
4	5	10	5	5
5	10	5	5	5
6	5	5	10	10
6-minute Average:			7.5	
Source Conditions:				
Sun Angle (degrees):			10	
MTR	Run 18 Time:	1300		
1	5	5	0	5
2	5	0	0	0
3	0	0	0	5
4	0	0	5	5
5	0	0	5	0
6	0	5	0	0
6-minute Average:			1.9	
Source Conditions:				
Sun Angle (degrees):			10	
MTR	Run 19 Time:	1320		
1	5	10	0	5
2	0	0	5	0
3	5	0	0	5
4	0	5	0	0
5	0	0	0	0
6	5	0	0	0
6-minute Average:			1.7	
Source Conditions:				
Sun Angle (degrees):			5	
[illegible]	Run 20 Time:	1340		
NMB 1	5	5	5	5
2	0	5	5	5
3	0	5	5	5
4	0	0	0	0
5	0	5	5	5
6	5	5	5	5
6-minute Average:				
Source Conditions:				
Sun Angle (degrees):			10°	

sec	0	15	30	45
min	Run 21 Time:	1400-1406		
NMB	5	5	5	5
2	5	5	5	5
3	5	5	5	5
4	0	0	5	5
5	5	0	0	5
6	0	5	0	5
6-minute Average:				
Source Conditions:				
Sun Angle (degrees):			10°	
NMB	Run 22 Time:	1420-1426		
1	0	0	0	0
2	5	0	0	5
3	5	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:				
Source Conditions:				
Sun Angle (degrees):			10°	
NMB	Run 23 Time:	1440-1446		
1	5	5	5	5
2	5	5	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:				
Source Conditions:				
Sun Angle (degrees):			10°	
NMB	Run 24 Time:	1500-1506		
1	5	0	5	0
2	0	5	5	0
3	0	0	0	5
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:				
Source Conditions:				
Sun Angle (degrees):			10°	

Range of opacity readings:
low _____ high _____

Number of readings above 10 % were _____

Observer's Signature

AVOGADRO ENVIRONMENTAL CORPORATION, Easton Pa

NMB take over @ 13:40

UNIT #1

Visible Emissions Evaluation

Page 4 1-7-13

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	1/7/2013
Start Time	1520
Stop Time	1625
Distance from observer (ft)	150'
Direction from observer	NE
Stack height (fr. observer's elev.) (ft)	10'
Stack Diameter (in)	27.17 x 8.42
Description of plume:	
continuous? fugitive? intermittent?	CONT
color	White
water drops present? (Y/N)	N
attached steam plume? (Y/N)	N
detached steam plume? (Y/N)	N
secondary plume? (Y/N)	N
point where opacity read	Above fire Box
target?	
describe background to plume	Container
unique features of plume or stack	
Weather:	
ambient temperature (F)	45°F
relative humidity	40%
wind direction	NE
wind speed	5
barometric pressure	30.02
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	EPA
Observer affiliation	Avogadro/DA

NADINE Boswell

Run Number(s) and Description DAY ~~NITE~~

sec	0	15	30	45
min	Run 25 Time: 1520-1536			
Time 1	0	5	0	5
2	5	5	5	5
3	5	5	5	5
4	5	5	5	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:	2.7			
Source Conditions:				
Sun Angle (degrees):	20°			
	Run 26 Time: 1540-1546			
1	5	5	5	0
2	5	5	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	5	5
6	0	5	5	5
6-minute Average:	2.1			
Source Conditions:				
Sun Angle (degrees):	25			
MSR	Run 27 Time: 1600			
1	5	5	0	0
2	0	0	0	5
3	5	5	0	0
4	5	5	5	5
5	0	0	0	0
6	0	0	5	0
6-minute Average:	2.1			
Source Conditions:				
Sun Angle (degrees):	30			
MSR	Run 28 Time: 1620			
1	5	5	5	5
2	0	5	5	5
3	0	5	5	5
4	0	5	5	5
5	5	5	5	5
6	5	5	5	5
6-minute Average:	4.4			
Source Conditions:				
Sun Angle (degrees):	35			

sec	0	15	30	45
min	Run 1 Time: ~~1700~~			
1				
2				
3				
4				
5				
6				
6-minute Average:				
Source Conditions:				
Sun Angle (degrees):				
	Run 2 Time: ~~1720~~			
1				
2				
3				
4				
5				
6				
6-minute Average:				
Source Conditions:				
Sun Angle (degrees):				
	Run 3 Time: ~~1740~~			
1				
2				
3				
4				
5				
6				
6-minute Average:				
Source Conditions:				
Sun Angle (degrees):				
	Run 4 Time: ~~1800~~			
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

Visible Emissions Evaluation

ECC Floyd Bennett Field

Facility Name	
AVOGADRO Project No.	12-9191
Location (city, state)	Brooklyn, NY
Type of Facility	Debris Removal
Control Equipment / Emission Source	ACB
Date of Observation	01/07/2013
Start Time	1900
Stop Time	2026
Distance from observer (ft)	300'
Direction from observer	NNW
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 convex lengths
target?	sky
describe background to plume	"
unique features of plume or stack	—

Weather: @ 1700

ambient temperature (F)	40°
relative humidity	44%
wind direction	plume (E)
wind speed	calm
barometric pressure	30.40 in Hg
rain? fog? snow? haze?	clear

Glasses worn:

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

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

note: new loader tonight, admit a learning curve of sorts for transition, plus feeding 2 boxes rather than 1.

UofC #1 & #2

Monday Night, January 7th, 2013

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

sec	0	15	30	45
min	Run 1	Time: 1900		
1	15	15	10	10
2	15	15	10	10
3	10	10	10	10
4	15	15	10	10
5	10	10	10	15
6	10	10	10	10

6-minute Average: 11.1

Source Conditions: ACB 1, not

Sun Angle (degrees): ~~—~~ not enough

	Run 1	Time: 1900		
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0

6-minute Average: 0

Source Conditions: ACB 2

Sun Angle (degrees): —

	Run 2	Time: 1926		
1	10	10	15	10
2	10	15	15	15
3	15	15	15	15
4	15	15	15	15
5	15	15	15	15
6	15	15	15	15

6-minute Average: 14.2

Source Conditions: ACB 1, not

Sun Angle (degrees): ~~not~~ enough

	Run 2	Time: 1926		
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0

6-minute Average: 0

Source Conditions: ACB 2

Sun Angle (degrees):

sec	0	15	30	45
min	Run 3	Time: 1952		
1	10	10	5	10
2	5	5	5	10
3	10	5	5	10
4	5	5	5	5
5	5	5	5	5
6	10	5	5	5

6-minute Average: 6.3

Source Conditions: ACB 1, getting

Sun Angle (degrees): not

	Run 3	Time: 1952		
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0

6-minute Average: 0

Source Conditions: ACB 2

Sun Angle (degrees):

	Run 4	Time 2020		
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: ACB1

Sun Angle (degrees):

	Run 4	Time: 2020		
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: ACB 2

Sun Angle (degrees):

Range of opacity readings: low 0 high 15

Number of readings above 10 % were 27

Observer's Signature

Unit #1 & #2

Monday Night, January 7th, 2013

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

Visible Emissions Evaluation

Facility Name	ECC Floyd Bennett Field
AVOGADRO Project No.	12-9191
Location (city, state)	Brooklyn, NY
Type of Facility	Debris Removal
Control Equipment / Emission Source	ACB
Date of Observation	01/07/2013
Start Time	2046
Stop Time	2212
Distance from observer (ft)	300'
Direction from observer	NNW
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	"
unique features of plume or stack	—
Weather:	@ 2046
ambient temperature (F)	37°
relative humidity	49%
wind direction	E
wind speed	0-3 mph
barometric pressure	30.41 in Hg
rain? fog? snow? haze?	clear
Glasses worn:	
corrective? (Y/N)	yes
sunglasses? (Y/N)	—

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

sec	0	15	30	45
min	Run 5 Time: 2046			
1	5	5	5	5
2	5	5	5	5
3	0	5	0	5
4	0	5	0	5
5	0	5	0	5
6	0	5	0	5
6-minute Average: 3.3				
Source Conditions: ACB 1				
Sun Angle (degrees):				

Run 5 Time: 2046				
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: ACB 2				
Sun Angle (degrees):				

Run 6 Time: 2112				
1	5	0	5	0
2	5	0	5	0
3	5	0	5	0
4	5	0	5	0
5	5	0	5	0
6	5	0	5	0
6-minute Average: 2.5				
Source Conditions: ACB 1				
Sun Angle (degrees):				

Run 6 Time: 2112				
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average: 0				
Source Conditions: ACB 2				
Sun Angle (degrees):				

sec	0	15	30	45
min	Run 7 Time: 2140			
1	5	0	5	0
2	5	0	5	0
3	5	0	5	0
4	5	0	5	0
5	5	0	5	0
6	5	0	5	0
6-minute Average: 2.5				
Source Conditions: ACB 1				
Sun Angle (degrees):				

Run 7 Time: 2140				
1	5	5	5	5
2	5	5	5	5
3	10	10	10	10
4	5	5	5	5
5	5	10	5	10
6	5	10	5	10
6-minute Average: 6.7				
Source Conditions: ACB 2				
Sun Angle (degrees):				

Run 8 Time: 2206				
1	5	0	5	0
2	5	0	5	0
3	5	0	5	0
4	5	0	5	0
5	5	0	5	0
6	5	0	5	0
6-minute Average: 2.5				
Source Conditions: ACB 1				
Sun Angle (degrees):				

Run 8 Time: 2206				
1	0	0	5	0
2	0	5	0	0
3	5	0	0	5
4	0	0	5	0
5	0	5	0	0
6	5	0	0	5
6-minute Average: 1.7				
Source Conditions: ACB 2				
Sun Angle (degrees):				

Range of opacity readings: low 0 high 10

Number of readings above 10 % were 0

Observer's Signature

WTH #2

Visible Emissions Evaluation

Run Number(s) and Description: Monday Night, January 7th, 2013 Runs 9-12

Facility Name	ECC Floyd Bennett Field
AVOGADRO Project No.	12-9191
Location (city, state)	Brooklyn, NY
Type of Facility	Debris Removal
Control Equipment / Emission Sources	ACBs
Date of Observation	01/07/2013
Start Time	2232
Stop Time	2358
Distance from observer (ft)	300'
Direction from observer	NNW
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	"
unique features of plume or stack	—
Weather:	@2230
ambient temperature (F)	32°
relative humidity	66%
wind direction	E (plume)
wind speed	1-4 mph
barometric pressure	30.40 in Hg
rain? fog? snow? haze?	clear
Glasses worn:	
corrective? (Y/N)	yes
sunglasses? (Y/N)	—

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

Note: new loader, give learning curve cushion consideration

sec	0	15	30	45
min	Run 9 Time: 2232			
1	5	5	5	5
2	5	5	5	5
3	5	5	5	5
4	0	5	0	5
5	5	5	5	0
6	5	5	0	5
6-minute Average: 4.2				
Source Conditions: ACB 1				
Sun Angle (degrees):				

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

	Run 9 Time: 2232			
1	10	10	10	10
2	10	10	10	10
3	10	5	10	5
4	10	10	10	10
5	15	15	20	20
6	20	20	15	15
6-minute Average: 12.1				
Source Conditions: ACB 2,				
~~Sun Angle (degrees):~~ see note				

	Run 11 Time: 2326			
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average: 0!				
Source Conditions: ACB 2				
Sun Angle (degrees): —				

	Run 10 Time: 2300			
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: ACB 1				
Sun Angle (degrees):				

	Run 12 Time: 2352			
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: ACB 1				
Sun Angle (degrees):				

	Run 10 Time: 2300			
1	5	5	5	5
2	5	5	5	5
3	5	5	5	5
4	5	5	5	5
5	10	10	10	10
6	10	10	10	10
6-minute Average: 6.7				
Source Conditions: ACB 2				
Sun Angle (degrees):				

	Run 12 Time: 2352			
1	0	0	0	0
2	0	0	0	0
3	10	10	10	10
4	05	05	5	05
5	10	10	10	10
6	5	10	5	10
6-minute Average: 5.4				
Source Conditions: ACB 2				
Sun Angle (degrees):				

Range of opacity readings: low 0 high 20

Number of readings above 10 % were 8

Observer's Signature

2nd Read

Visible Emissions Evaluation

Run Number and Description: PAGE 1 — 1-7-13

Facility Name	ECC FBE
AVOGADRO Project No.	12-9191
Location (city, state)	Brooklyn, NY
Type of Facility	
Control Equipment / Emission Source	ACB
Date of Observation	1-7-13
Start Time	~~720~~ 730
Stop Time	830
Distance from observer (ft)	150'
Direction from observer	N
Stack height (fr. observer's elev.) (ft)	10'
Stack Diameter (in)	27.17 x 8.42
Sun angle fr. observer (degrees)	351
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	ENE
wind speed	0-5
barometric pressure	30.02
rain? fog? snow? haze?	clear
Glasses worn:	
corrective? (Y/N)	Y
sunglasses? (Y/N)	N

Observer's name	MARCO DeMAY
Observer certification date	10-22-12
Certifying agency	EEONTC
Observer affiliation	AVOGADRO/DA

sec min	0	15	30	45	Avg 6 min	sec min	0	15	30	45	Avg
* 1	0	0	0	0		31	20	20	20	20	
2	0	0	0	0		32	15	15	20	20	
3	0	0	0	0		33	15	15	15	20	
* 4	5	5	5	5		34	15	15	20	15	
5	15	15	15	15	6.3	35	15	15	15	10	15.8
6	20	20	15	15	~~6.3~~	36	15	10	10	10	
7	15	15	15	15		37	10	10	10	10	
8	15	15	15	15		38	10	10	10	10	
9	15	15	15	15		39	20	20	30	20	
10	15	20	15	15		40	30	30	35	35	
11	20	40	40	30	22.3	41	30	40	40	40	
12	40	30	40	50	~~22.3~~	42	40	40	40	30	25.0
13	20	25	20	20		43	40	40	40	30	
14	25	20	20	20		44	40	45	30	30	
15	30	30	30	30		45	30	30	25	25	
16	40	30	25	25		46	30	30	25	30	
17	20	20	25	25	20.0	47	25	25	20	20	
18	30	30	30	35	~~20.0~~	48	20	20	20	20	25.8
19	40	40	50	30		49	20	20	15	20	
20	50	50	60	40		50	20	20	20	15	
21	25	30	30	20		51	20	20	20	15	
22	25	25	30	30		52	15	15	15	20	
23	30	30	25	25		53	15	15	15	20	
24	40	20	30	25	35.0	54	20	20	15	15	17.5
25	30	40	30	35		55	15	15	15	15	
26	20	25	20	30		56	15	15	20	20	
27	30	20	30	30		57	15	15	15	20	
28	25	25	30	25		58	20	20	25	25	
29	25	25	25	20		59	15	15	20	15	
30	20	20	25	20	30.0	60	15	15	15	15	17.5

Range of opacity readings:
low ~~5~~ 0 high ~~40~~ 60

Number of readings above ~~30~~ 35 % were 26

Observer's Signature

AVOGADRO ENVIRONMENTAL CORPORATION, Easton Pa

* FIRE CATCHES

≠ FIRE is Lit/ighted

2nd UNIT

Run Number and Description

PAGE 2 1-7-13

Visible Emissions Evaluation

Facility Name	FCC FBE
AVOGADRO Project No.	12-9191
Location (city, state)	Brooklyn, NY
Type of Facility	
Control Equipment / Emission Source	ACB
Date of Observation	1-7-13
Start Time	830
Stop Time	930
Distance from observer (ft)	140'
Direction from observer	NE
Stack height (fr. observer's elev.) (ft)	10'
Stack Diameter (in)	27.17 x 8.42
Sun angle fr. observer (degrees)	30
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	SIDE OF ACB
target?	
describe background to plume	DARK/RUST
unique features of plume or stack	
Weather:	
ambient temperature (F)	50°F
relative humidity	40%
wind direction	E
wind speed	10-15
barometric pressure	30.02
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	KOOMTZ
Observer affiliation	AVOGADRO/DA

sec min	0	15	30	45	Avg	sec min	0	15	30	45	Avg
1	15	15	10	20		31	15	15	15	20	
2	15	10	10	10		32	20	20	20	10	
3	10	10	10	10		33	15	5	15	15	
4	10	10	10	10		34	20	15	5	5	
5	5	5	10	5		35	10	5	15	10	
6	5	5	5	5	4.6	36	5	5	10	15	12.7
7	5	5	10	5		37	15	15	15	20	
8	5	5	10	10		38	20	15	15	20	
9	10	10	5	5		39	20	15	20	20	
10	10	10	15	10		40	10	15	15	15	
11	10	5	10	10		41	15	20	20	20	
12	15	15	15	20	9.4	42	20	20	20	20	17.5
13	10	10	10	15		43	20	20	20	20	
14	15	15	10	10		44	20	20	20	20	
15	15	15	15	10		45	15	20	20	25	
16	15	15	20	10		46	20	20	30	50	
17	10	15	15	10		47	40	40	30	30	
18	10	15	10	5	12.3	48	30	60	80	60	30.4
19	10	15	10	10		49	60	40	40	40	
20	5	5	15	15		50	60	60	50	40	
21	5	10	10	20		51	50	50	40	50	
22	10	5	10	15		52	30	40	40	30	
23	10	5	15	20		53	50	40	40	30	
24	20	15	20	10	11.9	54	30	30	50	30	36.7
25	5	5	10	15		55	30	25	30	30	
26	5	5	10	15		56	30	30	40	30	
27	15	15	15	20		57	30	30	25	30	
28	5	10	15	5		58	20	20	25	30	
29	10	5	10	5		59	30	30	30	30	
30	5	5	10	10	9.6	60	35	30	20	40	29.2

Range of opacity readings:

low 5 high 80

Number of readings above ~~10~~ 35 % were 24

Observer's Signature

AVOGADRO ENVIRONMENTAL CORPORATION, Easton Pa

*

2nd UNIT

PAGE 3 1-7-13

Visible Emissions Evaluation

Run Number and Description

Facility Name	ECC FBF
AVOGADRO Project No.	12-9191
Location (city, state)	Brooklyn MI
Type of Facility	
Control Equipment / Emission Source	ACB
Date of Observation	1-7-13
Start Time	930
Stop Time	1030
Distance from observer (ft)	150'
Direction from observer	NE
Stack height (fr. observer's elev.) (ft)	10'
Stack Diameter (in)	27.17 x 8.42
Sun angle fr. observer (degrees)	20
Description of plume:	
continuous? fugitive? intermittent?	Cont
color	White
water drops present? (Y/N)	N
attached steam plume? (Y/N)	N
detached steam plume? (Y/N)	N
secondary plume? (Y/N)	N
point where opacity read	10' Downwind
target?	
describe background to plume	Containers
unique features of plume or stack	
Weather:	
ambient temperature (F)	50°F
relative humidity	40%
wind direction	E
wind speed	10-15
barometric pressure	30.02
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 min	0	15	30	45	Avg	sec min	0	15	30	45	Avg
1	10	10	20	15		31	5	10	10	15	
2	20	15	20	30		32	10	15	15	10	
3	20	20	15	25		33	20	10	10	10	
4	30	30	25	30		34	10	5	25	20	
5	30	30	35	25		35	15	20	15	15	
6	20	20	30	20	22.7	36	20	15	15	15	13.7
7	15	20	20	30		37	20	15	10	15	
8	15	20	20	25		38	25	15	15	15	
9	30	20	15	15		39	15	15	20	15	
10	15	15	15	15		40	15	20	15	10	
11	15	10	10	10		41	5	10	10	5	
12	10	10	15	10	16.5	42	15	15	15	15	14.2
13	10	10	15	15		43	10	15	5	5	
14	15	20	15	15		44	10	20	10	5	
15	5	10	10	5		45	10	10	10	5	
16	5	10	10	10		46	10	15	5	10	
17	5	10	10	5		47	20	15	15	10	
18	5	5	5	10	9.5	48	5	5	5	10	10.0
19	5	5	10	5		49	10	10	10	5	
20	5	5	5	5		50	10	10	10	5	
21	0	5	0	0		51	10	15	20	20	
22	10	5	5	5		52	15	15	20	20	
23	0	0	10	10		53	15	20	20	20	
24	5	5	10	10	5.2	54	20	15	15	20	14.6
25	10	10	10	15		55	15	15	20	15	
26	10	15	5	10		56	10	15	15	10	
27	15	5	10	15		57	10	5	15	10	
28	10	5	10	15		58	10	10	5	10	
29	10	10	10	15		59	5	10	5	5	
30	15	10	10	15	11.0	60	10	5	10	5	10.2

52

Range of opacity readings:

low 0 high 35

Number of readings above 10 % were 112

Observer's Signature

AVOGADRO ENVIRONMENTAL CORPORATION, Easton Pa

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	1/7/2013
Start Time	10:40
Stop Time	11:40
Distance from observer (ft)	125'
Direction from observer	NNE
Stack height (fr. observer's elev.) (ft)	10'
Stack Diameter (in)	27.17 x 8.92
Sun angle fr. observer (degrees)	10°
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	NNE
wind speed	5-10
barometric pressure	30.02
rain? fog? snow? haze?	clear
Glasses worn:	
corrective? (Y/N)	
sunglasses? (Y/N)	

Observer's name	
Observer certification date	
Certifying agency	
Observer affiliation	

Run Number and Description: Unit 2 page 4

sec min	0	15	30	45	Avg	sec min	0	15	30	45	Avg
1	5	10	15	10		31	5	5	5	5	5
2	10	10	10	5		32	5	10	5	10	
3	5	10	5	10		33	10	5	5	5	
4	10	15	10	15		34	5	5	5	5	5
5	10	10	10	15		35	5	5	5	5	5
6	15	10	10	10	10.2	36	10	5	5	5	5.3
7	15	15	20	10		37	0	5	0	0	
8	10	10	20	10		38	5	0	5	5	
9	10	5	5	10		39	0	5	0	5	
10	10	15	10	10		40	5	5	0	5	
11	10	10	10	5		41	5	5	5	5	5
12	5	10	5	10	10.0	42	0	0	0	5	2.9
13	10	10	5	10		43	5	5	5	5	5
14	10	30	30	20		44	5	0	5	5	
15	20	15	15	10		45	0	0	0	0	0
16	10	10	10	10		46	0	0	0	0	0
17	15	10	15	10		47	5	5	5	0	
18	5	5	10	10	12.1	48	5	0	0	0	2.3
19	5	5	5	5	5	49	0	0	0	5	
20	5	10	5	10		50	0	5	5	5	
21	10	5	15	10		51	0	5	5	0	
22	10	5	5	10		52	0	0	0	5	
23	5	10	10	10		53	5	0	0	0	
24	10	10	5	5	7.7	54	0	0	5	0	1.7
25	5	5	5	10		55	0	0	0	0	0
26	10	15	10	10		56	0	0	0	10	
27	5	15	10	10		57	5	0	0	0	
28	5	5	5	10		58	0	0	0	0	0
29	10	5	5	5		59	0	0	0	0	0
30	5	0	5	5	7.3	60	0	0	0	0	0

.6

Range of opacity readings:
low 0 high 30

Number of readings above 30 % were 0

Observer's Signature

Visible Emissions Evaluation

Run Number and Description: Unit 2 page 5

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	1/7/2013
Start Time	11:40
Stop Time	12:40
Distance from observer (ft)	125'
Direction from observer	NE
Stack height (fr. observer's elev.) (ft)	10'
Stack Diameter (in)	27.17 x 8.43
Sun angle fr. observer (degrees)	30°
Description of plume:	
continuous? fugitive? intermittent?	intermittent
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	
target?	
describe background to plume	Containers
unique features of plume or stack	
Weather:	
ambient temperature (F)	50°
relative humidity	40%
wind direction	E
wind speed	5-10
barometric pressure	30.02
rain? fog? snow? haze?	clear
Glasses worn:	
corrective? (Y/N)	
sunglasses? (Y/N)	

Observer's name	
Observer certification date	
Certifying agency	
Observer affiliation	

sec min	0	15	30	45	Avg	sec min	0	15	30	45	Avg
1	0	0	0	0	0	31	0	0	0	0	0
2	0	0	0	0	0	32	0	0	0	0	0
3	0	0	5	0		33	0	0	5	0	0
4	0	0	0	0	0	34	0	0	0	5	
5	0	0	0	0	0	35	0	0	0	0	0
6	0	0	0	0	~~0.2~~	36	0	0	0	0	~~0~~ .4
7	0	0	0	0	0	37	0	0	0	0	0
8	0	0	0	0	0	38	0	0	0	0	0
9	0	0	0	0	0	39	0	0	5	0	
10	0	0	0	0	0	40	5	0	0	5	
11	0	0	5	0		41	5	5	0	0	
12	0	5	0	0	.4	42	0	0	0	0	~~0~~ 1.0
13	0	5	0	0		43	0	5	0	0	
14	0	5	0	5		44	0	0	0	0	0
15	0	0	0	0	0	45	0	0	0	0	0
16	0	0	0	0	0	46	0	0	0	0	0
17	0	0	0	0	0	47	0	0	0	0	0
18	0	0	0	0	~~0.6~~	48	0	0	0	0	~~0~~ .2
19	0	0	0	0	0	49	0	0	0	0	0
20	0	0	0	0	0	50	0	0	0	0	0
21	0	0	0	0	0	51	0	0	0	0	0
22	0	0	0	0	0	52	0	0	0	0	0
23	0	0	0	0	0	53	0	0	0	0	0
24	0	0	0	0	~~0.0~~	54	0	0	0	0	~~0~~ 0.0
25	0	0	0	0	0	55	0	0	0	0	0
26	0	0	0	0	0	56	0	0	0	0	0
27	0	0	0	0	0	57	0	0	0	0	0
28	0	0	0	0	0	58	0	0	0	0	0
29	0	0	0	0	0	59	0	0	0	0	0
30	0	0	0	0	0	60	0	0	0	0	0
					0.0						0.0

Range of opacity readings: low 0 high 5

Number of readings above 10 % were 0

Observer's Signature

Visible Emissions Evaluation

Run Number and Description: Unit 2 page 6

Facility Name	ECC EBE
AVOGADRO Project No.	12-9191
Location (city, state)	Brooklyn, NY
Type of Facility	
Control Equipment / Emission Source	ACB
Date of Observation	1/7/2013
Start Time	12:40
Stop Time	13:40
Distance from observer (ft)	125'
Direction from observer	NE
Stack height (fr. observer's elev.) (ft)	10'
Stack Diameter (in)	27.17 x 8.92
Sun angle fr. observer (degrees)	50°
Description of plume:	
continuous? fugitive? intermittent?	intermittent
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	Edge
target?	
describe background to plume	containers
unique features of plume or stack	
Weather:	
ambient temperature (F)	50°F
relative humidity	40%
wind direction	E
wind speed	5-10
barometric pressure	30.02
rain? fog? snow? haze?	clear
Glasses worn: corrective? (Y/N)	N
sunglasses? (Y/N)	N

Observer's name	Nadine Braswell
Observer certification date	
Certifying agency	PSU
Observer affiliation	Avogadro

sec min	0	15	30	45	Avg	sec min	0	15	30	45	Avg
1	0	0	0	0	0	31	0	5	5	0	
2	0	0	0	0	0	32	0	5	5	5	
3	0	0	0	5		33	5	5	5	10	
4	0	5	5	0		34	5	5	5	5	5
5	0	0	0	0	0	35	5	0	5	5	
6	5	0	0	0		36	5	10	5	10	
7	0	0	5	0		37	5	10	5	5	
8	0	0	5	0		38	5	5	5	5	5
9	0	0	0	0	0	39	5	5	5	0	
10	0	0	5	5		40	0	0	10	0	
11	0	0	0	0	0	41	0	0	0	0	0
12	0	0	0	0	0	42	5	5	5	0	
13	0	0	0	0	0	43	5	0	0	0	
14	0	5	5	0		44	0	0	0	0	0
15	0	0	0	0	0	45	0	0	0	0	0
16	0	5	0	0		46	0	0	0	0	0
17	0	0	0	0	0	47	0	5	0	0	
18	0	5	0	0		48	0	0	5	5	
19	0	0	0	0	0	49	5	0	0	5	
20	0	0	0	0	0	50	0	0	5	0	
21	0	0	0	0	0	51	0	0	5	5	
22	0	0	0	0	0	52	5	5	5	10	
23	0	0	0	0	0	53	5	5	5	5	5
24	0	0	0	0	0	54	5	5	5	5	5
25	0	0	0	0	0	55	0	5	5	5	
26	0	0	0	0	0	56	5	5	0	5	
27	0	0	0	0	0	57	5	5	5	0	
28	0	0	0	0	0	58	5	5	5	5	5
29	0	0	0	0	0	59	5	5	0	0	
30	0	0	0	0	0	60	5	5	5	5	5

Range of opacity readings:
low 0 high 10

Number of readings above 10 % were 0

Observer's Signature

UNIT 2

Run Number and Description

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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	1-7-13
Start Time	1340
Stop Time	1440
Distance from observer (ft)	150'
Direction from observer	NE
Stack height (fr. observer's elev.) (ft)	10'
Stack Diameter (in)	27.17 x 8.42
Sun angle fr. observer (degrees)	-0
Description of plume:	
continuous? fugitive? intermittent?	Continuous
color	White
water drops present? (Y/N)	N
attached steam plume? (Y/N)	N
detached steam plume? (Y/N)	N
secondary plume? (Y/N)	N
point where opacity read	10' Downwind
target?	
describe background to plume	Container
unique features of plume or stack	
Weather:	
ambient temperature (F)	50°F
relative humidity	40%
wind direction	~~SE~~ E
wind speed	5-10
barometric pressure	30.02
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 min	0	15	30	45	Avg	sec min	0	15	30	45	Avg
1	0	0	0	0		31	5	10	10	5	
2	5	5	0	0		32	5	10	10	10	
3	0	0	0	0		33	5	5	5	10	
4	0	0	5	5		34	5	10	10	10	
5	0	0	0	0		35	10	10	10	5	
6	0	0	0	0	.8	36	5	10	5	10	7.9
7	0	0	0	0		37	10	10	5	10	
8	0	0	0	0		38	5	5	5	10	
9	0	0	0	0		39	0	5	5	5	
10	0	5	5	0		40	5	0	5	5	
11	5	5	5	5		41	5	0	0	0	
12	0	5	5	5	4.9	42	0	0	0	0	4.0
13	10	10	0	5		43	0	0	0	0	
14	5	5	10	10		44	0	0	0	0	
15	10	10	10	10		45	0	0	0	0	
16	10	10	5	5		46	0	0	0	0	
17	5	5	5	10		47	0	0	0	0	
18	10	10	10	5	7.7	48	0	0	0	0	-0
19	5	5	5	5		49	5	5	10	5	
20	5	0	0	5		50	10	10	5	5	
21	0	0	0	5		51	10	10	10	5	
22	0	5	0	0		52	5	5	0	0	
23	0	0	0	0		53	5	5	0	0	
24	0	0	0	0	1.5	54	0	5	5	0	5.0
25	0	0	0	0		55	0	5	5	5	
26	5	0	0	0		56	0	0	0	5	
27	0	0	0	0		57	5	5	5	5	
28	0	0	5	10		58	5	5	0	0	
29	10	10	10	5		59	5	5	0	5	
30	10	5	5	10	3.5	60	0	0	5	5	3.1

Range of opacity readings:

low -0 high 10

Number of readings above 10 % were 0

Observer's Signature

AVOGADRO ENVIRONMENTAL CORPORATION, Easton Pa

UNIT 2

Run Number and Description

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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	1-7-13
Start Time	1440
Stop Time	1540
Distance from observer (ft)	175'
Direction from observer	NE
Stack height (fr. observer's elev.) (ft)	10'
Stack Diameter (in)	27.17 x 8.92
Sun angle fr. observer (degrees)	20-30
Description of plume:	
continuous? fugitive? intermittent?	CONT.
color	WHITE
water drops present? (Y/N)	N
attached steam plume? (Y/N)	N
detached steam plume? (Y/N)	N
secondary plume? (Y/N)	N
point where opacity read	10' Downwind
target?	
describe background to plume	Containers
unique features of plume or stack	
Weather:	
ambient temperature (F)	50°F
relative humidity	40%
wind direction	E
wind speed	5-10
barometric pressure	30.02
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 min	0	15	30	45	Avg	sec min	0	15	30	45	Avg
1	0	0	0	0		31	10	10	10	15	
2	0	0	0	0		32	10	10	5	5	
3	0	0	0	0		33	0	0	0	0	
4	5	5	0	0		34	5	5	0	0	
5	5	5	5	5		35	0	0	0	0	
6	5	5	5	5	2.1	36	5	0	0	0	3.3
7	5	5	0	5		37	0	0	0	5	
8	5	5	5	0		38	0	0	0	0	
9	5	5	0	0		39	0	0	0	0	
10	10	10	5	10		40	5	0	10	0	
11	10	5	0	0		41	0	0	0	0	
12	0	5	5	8	4.2	42	0	0	5	0	1.0
13	5	5	5	5		43	0	0	0	0	
14	5	5	5	0		44	0	0	0	0	
15	5	0	0	0		45	5	0	0	0	
16	0	5	5	0		46	0	0	0	0	
17	0	0	0	0		47	0	0	0	0	
18	5	0	5	0	2.5	48	0	0	0	0	0
19	0	5	0	5		49	0	10	0	0	
20	0	0	0	0		50	10	10	5	5	
21	0	0	5	0		51	5	10	10	5	
22	0	0	0	0		52	10	10	5	5	
23	0	0	0	0		53	10	5	5	10	
24	0	0	0	0	1.6	54	10	5	10	10	6.9
25	5	0	0	5		55	15	15	15	15	
26	0	0	0	0		56	15	10	10	10	
27	0	0	0	5		57	10	5	10	5	
28	0	5	5	15		58	10	10	5	5	
29	10	15	10	10		59	5	5	10	5	
30	5	5	5	5	4.4	60	5	5	5	5	8.8

Range of opacity readings:

low 0 high 15

Number of readings above 10 % were 8

Observer's Signature

AVOGADRO ENVIRONMENTAL CORPORATION, Easton Pa

Visible Emissions Evaluation

UNIT 2
Run Number and Description

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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	1-7-13
Start Time	1540
Stop Time	1640
Distance from observer (ft)	150'
Direction from observer	NE
Stack height (fr. observer's elev.) (ft)	10'
Stack Diameter (in)	27.17 x 8.42
Sun angle fr. observer (degrees)	30
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	Contained
unique features of plume or stack	
Weather:	
ambient temperature (F)	48°F
relative humidity	40%
wind direction	NE
wind speed	0-5 MPH
barometric pressure	30.02
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 min	0	15	30	45	Avg	sec min	0	15	30	45	Avg
1	5	5	5	0		31	0	0	0	5	
2	0	5	5	5		32	0	0	0	0	
3	5	5	0	0		33	0	0	0	0	
4	5	5	0	5		34	0	0	0	0	
5	0	5	0	0		35	15	0	0	10	
6	0	0	0	0	2.5	36	10	10	15	15	3.3
7	0	0	10	10		37	15	15	15	15	
8	0	0	10	0		38	15	20	15	15	
9	10	10	10	5		39	15	10	10	10	
10	10	5	0	0		40	10	20	10	5	
11	5	5	5	10		41	5	5	5	5	
12	5	5	5	5	5.2	42	5	0	0	0	10.0
13	0	0	5	0		43	5	5	5	5	
14	0	0	5	5		44	0	5	5	5	
15	0	0	0	0		45	5	5	5	5	
16	0	0	0	0		46	5	5	5	5	
17	5	5	0	0		47	5	5	5	5	
18	0	0	0	0	1.0	48	5	5	5	5	4.8
19	0	0	0	0		49	0	0	5	5	
20	0	0	0	0		50	0	5	0	5	
21	0	0	0	0		51	0	0	0	5	
22	0	0	0	0		52	15	15	15	10	
23	0	5	0	0		53	0	5	0	0	
24	0	0	0	0	1.2	54	0	0	5	0	3.3
25	0	0	0	0		55	0	0	0	0	
26	0	0	0	0		56	0	0	0	0	
27	0	0	0	0		57	0	0	0	0	
28	0	0	0	0		58	0	0	0	5	
29	0	0	0	0		59	5	0	0	0	
30	0	0	0	0	0.0	60	0	0	0	0	.4

Range of opacity readings:
low 0 high 20

Number of readings above 10 % were 16

Observer's Signature

AVOGADRO ENVIRONMENTAL CORPORATION, Easton Pa

UNIT 2 NITE

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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	1-7-13
Start Time	1700
Stop Time	
Distance from observer (ft)	150'
Direction from observer	~~NE~~ NW
Stack height (fr. observer's elev.) (ft)	10'
Stack Diameter (in)	27.17x8.42
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	20' Downwind
target?	
describe background to plume	Sky
unique features of plume or stack	lighted
Weather:	
ambient temperature (F)	48°F
relative humidity	40%
wind direction	~~NE~~ NE
wind speed	5
barometric pressure	30.02
rain? fog? snow? haze?	clear
Glasses worn:	
corrective? (Y/N)	Y
sunglasses? (Y/N)	N

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

sec	0	15	30	45	sec	0	15	30	45
min	Run 1 Time: 1700				min	Run Time: 1760			
1	0	0	0	0	1				
2	0	0	0	0	2				
3	0	0	0	0	3				
4	0	0	0	0	4				
5	0	0	0	0	5				
6	0	0	0	0	6				
6-minute Average:	0				6-minute Average:				
Source Conditions:					Source Conditions:				
Sun Angle (degrees):	NA				Sun Angle (degrees):				
	Run 2 Time: 1720					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):	NA				Sun Angle (degrees):				
	Run 3 Time: 1740					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:					6-minute Average:				
Source Conditions:					Source Conditions:				
Sun Angle (degrees):					Sun Angle (degrees):				
	Run 4 Time: 1800					Run Time:			
1					1				
2					2				
3					3				
4					4				
5					5				
6					6				
6-minute Average:					6-minute Average:				
Source Conditions:					Source Conditions:				
Sun Angle (degrees):					Sun Angle (degrees):				

Range of opacity readings:

low 0 high

Number of readings above 10 % were

Observer's Signature

Visible Emissions Evaluation

Facility Name: ECC Floyd Bennett Field
AVOGADRO Project No.: 12-9191
Location (city, state): Brooklyn, NY
Type of Facility: Debris Removal
Control Equipment / Emission Source: ACB

Date of Observation: 01/07/2013
Start Time: 1900
Stop Time: 2026

Distance from observer (ft): 300'
Direction from observer: NNW
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 convex lengths
- target?: sky
- describe background to plume: "
- unique features of plume or stack: —

Weather: @ 1700
- ambient temperature (F): 40°
- relative humidity: 44%
- wind direction: plume(E)
- wind speed: calm
- barometric pressure: 30.40 in Hg
- rain? fog? snow? haze?: clear

Glasses worn:
- corrective? (Y/N): Y
- sunglasses? (Y/N): —

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

note: New loader tonight, admit a learning curve of sorts for transition, plus feeding 2 boxes rather than 1.

40 CFR # 1 & #2

Run Number(s) and Description: Monday Night, January 7th, 2013 Runs 1-4

Run 1 Time: 1900

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

6-minute Average: 11.1
Source Conditions: ACB 1, not
~~Sun Angle (degrees)~~: hot enough

Run 1 Time: 1900

1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0

6-minute Average: 0
Source Conditions: ACB 2
Sun Angle (degrees): —

Run 2 Time: 1926

1	10	10	15	10
2	10	15	15	15
3	15	15	15	15
4	15	15	15	15
5	15	15	15	15
6	15	15	15	15

6-minute Average: 14.2
Source Conditions: ACB 1, not
~~Sun Angle (degrees)~~: hot enough

Run 2 Time: 1926

1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0

6-minute Average: 0
Source Conditions: ACB 2
Sun Angle (degrees):

Run 3 Time: 1952

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

6-minute Average: 6.3
Source Conditions: ACB 1, getting hotter
Sun Angle (degrees):

Run 3 Time: 1952

1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0

6-minute Average: 0
Source Conditions: ACB 2
Sun Angle (degrees):

Run 4 Time: 2020

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: ACB1
Sun Angle (degrees):

Run 4 Time: 2020

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: ACB 2
Sun Angle (degrees):

Range of opacity readings: low 0 high 15

Number of readings above 10 % were 27

Observer's Signature

Unit #1 & #2

Monday Night, January 7th, 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
Date of Observation	01/07/2013
Start Time	2046
Stop Time	2212
Distance from observer (ft)	300'
Direction from observer	NNW
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	"
unique features of plume or stack	—
Weather:	@ 2046
ambient temperature (F)	37°
relative humidity	49%
wind direction	E
wind speed	0-3 mph
barometric pressure	30.41 in Hg
rain? fog? snow? haze?	clear
Glasses worn:	
corrective? (Y/N)	yes
sunglasses? (Y/N)	—

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

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

sec	0	15	30	45
min	Run 5 Time: 2046			
1	5	5	5	5
2	5	5	5	5
3	0	5	0	5
4	0	5	0	5
5	0	5	0	5
6	0	5	0	5
6-minute Average: 3.3				
Source Conditions: ACB 1				
Sun Angle (degrees):				
	Run 5 Time: 2046			
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: ACB 2				
Sun Angle (degrees):				
	Run 6 Time: 2112			
1	5	0	5	0
2	5	0	5	0
3	5	0	5	0
4	5	0	5	0
5	5	0	5	0
6	5	0	5	0
6-minute Average: 2.5				
Source Conditions: ACB 1				
Sun Angle (degrees):				
	Run 6 Time: 2112			
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average: 0				
Source Conditions: ACB 2				
Sun Angle (degrees):				

sec	0	15	30	45
min	Run 7 Time: 2140			
1	5	0	5	0
2	5	0	5	0
3	5	0	5	0
4	5	0	5	0
5	5	0	5	0
6	5	0	5	0
6-minute Average: 2.5				
Source Conditions: ACB 1				
Sun Angle (degrees):				
	Run 7 Time: 2140			
1	5	5	5	5
2	5	5	5	5
3	10	10	10	10
4	5	5	5	5
5	5	10	5	10
6	5	10	5	10
6-minute Average: 6.7				
Source Conditions: ACB 2				
Sun Angle (degrees):				
	Run 8 Time: 2206			
1	5	0	5	0
2	5	0	5	0
3	5	0	5	0
4	5	0	5	0
5	5	0	5	0
6	5	0	5	0
6-minute Average: 2.5				
Source Conditions: ACB 1				
Sun Angle (degrees):				
	Run 8 Time: 2206			
1	0	0	5	0
2	0	5	0	0
3	5	0	0	5
4	0	0	5	0
5	0	5	0	0
6	5	0	0	5
6-minute Average: 1.7				
Source Conditions: ACB 2				
Sun Angle (degrees):				

Range of opacity readings: low 0 high 10

Number of readings above 10 % were 0

Observer's Signature

WTA1 #2

Visible Emissions Evaluation

Monday Night, January 7th, 2013
Runs 9-12

Run Number(s) and Description

Facility Name	ECC Floyd Bennett Field
AVOGADRO Project No.	12-9191
Location (city, state)	Brooklyn, NY
Type of Facility	Debris Removal
Control Equipment / Emission Sources	ACBs
Date of Observation	01/07/2013
Start Time	2232
Stop Time	2358
Distance from observer (ft)	300'
Direction from observer	NNW
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	"
unique features of plume or stack	—
Weather:	@2230
ambient temperature (F)	32°
relative humidity	66%
wind direction	E (plume)
wind speed	1-4 mph
barometric pressure	30.40 in Hg
rain? fog? snow? haze?	clear
Glasses worn:	
corrective? (Y/N)	yes
sunglasses? (Y/N)	—

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

Note: new loader, give learning curve cushion consideration

sec	0	15	30	45
min	Run 9 Time: 2232			
1	5	5	5	5
2	5	5	5	5
3	5	5	5	5
4	0	5	0	5
5	5	5	5	0
6	5	5	0	5
6-minute Average: 4.2				
Source Conditions: ACB 1				
Sun Angle (degrees):				

Run 9 Time: 2232				
1	10	10	10	10
2	10	10	10	10
3	10	5	10	5
4	10	10	10	10
5	15	15	20	20
6	20	20	15	15
6-minute Average: 12.1				
Source Conditions: ACB 2				
~~Sun Angle (degrees):~~ see note				

Run 10 Time: 2300				
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: ACB 1				
Sun Angle (degrees):				

Run 10 Time: 2300				
1	5	5	5	5
2	5	5	5	5
3	5	5	5	5
4	5	5	5	5
5	10	10	10	10
6	10	10	10	10
6-minute Average: 6.7				
Source Conditions: ACB 2				
Sun Angle (degrees):				

sec	0	15	30	45
min	Run 11 Time: 2326			
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average: 0!				
Source Conditions: ACB 1				
Sun Angle (degrees): —				

Run 11 Time: 2326				
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average: 0!				
Source Conditions: ACB 2				
Sun Angle (degrees): —				

Run 12 Time: 2352				
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: ACB 1				
Sun Angle (degrees):				

Run 12 Time: 2352				
1	0	0	0	0
2	0	0	0	0
3	10	10	10	10
4	5	5	5	5
5	10	10	10	10
6	5	10	5	10
6-minute Average: 5.4				
Source Conditions: ACB 2				
Sun Angle (degrees):				

Range of opacity readings:
low 0 high 20

Number of readings above 10 % were 8

Observer's Signature