
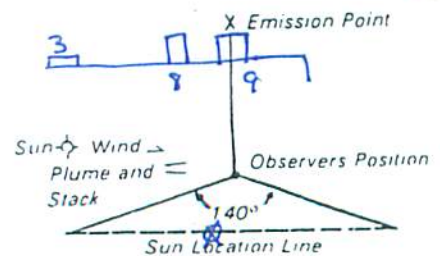


ID 0870004

Visible Emission Observation Form

SOURCE NAME Florida Keys Electric Coop Assn			OBSERVATION DATE 6-15-11				START TIME 1020hrs				STOP TIME 1050hrs			
ADDRESS Charles A Russell Generating Facility			SEC MIN	0	15	30	45	SEC MIN	0	15	30	45		
3421 Oversea Hwy			1	0	0	0	0	31						
CITY Marathon	STATE FL	ZIP 33050	2	0	0	0	0	32						
PHONE			3	0	0	0	0	33						
SOURCE ID NUMBER EU009			4	0	0	0	0	34						
PROCESS EQUIPMENT Recip Diesel Generator		OPERATING MODE 3580 kW	5	0	0	0	0	35						
CONTROL EQUIPMENT NA		OPERATING MODE 100%	6	0	0	0	0	36						
DESCRIBE EMISSION POINT START Northmost stack STOP			7	0	0	0	0	37						
HEIGHT ABOVE GROUND LEVEL START ~45' STOP ~45'		HEIGHT RELATIVE TO OBSERVER START ~45' STOP ~45'		8	0	0	0	0	38					
DISTANCE FROM OBSERVER START ~318' STOP ~318'		DIRECTION FROM OBSERVER START ~269° STOP ~269°		9	0	0	0	0	39					
DESCRIBE EMISSIONS START STOP			10	0	0	0	0	40						
EMISSION COLOR START STOP		PLUME TYPE. CONTINUOUS <input type="checkbox"/> FUGITIVE <input type="checkbox"/> INTERMITTENT <input type="checkbox"/>		11	0	0	0	0	41					
WATER DROPLETS PRESENT. NO <input checked="" type="checkbox"/> YES <input type="checkbox"/>		IF WATER DROPLET PLUME. ATTACHED <input type="checkbox"/> DETACHED <input type="checkbox"/>		12	0	0	0	0	42					
IN THE PLUME AT WHICH OPACITY WAS DETERMINED START ~6" from end of stack STOP same			13	0	0	0	0	43						
DESCRIBE BACKGROUND START SKY STOP SKY			14	0	0	0	0	44						
BACKGROUND COLOR START blue STOP blue		SKY CONDITIONS START scattered STOP same		15	0	0	0	0	45					
WIND SPEED START 1-5mph STOP 1-5mph		WIND DIRECTION START N STOP N		16	0	0	0	0	46					
AMBIENT TEMP START 87°F STOP 90°F		WET BULB TEMP 66%	RH.percent 66%	17	0	0	0	0	47					
Source Layout Sketch Draw North Arrow 			18	0	0	0	0	48						
			19	0	0	0	0	49						
<p>elbow on stack to N &amp; wind from the north.</p>			20	0	0	0	0	50						
I HAVE RECEIVED A COPY OF THESE OPACITY OBSERVATIONS			21	0	0	0	0	51						
SIGNATURE			22	0	0	0	0	52						
TITLE	DATE	CERTIFIED BY ETA	23	0	0	0	0	53						
		DATE 2-9-11	24	0	0	0	0	54						
		VERIFIED BY	25	0	0	0	0	55						
		DATE 2-9-11	26	0	0	0	0	56						
		DATE	27	0	0	0	0	57						
		DATE	28	0	0	0	0	58						
		DATE	29	0	0	0	0	59						
		DATE	30	0	0	0	0	60						

Average opacity highest 6 min Ave 0%

AVERAGE OPACITY FOR HIGHEST PERIOD 0 NUMBER OF READINGS ABOVE 20% WERE 0

RANGE OF OPACITY READINGS 0 MINIMUM 0 MAXIMUM

OBSERVER'S NAME (PRINT) Barbara Nevins

OBSERVER'S SIGNATURE Barbara Nevins DATE 6-15-11

ORGANIZATION FDEP

CERTIFIED BY ETA DATE 2-9-11

VERIFIED BY DATE

10 0870004

Visible Emission Observation Form

SOURCE NAME Florida Keys Electric Coop Assn			OBSERVATION DATE 6-15-11				START TIME 1020hrs				STOP TIME 1050hrs			
ADDRESS Charles A Russell Generation Facility			SEC MIN	0	15	30	45	SEC MIN	0	15	30	45		
3421 Overseas Hwy			1	5	5	5	5	31						
CITY Marathon	STATE FL	ZIP 33050	2	5	5	5	5	32						
PHONE			3	5	5	5	5	33						
SOURCE ID NUMBER EU 008			4	5	5	5	5	34						
PROCESS EQUIPMENT Recip Diesel Generator		OPERATING MODE 3580KW	5	5	5	10	5	35	Average opacity for highest 6 minutes 5.2 = 5%					
CONTROL EQUIPMENT NA		OPERATING MODE 10070	6	5	5	5	5	36						
DESCRIBE EMISSION POINT START 2nd stack from N STOP same			7	5	5	5	5	37						
HEIGHT ABOVE GROUND LEVEL START ~45' STOP ~45'		HEIGHT RELATIVE TO OBSERVER START ~45' STOP ~45'		8	5	5	5	5	38					
DISTANCE FROM OBSERVER START 106yds STOP 106yds		DIRECTION FROM OBSERVER START 265° STOP ~265°		9	5	5	5	5	39					
DESCRIBE EMISSIONS START lofting STOP lofting			10	5	5	5	5	40						
EMISSION COLOR START gray STOP gray		PLUME TYPE. CONTINUOUS <input type="checkbox"/> FUGITIVE <input type="checkbox"/> INTERMITTENT <input type="checkbox"/>		11	5	5	5	5	41					
WATER DROPLETS PRESENT. NO <input checked="" type="checkbox"/> YES <input type="checkbox"/>		IF WATER DROPLET PLUME. ATTACHED <input type="checkbox"/> DETACHED <input type="checkbox"/>		12	5	5	5	5	42					
I IN THE PLUME AT WHICH OPACITY WAS DETERMINED START ~6" from stack STOP ~6" from stack			13	5	5	5	5	43						
DESCRIBE BACKGROUND START sky STOP sky			14	5	5	5	5	44						
BACKGROUND COLOR START STOP		SKY CONDITIONS START scattered STOP scattered		15	5	5	5	5	45					
WIND SPEED START 1-5mph STOP		WIND DIRECTION START N STOP		16	5	5	5	5	46					
AMBIENT TEMP START 87° STOP 90°		WET BULB TEMP RH, percent 66%		17	5	5	5	5	47					
Source Layout Sketch Draw North Arrow			18	5	5	5	5	48						
			19	5	5	5	5	49						
			20	5	5	5	5	50						
			21	5	5	5	5	51						
			22	5	5	5	5	52						
			23	5	5	5	5	53						
			24	5	5	5	5	54						
			25	5	5	5	5	55						
			26	5	5	5	5	56						
			27	5	5	5	5	57						
			28	5	5	5	5	58						
			29	5	5	5	5	59						
			30	5	5	5	5	60						

AVERAGE OPACITY FOR HIGHEST PERIOD 5% NUMBER OF READINGS ABOVE 20% WERE 0  
 RANGE OF OPACITY READINGS 5% MINIMUM 10% MAXIMUM  
 OBSERVER'S NAME (PRINT) Barbara Nevins

COMMENTS 90° angle; elbow on stack to the N, into the wind  
 I HAVE RECEIVED A COPY OF THESE OPACITY OBSERVATIONS  
 SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_  
 TITLE \_\_\_\_\_ DATE \_\_\_\_\_

OBSERVER'S SIGNATURE Barbara Nevins DATE 6-15-11  
 ORGANIZATION FDEP  
 CERTIFIED BY IETA DATE 2-9-11  
 VERIFIED BY \_\_\_\_\_ DATE \_\_\_\_\_

JD 0870004

Visible Emission Observation Form

006

SOURCE NAME Florida Keys Electric Coop Assn		OBSERVATION DATE 6-15-11				START TIME 1117		STOP TIME 1147			
ADDRESS Charles A. Russell Generating Facility		SEC MIN	0	15	30	45	SEC MIN	0	15	30	45
3421 Overseas Hwy		1	5	5	5	5	31				
CITY Marathon	STATE FL	2	5	5	5	5	32				
	ZIP 33050	3	5	5	5	5	33				
PHONE 305-743-5323	SOURCE ID NUMBER EU006	4	5	5	5	5	34				
PROCESS EQUIPMENT Recip Diesel Generator	OPERATING MODE 2500 KW	5	5	5	5	5	35				
CONTROL EQUIPMENT NA	OPERATING MODE 93%	6	5	5	5	5	36				
DESCRIBE EMISSION POINT START Emost stack in row of 4 stacks STOP		7	5	5	5	5	37				
HEIGHT ABOVE GROUND LEVEL START ~25' STOP ~25'	HEIGHT RELATIVE TO OBSERVER START ~27' STOP ~27'	8	5	5	5	5	38				
DISTANCE FROM OBSERVER START 186' STOP ~186'	DIRECTION FROM OBSERVER START 220° STOP 220°	9	5	5	5	5	39				
DESCRIBE EMISSIONS START lofting STOP lofting		10	5	5	5	5	40				
EMISSION COLOR START gray STOP gray	PLUME TYPE. CONTINUOUS <input type="checkbox"/> FUGITIVE <input type="checkbox"/> INTERMITTENT <input type="checkbox"/>	11	5	5	5	5	41				
WATER DROPLETS PRESENT. NO <input checked="" type="checkbox"/> YES <input type="checkbox"/>	IF WATER DROPLET PLUME. ATTACHED <input type="checkbox"/> DETACHED <input type="checkbox"/>	12	5	5	5	5	42				
T IN THE PLUME AT WHICH OPACITY WAS DETERMINED START ~6" above stack STOP		13	5	5	5	5	43				
DESCRIBE BACKGROUND START sky STOP sky		14	5	5	5	5	44				
BACKGROUND COLOR START blue STOP blue	SKY CONDITIONS START clear STOP clear	15	5	5	5	5	45				
WIND SPEED START 1-5mph STOP 1-5mph	WIND DIRECTION START N STOP N	16	5	5	5	5	46				
AMBIENT TEMP START 90°F STOP 92°F	WET BULB TEMP RH. percent 66%	17	5	5	5	5	47				
Source Layout Sketch Draw North Arrow		18	5	5	5	5	48				
		19	5	5	5	5	49				
		20	5	5	5	5	50				
		21	5	5	5	5	51				
		22	5	5	5	5	52				
		23	5	5	5	5	53				
		24	5	5	5	5	54				
		25	5	5	5	5	55				
		26	5	5	5	5	56				
		27	5	5	5	5	57				
		28	5	5	5	5	58				
		29	5	5	5	5	59				
		30	5	5	5	5	60				

Average opacity highest 6 minutes 5%

AVERAGE OPACITY FOR HIGHEST PERIOD 5% NUMBER OF READINGS ABOVE 20% WERE 0

RANGE OF OPACITY READINGS 5 MINIMUM 5 MAXIMUM

OBSERVER'S NAME (PRINT) Barbara Nevins

OBSERVER'S SIGNATURE Barbara Nevins DATE 6-15-11

ORGANIZATION FDEP

CERTIFIED BY ETA DATE 2-9-11

VERIFIED BY DATE

COMMENTS 7° angle

I HAVE RECEIVED A COPY OF THESE OPACITY OBSERVATIONS SIGNATURE TITLE DATE

IO 0870004

Visible Emission Observation Form

SOURCE NAME: Florida Keys Electric Coop Assn  
 ADDRESS: Charles A. Russell Generating Facility  
 3421 Overseas Highway  
 CITY: Marathon STATE: FL ZIP: 33050  
 PHONE: SOURCE ID NUMBER: E4003

OBSERVATION DATE				START TIME				STOP TIME			
6-15-11				1020hrs				1050hrs			
MIN	SEC	0	15	30	45	MIN	SEC	0	15	30	45

PROCESS EQUIPMENT: Recip Diesel Generator OPERATING MODE: 2500 KW  
 CONTROL EQUIPMENT: NA OPERATING MODE: 8370

1	0	0	0	0	31
2	0	0	0	0	32
3	0	0	0	0	33
4	0	0	0	0	34
5	0	0	0	0	35
6	0	0	0	0	36
7	0	0	0	0	37

DESCRIBE EMISSION POINT: in tow of 5  
 START 3rd Stack from N STOP same  
 HEIGHT ABOVE GROUND LEVEL: START ~40' STOP ~40'  
 HEIGHT RELATIVE TO OBSERVER: START ~40' STOP ~40'  
 DISTANCE FROM OBSERVER: START ~318' STOP ~318'  
 DIRECTION FROM OBSERVER: START ~263° STOP ~263°

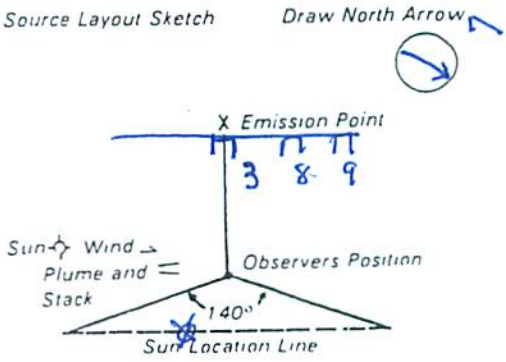
8	0	0	0	0	38
9	0	0	0	0	39
10	0	0	0	0	40
11	0	0	0	0	41
12	0	0	0	0	42
13	0	0	0	0	43
14	0	0	0	0	44
15	0	0	0	0	45
16	0	0	0	0	46
17	0	0	0	0	47
18	0	0	0	0	48
19	0	0	0	0	49
20	0	0	0	0	50
21	0	0	0	0	51
22	0	0	0	0	52
23	0	0	0	0	53
24	0	0	0	0	54
25	0	0	0	0	55
26	0	0	0	0	56
27	0	0	0	0	57
28	0	0	0	0	58
29	0	0	0	0	59
30	0	0	0	0	60

DESCRIBE EMISSIONS: START lofting STOP lofting  
 EMISSION COLOR: START gray STOP gray  
 PLUME TYPE: CONTINUOUS  FUGITIVE  INTERMITTENT   
 WATER DROPLETS PRESENT: NO  YES   
 IF WATER DROPLET PLUME: ATTACHED  DETACHED   
 IN THE PLUME AT WHICH OPACITY WAS DETERMINED: START ~3' above stack STOP same

12	0	0	0	0	42
13	0	0	0	0	43
14	0	0	0	0	44
15	0	0	0	0	45
16	0	0	0	0	46
17	0	0	0	0	47
18	0	0	0	0	48
19	0	0	0	0	49
20	0	0	0	0	50
21	0	0	0	0	51
22	0	0	0	0	52
23	0	0	0	0	53
24	0	0	0	0	54
25	0	0	0	0	55
26	0	0	0	0	56
27	0	0	0	0	57
28	0	0	0	0	58
29	0	0	0	0	59
30	0	0	0	0	60

DESCRIBE BACKGROUND: START sky STOP sky  
 BACKGROUND COLOR: START blue STOP blue  
 SKY CONDITIONS: START scattered STOP scattered  
 WIND DIRECTION: START N STOP N  
 WIND SPEED: START 1-5mph STOP 5mph  
 AMBIENT TEMP: START 87° STOP 90°  
 WET BULB TEMP: 66% RH, percent

18	0	0	0	0	48
19	0	0	0	0	49
20	0	0	0	0	50
21	0	0	0	0	51
22	0	0	0	0	52
23	0	0	0	0	53
24	0	0	0	0	54
25	0	0	0	0	55
26	0	0	0	0	56
27	0	0	0	0	57
28	0	0	0	0	58
29	0	0	0	0	59
30	0	0	0	0	60



24	0	0	0	0	54
25	0	0	0	0	55
26	0	0	0	0	56
27	0	0	0	0	57
28	0	0	0	0	58
29	0	0	0	0	59
30	0	0	0	0	60

AVERAGE OPACITY FOR HIGHEST PERIOD: 0  
 NUMBER OF READINGS ABOVE 20% WERE: 0  
 RANGE OF OPACITY READINGS: 0 MINIMUM 0 MAXIMUM

OBSERVER'S NAME (PRINT): Barbara Nevins  
 OBSERVER'S SIGNATURE: Barbara Nevins DATE: 6-15-11  
 ORGANIZATION: FDEP  
 CERTIFIED BY: ETA DATE: 2-9-11  
 VERIFIED BY: DATE:

COMMENTS: stack is below and behind top of roof from observation pt thus ~3' above  
 I HAVE RECEIVED A COPY OF THESE OPACITY OBSERVATIONS  
 SIGNATURE: TITLE: DATE:

IO 087004

002

Visible Emission Observation Form

SOURCE NAME Florida Key Electric Coop			OBSERVATION DATE 6-15-11				START TIME 1117		STOP TIME 1147			
ADDRESS Charles A. Russe II Generation Fac			SEC MIN	0	15	30	45	SEC MIN	0	15	30	45
3421 Overseas Hwy			1	10	5	5	10	31				
CITY Marathon	STATE FL	ZIP 33050	2	5	5	10	10	32				
PHONE			3	10	10	10	10	33				
SOURCE ID NUMBER EU002			4	10	10	10	5	34				
PROCESS EQUIPMENT Recip Diesel Gen		OPERATING MODE 2000 kw	5	10	5	10	10	35				
CONTROL EQUIPMENT NA		OPERATING MODE 100%	6	10	10	10	5	36				
DESCRIBE EMISSION POINT START W most stack in row of 4 STOP same			7	10	10	5	5	37				
HEIGHT ABOVE GROUND LEVEL START ~20' STOP ~20'		HEIGHT RELATIVE TO OBSERVER START ~22' STOP ~22'	8	5	5	10	10	38				
DISTANCE FROM OBSERVER START ~340' STOP ~240'		DIRECTION FROM OBSERVER START ~210° STOP ~210°	9	5	10	5	5	39				
DESCRIBE EMISSIONS START lofting STOP same			10	5	10	10	10	40				
EMISSION COLOR START gray STOP		PLUME TYPE. CONTINUOUS <input type="checkbox"/> FUGITIVE <input type="checkbox"/> INTERMITTENT <input type="checkbox"/>	11	10	5	10	10	41				
WATER DROPLETS PRESENT. NO <input checked="" type="checkbox"/> YES <input type="checkbox"/>		IF WATER DROPLET PLUME: ATTACHED <input type="checkbox"/> DETACHED <input type="checkbox"/>	12	10	10	10	10	42				
T IN THE PLUME AT WHICH OPACITY WAS DETERMINED START ~6" above stack STOP same			13	5	5	10	5	43				
DESCRIBE BACKGROUND START side of fuel tank STOP same			14	10	10	10	10	44				
BACKGROUND COLOR START silver STOP same		SKY CONDITIONS START clear STOP clear	15	10	10	10	10	45				
WIND SPEED START 1-5mph STOP 1-5mph		WIND DIRECTION START N STOP N	16	10	10	10	10	46				
AMBIENT TEMP START 90° STOP 92°		WET BULB TEMP RH.percent 66%	17	10	10	10	10	47				
<p>Source Layout Sketch Draw North Arrow</p>			18	10	5	10	10	48				
			19	10	5	10	10	49				
			20	10	10	10	10	50				
			21	10	10	10	10	51				
			22	5	5	10	10	52				
			23	10	10	10	10	53				
			24	10	10	10	5	54	Average opacity			
			25	10	10	10	10	55	highest 6 minutes			
			26	10	10	10	10	56				
			27	10	10	10	10	57	9.79 = 10%			
AVERAGE OPACITY FOR HIGHEST PERIOD 10%			NUMBER OF READINGS ABOVE 20% WERE 0		28	10	10	10	58			
RANGE OF OPACITY READINGS 5% MINIMUM 10% MAXIMUM					29	10	10	5	59			
OBSERVER'S NAME (PRINT) Barbara Nevins					30	10	10	10	60			
OBSERVER'S SIGNATURE Barbara Nevins			DATE 6-15-11									
ORGANIZATION FDEP												
I HAVE RECEIVED A COPY OF THESE OPACITY OBSERVATIONS			CERTIFIED BY ETA		DATE 2-9-11							
SIGNATURE			DATE		VERIFIED BY		DATE					
TITLE			DATE		VERIFIED BY		DATE					

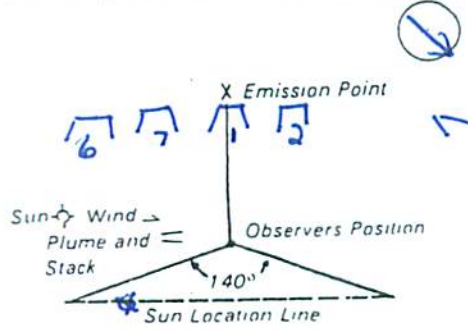
AIRS ID 087004

001

Visible Emission Observation Form

SOURCE NAME <i>Florida Keys Electric. Coop</i>		OBSERVATION DATE <i>6-15-11</i>				START TIME <i>1117</i>		STOP TIME <i>1147</i>			
ADDRESS <i>Charles A. Russell Generation Facility</i>		SEC	0	15	30	45	MIN	0	15	30	45
<i>3421 Overseas Hwy</i>		1	10	10	10	10	31				
CITY <i>Marathon</i>	STATE <i>FL</i>	2	10	10	10	10	32				
PHONE	ZIP <i>33050</i>	3	5	10	10	10	33				
SOURCE ID NUMBER <i>EU001</i>		4	5	10	10	5	34				
PROCESS EQUIPMENT <i>Recip Diesel Gen</i>		5	10	10	10	5	35				
OPERATING MODE <i>2000 kW</i>		6	5	10	10	10	36				
CONTROL EQUIPMENT <i>NA</i>		7	10	10	10	10	37				
OPERATING MODE <i>100%</i>		8	5	10	10	10	38				
DESCRIBE EMISSION POINT START <i>3rd Stack from E</i> STOP <i>same</i>		9	10	10	5	10	39				<i>Average opacity highest six minutes 9.58%</i>
HEIGHT ABOVE GROUND LEVEL START <i>~20'</i> STOP <i>~20'</i>	HEIGHT RELATIVE TO OBSERVER START <i>~22'</i> STOP <i>~22'</i>	10	10	10	10	10	40				
DISTANCE FROM OBSERVER START <i>222'</i> STOP <i>same</i>	DIRECTION FROM OBSERVER START <i>212°</i> STOP <i>same</i>	11	10	10	10	10	41				
DESCRIBE EMISSIONS START <i>lofting</i> STOP <i>lofting</i>		12	10	10	10	10	42				
EMISSION COLOR START <i>gray</i> STOP	PLUME TYPE. CONTINUOUS <input type="checkbox"/> FUGITIVE <input type="checkbox"/> INTERMITTENT <input type="checkbox"/>	13	10	10	10	10	43				
WATER DROPLETS PRESENT. NO <input checked="" type="checkbox"/> YES <input type="checkbox"/>	IF WATER DROPLET PLUME: ATTACHED <input type="checkbox"/> DETACHED <input type="checkbox"/>	14	10	10	5	5	44				
T IN THE PLUME AT WHICH OPACITY WAS DETERMINED START <i>~6" above stack</i> STOP <i>same</i>		15	5	5	10	5	45				
DESCRIBE BACKGROUND START <i>SKY</i> STOP <i>SKY</i>		16	5	5	5	5	46				
BACKGROUND COLOR START <i>blue</i> STOP <i>blue</i>	SKY CONDITIONS START <i>Clear</i> STOP <i>clear</i>	17	5	5	5	5	47				
WIND SPEED START <i>1-5 mph</i> STOP <i>5 mph</i>	WIND DIRECTION START <i>N</i> STOP <i>N</i>	18	5	5	10	5	48				
AMBIENT TEMP START <i>90°F</i> STOP <i>92°F</i>	WET BULB TEMP <i>66%</i>	19	5	5	5	5	49				
RH. percent		20	5	5	10	10	50				
Sun Location Line		21	5	10	10	10	51				
Sun Location Line		22	5	5	10	10	52				
Sun Location Line		23	5	5	5	5	53				
Sun Location Line		24	10	10	10	5	54				
Sun Location Line		25	10	10	10	10	55				
Sun Location Line		26	10	10	10	10	56				
Sun Location Line		27	10	5	5	5	57				
Sun Location Line		28	5	5	5	5	58				
Sun Location Line		29	5	10	5	5	59				
Sun Location Line		30	10	10	10	10	60				
Sun Location Line		AVERAGE OPACITY FOR HIGHEST PERIOD <i>9.58%</i>					NUMBER OF READINGS ABOVE 20% WERE <i>0</i>				
Sun Location Line		RANGE OF OPACITY READINGS <i>5%</i> MINIMUM <i>10%</i> MAXIMUM									
Sun Location Line		OBSERVER'S NAME (PRINT) <i>Barbara Nevins</i>									
Sun Location Line		OBSERVER'S SIGNATURE <i>Barbara Nevins</i>					DATE <i>6-15-11</i>				
Sun Location Line		ORGANIZATION <i>FDEP</i>									
Sun Location Line		CERTIFIED BY <i>ETA</i>					DATE <i>2-9-11</i>				
Sun Location Line		VERIFIED BY					DATE				

Source Layout Sketch Draw North Arrow



COMMENTS *6° vert take angle*

I HAVE RECEIVED A COPY OF THESE OPACITY OBSERVATIONS  
SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_