SENECA MEADOWS, INC.

Facility Number SOS08
Permit Number 8-4532-00023 /00001-0

SENECA MEADOWS LANDFILL
2019 ANNUAL REPORT

JOINTLY PREPARED BY:

CORNERSTONE ENGINEERING, GEOLOGY, AND LAND SURVEYING, PLLC

AND

SENECA MEADOWS ENGINEERING GROUP

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FEBRUARY 2020

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SENECA MEADOWS, INC.

2019 ANNUAL REPORT

1.0 INTRODUCTION/NYSDEC'S ANNUAL REPORT FORM

The SENECA MEADOWS, INC. (SMI) Annual Report for calendar year 2019 is prepared in accordance with the NYSDEC's Annual Reporting Form Requirements, SMI's 6 NYCRR Part 360 Operating Permit (Permit #8-4532-00023/00001-0), renewed October 31, 2017 and the SENECA MEADOWS Landfill Environmental Monitoring Plan (February 2007). This report will also serve as the 2019 Annual Report for the Waste Tire Handling & Recovery Facility. Table 1-1 summarizes the tire movement through the facility for 2019.

SMI also provides annual reports under separate cover to the NYSDEC as required by the following state regulated permits/registrations:

PERMIT	EFFECTIVE DATE
Title V Air Facility Permit (Permit #8-4532-00023/00041)	June 26, 2001 Modified: July 1, 2019
SPDES Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (Permit #GP-0-17-004, SMI Facility #NYR00A672)	March 1, 2018
6 NYCRR Part 360: Tire Processing Facility (TPF) (Permit #8-4532-00023/00001-0)	October 31, 2017
Article 24: Wetland Permit (Permit #8-4532-00023/00046)	October 5, 2006 Modified: November 26, 2008
Electronic Waste Collection Site Registration (Registration #00566)	September 12, 2011

The introductory section of this Report contains NYSDEC's completed Annual Report Form. Information and supporting data required by the Form is presented throughout this Annual Report and the attached appendices.

TABLE 1-1. TIRE MOVEMENT THROUGH FACILITY

2019 Annual Report
Seneca Meadows, Inc.
Tire Processing Facility
Tire Movement Through Facility
01/1/19 through 12/31/19

	Starting Quantity Staged for Processing (Tons)	Starting Quantity in Storage (Tons)	Quantity of Incoming (Tons)	Quantity Sent Out for Processing or Waste to Hill (Tons)	*Quantity of Chipped Tires Used in Landfill Construction (Tons)	Ending Quantity of Tires Staged for Processing (Tons)	Ending estimated Quantity of Tires in Storage (Tons)
Whole Tires	300	845	10,877	0		1,152	624
Chipped Tires		6,719	9,519		3,793		*** 16,032
** Shredded Tires		0			0		*** 0

* Chipped tires are used in leachate / gas collection system construction or as a beneficial use daily cover.

** Shredded tires utilized for daily cover as Beneficial Use Material & reported in Part 360 Incoming Waste Report on a quarterly basis

*** Based on an actual field survey Dated 01/15/20

Note: Rims removed from incoming whole tires are subtracted from the "Quantity of Incoming Tires" in the quarter in which a full roll-off box of rims are weighed, and taken off-site.

MSW, INDUSTRIAL OR ASH LANDFILL ANNUAL/QUARTERLY REPORT

Submit the Annual Report no later than March 1, 2020.

A. This annual/quarterly report is for the year of operation from January 01, 2019 to December 31, 2019

B. Quarterly Report for: ☐ Quarter 1 ☐ Quarter 2 ☐ Quarter 3 ☐ Quarter 4

SECTION 1 – FACILITY INFORMATION

FACILITY INFORMATION

FACILITY NAME:			
Seneca Meadows Landfill			
FACILITY LOCATION ADDRESS:	**FACILITY CITY:**	**STATE:**	**ZIP CODE:**
1786 Salcman Road	Waterloo	NY	13165
FACILITY TOWN:	**FACILITY COUNTY:**	**FACILITY PHONE NUMBER:**	
Seneca Falls	Seneca	315-539-5624	
FACILITY NYS PLANNING UNIT: (A list of NYS Planning Units can be found at the end of this report). Western Finger Lakes SWMA (WFLSWMA)		**NYSDEC REGION #:** 8	

360 PERMIT #:	DATE ISSUED:	DATE EXPIRES:	NYS DEC ACTIVITY CODE OR REGISTRATION NUMBER:
8-4532-00023/00001-0	04/13/99 renewed 10/31/17	12/31/2025	50S08

FACILITY CONTACT:	☐ public ☒ private	CONTACT PHONE NUMBER:	CONTACT FAX NUMBER:
Kyle Black		315-539-5624	315-539-0653
CONTACT EMAIL ADDRESS: kyle.black@wasteconnections.com			

OWNER INFORMATION

OWNER NAME:	OWNER PHONE NUMBER:	OWNER FAX NUMBER:	
Seneca Meadows, Inc.	315-539-5624	315-539-0653	
OWNER ADDRESS:	**OWNER CITY:**	**STATE:**	**ZIP CODE:**
1786 Salcman Road	Waterloo	NY	13165
OWNER CONTACT:	**OWNER CONTACT EMAIL ADDRESS:**		
Kyle Black	kyle.black@wasteconnections.com		

OPERATOR INFORMATION

OPERATOR NAME: ☒ *same as owner*	☐ public ☒ private

PREFERENCES

Preferred address to receive correspondence:	☒ *Facility location address*	☐ *Owner address*
☐ *Other (provide):*		
Preferred email address:	☒ *Facility Contact*	☐ *Owner Contact*
☐ *Other (provide):*		
Preferred individual to receive correspondence:	☒ *Facility Contact*	☐ *Owner Contact*
☐ *Other (provide):*		

Did you operate in 2019? ☒ Yes; Complete this form.

☐ No; Complete and submit Sections 1 and 23. If you no longer plan to operate and wish to relinquish your permit/registration associated with this solid waste management activity, also complete the "Inactive Solid Waste Management Facility or Activity Notification Form" located at: http://www.dec.ny.gov/chemical/52706.html .

SECTION 2 - SITE LIFE

1. Landfill Capacity Utilized Last Year (reporting year).

   a. What is the estimated landfill capacity that was utilized during the reporting year?

   2,999,450 Cubic Yards of Airspace

   b. What is the estimated in-situ waste density for the reporting year?

   Please do not report units as pounds per cubic yard.

   0.85 Tons/Cubic Yard

2. Remaining Constructed Capacity

   a. What is the remaining capacity of the landfill that is already constructed?

   4,620,551 Cubic Yards of Airspace

   b. What is the estimated remaining life of the constructed capacity?

   1 Years 10 Months

   at 2,181,000 Tons/Year.*

   * Please note that this tonnage rate must include all materials placed in the landfill, i.e., waste, soil, cover, alternative daily covers, etc.

   c. The tonnage rate reported under 2.b. is based on (select one):

   _____ The amount of materials placed in the landfill in the reporting year

   X Estimated future disposal

   _____ Permit limit

   Other (explain): _____

3. Permitted Capacity Still to be Constructed

   a. What is the remaining but not yet constructed landfill capacity that is authorized by a Part 360 permit?

   7,837,558 Cubic Yards of Airspace

   b. What is the projected life of capacity reported in 3.a?

   3 Years 1 Months

   at 2,181,000 Tons/Year.*

   * Please note that this tonnage rate must include all materials disposed in the landfill, i.e., waste, and soil and alternative daily covers.

   c. The tonnage rate reported under 3.b. is based on (select one):

   _____ The amount of materials placed in the landfill in the reporting year

   X Estimated future disposal

   _____ Permit limit

   Other (explain): _____

4. Capacity Proposed in a Part 360 Permit Application

What is the capacity of any expansion proposed in a Part 360 permit application that has been submitted to the Department but not authorized by a permit as of the end of the reporting period?

Not Applicable _____ Cubic Yards of Airspace

5. Estimated Potential Future Capacity Not Permitted or in an Application (optional)

What is the estimated capacity of any potential future expansion at the facility that is not yet authorized by a permit or proposed in a Part 360 permit application that has been submitted to the Department?

Not Applicable _____ Cubic Yards of Airspace

SECTION 3 - PRIMARY LEACHATE

Name of off-site leachate treatment facility(s) utilized: _____

Does the landfill have a constructed liner and a leachate collection system? ☐ Yes ☐ No

Enter the quantity of primary leachate that was collected, removed for on-site and off-site treatment, and recirculated each month, and the corresponding **Acreage, by Cell**:
(Note: For double-lined landfills this should not include the volume of leachate collected from secondary leachate collection and removal systems.)

Refer to Tables 3-1, 3-2, and Appendix B of Leachate and Gas Condensate Report in Section 3.0

For **each cell**, please report the **acreage** and the **primary leachate** amount.

	PRIMARY LEACHATE COLLECTED (GALLONS)						PRIMARY LEACHATE TREATED OFF SITE (GALLONS)					
	Cell 1 ___Acres	Cell 2 ___Acres	Cell 3 ___Acres	Cell 4 ___Acres	Cell 5 ___Acres	Cell 6 ___Acres	Cell 1 ___Acres	Cell 2 ___Acres	Cell 3 ___Acres	Cell 4 ___Acres	Cell 5 ___Acres	Cell 6 ___Acres
January	Refer to Tables 3-1, 3-2, and Appendix B of Leachate and Gas Condensate Report in Section 3.0						Refer to Table 3-2 of this report.					
February												
March												
April												
May												
June												
July												
August												
September												
October												
November												
December												
ANNUAL												

	PRIMARY LEACHATE RECIRCULATED (GALLONS)						PRIMARY LEACHATE TREATED ON SITE (GALLONS)					
	Cell 1 ___Acres	Cell 2 ___Acres	Cell 3 ___Acres	Cell 4 ___Acres	Cell 5 ___Acres	Cell 6 ___Acres	Cell 1 ___Acres	Cell 2 ___Acres	Cell 3 ___Acres	Cell 4 ___Acres	Cell 5 ___Acres	Cell 6 ___Acres
January	Refer to Table 3-1 of this report.						Not Applicable					
February												
March												
April												
May												
June												
July												
August												
September												
October												
November												
December												
ANNUAL												

Submit (attached to this form) a copy of the maintenance logs which document compliance with the Operation and Maintenance Manual's schedule for the routine annual flushing and inspection of the primary leachate collection and removal system. List required submissions that have been attached to this form or the reason for not attaching a required piece of information:

Refer to the SMI Daily Cleaning included in Section 3.0 (Leachate Wastewater Management).

Submit (attached to this form) a tabulated compilation of the semi-annual primary leachate quality data collected throughout the year including a summary comparing this year's data with the previous year's data and a summary discussion of results. This list should identify sample location(s) and method of analysis. List required submissions that have been attached to this form or the reason for not attaching a required piece of information:

Refer to the Leachate and Gas Condensate Report in Section 3.0 (Leachate Wastewater Management).

SECTION 4 - SECONDARY LEACHATE

Does landfill have a double liner system with a secondary leachate collection and removal system? ☒ Yes ☐ No

Submit (attached to this form) a tabulated compilation of the semi-annual secondary leachate quality data collected throughout the year including a summary comparing this year's data with all previous years' data and a summary discussion of results. This list should identify sample location(s) and methods of analysis. List required submissions that have been attached to this form or the reason for not attaching a required piece of information:

Refer to Leachate and Gas Condensate Report in Section 3.0 (Leachate Wastewater Management).

Please report total cost for the year, not cost/gal.

Leachate Cost: (including transportation if appropriate) during the calendar year for leachate treatment: $ 14,504,970

Total quantity treated: 75,618,467 gal

Enter the quantity of secondary leachate that was collected, removed for on-site and off-site treatment, and recirculated each month, and the corresponding **Acreage, by Cell**:

For **each cell**, please report the **acreage** and the **secondary leachate** amount.

Refer to Appendix B of Leachate and Gas Condensate Report in Section 3.0

	SECONDARY LEACHATE COLLECTED (GALLONS)						SECONDARY LEACHATE TREATED OFF SITE (GALLONS)					
	Cell 1 ___Acres	Cell 2 ___Acres	Cell 3 ___Acres	Cell 4 ___Acres	Cell 5 ___Acres	Cell 6 ___Acres	Cell 1 ___Acres	Cell 2 ___Acres	Cell 3 ___Acres	Cell 4 ___Acres	Cell 5 ___Acres	Cell 6 ___Acres
January	Refer to Appendix B for Leachate and Gas Condensate Report in Section 3.0						Refer to Table 3-2 of this report.					
February												
March												
April												
May												
June												
July												
August												
September												
October												
November												
December												
ANNUAL												

	SECONDARY LEACHATE RECIRCULATED (GALLONS)						SECONDARY LEACHATE TREATED ON SITE (GALLONS)					
	Cell 1 ___Acres	Cell 2 ___Acres	Cell 3 ___Acres	Cell 4 ___Acres	Cell 5 ___Acres	Cell 6 ___Acres	Cell 1 ___Acres	Cell 2 ___Acres	Cell 3 ___Acres	Cell 4 ___Acres	Cell 5 ___Acres	Cell 6 ___Acres
January	Refer to Table 3-1 of this report.						Not Applicable					
February												
March												
April												
May												
June												
July												
August												
September												
October												
November												
December												
ANNUAL												

SECTION 5 – BENEFICIAL USE DETERMINATION MATERIALS AND ALTERNATIVE OPERATING COVER MATERIALS

For each type of waste material that the Department has approved for use as alternative operating cover (AOC), intermediate cover, or other landfill material, provide the annual weight in tons, use (i.e., operating cover, intermediate cover, etc.), and source of material. (If material is from a solid waste facility also provide facility name, address, NYS Planning Unit, County/ Province, and State/Country.) **Refer to the list of NYS Planning Units that can be found at the end of this report.**

Type of Solid Waste	Weight (tons/year)	Use	NYS Planning Unit (See Attached List of NYS Planning Units)	County or Province	State or Country	Source (Facility and Address)
Aggregate/Concrete	Refer to Table 1, made part of this form on next page. **The Seneca Meadows permitted hours of operation are 6 am to 6 pm Monday through Sunday** Maximum Allowable Tons: 6000 daily/yearly average					
Contaminated Soil						
Foundry Sand						
Glass						
Industrial Waste (specify)						
MSW Ash						
Wood Ash						
Paper Mill Sludge						
Processed C&D						
Waste Tire-Derived Aggregate /						
Waste Tires						
Other (specify)						
Total AOC						
Total Beneficial Use Determination Materials						

Percent Alternative Operating Cover (AOC) Calculation

AOC Calculations: Total Tons AOC/Total Tons Waste Disposed x 100 = 400,122.2/2,147,315.3= 18.6%

Please note the calculation **is**: Tons AOC (from table above)/Tons Solid Waste (from table in Section 6) x 100 and **Not**: Tons AOC / (Tons Solid Waste + AOC) x 100

Seneca Meadows, Inc.
2019 Annual Report
Table 1
Total Tonnage of Material Received Per Quarter

Waste Type	Quarter 1 (tons)	Quarter 2 (tons)	Quarter 3 (tons)	Quarter 4 (tons)	Grand Total	Daily Average (tons)*
Asbestos	7,578.8	6,665.8	3,775.7	3,386.9	21,407.1	59.6
Industrial Ash	1,335.7	1,557.6	2,204.3	808.4	5,906.1	16.5
Construction Debris	18,231.5	27,141.1	23,418.0	12,996.6	81,787.1	227.8
Contaminated Soil	2,440.5	1,912.5	4,863.5	2,602.2	11,818.8	32.9
Medical Waste	-	-	-	-	-	-
Sludge	7,888.5	13,280.3	13,684.5	13,196.0	48,049.3	133.8
Other Industrial Waste	5,306.6	4,840.0	4,394.6	3,679.5	18,220.7	50.8
Solid Waste (MSW)	426,360.1	571,444.7	569,470.7	382,537.5	1,949,813.0	5,431.2
Grits & Screenings	3,913.3	3,335.5	1,107.0	1,874.8	10,230.7	28.5
Hardfill	-	-	-	-	-	-
Processed Construction Debris	-	-	-	-	-	-
Tires-NonProcessable& Shreds	74.4	17.1	3.9	2.0	97.5	0.3
TOTAL	473,129.4	630,194.7	622,922.2	421,084.0	**2,147,330.3**	**5,981.4**

BUDs	Quarter 1 (tons)	Quarter 2 (tons)	Quarter 3 (tons)	Quarter 4 (tons)	Grand Total	Daily Average (tons)*
Coal Ash	-	-	-	-	-	-
Auto Fluff	509.6	2,227.7	1,380.2	784.9	4,902.5	13.7
C&D (BUD)	40,376.2	57,124.5	86,921.6	120,857.4	305,279.8	850.4
Contaminated Soil	8,502.4	11,220.8	13,777.2	27,584.6	61,084.9	170.2
Foundry Sand (BUD)	282.3	196.4	173.6	203.9	856.2	0.6
Hard Fill	-	-	863.8	880.8	1,744.6	2.5
Paper Sludge	-	350.0	-	-	350.0	-
Other Industrial Waste (BUD)	68.5	-	39.9	152.4	260.7	0.4
Ash	3,985.0	5,278.6	5,164.4	5,392.7	19,820.6	15.0
B/R Tire Cover	1,523.0	2,202.5	683.1	2,893.6	7,302.3	8.1
Yard Debris	52.0	243.9	209.4	110.0	615.3	0.3
Z9500 (Tire Chips for Cover)	-	-	-	-	-	-
TOTAL	55,299.0	78,844.4	109,213.1	158,860.3	**402,216.8**	**1,120.4**

*Based on 359 working days during 2019

SECTION 6 - SOLID WASTE DISPOSED

Provide the tonnages of solid waste disposed. Exclude Beneficial Use Material amounts reported in Section 5 and Recyclable Material amounts reported in Section 8. Specify the methods used to measure the quantities disposed and the percentages measured by each method:

_____% Scale Weight _____% Estimated

_____% Truck Count _____% Other (Specify: _____)

Type of Solid Waste	January (tons)	February (tons)	March (tons)	April (tons)	May (tons)	June (tons)	July (tons)
Asbestos							
Ash (Coal)							
Ash (MSW Energy Recovery)							
Construction & Demolition Debris (mixed)							
Industrial Waste (Including Industrial Process Sludges)							
Mixed Municipal Solid Waste (Residential, Institutional & Commercial)							
Oil/Gas Drilling Waste							
Petroleum Contaminated Soil							
Sewage Treatment Plant Sludge							
Treated Regulated Medical Waste							
Emergency Authorization Waste (Storm Debris)							
Other (specify)							
Total Tons Disposed							

Refer to Table 4-1 of this report for the monthly waste volumes by category, made part of this form on next page.

SECTION 6 - SOLID WASTE DISPOSED (continued)

Type of Solid Waste	Tip Fee ($/Ton)	August (tons)	September (tons)	October (tons)	November (tons)	December (tons)	Total Year (tons)	Daily Avg. (tons)
Asbestos	Refer to Table 4-1 of this report for the monthly waste volumes by category.							
Ash (Coal)								
Ash (MSW Energy Recovery)								
Construction & Demolition Debris (mixed)								
Industrial Waste (Including Industrial Process Sludges)								
Mixed Municipal Solid Waste (Residential, Institutional & Commercial)								
Oil/Gas Drilling Waste								
Petroleum Contaminated Soil								
Sewage Treatment Plant Sludge								
Treated Regulated Medical Waste								
Emergency Authorization Waste (Storm Debris)								
Other (specify)								
Total Tons Disposed								

SECTION 7 – SERVICE AREA OF SOLID WASTE RECEIVED

Please identify where the waste is coming from. The total tons received reported below should equal the total tons received in Section 6 (Solid Waste Disposed). DO NOT REPORT IN CUBIC YARDS!

- If the waste ***WAS*** received from another solid waste management facility, please write in the name *and* address of the facility along with the appropriate state, county and planning unit/municipality.
- If the waste ***WAS NOT*** received from another solid waste management facility, please write in "***Direct Haul***" along with the appropriate state, county and planning unit/municipality where the waste was generated.

Specify transport method and percentages of total waste transported by each:

100 % Road _____% Rail _____% Water _____% Other (specify:_____)

Explain which waste types and service areas below are included in these transport methods _____

SERVICE AREA OF SOLID WASTE RECEIVED	
TYPE OF SOLID WASTE	Refer to Table 2, made part of this form following this section. **The Seneca Meadows permitted hours of operation are 6 am to 6 pm Monday through Sunday** Maximum Allowable Tons: 6000 daily/yearly average
Asbestos	
Ash (Coal)	
Ash (MSW Energy Recovery)	
Construction & Demolition Debris (mixed)	

Table 2
Waste Origination / Percentage of Total Waste Received

IN STATE (By County)	Asbestos	Ash	Construction Debris	Contaminated Soil	Sludge	Other Industrial Waste	Solid Waste (MSW)	Grits & Screenings	Tires-NonProcessable & Shreds	Auto Fluff	C&D (BUD)	Contaminated Soil (BUD)	Foundry Sand	Other Industrial Waste (BUD)	Industrial Ash	B/R Tire Cover	Yard Waste	Total by Location	Percentage
	Tons																	*Tons*	%
ALBANY	210	0	203	0	0	50	54,752	0	0	0	10,368	17	0	0	0	0	0	65,601	2.57%
ALLEGANY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
BRONX	26	0	5	0	0	0	263,425	0	0	0	62,326	0	0	0	0	0	0	325,782	12.78%
BROOKLYN	0	0	0	0	18,068	0	36	0	0	0	0	0	0	0	0	0	0	18,104	0.71%
BROOME	0	0	0	0	0	0	0	0	0	0	0	72	0	0	0	0	0	72	0.00%
CATTARAUGUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
CAYUGA	533	0	2,172	0	529	57	17,571	0	8	0	11	43	0	0	5,906	0	1	26,832	1.05%
CHAUTAUQUA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
CHEMUNG	355	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	355	0.01%
CHENANGO	0	0	0	0	0	0	252	0	0	0	0	0	0	0	0	0	0	252	0.01%
CLINTON	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37	0.00%
COLUMBIA	266	0	1,366	0	0	0	7,533	0	0	0	2,756	0	0	0	0	0	0	11,922	0.47%
CORTLAND	65	0	0	0	0	225	0	0	0	0	0	0	0	0	0	0	0	290	0.01%
DELAWARE	0	0	0	0	258	0	0	0	0	0	62	41	0	0	0	0	0	361	0.01%
DUTCHESS	446	0	17	0	0	0	38,781	0	0	0	23,954	4,478	0	0	0	0	0	67,677	2.65%
ERIE	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	4,115	0	4,119	0.16%
ESSEX	149	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	149	0.01%
FRANKLIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
FULTON	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
GENESEE	135	0	274	0	0	0	0	0	0	0	0	0	0	0	0	0	0	409	0.02%
GREENE	82	0	0	0	243	0	59,710	0	0	0	1,423	32	0	0	0	3,187	0	64,677	2.54%
HAMILTON	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
HERKIMER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
JEFFERSON	0	12,989	1	0	0	0	0	0	0	0	0	605	0	0	0	0	0	13,596	0.53%
KINGS	0	0	0	0	615	0	233,753	0	0	0	0	0	0	0	0	0	0	234,368	9.19%
LEWIS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
LIVINGSTON	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.00%
MADISON	126	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	126	0.00%
MANHATTAN	0	0	0	0	5,295	0	0	0	0	0	0	0	0	0	0	0	0	5,295	0.21%
MONROE	83	0	203	0	78	33	1	0	0	0	0	5,372	0	0	0	0	0	5,770	0.23%
MONTGOMERY	2,596	0	5	0	0	0	55,413	10	0	0	3,240	0	0	0	0	0	0	61,264	2.40%
NASSAU	0	0	4,294	0	0	0	240,290	0	0	0	0	0	0	0	0	0	0	244,584	9.59%
NIAGARA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
NEW YORK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
ONEIDA	3	0	1,636	0	0	20	0	0	0	1,844	0	0	0	0	0	0	0	3,503	0.14%
ONEONTA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
ONONDAGA	7,357	6,831	3,709	0	2,525	1,512	3,125	1,648	0	0	19	22,609	856	0	0	0	0	50,192	1.97%
ONTARIO	43	0	276	0	0	0	146	0	0	0	1	0	0	0	0	0	0	466	0.02%
ORANGE	189	0	0	0	28	0	0	0	0	0	4,531	199	0	0	0	0	0	4,946	0.19%
ORLEANS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
OSWEGO	0	0	0	0	0	0	0	0	0	0	0	2,440	0	0	0	0	0	2,440	0.10%
OTSEGO	273	0	0	0	165	0	0	0	0	0	0	0	0	0	0	0	0	437	0.02%
PUTNAM	0	0	0	0	218	0	0	0	0	0	0	0	0	0	0	0	0	218	0.01%
QUEENS	0	0	0	0	1,182	0	213,891	7,417	0	0	93,457	0	0	0	0	0	0	315,947	12.39%
RENSSELAER	705	0	0	0	0	0	0	0	89	0	34	0	0	0	0	0	0	829	0.03%
RICHMOND	0	0	0	0	281	0	0	0	0	0	0	0	0	0	0	0	0	281	0.01%
ROCKLAND	0	0	0	0	0	168	99,891	0	0	0	4,186	0	0	0	0	0	0	104,245	4.09%
SARATOGA	161	0	330	0	0	30	90,582	0	0	0	7,668	0	0	0	0	0	0	98,771	3.87%
SCHENECTADY	324	0	0	0	0	0	70,888	0	0	0	0	240	0	0	0	0	0	71,452	2.80%
SCHOHARIE	4	0	0	0	0	0	0	0	0	0	0	560	0	0	0	0	0	564	0.02%
SCHUYLER	0	0	9	0	0	0	320	0	0	0	0	0	0	0	0	0	0	329	0.01%

Table 2
Waste Origination / Percentage of Total Waste Received

IN STATE (By County)	Asbestos	Ash	Construction Debris	Contaminated Soil	Sludge	Other Industrial Waste	Solid Waste (MSW)	Grits & Screenings	Tires-NonProcessable & Shreds	Auto Fluff	C&D (BUD)	Contaminated Soil (BUD)	Foundry Sand	Other Industrial Waste (BUD)	Industrial Ash	B/R Tire Cover	Yard Waste	Total by Location	Percentage
	Tons																	*Tons*	%
SENECA	567	0	3,535	2,189	2,744	5,197	8,851	41	0	0	69	12,240	0	0	0	0	614	36,047	1.41%
SKANEATELES	0	0	0	0	0	0	425	17	0	0	0	13	0	0	0	0	0	456	0.02%
ST. LAWRENCE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
STEUBEN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
SUFFOLK	1,387	0	172	0	0	1,201	9,401	0	0	0	2,544	0	0	0	0	0	0	14,706	0.58%
SULLIVAN	437	0	0	0	2,303	42	74,210	0	0	0	0	5	0	0	0	0	0	76,997	3.02%
TIOGA	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	90	0.00%
TOMPKINS	2,782	0	1,175	155	583	0	8,039	0	0	0	0	582	0	0	0	0	0	13,315	0.52%
ULSTER	0	0	136	0	73	0	133,676	0	0	0	0	8	0	0	0	0	0	133,893	5.25%
WARREN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
WASHINGTON	18	0	24	0	0	2,969	21,466	0	0	0	4,339	0	0	0	0	0	0	28,816	1.13%
WAYNE	994	0	4,647	0	57	0	9,511	0	0	0	0	980	0	261	0	0	0	16,449	0.65%
WESTCHESTER	4	0	0	0	0	0	4,772	0	0	0	64,978	0	0	0	0	0	0	69,753	2.74%
WYOMING	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0.00%
YATES	37	0	508	0	0	0	15	0	0	0	0	9,991	0	0	0	0	0	10,551	0.41%
Totals:	20,500	19,821	24,699	2,344	35,243	11,509	1,720,724	9,134	97	1,844	285,968	60,528	856	261	5,906	7,302	615	2,207,351	86.58%
OUT OF STATE	Asbestos	Ash	Construction Debris	Contaminated Soil	Sludge	Other Industrial Waste	Solid Waste (MSW)	Grits & Screenings	Tires-NonProcessable & Shreds	Auto Fluff	C&D (BUD)	Contaminated Soil (BUD)	Foundry Sand	Other Industrial Waste (BUD)	Industrial Ash	B/R Tire Cover	Yard Waste	Total by Location	Percentage
									Tons										%
CANADA	907	0	18	0	0	316	34,656	0	0	0	29	557	0	0	0	0	0	36,483	1.43%
CONNECTICUT	0	0	41,474	9,456	9,681	2,619	194,433	13	0	0	0	0	0	0	0	0	0	257,678	10.11%
MASSACHUSETTS	0	0	15,563	0	0	4,958	0	0	0	3,058	15,312	0	0	0	0	0	0	38,892	1.53%
NEW HAMPSHIRE	0	0	4	0	0	0	0	1,084	0	0	3,971	0	0	0	0	0	0	5,059	0.20%
NEW JERSEY	0	0	0	0	3,125	0	0	0	0	0	0	0	0	0	0	0	0	3,125	0.12%
PENNSYLVANIA	0	0	0	18	0	898	0	0	0	0	0	0	0	0	0	0	0	916	0.04%
RHODE ISLAND	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
VERMONT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
Totals:	907	0	57,059	9,475	12,806	8,791	229,089	1,097	0	3,058	19,312	557	0	0	0	0	0	342,152	13.42%
Grand Totals	21,407	19,821	81,759	11,819	48,049	20,300	1,949,813	10,231	97	4,902	305,280	61,085	856	261	5,906	7,302	615	2,549,504	100.00%

Note: There is a discrepancy of 44 tons in total waste accepted between this table and Tables 1 & 3. The total tonnage being reported is 2,547,532 as shown of Tables 1 & 3. This difference can be atrributed to a rounding error.

SERVICE AREA OF SOLID WASTE RECEIVED					
TYPE OF SOLID WASTE	**SOLID WASTE MANAGEMENT FACILITY FROM WHICH IT WAS RECEIVED (Name & Address) OR "Direct Haul"**	**SERVICE AREA STATE OR COUNTRY**	**SERVICE AREA COUNTY OR PROVINCE**	**SERVICE AREA NYS PLANNING UNIT (See Attached List of NYS Planning Units)**	**TONS RECEIVED**
Industrial Waste (Including Industrial Process Sludges)	Refer to Table 2, made part of this form on next page. **The Seneca Meadows permitted hours of operation are 6 am to 6 pm Monday through Sunday** Maximum Allowable Tons: 6000 daily/yearly average				
Mixed Municipal Solid Waste (Residential, Institutional & Commercial)					
Oil/Gas Drilling Waste					
Petroleum Contaminated Soil					
Sewage Treatment Plant Sludge					
Treated Regulated Medical Waste (TRMW)*					
Emergency Authorization Waste (Storm Debris)					
Other (specify)					
				TOTAL RECEIVED (tons):	

* List generators that provide you Certificates of Treatment forms and quantities of TRMW from each _____

SECTION 8 –LANDFILL RECYCLABLE & RECOVERED MATERIALS

Is your facility <u>also</u> a permitted or registered Recyclables Handling & Recovery Facility?

☐ Yes; Complete Section 9 for material recovered from the mixed solid waste stream. Complete a Recyclables Handling & Recovery Facility (RHRF) form for material received as source separated. The RHRF form is located at: http://www.dec.ny.gov/chemical/52706.html .

☐ No; Complete Section 9 for material recovered from the mixed solid waste stream and for material received as source separated.

A. Service Area of Recyclable Material Received

<u>Please identify where the recyclable materials are coming from.</u> DO NOT REPORT IN CUBIC YARDS!

- If the materials ***WERE*** received from another solid waste management facility, please write in the name and <u>address</u> of the facility along with the appropriate state, county and planning unit/municipality.
- If the materials ***WERE NOT*** received from another solid waste management facility, please write in "***Direct Haul***" along with the appropriate state, county and planning unit/municipality where the recyclables were generated.

Specify transport method, list type of material(s) and percentages of total waste transported by each:

_____% Road: Waste Type(s):_____ _____% Rail: Waste Type(s):_____

_____% Water: Waste Type(s):_____ _____% Other (specify: _____): Waste Type(s):_____

SERVICE AREA OF RECYCLABLE MATERIAL RECEIVED	
MATERIAL	Not Applicable
Commingled Containers (metal, glass, plastic)	
Commingled Paper (all grades)	
Single Stream (total)	
Brush, Branches, Trees, & Stumps	
Food Scraps	
Yard Waste (curbside)	
Other (specify)	

SECTION 8 – LANDFILL RECYCLABLE & RECOVERED MATERIALS

B. Material Recovered

Identify the name of the destination facility to which the material was sent from your facility, the corresponding State/Country, the County/Province, the NYS Planning Unit, and the amount of material transported. **Refer to the list of NYS Planning Units that can be found at the end of this report.** DO NOT REPORT IN CUBIC YARDS!

Specify transport method and percentages of total material transported by each:

_____% Road _____% Rail _____% Water _____% Other (specify: _____)

Explain which materials and destinations below are included in these transport methods _____

PAPER RECOVERED					
RECOVERED MATERIAL	**DESTINATION** (Name & Address)	**DESTINATION STATE OR COUNTRY**	**DESTINATION COUNTY OR PROVINCE**	**DESTINATION NYS PLANNING UNIT** (See Attached List of NYS Planning Units)	**TONS RECOVERED** (out of facility)
Commingled Paper (all grades)	Not Applicable				
Corrugated Cardboard					
Junk Mail					
Magazines					
Newspaper					
Office Paper					
Paperboard / Boxboard					
Other Paper (specify)					

SECTION 8 – LANDFILL RECYCLABLE & RECOVERED MATERIALS (continued)

B. Material Recovered

GLASS RECOVERED					
RECOVERED MATERIAL	DESTINATION (Name & Address)	DESTINATION STATE OR COUNTRY	DESTINATION COUNTY OR PROVINCE	DESTINATION NYS PLANNING UNIT (See Attached List of NYS Planning Units)	TONS RECOVERED (out of facility)
Container Glass	Not Applicable				
Industrial Scrap Glass					
Other Glass (specify)					

METAL RECOVERED					
RECOVERED MATERIAL	DESTINATION (Name & Address)	DESTINATION STATE OR COUNTRY	DESTINATION COUNTY OR PROVINCE	DESTINATION NYS PLANNING UNIT (See Attached List of NYS Planning Units)	TONS RECOVERED (out of facility)
Aluminum Foil / Trays	Not Applicable				
Bulk Metal (from MSW)					
Bulk Metal (from CD debris)					
Enameled Appliances / White Goods					
Industrial Scrap Metal					
Tin & Aluminum Containers					
Other Metal (specify)					

SECTION 8 – LANDFILL RECYCLABLE & RECOVERED MATERIALS (continued)

B. Material Recovered

PLASTIC RECOVERED					
RECOVERED MATERIAL	**DESTINATION** (Name & Address)	**DESTINATION STATE OR COUNTRY**	**DESTINATION COUNTY OR PROVINCE**	**DESTINATION NYS PLANNING UNIT** (See Attached List of NYS Planning Units)	**TONS RECOVERED** (out of facility)
Mixed Plastic (#1 - #7)	Not Applicable				
PET (plastic #1)					
HDPE (plastic #2)					
Other Rigid Plastics (#3 - #7)					
Industrial Scrap Plastic					
Plastic Film & Bags					
Other Plastics (specify)					

SECTION 8 – LANDFILL RECYCLABLE & RECOVERED MATERIALS (continued)

B. Material Recovered

MIXED MATERIAL RECOVERED					
RECOVERED MATERIAL	**DESTINATION** (Name & Address)	**DESTINATION STATE OR COUNTRY**	**DESTINATION COUNTY OR PROVINCE**	**DESTINATION NYS PLANNING UNIT** (See Attached List of NYS Planning Units)	**TONS RECOVERED** (out of facility)
Commingled Containers (metal, glass, plastic)	Not Applicable				
Commingled Paper & Containers					
Single Stream (total)					
Other (specify)					

SECTION 8 – LANDFILL RECYCLABLE & RECOVERED MATERIALS (continued)

B. Material Recovered

MISCELLANEOUS MATERIAL RECOVERED					
RECOVERED MATERIAL	DESTINATION (Name & Address)	DESTINATION STATE OR COUNTRY	DESTINATION COUNTY OR PROVINCE	DESTINATION NYS PLANNING UNIT (See Attached List of NYS Planning Units)	TONS RECOVERED (out of facility)
Electronics	See Section 13 of the Report				
Textiles					
Brush, Branches, Trees, & Stumps					
Food Scraps					
Yard Waste (curbside)					
Other (specify)					

VOLUME TO WEIGHT CONVERSION FACTORS

MATERIAL	EQUIVALENT		MATERIAL	EQUIVALENT		MATERIAL	EQUIVALENT	
GLASS – whole bottles	1 cubic yard	0.35 tons	GLASS - crushed mechanically	1 cubic yard	0.88 tons	ALUMINUM – cans – whole	1 cubic yard	0.03 tons
GLASS - semi crushed	1 cubic yard	0.70 tons	GLASS - uncrushed manually	55 gallon drum	0.16 tons	ALUMINUM – cans – flattened	1 cubic yard	0.125 tons
PAPER - high grade loose	1 cubic yard	0.18 tons	PLASTIC – PET – whole	1 cubic yard	0.015 tons			
PAPER - high grade baled	1 cubic yard	0.36 tons	PLASTIC – PET – flattened	1 cubic yard	0.04 tons			
PAPER - mixed loose	1 cubic yard	0.15 tons	PLASTIC – PET – baled	1 cubic yard	0.38 tons	WHITE GOODS - uncompacted	1 cubic yard	0.10 tons
NEWSPRINT - loose	1 cubic yard	0.29 tons	PLASTIC – styrofoam	1 cubic yard	0.02 tons	WHITE GOODS - compacted	1 cubic yard	0.5 tons
NEWSPRINT - compacted	1 cubic yard	0.43 tons	PLASTIC – HDPE – whole	1 cubic yard	0.012 tons			
CORRUGATED – loose	1 cubic yard	0.015 tons	PLASTIC – HDPE – flattened 1	1 cubic yard	0.03 tons			
CORRUGATED - baled	1 cubic yard	0.55 tons	PLASTIC – HDPE – baled	1 cubic yard	0.38 tons	FERROUS METAL - cans whole	1 cubic yard	0.08 tons
			PLASTIC – mixed (grocery bags)	45 gallon bag	0.01 tons	FERROUS METAL - cans	1 cubic yard	0.43 tons

SECTION 9 – UNAUTHORIZED SOLID WASTE

Has unauthorized solid waste been received at the facility during the reporting period?

☐ Yes ☐ No If yes, give information below for each incident (attach additional sheets if necessary):

Date Received	Type Received	Date Disposed	Disposal Method & Location
Refer to Section 5 (Unauthorized Solid Waste/Radiation Monitoring) of this report.			

Radiation Monitoring

Does your facility use a fixed radiation monitor? ___■___ Yes _____ No

Identify Manufacturer Thermo Eberline, LLC and Model ASM 3000 of fixed unit.

Does your facility use a portable radiation monitor? ___■___ Yes _____ No

Identify Manufacturer Thermo Eberline, LLC and Model IdentiFINDER of portable unit.

If the radiation monitors have been triggered give information below for each incident:

Incident Number	Received		Hauler	Origin	Truck Number	Reading	Disposal Status	Removed	
	Date	Time						Date	Time
Refer to Table 5 of this report for the specific incidents.									

SECTION 10 - WASTE IN PLACE

Summary by Waste Type and Year

Include all active and inactive sections of the landfill. Report waste disposed annually by type, if known, in tons per year. Report total waste disposed, if breakdown of types is not available. In the case where more than one landfill section operated in a given year identify each separately, if known. If the annual amount is not available, report the quantities for a range of years. If you include amounts from old, closed landfills then clearly identify them on the table and explain below. In each row, report quantities disposed each year (or group of years if individual years unknown) for each waste type. Report cumulative WIP at bottom (sum of annual quantities disposed). Add additional sheets as necessary.

Year	MSW (tons)	Asbestos Waste (tons)	Ash (tons)	C&D Debris (tons)	Industrial Waste (tons)	Petroleum Contaminated Soil (tons)	Sewage Treatment Plant Sludge (tons)	Other (tons)	Year(s) Total (tons)	Identify Landfill Section(s) Used
Refer to Table 3 (Waste in Place Summary), made part of this form on next page.										

Overall in place volume _____ cubic yards

Method for determining waste composition, if known. _____

Explain if closed landfills are included above _____

Table 3 - Waste In Place Summary
(Tons)

YEAR	SMI LANDFILL	TOTAL WASTE IN PLACE (SMI)	SOUTHEAST LANDFILL	TOTAL WASTE IN PLACE (SELF)	SOUTHEAST BUMP OUT	TOTAL WASTE IN PLACE (SBO)	WESTERN EXPANSION	TOTAL WASTE IN PLACE (WEX)	EASTERN EXPANSION	TOTAL WASTE IN PLACE (EX)
Prior to 2000*		6,485,593								
2000	1,241,934	12,704,805	-	-	-	-	-	-	-	-
2001	1,391,885	14,096,690	-	-	-	-	-	-	-	-
2002	1,817,178	15,913,868	-	-	-	-	-	-	-	-
2003	1,295,262	17,209,130	697,449	697,449	-	-	-	-	-	-
2004	-	17,209,130	2,055,102	2,752,551	-	-	-	-	-	-
2005	-	17,209,130	2,226,558	4,979,109	-	-	-	-	-	-
2006	-	17,209,130	2,191,962	7,171,071	-	-	-	-	-	-
2007**	73,793	17,278,653	2,043,356	9,214,427	-	-	-	-	-	-
2008	264,445	17,543,098	1,738,373	10,952,800	9,748	9,748	-	-	-	-
2009	223,349	17,766,447	184,386	11,137,186	1,705,161	1,714,909	-	-	-	-
2010	-	24,252,040	-	11,137,186	2,476,660	4,191,569	-	-	-	-
2011	-	24,252,040	-	11,137,186	1,879,357	6,070,926	560,899	560,899	-	-
2012	-	24,252,040	-	11,137,186	483,704	6,554,630	1,799,669	2,360,568	-	-
2013	-	24,252,040	3,607	11,140,793	-	6,554,630	2,429,638	4,790,206	-	-
2014	-	24,252,040	-	11,140,793	-	6,554,630	2,096,247	6,886,453	-	-
2015	-	24,252,040	-	11,140,793	-	6,554,630	2,190,515	9,076,968	72,159	72,159
2016	-	24,252,040	-	11,140,793	-	6,554,630	144,465	9,221,433	2,444,833	2,516,993
2017	-	24,252,040	-	11,140,793	-	6,554,630	-	9,221,433	2,571,126	5,088,119
2018	-	24,252,040	-	11,140,793	-	6,554,630	615,289	9,836,722	2,510,499	7,598,618
2019***	-	24,252,040	-	11,140,793	-	6,554,630	2,523,471	12,360,193	25,460	7,624,079

Notes:

* Total Waste in Place for the SMI Landfill only tracks waste placed since 2000. An estimated 6,485,593 tons was placed prior to 2000.

** Total Waste in Place for the SMI Landfill in 2007 reflects a 4270-ton decrease as waste had to be re-located to the SELF for construction purposes.

*** A breakdown of waste types accepted in 2019 can be found in Tables 4-1 and 4-2 of the Annual Report.

Waste Summary by Landfill Section

Provide waste in place information for all landfill sections.

Number of landfill sections: 4

Original* section used (years) from _____ to _____

Section Footprint _____ acres

Capped with approved final cover system Yes _____ No _____

Percent capped _____

Waste in Place: _____ Tons _____ Cubic Yards, if known

Next* section used (years) from _____ to _____

Section Footprint _____ acres

Capped with approved final cover system Yes _____ No _____

Percent capped _____

Waste in Place: _____ Tons _____ Cubic Yards, if known

* If there are additional landfill sections, phases or cells, please provide the same waste in place information on additional sheets and attach to form.

SECTION 11 - LANDFILL GAS

Does the landfill have a landfill gas collection & control system?
Yes ■ No ____ If Yes: Active ■ Passive ___

Number of gas wells: 782

Total landfill footprint acreage 334.51

Total landfill acreage from which gas is collected 334.51

Landfill sections from which gas is collected ALL

Landfill acreage from which gas is collected for energy recovery 334.5

Measured Methane Generation Rate*, k 0.04

Measured Potential Methane Generation Capacity*, L_o 1.00 m^3/Mg

NMOC Concentration* 535 ppmv as hexane

Does the landfill require a Title V Permit? Yes ■ No _____

Name of Landfill Gas Recovery (gas to energy or other use) Facility: Seneca Energy LLC (Aria Energy)

* Note: If Concentration NMOC, Lo and k are not known or included, default values will be used to calculate the NMOCs emissions from the Landfill.

Flare

Open and Enclosed Flares located at the Landfill and the Landfill Gas Recovery Facility:

Number of Flares: 5

Type of Flare: Opened Flare 1 Enclosed Flare 3

Please report units in cubic feet

Quantity of Gas Collected and Flared Annually 1,589,957,370 cubic feet
Flare Hours of Operation per Year 12,020.93 hours/year
Methane Percentage in Landfill Gas before flaring 50 %
Methane Destruction efficiency 98 %

Candlestick Flares:

Number of Candlestick Flares 0
Estimate of Gas Flared Candlestick Flare 0 cubic feet

Gas To Energy

Please report units in cubic feet

Number of Internal Combustion Engines: 18

Quantity of Gas collected for Internal Combustion Engine Annually 2,181,170,071 cubic feet
Methane Destruction efficiency 97 %
Methane Percentage in Landfill Gas before combustion 50 %
Utility Company Receiving Electricity NYSEG

Gas Processed for Use (Other than gas to electricity)

Quantity of Gas Collected for Processing 2,458,404,933 cubic feet
Methane Percentage in Landfill Gas before processing 50 %
On-site or Off-site User of Gas Aria Energy North America LLC

Landfill Gas Recovery Facility/Landfill Data

Facility Contact Rick Covell Phone # (248)412-7825

Contact e-mail address rick.covell@ariaenergy.com Fax # (_____)_____-_____

Operation and maintenance cost for calendar year: $N/A

Does the LGRF experience shut downs: ■ Yes _____ No

If yes, indicate reasons for shut downs. List required submissions that have been attached to this form or the reasons for not attaching a required piece of information:

Utility breaker trips, gas collection system repairs, requests by the utility to shut the plant down and facility maintenance/repairs. See Title V Air Reporting for Startup, Shutdown, and Malfunction Information

Year landfill opened: 1973 Anticipated landfill closure date: 2024

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Results of Condensate Sampling

Submit (attached to this form) condensate quality monitoring results accomplished in accordance with condensate sampling. List submissions (required by this section) that have been attached to this form or the reasons for not attaching a required piece of information:

Refer to the Gas Condensate Report in Section 3.0 (Leachate Wastewater Management)

Landfill Gas Utilized For Energy Recovery

Provide the following information for the landfill gas recovered for energy. **DO NOT INCLUDE THE GAS FLARED!**

	Landfill Gas Collected for Energy Recovery (Cubic Feet)	Steam* Generated (Cubic Feet)	Total Electricity* Generated for onsite and offsite use (K.W.H.)	Total Gas Processed for use other than electricity generation (Cubic Feet)	Condensate Generated (Gallons)	Facility Operation (Hours)
January	216,656,056	N/A	8,245,000	224,897,113	369,543	
February	197,151,804	N/A	8,321,000	177,866,183	248,839	
March	213,757,972	N/A	9,353,000	221,126,642	209,589	
April	207,711,993	N/A	8,602,000	210,803,341	198,425	
May	215,252,597	N/A	9,217,000	212,980,972	199,744	
June	210,903,643	N/A	9,431,000	198,355,670	267,140	
July	202,286,029	N/A	8,240,000	211,751,734	160,282	
August	227,893,537	N/A	9,565,000	173,836,543	196,313	
September	213,783,402	N/A	8,859,000	202,620,264	211,444	
October	231,100,312	N/A	9,471,000	212,112,521	202,700	
November	267,874,347	N/A	11,043,000	201,754,150	204,312	
December	276,798,379	N/A	10,265,000	210,299,800	182,438	
ANNUAL TOTAL	2,681,170,071	N/A	110,612,000	2,458,404,933	2,650,769	

* Provide where applicable.

Normal Weekdays of Operation 7 Normal Hours of Operation 24

Electricity Generated and used/marketed offsite 103,402,514 KWH
Electricity Generated and used onsite 7,209,486 KWH
Gas Processed and used/marketed offsite 2,458,404,933 cubic feet
Gas Processed and used onsite 0 cubic feet

Describe the collection, storage, treatment and disposal techniques used in managing the condensate:

Refer to Section 3.0 (Leachate Wastewater Management) of this report.

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SECTION 12 - COST ESTIMATES AND FINANCIAL ASSURANCE DOCUMENTS

Are there required cost estimates and financial assurance documents for closure and post-closure care?

■ Yes ☐ No If yes, attach additional sheets reflecting annual adjustments for inflation and any changes to the Closure Plan?

SECTION 13 – PROBLEMS

Were any problems encountered during the reporting period (e.g., specific occurrences which have led to changes in facility procedures)?

☐ Yes ■ No If yes, attach additional sheets identifying each problem and the methods for resolution of the problem.

SECTION 14 – CHANGES

Were there any changes from approved reports, plans, specifications, and permit conditions?

☐ Yes ■ No If yes, attach additional sheets identifying changes with a justification for each change.

SECTION 11 – LANDFILL OPERATOR TRAINING

Name of trained landfill operator: Seth Greathouse

Name and location of training course: Landfill Operator Certification, Holiday Inn, Syracuse, NY

Date completed: 12-13-2019

SECTION 16 - ANALYTICAL RESULTS

Submit (attached to this form) tables showing the sample collection date, the analytical results [including all peaks even if below the Method Detection Limits (MDL)], designation of upgradient wells and location number for each environmental monitoring point sampled, applicable water quality standards, and groundwater protection standards if established, MDL's, and Chemical Abstracts Service (CAS) numbers on all parameters. List submissions (required by this section) that have been attached to this form or the reasons for not attaching a required piece of information:

Refer to Section 9.0 (Groundwater Sampling and Analysis) of this report.

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SECTION 17 - COMPARING DATA

Submit (attached to this form) tables or graphical representations comparing current water quality with existing water quality and with upgradient water quality. These comparisons may include Piper diagrams, Stiff diagrams, tables, or other analyses. List submissions (required by this section) that have been attached to this form or the reasons for not attaching a required piece of information:

Refer to Section 9.0 (Groundwater Sampling and Analysis) of this report.

SECTION 18 - DISCUSSION OF RESULTS

Submit (attached to this form) a summary of any contraventions of State water quality standards, significant increases in concentrations above existing water quality, any exceedances of groundwater protection standards, and discussion of results, and any proposed modifications to the sampling and analysis schedule necessary to meet the Existing, Operational and Contingency water quality monitoring requirements. List submissions (required by this section) that have been attached to this form or the reasons for not attaching a required piece of information:

Refer to Section 9.0 (Groundwater Sampling and Analysis) of this report.

SECTION 19 - DATA QUALITY ASSESSMENT

Submit (attached to this form) any required data quality assessment reports. List submissions (required by this section) that have been attached to this form or the reasons for not attaching a required piece of information:

Refer to Section 9.0 (Groundwater Sampling and Analysis) of this report.

SECTION 20 - SUMMARIES OF MONITORING DATA

Submit (attached to this form) a summary of the water quality information presented in Sections 16 and 17 for the year of operation for which the Annual Report is made, noting any changes in water quality which have occurred throughout the year. List submissions (required by this section) that have been attached to this form or the reasons for not attaching a required piece of information:

Refer to Section 9.0 (Groundwater Sampling and Analysis) of this report.

SECTION 21 - SURFACE IMPOUNDMENTS

Does this landfill have a surface impoundment?

☐ Yes ■ No If yes, repeat Sections 15 through 18 above for Quarterly Reports and Section 19 above for Annual report. Attach additional submissions required by this section.

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SECTION 22 - PERMIT/CONSENT ORDER REPORTING REQUIREMENTS

Are there any additional permit/consent order reporting requirements not covered by the previous sections of this form?

☐ Yes ■ No If yes, attach additional sheets identifying the reporting requirements with their respective responses.

SECTION 23 - SIGNATURE AND DATE BY OWNER OR OPERATOR

Owner or Operator must sign, date and submit one completed form to the appropriate Regional Office (See attachment for Regional Office addresses, email addresses and Materials Management Contacts).

The Owner or Operator must also submit one copy by email, fax or mail to:

New York State Department of Environmental Conservation
Division of Materials Management
Bureau of Solid Waste Management
625 Broadway
Albany, New York 12233-7260
Fax 518-402-9041
Email address: SWMFannualreport@dec.ny.gov

I certify, under penalty of law, that the data and other information identified in this report have been prepared under my direction and supervision in compliance with a system designed to ensure that qualified personnel properly and accurately gather and evaluate this information. I am aware that any false statement I make in such report is punishable pursuant to section 71-2703(2) of the Environmental Conservation Law and section 210.45 of the Penal Law.

Signature

2/28/2020
Date

Kyle Black
Name (Print or Type)

District Manager
Title (Print or Type)

kyle.black@wasteconnections.com
Email (Print or Type)

1786 Salcman Road
Address

Waterloo
City

New York 13165
State and Zip

(315) 539-5624
Phone Number

ATTACHMENTS: ■ YES ☐ NO
(Please check appropriate line)

Reprinted (12/19)

2.0 SITE LIFE

The remaining site life for the SMI facility includes both constructed and future expansion landfill areas. The constructed portions of the SMI facility include the Southeast Landfill and initial expansion stage (referred to as the SELF/EX-2 area), the SMI Landfill, the several stages of the western expansion (EX-1 or WEX) area (referred to as Stages 3/4/6), and the first stage (referred to as Stage 7) and the second stage (referred to as Stage 8) of the northeastern expansion (EX-3 or NEX). In 2018, waste placement began in the first phase of expansion area EX-1 (referred to as Stage 6A). In 2019, waste placement began in the second phase of expansion area EX-1 (referred to as Stage 6B). Future expansion areas include the remaining landfill stages (referred to as Stages 5 and6C) within the EX-1 expansion area.

WASTE INTAKE AND AIR SPACE CONSUMED IN 2019

Based on truck scale records, a total of 2,549,532 tons of waste (inclusive of BUDs) was received between January 1, 2019 and December 31, 2019. To determine air space remaining as of December 31, 2019 the remaining volume of airspace was determined as of the aerial flight on March 25, 2019 and supplemented with consumed volume based off truck scale records for the remainder of the year and the historical compaction rate of 0.85 Tons/CY the site. The remaining available airspace as of December 31, 2019 was estimated to be 12,458,109 CY. The remaining available airspace as of December 31, 2018 had been estimated to be 15,457,559 CY therefore the estimated consumed volume of airspace for 2019 is 2,999,450 CY.

The approximate locations of waste placement in Stages 7/8 and Stage 6A/B during 2019 are depicted on Figures 2-1 and 2-3. The following table summarizes air space consumption in each of the constructed landfill areas in 2019.

Landfill Area	Air Space Consumed in 2019	
	Cubic Yards	Tons
Total Air Space Consumed	2,999,449.52	2,549,532

Notes:
1. Tonnage equivalent for air space consumed is based on the historical calculated annual average in-place waste density of 0.85 tons/cubic yard.

PLANNED NEAR-TERM WASTE FILLING LOCATIONS

Near-term waste filling will continue within the constructed and certified landfill areas which include Stage 6A and 6Band, will commence in Stage 6C during 2020. The approximate locations of waste placement in the Stages 7/8, and Stage 6A/B are depicted on Figures 2-1, and 2-3, respectively. Additionally, it is noted that the SELF/EX-2 area contains plateau and veneer fills that represent significant remaining air space that may be utilized for future waste placement. The specific locations of veneer fills that may be utilized will depend on operational considerations and will be determined at a later time.

TOTAL REMAINING AIR SPACE AND SITE LIFE

The total remaining air space and site life for the SMI facility as of January 1, 2020 includes available air space within constructed and certified areas as well as the anticipated air space that will be available within permitted but, yet, unconstructed areas. Remaining air space within unconstructed areas is based on a comparison of anticipated top of liner grades and permitted final grades, with appropriate reductions for final cover thickness. Remaining air space within constructed areas is generally based on extending the 3H:1V design sideslope up from the existing top of slope until reaching either the permitted final waste grade or until a minimum (from an operational perspective) plateau area is reached, at which point the design slope breaks to the 4% plateau slope gradient. Generally, veneer fills on 3H:1V sideslopes are not included in the remaining air space estimate due to the complexity of constructing thin lifts on steeper slopes. However, in limited cases, veneer fills

may be significant and may therefore become operationally feasible for future waste placement. The following table summarizes remaining air space for constructed and future landfill areas.

Landfill Area	Remaining Air Space	
	Cubic Yards	Tons
Constructed Cells	4,620,551	3,927,467
Future Cells (Stage 5)	7,837,558	6,661,924
Total	**12,458,109**	**10,589,393**

Notes:

1. Tonnage equivalent for remaining air space is based on an assumed in-place waste density of 0.85 tons/cubic yard. This assumed value is used for planning estimates and is within the range of average annual historical waste densities.
2. Remaining air space in SELF/EX-2 area includes certain veneer fill areas that have become available due to settlement over time.

To calculate remaining site life, an assumed annual waste intake of 2,180,000 tons, inclusive of BUDs, is assumed. An average in-place waste density of 0.85 tons/cubic yard is also assumed based on historical observed values and planning estimates. Based on these assumptions and the remaining air space presented above, the total estimated remaining site life for the SMI facility is estimated to be 4 years, 11 months. Future waste intake rates and in-place density will affect the remaining site life.

NOTES:

1.) BASE MAP WAS DEVELOPED FROM THE MARCH 25, 2019 AERIAL TOPOGRAPHY.

2.) 2019 FILL AREA LOCATIONS WERE OBTAINED ON REVIEW OF AND COMPARISON OF THE MONTHLY WASTE PLACEMENT FIELD SURVEYS.

WASTE PLACEMENT AREA FOR THE YEAR OF 2019.

E 12,500 N 12,000

E 12,500 N 12,500

E 12,500 N 13,000

E 12,500 N 13,500

E 12,500 N 14,000

E 13,000

E 13,500

E 14,000

SMI Landfill

Stage 8A & 8B

Southeast Landfill

Stage 7A & 7B

STORAGE AREA

STORAGE PILE

WVE 473.4

WVE 480.6

PREPARED BY:
CORNERSTONE ENGINEERING, GEOLOGY AND LAND SURVEYING, PLLC

cornerstone PLLC

		DATE
DESIGNED BY:		
DRAWN BY:	A. ALVERMANN	Feb.2020
CHECKED BY:	T. BROWN	Feb.2020

0 250' 500'

DRAWING SCALE IN FEET

PROJECT: SENECA MEADOWS LANDFILL

2019 ANNUAL REPORT

SENECA FALLS SENECA COUNTY NEW YORK

DRAWING TITLE:

APPROXIMATE LIMIT OF WASTE FILLING - 2019
EX-3 EXPANSION STAGE 7 - 8

Fig. 2-1

4203166

X:\PROJECTS\SENECA MEADOWS\4203166 - SMI 2019 ANNUAL REPORT_PROJECT DRAWINGS\2019 ANNUAL REPORT FIGURES\2019 GENFILLAREAMAP_NEX STAGE 7.DWG 02/27/2020 LAYOUT: WASTE FILLING 2019 (11X17)

NOTES:

1.) BASE MAP WAS DEVELOPED FROM THE MARCH 25, 2019 AERIAL TOPOGRAPHY.

2.) PROPOSED FILL AREAS FOR 2020 ARE BASED ON PROJECTED FILL PROGRESSIONS.

PROJECTED WASTE PLACEMENT FOR THE YEAR 2020.

E 12,500 N 12,000

E 12,500 N 12,500

E 12,500 N 13,000

E 12,500 N 13,500

E 12,500 N 14,000

E 13,000

E 13,500

E 14,000

SMI Landfill

Stage 8A & 8B

Southeast Landfill

Stage 7A & 7B

X:\PROJECTS\SENECA MEADOWS\4203166 - SMI 2019 ANNUAL REPORT_PROJECT DRAWINGS\2019 ANNUAL REPORT FIGURES\2019 GENFILLAREAMAP_NEX STAGE 7.DWG 02/27/2020 LAYOUT: GEN FILL AREA_2020 (11X17)

PREPARED BY:
CORNERSTONE ENGINEERING, GEOLOGY AND LAND SURVEYING, PLLC

cornerstone PLLC

		DATE
DESIGNED BY:		
DRAWN BY:	A. ALVERMANN	Feb.2020
CHECKED BY:	T. BROWN	Feb.2020

0 250' 500'
DRAWING SCALE IN FEET

PROJECT: SENECA MEADOWS LANDFILL
2019 ANNUAL REPORT
SENECA FALLS SENECA COUNTY NEW YORK

DRAWING TITLE:
GENERALIZED FILL AREA MAP FOR CALENDAR YEAR 2020
EX-3 EXPANSION STAGE 7 - 8

Fig. 2-2

4203166

NOTES:

1.) BASE MAP WAS DEVELOPED FROM THE MARCH 25, 2019 AERIAL TOPOGRAPHY.

2.) 2019 FILL AREA LOCATIONS WERE OBTAINED BASED ON REVIEW OF AND COMPARISON OF THE MONTHLY WASTE PLACEMENT FIELD SURVEYS.

WASTE PLACEMENT AREA FOR THE YEAR 2019.

Stage 3A & 3B

Stage 6A

Stage 6B

Stage 6C

50.6 ACRES

Stage 5

E 11,000

N 12,000

N 12,500

E 11,500

E 12,000

E 12,500

N 11,500

DEBRIS

RIP RAP

X:\PROJECTS\SENECA MEADOWS\4203166 - SMI 2019 ANNUAL REPORT_PROJECT DRAWINGS\2019 ANNUAL REPORT FIGURES\2019 GENFILLAREAMAP_WEX STAGE 6A.DWG 02/27/2020 LAYOUT: WASTE FILLING_2019(11X17)

PREPARED BY:
CORNERSTONE ENGINEERING, GEOLOGY AND LAND SURVEYING, PLLC

cornerstone PLLC

		DATE
DESIGNED BY:		
DRAWN BY:	A. ALVERMANN	Feb.2020
CHECKED BY:	T. BROWN	Feb.2020

0 200' 500'
DRAWING SCALE IN FEET

PROJECT: SENECA MEADOWS LANDFILL
2019 ANNUAL REPORT
SENECA FALLS SENECA COUNTY NEW YORK

DRAWING TITLE:
APPROXIMATE LIMIT OF WASTE FILLING - 2019
EX-1 EXPANSION STAGES 6A

Fig. 2-3

4203166

NOTES:

1.) BASE MAP WAS DEVELOPED FROM THE MARCH 25, 2019 AERIAL TOPOGRAPHY.

2.) PROPOSED FILL AREAS FOR 2020 ARE BASED ON PROJECTED FILL PROGRESSIONS.

PROJECTED WASTE PLACEMENT FOR THE YEAR 2020.

Stage 3A & 3B

Stage 6A

Stage 6B

Stage 6C

50.6 ACRES

Stage 5

N 11,500

N 12,000

N 12,500

E 12,000

E 12,500

PREPARED BY:
CORNERSTONE ENGINEERING, GEOLOGY AND LAND SURVEYING, PLLC

cornerstone PLLC

		DATE
DESIGNED BY:		
DRAWN BY:	A. ALVERMANN	Feb.2020
CHECKED BY:	T. BROWN	Feb.2020

0 200' 500'

DRAWING SCALE IN FEET

PROJECT: SENECA MEADOWS LANDFILL

2019 ANNUAL REPORT

SENECA FALLS SENECA COUNTY NEW YORK

DRAWING TITLE:

GENERALIZED FILL AREA MAP FOR CALENDAR YEAR 2020 EX-1 EXPANSION STAGES 5-6A-6B

Fig. 2-4

4203166

X:\PROJECTS\SENECA MEADOWS\4203166 - SWI 2019 ANNUAL REPORT_PROJECT DRAWINGS\2019 ANNUAL REPORT FIGURES\2019 GENFILLAREAMAP_WEX STAGE 6A.DWG 02/27/2020 LAYOUT: GEN FILL AREA_2020(11X17)

3.0 LEACHATE WASTEWATER MANAGEMENT

PRIMARY LEACHATE COLLECTION

Wastewater management at SMI is comprised of the collection, temporary storage, off-site transport and treatment of all leachate, septage, process water, contaminated groundwater or surface water, and landfill gas condensate. During calendar year 2019, wastewater was temporarily stored on-site in two 500,000-gallon and one 1,720,000-gallon glass-fused-to-steel-above-ground leachate storage tanks before being transported off-site for treatment, processed using an evaporator or processed in a reverse osmosis treatment system. where the permeate is discharged and the concentrate is trucked off-site. In total 75,618,467 gallons were treated (Appendix C of Leachate and Gas Condensate Report, this Section), SMI spent approximately $14,504,970 for treatment at an average cost of approximately $0.19 per gallon.

Leachate is defined as any liquid which accumulates in the leachate drawdown wells, any liquid which accumulates within a zone in which refuse has been deposited, or any liquid which has been in contact with or passed through solid waste, or which has been contaminated by liquid which has been in contact with or passed through solid waste. Figure 3-1 presents the existing leachate collection system for the SENECA MEADOWS Landfill. Leachate from the SMI Landfill is routinely removed from perimeter leachate wells #4 through #22. Liquid from the primary and secondary leachate collection system within the double lined cells (Area 1, Area 2, Area 3, and Area 4) is collected at AB Sideriser Station 1 (ABSRS-1) and AB Sideriser Station 2 (ABSRS-2). Leachate from the inactive landfill is primarily collected in the AB leachate drain from one of three sumps: ABMH-1, ABMH-2 or ABMH-3.

Figure 3-1a presents the existing leachate collection system for the Southeast Landfill. Liquid from the primary and secondary leachate collection systems within the double lined cells (Area 1 and Area 2) is collected at SE Sideriser Station 1 (SESRS-1) and at SE Sideriser Station 2 (SESRS-2).

Figure 3-1a also presents the existing leachate collection system for the Southeast Landfill Bumpout. Liquid from the primary and secondary leachate collection systems within the double lined cell is collected at SE Sideriser Station 3 (SESRS-3).

Figure 3-1b presents the existing leachate collection system for the Western Expansion Landfill. Liquid from the primary and secondary leachate collection systems within the double lined cells (Area 3 and Area 4) is collected at WE Sideriser Station 3 (WESRS-3), at WE Sideriser Station 4 (WESRS-4), and at WE Sideriser Station 2 (WESRS-2).

Figure 3-1c presents the existing leachate collection system for the Northeast Expansion Landfill. Liquid from the primary and secondary leachate collection systems within the double lined cells (Area 7 and Area 8) is collected at Northeast Sideriser Station 1 (NESRS-1).

Contact water, septage, wash waters, and process water from construction activities and/or the operation of the Landfill's ancillary facilities is collected and processed as leachate. This includes the groundwater that is collected by the SM-11 drain system, located south of the SMI landfill area, and gravity drains to one of two sumps: SM-11(E) or SM-11(W).

Condensate from the SMI Landfill gas collection system drains to two underground holding tanks. The location of these tanks is presented in Figure 3-2. CT-008 is a 3,000-gallon, double-walled tank located along the perimeter access road near Area 3. Condensate from the Southeast Landfill gas collection system drains to three underground holding tanks. The location of these tanks is presented in Figure 3-2a. SE-CT-0001 is a 2,000-gallon, double-walled tank located on the north side of Black Brook. RP-CT-0001 is a 2,000-gallon, double-walled tank located in the Renewable Resource Park (RRP). RP-CT-0002 is a 48" diameter HDPE sump located at the SMI Landfill Gas Recovery Facility (LFGRF) in the RRP. Condensate from the Southeast Landfill Bumpout (SBO) gas collection system drains to three underground holding tanks. The location of these tanks is also presented in Figure 3-2a. SE-CT-0002 is a 2,000-gallon, double-walled tank located along the east berm of the SBO. SE-CT-0003 is a 2,000-

gallon, double-walled tank located along the south berm of the SBO. SE-CT-0004 is a 2,000-gallon, double-walled tank located along the southwest corner berm of the SBO. IES-HDPE SUMPS is a set of 48" diameter HDPE sumps located at the Innovative Energy gas-to-energy facility. Condensate from the Western Expansion gas collection system drains to two underground holding tanks. The location of these tanks is presented in Figure 3-2b. WE-CT-001 was a 2,000-gallon, double-walled tank which was removed from the north side of the Western Expansion Area 3 for the Stage 6A construction in May 2017. WE-CT-002 is a 2,000-gallon, double-walled tank located east of Western Expansion Area 4b and west of the Southeast Landfill Bumpout. WE-CT-003 is a 2,000-gallon, double walled tank located east of Western Expansion Area 4b. Two additional 2,000-gallon, double-walled condensate tanks (WEX-CT-004 and WEX-CT-005) were installed as part of the Western Expansion for Stages 5 and 6 as shown on Figure 3-2b and Figure 3-2c.

The majority of the liquid collected from the condensate tanks is leachate entering the gas system's horizontal collection trenches, then gravity draining through the header system into the holding tanks.

The Leachate and Gas Condensate Report summarizes the quantities of leachate, groundwater and process water removed from the Site on a monthly basis and the liquid removed from the landfill gas condensate tanks. Table 3-1 is a summary of leachate recirculated back into the Western Expansion or the Northern Expansion. In calendar year 2019, no leachate was recirculated back into the landfill, however, the table has been included as recirculation could potentially occur in future years at the Site. Table 3-2 is a summary of leachate treated at off-site POTW's.

LEACHATE TREATMENT SYSTEM & STORAGE TANK

During 2019, operation of the three-stage reverse osmosis (RO) leachate treatment system and 100,000-gallon, above-ground, concentrate storage tank continued. In calendar year 2019, approximately 22,563,401 gallons of raw leachate were processed and treated through the RO system. Raw leachate was pumped from two 500,000-gallon and one 1,720,000, above-ground, storage tanks to the treatment plant building for processing. Permeate from the treatment system

was discharged to a local sewer system. The concentrate stream was disposed offsite or sent to the on-site evaporator for further processing.

SECONDARY LEACHATE COLLECTION

Flow in the secondary leachate collection and removal system is comprised of construction water, consolidation water and primary liner containment system. Construction water and consolidation water are released from storage above the secondary liner system, and within the wet soil used in the soil liner construction, respective. Liquid from the secondary leachate collection system within the double lined cells (Area 1, Area 2, Area 3, and Area 4) is collected at AB Sideriser Station 1 (ABSRS-1) and AB Sideriser Station 2 (ABSRS-2). Figure 3-1 presents the existing leachate collection system for the SMI Landfill. Liquid from the secondary leachate collection system within the double lined cells (Area 1 and Area 2) of the Southeast Landfill is collected at SE Sideriser Station 1 (SESRS-1) and at SE Sideriser Station 2 (SESRS-2). Figure 3-1a presents the existing leachate collection system for the Southeast Landfill. Liquid from the secondary leachate collection system within the double lined cell of the Southeast Landfill Bumpout (SBO) is collected at SE Sideriser Station 3 (SESRS-3). Figure 3-1a presents the existing leachate collection system for the Southeast Landfill Bumpout. Liquid from the secondary leachate collection system within the double lined cells (Area 3, Area 4, and Area 6) of the Western Expansion Landfill is collected at WE Sideriser Station 3 (WESRS-3), WE Sideriser Station 4 (WESRS 4), and WE Sideriser Station 2 (WESRS 2). Figure 3-1b presents the existing leachate collection system for the Western Expansion Landfill. Figure 3-1c presents the existing leachate collection system for the Northern Expansion Landfill. The Leachate and Gas Condensate Annual Report summarizes the quantities of secondary leachate removed from the Site on a monthly basis. The table below summarizes the acreage covered by each side sump.

Sump ID	Area	Secondary Liner Acreage
ABSRS-1	Area 3	17.3
ABSRS-2	Area 1 & 2	37.0
SESRS-1	Area 1A & 1B	34.2
SERS-2	Area 2	36.01
SERS-3	SBO	35.2
WESRS-2	WEX6	32.07*
WESRS-3	WEX3	35.2
WESRS-4	WEX4	29.5
NESRS	NEX7 & NEX8	37.03

*Includes 14.38 acres from Stage 6A, 12.67 acres from Stage 6B, and 5.02 acres from Stage 6C

The existing Supervisory Control and Data Acquisition (SCADA) system has been used to record flow rates in the secondary sumps in the AB Landfill, Southeast Landfill, the SBO, the Western Expansion, and the Northern Expansion during 2019. Construction and consolidation water may vary based on the amount and intensity of land filling or construction operations above the liner system. Accordingly, flow rates in the secondary LCRS will vary over time.

The flow rates to the secondary sumps at the nine locations summarized above are presented in the table below.

Sump ID	Area	Peak Leakage Rate 30-Day Average for 2019(gal/ac)
ABSRS-1	Area 3	1.74
ABSRS-2	Area 1 & 2	4.83
SESRS-1	SELF 1	7.72
SERS-2	SELF 2	15.43
SERS-3	SBO	12.80
WESRS-2	WEX6	19.83*
WESRS-3	WEX3	6.29
WESRS-4	WEX4	10.09
NESRS	NEX7 & NEX8	3.60

* Flow rate greater than 20 gal/ac per day due to connection of active WEX6B to recently constructed WEX6C (no waste placement). The primary to secondary tie-in seam on the floor between 6B and 6C was open November 4, 2019 for the remainder of the year resulting in an increase in leakage rate. The leakage rate has reduced below 20 gal/ac per day outside of construction related events.

RECIRCULATION AND OFF-SITE TREATMENT

Leachate collected at the sideriser stations located in the SMI, Southeast, Southeast Bumpout, and Western Expansion Landfills is conveyed to two 500,000-gallon and one 1,720,000 on-site storage tanks where it is mixed with primary leachate, septage, process water, contaminated wash water, contact water, and landfill gas condensate prior to being discharged to our RO treatment system for processing, or transported to local POTW's for treatment. In 2019 there was no leachate recirculation

performed. The summaries for leachate recirculation and off-site treatment are provided in Tables 3-1 and 3-2, respectively.

FIGURE 3-1. LEACHATE DRAWDOWN LOCATIONS (SMI LANDFILL)

FIGURE 3-1A. LEACHATE DRAWDOWN LOCATIONS (SOUTHEAST LANDFILL, SOUTHEAST LANDFILL BUMPOUT AND RENEWABLE RESOURCE PARK)

FIGURE 3-1B. LEACHATE DRAWDOWN LOCATIONS (WESTERN EXPANSION LANDFILL)

FIGURE 3-1C. LEACHATE DRAWDOWN LOCATIONS (NORTHERN EXPANSION LANDFILL)

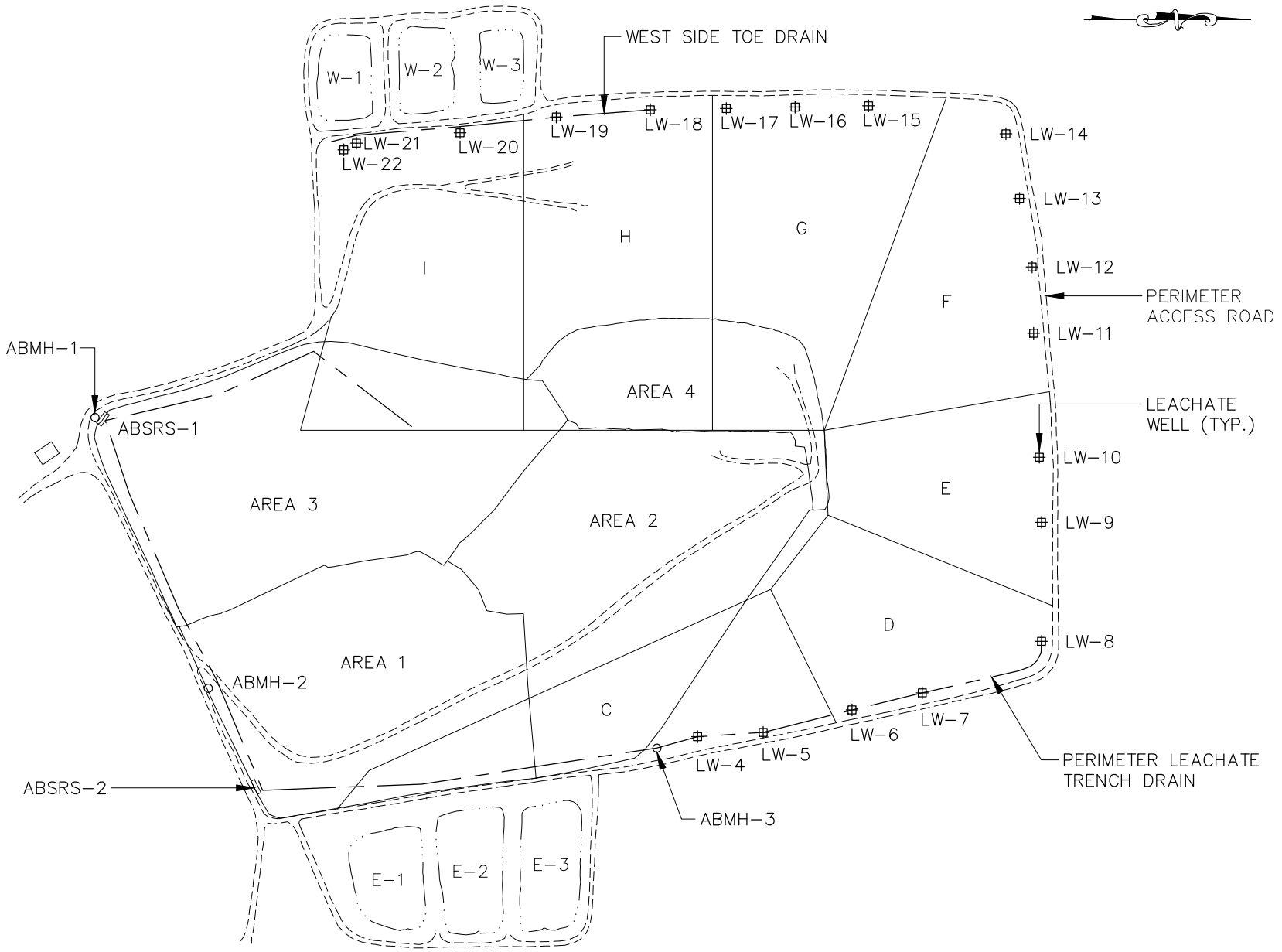
FIGURE 3-2. CONDENSATE TANK LOCATIONS (SMI LANDFILL)

FIGURE 3-2A. CONDENSATE TANK LOCATIONS (SOUTHEAST LANDFILL, SOUTHEAST LANDFILL BUMPOUT AND RENEWABLE RESOURCE PARK)

FIGURE 3-2B. CONDENSATE TANK LOCATIONS (WESTERN EXPANSION LANDFILL)

FIGURE 3-2C. CONDENSATE TANK LOCATIONS (WESTERN EXPANSION LANDFILL)

X:\PROJECTS\SENECA MEADOWS\4203166 – SMI 2019 ANNUAL REPORT_PROJECT DRAWINGS\2019 ANNUAL REPORT FIGURES\2019_SMI LF_LEACHATE DRAWDOWN LOCATIONS.DWG 02/12/2020 LAYOUT: FIG 3-1 (8.5X11)



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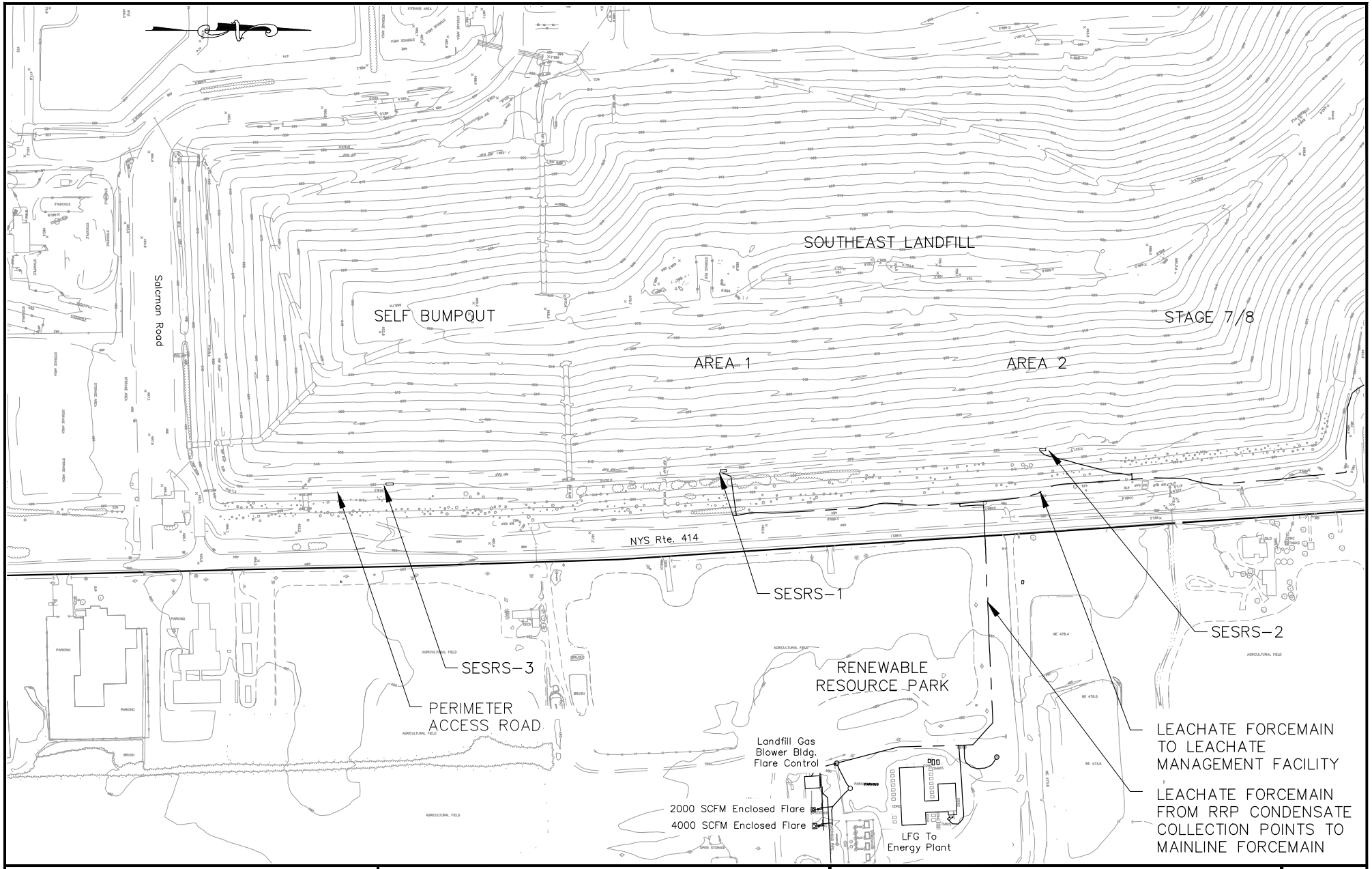
SENECA MEADOWS LANDFILL
2019 ANNUAL REPORT
SENECA FALLS SENECA COUNTY NEW YORK

LEACHATE DRAWDOWN LOCATIONS SMI LANDFILL

FIGURE
3-1

X:\PROJECTS\SENECA MEADOWS\4203166 – SMI 2019 ANNUAL REPORT_PROJECT DRAWINGS\2019 ANNUAL REPORT FIGURES\2019_SELE-SBO_LEACHATE DRAWDOWN LOCATIONS.DWG 02/12/2020 LAYOUT: FIG 3-1A (8.5X11)



cornerstone PLLC

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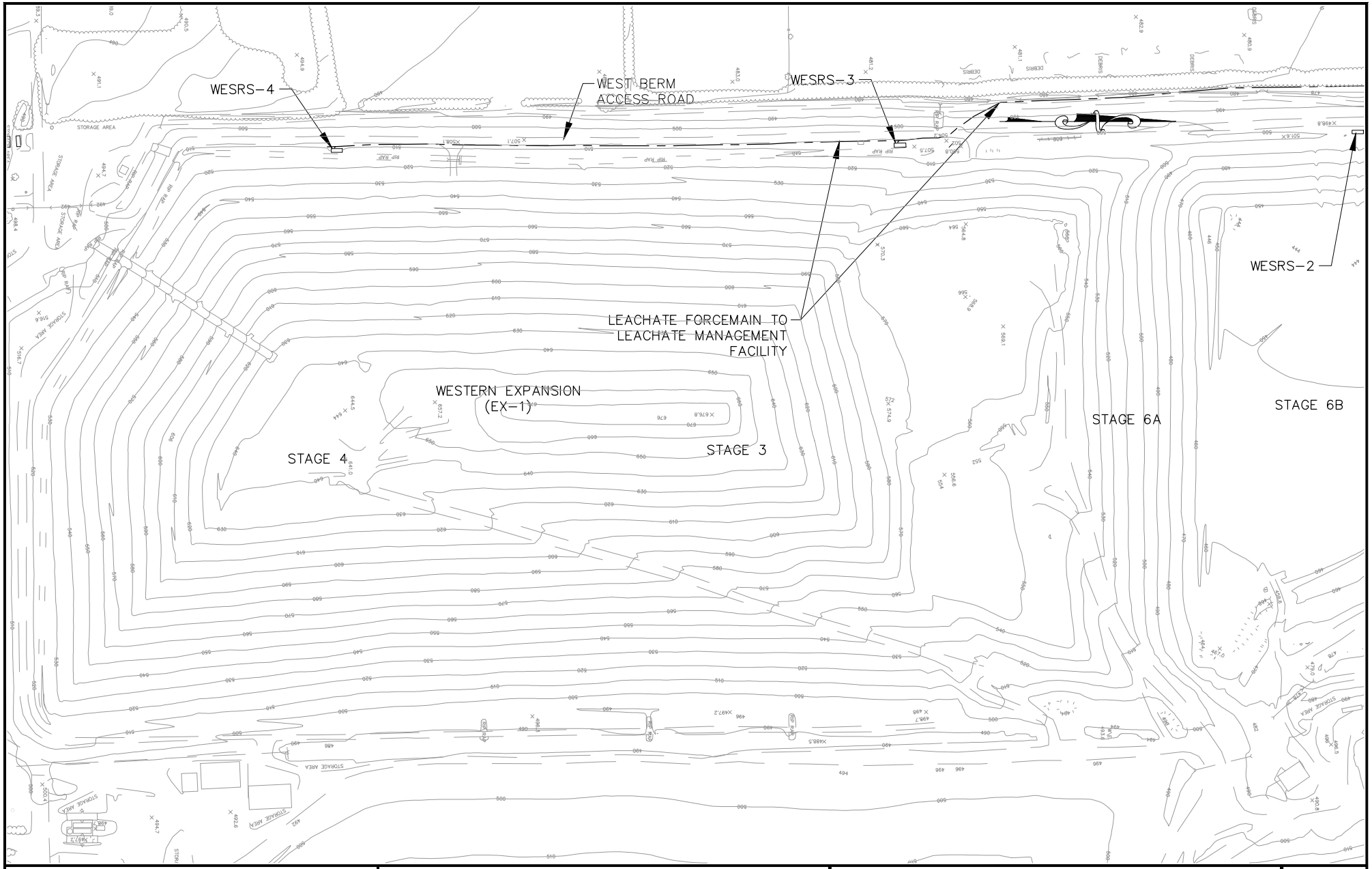
CORNERSTONE ENGINEERING, GEOLOGY AND LAND SURVEYING, PLLC

SENECA MEADOWS LANDFILL
2019 ANNUAL REPORT
SENECA FALLS SENECA COUNTY NEW YORK

LEACHATE DRAWDOWN LOCATIONS
SOUTHEAST LANDFILL, SELF BUMPOUT
& RENEWABLE RESOURCE PARK

FIGURE
3-1a

X:\PROJECTS\SENECA MEADOWS\4203166 – SMI 2019 ANNUAL REPORT_PROJECT DRAWINGS\2019 ANNUAL REPORT FIGURES\2019_WEX_LEACHATE DRAWDOWN LOCATIONS.DWG 02/18/2020 LAYOUT: FIG 3-1B (8.5X11)



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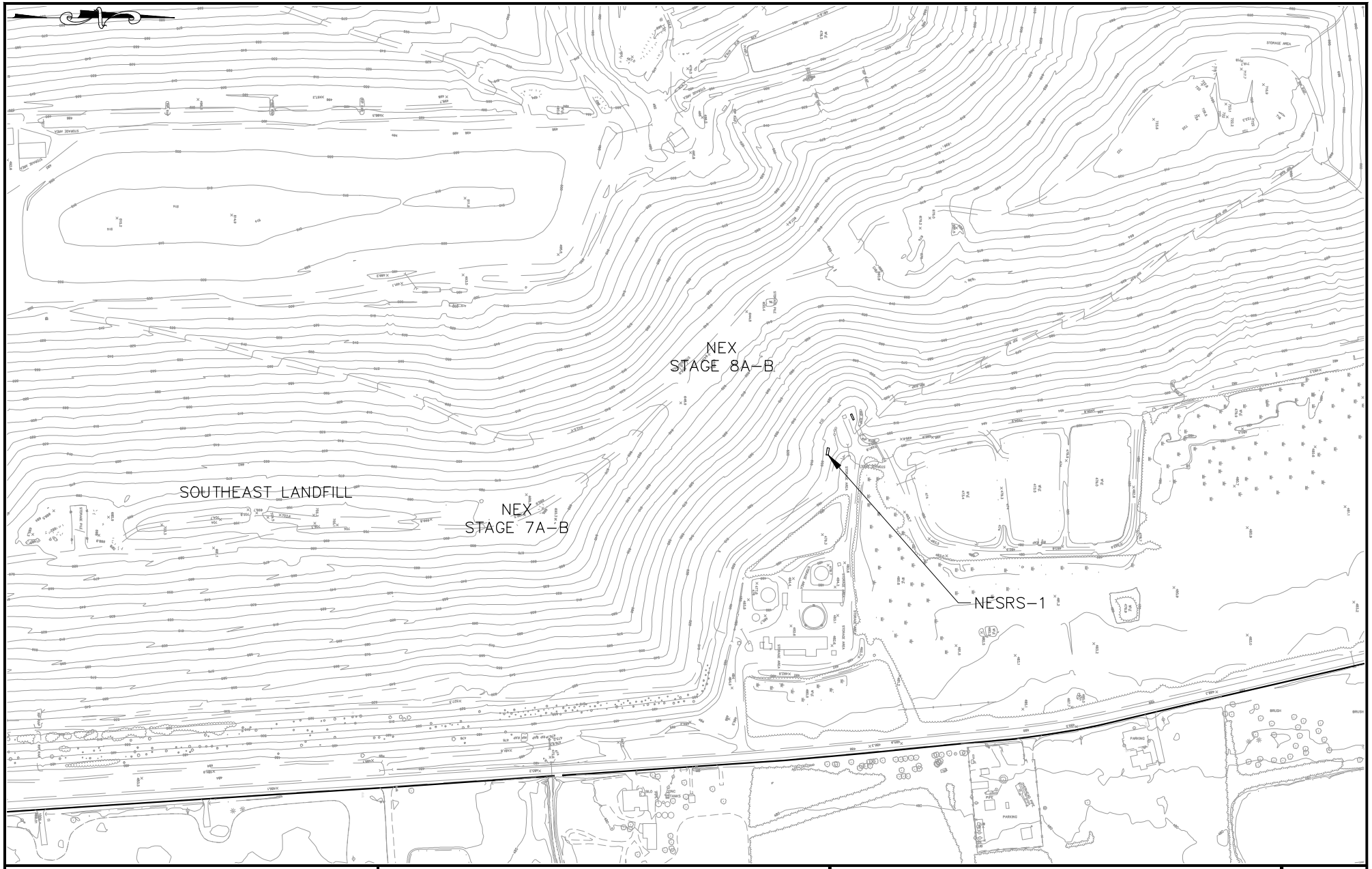
2019 ANNUAL REPORT
SENECA FALLS SENECA COUNTY NEW YORK

LEACHATE DRAWDOWN LOCATIONS WESTERN EXPANSION LANDFILL

FIGURE
3–1b

X:\PROJECTS\SENECA MEADOWS\4203166 – SMI 2019 ANNUAL REPORT_PROJECT DRAWINGS\2019 ANNUAL REPORT FIGURES\2019_NEX_LEACHATE DRAWDOWN LOCATIONS.DWG 02/18/2020 LAYOUT: FIG 3-1C (8.5X11)



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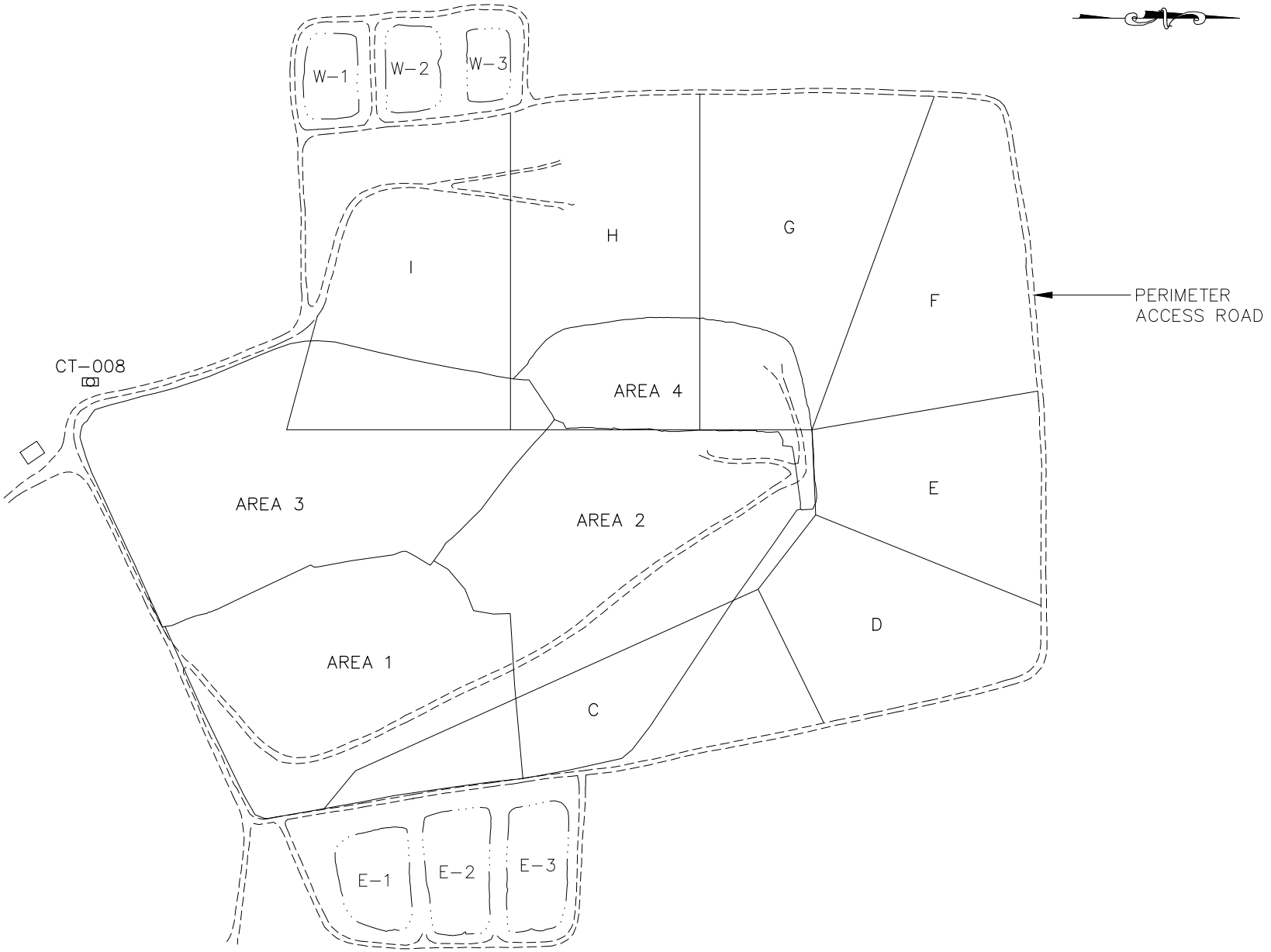
LEACHATE DRAWDOWN LOCATIONS NORTHERN EXPANSION LANDFILL

FIGURE
3-1c

X:\PROJECTS\SENECA MEADOWS\4203166 – SMI 2019 ANNUAL REPORT_PROJECT DRAWINGS\2019 ANNUAL REPORT FIGURES\2019_SMI LF_CONDENSATE TANK LOCATIONS.DWG 02/12/2020 LAYOUT: FIG 3-2 (8.5X11)



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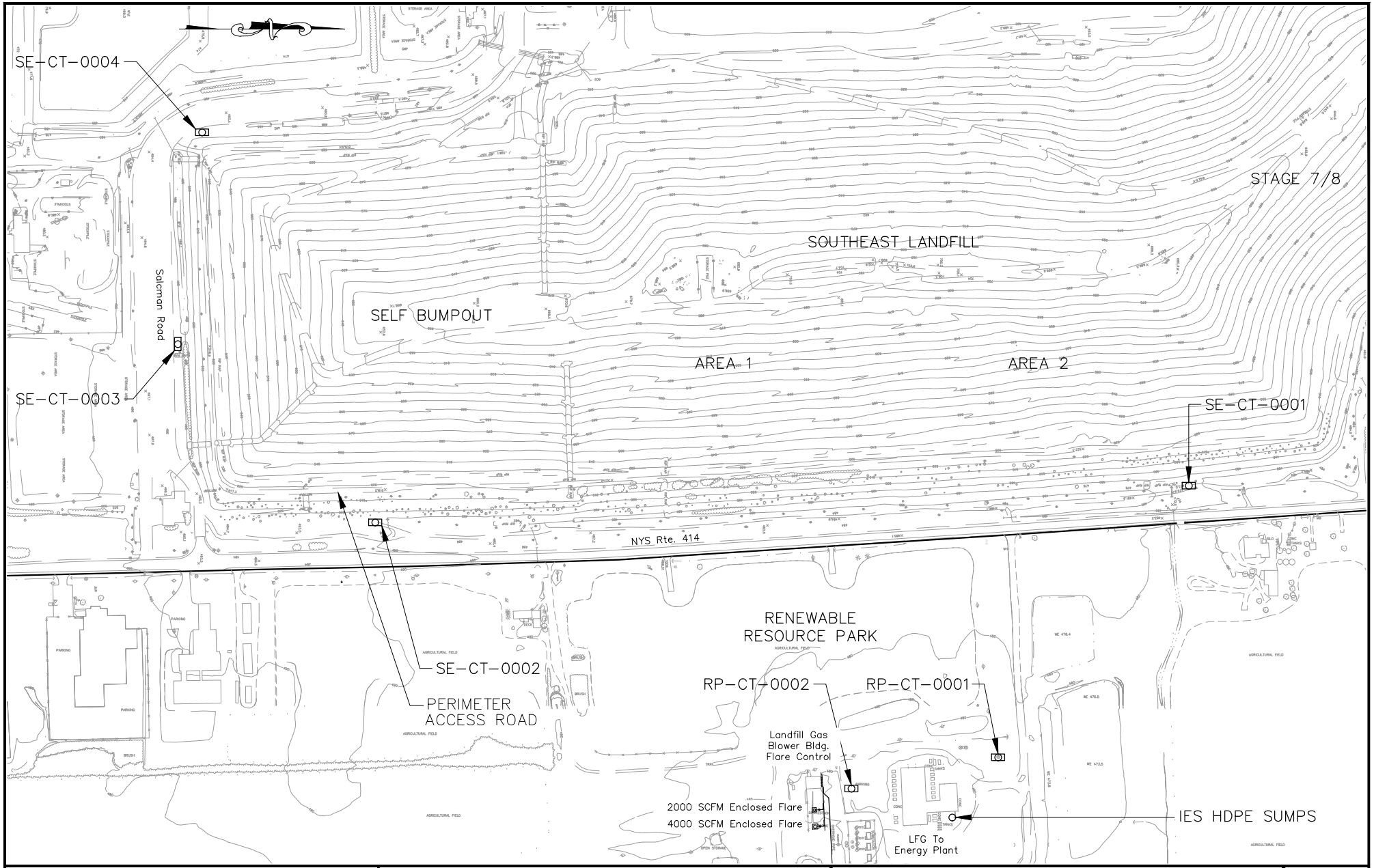
CONDENSATE TANK LOCATIONS
SMI LANDFILL

FIGURE
3-2

X:\PROJECTS\SENECA MEADOWS\4203166 – SMI 2019 ANNUAL REPORT_PROJECT DRAWINGS\2019 ANNUAL REPORT FIGURES\2019_SELE-SBO_CONDENSATE TANK LOCATIONS.DWG 02/12/2020 LAYOUT: FIG 3-2A (8.5X11)



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2019 ANNUAL REPORT
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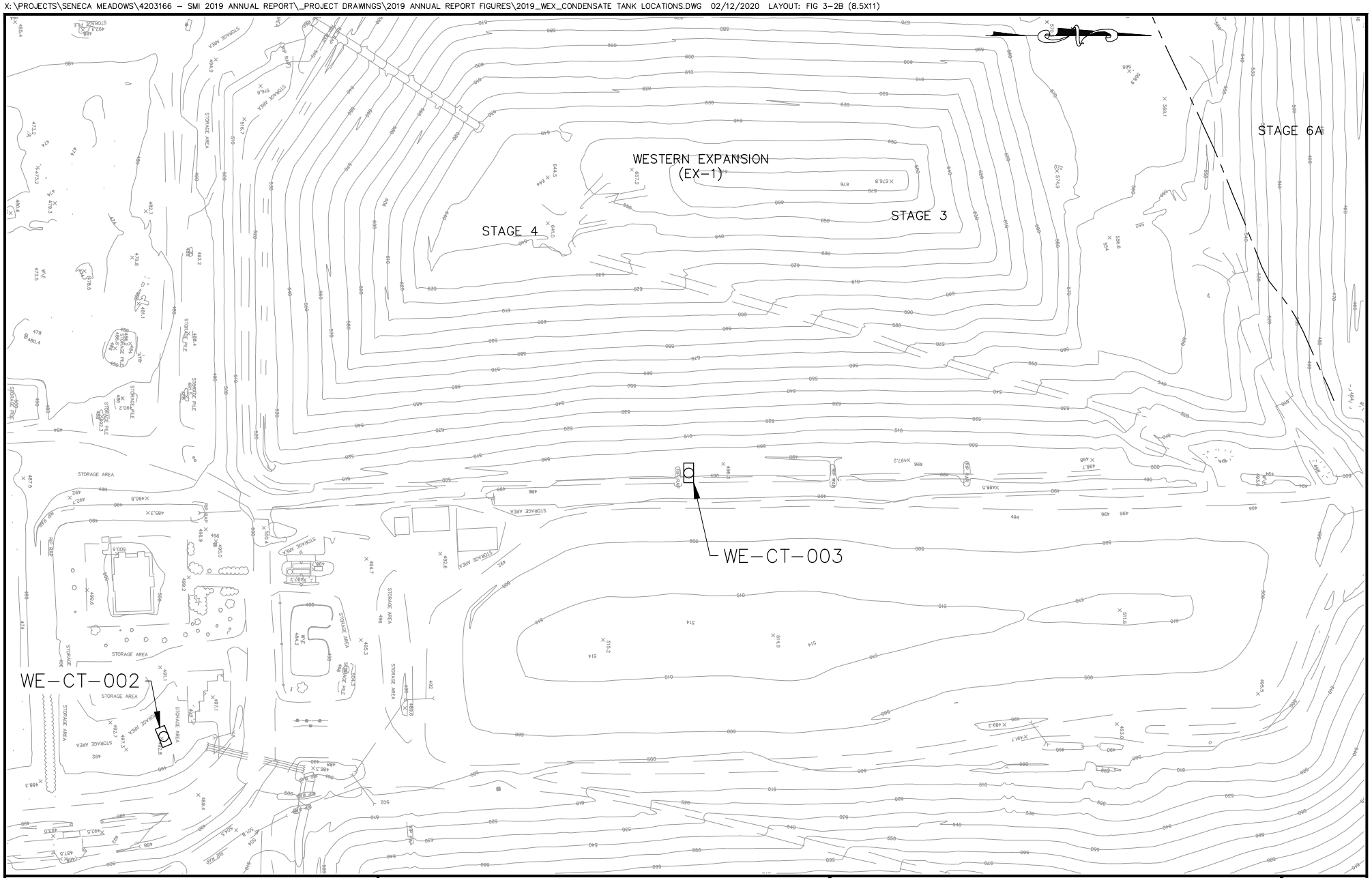
CONDENSATE TANK LOCATIONS SOUTHEAST LANDFILL, SELF BUMPOUT & RENEWABLE RESOURCE PARK

FIGURE
3-2a

X:\PROJECTS\SENECA MEADOWS\4203166 – SMI 2019 ANNUAL REPORT_PROJECT DRAWINGS\2019 ANNUAL REPORT FIGURES\2019_WEX_CONDENSATE TANK LOCATIONS.DWG 02/12/2020 LAYOUT: FIG 3-2B (8.5X11)



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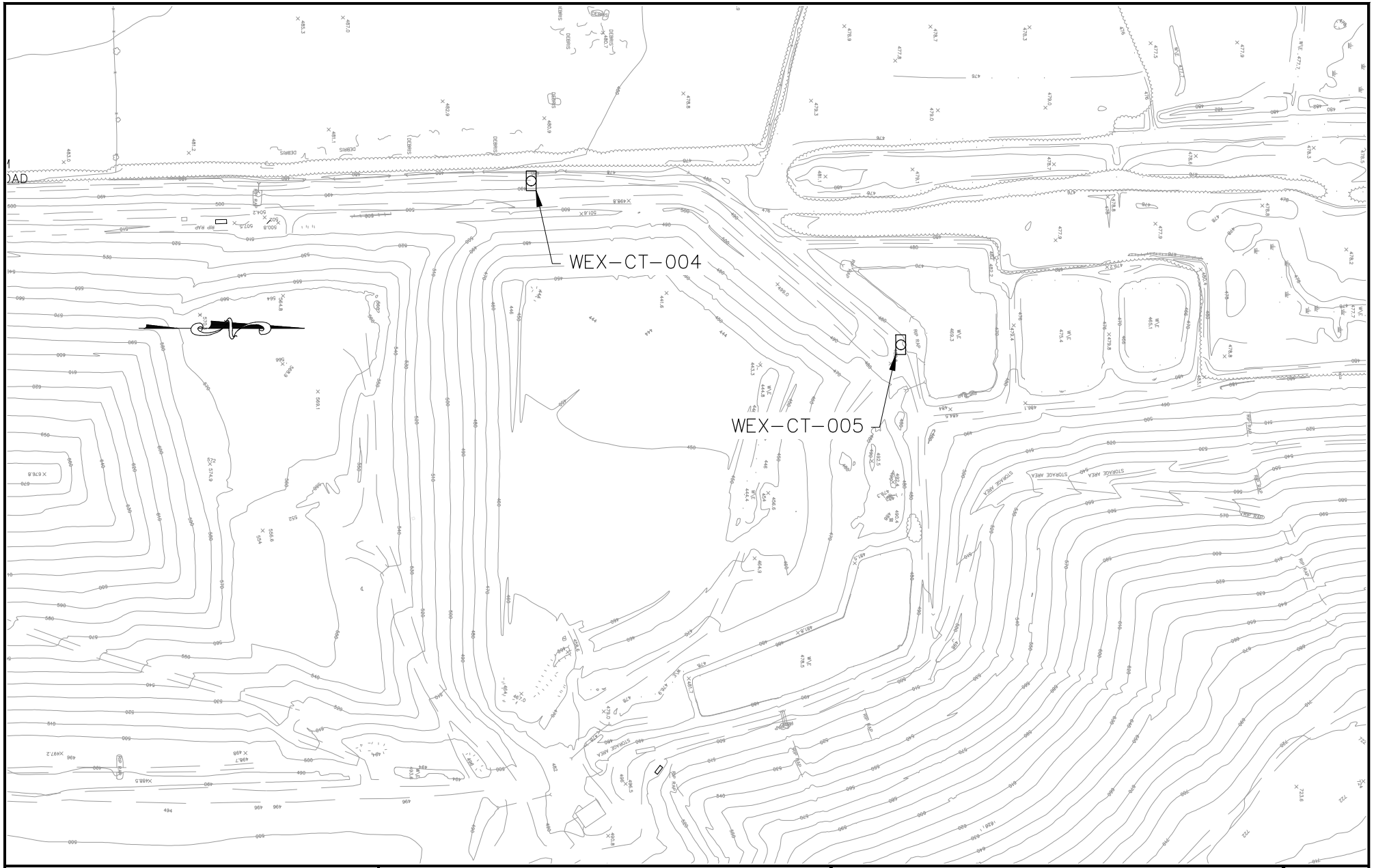
CONDENSATE TANK LOCATIONS
WESTERN EXPANSION LANDFILL

FIGURE
3-2b

X:\PROJECTS\SENECA MEADOWS\4203166 – SMI 2019 ANNUAL REPORT_PROJECT DRAWINGS\2019 ANNUAL REPORT FIGURES\2019_WEX 004_005_CONDENSATE TANK LOCATIONS.DWG 02/12/2020 LAYOUT: FIG 3-2B (8.5X11)



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SENECA MEADOWS LANDFILL
2019 ANNUAL REPORT
SENECA FALLS SENECA COUNTY NEW YORK

CONDENSATE TANK LOCATIONS
WESTERN EXPANSION LANDFILL

FIGURE
3-2c

TABLE 3-1. LEACHATE RECIRCULATION SUMMARY

TABLE 3-2. LEACHATE TREATED OFF-SITE

Seneca Meadows, Inc.
2019 Annual Report
Table 3-1
Leachate Recirculation Summary

Date	Leachate Recirculated to Existing Landfill Spray Application (Gal)	Number of Loads Recirculated	Leachate Recirculated to SMI Injection Lines (Gal)	Number of Loads Recirculated	Leachate Recirculated to SELF Injection Lines (Gal)	Number of Loads Recirculated	Leachate Recirculated to SELF Spray Application (Gal)	Number of Loads Recirculated	Leachate Recirculated to SBO Spray Application (Gal)	Number of Loads Recirculated	Leachate Recirculated to SBO Injection Lines (Gal)	Number of Loads Recirculated	Leachate Recircukated to WEX Spray Application (Gal)	Number of Loads Recirculated	Leachate Recirculated to NEX Spray Application (Gal)	Number of Loads Recirculated
January	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
February	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
March	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
April	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
June	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
July	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
August	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
September	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
October	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
November	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
December	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Grand Total	**0**	**0**														

Note: No leachate was recirculated in 2019. This table is to be reserved for future leachate recirculation records.

Seneca Meadows Inc.

2019 Annual Report

Table 3-2

Leachate Treated Off-Site

Month	Total From Tank(s) / RO To POTW's (Gal)
January	6,612,845
February	6,558,397
March	9,525,949
April	5,878,037
May	7,332,733
June	6,427,165
July	4,853,106
August	5,544,666
September	6,164,810
October	4,757,041
November	5,746,124
December	6,217,594
Total	75,618,467

SENECA MEADOWS, INC.

CLEANING RECORDS

Seneca Meadows, Inc.

2019 Annual Report

Daily Line Cleaning Report

Date	Location	Line Segment (Sta. to Sta.)	Jetter Equipment Used	Pipe Diameter	Pipe Type	Total Length (Linear Footage)	Total Linear Footage Cleaned	No. of Passes	Total Water Used (Gallons)	Total Leachate Removed (Gallons)	Notes
Jun. 19. 19	SELF	CO6E	ROTATOR	8"	HDPE	585'	620'	2	5,000		
Jun. 19. 19	SELF	CO3E	ROTATOR	8"	HDPE	1,489'	1,450'	2	10,000		
JUN. 20. 19	SELF	W. TOE DRAIN	ROTATOR	8"	HDPE	800'	800'	3	10,000		
JUL. 3. 19	SELF	CO5E	ROTATOR	8"	HDPE	1,509'	900'	1	5,000		
JUL. 3. 19	SELF	CO2E	ROTATOR	8"	HDPE	1,470'	900'	1	5,000		
JUL. 10. 19	SELF	CO1E	ROTATOR	8"	HDPE	700'	720'				
JUL. 11. 19	SELF	CO6E	ROTATOR	8"	HDPE	585'	700'				
JUL. 11. 19	SELF	CO1E	ROTATOR	8"	HDPE	700'	720'				
AUG. 19. 19	BUMPOUT	CO10E	ROTATOR	8"	HDPE	1,028'	850'	2	5,000		
AUG. 19. 19	BUMPOUT	CO9E	ROTATOR	8"	HDPE	420'	600'	2	3,000		
AUG. 19. 19	BUMPOUT	CO1E	ROTATOR	8"	HDPE	1,100'	900'	2	10,000		
AUG. 20. 19	BUMPOUT	CO2E	ROTATOR	8"	HDPE	460'	460'	2	2,000		
AUG. 20. 19	BUMPOUT	CO5E	ROTATOR	8"	HDPE	1,020'	900'	1	6,000		
AUG. 20. 19	BUMPOUT	CO4E	ROTATOR	8"	HDPE	650'	560'	2	3,000		
AUG. 20. 19	BUMPOUT	CO7E	ROTATOR	8"	HDPE	580'	600'	2	2,500		
AUG. 20. 19	BUMPOUT	CO5W	ROTATOR	8"	HDPE	1,020'	500'	1	2,000		
AUG. 20. 19	BUMPOUT	CO2W	FOOTBALL	8"	HDPE	682'	600'	2	3,000		
AUG. 20. 19	BUMPOUT	CO1W	FOOTBALL	8"	HDPE	659'	600'	2	3,000		
AUG. 21.19	BUMPOUT	CO5E	ROTATOR	8"	HDPE	1,020'	1,100'	1	6,500		
AUG. 21.19	BUMPOUT	CO8E	ROTATOR	8"	HDPE	320'	300'	2	1,500		
AUG. 21.19	BUMPOUT	CO3E	ROTATOR	8"	HDPE	330'	340'	2	1,000		
AUG. 21.19	SELF	CO14E	ROTATOR	8"	HDPE	1,498'	1450'	2	6,000		
AUG. 22. 19	SELF	W. TOE DRAIN	ROTATOR	8"	HDPE	800'	800'	2	6,000		
AUG. 22. 19	STAGE 7/8	CO9E	ROTATOR	8"	HDPE	600'	600'	1	2,500		
AUG. 22. 19	STAGE 7/8	CO10E	ROTATOR	8"	HDPE	600'	500'	1	3,000		
AUG. 23. 19	STAGE 7/8	CO10E	ROTATOR	8"	HDPE	600'	600'	1	1,500		
AUG. 23. 19	STAGE 7/8	CO11E	ROTATOR	8"	HDPE	1,534'	900'	1	11,000		
AUG. 26. 19	STAGE 7/8	CO11E	ROTATOR	8"	HDPE	1,534'	1,300'		25,000		
AUG. 27. 19	STAGE 7/8	CO10E	ROTATOR	8"	HDPE	600'	610'	1	2,700		
AUG. 27. 19	STAGE 7/8	CO9E	ROTATOR	8"	HDPE	600'	600'	1	3,000		
AUG. 27. 19	STAGE 7/8	CO7E	ROTATOR	8"	HDPE	581'	600'	2	3,000		
AUG. 28. 19	STAGE 7/8	CO6E	ROTATOR	8"	HDPE	935'	600'	1	4,000		
AUG. 29. 19	WEX	CO7W	ROTATOR	8"	HDPE	612'	500'	1	2,500		
AUG. 29. 19	WEX	CO6W	ROTATOR	8"	HDPE	1,800'	900'	1	10,000		
AUG. 30. 19	STAGE 6	CO4W	ROTATOR	8"	HDPE	502'	550'	1	2,500		
AUG. 30. 19	STAGE 6	CO2W	ROTATOR	8"	HDPE	548'	550'	1	2,500		
AUG. 30. 19	STAGE 6	CO1W	ROTATOR	8"	HDPE	1,300'	900'	1	7,000		
AUG. 30. 19	STAGE 6	CO6W	ROTATOR	8"	HDPE	420'	420'	2	2,000		
SEP. 3. 19	STAGE 6	CO5W	ROTATOR	8"	HDPE	1,200'	1,250'		15,000		
SEP. 4. 19	STAGE 6	CO1W	ROTATOR	8"	HDPE	1,300'	1,300'		7,000		
SEP. 4. 19	STAGE 6	CO2W	ROTATOR	8"	HDPE	548'	548'	1	2,500		
SEP. 4. 19	STAGE 6	CO4W	ROTATOR	8"	HDPE	502'	502'	1	2,000		
SEP. 4. 19	STAGE 6	CO3W	ROTATOR	8"	HDPE	273'	328'	2	1,000		
SEP. 4. 19	STAGE 6	CO7W	ROTATOR	8"	HDPE	328'	273'	2	1,000		
SEP. 5. 19	WEX	CO6W	ROTATOR	8"	HDPE	1,800'	1,300'		20,000		
SEP. 6. 19	NEX	CO6E	ROTATOR	8"	HDPE	935'	900'		15,000		
SEP. 9. 19	NEX	CO3E	ROTATOR	8"	HDPE	1,588'	900'		8,000		
SEP. 9. 19	NEX	CO2N	ROTATOR	8"	HDPE	1,150'	450'		8,000		
SEP. 10 .19	NEX	CO2N	ROTATOR	8"	HDPE	1,150'	600'		5,000		
SEP. 11. 19	NEX	CO6E	ROTATOR	8"	HDPE	935'	300'		5,000		
SEP. 11. 19	NEX	CO3E	ROTATOR	8"	HDPE	1,588'	300'		5,000		
SEP. 12.19	WEX	CO13W	ROTATOR	8"	HDPE	790'	800'		4,000		
SEP. 13. 19	WEX	CO14S	ROTATOR	8"	HDPE	689'	689'		5,000		
SEP. 13. 19	WEX	CO15S	ROTATOR	8"	HDPE	994'	900'		8,000		
SEP. 16. 19	WEX	CO15S	ROTATOR	8"	HDPE	994'	900'		5,000		
SEP. 16. 19	WEX	CO14S	ROTATOR	8"	HDPE	689'	700'		5,000		
SEP. 17. 19	NEX	CO3E	ROTATOR	8"	HDPE	1,550'	1,300'		12,000		
SEP. 17. 19	NEX	CO2N	ROTATOR	8"	HDPE	1,149'	550'		3,000		
SEP. 18. 19	NEX	CO2N	ROTATOR	8"	HDPE	1,149'	1,150'		10,000		
SEP. 19. 19	WEX	CO1W	ROTATOR	8"	HDPE	235'	235'				
SEP. 19. 19	WEX	CO8W	ROTATOR	8"	HDPE	238'	238'				
SEP. 24. 19	WEX	CO13W	ROTATOR	8"	HDPE	790'	800'		4,000		
SEP. 24. 19	WEX	CO9W	ROTATOR	8"	HDPE	516'	300'		2,500		
SEP. 24. 19	WEX	CO10W	ROTATOR	8"	HDPE	1,300'	500'		2,500		
SEP. 25. 19	WEX	CO10W	ROTATOR	8"	HDPE	1,300'	600'		3,500		
SEP. 26. 19	TANTALO	COW	STANDARD	8"	HDPE	150'	200'		2,000		
SEP. 26. 19	TANTALO	COE	STANDARD	8"	HDPE	325'	350'		2,500		
SEP. 26. 19	TANTALO	CO6	STANDARD	8"	HDPE	900'	700'		3,000		
SEP. 27. 19	WEX	CO10W	ROTATOR	8"	HDPE	1,300'	900'		6,000		
SEP. 27. 19	WEX	CO9W	ROTATOR	8"	HDPE	516'	516'		3,000		
SEP. 27. 19	WEX	CO11W	ROTATOR	8"	HDPE	390'	400'		2,000		
SEP. 30. 19	WEX	CO10W	CHISEL	8"	HDPE	1,300'	1,300'		13,000		
SEP. 30. 19	WEX	CO10W	CHISEL	8"	HDPE	1,300'	1,300'		13,000		
OCT. 1. 19	WEX	CO8W	ROTATOR	8"	HDPE	238'	235'		3,000		
OCT. 1. 19	WEX	CO12W	ROTATOR	8"	HDPE	230'	235'		3,000		
OCT. 2. 19	WEX	CO8W	ROTATOR	8"	HDPE	238'	235'		3,000		

Seneca Meadows, Inc.

2019 Annual Report

Daily Line Cleaning Report

Date	Location	Line Segment (Sta. to Sta.)	Jetter Equipment Used	Pipe Diameter	Pipe Type	Total Length (Linear Footage)	Total Linear Footage Cleaned	No. of Passes	Total Water Used (Gallons)	Total Leachate Removed (Gallons)	Notes
OCT. 2. 19	WEX	CO2W	ROTATOR	8"	HDPE	1,300'	900'		8,000		
OCT. 2. 19	WEX	CO3W	ROTATOR	8"	HDPE	1,500'	900'		8,000		
OCT. 3. 19	WEX	CO3W	ROTATOR	8"	HDPE	1,500'	1,300'		12,000		
OCT. 4. 19	WEX	CO2W	ROTATOR	8"	HDPE	1,300'	1,300'		7,000		
OCT. 4. 19	SELF	W. TOE DRAIN	ROTATOR	8"	HDPE	800'	800'	1	8,000		
OCT. 5. 19	SELF	W. TOE DRAIN	ROTATOR	8"	HDPE	800'	800'	2	6,500		
OCT 7. 19	WEX	CO2W	ROTATOR	8"	HDPE	1,300	900'		3,000		
OCT 7. 19	WEX	CO4W	ROTATOR	8"	HDPE	640'	640'	2	3,000		
OCT 9. 19	TANTALO	CO6	SINGLE PEN	6"	PVC	900'	900'	1	3,000		
OCT 9. 19	TANTALO	CO10	SINGLE PEN	6"	PVC	1,100'	900'	1	4,000		
OCT 9. 19	TANTALO	CO8	SINGLE PEN	6"	PVC	900'	900'	1	5,000		
OCT 14. 19	TANTALO	CO2	SINGLE PEN	6"	PVC	900'	900'	2	6,000		
OCT 14. 19	TANTALO	CO6	SINGLE PEN	6"	PVC	900'	900'	1	2,000		
OCT 14. 19	TANTALO	CO8	SINGLE PEN	6"	PVC	900'	900'	1	2,000		
OCT 14. 19	TANTALO	CO10	SINGLE PEN	6"	PVC	1,100'	900'	1	2,000		
OCT 15. 19	TANTALO	COE	SINGLE PEN	6"	PVC	325'	320'	1	800		
OCT 15. 19	TANTALO	COW	SINGLE PEN	6"	PVC	150'	300'	1	800		
OCT 23. 19	BUMPOUT	CO3E	ROTATOR	6"	HDPE	330'	321'		800		
OCT 30. 19	AB	A1D	CHISEL	6"	PVC		800'		3,500		
OCT 30. 19	AB	A2A	CHISEL	6"	HDPE		130'		3,000		
OCT 30. 19	AB	A1E	CHISEL	6"	HDPE		40'		3,000		

SENECA MEADOWS, INC.

LEACHATE AND GAS CONDENSATE REPORT

2019 ANNUAL REPORT

LEACHATE AND GAS CONDENSATE REPORT

2019 Annual Report

SENECA MEADOWS SOLID WASTE MANAGEMENT FACILITY

WASTE CONNECTIONS, INC.
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FEBRUARY 2020

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FIGURES AND TABLES

APPENDICES

EXECUTIVE SUMMARY

The monitoring of leachate and gas condensate was conducted at the Seneca Meadows Solid Waste Management Facility, Seneca Falls, New York, during 2019 in compliance with an Environmental Monitoring Plan (EMP) and Site Analytical Plan (SAP).

Leachate samples were collected from above the primary liner systems of all lined fill areas at the facility, from leachate recovery wells on the Existing Landfill, and from drains that service the A/B Overfill Area of the Existing Landfill and the previous SM-11 disposal area. Samples of liquid from the secondary liner systems of each lined fill area were also collected. Composite samples of gas condensate were collected from various storage tanks at the facility.

The sampling of leachate, secondary liquids, and gas condensate was conducted semi-annually during the second and fourth quarters. The liquids collected from secondary liner systems were also sampled during the first and third quarters.

The semi-annual samples (second and fourth quarters) were analyzed for the expanded list of chemical parameters (minus dioxins and furans) identified in 6 NYCRR Part 360-2.11(d)(6), which includes general chemistry parameters, metals, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), herbicides, and pesticides. The secondary liquid samples collected during the first and third quarters were analyzed for the baseline list of parameters, which includes general chemistry parameters, metals, and VOCs.

Stiff and Piper diagrams of the leachate and gas condensate samples revealed cation compositions dominated by sodium and anion compositions consisting mainly of chloride and bicarbonate.

The analytical results showed that most general chemistry parameters except hexavalent chromium, total cyanide, nitrate, and sulfide were elevated in the leachate and gas condensate samples relative to naturally-occurring

groundwater at the site. Arsenic, boron, chromium, iron, magnesium, manganese, potassium, and sodium were also elevated. Aluminum, barium, cobalt, copper, lead, nickel, thallium, vanadium, and zinc were slightly elevated relative to groundwater concentrations. Antimony, beryllium, mercury, silver, and tin were rarely detected or were detected at trace levels.

A few volatile organic compounds, mainly acetone and 2-butanone, and some semi-volatile organic compounds, mainly phenolic compounds, were detected in the leachate samples from both semi-annual events. No PCBs, pesticides, or herbicides were detected in any of the samples.

By comparison to the leachate samples, the gas condensate samples exhibited lower values for many of the general chemistry parameters. Hexavalent chromium, cyanide, and nitrate were not detected in the samples. In addition, beryllium, cobalt, selenium, silver, thallium, tin, and vanadium were not detected in either of the two semi-annual condensate samples. Aluminum, antimony, arsenic, copper, iron, lead, zinc, and mercury concentrations were slightly higher than those found in the leachate samples.

Fewer organic compounds were detected in the gas condensate samples as compared to the leachate samples. Acetone, 2-butanone, and phenolic compounds were the dominant organic compounds in the gas condensate samples, and on average, were higher in the gas condensate samples than in the leachate samples. One PCB compound was detected at a low level in one of the semi-annual samples. No pesticides or herbicides were detected in the samples.

Samples collected from the west end of the SM-11 drain were substantially more dilute than the leachate samples, but continue to show slight exceedances of the groundwater standards for a few analytes.

The chemical data and Stiff diagrams for each secondary sampling location showed no signs of impacts from primary leachate except for sideriser sumps SESRS-1 and SESRS-2, which showed potential limited impacts, and sump ABSRS-2, which was temporarily impacted by primary

leachate during construction in 2017. For each of these sumps, the volume of liquids collected during 2019 were well within the regulatory action level of 20 gallons per acre per day. Evaluations of analytical data for samples of porewater from beneath the secondary liner systems also showed no indications that the integrity of the liners had been compromised.

The volumes of leachate and gas condensate collected during 2019 at various sumps and storage tanks at the solid waste facility were recorded monthly and are provided in this report.

1.0 INTRODUCTION

This report summarizes the results of leachate and landfill gas condensate monitoring conducted at the Seneca Meadows Solid Waste Management Facility, Seneca Falls, New York, during 2019.

Leachate and gas condensate monitoring at the landfill is conducted for the purposes of:

- Characterizing leachate and gas condensate quality,
- Monitoring the quantities of leachate and gas condensate generated at the facility, and
- Evaluating the integrity of landfill liner systems.

Leachate and gas condensate monitoring consists of the semi-annual sampling and analyzing of leachate generated above the primary liners of lined landfills at the facility (i.e., the A/B area of the Existing Landfill, the Southeast Landfill, the Southeast Landfill Bumpout, the Western Expansion Landfill, and the Northern Expansion Landfill), from leachate recovery wells that surround the Existing Landfill, and from gas condensate collected at each of the landfills and the Renewable Resource Recovery Facility. Liquid collected from the secondary liner systems of the lined landfills is sampled and analyzed quarterly.

In addition, drainage from the west end of the SM-11 drain located along the southern boundary of the Existing Landfill is sampled as part of the leachate monitoring program. The SM-11 drain was installed to capture and dispose of shallow groundwater drained from an area south of the Existing Landfill where waste was previously removed (known as the SM-11 area). The drainage is sampled to monitor the leaching of residual contaminants by shallow groundwater flow.

Leachate, secondary liquid, and gas condensate are monitored semi-annually during the second and fourth quarters of the year (April and October) and are analyzed for the 6 NYCRR Part 360 list of expanded chemical parameters (minus dioxins and furans), which includes field parameters, general chemistry parameters, metals, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), pesticides, and herbicides.

In addition to the semi-annual events, liquids collected from the secondary liner systems are also sampled during the first and third quarters of the year (January and July). The first and third quarter samples are analyzed for the Part 360 list of baseline chemical parameters, which includes field parameters, general chemistry parameters, metals, and VOCs. The analytical data obtained from the secondary liner systems are used to assess the performance of the primary liner systems.

Stiff and Piper diagrams were used to define the general chemical characteristics of the leachate and gas condensate samples. The analytical results were also reviewed to identify chemical parameters that were substantially elevated relative to non-contaminated groundwater at the facility. Parameters exhibiting elevated concentrations were identified as possible indicators of impacts to groundwater and surface water at the facility.

In addition to monitoring leachate chemical quality, the quantity of leachate generated by the facility is also monitored. Leachate collected from the liner systems of lined landfills at the facility (i.e., all areas except the Existing Landfill) and from leachate recovery wells at the Existing Landfill is pumped by an automated system through a dual containment forcemain to two on-site 500,000-gallon leachate storage tanks. A site-wide Supervisory Control and Data Acquisition (SCADA) system tabulates the daily and year-to-date volumes of leachate generated by various sources at the facility. The volume data are included in the semi-annual monitoring reports and are summarized in this report.

Gas recovered from the landfills is conveyed along a header to an electrical generating facility and gas flares. Condensate formed during the conveyance is collected at

Table 2-1

Leachate and Gas Condensate Sample Summary

Sample Number	Description	Location
1st Quarter 2019		
ABSRS-1(S)	Liquid / Secondary liner system	A/B Overfill Area 1
ABSRS-2(S)	Liquid / Secondary liner system	A/B Overfill Area 2
NEXSRS-7(S)	Liquid / Secondary liner system	Northern Expansion Area
SESRS-1(S)	Liquid / Secondary liner system	Southeast Landfill Area 1
SESRS-2(S)	Liquid / Secondary liner system	Southeast Landfill Area 2
SESRS-3(S)	Liquid / Secondary liner system	Southeast Landfill Bumpout
WEXSRS-2(S)	Liquid / Secondary liner system	Western Expansion Area
WEXSRS-3(S)	Liquid / Secondary liner system	Western Expansion Area
WEXSRS-4(S)	Liquid / Secondary liner system	Western Expansion Area
2nd Quarter 2019		
ABSRS-1(P)	Leachate / Primary liner system	A/B Overfill Area 1
ABSRS-1(S)	Liquid / Secondary liner system	A/B Overfill Area 1
ABSRS-2(P)	Leachate / Primary liner system	A/B Overfill Area 2
ABSRS-2(S)	Liquid / Secondary liner system	A/B Overfill Area 2
NEXSRS-7(P)	Leachate / Primary liner system	Northern Expansion Area
NEXSRS-7(S)	Liquid / Secondary liner system	Northern Expansion Area
SESRS-1(P)	Leachate / Primary liner system	Southeast Landfill Area 1
SESRS-1(S)	Liquid / Secondary liner system	Southeast Landfill Area 1
SESRS-2(P)	Leachate / Primary liner system	Southeast Landfill Area 2
SESRS-2(S)	Liquid / Secondary liner system	Southeast Landfill Area 2
SESRS-3(P)	Leachate / Primary liner system	Southeast Landfill Bumpout
SESRS-3(S)	Liquid / Secondary liner system	Southeast Landfill Bumpout
WEXSRS-2(P)	Leachate / Primary liner system	Western Expansion Area
WEXSRS-2(S)	Liquid / Secondary liner system	Western Expansion Area
WEXSRS-3(P)	Leachate / Primary liner system	Western Expansion Area
WEXSRS-3(S)	Liquid / Secondary liner system	Western Expansion Area
WEXSRS-4(P)	Leachate / Primary liner system	Western Expansion Area
WEXSRS-4(S)	Liquid / Secondary liner system	Western Expansion Area
LW-4	Leachate Recovery Well	Existing Landfill
LW-8	Leachate Recovery Well	Existing Landfill
LW-12	Leachate Recovery Well	Existing Landfill
LW-16	Leachate Recovery Well	Existing Landfill
LW-20	Leachate Recovery Well	Existing Landfill
T-008	Gas condensate tank	Existing Landfill
SE CT-001	Gas condensate (Tank #1)	Southeast Landfill
SE CT-002	Gas condensate (Tank #2)	Southeast Landfill Bumpout
SE CT-003	Gas condensate (Tank #2)	Southeast Landfill Bumpout
SE CT-004	Gas condensate (Tank #2)	Southeast Landfill Bumpout
WE CT-001	Gas Condensate (Tank #1)	Western Expansion Area
WE CT-002	Gas Condensate (Tank #2)	Western Expansion Area
RRPCT1	Gas condensate (Tank #1)	Renewable Resource Recovery Fac.
RRPCT2	Gas condensate (Tank #2)	Renewable Resource Recovery Fac.
RRPCT1-IES	Gas condensate (Tank #1)	Renewable Resource Recovery Fac.
SM-11W	West end of SM-11 drain	SM-11 area

Table 2-1

Leachate and Gas Condensate Sample Summary

Sample Number	Description	Location
3rd Quarter 2019		
ABSRS-1(S)	Liquid / Secondary liner system	A/B Overfill Area 1
ABSRS-2(S)	Liquid / Secondary liner system	A/B Overfill Area 2
NEXSRS-7(S)	Liquid / Secondary liner system	Northern Expansion Area
SESRS-1(S)	Liquid / Secondary liner system	Southeast Landfill Area 1
SESRS-2(S)	Liquid / Secondary liner system	Southeast Landfill Area 2
SESRS-3(S)	Liquid / Secondary liner system	Southeast Landfill Bumpout
WEXSRS-2(S)	Liquid / Secondary liner system	Western Expansion Area
WEXSRS-3(S)	Liquid / Secondary liner system	Western Expansion Area
WEXSRS-4(S)	Liquid / Secondary liner system	Western Expansion Area
4th Quarter 2019		
ABSRS-1(P)	Leachate / Primary liner system	A/B Overfill Area 1
ABSRS-1(S)	Liquid / Secondary liner system	A/B Overfill Area 1
ABSRS-2(P)	Leachate / Primary liner system	A/B Overfill Area 2
ABSRS-2(S)	Liquid / Secondary liner system	A/B Overfill Area 2
NEXSRS-7(P)	Leachate / Primary liner system	Northern Expansion Area
NEXSRS-7(S)	Liquid / Secondary liner system	Northern Expansion Area
SESRS-1(P)	Leachate / Primary liner system	Southeast Landfill Area 1
SESRS-1(S)	Liquid / Secondary liner system	Southeast Landfill Area 1
SESRS-2(P)	Leachate / Primary liner system	Southeast Landfill Area 2
SESRS-2(S)	Liquid / Secondary liner system	Southeast Landfill Area 2
SESRS-3(P)	Leachate / Primary liner system	Southeast Landfill Bumpout
SESRS-3(S)	Liquid / Secondary liner system	Southeast Landfill Bumpout
WEXSRS-2(P)	Leachate / Primary liner system	Western Expansion Area
WEXSRS-2(S)	Liquid / Secondary liner system	Western Expansion Area
WEXSRS-3(P)	Leachate / Primary liner system	Western Expansion Area
WEXSRS-3(S)	Liquid / Secondary liner system	Western Expansion Area
WEXSRS-4(P)	Leachate / Primary liner system	Western Expansion Area
WEXSRS-4(S)	Liquid / Secondary liner system	Western Expansion Area
LW-5	Leachate Recovery Well	Existing Landfill
LW-9	Leachate Recovery Well	Existing Landfill
LW-13	Leachate Recovery Well	Existing Landfill
LW-17	Leachate Recovery Well	Existing Landfill
LW-21	Leachate Recovery Well	Existing Landfill
T-008	Gas condensate	Existing Landfill
SE CT-001	Gas condensate (Tank #1)	Southeast Landfill
SE CT-002	Gas condensate (Tank #2)	Southeast Landfill Bumpout
SE CT-003	Gas condensate (Tank #2)	Southeast Landfill Bumpout
SE CT-004	Gas condensate (Tank #2)	Southeast Landfill Bumpout
WE CT-001	Gas Condensate (Tank #1)	Western Expansion Area
WE CT-002	Gas Condensate (Tank #2)	Western Expansion Area
RRPCT1	Gas condensate	Renewable Resource Recovery Fac.
RRPCT2	Gas condensate (Tank #2)	Renewable Resource Recovery Fac.
RRPCT1-IES	Gas condensate	Renewable Resource Recovery Fac.
SM-11W	West end of SM-11 drain	SM-11 area

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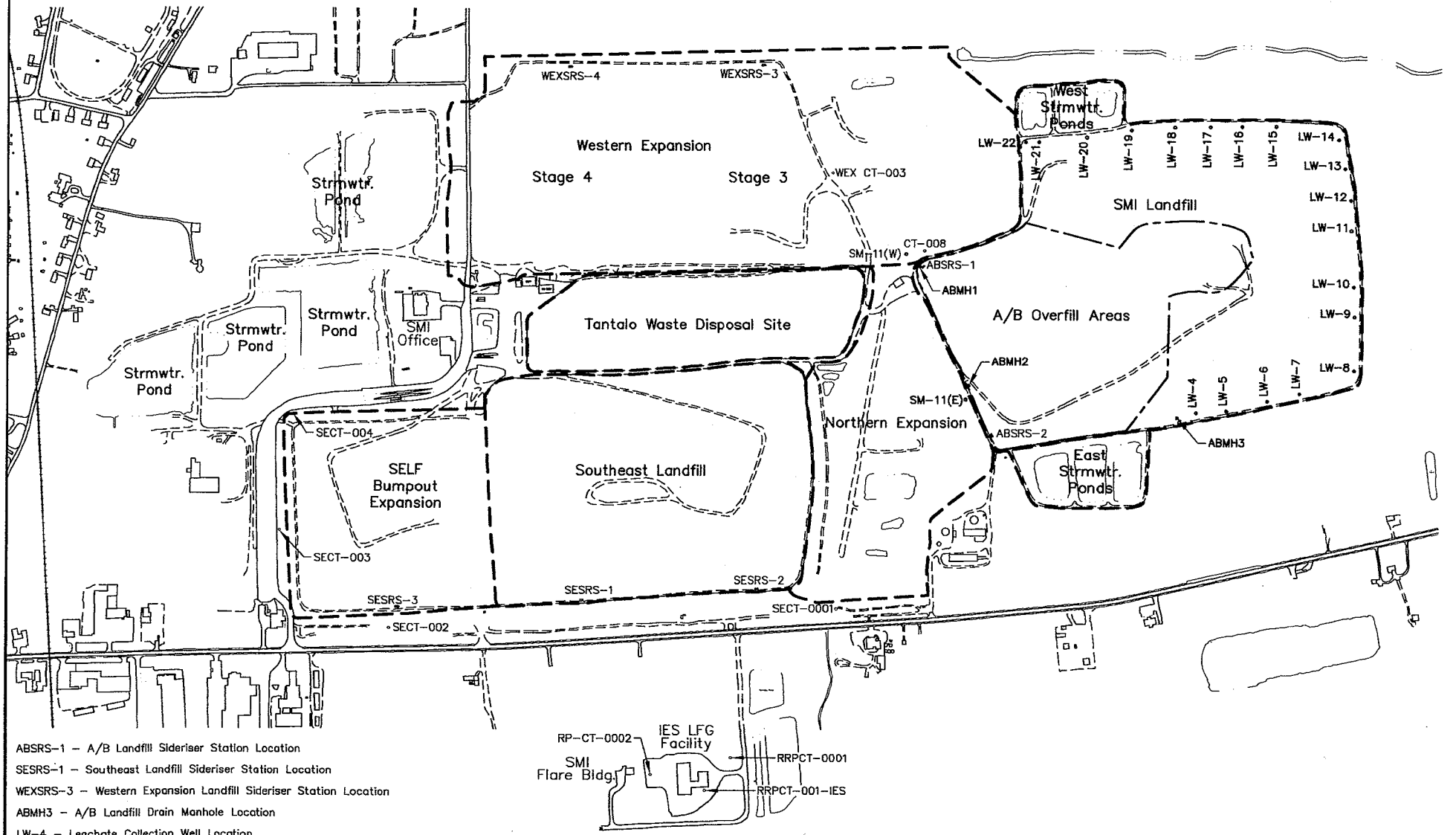

ABSRS-1 – A/B Landfill Sideriser Station Location
SESRS-1 – Southeast Landfill Sideriser Station Location
WEXSRS-3 – Western Expansion Landfill Sideriser Station Location
ABMH3 – A/B Landfill Drain Manhole Location
LW-4 – Leachate Collection Well Location
CT-009 – Landfill Gas Collection System Condensate Storage Tank Location

IESI SENECA MEADOWS LANDFILL
SENECA MEADOWS. INC.
1786 SALCMAN ROAD
WATERLOO, NEW YORK 13165

LEACHATE AND GAS CONDENSATE SAMPLING LOCATIONS AT THE SMI SOLID WASTE MANAGEMENT FACILITY

0 500 1000
Scale In Feet

FIGURE
2-1

holding tanks located on the Seneca Meadows facility and at the Renewable Resource Recovery Facility. The tanks are pumped on a routine basis and the condensate is transported to the leachate storage tanks for disposal at a wastewater treatment facility or processing through SMI's reverse osmosis treatment system. The volumes of condensate generated at the facility are recorded on a monthly basis and reported with the leachate quantities.

The results of the 2019 monitoring, including the analytical data, are discussed in separate semi-annual reports and are available for review at the offices of Seneca Meadows, Inc. and the Region 8 Office of the New York State Department of Environmental Conservation, Avon, New York. The purpose of this annual report is to summarize the findings of the semi-annual reports.

2.0 SAMPLING AND ANALYSIS

2.1 SAMPLE LOCATIONS

The leachate and gas condensate samples collected during the 2019 monitoring events are listed in Table 2-1. The sampling locations are shown in Figure 2-1.

2.2 COMPLIANCE

Monitoring of leachate and gas condensate was conducted in compliance with the methods and procedures described in the Environmental Monitoring Plan (EMP) and the Site Analytical Plan (SAP) for the Seneca Meadows Solid Waste Management Facility. Sampling and analysis of leachate and gas condensate was conducted semi-annually by ALS Environmental, Rochester, NY. Secondary liquids were sampled and analyzed quarterly. The analytical results were evaluated in monitoring reports filed with the NYSDEC's Region 8 Office following each semi-annual monitoring event.

2.3 COMPLETENESS

The EMP specifies the locations at which leachate samples are to be collected during each leachate monitoring event. These locations include sumps that collect leachate from above the primary liner systems of lined landfills and secondary liquids from the secondary liner systems, 19 leachate recovery wells that surround the west, north, and east sides of the Existing Landfill, and three manholes that access the A/B drain of the A/B Overfill Area of the Existing Landfill (see Figure 2-1).

A sub-set of the 19 leachate recovery wells and three manholes at the Existing Landfill were sampled during each semi-annual event (see Table 2-1). The locations sampled were those specified in the EMP. The sampling of one manhole (ABMH1), scheduled for the fourth quarter, was overlooked. This sample will be added to the subset of samples collected during the second quarter of 2020.

In addition to the leachate samples, a composite sample of gas condensate was collected at designated storage tanks during each semi-annual event.

During both semi-annual events, complete samples were collected from the locations specified in the EMP.

2.4 LABORATORY ANALYSIS

The leachate samples were collected as whole, unfiltered grab samples. The gas condensate samples were collected as one sample composited from individual grab samples collected at each of the storage tanks listed in Table 2-1.

The leachate and gas condensate samples were analyzed for the expanded list of chemical parameters (minus dioxins and furans) provided in the 6 NYCRR Part 360 water quality analysis tables following USEPA/SW-846 methods. The

analytical results were provided in USEPA Tier 2 format (NYSDEC ASP Category A format).

3.0 SUMMARY OF RESULTS

3.1 LEACHATE QUALITY

Summary statistics of the analytical data obtained for the leachate and gas condensate samples from both semi-annual sampling events of 2019 are provided in Appendix A. The summary statistics for leachate were computed using data obtained for 28 samples collected from the Existing Landfill leachate recovery wells and from the primary liner systems of the lined landfills during both semi-annual events. These samples represent the higher strength leachate collected at the facility. The analytical results are discussed briefly in the following sections.

3.1.1 Field Parameters

The field measurements taken during both semi-annual sampling events show pHs ranging from slightly acidic (6.77) to slightly alkaline (7.90) with an average pH of 7.29. Oxidation-reduction (redox) potentials ranged from reducing (-267 mv) to mildly reducing (-16 mv) with an average value of -139 mv. Specific conductivities ranged widely from 2,328 to 60,920 µmhos/cm, and on the average were high (26,320 µmhos/cm). Sample turbidities also ranged widely from 1.1 to 1300 nephelometric turbidity units (NTU) and on the average were elevated (253 µmhos/cm).

3.1.2 General Chemistry

Most of the general chemistry parameters listed in Appendix A are elevated relative to concentrations commonly found in naturally-occurring groundwater at the facility, and are also elevated relative to the NYSDEC Class GA groundwater standards.

The general chemistry parameters that constitute the major portion of the leachate total dissolved solids (TDS) content, ranked from high to low concentration, follow the order:

alkalinity > chloride > ammonia > sulfate

Parameters that were rarely detected or detected at low concentrations include hexavalent chromium, total cyanide, nitrate, and sulfide.

3.1.3 Metals

Metals in the leachate samples exhibiting elevated concentrations relative to natural groundwater at the facility include arsenic, boron, chromium, iron, magnesium, manganese, potassium, and sodium.

The metals that typically constitute the greatest portion of the TDS content, ranked from high to low concentration, follow the order:

sodium > potassium > calcium > magnesium

Metals exhibiting slightly elevated concentrations in leachate relative to local, natural groundwater include aluminum, barium, cobalt, copper, lead, nickel, thallium, vanadium, and zinc.

Antimony, beryllium, cadmium, mercury, silver, and tin were not detected.

3.1.4 Organic Compounds

Organic compounds detected in the leachate samples are also listed in Appendix A.

The VOCs detected in the leachate samples consist mainly of acetone and 2-butanone (a.k.a. methyl ethyl ketone or MEK). Additional VOCs including benzene, ethylbenzene, 4-methyl-2-pentanone, m,p-xylenes, and toluene were detected at

substantially lower concentrations in a few samples. Isobutyl alcohol was detected at a high concentration in one sample.

Several semi-volatile organic compounds (SVOCs) were detected in the samples. Phenolic compounds (3+4 methylphenol and phenol) and naphthalene were detected most frequently and at the highest concentrations. Bis(2-ethylhexyl) phthalate (BEHP), a common laboratory contaminant, and 2-methylphenol and o-toluidine, were detected in a few samples at much lower concentrations.

No PCBs, pesticides, or herbicides were detected in any of the samples.

3.2 GAS CONDENSATE QUALITY

Summaries of the analytical results for the two semi-annual gas condensate samples are provided in Appendix A and are discussed in the following sections.

Equal volumes of gas condensate from the various condensate holding tanks at the SMI facility were composited into one sample during each semi-annual sampling event. Each sample therefore provides an "average" of the condensate chemistry for each event.

3.2.1 Field Parameters

As compared to the leachate samples, on average the gas condensate samples exhibited lower conductivities and similar pHs. The oxidation-reduction potentials (ORPs) and turbidities of the condensate were slightly higher.

3.2.2 General Chemistry

By comparison to the leachate samples, the gas condensate samples exhibited lower values for alkalinity, ammonia, bromide, chloride, hardness, TKN, TDS, and sulfate, and higher values for BOD, COD, TOC, total phenolics, and

sulfide. Hexavalent chromium, cyanide, and nitrate were not detected in the condensate samples.

The concentrations of the major general chemistry parameters follow the order:

alkalinity > ammonia > chloride > sulfate

3.2.3 Metals

The concentrations of major metals in the condensate are substantially lower than those found in the leachate and follow the order:

sodium > potassium > calcium > magnesium

By comparison to the leachate samples, the gas condensate samples showed slightly higher detections of aluminum, antimony, arsenic, copper, iron, lead, and zinc, and trace detections of mercury.

The gas condensate samples showed fewer overall detections of metals than the leachate samples. Beryllium, cobalt, selenium, silver, thallium, tin, and vanadium were not detected in either of the condensate samples.

3.2.4 Organic Compounds

Fewer organic compounds were detected in the condensate samples as compared to the leachate samples. However, the concentrations of the VOCs detected are substantially higher in the condensate.

One PCB compound (Aroclor 1232) was detected at a low level in one of the semi-annual condensate samples. No pesticides or herbicides were detected in either of the condensate samples.

3.3 SM-11 DRAIN SAMPLES

The semi-annual monitoring results for the samples collected from the SM-11 drain (SM-11 West) are provided in Appendix B. Although these samples are included with the semi-annual leachate and gas condensate monitoring, the analytical results have historically shown a chemical quality that is more similar to groundwater at the facility than leachate. Thus, the results are discussed separately in this report.

In general, the results for the SM-11 drain samples are substantially more dilute than the leachate samples. However, as shown in Appendix B, exceedances of the Class GA groundwater standard occurred for ammonia, color, TDS, sulfate, and turbidity in both of the semi-annual samples.

The metals data show exceedances of the standards for arsenic, iron, magnesium, manganese, and sodium in both samples.

No organic compounds were detected in the SM-11 drain samples during either semi-annual sampling event.

The analytical results indicate that the drain continues to remove slightly contaminated shallow groundwater from the SM-11 area. The overall chemical quality, however, is substantially more dilute than leachate and appears to be only slightly more concentrated than non-contaminated groundwater at the facility.

3.4 LEACHATE AND GAS CONDENSATE QUANTITIES

The quantities of leachate and gas condensate collected at the Seneca Meadows Solid Waste Management Facility were reported as monthly totals in each semi-annual Leachate and Gas Condensate Monitoring Report submitted in 2019. The total volumes collected from each fill area during 2019 are provided in Appendix C of this report.

3.5 EVALUATION OF LINER INTEGRITY

For fill areas having primary and secondary liner systems, which include all fill areas except an older portion of the Existing Landfill, the analytical results for leachate collected above the primary liner, fluids from the secondary system, and porewater from drains beneath the liner systems were compared to detect possible leakage of the liners.

In each semi-annual Leachate and Gas Condensate Report, Stiff diagrams were used to compare the general inorganic chemistry of the primary leachate samples to the secondary liquid samples collected at each drainage sump. Possible leakage of the primary system is indicated by chemical patterns in the Stiff diagrams of secondary samples that begin to mimic those of the primary samples. Possible leakage of a secondary system into the underlying porewater is determined the same way.

The chemical data and Stiff diagrams for each secondary sampling location show no signs of impacts from primary leachate with the exception of SESRS-1 and SESRS-2, which show potential limited impacts, and ABSRS-2, which was temporarily impacted by primary leachate during construction in 2017 as previously reported. In each of these cases, the volume of liquids collected within these areas during 2019 were well within the regulatory action level of 20 gallons per acre per day (GPAD).

The chemical data for porewaters beneath the secondary liner systems, which are sampled quarterly as part of groundwater monitoring program, show compositions similar to non-contaminated groundwater at the facility and show no indications that the integrities of the secondary liner systems have been compromised.

4.0 CONCLUSIONS

The monitoring of landfill leachate, gas condensate, and liquid collected from secondary liner systems of the lined landfills at the Seneca Meadows Solid Waste Management Facility was conducted semi-annually during the second and fourth quarters of 2019. The samples were analyzed for the 6 NYCRR Part 360 list of expanded chemical parameters minus dioxins and furans. Liquids collected from secondary liner systems were also sampled during the first and third quarters of the year and analyzed for the Part 360 list of baseline chemical parameters.

The concentrations of most general chemistry parameters including color, biological oxygen demand (BOD), alkalinity, ammonia, bromide, chloride, chemical oxygen demand (COD), total dissolved solids (TDS), total Kjeldahl nitrogen (TKN), total organic carbon (TOC), and total phenols were found to be elevated in the leachate samples relative to naturally-occurring groundwater at the facility. Hexavalent chromium, total cyanide, nitrate, and sulfide were at low or non-detect levels.

Metals in the leachate samples exhibiting elevated concentrations relative to natural groundwater at the landfill include arsenic, boron, chromium, iron, magnesium, manganese, potassium, and sodium. Metals exhibiting slightly elevated concentrations relative to groundwater include aluminum, barium, cobalt, copper, lead, nickel, thallium, vanadium, and zinc. Antimony, beryllium, cadmium, mercury, silver, and tin were not detected.

A few volatile organic compounds, mainly acetone and 2-butanone, and a few semi-volatile organic compounds, mainly phenolic compounds, were detected in the leachate samples from both semi-annual events. No PCBs, pesticides, or herbicides were detected in any of the samples.

By comparison to the leachate samples, the gas condensate samples exhibited lower values for alkalinity, ammonia, bromide, chloride, hardness, TKN, TDS, and sulfate,

and higher values for BOD, COD, TOC, total phenolics, and sulfide. Hexavalent chromium, cyanide, and nitrate were not detected in the samples.

The gas condensate samples showed fewer overall detections of metals than the leachate samples. Beryllium, cobalt, selenium, silver, thallium, tin, and vanadium were not detected in either of the two semi-annual condensate samples. However, by comparison to the leachate samples, the condensate samples exhibited slightly higher values for aluminum, antimony, arsenic, copper, iron, lead, zinc, and mercury.

Fewer organic compounds were detected in the gas condensate samples as compared to the leachate samples. Acetone, 2-butanone, and phenolic compounds were the dominant organic compounds in the gas condensate samples, and on average, were higher in the gas condensate samples than in the leachate samples. One PCB compound (Aroclor 1232) was detected at a low level in one of the semi-annual samples. No pesticides or herbicides were detected in the samples.

The samples collected from the SM-11 drain (SM-11 West) were substantially more dilute than the leachate samples. However, the samples exhibited slight exceedances of the Class GA groundwater standards for ammonia, color, TDS, sulfate, and turbidity in one or both of the semi-annual samples.

The metals data for SM-11 West showed exceedances of the standards for arsenic, iron, magnesium, manganese, and sodium in both semi-annual samples. No organic compounds were detected in the SM-11 drain samples during either semi-annual sampling event. The analytical results indicate that the drain continues to remove slightly contaminated groundwater from the SM-11 area.

The chemical data and Stiff diagrams for each secondary sampling location show no signs of impacts from primary leachate except for sideriser sumps SESRS-1 and SESRS-2, which show potential limited impacts, and sump ABSRS-2, which was temporarily impacted by primary leachate during construction in 2017. For each of these sumps, the volume of liquids collected during 2019 were well within

the regulatory action level of 20 gallons per acre per day (GPAD).

Evaluations of analytical data for samples of porewater from beneath the secondary liner systems showed no indications that the integrity of the liners has been compromised.

The quantities of leachate and gas condensate collected during 2019 were recorded monthly and summarized in each semi-annual monitoring report, as required.

Appendix A

Leachate and Gas Condensate Chemical Data

Field and General Chemistry Parameters
Leachate and Gas Condensate

2019 Annual Summary

Parameter	Units	GW Std	Leachate				Gas Condensate			
			# Detects	Min	Max	Avg	# Detects	Min	Max	Avg
Alkalinity, Total as CaCO3	mg/L		28	330	14000	6868	2	3870	5080	4475
Ammonia as Nitrogen	mg/L	2	28	27.7	7710	2389	2	1340	1360	1350
Biochemical Oxygen Demand (BOD)	mg/L		27	27.6	14900	1656	2	8250	11300	9775
Bromide	mg/L	2	23	2.7	195	38.1	2	1.00	2.10	1.55
Carbon, Total Organic	mg/L		28	58.7	9590	2083	2	3330	4880	4105
Chemical Oxygen Demand, Total	mg/L		28	194	27800	6543	2	14400	17300	15850
Chloride	mg/L	250	28	101	22600	6395	2	591	1030	811
Chromium, Hexavalent	mg/L	0.05	0				0			
Color, True	Color Units	15	28	25.0	5700	2144	2	1200	1500	1350
Conductivity, Field	uMHOS/cm		28	2328	60920	26320	2	11780	13310	12545
Cyanide, Total	mg/L	0.2	10	0.071	0.890	0.334	0			
Hardness, Total as CaCO3	mg/L		28	540	6630	1601	2	627	1510	1069
Nitrate as Nitrogen	mg/L	10	5	1.0	4.6	2.5	0			
Nitrogen, Total Kjeldahl (TKN)	mg/L		28	29.1	3250	1702	2	1320	1340	1330
Oxidation-Reduction Potential (ORP), F	mV		28	-267	-16	-140	2	-169	13	-78
pH, Field	pH Units	6.5-8.5	28	6.77	7.9	7.29	2	7.08	7.39	7.24
Phenolics, Total Recoverable	mg/L	0.001	28	0.012	18.8	2.1	2	8.7	9.2	8.95
Solids, Total Dissolved (TDS)	mg/L	500	28	1720	40100	14147	2	3760	5520	4640
Sulfate	mg/L	250	26	2.1	870	143	2	33.6	68.3	51.0
Sulfide, Acid-Soluble	mg/L		9	2.3	6.8	5.2	2	13.0	28.5	20.8
Temperature, Field	DEG C		28	12.9	31.0	23.0	2	9.0	19.7	14.4
Turbidity, Field	NTU	5	28	1.1	1300	253	2	27.0	1083	555

Notes:

Leachate data includes 28 samples from leachate recovery wells and primary liner systems

Gas condensate data includes 2 semi-annual composite samples

Metals
Leachate and Gas Condensate

2019 Annual Summary

Parameter	Units	GW Std	Leachate				Gas Condensate			
			# Detects	Min	Max	Avg	# Detects	Min	Max	Avg
Aluminum	mg/L		25	0.100	5.750	1.08	2	2.15	2.22	2.19
Antimony	mg/L	0.003	0				2	0.113	0.152	0.133
Arsenic	mg/L	0.025	26	0.022	0.456	0.158	2	0.305	0.309	0.307
Barium	mg/L	1	28	0.073	3.74	1.13	2	0.096	0.394	0.245
Beryllium	mg/L	0.003 (G)	0				0			
Boron	mg/L	1	28	1.17	54.9	19.2	2	4.37	7.87	6.12
Cadmium	mg/L	0.005	0				1	0.005	0.005	0.005
Calcium	mg/L		28	23.3	2070	323	2	157	303	230
Chromium	mg/L	0.05	27	0.025	1.22	0.308	2	0.107	0.146	0.127
Cobalt	mg/L		9	0.052	0.091	0.061	0			
Copper	mg/L	0.2	2	0.021	0.039	0.030	2	0.022	0.065	0.044
Iron	mg/L	0.3	28	0.62	282	29.9	2	28.2	98.1	63.2
Lead	mg/L	0.025	4	0.0066	0.011	0.010	2	0.0083	0.0773	0.0428
Magnesium	mg/L	35	28	80.1	576	193	2	57.4	182	120
Manganese	mg/L	0.3	28	0.022	11.0	1.19	2	1.01	1.44	1.23
Mercury	mg/L	0.0007	0				2	0.0022	0.0395	0.0208
Nickel	mg/L	0.1	22	0.046	0.555	0.213	2	0.046	0.161	0.104
Potassium	mg/L		28	29.1	3920	1071	2	214	408	311
Selenium	mg/L	0.01	2	0.015	0.018	0.017	0			
Silver	mg/L	0.05	0				0			
Sodium	mg/L	20	28	132	7900	2882	2	498	897	698
Thallium	mg/L	0.0005 (G)	4	0.014	0.061	0.034	0			
Tin	mg/L		0				0			
Vanadium	mg/L		14	0.054	0.263	0.102	0			
Zinc	mg/L		18	0.021	0.674	0.119	2	1.12	13.50	7.31

Notes:

Leachate data includes 28 samples from leachate recovery wells and primary liner systems

Gas condensate data includes 2 semi-annual composite samples

"G" indicates a guidance value

Organic Compounds
Leachate and Gas Condensate

2019 Annual Summary

Parameter	Units	GW Std	Leachate				Gas Condensate			
			# Detects	Min	Max	Avg	# Detects	Min	Max	Avg
Volatile Organic Compounds										
Acetone	ug/L	50 (G)	15	140	37000	5485	2	18000	38000	28000
2-Butanone (MEK)	ug/L	50 (G)	14	190	59000	6638	2	29000	46000	37500
Benzene	ug/L	1	1	89	89	89	0			
Ethylbenzene	ug/L	5	1	56	56	56	0			
4-Methyl-2-pentanone	ug/L	NR	3	120	1200	513	0			
2-Methyl-1-propanol (Isobutyl Alcohol)	ug/L	NR	1	9200	9200	9200	0			
m,p-Xylenes	ug/L	5	4	50	110	81	0			
Toluene	ug/L	5	3	52	150	107	0			
Semi-Volatile Organic Compounds										
Bis(2-ethylhexyl) Phthalate	ug/L	5	3	51	290	190	0			
2-Methylphenol	ug/L	5	2	26	32	29	0			
3+4-Methylphenol	ug/L	5	12	56	21000	3377	2	2300	3800	3050
Naphthalene	ug/L	10 (G)	8	11	3900	844	0			
o-Toluidine	ug/L	5	1	44	44	44	0			
Phenol	ug/L	1	8	67	8200	2166	2	840	2100	1470
PCBs										
Aroclor 1232	ug/L	0.09	0				1	2.9	2.9	2.9
Pesticides										
Herbicides										

Notes:

Leachate data includes 28 samples from leachate recovery wells and primary liner systems

Gas condensate data includes 2 semi-annual composite samples

"G" indicates a guidance value, "NR" means not regulated

Appendix B

SM-11 Drain Chemical Data

Field and General Chemistry Parameters
SM-11 Drain Samples

2019 Annual Summary

			SM-11 West		
Parameter	**Units**	**GW Std**	**2nd Qtr**	**4th Qtr**	**Average**
Alkalinity, Total as CaCO3	mg/L		591	155	373
Ammonia as Nitrogen	mg/L	2	10.7	0.226	5.5
Biochemical Oxygen Demand (BOD)	mg/L		6.5		7
Bromide	mg/L	2			
Carbon, Total Organic (TOC)	mg/L		18.3	4.3	11.3
Chemical Oxygen Demand, Total	mg/L		54.3	10.1	32.2
Chloride	mg/L	250	180	30.5	105
Chromium, Hexavalent	mg/L	0.05			
Color, True	Color Units	15	290	37	164
Conductivity, Field	uMHOS/cm		2412	1188	1800
Cyanide, Total	mg/L	0.2			
Hardness, Total as CaCO3	mg/L		1170	625	898
Nitrate as Nitrogen	mg/L	10		1.6	1.6
Nitrogen, Total Kjeldahl (TKN)	mg/L		13.6	0.67	7.1
pH, Field	pH UNITS	6.5-8.5	6.93	7.79	7.4
Phenolics, Total Recoverable	mg/L	0.001			
Oxidation-Reduction Potential (ORP), Field	mV		-90	-13	-52
Solids, Total Dissolved (TDS)	mg/L	500	1580	872	1226
Sulfate	mg/L	250	541	431	486
Sulfide, Acid-Soluble	mg/L				
Temperature, Field	DEG C		12.0	15.7	13.9
Turbidity, Field	NTU	5	7.7	21.1	14.4

Note: blank space indicates a non-detect result

Metals
SM-11 Drain Samples

2019 Annual Summary

			SM-11 West		
Parameter	**Units**	**GW Std**	**2nd Qtr**	**4th Qtr**	**Average**
Aluminum	mg/L				
Antimony	mg/L	0.003			
Arsenic	mg/L	0.025	0.046	0.062	0.054
Barium	mg/L	1	0.175	0.184	0.180
Beryllium	mg/L	0.003 (G)			
Boron	mg/L	1	0.290	0.220	0.255
Cadmium	mg/L	0.005			
Calcium	mg/L		269	226	248
Chromium	mg/L	0.050			
Cobalt	mg/L				
Copper	mg/L	0.200			
Iron	mg/L	0.300	26.1	27.1	26.6
Lead	mg/L	0.025			
Magnesium	mg/L	35	113	105	109
Manganese	mg/L	0.300	0.524	0.377	0.451
Mercury	mg/L	0.0007			
Nickel	mg/L	0.100			
Potassium	mg/L		18.3	13.2	15.8
Selenium	mg/L	0.010			
Silver	mg/L	0.050			
Sodium	mg/L	20	113	117	115
Thallium	mg/L	0.0005 (G)			
Tin	mg/L				
Vanadium	mg/L				
Zinc	mg/L				

Notes:

Blank space indicates a non-detect result

"G" indicates a guidance value

Appendix C

Leachate and Gas Condensate Quantities

Summary of 2019 Leachate Forcemain Flow Data									
	Totals								
Date	**Tantalo**	**SMI**	**AB**	**SELF/SBO**	**WEX**	**NEX**	**RRP**	**Misc.**	***Total***
January Total	139,924	614,969	347,113	1,445,796	2,565,153	561,336	209,826	96,800	***5,980,917***
February Total	147,315	591,969	339,931	1,084,061	1,346,681	509,216	188,084	100,700	***4,307,957***
March Total	85,821	536,684	378,578	3,749,904	2,502,119	538,612	176,419	123,800	***8,091,937***
April Total	95,715	521,595	648,142	1,500,463	2,227,205	360,940	162,807	129,200	***5,646,067***
May Total	651,351	565,268	520,962	1,428,995	2,786,135	455,728	164,246	91,100	***6,663,785***
June Total	693,052	443,950	443,332	1,517,229	1,523,926	391,786	160,017	145,000	***5,318,292***
July Total	146,800	293,675	280,360	1,716,389	1,004,644	307,551	169,073	81,911	***4,000,403***
August Total	156,432	346,035	242,175	1,803,740	2,257,252	357,778	186,534	73,600	***5,423,545***
September Total	149,324	365,727	389,165	1,296,539	1,349,991	318,305	216,178	56,400	***4,141,628***
October Total	447,626	435,320	263,007	693,246	1,332,232	396,596	240,924	83,800	***3,892,751***
November Total	353,378	474,932	390,759	453,514	1,289,744	431,926	192,554	67,000	***3,653,808***
December Total	175,950	565,008	212,739	898,719	1,443,098	540,438	167,430	66,100	***4,069,482***
Yearly Total	**3,242,688**	**5,755,133**	**4,456,263**	**17,588,595**	**21,628,179**	**5,170,212**	**2,234,091**	**1,115,411**	**61,190,573**

Notes:

Tantalo	Tantalo Waste Site
SMI	SMI Existing Landfill
AB	AB Overfill Area of Existing Landfill
SELF/SBO	Southeast Landfill/Southeast Landfill Bumpout
WEX	Western Expansion Fill Area
NEX	Northern Expansion Fill Area
RRP	Resource Recovery Facility
Misc.	Fluids collected from gas wells, tire facility, ponded water, shop oil/waste water, and containment tanks

4.0 SOLID WASTE/BUDS/DIVERTED WASTE/ADC

NOTE:

THE SENECA MEADOWS PERMITTED HOURS OF OPERATION ARE 6 AM TO 6 PM MONDAY THROUGH SUNDAY. MAXIMUM ALLOWABLE TONS: 6000 DAILY/YEARLY AVERAGE

TOTAL MATERIAL/BUDS

From January 1, 2019 to December 31, 2019, SENECA MEADOWS, INC. received a total of 2,547,438 tons of material (2,147,315, tons of solid waste and 400,122 tons of Beneficial Use Determination {BUD} material used in landfilling operations). Tables 4-1 and 4-2 provides a monthly break down of the total tonnage of material for 2019 by type. Approved BUDs received at SMI are used for daily cover or in the construction of access roads, as a replacement for natural or virgin materials in accordance with the usage criteria outlined in the Facility's Part 360 permit.

DIVERTED WASTE

Approximately 615.3 tons of source separated yard debris were diverted from the SENECA MEADOWS Landfill and stockpiled prior to chipping within the area reserved at the Site for mulching and/or chipping. The chipped material is used for landfill operations for bulking and stabilization of haul roads and used to stabilize disturbed ground surface and erosion control.

WASTE TIRES

Approximately 3,793 tons of chipped tires were processed and utilized in the landfill construction. The tire facility operates under NYSDEC Registration #50K03 and tire volumes are reported separately to the DEC on a quarterly basis. The quarterly reports are included in this section for reference.

TABLE 4-1. TOTAL TONNAGE OF MATERIAL RECEIVED BY TYPE

TABLE 4-2. BUDS UTILIZED BY CATEGORY

Seneca Meadows, Inc.
2019 Annual Report
Table 4-1
Total Tonnage of Material Received by Type

Waste Type	January	February	March	April	May	June	July	August	September	October	November	December	Grand Total
Asbestos	2,966.8	2,887.2	1,724.8	1,200.7	3,575.5	1,889.6	879.1	1,018.0	1,878.6	1,680.8	1,406.8	299.3	21,407.1
Industrial Ash	430.3	644.0	261.5	192.6	709.2	655.8	636.3	799.6	768.5	238.4	378.9	191.1	5,906.1
Construction Debris	5,797.4	3,835.7	8,598.5	10,243.7	8,656.1	8,241.4	8,141.8	10,079.7	5,196.5	6,034.5	4,503.8	2,458.4	81,787.1
Contaminated Soil	1,063.8	488.5	888.2	610.3	553.9	748.3	1,952.0	1,562.9	1,348.6	1,019.7	643.8	938.7	11,818.8
Medical Waste	-	-	-	-	-	-	-	-	-	-	-	-	-
Sludge	2,595.7	2,440.8	2,852.1	3,487.2	5,375.1	4,418.0	4,836.2	4,629.0	4,219.4	3,487.7	5,070.0	4,638.3	48,049.3
Other Industrial Waste	1,687.2	1,821.5	1,797.9	2,077.4	1,374.9	1,387.6	1,671.0	1,404.8	1,318.8	1,651.5	1,013.0	1,015.0	18,220.7
Solid Waste (MSW)	147,172.3	130,072.7	149,115.1	180,566.8	196,643.0	194,234.9	213,274.7	195,107.6	161,088.4	155,668.6	122,577.8	104,291.1	1,949,813.0
Grits & Screenings	1,508.2	1,376.0	1,029.2	1,341.1	915.2	1,079.2	391.1	355.5	360.4	1,497.5	248.8	128.5	10,230.7
Hardfill	-	-	-	-	-	-	-	-	-	-	-	-	-
Processed Construction Debris	-	-	-	-	-	-	-	-	-	-	-	-	-
Tires-NonProcessable& Shreds	30.6	23.9	19.9	-	15.0	2.2	1.6	2.3	-	-	2.0	-	97.5
TOTAL	**163,252.2**	**143,590.2**	**166,287.0**	**199,719.7**	**217,818.0**	**212,657.0**	**231,783.7**	**214,959.4**	**176,179.1**	**171,278.8**	**135,844.9**	**113,960.4**	**2,147,330.3**

Seneca Meadows, Inc.
2019 Annual Report
Table 4-2
BUDs Utilized by Category

BUDs/ADC	January	February	March	April	May	June	July	August	September	October	November	December	Grand Total
Coal Ash	-	-	-	-	-	-	-	-	-	-	-	-	-
Auto Fluff	179.9	84.8	245.0	1,033.2	700.2	494.3	509.2	537.9	333.1	699.7	21.7	63.5	4,902.5
C&D (BUD)	13,522.4	12,663.2	14,190.7	18,630.7	21,332.4	17,161.5	23,106.9	27,247.9	36,566.7	45,309.9	40,237.8	35,309.7	305,279.8
Contaminated Soil	1,626.0	5,275.8	1,600.6	1,777.4	1,677.0	7,766.4	2,091.8	6,151.3	5,534.1	9,467.6	11,090.0	7,027.0	61,084.9
Foundry Sand (BUD)	70.1	60.3	151.9	73.0	70.8	52.6	44.3	67.8	61.5	69.7	60.2	73.9	856.2
Hard Fill	-	-	-	-	-	-	-	586.3	277.5	880.8	-	-	1,744.6
Paper Sludge	-	-	-	-	-	350.0	-	-	-	-	-	-	350.0
Other Industrial Waste (BUD)	20.6	25.2	22.7	-	-	-	-	-	39.9	137.7	-	14.6	260.7
Ash	1,377.7	1,454.7	1,152.6	999.1	2,596.7	1,682.7	1,675.3	1,975.1	1,514.0	1,521.9	2,317.6	1,553.1	19,820.6
B/R Tire Cover	244.4	609.9	668.7	693.4	737.5	771.6	568.3	84.1	30.7	715.6	1,159.5	1,018.6	7,302.3
Yard Debris	29.2	5.7	17.0	89.5	85.7	68.7	89.5	60.2	59.7	49.2	55.5	5.4	615.3
Z9500 (Tire Chips for Cover)	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	17,070.2	20,179.6	18,049.1	23,296.3	27,200.3	28,347.8	28,085.3	36,710.6	44,417.2	58,852.3	54,942.2	45,065.8	402,216.8

Grand Total **402,216.8**

5.0 UNAUTHORIZED SOLID WASTE/RADIATION MONITORING

In accordance with Condition 36 of SMI's 6 NYCRR Part 360 Operating Permit, the following materials are considered unauthorized waste and cannot be disposed of in the SENECA MEADOWS Landfill:

- Waste identified in 6 NYCRR Part 362-2.1(b);
- Any intact steel or plastic drums larger than 10-gallon capacity that has not been crushed and had at least one end removed or has not been shredded unless otherwise approved by the Department in writing;
- Any container which has held hazardous waste and is not empty according to 6 NYCRR Part 371.1(f);
- Any container of 5 to 10-gallon capacity shall not be disposed of at this facility unless the containers have been crushed, compacted, or rendered incapable of holding any liquids except that small quantities of dry wastes may be containerized for disposal in this manner;
- Any regulated medical waste, which has not been treated in accordance with the requirements of 6 NYCRR Subpart 365-2 or 10 NYCRR Subpart 10-3;
- Any industrial or commercial liquids, sludges, or slurries which contain any free liquids or are less than 20 percent solids;
- Any waste(s) regulated by 6 NYCRR Part 364 unless the waste hauler possesses a valid Part 364 permit; and,
- Tires which have not been cut into a minimum of two equal pieces.

Sludges and chemical, industrial, commercial, food, or process wastes are reviewed for compliance with this condition by SENECA MEADOWS prior to accepting these wastes for disposal at this facility. Records relating to the acceptance of these wastes are provided to our on-site DEC Monitor on a monthly basis and are available on-site for NYSDEC inspection.

SENECA MEADOWS has implemented a full-time Random Radiation Monitoring Program with the use of a gate system on both of the in-bound scales. Vehicles are screened with a hand-held monitoring device if the gate system indicates a detection. Table 5-1 contains the radiation incidents that occurred during the radiation monitoring.

Unauthorized materials that have been co-mingled with incoming solid waste are routinely retrieved from the SENECA MEADOWS Landfill for proper disposal or returned to the generator. Incidents where unauthorized waste required special considerations are identified in the following paragraph.

UNAUTHORIZED WASTE INCIDENTS

SMI's waste screening procedures require all retrieved unauthorized waste, which can be safely handled, to be sent back with the hauler who delivered it to the Site. According to SMI policy, if an unauthorized material is discovered after the hauler has left the premises, the hauling company (if known) is contacted to retrieve the container, or SMI prepares it for appropriate disposition. Any containers holding liquid or unauthorized solid waste are segregated from the working face and temporarily stored, on-site, for NYSDEC inspection and/or sampling/characterization.

In 2019, there were 25 documented events (records on file at SMI's office) where improperly permitted waste, unacceptable co-mingled waste, or unacceptable industrial waste materials (drums/containers, medical waste, asbestos, fluorescent lamps/ballasts, compressed gas tanks, air conditioners/refrigeration equipment, materials with free liquids, etc.) were discovered, rejected, and returned to the hauler. These materials were detected during SMI's random waste inspections; or as a result of SMI's trained spotters, equipment operators, scale house personnel, or our program for randomly monitoring the receipt of incoming waste loads for compliance. SMI maintains contracts with Stericycle and Clean Harbors to handle the removal of any unauthorized materials received on site.

In addition to these recorded events, SMI also rejected numerous incoming waste loads where the hauler's vehicle was improperly covered; the hauler lacked the necessary approvals, or visible 6 NYCRR Part 364 markings; the hauler contained a hot load; the presence of free liquids was observed; or where acceptance pre-conditions were not followed by the hauler/generator (i.e., dusty materials delivered during windy conditions, improper packaging, labeling, and/or unapproved delivery timeframes).

TABLE 5-1. RADIATION MONITORING INCIDENT REPORT

Table 5-1

Radiation Monitoring Incident Report

Incident Number	Received		Hauler	Origin	Reading (µrem/hr.)	Nuclided ID	Source Disposal Status	Removed	
	Date	Time						Date	Time
1	1/8/2019	13:20	Slayer	Brooklyn, NY	45	IR 192	Accepted		
2	3/14/2019	10:31	Casella	Bronx, NY	123	I-131	Accepted		
3(1)	4/16/2019	9:24	GottaDo	Schenectady	4.5	N/A(1)	Accepted		
4	5/22/2019	9:14	K&W	K&W West Springfild Ma.	39	I-131	Accepted		
5(1)	7/27/2019	8:47	Pocono	Iselin, NJ	5	N/A(1)	Accepted		
6(2)	8/26/2019	8:42	Rauscher	Aria Energy,Wareloo, NY	73.6	Radon	Accepted/ Staged off Site		
6(2)	9/5/2019	7:30	Rauscher	Aria Energy, Seneca Falls	Did not trigger alarm	Radon	Accepted		
7	10/4/2019	8:49	FRS McNamara	Longmeadow, Ma		I-131	Accepted		
8	10/4/2019	11:31	ARSL	American Recycling Jamaica,NY	280	I-131	Accepted		
9	10/16/2019	10:46	CTL Trucking	West Nyack, NY	82.3	I-131	Accepted		
10(3)	12/9/2019	12:05	Button	American Recycling Jamaica,NY	75.4	CO-56	Separated/ Removed	1/13/2020	8:30
11	12/13/2019	13:52	Slayer	West Nyack, NY	62	I-131	Accepted		

Note: (1) This indicates occurances where there was a radioactive material present but the energy level of the source was so low that it could not be identified.

Note:(2) The load was initially rejected on 8/26. After 9 days of staging material was accepted on 9/9/2019 after it did not trigger the the gate monitors.

Note (3) The load was initially rejected. The NYSDEC DMM determined the source was not acceptable for disposal at Seneca Meadows, Inc.. On 1/6/2020 Seneca Meadows, Inc worked with CoPhysics Corporation hired by American Recycling to separate the CO-56 source from the remainder of the load. A 0.3 mCi of Co-56 was recovered from the load staged at Seneca Landfill. It was an invisibly small source contained in about 1 gram of dirt and ice . The source was stored at Seneca Meadows until Radiac Research Corporation took posession of the source at approximately 8:40am on 1/13/2020

6.0 LANDFILL GAS COLLECTION AND CONTROL

Multiple repairs, modifications and enhancements occurred to gas collection system for the following landfill areas during the calendar year of 2019: the SMI landfill (SMILF), the Southeast Landfill (SELF), the Southeast Bumpout landfill (SBO), the Western Expansion landfill (WEX), the Northeast Expansion landfill (NEX) and the Northwest Expansion landfill (NWX). These enhancements were conducted to further assist in landfill gas collection efficiency, to reduce odors and to limit surface emissions at the Site. Newly installed landfill gas (LFG) collectors were connected to the existing LFG collection header system delivering collected LFG to the Renewable Resource Park located on the East Side of Route 414.

The following is a summary of the 2019 major construction efforts for each landfill area:

- SMI LF
  - Installed three (3) Vertical Gas Wells (GWs)
    - The new collectors were connected to laterals which connect to the existing LFG collection header system.
  - Installed a 2" collector in the leachate force main trench east of West Pond 1.
  - Removed one (1) Vertical GW from the SMILF LFG collection system.
    - The collector was no longer making a beneficial contribution to the LFG collection system.
- SELF
  - Installed one (1) Vertical GW
    - The new collector was connected to laterals which connect to the existing LFG collection header system.
  - Removed two (2) Vertical GWs, three (3) Horizontal Collectors (HCs), one (1) Pocket Well (PW) and one (1) Water Trap Collector from the SELF LFG collection system.
    - The collectors were no longer making a beneficial contribution to the LFG collection system.
- SBO

- No collectors were installed during 2019.
- Removed three (3) Vertical GWs, one (1) HC and one (1) PW from the SBO LFG collection system.
  - The collectors were no longer making a beneficial contribution to the LFG collection system.

- WEX
  - Installed two (2) Vertical GWs
  - Removed twenty (20) Vertical GWs, four (4) HCs, five (5) Horizontal Slope Collectors (HSCs), two (2) PWs and one (1) Tire Chip Collector (TC)from the WEX LFG collection system.
    - The collectors were removed or damaged due to waste placement, buried under EGC membrane, became watered out within the waste mass or were no longer making a beneficial contribution to the LFG collection system.
- NEX
  - Installed twenty-three (23) Vertical GWs, six (6) HSCs and one (1) PW.
    - The new collectors were connected to laterals which connect to the existing LFG collection header system.
  - Removed one (1) HC from the NEX LFG collection system.
    - The collector became watered out within the waste mass and was no longer making a beneficial contribution to the LFG collection system.
- WEX-6
  - Installed ten (10) Vertical GWs, thirty-nine (39) HCs, nineteen (19) Horizontal Collectors – Direct Burial (HCDs) and five (5) TCs.
    - The new collectors were connected to laterals which connect to the existing LFG collection header system.
  - Removed four (4) HCs and three (3) HCDs from the NEX LFG collection system.
    - The collector became watered out within the waste mass and was no longer making a beneficial contribution to the LFG collection system.

- Header Expansion
  - Installed 4400' of 28" and 2500' of 24" LFG header piping from north end of the existing 28" at leachate treatment facility up and over the SMI landfill and down the west side of stages 5,6 and 3 to provide vacuum to the west side for the new cells.

PLANNED ACTIVITIES FOR 2020

SMI is currently scheduling the following proposed landfill gas collection and control system related construction activities for 2020:

- Stage 6 of the Western Expansion
  - Install twenty (24) vertical landfill gas collection wells and five (50) horizontal gas collection wells.
  - Install approximately one-thousand eight-hundred feet (1,800') of vertical collector drill depth.
  - Install approximately twenty-thousand feet (20,000) of six-inch diameter (6") HCs and HCDs.
  - Install approximately thirteen-thousand feet (13,000') of vacuum line, which will connect to the existing LFG collection header system:
    - Eighteen-inch (18") line – approximately two-thousand (2,000')
    - Eight-inch (8") line – approximately one-thousand (1,000')
    - Six-inch (6") line – approximately ten-thousand feet (10,000')
- Continuous evaluation and the replacement of the existing LFG collection vertical wells, laterals and headers to control emissions, improved collection efficiency and control any site-related odors.

7.0 COST ESTIMATES AND FINANCIAL ASSURANCE DOCUMENTS

Financial assurance for closure and post-closure care for the SENECA MEADOWS facility are provided by two surety bonds issued by Argonaut Insurance Company. Based on cost estimates contained in the 2019 Annual Report, the required financial assurance for closure would be $32,325,144 and $23,410,678 for post-closure. These estimates have increased from the 2018 Annual Report due to increase in uncapped area as a result of new liner construction. Closure/post closure assurance amounts are established in accordance with the requirements of the NYSDEC; Section 5.0 of SMI's December 2006 Engineering Report, and previous updates to the closure/post-closure cost estimates.

The following narrative, and the closure and post-closure cost estimate tables provided in this Annual Report, provide the updated closure/post-closure cost estimate. Adjustments to the values of the closure/post-closure bonds will be made by Waste Connections, Inc. based on the updated closure/post-closure cost estimates, following written approval by the NYSDEC.

CLOSURE COST ESTIMATE

SMI updated its current evaluation of the maximum anticipated waste footprint requiring placement of final cover over the constructed landfills throughout their remaining life. The analysis is summarized in Table 7-1 and was performed for the entire permitted landfill configuration. Based on SMI's evaluation, the maximum anticipated area for unconstructed final cover is anticipated to occur during 2021. Consequently, this represents the worst-case closure cost scenario. As indicated in Table 7-1, the closure cost includes constructing new final cover over approximately 201.7 acres. The areas of future final cover installation are assumed to utilize a geosynthetic cover system, rather than a clay barrier cover system. In plateau areas, a geosynthetic clay liner (GCL) is included beneath the geomembrane.

As shown in Table 7-2, the updated estimate indicates that the worst-case cost of closure of the Landfill in current dollars amounts to $32,325,144. This represents an increase in the estimated cost for closure from last year's estimate, primarily due to the addition of constructed liner footprint and the capping schedule for the site.

POST-CLOSURE CARE COST ESTIMATE

The post-closure cost is calculated as the present value of annual expenditures for Seneca Meadows Landfill over the respective 30-year post-closure period. This post-closure estimate is based on the previous estimates developed for the facility. The post-closure period is defined as the period starting immediately following installation of the last final cover phase (anticipated to be in 2028) and extending for 30 years beyond (i.e., 2058). In preparing the updated post-closure cost estimate, an upward adjustment of 1.6% was made to the prior year's unit costs. The 1.6% increase is from the U.S. Bureau of Labor and Statistics' 2019 Consumer Price Index data for the Northeast.

Post-closure costs are presented in 2020 dollars. A net present worth is calculated assuming funds are invested in an interest-bearing account at the current time and generate a post-inflation rate of return of 5% that compounds annually. Although costs will generally rise in the future due to inflation, this cost escalation is accounted for by using a post-inflation rate of return, which means that the actual rate of return in any given year would approximately equal the sum of the post-inflation rate of return and the rate of inflation for that year. Future annual cost escalations are assumed to equal 2%[1]. A summary of the post-closure care costs, including the associated schedule for commencement of post-closure activities, is provided in Table 7-3.

The current post-closure leachate management cost estimate incorporates updated unit treatment costs for on-site pre-treatment followed by discharge to the Town of Seneca Falls' publicly owned treatment works (POTW). Tables 7-3D and 7-3E present the predicted leachate management costs

[1] Interest rate is based long-term projected composite index of 2.18% (USACE, Civil Works Construction Cost Index System, 9/13, Table A-2 – Long term index of 1.9%, adjusted by 1.15 for New York)

and volumes, respectively, during the post-closure period. The on-site treatment system utilizes reverse osmosis to generate a stream of treated leachate, suitable for discharge to the local POTW, and a stream of concentrated leachate. The system recovery is assumed to operate at an efficiency of 75%, meaning the stream of concentrated leachate would equal 25% of the pre-treatment inflow. The on-site treatment system has been sized to treat approximately 120,000 gallons of leachate per day. The current design flow rates have been developed for current conditions and are well above the anticipated post-closure flow rate for leachate. The estimated pre-treatment cost of $0.0302/gallon is based on SMI's in-house estimated costs for plant operation during 2019. It was assumed that 100% of leachate would be pre-treated, with 75% of the volume discharged to the Seneca Falls POTW (e.g., the treated leachate). The treatment and disposal of pre-treated leachate is estimated to be $0.0138/gallon based on costs incurred in 2019. The concentrate stream (i.e., 25% of the leachate volume to be pre-treated) was assumed to be further treated. The cost for treatment of the concentrate stream and recirculation into the landfill is estimated to be $0.0749/gallon based on historical operation costs for the landfill.

The post-closure cost estimate is summarized in Table 7-3, with further detail in Tables 7-3A through 7-3E. As shown in the updated post closure cost summary, the present value for post-closure care is calculated at $23,410,678. This represents an increase from the prior year's estimate. The increase is primarily attributable to the update to the assumed phasing of final cover. Since the last stage of final cover construction is anticipated to occur into 2028, the post-closure period is assumed to commence on January 1, 2029 and extend for 30 years thereafter.

CLOSURE AND POST-CLOSURE FINANCIAL ASSURANCE UPDATE

The updated closure cost estimate is $32,325,144. The updated present worth of the cost estimate for the post-closure financial assurance is $23,410,678. Closure/post-closure funding is currently provided in separate surety bonds for closure and post-closure. The surety bond for closure and post-closure will be adjusted to the updated value upon written NYSDEC approval.

Seneca Meadows, Inc.

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Table 7-1

Final Cover Installation Timeline

Seneca Meadows Landfill

Year	Permitted Footprint	Existing Cap Area	New Cap Area	Constructed Cap Area	Constructed Liner Footprint	Uncapped and Lined Area	Notes
2020 Year End	350.5	157.5	10.0	167.5	341.7	174.2	Stage 6C liner system operational
2021 Year End	350.5	148.6	19.1	167.7	350.5	182.8	Stage 5 liner system operational (full permitted landfill footprint constructed), 18.9 acres of previously constructed SMI cap will be removed for future operations, thereby reducing existing cap area by same amount.
2022 Year End	350.5	167.7	0.0	167.7	350.5	182.8	
2023 Year End	350.5	167.7	0.0	167.7	350.5	182.8	
2024 Year End	350.5	167.7	37.5	205.2	350.5	145.3	
2025 Year End	350.5	205.2	37.5	242.7	350.5	107.8	
2026 Year End	350.5	242.7	37.5	280.2	350.5	70.3	
2027 Year End	350.5	280.2	37.5	317.7	350.5	32.8	
2028 Year End	350.5	317.7	32.8	350.5	350.5	0.0	

Seneca Meadows, Inc.

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Table 7-2

Closure Cost Estimate

Seneca Meadows Landfill

Direct Costs

Item No.	Item Description	Qty.	Unit	Unit Cost (12)	Item Cost
1	Barrier protection layer (2) (2a)	182.8	acre	$27,414	$5,011,227
2	Topsoil, from On-Site Areas (3)	182.8	acre	$13,190	$2,411,079
3	Drainage Layer (GCD) (4)	182.8	acre	$21,776	$3,980,640
4	Subdrain Collection Pipes (4a)	129,419	LF	$18	$2,366,821
5	40 mil LLDPE membrane (5) (13)	159.3	acre	$15,957	$2,542,316
6	Gas Venting Layer (GCD) (4)	159.3	acre	$25,501	$4,062,753
7	GCL (Plateau) (6)	36.2	acre	$19,202	$695,127
8	Diversion swales (7)	50,436	LF	$25	$1,281,074
9	Cover Tie-in and Perimeter Channel (7a)	10,120	LF	$89	$904,809
10	Downchutes (8)	4,813	LF	$126	$606,364
11	Stilling Basins / Road Crossings (8)	16	ea	$12,049	$192,780
12	Gas Collection System (9)	159.3	acre	$7,627	$1,215,151
13	Hydroseeding and mulch	182.8	acre	$13,953	$2,550,577
14	Leachate Disposal Costs	2,720,000	gallon	$0.19	$516,800
				Total Direct Cost:	**$28,337,517**

Indirect Costs (Composite of All Landfills)

14	Mobilization/Demobilization	2%	of Direct Costs		$566,750.35
15	Survey	2%	of Direct Costs		$566,750
16	SWPPP Compliance and Dust Control (10)	2%	of Direct Costs		$566,750
17	Engineering and Certification (11)	1	LS	$1,394,000	$1,394,000
18	Bonding	1%	of Direct Costs		$283,375
19	Tire Processing Facility Closure (14)	1	LS	$610,000	$610,000
				Total Indirect Cost:	**$3,987,626**
				Total Closure Cost:	**$32,325,144**

Notes/Assumptions:

1 This closure cost estimate is based on an estimated worst-case site closure scenario, which would occur prior to the construction of any additional final cover (i.e., prior to final cover construction slated for 2021). All remaining areas will be capped with a geosynthetic final cover system. On plateau areas, a geosynthetic clay liner (GCL) is added beneath the geomembrane. All areas of the landfill are assumed to be filled to an extent that no additional material will be necessary to create positive drainage off the footprint and over the perimeter berms.

2 Barrier protection layer (BPL) may be obtained from stockpiles from the Stages 5 and 6 footprint excavation, the Renewable Resource Park (RRP) South area, and the Meadow View mine area. The unit cost used in this estimate is based on 2016 Contractor bid price and sourcing the material from the Meadow View mine area. Costs include excavation, hauling, and placement of material and are based on 2016 Contractor bid price of $5.30/sy for a 2-ft-thick layer.

2a The 18-inch-thick barrier layer may be obtained from stockpiles from the Stages 5 and 6 footprint excavation, the RRP South area, and the Meadow View mine area. The unit cost used in this estimate ($23.48/CY) is based on sourcing the material from the Meadow View mine area. Costs include excavation, hauling, and placement of material and are based on per cubic yard pricing provided by an independent contractor retained by Seneca Meadows Inc. for the construction of the Stages 7 and 8 baseliner construction.

3 Topsoil from on-site sources is from stockpiles, RRP South footprint, and the Meadowview Mine footprint, as well as existing topsoil placed on intermediate cover areas (where present). Unit cost for topsoil from on-site sources is $2.55/sy based on 2016 Contractor bid price and includes topsoil stripping, stockpiling, and reinstallation. Approximately 67.8 acres of intermediate cover on the SMI Landfill and SELF/EX-2 include an estimated 3 inches of topsoil. Prior to final cover placement, the topsoil in these areas will be stripped and retained for reuse. This is expected to generate approximately 27,300 cy. Excluding this reusable volume, a prior soil balance analysis for the site predicted a topsoil deficit of approximately 71,600 cy. Including this reusable volume from intermediate cover areas, the estimated topsoil deficit is 44,300 cy, equivalent to approximately 55 acres of final cover. Prior to placing Stages 5 and 6 into operation, the landfill footprint is approximately 41 acres smaller than the permitted footprint. Consequently, the topsoil deficit will require the import of material to cover approximately 14 acres (i.e., 55 acres minus 41 acres). This volume of topsoil will be purchased and imported to the site. The unit cost for imported topsoil is based on $35/CY for material purchase, hauling, and placement.

4 GCD material costs based on 2016 orders, are $0.34/sq.ft. and $0.27/sq.ft. for drainage layer and gas venting layer material, respectively. Installation costs are included based on 2016 Contractor bid prices. Gas venting layer cost includes select subgrade preparation.

4a Quantities for subdrain collection piping are based on an average linear footage per acre from the 2016 final cover design. Unit cost for subdrain collection piping based on 2016 Contractor bid price.

5 Geomembrane cost is based on $0.185/sq.ft from a 2016 quote by a manufacturer, plus installation-related 2016 Contractor bid price of $1.42/sy.

6 GCL unit cost includes $0.33/sq.ft. for material and shipping based on 2016 quote from manufacturer plus a 1.8% CPI increase in 2017 Annual Report, a 2.2% CPI increase in 2018, and a 1.6% CPI increase in 2019. An additional 25% is added for installation-related costs.

7 Diversion swale unit cost is based on 2016 Contractor bid price. Swale quantities are estimates and are prorated based on total swale linear footage and fraction of landfill remaining to be capped.

7a Cover tie-in and perimeter channel provision and unit cost based on 2016 final cover bid structure and contractor bid price.

8 Downchute unit cost is based on 2016 Contractor bid price for Flexamat downchutes. Downchute quantitiies are estimates and are prorated based on total downchute linear footage and fraction of landfill remaining to be capped. Stilling basins and road crossings unit cost is based on 2016 Contractor bid price.

9 Gas collection system includes gas wells, vents, piping. Per acre cost based on 2016 Contractor bid price.

10 SWPPP compliance and dust control prices based on 2016 Contractor bid prices.

11 Engineering and certification cost is based on final cover installation occuring over two construction seasons. For each construction season, a set of contract documents will be created, including construction drawings (approximately 30 sheets at $5,000 per sheet for engineering and drawing creation), technical specifications ($15,000), and bid form ($5,000). Bid assistance is assumed to cost $15,000 per year for two years. Full-time construction observation is estimated to cost $420,000 per year (based on three on-site staff for 50 hours per week, 35 weeks per year, $80/hr) for two years. Miscellaneous office support is estimated to cost $42,000 per year (based on one senior engineer, 8 hours per week, 35 weeks per year, $150/hr) for two years. Two certification reports are assumed, with each report costing $50,000.

12 In the 2016 Annual Report all unit prices prices obtained from 2016 sources were increased by the CPI value of 1.1% to simulate anticipated 2017 prices. In preparation of the 2017 Annual Report the costs presented in the 2016 Annual Report were increased by a CPI value of 1.8% to simulate anticpated 2018 prices. In preparation of the 2018 Annual Report the costs presented in the 2017 Annual Report were increased by a CPI value of 2.2% to simulate anticipated 2019 prices. In preparation of the 2019 Annual Report the costs presented in the 2018 Annaul Report were increased by a CPI value of 1.6% to simulate anticipated 2020 prices.

13 Installed WEX exposed geomembrane liner will be used as the based to the final cap for this area.

14 Based on historic maximums of tires stored on site documented in quarterly reports from 2015 to 2019, The Maximum quantity of processed Tire chips stored at the Tire Processing Facility under current operating conditions is approximately 24,000 tons. As operating conditions are not expected to change in 2020, this quantity remains a reasonable worst case condition for 2020. Using typical conversion factors of approximately 1200 pounds per cubic Yard and 40 tires per cubic yard, this storage equates to approximately 1,600,000 processed whole tire equivalents. Therefore, the maximum required surety to be maintained by Seneca Meadows Inc. for stored processed tire chips is $400,000. In accordance with the above, the total required surety for the TPF will be $610,000.

Seneca Meadows, Inc.
2019 Annual Report
Post-Closure Care Cost Estimate
Table 7-3 - Cost Summary

Current Year: 2020
Annual Rate of Return on Investment, Post-Inflation: 5.0%

Year	Monitoring							Maintenance/Repairs								Leachate Management			Total Annual Cost (2020 Dollars)	Investment Duration (Years) from Current Year	Net Present Value, 5% Post-Inflation Rate of Return
	Groundwater	Surface Water	Sediment	Leachate	Condensate	Landfill Gas	Subtotal	Final Cover	Drainage Structures	Gas System	Groundwater Monitoring System	Leachate Collection System	Mowing	Security	Subtotal	Treatment & Disposal	Miscellaneous	Subtotal			
2029	$ 84,639	$ 14,213	$ 13,466	$ 67,861	$ 2,458	$ 89,982	$ 272,618	$ 417,262	$ 80,495	$ 194,590	$ 2,672	$ 121,414	$ 51,014	$ 1,100	$ 868,549	$ 1,533,408	$ 395,408	$ 1,928,816	$ 3,069,982	9	$ 1,978,938
2030	$ 84,639	$ 14,213	$ 13,466	$ 67,861	$ 2,458	$ 89,982	$ 272,618	$ 366,060	$ 80,495	$ 194,590	$ 2,672	$ 121,414	$ -	$ 1,100	$ 766,333	$ 1,102,913	$ 395,408	$ 1,498,321	$ 2,537,272	10	$ 1,557,665
2031	$ 84,639	$ 14,213	$ 13,466	$ 67,861	$ 2,458	$ 89,982	$ 272,618	$ 311,055	$ 80,495	$ 194,590	$ 2,672	$ 121,414	$ 51,014	$ 1,100	$ 762,342	$ 983,609	$ 395,408	$ 1,379,017	$ 2,413,977	11	$ 1,411,402
2032	$ 84,639	$ 14,213	$ 13,466	$ 67,861	$ 2,458	$ 89,982	$ 272,618	$ 264,033	$ 80,495	$ 194,590	$ 2,672	$ 121,414	$ -	$ 1,100	$ 664,306	$ 928,191	$ 395,408	$ 1,323,599	$ 2,260,523	12	$ 1,258,744
2033	$ 84,639	$ 14,213	$ 13,466	$ 67,861	$ 2,458	$ 89,982	$ 272,618	$ 222,905	$ 80,495	$ 194,590	$ 2,672	$ 121,414	$ 51,014	$ 1,100	$ 674,191	$ 928,191	$ 395,408	$ 1,323,599	$ 2,270,408	13	$ 1,204,046
2034	$ 73,632	$ 3,954	$ 5,236	$ 67,861	$ 2,458	$ 89,982	$ 243,123	$ 207,231	$ 80,495	$ 194,590	$ 2,672	$ 121,414	$ -	$ 1,100	$ 607,503	$ 928,191	$ 395,408	$ 1,323,599	$ 2,174,225	14	$ 1,098,131
2035	$ 73,632	$ 3,954	$ 5,236	$ 67,861	$ 2,458	$ 89,982	$ 243,123	$ 191,557	$ 80,495	$ 194,590	$ 2,672	$ 121,414	$ 51,014	$ 1,100	$ 642,844	$ 928,191	$ 395,408	$ 1,323,599	$ 2,209,565	15	$ 1,062,839
2036	$ 73,632	$ 3,954	$ 5,236	$ 67,861	$ 2,458	$ 89,982	$ 243,123	$ 175,883	$ 80,495	$ 194,590	$ 2,672	$ 121,414	$ -	$ 1,100	$ 576,155	$ 928,191	$ 395,408	$ 1,323,599	$ 2,142,877	16	$ 981,677
2037	$ 73,632	$ 3,954	$ 5,236	$ 67,861	$ 2,458	$ 89,982	$ 243,123	$ 160,209	$ 80,495	$ 194,590	$ 2,672	$ 121,414	$ 51,014	$ 1,100	$ 611,496	$ 928,191	$ 395,408	$ 1,323,599	$ 2,178,217	17	$ 950,349
2038	$ 73,632	$ 3,954	$ 5,236	$ 67,861	$ 2,458	$ 89,982	$ 243,123	$ 146,499	$ 80,495	$ 194,590	$ 2,672	$ 121,414	$ -	$ 1,100	$ 546,772	$ 928,191	$ 395,408	$ 1,323,599	$ 2,113,493	18	$ 878,200
2039	$ 73,632	$ 3,954	$ 5,236	$ 67,861	$ 2,458	$ 89,982	$ 243,123	$ 146,499	$ 80,495	$ 194,590	$ 2,672	$ 121,414	$ 51,014	$ 1,100	$ 597,786	$ 928,191	$ 395,408	$ 1,323,599	$ 2,164,508	19	$ 856,569
2040	$ 73,632	$ 3,954	$ 5,236	$ 67,861	$ 2,458	$ 89,982	$ 243,123	$ 146,499	$ 80,495	$ 194,590	$ 2,672	$ 121,414	$ -	$ 1,100	$ 546,772	$ 928,191	$ 395,408	$ 1,323,599	$ 2,113,493	20	$ 796,553
2041	$ 73,632	$ 3,954	$ 5,236	$ 67,861	$ 2,458	$ 89,982	$ 243,123	$ 146,499	$ 80,495	$ 194,590	$ 2,672	$ 121,414	$ 51,014	$ 1,100	$ 597,786	$ 928,191	$ 395,408	$ 1,323,599	$ 2,164,508	21	$ 776,933
2042	$ 73,632	$ 3,954	$ 5,236	$ 67,861	$ 2,458	$ 89,982	$ 243,123	$ 146,499	$ 80,495	$ 194,590	$ 2,672	$ 121,414	$ -	$ 1,100	$ 546,772	$ 928,191	$ 395,408	$ 1,323,599	$ 2,113,493	22	$ 722,497
2043	$ 73,632	$ 3,954	$ 5,236	$ 67,861	$ 2,458	$ 89,982	$ 243,123	$ 146,499	$ 80,495	$ 457,551	$ 2,672	$ 121,414	$ 51,014	$ 1,100	$ 860,746	$ 928,191	$ 395,408	$ 1,323,599	$ 2,427,468	23	$ 790,314
2044	$ 73,632	$ 3,954	$ 5,236	$ 67,861	$ 2,458	$ 89,982	$ 243,123	$ 146,499	$ 27,903	$ 194,590	$ 2,672	$ 121,414	$ -	$ 1,100	$ 494,180	$ 928,191	$ 395,408	$ 1,323,599	$ 2,060,901	24	$ 639,019
2045	$ 73,632	$ 3,954	$ 5,236	$ 67,861	$ 2,458	$ 89,982	$ 243,123	$ 146,499	$ 27,903	$ 194,590	$ 2,672	$ 121,414	$ 51,014	$ 1,100	$ 545,194	$ 928,191	$ 395,408	$ 1,323,599	$ 2,111,916	25	$ 623,655
2046	$ 73,632	$ 3,954	$ 5,236	$ 67,861	$ 2,458	$ 89,982	$ 243,123	$ 146,499	$ 27,903	$ 194,590	$ 2,672	$ 121,414	$ -	$ 1,100	$ 494,180	$ 928,191	$ 395,408	$ 1,323,599	$ 2,060,901	26	$ 579,609
2047	$ 73,632	$ 3,954	$ 5,236	$ 67,861	$ 2,458	$ 89,982	$ 243,123	$ 146,499	$ 27,903	$ 194,590	$ 2,672	$ 121,414	$ 51,014	$ 1,100	$ 545,194	$ 928,191	$ 395,408	$ 1,323,599	$ 2,111,916	27	$ 565,673
2048	$ 73,632	$ 3,954	$ 5,236	$ 67,861	$ 2,458	$ 89,982	$ 243,123	$ 146,499	$ 27,903	$ 194,590	$ 2,672	$ 121,414	$ -	$ 1,100	$ 494,180	$ 928,191	$ 395,408	$ 1,323,599	$ 2,060,901	28	$ 525,723
2049	$ 73,632	$ 3,954	$ 5,236	$ 67,861	$ 2,458	$ 89,982	$ 243,123	$ 146,499	$ 27,903	$ 194,590	$ 2,672	$ 121,414	$ 51,014	$ 1,100	$ 545,194	$ 928,191	$ 395,408	$ 1,323,599	$ 2,111,916	29	$ 513,082
2050	$ 73,632	$ 3,954	$ 5,236	$ 67,861	$ 2,458	$ 89,982	$ 243,123	$ 146,499	$ 27,903	$ 194,590	$ 2,672	$ 121,414	$ -	$ 1,100	$ 494,180	$ 928,191	$ 395,408	$ 1,323,599	$ 2,060,901	30	$ 476,846
2051	$ 73,632	$ 3,954	$ 5,236	$ 67,861	$ 2,458	$ 89,982	$ 243,123	$ 146,499	$ 27,903	$ 194,590	$ 2,672	$ 121,414	$ 51,014	$ 1,100	$ 545,194	$ 928,191	$ 395,408	$ 1,323,599	$ 2,111,916	31	$ 465,381
2052	$ 73,632	$ 3,954	$ 5,236	$ 67,861	$ 2,458	$ 89,982	$ 243,123	$ 146,499	$ 27,903	$ 194,590	$ 2,672	$ 121,414	$ -	$ 1,100	$ 494,180	$ 928,191	$ 395,408	$ 1,323,599	$ 2,060,901	32	$ 432,513
2053	$ 73,632	$ 3,954	$ 5,236	$ 67,861	$ 2,458	$ 89,982	$ 243,123	$ 146,499	$ 27,903	$ 194,590	$ 2,672	$ 121,414	$ 51,014	$ 1,100	$ 545,194	$ 928,191	$ 395,408	$ 1,323,599	$ 2,111,916	33	$ 422,114
2054	$ 73,632	$ 3,954	$ 5,236	$ 67,861	$ 2,458	$ 89,982	$ 243,123	$ 146,499	$ 27,903	$ 194,590	$ 2,672	$ 121,414	$ -	$ 1,100	$ 494,180	$ 928,191	$ 395,408	$ 1,323,599	$ 2,060,901	34	$ 392,302
2055	$ 73,632	$ 3,954	$ 5,236	$ 67,861	$ 2,458	$ 89,982	$ 243,123	$ 146,499	$ 27,903	$ 194,590	$ 2,672	$ 121,414	$ 51,014	$ 1,100	$ 545,194	$ 928,191	$ 395,408	$ 1,323,599	$ 2,111,916	35	$ 382,870
2056	$ 73,632	$ 3,954	$ 5,236	$ 67,861	$ 2,458	$ 89,982	$ 243,123	$ 146,499	$ 27,903	$ 194,590	$ 2,672	$ 121,414	$ -	$ 1,100	$ 494,180	$ 928,191	$ 395,408	$ 1,323,599	$ 2,060,901	36	$ 355,830
2057	$ 73,632	$ 3,954	$ 5,236	$ 67,861	$ 2,458	$ 89,982	$ 243,123	$ 146,499	$ 27,903	$ 194,590	$ 2,672	$ 121,414	$ 51,014	$ 1,100	$ 545,194	$ 928,191	$ 395,408	$ 1,323,599	$ 2,111,916	37	$ 347,274
2058	$ 73,632	$ 3,954	$ 5,236	$ 67,861	$ 2,458	$ 89,982	$ 243,123	$ 146,499	$ 27,903	$ 457,551	$ 2,672	$ 121,414		$ 1,100	$ 757,140	$ 928,191	$ 395,408	$ 1,323,599	$ 2,323,861	38	$ 363,929
																			Total Net Present Value:	**$ 23,410,678**	

Notes/Assumptions:

1. Costs are presented in 2020 dollars. Present value is based on investing the indicated amount in the present year in an account providing a post-inflation annual rate of return equal to the indicated percentage and whose interest compounds annually.
2. Refer to subsequent tables for development of individual cost components.
3. All 2019 prices have been increased by 1.6% to account for the increase in CPI through 2019 to simulate likely 2020 prices. (Source: U.S. Bureau of Labor Statistics)

Seneca Meadows, Inc.

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Post-Closure Care Cost Estimate

Table 7-3A - Post-Closure Monitoring Costs Basis

Groundwater, Years 1-5 (2)

Item No.		Unit Cost	Events Per Year	Number Locations	Item Cost
1	Part 360 Routine Parameters	$ 248.53	3	60	$ 44,700
2	Part 360 Baseline Parameters	$ 492.70	1	60	$ 29,600
3	Expenses/QA/Mileage	$ 2,564.81	4	1	$ 10,300
				Total Annual Cost:	**$ 84,600**

Groundwater, Years 6-30 (2)

Item No.	Item Description	Unit Cost	Events Per Year	Number Locations	Item Cost
1	Part 360 Routine Parameters	$ 248.53	3	17	$ 12,700
2	Part 360 Baseline Parameters	$ 492.70	1	17	$ 8,400
3	Part 360 Baseline Parameters	$ 492.70	2	43	$ 42,400
4	Expenses/QA/Mileage	$ 2,564.81	4	1	$ 10,300
				Total Annual Cost:	**$ 73,800**

Surface Water, Years 1-5 (2)

Item No.	Item Description	Unit Cost	Events Per Year	Number Locations	Item Cost
1	Part 360 Expanded Parameters	$ 1,230.66	1	4	$ 4,900
2	Part 360 Baseline Parameters	$ 492.70	3	4	$ 5,900
3	Expenses/QA/Mileage	$ 850.23	4	1	$ 3,400
				Total Annual Cost:	**$ 14,200**

Surface Water, Years 6-30 (2)

Item No.	Item Description	Unit Cost	Events Per Year	Number Locations	Item Cost
1	Modified Part 360 Baseline Parameters	$ 492.70	2	4	$ 3,900
				Total Annual Cost:	**$ 3,900**

Sediment, Years 1-5 (2)

Item No.	Item Description	Unit Cost	Events Per Year	Number Locations	Item Cost
1	Part 360 Expanded Parameters	$ 1,394.17	1	4	$ 5,600
2	Part 360 Baseline Parameters	$ 656.20	3	4	$ 7,900
				Total Annual Cost:	**$ 13,500**

Sediment, Years 6-30 (2)

Item No.	Item Description	Unit Cost	Events Per Year	Number Locations	Item Cost
1	Modified Part 360 Baseline Parameters	$ 656.20	2	4	$ 5,200
				Total Annual Cost:	**$ 5,200**

Leachate, Years 1-30

Item No.	Item Description	Unit Cost	Events Per Year	Number Locations	Item Cost
1	WWTP Discharge				
	Weekly	$ 148.25	52	1	$ 7,700
	Monthly	$ 191.84	12	1	$ 2,300
	Annually	$ 1,932.65	1	1	$ 1,900
2	Primary Leachate Collection System Characterization (Expanded Parameters)	$ 1,230.66	2	15	$ 36,900
3	Secondary Leachate Collection System Characterization (Baseline Parameters)	$ 492.70	4	9	$ 17,700
4	Expenses/QA/Mileage	$ 327.02	4	1	$ 1,300
				Total Annual Cost:	**$ 67,800**

Condensate, Years 1-30

Item No.	Item Description	Unit Cost	Events Per Year	Number Locations	Item Cost
1	Expanded Parameters	$ 1,230.66	2	1	$ 2,500
				Total Annual Cost:	**$ 2,500**

Landfill Gas, Years 1-30

Item No.	Item Description	Unit Cost	Events Per Year	Number Locations	Item Cost
1	Perimeter Soil Probes	$ 545.02	4	1	$ 2,200
2	Monthly Cover Inspection	$ 1,635.07	12	1	$ 19,600
3	NSPS Landfill Surface Screening	$ 11,499.95	4	1	$ 46,000
4	Title V Monthly Compliance Monitoring	$ 1,425.78	12	1	$ 17,100
5	Flare	$ 5,123.20	1	1	$ 5,100
				Total Annual Cost:	**$ 90,000**

Notes/Assumptions:

1. Individual line item costs are from the post-closure cost estimates contained in the 2018 Annual Report, and increased by 1.6% to account for an increase in CPI through 2019 and simulate 2020 prices.

2. After five years of post-closure monitoring, the assumption is made that monitoring requirements can be reduced based on substantial prior operating and post-closure data. Reductions are as shown in the table for frequency and estimated number of sampling locations, and are estimates that would be confirmed with NYSDEC at that time.

Seneca Meadows, Inc.
2019 Annual Report
Post-Closure Care Cost Estimate
Table 7-3B - Post-Closure Final Cover Repair Cost Basis

Year	Total Cover Area (acres)	Clay Cap		Geosynthetic Cap	
		Area (acres)	Repair Cost	Area (acres)	Repair Cost
2029	350.5	86.9	$36,322	263.6	$380,940
2030	350.5	86.9	$36,322	263.6	$329,738
2031	350.5	86.9	$36,322	263.6	$274,733
2032	350.5	86.9	$36,322	263.6	$227,711
2033	350.5	86.9	$36,322	263.6	$186,583
2034	350.5	86.9	$36,322	263.6	$170,909
2035	350.5	86.9	$36,322	263.6	$155,235
2036	350.5	86.9	$36,322	263.6	$139,561
2037	350.5	86.9	$36,322	263.6	$123,887
2038	350.5	86.9	$36,322	263.6	$110,177
2039	350.5	86.9	$36,322	263.6	$110,177
2040	350.5	86.9	$36,322	263.6	$110,177
2041	350.5	86.9	$36,322	263.6	$110,177
2042	350.5	86.9	$36,322	263.6	$110,177
2043	350.5	86.9	$36,322	263.6	$110,177
2044	350.5	86.9	$36,322	263.6	$110,177
2045	350.5	86.9	$36,322	263.6	$110,177
2046	350.5	86.9	$36,322	263.6	$110,177
2047	350.5	86.9	$36,322	263.6	$110,177
2048	350.5	86.9	$36,322	263.6	$110,177
2049	350.5	86.9	$36,322	263.6	$110,177
2050	350.5	86.9	$36,322	263.6	$110,177
2051	350.5	86.9	$36,322	263.6	$110,177
2052	350.5	86.9	$36,322	263.6	$110,177
2053	350.5	86.9	$36,322	263.6	$110,177
2054	350.5	86.9	$36,322	263.6	$110,177
2055	350.5	86.9	$36,322	263.6	$110,177
2056	350.5	86.9	$36,322	263.6	$110,177
2057	350.5	86.9	$36,322	263.6	$110,177
2058	350.5	86.9	$36,322	263.6	$110,177

Notes/Assumptions:

1. Unit cost for final cover repair is from post-closure cost estimates presented in the 2018 Annual Report and increased by 1.6% to account for an increase in CPI through 2019 to simulate 2020 prices.
2. Repair costs based on a $41,139/acre cost and a percent of cap area needing repair based on the number of years the cap has been installed. 1-5 years after installation = 5% area needing repair, 6-10 years = 2%, 11-30 years = 1%

Seneca Meadows, Inc.

2019 Annual Report

Post-Closure Care Cost Estimate

Table 7-3C - Miscellaneous Post-Closure Maintenance/Repair Costs Basis

Drainage Structure Maintenance, Years 1-15

Item No.	Item Description	Qty.	Unit	Unit Cost	Item Cost
1	Sediment Basin Cleaning, One Basin Per Year	1	LS	$ 52,592	$ 52,592
2	Swale, Downchute, Culvert, and Structure Cleaning				
	Backhoe/Loader	10	day	$ 751	$ 7,512
	Dump Truck	10	day	$ 537	$ 5,368
	Crew (2 Laborers, 2 Operators)	10	day	$ 1,234	$ 12,339
	Misc Equipment (e.g., chipper)	10	day	$ 268	$ 2,684
				Total Annual Cost:	**$ 80,495**

Drainage Structure Maintenance, Years 16-30

Item No.	Item Description	Qty.	Unit	Unit Cost	Item Cost
1	Swale, Downchute, Culvert, and Structure Cleaning				
	Backhoe/Loader	10	day	$ 751	$ 7,512
	Dump Truck	10	day	$ 537	$ 5,368
	Crew (2 Laborers, 2 Operators)	10	day	$ 1,234	$ 12,339
	Misc Equipment (e.g., chipper)	10	day	$ 268	$ 2,684
				Total Annual Cost:	**$ 27,903**

Gas System Maintenance, Years 1-14, 16-29

Item No.	Item Description	Qty.	Unit	Unit Cost	Item Cost
1	Misc. Maintenance	1	LS	$ 194,590	$ 194,590
				Total Annual Cost:	**$ 194,590**

Gas System Maintenance, Years 15, 30

Item No.	Item Description	Qty.	Unit	Unit Cost	Item Cost
1	Misc. Maintenance	1	LS	$ 194,590	$ 194,590
2	Flare Replacement	1	LS	$ 262,960	$ 262,960
				Total Annual Cost:	**$ 457,551**

Groundwater Monitoring System Maintenance, Years 1-30

Item No.	Item Description	Qty.	Unit	Unit Cost	Item Cost
1	Misc. Maintenance (well development, protective casing repairs, etc.)	1	LS	$ 2,630	$ 2,630
				Total Annual Cost:	**$ 2,630**

Leachate Collection System Maintenance, Years 1-30

Item No.	Item Description	Qty.	Unit	Unit Cost	Item Cost
1	Primary Collection Pipe Cleaning (all areas)	41,633	LF	$ 2.14	$ 89,229
2	Misc. Pumps, Valves and Piping Repairs and Replacement	1	LS	$ 16,093	$ 16,093
3	Misc. Forcemains Repair and Cleaning	1	LS	$ 16,093	$ 16,093
				Total Annual Cost:	**$ 121,414**

Mowing, Years 1-30, Biennially

Item No.	Item Description	Qty.	Unit	Unit Cost	Item Cost
1	Mowing	360	acre	$ 139.48	$ 50,211
				Total Biennial Cost:	**$ 50,211**

Site Security, Years 1-30

Item No.	Item Description	Qty.	Unit	Unit Cost	Item Cost
1	Perimeter fence and site security system maintenance/repairs	1	LS	$ 1,083	$ 1,083
				Total Annual Cost:	**$ 1,083**

Notes/Assumptions:

1. Individual line item costs are from the cost estimates contained in the 2017 Annual Report increased by 2.2% to account for an increase in CPI through 2018 to simulate 2019 prices.

Seneca Meadows, Inc.
2019 Annual Report
Post-Closure Care Cost Estimate
Table 7-3D - Annual Post-Closure Leachate Disposal Cost Basis

Year	Annual Leachate Volume (gal)	Groundwater Collection (gal)	Annual Leachate Volume (gal) (2)	On-Site Leachate Pre-Treatment Through Reverse Osmosis System (100% of Annual Leachate Volume)			Concentrate Treatment and Recirculation (25% of Annual Leachate Volume)			Off-Site Disposal at Seneca Falls POTW (75% of Annual Leachate Volume)			Annual Cost (2020 Dollars)
				Volume (gal)	Unit Cost	Treatment Cost	Volume (gal)	Unit Cost	Treatment Cost	Volume (gal)	Unit Cost	Treatment Cost	
2029	19,547,070	6,329,648	25,876,718	25,876,718	$ 0.0302	$ 780,835	6,469,179	$ 0.0749	$ 484,407	19,407,538	$ 0.0138	$ 268,166	$ 1,533,408
2030	12,282,340	6,329,648	18,611,988	18,611,988	$ 0.0302	$ 561,620	4,652,997	$ 0.0749	$ 348,413	13,958,991	$ 0.0138	$ 192,880	$ 1,102,913
2031	10,269,045	6,329,648	16,598,693	16,598,693	$ 0.0302	$ 500,869	4,149,673	$ 0.0749	$ 310,724	12,449,020	$ 0.0138	$ 172,016	$ 983,609
2032	9,333,854	6,329,648	15,663,502	15,663,502	$ 0.0302	$ 472,649	3,915,875	$ 0.0749	$ 293,218	11,747,626	$ 0.0138	$ 162,324	$ 928,191
2033	9,333,854	6,329,648	15,663,502	15,663,502	$ 0.0302	$ 472,649	3,915,875	$ 0.0749	$ 293,218	11,747,626	$ 0.0138	$ 162,324	$ 928,191
2034	9,333,854	6,329,648	15,663,502	15,663,502	$ 0.0302	$ 472,649	3,915,875	$ 0.0749	$ 293,218	11,747,626	$ 0.0138	$ 162,324	$ 928,191
2035	9,333,854	6,329,648	15,663,502	15,663,502	$ 0.0302	$ 472,649	3,915,875	$ 0.0749	$ 293,218	11,747,626	$ 0.0138	$ 162,324	$ 928,191
2036	9,333,854	6,329,648	15,663,502	15,663,502	$ 0.0302	$ 472,649	3,915,875	$ 0.0749	$ 293,218	11,747,626	$ 0.0138	$ 162,324	$ 928,191
2037	9,333,854	6,329,648	15,663,502	15,663,502	$ 0.0302	$ 472,649	3,915,875	$ 0.0749	$ 293,218	11,747,626	$ 0.0138	$ 162,324	$ 928,191
2038	9,333,854	6,329,648	15,663,502	15,663,502	$ 0.0302	$ 472,649	3,915,875	$ 0.0749	$ 293,218	11,747,626	$ 0.0138	$ 162,324	$ 928,191
2039	9,333,854	6,329,648	15,663,502	15,663,502	$ 0.0302	$ 472,649	3,915,875	$ 0.0749	$ 293,218	11,747,626	$ 0.0138	$ 162,324	$ 928,191
2040	9,333,854	6,329,648	15,663,502	15,663,502	$ 0.0302	$ 472,649	3,915,875	$ 0.0749	$ 293,218	11,747,626	$ 0.0138	$ 162,324	$ 928,191
2041	9,333,854	6,329,648	15,663,502	15,663,502	$ 0.0302	$ 472,649	3,915,875	$ 0.0749	$ 293,218	11,747,626	$ 0.0138	$ 162,324	$ 928,191
2042	9,333,854	6,329,648	15,663,502	15,663,502	$ 0.0302	$ 472,649	3,915,875	$ 0.0749	$ 293,218	11,747,626	$ 0.0138	$ 162,324	$ 928,191
2043	9,333,854	6,329,648	15,663,502	15,663,502	$ 0.0302	$ 472,649	3,915,875	$ 0.0749	$ 293,218	11,747,626	$ 0.0138	$ 162,324	$ 928,191
2044	9,333,854	6,329,648	15,663,502	15,663,502	$ 0.0302	$ 472,649	3,915,875	$ 0.0749	$ 293,218	11,747,626	$ 0.0138	$ 162,324	$ 928,191
2045	9,333,854	6,329,648	15,663,502	15,663,502	$ 0.0302	$ 472,649	3,915,875	$ 0.0749	$ 293,218	11,747,626	$ 0.0138	$ 162,324	$ 928,191
2046	9,333,854	6,329,648	15,663,502	15,663,502	$ 0.0302	$ 472,649	3,915,875	$ 0.0749	$ 293,218	11,747,626	$ 0.0138	$ 162,324	$ 928,191
2047	9,333,854	6,329,648	15,663,502	15,663,502	$ 0.0302	$ 472,649	3,915,875	$ 0.0749	$ 293,218	11,747,626	$ 0.0138	$ 162,324	$ 928,191
2048	9,333,854	6,329,648	15,663,502	15,663,502	$ 0.0302	$ 472,649	3,915,875	$ 0.0749	$ 293,218	11,747,626	$ 0.0138	$ 162,324	$ 928,191
2049	9,333,854	6,329,648	15,663,502	15,663,502	$ 0.0302	$ 472,649	3,915,875	$ 0.0749	$ 293,218	11,747,626	$ 0.0138	$ 162,324	$ 928,191
2050	9,333,854	6,329,648	15,663,502	15,663,502	$ 0.0302	$ 472,649	3,915,875	$ 0.0749	$ 293,218	11,747,626	$ 0.0138	$ 162,324	$ 928,191
2051	9,333,854	6,329,648	15,663,502	15,663,502	$ 0.0302	$ 472,649	3,915,875	$ 0.0749	$ 293,218	11,747,626	$ 0.0138	$ 162,324	$ 928,191
2052	9,333,854	6,329,648	15,663,502	15,663,502	$ 0.0302	$ 472,649	3,915,875	$ 0.0749	$ 293,218	11,747,626	$ 0.0138	$ 162,324	$ 928,191
2053	9,333,854	6,329,648	15,663,502	15,663,502	$ 0.0302	$ 472,649	3,915,875	$ 0.0749	$ 293,218	11,747,626	$ 0.0138	$ 162,324	$ 928,191
2054	9,333,854	6,329,648	15,663,502	15,663,502	$ 0.0302	$ 472,649	3,915,875	$ 0.0749	$ 293,218	11,747,626	$ 0.0138	$ 162,324	$ 928,191
2055	9,333,854	6,329,648	15,663,502	15,663,502	$ 0.0302	$ 472,649	3,915,875	$ 0.0749	$ 293,218	11,747,626	$ 0.0138	$ 162,324	$ 928,191
2056	9,333,854	6,329,648	15,663,502	15,663,502	$ 0.0302	$ 472,649	3,915,875	$ 0.0749	$ 293,218	11,747,626	$ 0.0138	$ 162,324	$ 928,191
2057	9,333,854	6,329,648	15,663,502	15,663,502	$ 0.0302	$ 472,649	3,915,875	$ 0.0749	$ 293,218	11,747,626	$ 0.0138	$ 162,324	$ 928,191
2058	9,333,854	6,329,648	15,663,502	15,663,502	$ 0.0302	$ 472,649	3,915,875	$ 0.0749	$ 293,218	11,747,626	$ 0.0138	$ 162,324	$ 928,191

Notes/Assumptions:

1. Costs are presented in 2020 dollars based on increasing costs from the 2018 Annual Report by 1.6% to account for CPI through 2019. Future costs for RO concentrate treatment and disposal are currrently being evaluated by Waste Connections and based on those evaluations the proposed cost for RO concentrate treatment and disposal would be less than or equal to the historical cost for RO concentrate treatment and disposal therefore the historical cost has been maintained for conservatism in the cost estimate.
2. Annual post-closure leachate volume includes estimated collected volumes (Table 7-3E) plus a groundwater influence component (unlined areas) estimated to be equivalent to 2.1 inches per year and is assumed to occur across the approximately 111-acre footprint of the SMI Landfill.

3. 100% of generated leachate is assumed to be treated on-site through reverse osmosis system. 75% of the treated leachate is assumed to be discharged to the sanitary sewer for further treatment and disposal at the Seneca Falls treatment plant. Concentrate from the reverse osmosis system is assumed to be 25% of the annual volume and is assumed to be then treated further and managed by recirculation into the landfill.

4. In addition to the leachate treatment costs, an annual amount of $380,800 is included in the post-closure care estimate for miscellaneous costs related to leachate management. This amount includes: $45,500 for inspections; $91,300 for power; $52,000 for reporting; $52,000 for adminstration; $52,000 for taxes and insurance; and $103,000 for contingency.

Seneca Meadows, Inc.
2019 Annual Report
Post-Closure Care Cost Estimate
Table 7-3E - Annual Post-Closure Leachate Volumes

Year	Total Lined Area (acres)	Total Leachate (gal)	Clay Cap		Geosynthetic Cap	
			Area (acres)	Volume (gal)	Area (acres)	Volume (Gallons)
2029	354.1	19,547,070	90.5	7,544,391	263.6	11,680,223
2030	354.1	15,375,015	90.5	7,544,391	263.6	7,508,168
2031	354.1	12,282,340	90.5	7,544,391	263.6	4,415,493
2032	354.1	10,269,045	90.5	7,544,391	263.6	2,402,198
2033	354.1	9,333,854	90.5	7,544,391	263.6	1,467,006
2034	354.1	9,333,854	90.5	7,544,391	263.6	1,467,006
2035	354.1	9,333,854	90.5	7,544,391	263.6	1,467,006
2036	354.1	9,333,854	90.5	7,544,391	263.6	1,467,006
2037	354.1	9,333,854	90.5	7,544,391	263.6	1,467,006
2038	354.1	9,333,854	90.5	7,544,391	263.6	1,467,006
2039	354.1	9,333,854	90.5	7,544,391	263.6	1,467,006
2040	354.1	9,333,854	90.5	7,544,391	263.6	1,467,006
2041	354.1	9,333,854	90.5	7,544,391	263.6	1,467,006
2042	354.1	9,333,854	90.5	7,544,391	263.6	1,467,006
2043	354.1	9,333,854	90.5	7,544,391	263.6	1,467,006
2044	354.1	9,333,854	90.5	7,544,391	263.6	1,467,006
2045	354.1	9,333,854	90.5	7,544,391	263.6	1,467,006
2046	354.1	9,333,854	90.5	7,544,391	263.6	1,467,006
2047	354.1	9,333,854	90.5	7,544,391	263.6	1,467,006
2048	354.1	9,333,854	90.5	7,544,391	263.6	1,467,006
2049	354.1	9,333,854	90.5	7,544,391	263.6	1,467,006
2050	354.1	9,333,854	90.5	7,544,391	263.6	1,467,006
2051	354.1	9,333,854	90.5	7,544,391	263.6	1,467,006
2052	354.1	9,333,854	90.5	7,544,391	263.6	1,467,006
2053	354.1	9,333,854	90.5	7,544,391	263.6	1,467,006
2054	354.1	9,333,854	90.5	7,544,391	263.6	1,467,006
2055	354.1	9,333,854	90.5	7,544,391	263.6	1,467,006
2056	354.1	9,333,854	90.5	7,544,391	263.6	1,467,006
2057	354.1	9,333,854	90.5	7,544,391	263.6	1,467,006
2058	354.1	9,333,854	90.5	7,544,391	263.6	1,467,006
2059	354.1	9,333,854	90.5	7,544,391	263.6	1,467,006

8.0 PROBLEMS/CHANGES

- SMI received the Notice of Violation on January 1, 2019
- SMI received a Notice of Violation of February 19, 2019
- SMI received a Notice of Violation of March 29, 2019
- The Corrective measures listed on the Notice of Violation were resolved prior to the issuance of the Notice of Violation.

9.0 GROUNDWATER SAMPLING AND ANALYSIS

The annual review of groundwater analytical data has been prepared by KR Applin & Associates of Dansville, New York. Their report summarizes the groundwater monitoring activities for 2019, as required by SMI's 6 NYCRR Part 360 Operating Permit and is included in this section.

GROUNDWATER MONITORING REPORT

2019 Annual Report

SENECA MEADOWS SOLID WASTE MANAGEMENT FACILITY

WASTE CONNECTIONS, INC.
Connect with the Future®

FEBRUARY 2020

KR Applin & Associates 8806 Route 256 Dansville, NY 14437 585.335.5998

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EXECUTIVE SUMMARY

During 2019, groundwater monitoring at the Seneca Meadows Solid Waste Management Facility (SMI), Seneca Falls, NY, was conducted quarterly during January, April, July, and October. The monitoring was conducted in compliance with an approved Environmental Monitoring Plan (EMP) and Site Analytical Plan (SAP).

Groundwater monitoring was conducted on a facility-wide basis and included the sampling and analysis of 60 groundwater monitoring wells (overburden and bedrock) that surround the Existing Landfill, the Southeast Landfill (SELF), the SELF Bumpout, the Western Expansion Area, and the Northern Expansion Area. Porewater collected from beneath the lined landfills at the facility was also sampled and analyzed during each monitoring event.

Each of the wells and porewater sampling locations were sampled for 6 NYCRR Part 360 routine chemical parameters during the first, second, and fourth quarters and for Part 360 baseline chemical parameters during the third quarter. The sampling and laboratory analyses were performed by ALS, Rochester, New York.

The quarterly monitoring of groundwater levels beneath the facility showed a potential for downward vertical flow within the overburden sediments. Flow in the bedrock was determined to be in a south to southeast direction.

The quarterly analytical data were evaluated for potential impacts by plotting the results on Stiff and Piper diagrams, by comparing the results to 6 NYCRR Part 703 Class GA groundwater standards and trigger values established for each analyte, and by intrawell statistical analyses performed using DumpStat© software.

Results of the data evaluations revealed two types of impacts to groundwater quality at the facility. These are: 1) impacts to bedrock groundwater by organic contaminants associated with the Tantalo Site, which is centrally-located within the facility, and 2) impacts to shallow groundwater

adjacent to the facility access road and Route 414 by inorganic components derived from road deicing agents.

Evaluations of the analytical data for the wells impacted by the Tantalo Site indicate improvements in groundwater quality surrounding most of the wells. The progress of remedial measures currently being applied to the impacted areas will continue to be monitored.

The wells impacted by deicing agents have shown increasing trends in sodium, chloride, and other inorganic constituents attributed to the corrosion of well grouting material.

No modifications to the present monitoring program are recommended at this time.

1.0 INTRODUCTION

This report provides a summary of the sampling and analytical results for quarterly groundwater monitoring conducted at the Seneca Meadows, Inc. (SMI) Solid Waste Management Facility, Seneca Falls, New York, during 2019.

Groundwater monitoring is conducted on a facility-wide basis and is accomplished with the quarterly sampling of several overburden and bedrock wells, which are strategically located to monitor groundwater quality surrounding five areas of waste disposal. These are shown in Figure 1-1 and include:

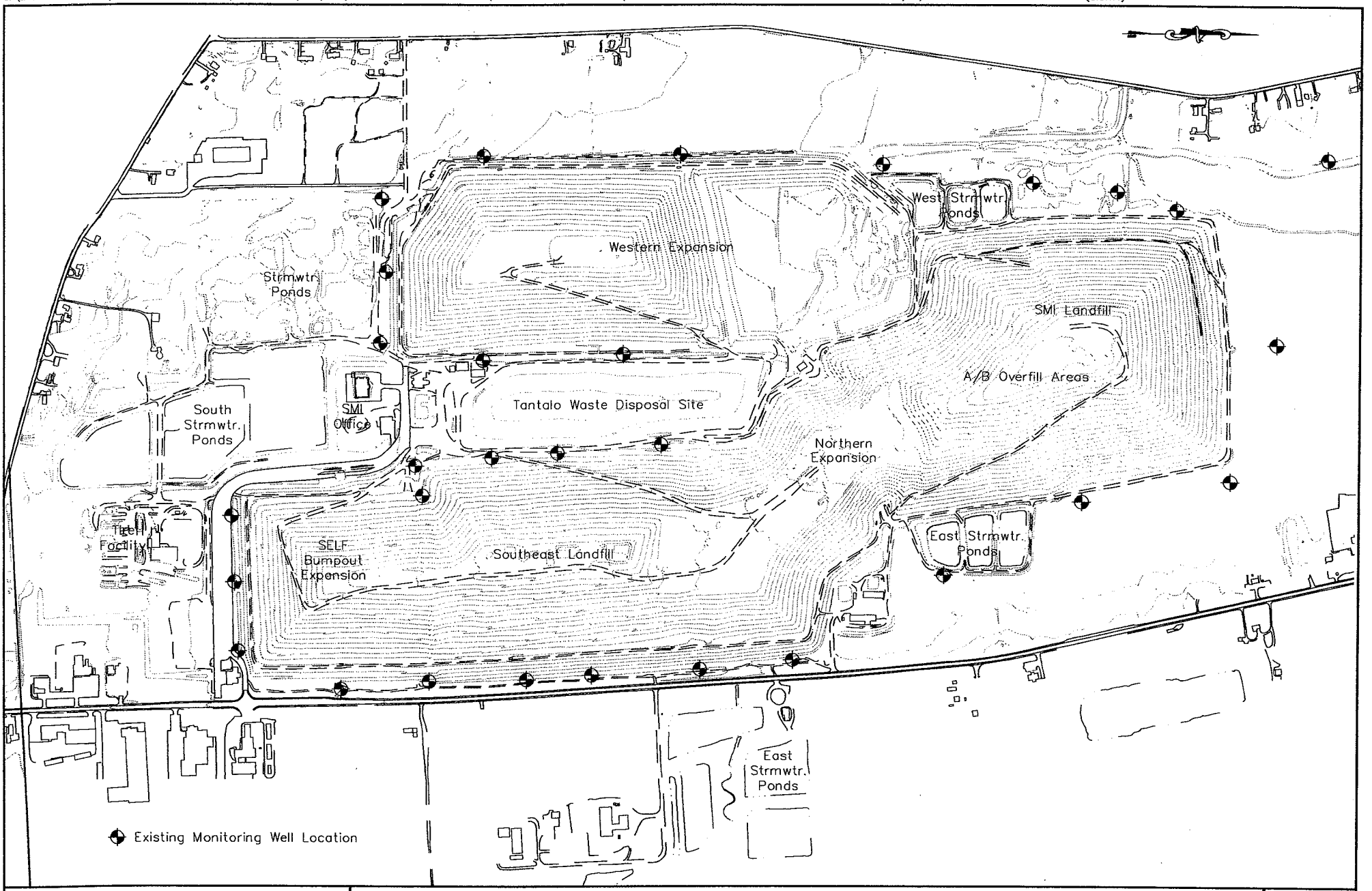
- the Existing Landfill
- the Southeast Landfill (SELF),
- the SELF Bumpout,
- the Western Expansion Area, and
- the Northern Expansion Area

In addition to the groundwater monitoring wells, porewater from beneath the liner systems of lined landfills at the facility is sampled quarterly. Porewater is sampled at one location at the A/B Overfill Area of the Existing Landfill, two locations at the SELF, one location at the SELF Bumpout, three locations at the Western Expansion Landfill, and one location at the Northern Expansion Landfill.

During 2019, monitoring was conducted during January, April, July, and October. The results for each quarterly event, including all raw field and laboratory data, were provided in quarterly monitoring reports, which are available for review at the offices of SMI and the New York State Department of Environmental Conservation (NYSDEC), Region 8, Avon, New York.

The purpose of this annual report is to briefly summarize the findings provided in the quarterly reports and to identify particular aspects of the monitoring program that may require modification or improvement.

S:\EASTERN REGION\6270 SENECA LANDFILL\ENGINEERING\L03\P67\GROUNDWATER-PORE WATER\2018 GRNDWTR DIAGRAMS\OVERALL SITE OPERATIONAL AREAS_APRIL2018.DWG 02/12/2019 LAYOUT: OVERALL PLAN (8.5X11)



SENECA MEADOWS LANDFILL
1786 SALCMAN ROAD
WATERLOO, NEW YORK 13165

OPERATIONAL AREAS AT THE SMI SOLID WASTE MANAGEMENT FACILITY

0 500 1000
Scale In Feet

FIGURE
1-1

2.0 MONITORING WELL ARRAY

Thirty seven overburden wells and 33 bedrock wells currently comprise the monitoring well array at the SMI Solid Waste Management Facility. The wells associated with each fill area are listed in Table 2-1. The locations of the wells are shown in expanded views of the Existing Landfill, the SELF, the SELF Bumpout, the Western Expansion Area, and the Northern Expansion Area in Figures 2-1, 2-2, and 2-3.

Monitoring wells surrounding the Existing Landfill (Fig. 2-1) include eight overburden wells and seven bedrock wells. In addition, porewater is collected from beneath the liner system of the A/B Overfill Area and is sampled quarterly at sump AB-0002-PW.

The SELF monitoring well array (Fig. 2-2) currently consists of ten overburden wells and eight bedrock wells. Some of the SELF wells have shown indications of being impacted by organic contaminants (trichloroethene and its degradation products) as well as inorganic chemicals such as sodium and chloride. These contaminants are known to originate at the Tantalo Waste Site located west of and adjacent to the SELF. The affected wells include:

Overburden Wells	Bedrock Wells
SE-0101-UL	SE-0100-SBR
T-0001-UT	SE-0100-DBR
	SE-0106-SB
	T-0001-SB

The degree to which the wells are impacted depends on their locations relative to the Tantalo contaminant plume. Those within or near the plume exhibit higher concentrations of contaminants.

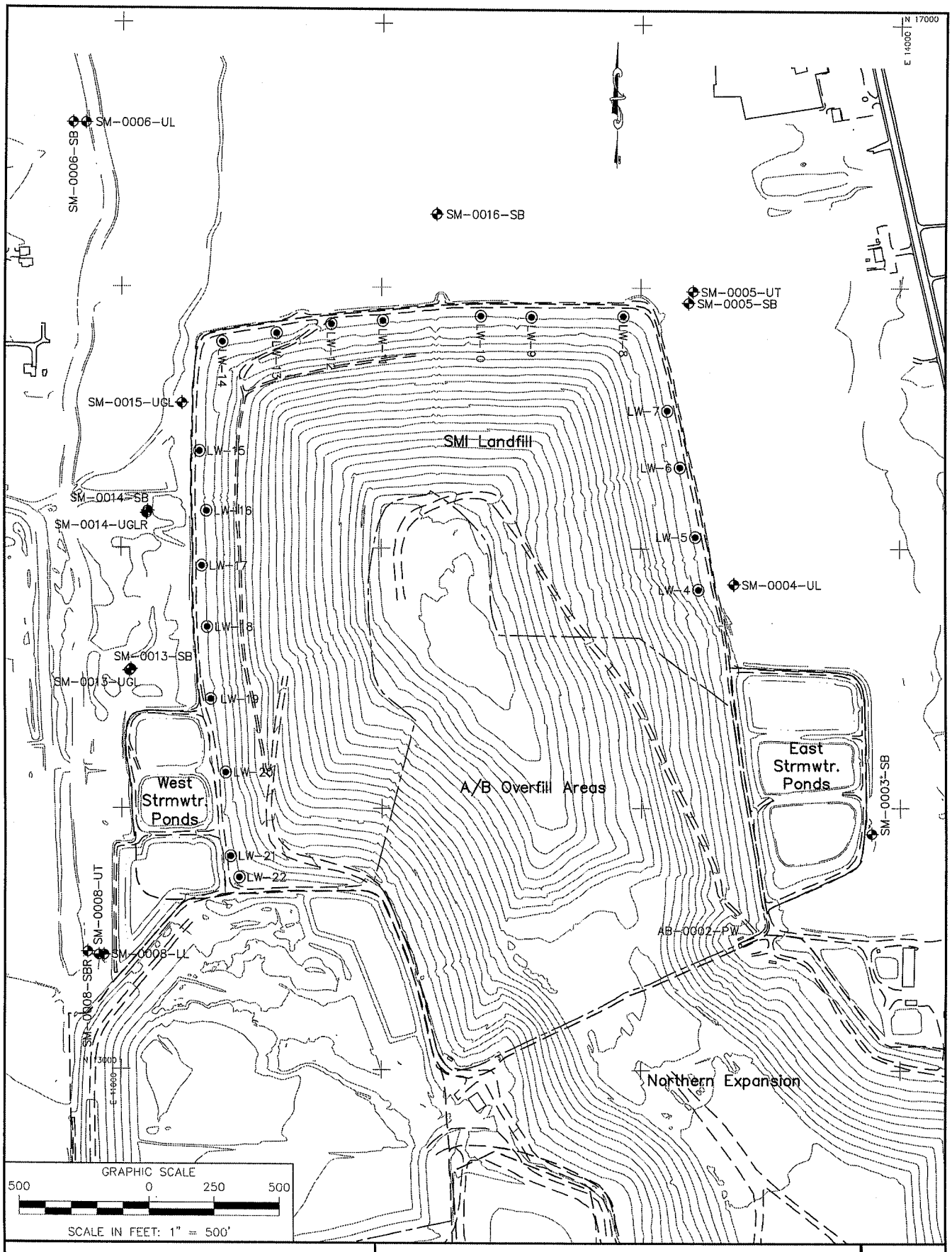
Porewater at the SELF is sampled at two locations, SE-0001-PW and SE-0002-PW, located along the east side of the landfill (see Fig. 2-2).

The SELF Bumpout monitoring well array consists of six overburden wells and four bedrock wells. Porewater at the

Table 2-1

Groundwater and Porewater Monitoring Points

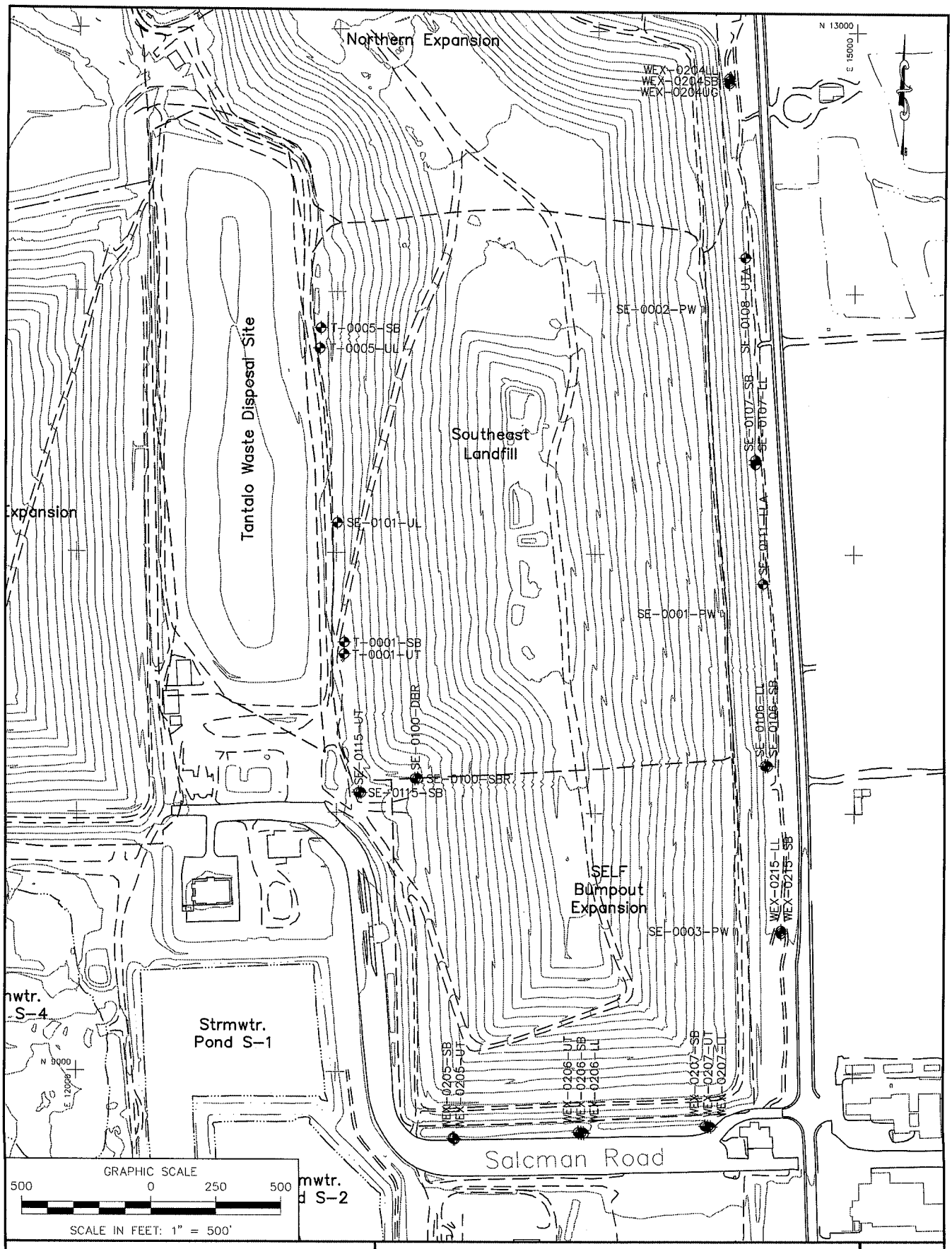
	Existing Landfill	Southeast Landfill	Southeast LF Bumpout	Western Expansion
Overburden Wells	SM-0004-UL SM-0005-UT SM-0006-UL SM-0008-UT SM-0008-LL SM-0013-UGL SM-0014-UGLR SM-0015-UGL	SE-0101-UL SE-0106-LL SE-0107-LL SE-0108-UTA SE-0111-LLA SE-0115-UT T-0001-UT T-0005-UT WEX-0204-UG WEX-0204-LL	WEX-0205-UTR WEX-0206-UT WEX-0206-LL WEX-0207-UT WEX-0207-LL WEX-0215-LL	WEX-0208-UT WEX-0208-LL WEX-0209-UT WEX-0209-LL WEX-0210-UTR WEX-0210-LL WEX-0211-UT WEX-0214-UT WEX-0214-LL
Bedrock Wells	SM-0003-SB SM-0005-SB SM-0006-SB SM-0008-SBR SM-0013-SB SM-0014-SB SM-0016-SB	SE-0100-SBR SE-0100-DBR SE-0106-SB SE-0107-SB SE-0115-SB T-0001-SB T-0005-SB WEX-0204-SB	WEX-0205-SB WEX-0206-SB WEX-0207-SB WEX-0215-SB	WEX-0208-SB WEX-0209-SB WEX-0210-SB WEX-0210-DBR WEX-0211-SB WEX-0212-IB WEX-0213-SB WEX-0214-SB
Porewater Samples	AB-0002-PW	SE-0001-PW SE-0002-PW	SE-0003-PW	WEX-0002-PW WEX-0003-PW WEX-0004-PW
	NEX-0007-PW (Northern Expansion)			



SENECA MEADOWS LANDFILL
1786 SALCMAN ROAD
WATERLOO, NEW YORK 13165

SENECA MEADOWS LANDFILL	FIGURE
GROUNDWATER MONITORING WELLS	2-1

S:\EASTERN REGION\6270 SENECA LANDFILL\ENGINEERING\L03\F67\GROUNDWATER-PORE WATER\2018 GRNDWTR DIAGRAMS\SPECIFIC SITE OPERATIONAL AREAS_APRIL2018.DWG 02/13/2019 LAYOUT: EXISTING LANDFILL 2-1



S:\EASTERN REGION\6270 SENECA LANDFILL\ENGINEERING\LO3\P87\GROUNDWATER-PORE WATER\2018 GRNDWTR DIAGRAMS\SPECIFIC SITE OPERATIONAL AREAS_APRIL2018.DWG 02/13/2019 LAYOUT: SOUTHEAST LANDFILL 3-2

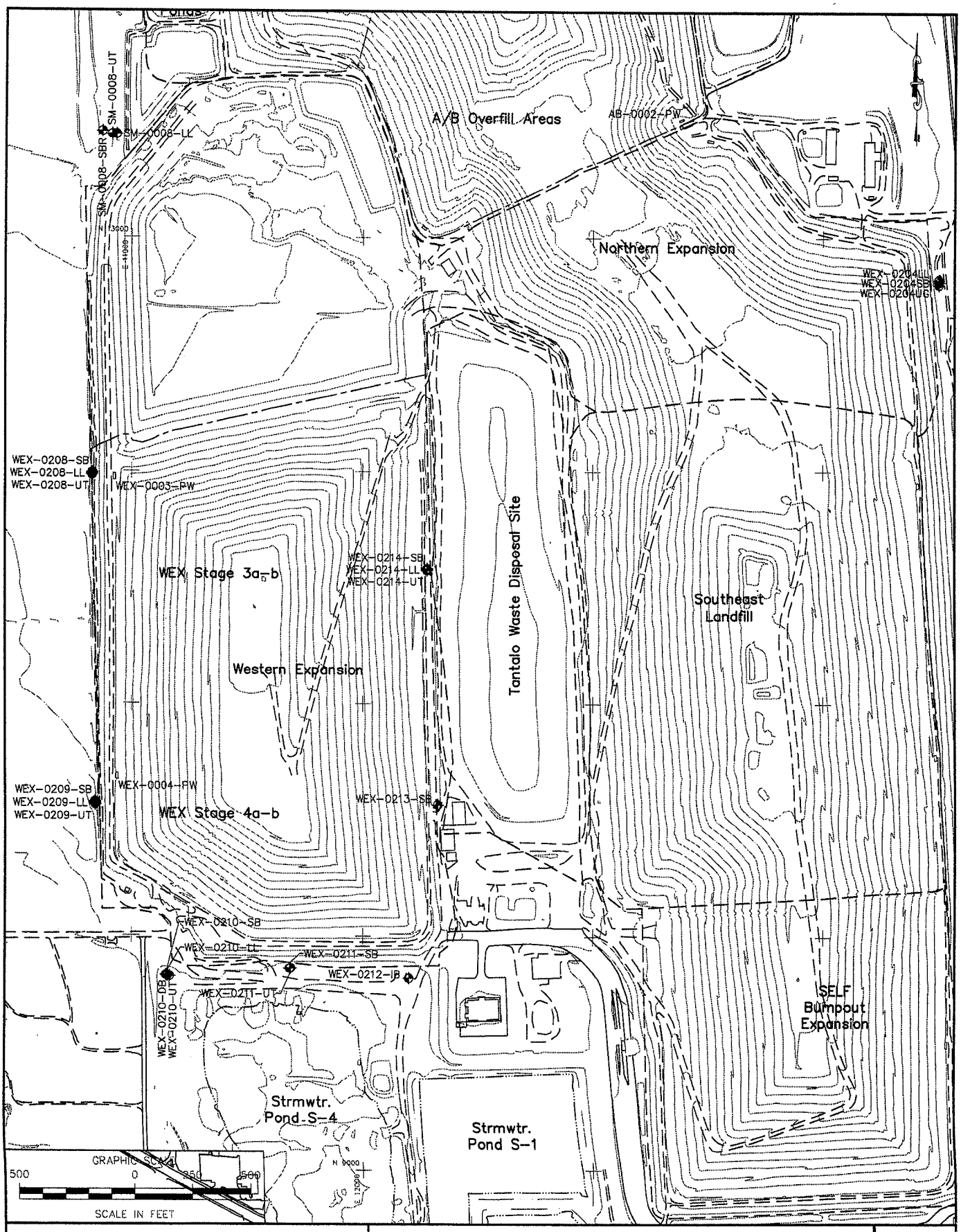
SENECA MEADOWS LANDFILL
1786 SALCMAN ROAD
WATERLOO, NEW YORK 13165

SOUTHEAST LANDFILL

GROUNDWATER MONITORING WELLS

FIGURE

2-2



S:\EASTERN REGION\0270 SENECA LANDFILL\ENGINEERING\L03\P67\GROUNDWATER-PORE WATER\2018 GRNDWTR DIAGRAMS\SPECIFIC SITE OPERATIONAL AREAS_APRIL2018.DWG 02/13/2019 LAYOUT: WEX LANDFILL 3-3

SENECA MEADOWS LANDFILL
1786 SALCMAN ROAD
WATERLOO, NEW YORK 13165

WESTERN EXPANSION LANDFILL

GROUNDWATER MONITORING WELLS

FIGURE

2-3

SELF Bumpout is sampled at one location labeled SE-0003-PW in Figure 2-2.

The Western Expansion monitoring well array consists of nine overburden wells and eight bedrock wells. The third quarter sampling of bedrock well WEX-0208-SB was delayed until August until repairs were made to the well casing, which was damaged during construction activities.

Porewater collected at the Western Expansion is sampled at three locations labeled WEX-0002-PW, WEX-0003-PW, and WEX-0004-PW in Figure 2-3.

The Northern Expansion Area (Fig. 2-3) is the most recent fill area to be developed at the facility. Monitoring of the area is currently accomplished using wells bordering the Existing Landfill and the SELF. Porewater is sampled at location NEX-0007-PW.

3.0 SUMMARY OF MONITORING ACTIVITIES

3.1 SAMPLING AND ANALYSIS

3.1.1 Compliance

During 2019, groundwater monitoring at the SMI facility was conducted in compliance with their approved Environmental Monitoring Plan (EMP) [December 2006; revised February 2007] and Site Analytical Plan (SAP) [November 2006]. All the monitoring wells and porewater sampling locations listed in Table 2-1 were scheduled for sampling each quarter.

All sampling and analyses were performed by ALS, Rochester, New York. Laboratory analyses of the samples from each quarterly event were conducted in accordance with USEPA/SW-846 analytical methods. Analytical results for samples analyzed for 6 NYCRR Part 360 routine chemical parameters (first, second, and fourth quarters) were validated internally by the laboratory. The results for Part 360 baseline chemical parameters (third quarter) were validated by an independent data validator.

Monitoring reports summarizing the results of each quarterly event were submitted to the Region 8 Office of the NYSDEC following each event.

3.1.2 Completeness

The SAP for the SMI Solid Waste Facility sets a completion goal for the collection of samples at 85% and a completion goal for the analysis of samples also at 85%.

During each quarterly monitoring event of 2019, some wells could not be sampled due to dry conditions or inadequate recharge. However, more than 85% of the wells were sampled during each quarterly event. Therefore, the 85% completion goal for sampling was met.

Usable analytical data were obtained for 100% of the results obtained from each monitoring event. No analytical data were rejected as a result of the data usability reviews or data validation. Therefore, the 85% completion goal for sample analysis was met for each quarterly event.

3.2 DATA EVALUATION METHODS

3.2.1 Groundwater Elevation Data

Groundwater elevation data were obtained quarterly prior to sample collection. The data were used to determine groundwater flow directions at the facility. Previous hydrogeologic studies of the site determined that groundwater flow within the overburden sediments surrounding the site is toward the landfilled areas. Within the bedrock zones, groundwater flow was determined by comparing the elevations of groundwater within the bedrock monitoring wells.

3.2.2 Stiff and Piper Diagrams

Stiff and Piper diagrams (e.g., Fetter, 1988; Hounslow, 1995) are graphical plots of the major water quality components (calcium, magnesium, sodium, potassium, chloride, sulfate, and alkalinity) analyzed in each sample. The diagrams were prepared using the analytical results obtained from each quarterly sampling event and were used to characterize the general water quality of the samples, for making visual comparisons of the water quality at different sampling locations, and for differentiating natural versus contaminated groundwater.

3.2.3 Exceedance Reports

The analytical results from each quarterly event were compared to the 6 NYCRR Part 703 Class GA groundwater standards and to trigger values established for each analyte as defined in the EMP. Results exceeding the standards or trigger values were noted for the purpose of identifying potential impacts to the monitoring wells.

3.2.4 Statistical Analyses

The quarterly groundwater results for the facility were evaluated statistically in accordance with a statistical analysis plan prepared by Dr. Robert Gibbons at the University of Chicago (Gibbons, 2003).

In accordance with the plan, intrawell statistical analyses were performed on the data obtained for each well in the monitoring well array using Shewart-CUSUM control charts. The data were also evaluated for trends using Sen's test. The analyses were performed on 14 target inorganic analytes including several leachate indicator parameters. Trends involving volatile organic compounds were also identified.

The results of the statistical analyses were included in each quarterly groundwater monitoring report.

3.3 IDENTIFICATION OF FACILITY-RELATED IMPACTS TO GROUNDWATER

Potential or confirmed impacts to groundwater by facility-derived chemical components were identified using one or more of the following criteria:

- Elevated concentrations of key leachate indicator parameters, especially sodium and chloride, and other parameters not commonly detected in background samples such as ammonia, bromide, nitrate, BOD, COD, phenols, and trace metals (e.g., arsenic, chromium, and lead).
- Exceedances of NYSDEC Class GA groundwater standards.
- Exceedances of established background trigger values.
- Statistically significant upward trends in historical data.
- Detections of volatile organic compounds (VOCs).

For 2019, all monitoring wells identified as being impacted by facility-derived chemical components were linked to known sources of contamination, which are currently being remediated. These sources include:

- The Tantalo Waste Site located adjacent to the west boundary of the SELF, and
- Road deicing agents applied to the facility access road (Salcman Road) and to Route 414, which lies adjacent to the east side of the facility.

Experience with monitoring groundwater quality at the SMI Waste Management Facility has shown that potential impacts to groundwater by landfill leachate is most readily identified by increasing trends in chloride and to a lesser extent sodium. Semi-annual monitoring of leachate generated at the various waste disposal sites of the facility have shown sodium

and chloride to be the dominant inorganic chemical components. Chloride does not readily participate in mineral precipitation, ion exchange, or other common geochemical reactions that might otherwise serve to attenuate its mobility. Chloride is therefore likely to migrate faster and further than other components associated with a contaminant release. Rising trends in chloride (and sodium) are therefore useful for predicting the possible approach of a contaminant plume or stringer to a monitoring well downgradient of a fill area.

The detections of certain organic compounds in the groundwater samples are also indicators of possible waste-derived impacts. Groundwater impacts attributable to the Tantalo Site have been and continue to be most readily identified by the detection of VOCs, namely trichloroethene and its degradation products (cis- and trans-dichloroethene, chloroethane, 1-1, dichloroethene, and vinyl chloride). Monitoring wells impacted by the Tantalo Site are currently limited to wells along the southwest and south sides of the SELF (e.g., wells SE-0101-UL, SE-0100-SBR, SE-0100-DBR, SE-0106-SB, T-0001-UT, and T-0001-SB) and to wells along the east and south sides of the Western Expansion Area (e.g., wells WEX-0211-SB, WEX-0212-IB, WEX-0213-SB, and WEX-0214-SB).

4.0 SUMMARY OF MONITORING RESULTS

4.1 GROUNDWATER ELEVATIONS AND FLOW DIRECTIONS

Groundwater elevations measured in the overburden and bedrock monitoring wells during the four quarters of 2019 are summarized in Tables 4-1 and 4-2. As shown in the tables, groundwater elevations in the overburden and bedrock wells were generally highest during the first half of the year when freshwater recharge rates were higher.

Based on previous hydrogeologic studies of the site, shallow groundwater flow surrounding lined landfills at the facility (i.e., all except the Existing Landfill) occurs in the direction of the landfill due to the diversion of recharge away

Table 4-1

Groundwater Elevation Data - Overburden Wells

Well Number	TOC * Elevation	Groundwater Elevations				Range		Average
		Jan-19	Apr-19	Jul-19	Oct-19	min	max	
Existing Landfill								
SM-0004-UL	482.75	480.35	480.69	480.25	479.92	479.92	480.69	480.30
SM-0005-UT	483.98	480.83	481.02	480.47	480.83	480.47	481.02	480.79
SM-0006-UL	481.42	dry	473.00	469.91	dry	469.91	473.00	471.46
SM-0008-UT	481.16	474.55	474.16	472.64	472.94	472.64	474.55	473.57
SM-0008-LL	481.98	451.27	450.41	450.78	453.58	450.41	453.58	451.51
SM-0013-UGL	481.81	477.44	478.05	475.45	470.92	470.92	478.05	475.47
SM-0014-UGLR	482.59	478.79	478.77	475.87	474.69	474.69	478.79	477.03
SM-0015-UGL	481.57	478.00	478.23	475.21	477.34	475.21	478.23	477.20
Southeast Landfill								
SE-0101-UL	507.12	479.06	479.97	478.12	478.92	478.12	479.97	479.02
SE-0106-LL	487.86	460.74	461.49	460.72	461.01	460.72	461.49	460.99
SE-0107-LL	484.36	dry	455.40	dry	dry	455.40	455.4	455.4
SE-0108-UTA	483.58	463.45	463.28	462.74	462.20	462.20	463.45	462.92
SE-0111-LLA	484.77	dry	457.47	455.24	454.40	454.40	457.47	455.70
SE-0115-UT	505.50	471.20	470.83	471.94	473.12	470.83	473.12	471.77
T-0001-UT	506.32	475.07	475.49	474.70	474.69	474.69	475.49	474.99
T-0005-UT	501.44	479.29	481.30	477.76	479.01	477.76	481.30	479.34
WEX-0204-UG	487.08	479.20	478.48	477.85	478.79	477.85	479.20	478.58
WEX-0204-LL	486.47	458.99	459.25	458.72	458.06	458.06	459.25	458.76
Southeast Landfill Bumpout								
WEX-0205-UTR	495.50	487.06	487.14	486.60	487.61	486.60	487.61	487.10
WEX-0206-UT	498.62	488.67	488.60	488.22	489.30	488.22	489.30	488.70
WEX-0206-LL	497.08	450.95	450.82	449.80	447.93	447.93	450.95	449.88
WEX-0207-UT	499.94	493.34	493.32	492.94	493.14	492.94	493.34	493.19
WEX-0207-LL	500.28	461.86	461.52	461.83	461.92	461.52	461.92	461.78
WEX-0215-LL	493.24	457.89	458.79	458.04	458.33	457.89	458.79	458.26
Western Fill Cell								
WEX-0208-UT	483.74	480.01	480.14	479.97	480.74	479.97	480.74	480.22
WEX-0208-LL	483.71	455.81	456.71	464.09	475.71	455.81	475.71	463.08
WEX-0209-UT	497.18	490.63	492.56	489.32	486.03	486.03	492.56	489.64
WEX-0209-LL	496.18	451.35	452.30	451.46	446.80	446.80	452.30	450.48
WEX-0210-UTR	487.14	481.86	482.02	481.54	482.07	481.54	482.07	481.87
WEX-0210-LL	483.04	453.32	454.44	454.08	452.61	452.61	454.44	453.61
WEX-0211-UT	486.37	473.25	473.94	473.15	dry	473.15	473.94	473.45
WEX-0214-UT	482.17	470.31	472.08	470.86	472.84	470.31	472.84	471.52
WEX-0214-LL	482.25	444.82	dry	dry	dry	444.82	444.82	444.82

* TOC = top of well casing

Table 4-2

Groundwater Elevation Data - Bedrock Wells

Well Number	TOC * Elevation	Groundwater Elevations				Range		Average
		Jan-19	Apr-19	Jul-19	Oct-19	min	max	
Existing Landfill								
SM-0003-SB	483.30	463.50	463.56	462.94	463.03	462.94	463.56	463.26
SM-0005-SB	482.95	471.23	471.75	470.31	469.42	469.42	471.75	470.68
SM-0006-SB	481.34	474.87	475.07	474.27	473.54	473.54	475.07	474.44
SM-0008-SBR	481.04	450.51	448.88	449.42	446.93	446.93	450.51	448.94
SM-0013-SB	481.67	466.11	466.15	465.33	463.49	463.49	466.15	465.27
SM-0014-SB	482.03	468.20	468.33	467.46	466.06	466.06	468.33	467.51
SM-0016-SB	484.53	471.73	472.22	470.96	469.99	469.99	472.22	471.23
Southeast Landfill								
SE-0100-SBR	525.50	451.16	450.93	450.47	450.40	450.40	451.16	450.74
SE-0100-DBR	526.45	450.09	450.23	448.84	445.35	445.35	450.23	448.63
SE-0106-SB	487.66	450.31	450.83	449.64	447.41	447.41	450.83	449.55
SE-0107-SB	484.45	452.50	453.25	452.15	450.41	450.41	453.25	452.08
SE-0115-SB	505.14	459.19	458.94	458.44	454.54	454.54	459.19	457.78
T-0001-SB	503.56	**	454.65	454.84	454.50			
T-0005-SB	501.53	458.46	460.31	dry	457.34	457.34	460.31	458.70
WEX-0204-SB	486.69	457.63	458.09	457.44	456.36	456.36	458.09	457.38
Southeast Landfill Bumpout								
WEX-0205-SB	495.27	450.87	450.62	449.75	447.67	447.67	450.87	449.73
WEX-0206-SB	498.75	450.87	450.73	449.70	447.75	447.75	450.87	449.76
WEX-0207-SB	500.58	455.22	454.88	454.03	451.82	451.82	455.22	453.99
WEX-0215-SB	493.28	449.52	449.68	448.38	445.45	445.45	449.68	448.26
Western Fill Cell								
WEX-0208-SB	483.48	451.00	450.34	448.77	446.40	446.40	451.00	449.13
WEX-0209-SB	496.09	451.70	452.54	451.48	446.79	446.79	452.54	450.63
WEX-0210-SB	483.12	446.13	446.07	445.16	440.12	440.12	446.13	444.37
WEX-0210-DB	483.52	447.87	447.61	446.85	442.10	442.10	447.87	446.11
WEX-0211-SB	485.84	454.34	455.02	454.42	450.87	450.87	455.02	453.66
WEX-0212-IB	484.44	453.54	453.96	452.22	445.89	445.89	453.96	451.40
WEX-0213-SB	493.98	476.46	476.26	476.11	476.25	476.11	476.46	476.27
WEX-0214-SB	482.93	443.00	443.31	443.13	439.73	439.73	443.31	442.29

* TOC = top of well casing

** Could not be measured due to kink in well casing

from the landfill, which suppresses the water table beneath the landfill relative to the surrounding area. At the Existing Landfill, shallow groundwater flow is also diverted toward the landfill by the pumping of leachate recovery wells located along the west, north, and east margins of the landfill, and by the AB drain that traverses the southern boundary of the landfill.

Quarterly evaluations of the water level data for the bedrock wells indicated a southerly and southeasterly flow direction, which was consistent throughout 2019.

Comparisons of the water level data for shallow and deep monitoring well pairs (e.g., SM-0008-UT and SM-0008-SBR, SE-0115-UT and SE-0115-SB, WEX-0205-UT and WEX-0205-SB, WEX-0208-UT and WEX-0208-SB) showed that the water levels in the bedrock wells are several feet deeper indicating a substantial vertical component to groundwater flow beneath most, if not all, of the site. Because of this, contaminants released from the landfills would be expected to migrate downward through the overburden and eventually spread laterally when bedrock is encountered. Impacts identified to some of the SELF and Western Expansion wells (see Sect. 4.2.1) are consistent with this groundwater flow pattern.

4.2 SUMMARY OF GROUNDWATER IMPACTS

Impacts to groundwater quality at the SMI facility are limited to specific wells or areas already known to be impacted. These include:

- Areas impacted by a contaminant plume that originates from the Tantalo Waste Site, which is also undergoing remediation, and
- Overburden wells impacted by road deicing agents.

Impacts to wells downgradient and cross-gradient of the Tantalo Site involve mainly organic compounds as well as

some inorganic analytes. Wells impacted by deicing agents exhibit increasing trends of sodium, chloride, and other major inorganic water quality parameters and show no VOC detections.

Discussions of the water quality at wells associated with the areas identified above are provided in the following sections.

4.2.1 Wells Impacted By The Tantalo Site

Several wells and a few porewater samples were identified in the 2019 quarterly monitoring reports as being impacted by the contaminant plume that extends from the Tantalo Site. The impacts vary in degree depending on the locations of the wells in relation to the contaminant plume and were identified by detections of VOCs known to originate at the Tantalo Waste Site. These include trichloroethene and its degradation products chloroethane, 1,1-dichloroethene, cis- and trans-1,2-dichloroethene, and vinyl chloride. (Acetone and 2-butanone were detected at trace concentrations in several wells, but these detections were attributed to laboratory contamination). Elevated levels of inorganic parameters, mainly chloride, bromide, and sodium, were also detected in some of the wells.

The monitoring wells and porewater samples exhibiting detections of the Tantalo VOCs during the third quarter 2019 monitoring event are listed in Table 4-3.

As indicated by the "J" laboratory qualifiers in Table 4-3, most of the VOC detections were at trace levels (i.e., below the MRLs). VOC detections above the reporting limits were found for overburden well T-0001-UT and for bedrock wells SE-0100-SBR, SE-0100-DBR, WEX-0211-SB, WEX-0212-IB, and WEX-0213-SB and were limited to trichloroethene and/or its degradation products.

As shown in Table 4-3, traces of benzene and other aromatic hydrocarbons were detected in overburden well SE-0101-UL. Aromatic hydrocarbons are not commonly found in groundwater at the facility. The trace detections may therefore indicate some extraneous source near this well. Overburden

Table 4-3

Summary of VOCs in Groundwater Samples
3rd Quarter 2019
(Values are in ug/L)

Sample ID	Analyte	MRL *	Result *
Overburden Wells			
SE-0101-UL	4-Methyl-2-pentanone	10	1.9 J
	Benzene	5	3.6 J
	cis-1,2-Dichloroethene	5	0.46 J
	m,p-Xylenes	5	0.20 J
T-0001-UT	Trichloroethene	5	1.5 J
	Vinyl chloride	5	**11**
	cis-1,2-Dichloroethene	5	**110**
	trans-1,2-Dichloroethene	5	1.8 J
WEX-0204-LL	4-Methyl-2-pentanone	10	0.31 J
WEX-0214-UT	4-Methyl-2-pentanone	10	0.22 J
Bedrock Wells			
SE-0100-SBR	1,1-Dichloroethene	5	0.63 J
	Trichloroethene	5	0.46 J
	Vinyl chloride	5	**8.3**
	cis-1,2-Dichloroethene	5	**49**
	trans-1,2-Dichloroethene	5	0.48 J
SE-0100-DBR	1,1-Dichloroethene	5	1.3 J
	Trichloroethene	5	3.9 J
	Vinyl chloride	5	**27**
	cis-1,2-Dichloroethene	5	**94**
	trans-1,2-Dichloroethene	5	0.71 J
SE-0106-SB	2-Butanone	10	1.1 J
	cis-1,2-Dichloroethene	5	0.30 J
T-0001-SB	Chloroform	5	0.67 J
	Vinyl chloride	5	1.8 J
	cis-1,2-Dichloroethene	5	1.2 J
WEX-0204-SB	4-Methyl-2-pentanone	10	0.31 J
WEX-0205-SB	cis-1,2-Dichloroethene	5	0.54 J
WEX-0207-SB	2-Butanone	10	0.81 J
WEX-0208-SB	2-Butanone	10	2.3 J
WEX-0209-SB	2-Butanone	10	0.81 J
	4-Methyl-2-pentanone	10	0.49 J

Table 4-3 (Continued)

Summary of VOCs in Groundwater Samples
3rd Quarter 2019
(Values are in ug/L)

Sample ID	Analyte	MRL *	Result *
WEX-0211-SB	1,1-Dichloroethene	5	0.32 J
	Trichloroethene	5	**50**
	cis-1,2-Dichloroethene	5	**35**
	trans-1,2-Dichloroethene	5	0.49 J
WEX-0211-SB Dup	Trichloroethene	5	**51**
	cis-1,2-Dichloroethene	5	**34**
	trans-1,2-Dichloroethene	5	0.48 J
WEX-0212-IB	1,1-Dichloroethene	5	0.46 J
	Trichloroethene	5	**32**
	Vinyl chloride	5	3.6 J
	cis-1,2-Dichloroethene	5	**84**
	trans-1,2-Dichloroethene	5	0.85 J
WEX-0213-SB	1,1-Dichloroethene	5	1.1 J
	Tetrachloroethene	5	0.69 J
	Trichloroethene	5	**18**
	Vinyl chloride	5	4.9 J
	cis-1,2-Dichloroethene	5	**430**
	trans-1,2-Dichloroethene	5	1.3 J
WEX-0214-SB	Vinyl chloride	5	4.4 J
	cis-1,2-Dichloroethene	5	2.5 J
WEX-0215-SB	2-Butanone	10	0.78 J
Porewater			
AB-0002-PW	Carbon disulfide	10	0.93 J
	m,p-Xylenes	5	0.23 J
SE-0002-PW	Carbon disulfide	10	0.83 J
SE-0003-PW	1,1-Dichloroethene	5	0.42 J
	Vinyl chloride	5	**8.1**
	cis-1,2-Dichloroethene	5	**31**

* Notes:
MRL = method reporting limit
J qualifier indicates a result below the MRL

well SE-0101-UL is located adjacent to an on-site roadway. Vehicle traffic along these roadways may be a possible source for the hydrocarbons.

As shown in Table 4-3, VOCs were also detected in porewater samples AB-0002-PW, SE-0002-PW, and SE-0003-PW. The trace levels of carbon disulfide and xylenes found in samples AB-0002-PW and SE-0002-PW are not considered to have a landfill source. The VOCs found in sample SE-0003-PW may reflect limited Tantalo contamination of the overburden groundwater directly beneath the SELF Bumpout.

Statistical analyses of the VOC data (see 3rd Quarter 2019 Groundwater Monitoring Report dated December, 2019) showed an increasing trend for cis-1,2-dichloroethene in overburden well T-0001-UT. Decreasing trends were found for trichloroethene (TCE) and/or its degradation products in bedrock wells SE-0106-SB, SE-0100-SBR, SE-0100-DBR, WEX-0211-SB, and WEX-0213-SB. No significant increasing VOC trends were found for the bedrock wells.

4.2.2 Wells Impacted By Road Deicing Agents

Rising concentrations of chloride along with other major water quality components such as sodium, calcium, magnesium, and sulfate have been observed in overburden wells WEX-0205-UT, WEX-0206-UT, WEX-0207-UT, and WEX-0215-LL over the past several monitoring events (see time series graphs, Appendix A). When first observed, the increases were attributed to possible contamination originating at the Tantalo Site. However, the wells listed above are shallow overburden wells and groundwater contamination associated with the Tantalo Site is mostly confined to deeper bedrock. Additionally, no VOCs associated with the Tantalo Site have been detected in these overburden wells and no increases in inorganic components (chloride, etc.) have been observed in the deeper wells associated with those listed above (i.e., deeper wells screened within the lacustrine sediments and shallow bedrock such as WEX-0205-SB, WEX-0206-LL, WEX-0206-SB, etc.).

Overburden wells WEX-0205-UT, WEX-0206-UT, and WEX-0207-UT are located between Salcman Road and the

south side of the SELF Bumpout (see Fig. 2-2). Well WEX-0215-LL is located along Route 414 just north of the access road. These wells are about 20 feet deep and screened over the lowermost 10 feet. The wells are adjacent to a drainage swale that receives runoff from a wide apron of roadway that serves as a staging area for vehicles hauling waste into the facility. During winter months, deicing agents are routinely applied to this section of Salcman Road. Road salt was used in the past. More recently, a commercially available deicing agent consisting of a mixture of molasses and magnesium chloride salts has been used.

Contamination of the shallow groundwater near the access road by the deicing agents may account for the observed increases in chloride, sodium, and magnesium in the monitoring wells. Furthermore, the corrosive effects of chloride on the well grouting material (Portland cement), which contains substantial amounts of gypsum ($CaSO_4 2H_2O$), may account for the increases in calcium and sulfate.

Other shallow monitoring wells further north along Route 414 (SE-0106-LL, SE-0111-LLA, and WEX-0204-UG) and further west along Salcman Road (SE-0115-UT) exhibit similar trends, but not as pronounced as those for the wells near Salcman Road (see Appendix A).

Wells WEX-0205-UT, WEX-0206-UT, and WEX-0207-UT continue to show upward trends in their dissolved solids contents. The data for well WEX-0215-LL show a decline below peak concentrations that occurred during early 2015 and a gradual rise in concentrations since that time. The water quality in these wells will continued to be closely evaluated during future monitoring events.

5.0 CONCLUSIONS

During 2019, quarterly groundwater monitoring at the Seneca Meadows, Inc. Solid Waste Management Facility was conducted in compliance with the methods and procedures described in the Environmental Monitoring Plan (EMP) and

Site Analytical Plan (SAP). Sampling was conducted during January, April, July, and October.

Groundwater elevations in the monitoring wells were generally highest during the first half of the year in response to an increase in freshwater recharge during the late winter and spring. Comparisons of the water level data for shallow and deep monitoring well pairs showed that the water levels in the bedrock wells were several feet deeper indicating a vertical component to groundwater flow through the overburden. Water level data for the bedrock wells indicated a southerly and southeasterly flow direction, which was consistent throughout 2019.

Impacts to groundwater quality were limited mainly to specific wells or areas at the facility already known to be impacted. These include wells known to be impacted by a VOC plume that originates from the Tantalo Waste Site and shallow wells adjacent to the landfill access road along the south side of the SELF Bumpout and adjacent to Route 414, which show indications of contamination from road deicing agents.

VOCs known to originate at the Tantalo Waste Site, including trichloroethene, chloroethane, 1,1-dichloroethene, cis- and trans-1,2-dichloroethene, and vinyl chloride were detected in a few wells located downgradient or cross-gradient of the Tantalo Site. Wells having VOC detections well above the method reporting limits include overburden well T-0001-UT and bedrock wells SE-0100-SBR, SE-0100-DBR, T-0001-SB, WEX-0211-SB, WEX-0212-IB, and WEX-0213-SB. Statistical analyses of the VOC data show downward trends in VOC concentrations in many of these wells. It is expected that the downward trends will continue as remediation of the Tantalo Site continues.

Impacts to shallow overburden wells near Salcman Road (wells WEX-0205-UT, WEX-0206-UT, WEX-0207-UT, WEX-0215-LL, and SE-0115-UT) and along Route 414 (SE-0106-LL, SE-0111-LLA, and WEX-0204-UG) by major inorganic chemical components including sodium, chloride, and others appear to be due to contamination by road deicing agents.

The wells identified as being impacted will continue to be monitored closely. Intrawell analyses of the analytical results will be used to track the trends in analyte concentrations over time.

No modifications to the present monitoring program are recommended at this time.

6.0 REFERENCES

Fetter, C.W., 1988, Applied Hydrogeology: Merrill Publishing Co., 592 pp.

Gibbons, R.D., 2003, Statistical Methods for Ground-Water Monitoring at the Southeast Landfill: 35 pp. plus appendices.

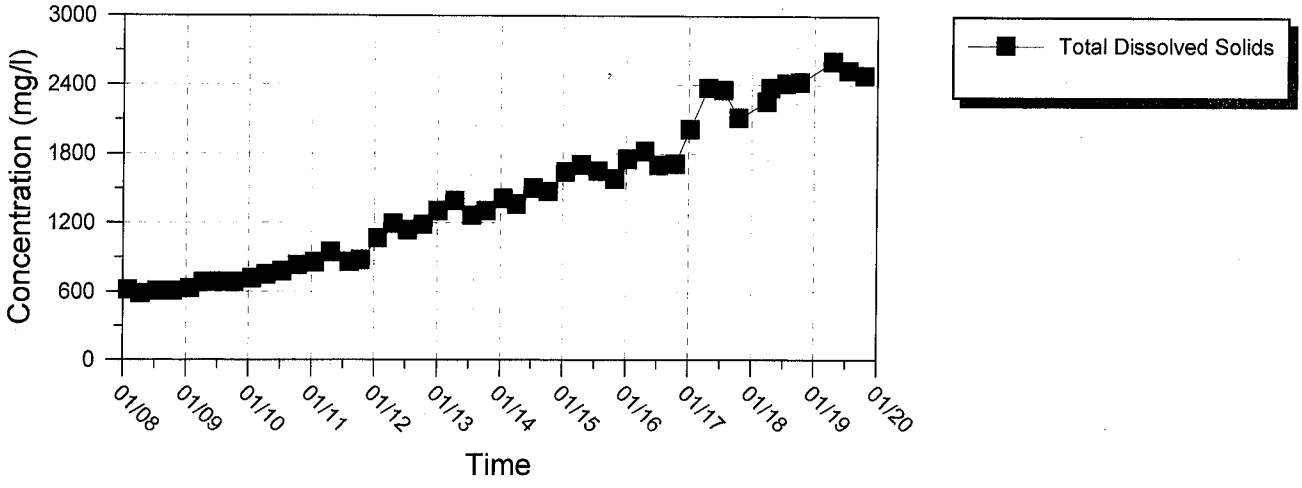
Hounslow, A.W., 1995, Water Quality Data: Analysis and Interpretation: Lewis Publishers, 397 pp.

New York State Dept. of Environmental Conservation, 2001, 6 NYCRR Part 360: Solid Waste Management Facilities.

Appendix A

Time Series Plots

WEX-0205-UT



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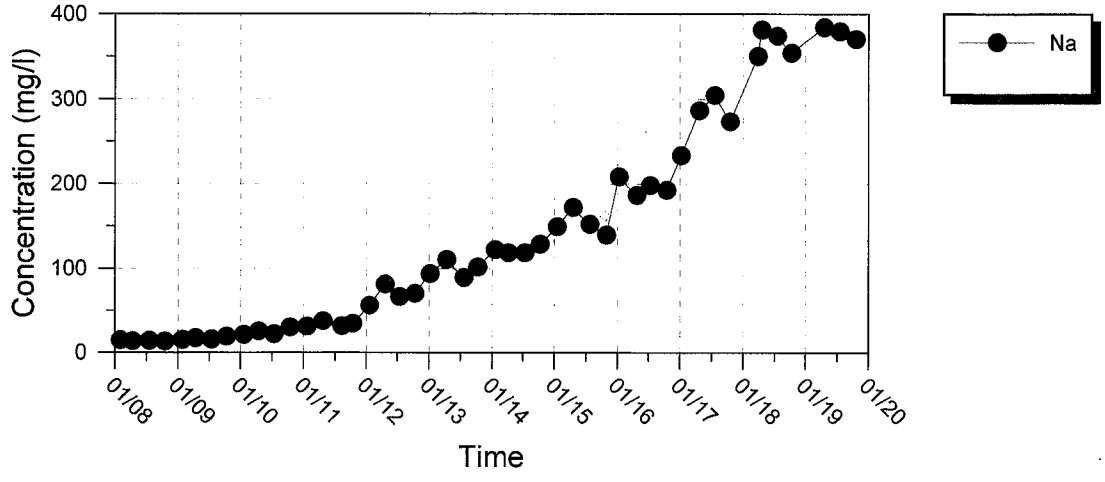

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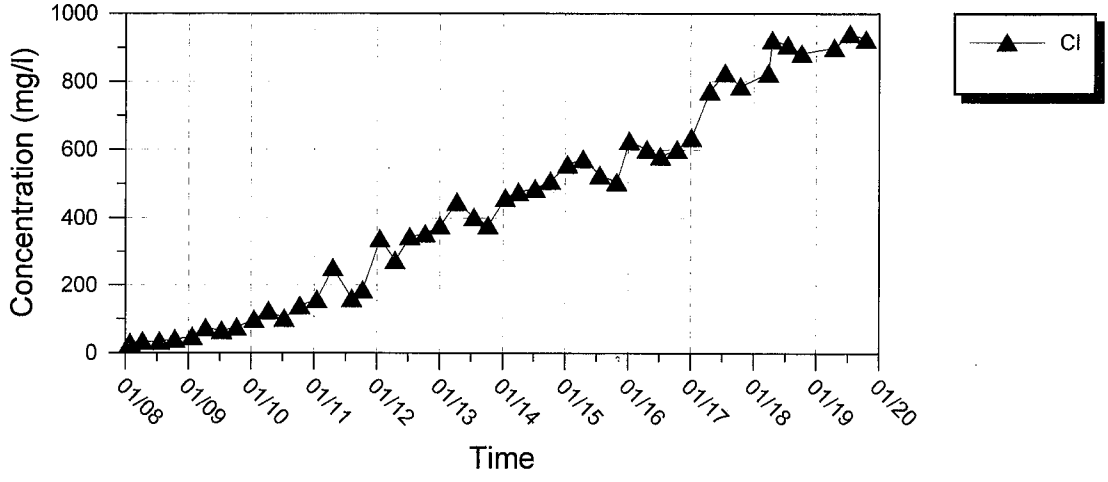

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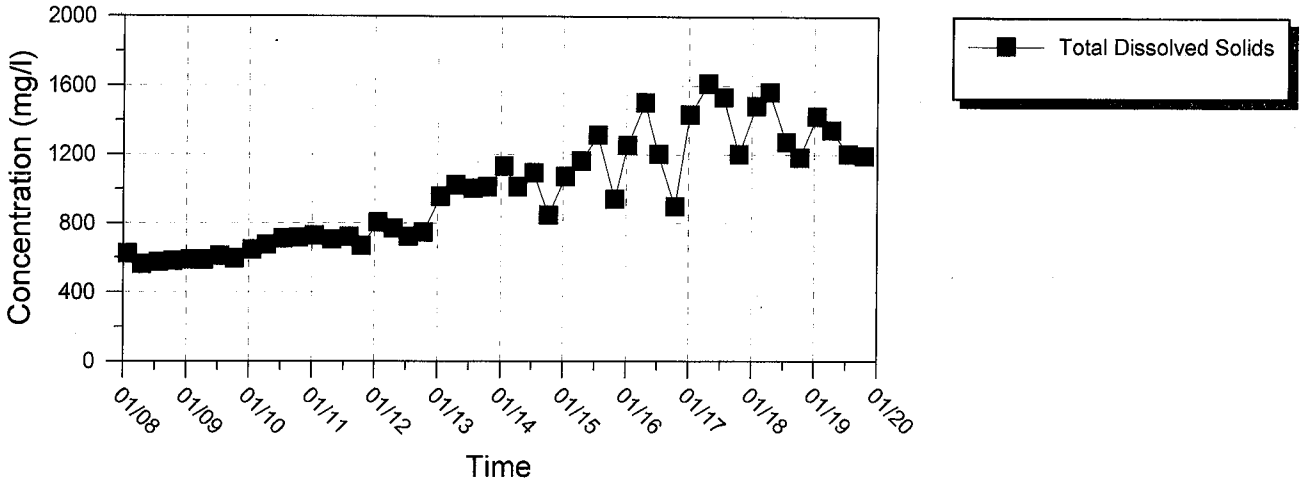
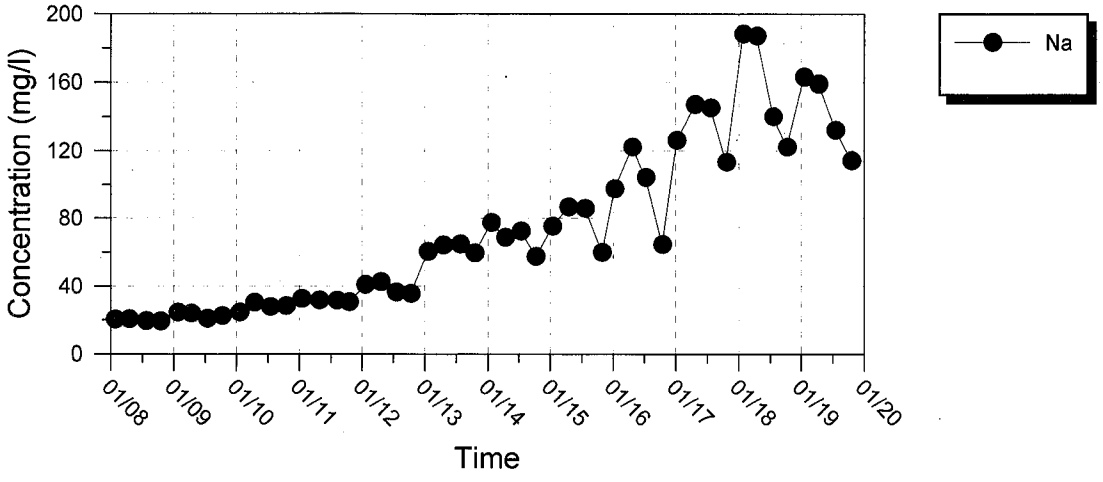
	CLIENT: Waste Connections, Inc.	DATE: 2008 - 2019 Data

WEX-0206-UT



WEX-0206-UT



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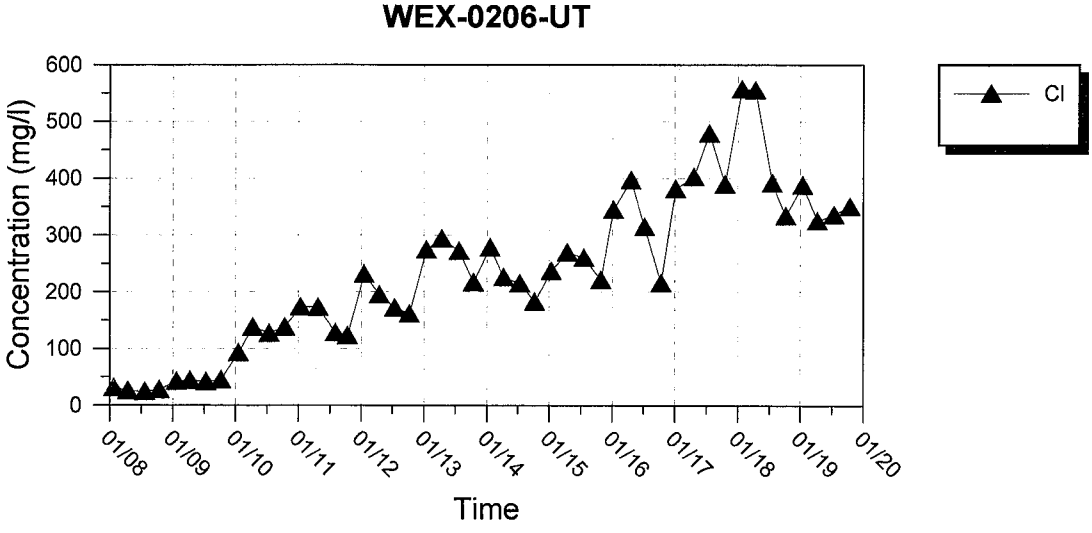

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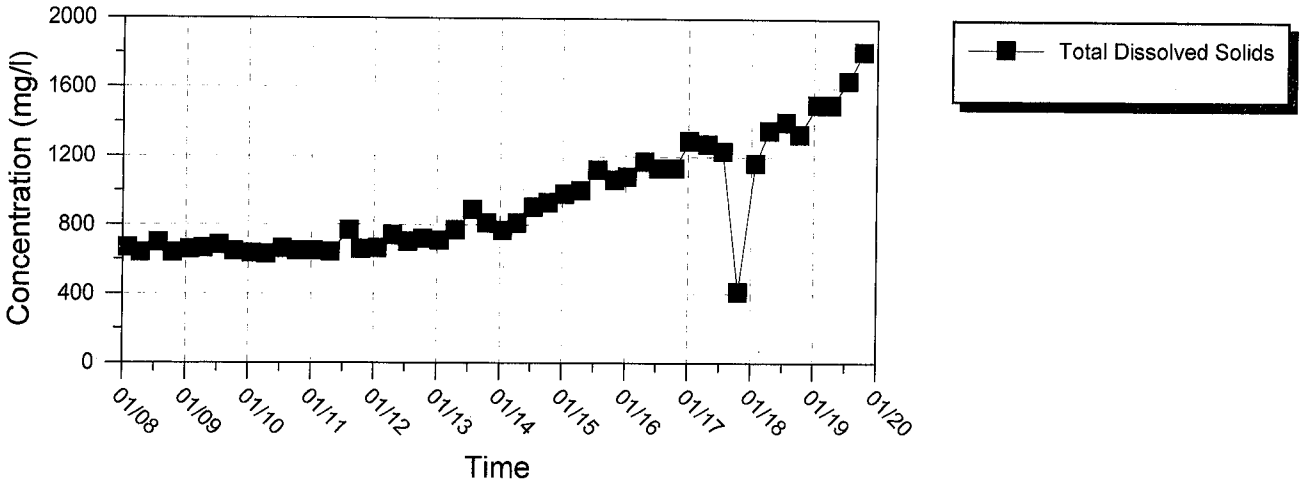
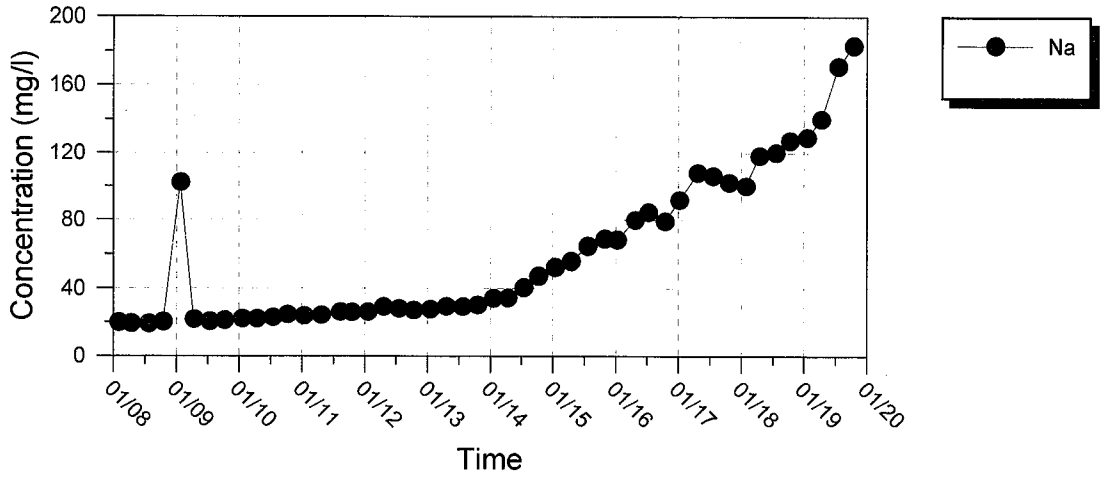
WEX-0207-UT



WEX-0207-UT



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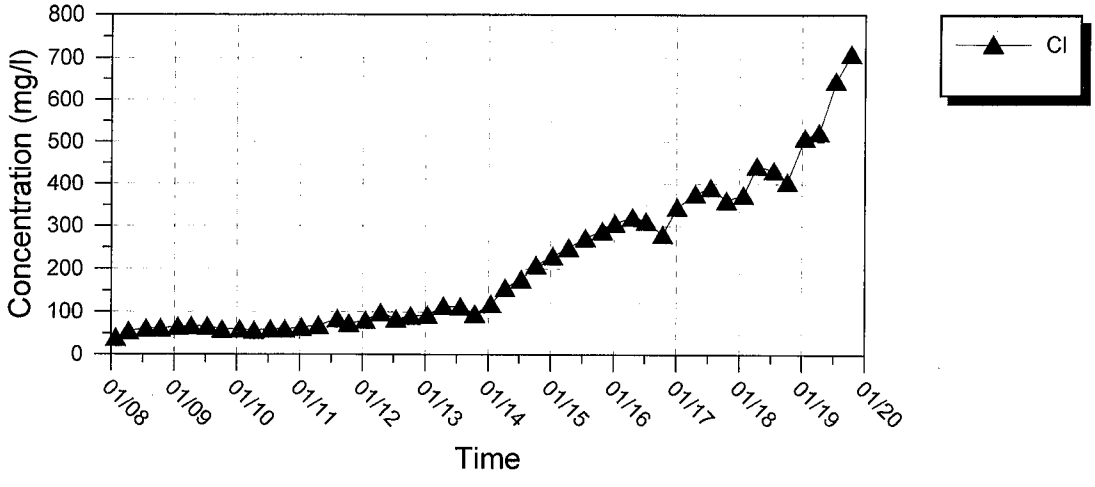

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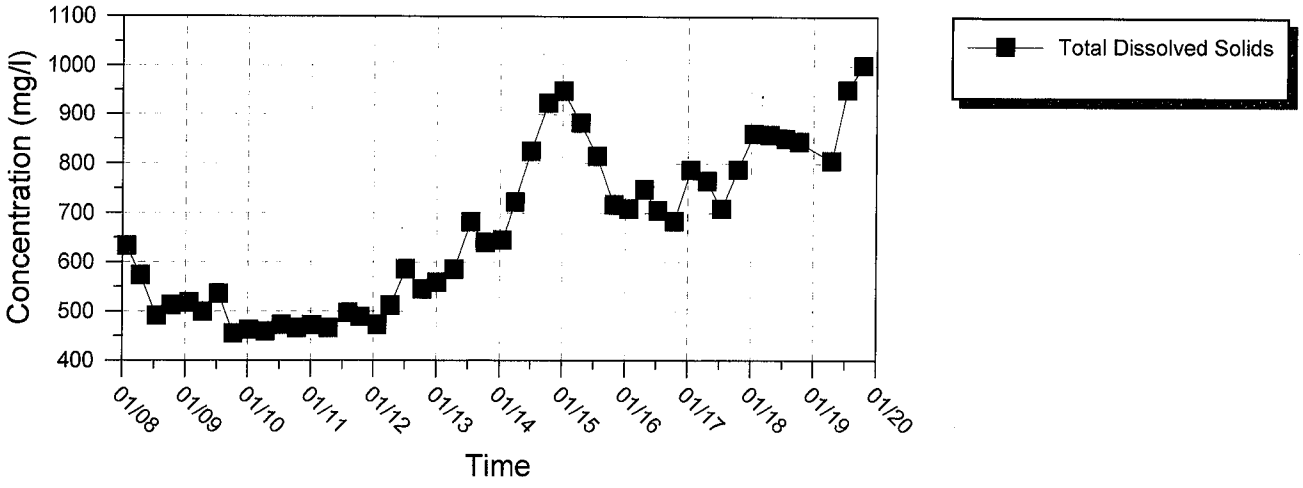
	CLIENT: Waste Connections, Inc.	DATE: 2008 - 2019 Data

WEX-0215-LL



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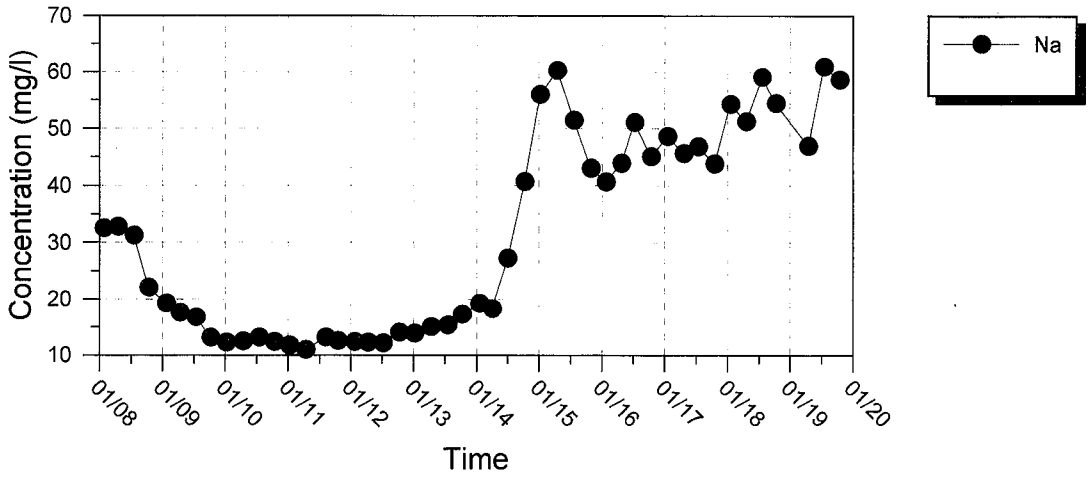

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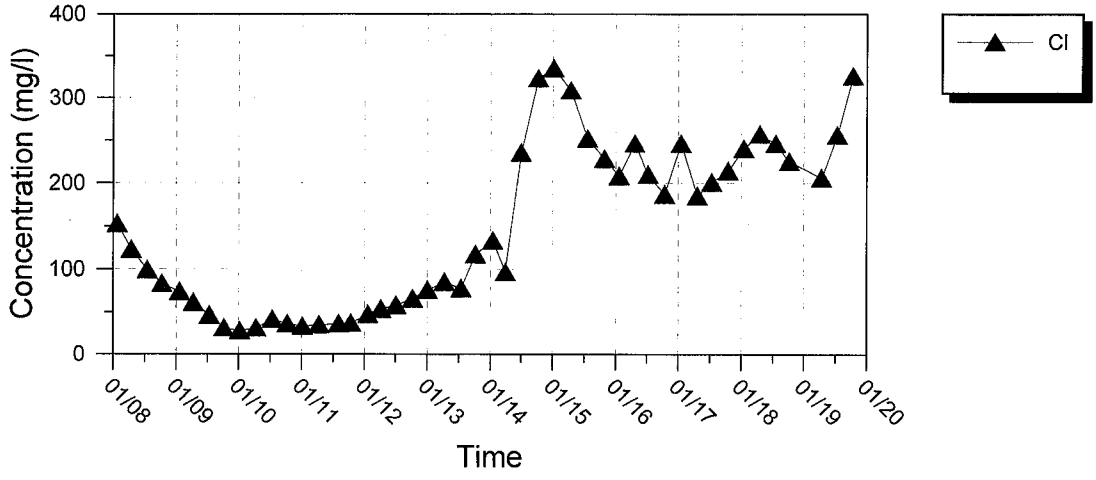

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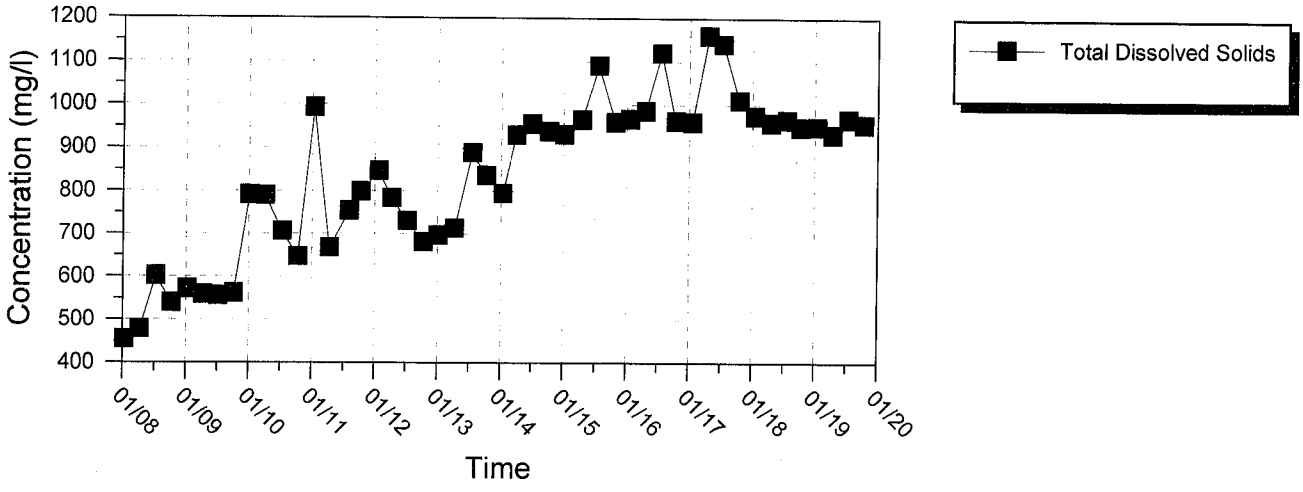
	CLIENT: Waste Connections, Inc.	DATE: 2008 - 2019 Data

SE-0106-LL



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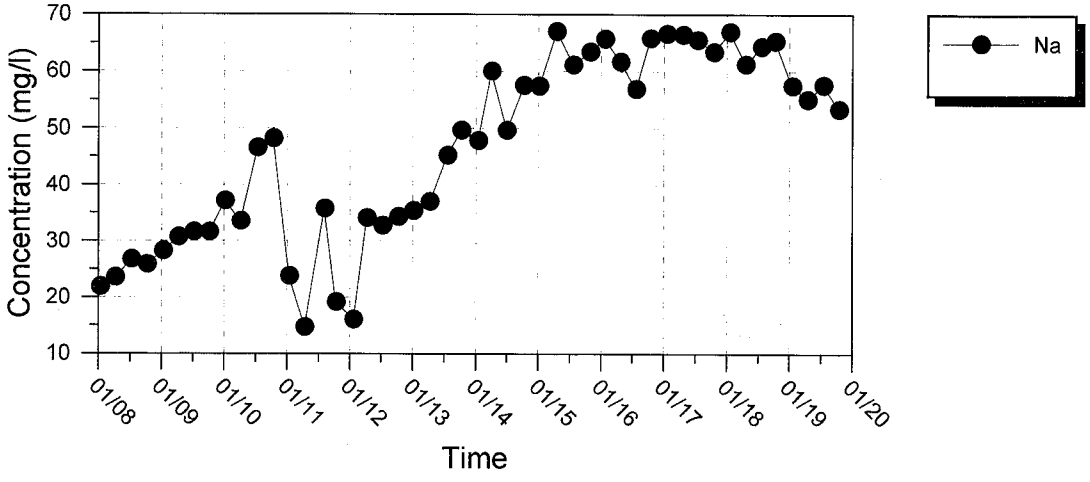

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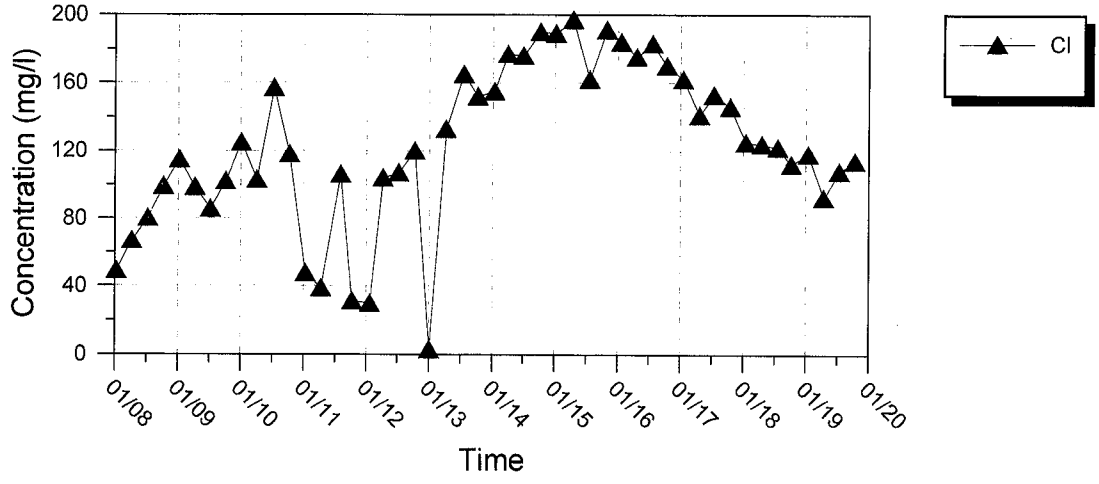

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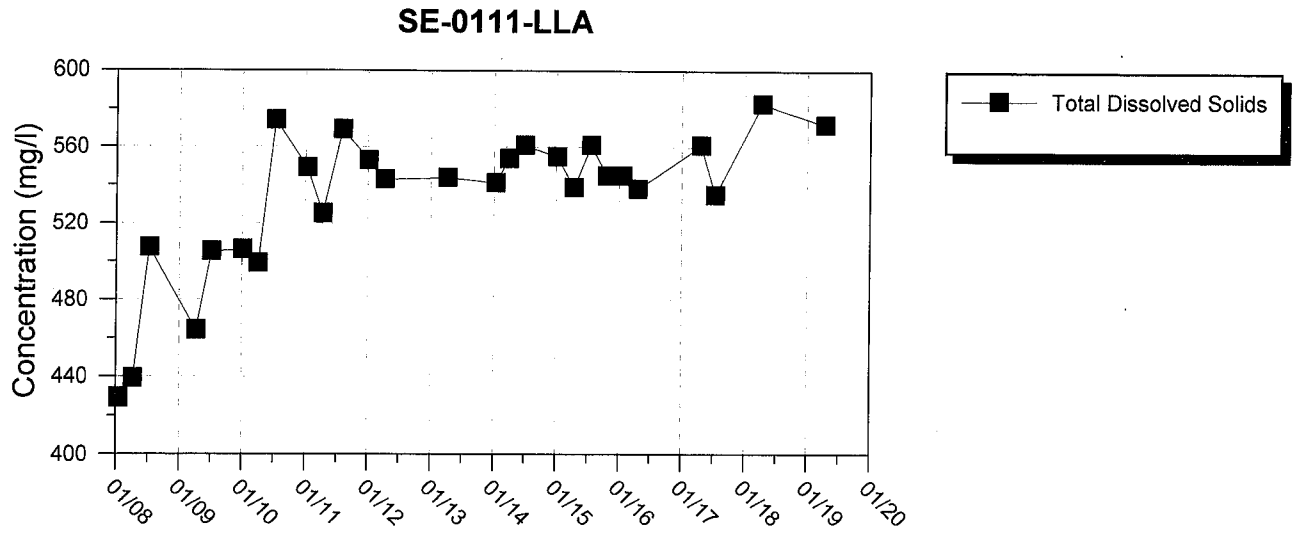
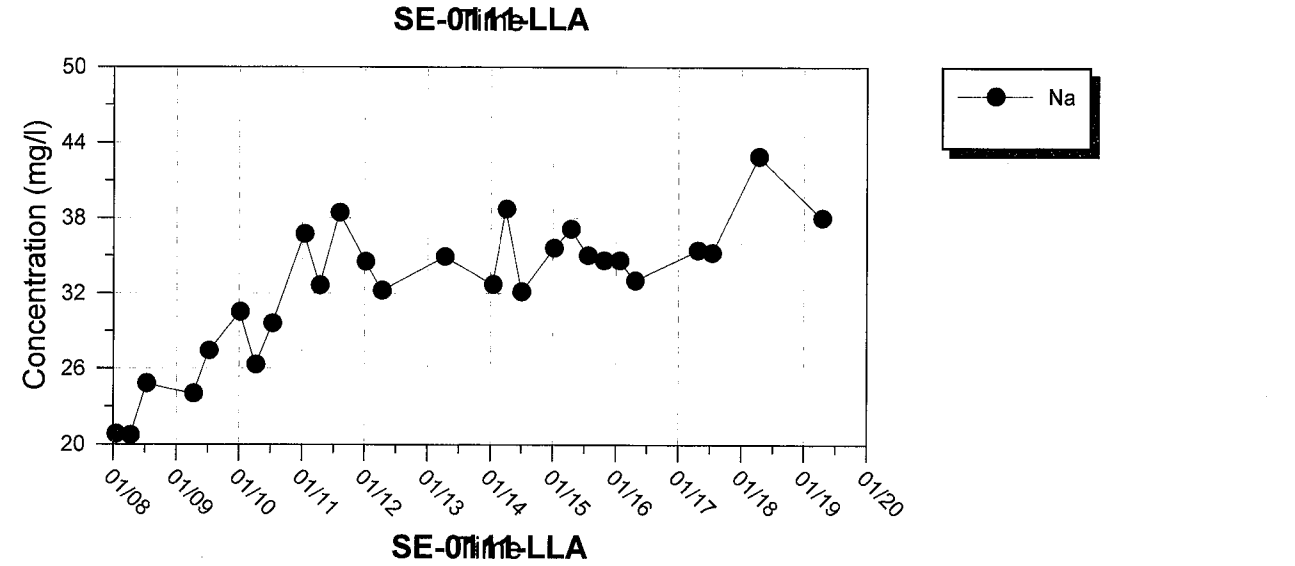
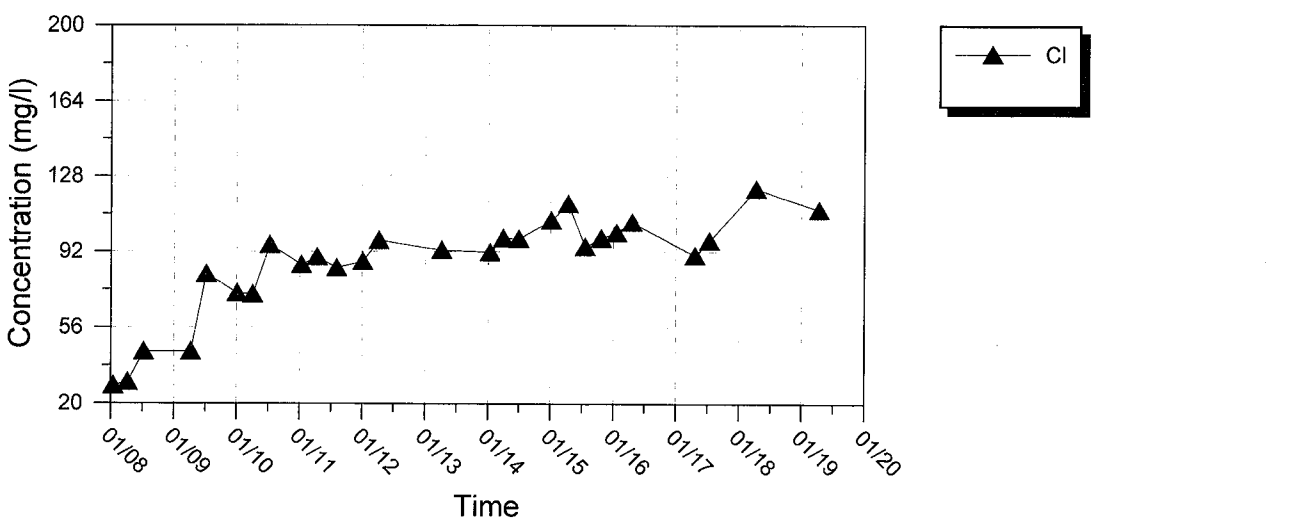


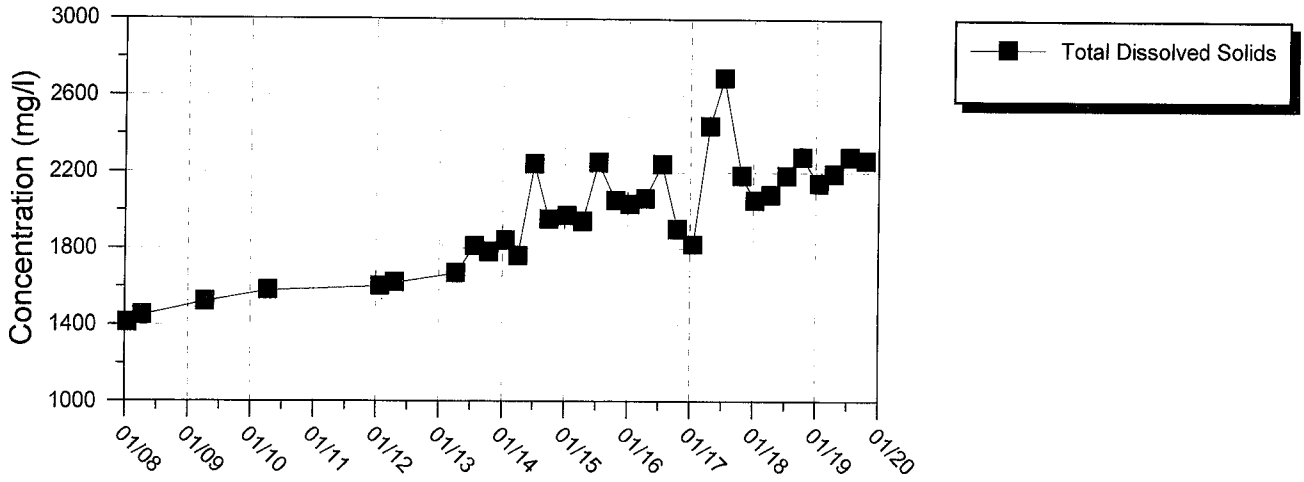




TITLE: Time Series Plots

	SITE: Seneca Meadows Solid Waste Mngmnt Fac.	EVENT: 2019 Annual Report
	CLIENT: Waste Connections, Inc.	DATE: 2008 - 2019 Data

SE-0115-UT



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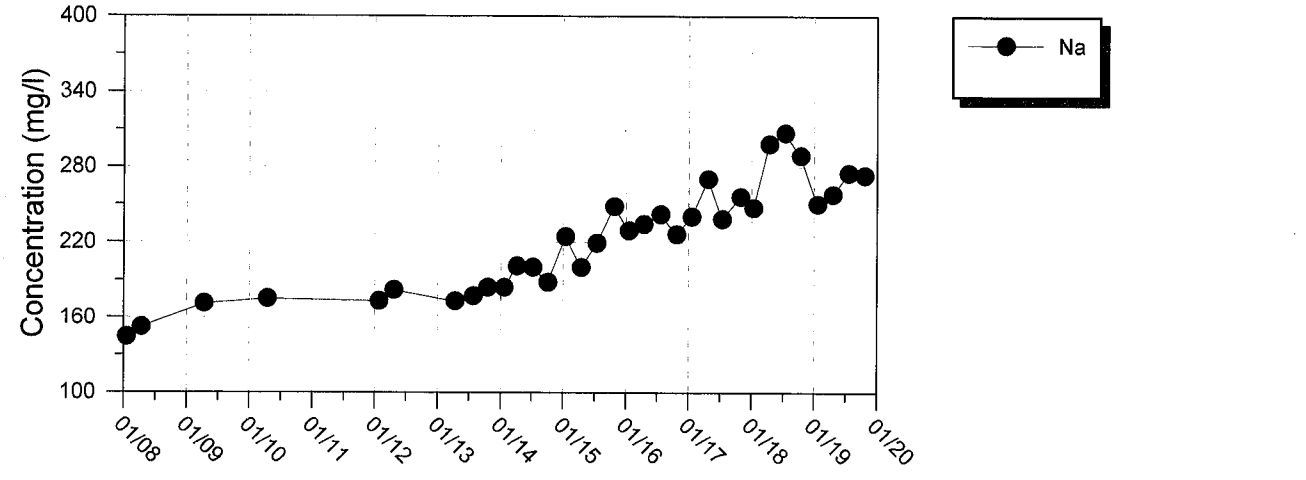

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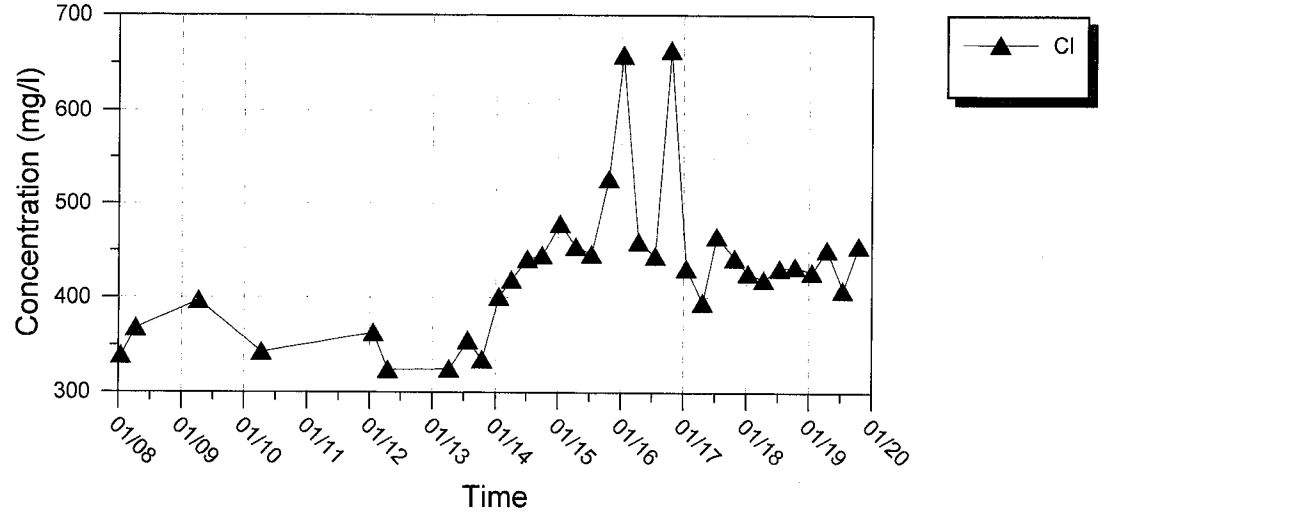

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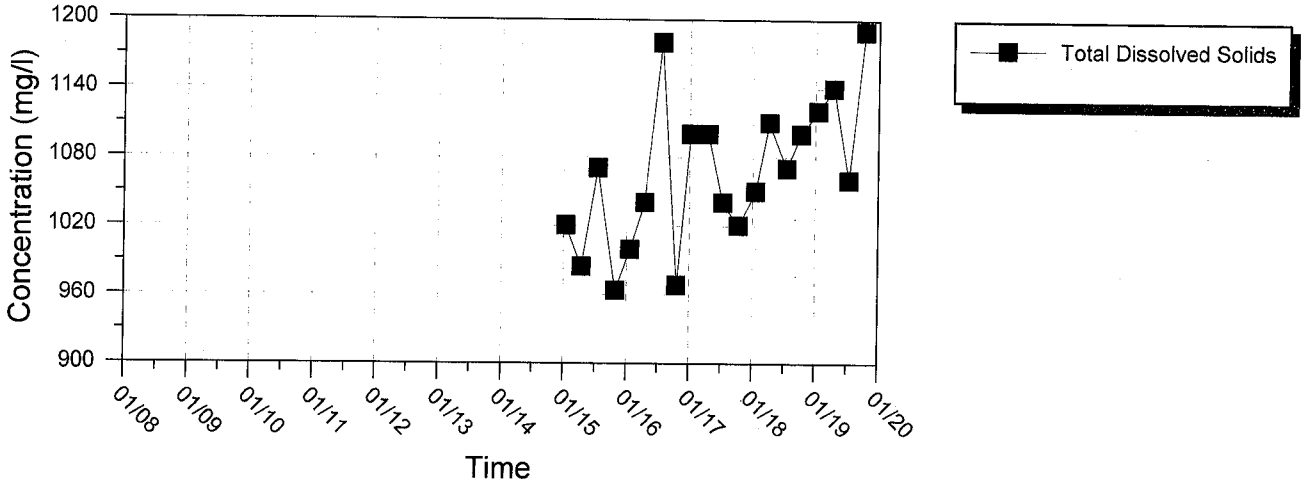
	CLIENT: Waste Connections, Inc.	DATE: 2008 - 2019 Data

WEX-0204-UG



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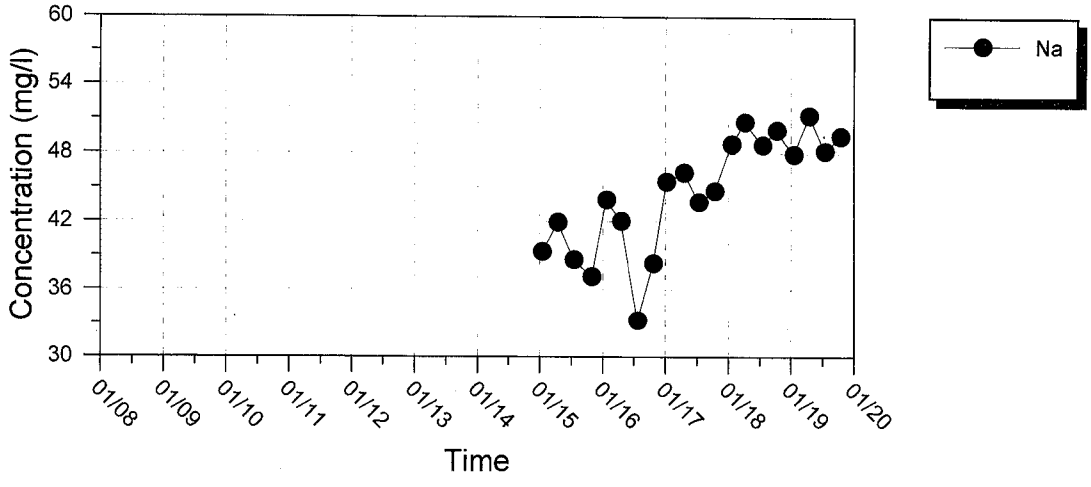

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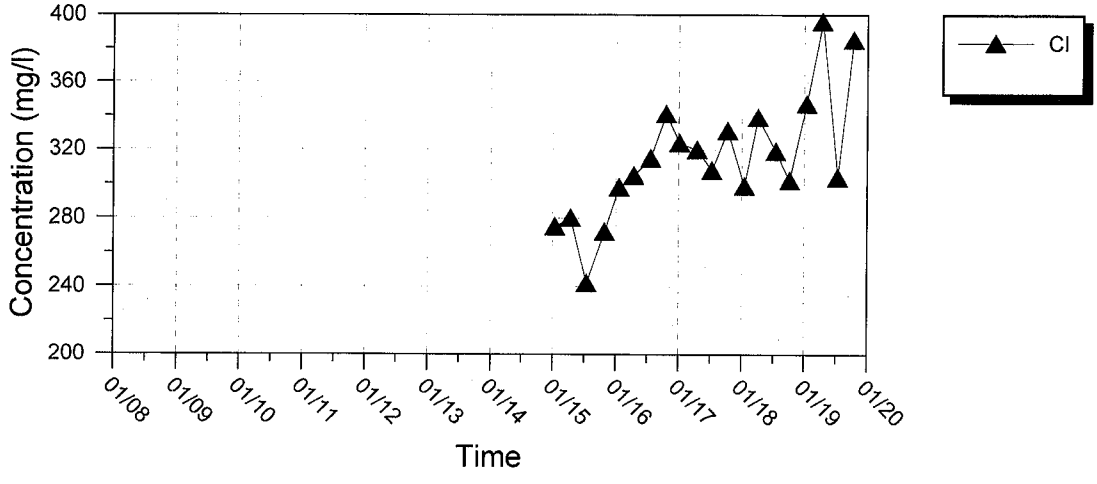

TITLE: Time Series Plots		
	SITE: Seneca Meadows Solid Waste Mngmnt Fac.	EVENT: 2019 Annual Report
	CLIENT: Waste Connections, Inc.	DATE: 2008 - 2019 Data

10.0 RETENTION PONDS DISCHARGE EVENTS

Stormwater runoff from within the SMI Landfill, Southeast Landfill, Southeast Bumpout, and Western Expansion are diverted to 13 separate ponds associated with the landfill areas. Figure 10-1 details the location of the retention ponds and general stormwater flow direction for the site.

SMI LANDFILL

Surface water runoff from within the SMI Landfill footprint area is diverted to three east-side retention ponds and three west-side retention ponds. When the pond reaches capacity (approximately 474 ft MSL), the gate valve in the pond inlet structure is closed and stormwater is diverted to another empty retention pond. Once the pond is closed, the stormwater is sampled and analyzed by a certified laboratory. If all the analytical parameters are in compliance with the permitted discharge limits, SENECA MEADOWS prepares a request for NYSDEC approval to discharge the pond. Once authorization has been received, pond discharge activities are completed in accordance with the SENECA MEADOWS operating permit.

SOUTHEAST LANDFILL, SOUTHEAST BUMPOUT (SBO), AND WESTERN EXPANSION

The stormwater runoff from the Southeast Landfill (SELF), the SELF Bumpout (SBO), and the majority of the Western Expansion areas are managed through the use of collection ponds, pumping points, and a series of conveyance structures where it passes under Salcman Road, and into the South Pond System. The stormwater is received into South Pond 3 and is transferred to an empty pond as maximum capacity is reached (approximately 471 ft. msl). The collected stormwater is pumped into one of the other ponds that make up the South Pond system (i.e. South Ponds 1, 2 or 4). Once full, the ponds are allowed to settle for approximately two weeks. Following this settlement period, a sample is collected and analyzed by a certified laboratory. After analytical testing and confirmation that constituent concentrations are in compliance with the approved limits, Seneca Meadows submits a request for discharge approval to the NYSDEC.

When authorization to discharge has been received from NYSDEC, the ponds are discharged in accordance with SMI's Part 360 Operating Permit. On 22 June 2015, after an extensive study and submittal to NYSDEC, authorization was given to increase the discharge limit for Specific Conductance in the south pond system from 1,000 μMOHS/cm to 1,500 μMOHS/cm. Authorization was granted in the 22 June 2015 correspondence from John Swanson NYSDEC Regional Engineer to Seneca Meadows.

The stormwater run-off from northern portions of the western expansion (Stage 3/3A) is managed through a series of conveyance features into a temporary pond at the northeast corner of Stage 3. This water is then pumped into the Tantalo channel which eventually ends up in the South Pond system

POND DISCHARGE EVENT

During pond discharge events, SENECA MEADOWS' contracted laboratory conducts sampling and analysis of discharged stormwater and surface water. The discharge sampling point designations for the east, west, south, and temporary ponds are as follows for this reporting period:

- East Ponds (E-1, E-2, and E-3): Pump outlet, SW-022 (transitioned to Ponds E-5 and E-6 in November 2016)
- West Ponds (W-1, W-2, and W-3): Pump outlet and SW-005
- South Ponds: Pump outlet and SW-023
- Western Expansion: Pump outlet, SW-023 and/or SW-024

These samples are analyzed for pH, specific conductivity, and total suspended solids (TSS).

SENECA MEADOWS continues to follow its existing turbidity monitoring program. During the discharge of the stormwater, turbidity data is collected on a real-time basis. The intent of this program is to help ensure stormwater being discharged is within the permitted limit for TSS. Samples are collected from the pump discharge and are analyzed for TSS.

There was a total of 22 pond discharge events completed in 2019. Table 10-1 summarizes the discharge events and the estimated gallons discharged per event.

TABLE 10-1. STORMWATER RETENTION POND DISCHARGE SUMMARY

FIGURE 10-1. STORMWATER MANAGEMENT SYSTEM COMPONENTS

Table 10-1
Seneca Meadows, Inc.
Storm Water Retention Pond Discharge Summary

	Location	Start	End	Elapse Time (hrs.)	Starting Elevation	Ending Elevation	Estimated Gallons Discharged	Estimated Pumping Rate (gpm)
		Date/Time (hrs.)	Date/Time (hrs.)					
1	West Pond- 3	1/6/2019 12:00	1/8/2019 16:30	52.50	476	465	3,267,736	1037
2	South Pond - 2	1/16/2019 12:00	1/29/2019 8:15	548.25	471	460	19,456,530	591
3	South Pond - 1	1/29/2019 14:00	2/14/2019 6:00	376.00	471	466	16,617,180	737
4	East Pond - 6	2/1/2019 8:00	2/17/2019 16:30	392.50	476	465	14,010,640	595
5	West Pond- 2	2/8/2019 6:00	2/11/2019 6:00	72.00	474	467	2,679,733	620
6	West Pond- 3	3/6/2019 14:30	3/8/2019 12:00	45.50	474	460	3,267,736	1197
7	South Pond - 2	3/4/2019 12:15	3/18/2019 14:15	338.00	471	460	19,456,530	959
8	West Pond- 2	3/30/2019 12:00	4/1/2019 16:00	52.00	474	467	2,679,733	859
9	East Pond-5	4/2/2019 9:00	4/8/2019 14:30	149.50		REPAIRS		
		4/16/2019 15:45	4/25/2019 6:00	206.25	476	454	13,996,580	656
10	West Pond- 2	5/16/2019 11:30	5/17/2019 6:00	18.50		REPAIRS		1,180
		5/20/2019 6:30	5/20/2019 14:30	8.00	474	469	1,875,813	
11	South Pond - 2	5/15/2019 7:30	5/18/2019 17:00	81.50	471	REPAIRS		
		5/20/2019 8:30	5/31/2019 8:00	263.50	471	460	19,456,530	940
12	East Pond-6	5/31/2019 12:00	6/12/2019 10:00	286.00	476	465	14,010,640	816
13	West Pond- 2	6/20/2019 16:00	6/21/2019 18:00	26.00		REPAIRS		747
		6/22/2019 8:00	6/23/2019 17:45	33.75	474	469	2,679,733	
14	South Pond - 2	7/6/2019 8:30	7/16/2019 16:30	248.00	471	461	19,456,530	1,308
15	West Pond- 3	8/25/2019 16:00	8/26/2019 16:30	24.50		REPAIRS		1,281
		8/27/2019 6:00	8/27/2019 16:00	10.00		REPAIRS		
		8/28/2019 6:00	8/28/2019 14:00	8.00	474	469	3,267,736	
16	East Pond-5	8/24/2019 8:00	9/5/2019 6:00	286.00	476	454	13,996,580	816
17	South Pond - 2	9/9/2019 13:00	9/19/2019 7:30	234.5	471	461	19,456,530	1383
18	South Pond - 1	9/26/2019 15:00	10/5/2019 11:30	212.5	471	460	16,617,180	1303
19	West Pond- 3	10/10/2019 11:15	10/12/2019 16:00	52.75	476	465	3,267,736	1032
20	East Pond - 6	11/11/2019 9:15	11/20/2019 8:00	214.75	476	465	14,010,640	1087
21	South Pond - 2	11/8/2019 11:36	11/12/2019 8:30	92.9		REPAIRS		
		11/13/2019 15:00	11/16/2019 8:00	65		REPAIRS		
		11/19/2019 11:45	11/24/2019 8:00	116.25	471	461	19,456,530	1183
22	West Pond- 2	11/25/2019 11:00	11/27/2019 16:30	53.5	474	467	2,679,733	835

BURGESS ROAD
NORTH ROAD
SALCMAN ROAD
N.Y.S. RTE. 414
I/O WATERLOO
I/O SENECA FALLS
STAFF GAUGE 001
SW-001
SS-001
SW-005
WEST POND 1/4
WEST POND 2
WEST POND 3
WEX STAGE 3 (EX-1)
WEX STAGE 6A (EX-1)
WEX STAGE 6B (EX-1)
WEX STAGE 4 (EX-1)
EXISTING VALVE STRUCTURE PERMANENTLY CLOSED
TEMPORARY STORMWATER POND
SMI LANDFILL
SOUTH POND 4
SOUTH POND 1
SOUTH POND 2
SOUTH POND 3
SW-023
TANTALO WASTE DISPOSAL SITE
NEX STAGE 8 (EX-3)
NEX STAGE 7 (EX-3)
SOUTHEAST LANDFILL
SELF BUMPOUT (EX-2)
EAST POND 1
EAST POND 2
EAST POND 3
EAST POND E-4
EAST POND E-5
EAST POND E-6
RRP POND
STAFF GAUGE 003
SW-021
SW-022

MAP LEGEND:

- EXISTING STORMWATER CULVERT PIPE
- SW-003 — SURFACE WATER SAMPLING POINT WITH IDENTIFICATION NUMBER
- SS-003 — SEDIMENT SAMPLE LOCATION POINT WITH IDENTIFICATION NUMBER
- STAFF GAUGE 004 — STAFF GAUGE LOCATION WITH IDENTIFICATION NUMBER
- STORMWATER FLOW DIRECTION
- (P) STORMWATER PUMPING POINT
- AT GRADE STORMWATER PIPING
- BURIED STORMWATER PIPING

S:\PROJECTS\SENECA MEADOWS\203166 - SM 2019 ANNUAL REPORT_PROJECT DRAWINGS\2019 ANNUAL REPORT FIGURES\2019 SM STMWTR.DWG 02/27/2020 LAYOUT: (SITE PLAN (11X17)

PREPARED BY:
CORNERSTONE ENGINEERING, GEOLOGY AND LAND SURVEYING, PLLC

cornerstone PLLC

		DATE
DESIGN BY:		
DRAWN BY:	D.STENSHORN	Feb. 2020
CHECKED BY:	T. BROWN	Feb. 2020

Drawing Scale
0 300 600
Scale In Feet

PROJECT: SENECA MEADOWS LANDFILL
2019 ANNUAL REPORT
SENECA FALLS SENECA COUNTY NEW YORK

DRAWING TITLE:
STORMWATER MANAGEMENT SYSTEMS COMPONENTS

Fig. 10-1

4203166

11.0 BLACK BROOK SAMPLING AND ANALYSIS

The annual review of Black Brook surface water and sediment analytical data has been prepared by KR Applin & Associates. KRA&A's report summarizes surface water and sediment monitoring activities for 2019, as required by SMI's 6 NYCRR Part 360 Operating Permit and is included in this section of the Report.

BLACK BROOK MONITORING REPORT

2019 ANNUAL REPORT

SENECA MEADOWS SOLID WASTE MANAGEMENT FACILITY

WASTE CONNECTIONS, INC.
Connect with the Future®

JANUARY 2020

KR Applin & Associates 8806 Route 256 Dansville, NY 14437 585.335.5998

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FIGURES AND TABLES

EXECUTIVE SUMMARY

The monitoring of Black Brook surface water and sediment quality was conducted quarterly at the Seneca Meadows Solid Waste Management Facility, Seneca Falls, New York, during 2019 in accordance with an approved Environmental Monitoring Plan (EMP) and Site Analytical Plan (SAP).

Monitoring was conducted in accordance with the Phase II procedures outlined in the EMP. Under the Phase II procedures, surface water and sediment samples were collected at one location upstream of the facility, at one location adjacent to the facility, and at two locations downstream of the facility.

Quarterly ampling was conducted during March, May, August, and October of 2019. The samples collected during the first, second, and fourth quarters were analyzed for a modified list of 6 NYCRR Part 360 routine chemical parameters. The third quarter samples were analyzed for a modified list of Part 360 baseline parameters. A grain size analysis was also performed on sediment samples collected each quarter.

Comparisons of the quarterly surface water results to trigger values computed from historical chemical data from upstream sample SW-017 showed no exceedances for the first, second, and fourth quarters. A slight exceedance of the trigger for magnesium occurred for downstream sample SW-018 during the third quarter.

Occasional exceedances of the NYSDEC Class C surface water standards for aluminum, iron, and manganese occurred in the quarterly results both the upstream and downstream samples and for TDS in the downstream samples only. The exceedances were attributed to naturally-occurring concentrations.

For the sediment samples, the parameters exhibiting exceedances of the trigger values were more numerous in the

downstream samples as compared to upstream sample SS-017. Among the downstream samples, COD, chloride, TKN, lead, and sulfate were detected most frequently. During the third quarter, additional trigger exceedances occurred in the downstream samples for metals including mercury, aluminum, barium, chromium, and zinc, which were attributed to elevated organic matter contents.

The sediment analytical results for each quarterly event were compared to the NYSDEC guidance values for screening contaminated sediment. None of the quarterly results exceeded the Class A guidance limits indicating little or no risk to aquatic life.

The results of the grain size analyses indicated that all the sediment samples consisted mostly (> 67%) of silt-size and finer sediment.

Evaluations of the 2019 quarterly monitoring results for the Black Brook surface water and sediment samples showed no indication of potential impacts by the landfill facility.

No major modifications to the current monitoring program are recommended at this time.

1.0 INTRODUCTION

The environmental monitoring program for the Seneca Meadows Solid Waste Management Facility, Seneca Falls, New York, includes the monitoring of Black Brook, a small stream that flows past the western border of the facility. During early 2013, the stream was relocated to flow around the facility rather than traverse the facility. The relocation of the stream was completed as part of the planned expansion of the SMI facility.

As specified in the Environmental Monitoring Plan (EMP) for the facility, the monitoring of Black Brook requires the quarterly sampling and analysis of surface water and sediment collected at locations upstream and downstream of the facility. The samples are analyzed for specific chemical parameters listed in the EMP.

During 2019, the water and bottom sediment quality of Black Brook was monitored in accordance with the Phase II procedures specified in the EMP, which require the sampling of surface water and sediment at one location upstream of the facility, one location adjacent to the facility, and two locations downstream of the facility. The analytical requirements remained the same as those required during the previous Phase I sampling program.

The sampling and analytical results obtained for each quarterly monitoring event of 2019 are provided in quarterly monitoring reports, which are available for review at Seneca Meadows, Inc., Seneca Falls, New York, and the Region 8 office of the New York State Department of Environmental Conservation (NYSDEC), Avon, New York. The quarterly reports provide all analytical data generated for each monitoring event and an evaluation of the results, including the identification of potential impacts to Black Brook by facility-derived chemical components. This annual report summarizes the major findings presented in the 2019 quarterly reports.

2.0 SAMPLING AND ANALYSIS

2.1 COMPLIANCE

The quarterly monitoring of Black Brook surface water and sediment was conducted during 2019 in accordance with the procedures described in the EMP (December 2006; revised February 2007) and Site Analytical Plan (SAP; November 2006) for the Seneca Meadows Solid Waste Management Facility.

Monitoring was conducted in accordance with the Phase II procedures provided in Section 3.4 of the EMP. Sampling of the surface water and sediments was conducted at the four locations shown in Figure 2-1. Sampling site SW/SS-017 is upstream of the facility. Sampling site SW/SS-018 is adjacent to the facility and sites SW/SS-019 and SW/SS-020 are downstream of the facility.

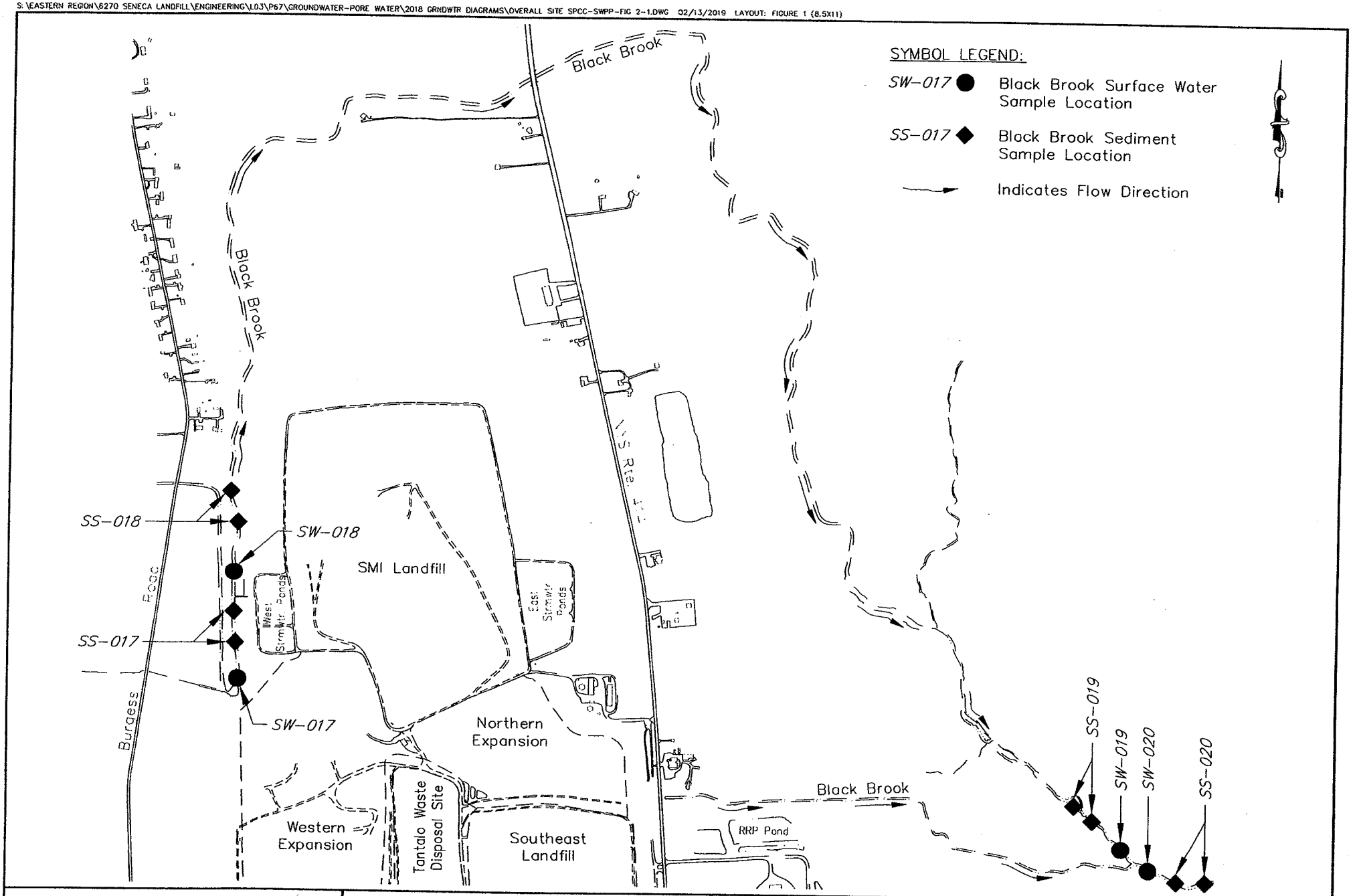
In accordance with Section 3.4 of the EMP, the first and second quarter sampling events of 2019 were conducted when no discharge of the on-site stormwater retention basins was occurring. The third and fourth quarter sampling events were conducted during discharge of the west stormwater retention basin (see Fig. 2-1).

During 2019, the quarterly sampling events normally scheduled for January, April, and July were delayed. The January event was postponed until March because of frozen conditions and high stream flow at the sampling locations. The April event was postponed until May also because of high stream flow.

The July sampling event was delayed until late August to allow for a sufficient volume of water to accumulate in the west retention basin for discharge during the event.

The fourth quarter event was not delayed and was completed in October.

S:\EASTERN REGION\6270 SENECA LANDFILL\ENGINEERING\L03\P67\GROUNDWATER-PORE WATER\2018 GRNDWTR DIAGRAMS\OVERALL SITE SPCC-SWPP-FIG 2-1.DWG 02/13/2019 LAYOUT: FIGURE 1 (8.5X11)



SENECA MEADOWS LANDFILL
1786 SALCMAN ROAD
WATERLOO, NEW YORK 13165

BLACK BROOK SAMPLING LOCATIONS AT THE SMI SOLID WASTE MANAGEMENT FACILITY

0 400 800 1200
Scale In Feet

FIGURE
2-1

The field sampling and laboratory analyses were performed by ALS Environmental, Rochester, NY, in accordance with the procedures provided in the EMP and SAP. The laboratory was approved to perform the analyses under the New York State Department of Health's (NYSDOH's) Environmental Laboratory Approval Program (ELAP).

The samples collected during the first, second, and fourth quarters were analyzed for a modified list of Part 360 routine chemical parameters provided in the EMP. The analytical results were validated internally by the laboratory. The third quarter samples were analyzed for a modified list of Part 360 baseline parameters. The third quarter results were validated by an independent data validator and are provided in the report entitled "Data Validation Report, 3rd Quarter 2019, Seneca Meadows Solid Waste Management Facility" dated October 2019.

2.2 COMPLETENESS

Completeness of the quarterly monitoring is indicated by 1) the success in obtaining all samples scheduled for collection and 2) the total amount of usable data obtained during each quarterly event.

Complete samples were collected from each designated sampling point during each quarterly event.

As specified in the EMP, the samples collected during the first, second, and fourth quarters were analyzed for a modified list of Part 360 routine chemical parameters and the third quarter samples were analyzed for a modified list of Part 360 baseline parameters, as required in the EMP.

Based on the results of validation performed by the laboratory and an independent validator, all analytical results were considered usable for the purpose of evaluating Black Brook water and sediment quality.

2.3 DATA EVALUATION METHODS

2.3.1 Surface Water

Potential impacts to Black Brook surface water by facility-derived chemical components were determined in part by comparing the analytical results of samples taken adjacent to and downstream of the facility (SW-018, SW-019, and SW-020) to trigger values for each chemical parameter calculated using historical data for upstream sample SW-017. The methods used to calculated trigger values are discussed in Section 3.7.1 of the EMP.

The analytical results for each quarterly monitoring event were also compared to NYSDEC Class C surface water standards (NYSDEC, 1993) listed in Section 3.0 of the EMP. The standards are provided in Table 2-1 of this report.

2.3.2 Stream Sediment

Potential impacts to stream sediment quality were evaluated by comparing the results for samples taken adjacent to and downstream of the landfill (SS-018, SS-019, and SS-020) to trigger values for each chemical parameter calculated using historical data for upstream sample SS-017 (see EMP, Sect. 3.7.1).

The sediment results were also compared to guidance values for screening and assessing contaminated sediment (NYSDEC, 2014) shown in Table 2-1 of this report.

Table 2-1

Standards and Guidance Values
for Surface Waters and Sediments

	Surface Water		Sediment (1)			
		NYSDEC		NYSDEC Guidance Values		
Parameter	Units	Class C Std	Units	Class A	Class B	Class C
pH	pH units	6.5-8.5				
DO	mg/L	>5.0				
Turbidity	NTU	(2)				
TKN	mg/L	(3)				
TDS	mg/L	500				
Phenols	mg/L	0.005				
Aluminum	mg/L	0.100				
Arsenic	mg/L	0.34	mg/Kg	<10	10 - 33	>33
Cadmium	mg/L	0.0093	mg/Kg	<1	1 - 5	>5
Chromium	mg/L	1.0868	mg/Kg	<43	43 - 110	>110
Chromium (hex)	mg/L	0.016				
Copper	mg/L	0.0282	mg/Kg	<32	32 - 150	>150
Cyanide	mg/L	0.022				
Iron	mg/L	0.3				
Lead	mg/L	0.2265	mg/Kg	<36	36 - 130	>130
Mercury	mg/L	2.6xE-6	mg/Kg	<0.2	0.2 - 1	>1
Nickel	mg/L	0.9123	mg/Kg	<23	23 - 49	>49
Silver	mg/L		mg/Kg	<1	1 - 2.2	>2.2
Zinc	mg/L	0.2286	mg/Kg	<120	120 - 460	>460

(1) Sediment guidance values are taken from "Screening and Assessment of Contaminated Sediments", NYSDEC, June 2014.

Classes are defined as follows:

Class A Low risk to aquatic life
Class B Moderately contaminated
Class C Highly contaminated

(2) Turbidity - no increase that will cause a substantial visible contrast to natural conditions

(3) Nitrogen - none in amounts that will result in growths of algae, weeds, and slime that will impair the waters for their best usages

3.0 SUMMARY OF RESULTS

3.1 SURFACE WATER

3.1.1 Exceedances of Trigger Values

No exceedances of the upstream trigger values were found for the first, second, and fourth quarter analytical results. For the third quarter results, a slight exceedance of the trigger for magnesium occurred in downstream sample SW-018. This single exceedance was not considered to be an indicator of an impact.

3.1.2 Exceedances of NYSDEC Class C Standards

The analytical results from each quarterly sampling event that exceeded the NYSDEC Class C surface water standards are summarized in Table 3-1.

As shown in the table, exceedances were identified for total dissolved solids (TDS), aluminum, iron, and manganese. Exceedances of the standards for aluminum, iron, and manganese occurred in upstream sample SW-017 as well as the downstream samples. The downstream sample results for these metals are not substantially elevated relative to the upstream values and therefore show no indication of being facility-derived.

The exceedances noted for TDS in the downstream samples are not substantially elevated above the upstream sample result (493 mg/L) and most likely reflect natural water quality rather than a possible impact.

The summary of Class C standard exceedances in Table 3-1 shows no indication of potential impacts to surface water quality by the facility.

Table 3-1

Summary of NYSDEC Class C Standard Exceedances
Surface Water Samples

(Concentrations in parentheses are in mg/L)

	Upstream	Downstream		
Quarter	**SW-017**	**SW-018**	**SW-019**	**SW-020**
1st			Iron (0.340)	Iron (0.390)
2nd	Iron (1.11)	Iron (1.01)	Iron (1.18)	Iron (1.40)
3rd	Aluminum (0.437) Iron (1.60) Manganese (0.321)	Aluminum (0.357) Iron (0.677) TDS (600)	Aluminum (0.339) Iron (0.904) TDS (523) Manganese (0.317)	Aluminum (0.321) Iron (0.635) TDS (575)
4th	Iron (0.630)	Iron (0.410) TDS (557)	Iron (0.920)	Iron (0.950)

NYSDEC Class C Standards (mg/L):

Aluminum	0.100
Iron	0.300
Manganese	0.300
TDS	500

3.2 SEDIMENT

3.2.1 Exceedances of Trigger Values

The parameters for which trigger values exceedances were identified during the four quarters of 2019 monitoring are summarized in Table 3-2.

In general, the table indicates that the trigger exceedances were more numerous in the downstream samples as compared to upstream sample SS-017. No trigger exceedances occurred in the third and fourth quarter upstream samples.

Among the analytes exhibiting trigger exceedances in the downstream samples, chemical oxygen demand (COD), chloride, total Kjeldahl nitrogen (TKN), lead, and sulfate were detected most frequently. For the third quarter, additional trigger exceedances occurred in the downstream samples for metals such as mercury, aluminum, barium, chromium, and zinc, which are analyzed only during the third quarter as part of the Part 360 baseline parameter list. Thus, the list of exceedances is longer for the third quarter downstream samples (esp. SS-019 and SS-020), in part, because more parameters were included in the lab analyses.

The distribution of metals in the sediment samples (i.e., higher concentrations in the downstream samples) may be associated with the sediment organic matter content. It has long been recognized that various trace metals (copper, chromium, iron, lead, zinc, and others) have an affinity for sediment organic matter (e.g., see Horowitz, 1985).

The total organic carbon (TOC) contents of the sediment samples collected during 2019 are summarized in Table 3-3. In general, except for the second quarter, the TOC contents of the downstream samples are substantially greater than those of upstream sample SS-017, which suggests a possible correlation between the TOC contents and metals concentrations.

The source of the metals and other chemical parameters exhibiting the trigger values exceedances shown in Table 3-2

Table 3-2

Summary of Trigger Value Exceedances
Sediment Samples

(Concentrations in parentheses are in mg/Kg)

	Upstream	Downstream		
Quarter	**SS-017**	**SS-018**	**SS-019**	**SS-020**
1st	COD (240000) Calcium (163000) Lead (7.4)	COD (389000) Chloride (79) TKN (4490) Sulfate (489) Lead (11.9)	COD (199000) Lead (11.5) Manganese (880)	COD (378000) Chloride (77) TKN (4870) Sulfate (259) TOC (57100) Lead (14.0)
2nd	COD (197000) Chloride (73) Phenolics (0.17)	COD (195000) Chloride (62) TKN (3970) Lead (8.1)	COD (255000) Chloride (91) Lead (12.3) Manganese (698)	Alkalinity (19400) COD (204000) Lead (10.9)
3rd		COD (209000) Sulfate (290) Mercury (0.063)	TKN (3070) Alumiinum (8590) Barium (74.2) Chromium (12.8) Lead (8.2) Manganese (770) Zinc (47.7)	COD (215000) Chloride (115) TKN (3010) Sulfate (383) Aluminum (8460) Barium (75.2) Chromium (12.6) Zinc (61.5)
4th		COD (240000) Chloride (63) TKN (3950) Sulfate (350) Lead (11)	Alkalinity (14900) Chloride (59) Lead (10.4) Manganese (866)	COD (391000) Chloride (102) TKN (3730) Sulfate (341) TOC (65900) Lead (13)

Trigger Values (in mg/Kg):

Alkalinity	12110	Aluminum	7600
COD	151393	Barium	56.3
Chloride	24.1	Chromium	12
TKN	2700	Lead	7.1
Sulfate	222	Manganese	662
TOC	55822	Mercury	0.06
		Zinc	45.5

Table 3-3

Summary of Total Organic Carbon (TOC) Contents
Sediment Samples

(Concentrations are in mg/Kg)

	Upstream	Downstream		
Quarter	**SW-017**	**SW-018**	**SW-019**	**SW-020**
1st	17000	19300	17400	57100
2nd	33000	31600	35800	30600
3rd	16000	39700	21000	39900
4th	18900	53800	19500	65900

cannot be definitively determined (i.e. natural vs. facility-derived). However, as discussed briefly in the following section, possible impacts can be evaluated by comparing the analytical results to NYSDEC guidance values for screening contaminated sediment.

3.2.2 Exceedances of NYSDEC Sediment Guidance Limits

The sediment analytical results for each quarterly event were compared to the NYSDEC guidance values for screening contaminated sediment (NYSDEC, 2014), which are shown in Table 2-1. All of the quarterly results were less than the Class A guidance limits indicating little or no risk to aquatic life.

3.3 GRAIN SIZE ANALYSES

The sediment samples were collected from depositional environments within the streambed that correspond to the low velocity zones of stream flow. The samples were collected from the upper portion of the sediment column in an attempt to obtain the fine-grain (silt-size or finer) fraction of sediment, which is most likely to contain the highest concentrations of organic matter and metals.

Grain size analyses were performed on a portion of the sediment sample collected at each sampling station to determine the particle size distribution of each sample. The percentage of the silt-size or finer fraction of the sediment samples, as determined by the fraction of sample passing the #200 sieve, was used as a measure of the success in collecting fine-grained samples.

The percentages of the silt-size and finer fraction of sediment in each sample collected during the 2019 monitoring events are summarized in table below. As indicated in the table, all the samples contained greater than 67% silt-size and finer sediment.

Percent Silt-Size and Finer Sediment

Sample ID	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
SS-017	69.9	79.2	92.7	91.4
SS-018	87.4	83.1	90.1	88.6
SS-019	70.3	77.4	92.3	80.7
SS-020	85.2	82.0	82.6	67.5

4.0 CONCLUSIONS

The monitoring of Black Brook surface water and sediment was conducted during 2019 in compliance with the Environmental Monitoring Plan (EMP) and the Sampling and Analysis Plan (SAP) for the Seneca Meadows Solid Waste Management Facility. Quarterly sampling was conducted during March, May, August, and October. Complete surface water and sediment samples were collected during each quarterly monitoring event.

The first, second, and fourth quarter samples were analyzed for a modified list of 6 NYCRR Part 360 routine chemical parameters. The third quarter samples were analyzed for a modified list of Part 360 baseline parameters. A grain size analysis was also performed on the sediment samples collected each quarter.

Potential impacts to Black Brook by facility-derived chemical components were evaluated by comparing the analytical results for samples taken adjacent to and downstream of the facility to trigger values calculated using historical data for samples taken upstream of the facility. The results for the surface water samples were also compared to the NYSDEC Class C surface water standards and the sediment results were compared to NYSDEC guidance values for screening contaminated sediment.

No exceedances of the upstream trigger values were found for the first, second, and fourth quarter analytical results. For the third quarter results, a slight exceedance of the trigger for magnesium occurred in downstream sample SW-018.

Exceedances of the NYSDEC Class C surface water standards occurred during each quarter for a few analytes, mainly iron and TDS, with occasional exceedances of the manganese standard. Aluminum exceeded the standard in ech of the third quarter samples. The TDS exceedances were slight and were attributed to naturally-occurring concentrations. Exceedances of the standards for aluminum, iron, and manganese occurred in both the upstream and downstream samples and were also attributed to natural concentrations.

For the sediment samples, the trigger exceedances were more numerous in the downstream samples as compared to upstream sample SS-017. Among the downstream samples, COD, chloride, TKN, lead, and sulfate were detected most frequently. For the third quarter, additional trigger exceedances occurred in the downstream samples for metals such as mercury, aluminum, barium, chromium, and zinc, which were attributed the higher organic matter contents of the downstream samples.

The sediment analytical results for each quarterly event were compared to the NYSDEC guidance values for screening contaminated sediment. None of the quarterly results exceeded the Class A guidance limits indicating little or no risk to aquatic life.

The results of the grain size analyses indicated that all the sediment samples collected consisted mostly (> 67%) of silt-size and finer sediment.

Evaluations of the 2019 quarterly monitoring results for the Black Brook surface water and sediment samples showed no indication of potential impacts by the landfill facility. No major modifications to the current monitoring program are recommended at this time.

5.0 REFERENCES

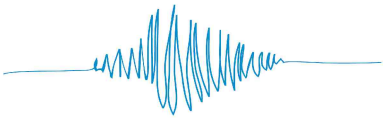
Horowitz, A. J., 1985, A Primer on Trace Metal-Sediment Chemistry; U.S. Geological Survey Water Supply Paper 84-2277, 61 pp.

New York State Department of Environmental Conservation, 1993, Ambient Water Quality and Guidance Values: Division of Water Technical and Operational Guidance Series (1.1.1), 89 pp.

New York State Department of Environmental Conservation, 2014, Screening and Assessment of Contaminated Sediment: Division of Fish, Wildlife and Marine Resources, Bureau of Habitat.

12.0 NOISE SURVEY

In accordance with the requirements of SMI's current operating permit and the Environmental Monitoring Plan, noise monitoring was conducted along the boundaries of the facility property lines (in the direction of residential use properties) during August 2019. This noise monitoring/reporting was conducted by Aurora Acoustical Consultants, Inc. of East Aurora, New York. The report, entitled "2019 Annual Noise Survey" dated February 18, 2019, is included in this section.



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2019
ANNUAL NOISE SURVEY

FOR

SENECA MEADOWS, INC.
SANITARY LANDFILL
WATERLOO, NEW YORK

VOLUME I

Prepared for
SENECA MEADOWS, Inc.
1786 Salcman Road
Waterloo, New York 13165

Prepared by: Daniel P. Prusinowski

February 18, 2020

AURORA ACOUSTICAL CONSULTANTS Inc.

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AURORA ACOUSTICAL CONSULTANTS Inc.

2019 ANNUAL NOISE SURVEY
FOR SENECA MEADOWS, INC. LANDFILL
WATERLOO, NEW YORK

1.0 Introduction

Sound level surveys were performed to identify sources of sound and characterize levels of environmental noise representative of operations for the year 2019 of the Seneca Meadows, Inc. (SMI) landfill facility received along boundaries with properties authorized for residential use, in fulfillment of requirements of 6 NYCRR Part 360 Section 19 of New York State. Noise level identification requirements are described in the Seneca Meadows, Inc. Operations, Maintenance, and Monitoring Plan, and the Environmental Monitoring Plan (Appendix D & E of the Engineering Report dated December 2006, revised February 2007) and the New York State Department of Environmental Conservation 6 NYCRR Part 360 landfill facility permit (NYSDEC Permit 8-4532-00023-00001-0). The Seneca Meadows, Inc. Engineering Report further contains information on site layout and operational factors required to control noise from landfill operations and construction activities at the Southeast Landfill (SELF), the Western Expansion landfill (WEX, Stages 3-4), the Northern Expansion landfill (NEX, Stages 7-8), the Stage 6 Landfill under operations and construction, and the Stage 5 area under construction. The documents additionally describe noise mitigations that are currently in effect. The accepted mitigations include limiting specified operations to daytime hours, use of regular maintenance practices and proper silencers, adherence to minimum specified property line setback distances, and provision of shielding and enclosures around identified noise sources.

Sound levels received along the Seneca Meadows landfill boundaries were identified by surveys at representative boundary locations during the week of July 29 to August 2, 2019. The monitored sound levels are compared in this report to the sound level criteria contained in the New York State Title 6 NYCRR Part 360 Regulations effective November 4, 2017. The Part 360 Regulations specify maximum sound levels from landfill equipment or operations received at landfill boundaries adjoining properties that are zoned or otherwise authorized for residential purposes. The Regulations specify sound level limits for daytime and nighttime periods for rural, suburban, and urban community characters. The sound level limits are defined in terms of the "equivalent steady-state sound level" metric, designated L_{eq}, which is the integrated average value of the time-varying sound levels. The L_{eq} sound level metric that describes the sound level over a one-hour time period is designated $L_{eq\text{-}1\ hr}$. The one-hour sound level average metric is referenced by the Part 360 Regulations and is used in this assessment.

The sound monitoring characterized landfill operations during the period from the morning of Monday July 29 to the evening of Friday August 2, 2019, which coincided with the annual peak period of landfill operations, maintenance activities, and construction development. The sound monitoring was performed at ten representative receptor locations on the boundaries of the landfill adjoining properties that are currently zoned or authorized for residential use in the Town of Waterloo and Town of Seneca Falls. The survey locations were chosen to represent existing and former residential-use properties, agricultural parcels, and undeveloped properties. The survey locations for the year 2019 coincide with locations used in previous annual sound surveys to allow comparisons of the measured sound levels.

Sound level monitoring was performed using automatic noise level loggers that were programmed to continuously record the average sound levels during the survey period and record the data by consecutive fifteen-minute time periods, designated $L_{eq\text{-}15\ min}$. The fifteen-minute average levels were processed by logarithmic summation into one-hour averages ($L_{eq\text{-}1\ hr}$) for comparison to the one-hour average sound level limits contained in the 6 NYCRR Part 360 Regulations. Also recorded during the noise survey period were the minimum and maximum sound levels for each sampling period ($L_{min,}$ L_{max}) to characterize the range of noise levels.

The levels of facility noise and the sources of sound were further identified and characterized at each logging location by means of short-term sampling measurements obtained with a portable sound level analyzer. The sampling was performed at each logging location during three time periods on July 29 on the starting day of the monitoring period, and three times at each location on August 31 on the last day of the monitoring period. The L_{eq} average sound levels from each sampling measurement are presented in the report as additional means to evaluate facility noise acceptability in comparison to the 6 NYCRR Part 360 $L_{eq\text{-}1\ hr}$ sound level limits. The sound levels were measured over periods of ten to twenty minutes as appropriate to characterize steady average levels representative of one-hour periods, in accord with the Part 360 Regulations. The short-term noise samples were measured using one-second averaging periods ($L_{eq\text{-}1\ sec}$), which allowed detailed characterizations of contributing environmental noise peaks. The prominent sources of sound observed that contributed to each sampling measurement were aurally and visually identified and recorded. The sampling surveys were performed in two daytime periods during normal hours of waste acceptance operations to identify landfill equipment sources and ambient sources, and during afternoon and evening hours at the end of normal waste acceptance operations as means to evaluate the contributing background sources.

The hourly-average sound levels ($L_{eq\text{-}1\ hr}$) obtained by continuous logging and by sampling surveys were compared to the sound level limits specified in the Part 360 Regulations for a *suburban* community character to evaluate the acceptability of the received facility noise levels. The suburban community

designation appropriately represents the community around the facility based on the density and character of the residential community and the extent of commercial and industrial development adjoining the facility, and the class and volume of traffic on adjoining roadways. Commercial properties that adjoin the facility include the Wal-Mart Super Center at the intersection of Route 414 and North Road, the Holiday Inn hotel on Route 414 south of the landfill, and the Hampton Inn commercial hotel on Balsey Road at the intersection with Route 414. Other small- to medium-sized businesses located on Route 414 east and south of the landfill include a contracting company, bottle and packaging manufacturing facilities, a welding shop, banks, and an automobile parts store. The Tarjac finishing facility and a self-storage facility are located at the intersection of Salcman Road. Additional businesses located on Route 414 north of the landfill facility include automobile sales and service facilities and commercial graphic design offices. Industrial facilities located east and north of the SMI landfill include the Seneca Energy, Inc. (SEI) landfill gas-to-energy plant, which is located in the Seneca Meadows Renewable Resource Park (RRP), and the Mobil Oil Pipeline facility on the east side of State Route 414, both opposite the original SMI landfill. The Waterloo Central School District bus garage and maintenance facility is located on North Road adjacent to the south boundary of the landfill. North Seneca Ambulance, Inc. is located at the intersection of North and Burgess Roads.

The noise assessments characterized sound levels produced by normal landfill operations in active landfill area of Stage 6. Operations consisted of waste acceptance from tractor trailers and municipal trucks, unloading of trailers using three tippers, and placement of waste during the survey week by one to four compactors and three to five bulldozers. Truck traffic leading to the stage traveled along site access roads on the western side of the SELF berm, and accessed Stage 6 from the eastern side of the cell. Daily operations included placement of cover soil with articulated trucks, bulldozers, and compactors.

Maintenance activities at Stage 6 included trenching with two excavators and covering with a bulldozer Maintenance activities at the NEX area consisted of unloading and placement of soil cover on the plateau, with access to the area by haul road located on the western side of the berm. Maintenance activities at the WEX area consisted of loading and transport of stored soil material on the plateau, with access to the area by haul roads located on the eastern and northern sides of the WEX berm.

Construction activities ongoing in the Stage 5 area included excavation and transport of soil from the floor of the northern and eastern areas with excavators and articulated trucks, bulldozer grading, and soil drilling with two drilling rigs.

Soil materials used for construction and cover operations were being loaded onto trucks with an excavator at the northern portion of the materials storage area on the south side of Salcman Road.

Other ongoing site maintenance activities included watering of site access roads, road sweeping along the site entrance roads and along the shoulders of State Route 414, and operation of odor neutralizing systems, including a system installed in an enclosure at the southwest corner of the WEX berm and one or two truck-mounted systems operated in the Stage 6 area. Water for the road watering operations was being drawn from the retention pond on the south side of Salcman Road and from the retention pond to the west of the original SMI landfill berm. A landfill gas flare system was in operation at the base of the access road to the WEX berm.

Figure 1 describes the zoning designations of the current property holdings of Seneca Meadows Inc. and the adjoining properties for the Towns of Seneca Falls and Waterloo. The zoning districts surrounding the boundaries of the refuse disposal properties include residential, agricultural, commercial, and industrial properties. Survey locations were placed along the facility boundaries adjacent to properties zoned or authorized for residential use. The survey locations are identified on the property holdings plan of Figure 2.

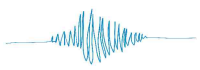
Noise monitoring was performed at locations on the eastern boundary of the landfill along State Route 414. The receptor locations adjoin properties in the Highway Commercial zoning classification in the Town of Seneca Falls. Survey Locations 1 and 2 represent former residential-use properties on the east side of the Route 414 highway adjacent to the SELF and NEX berms. Survey Locations 3 and 4 represent existing and former residential-use properties on the west side of Route 414, and existing residential-use properties and undeveloped residentially-authorized properties on the east side of Route 414 adjacent to the original SMI landfill.

Survey Location 1 is located on the eastern boundary of the landfill adjacent to the SELF landfill near the intersection of the former Salcman Road entrance. The location represents residentially-authorized properties along the east side of the highway contained in Industrial and Highway Commercial zoning districts in the Town of Seneca Falls. The properties formerly contained residences that have been removed, except for one unoccupied residence that most recently has been used as an industrial and highway construction field office and a mill shop. The building was not in use during the sound surveys. The properties along the highway opposite Location 1 have previously been used for agricultural purposes, although were fallow during the sound surveys. The Seneca Energy Inc. gas-to-energy plant and High BTU facility are located east of this area in the Resource Recovery Park. The operations of the SEI facilities were audible at Location 1 in the daytime between passes of traffic. The facilities produced audible noise in the evening after the normal hours of facility operation, when traffic volumes on Route 414 were reduced resulting in lower ambient noise levels. The background noise environment at Survey Location 1 was largely characterized by sounds of traffic on Route 414, including accelerating and

decelerating vehicles in the vicinity of the signalized entrance to the landfill facility. Sounds of landfill activities were not perceptible at the location due to the screening of the berm and distance from active Stage 6. There were no observed activities on top of the SELF berm. Maintenance activities on top of the NEX berm were screened from view during the sound surveys and were not perceptible. Leachate collection system maintenance activities were stationed on the access road on the eastern face of the SELF berm during the sound survey period, consisting of a water truck and a pumper truck, but were not producing perceptible noise at Location 1 during the sound surveys.

Survey Location 2 is located on the eastern boundary of the landfill adjacent to the NEX landfill berm, south of the intersection of the entrance road to the landfill leachate management facility. The location represents residentially-authorized properties in zoning districts designated Flood Plain Protection on the east side of Route 414 and Highway Commercial on both sides of Route 414 in the Town of Seneca Falls. Former residences on the east side of the highway have been removed except for a small storage building. East of the commercial corridor are landfill retention ponds, which are accessed from a road along the storage building. The background noise environment at Survey Location 2 is largely characterized by sounds of traffic on Route 414, including accelerating and decelerating vehicles in the vicinity of the landfill entrance driveway and leachate facility driveway, with occasional turning vehicles. Maintenance activities on top of the NEX berm were not visible during the sound surveys and did not contribute to the noise environment at Location 2. Sounds of landfill operations at Stage 6 and construction activities at Stage 5 were not perceptible at Location 2 due to the screening of the NEX berm. The survey location is in the vicinity of the Seneca Energy Inc gas-to-energy facility. The operations of the SEI gas-to-energy plant and High BTU facility were audible in the daytime between passes of traffic. The gas plant facilities were perceptible at the location in evening periods after the normal hours of facility operation, when traffic volumes on Route 414 were reduced.

Survey Location 3 is located on the eastern boundary along Route 414, east of the original SMI landfill. The location represents an existing residential property on the east side of the highway, and a former residential-use property on the west side of the highway, which are property holdings of SMI. The properties are located in a Highway Commercial zoning district in the Town of Seneca Falls. The existing residence is located approximately 300 feet to the northeast of the survey location. The former residential property is located approximately 700 feet to the north of the survey location. Other residentially-authorized properties adjacent to the survey location are wooded and undeveloped, and are property holdings of SMI. Additional properties south of the survey location include the commercial Mobil Oil Pipeline facility and the Seneca Meadows Environmental Education Center. Additional properties to the north include an automobile repair facility, a commercial automobile auction facility, a commercial vehicle repair facility, and a commercial graphics facility to the north of the survey location. The noise environment at Location 3 is characterized by sounds of free-flowing vehicle traffic on Route



414 and environmental sounds that include birds and insects. Sounds of landfill operations and construction were not apparent at the location during the sound surveys.

Survey Location 4 is located northeast of the original SMI landfill just south of the northern boundaries of the landfill holdings. The location represents residential-use properties bordering the eastern boundary of the landfill within the Highway Commercial zoning district in the Town of Seneca Falls. The properties include an existing residential property on the west side of Route 414 located approximately 250 feet north of the survey location, and two residential properties located on the east side of Route 414 located approximately 600 feet southeast and 800 feet southeast of the survey location. Other properties that surround the represented residential properties which are residentially-authorized are holdings of SMI. The surrounding properties are extensively wooded and undeveloped, with the exception of an open parcel to the west of the survey location that is leased for agricultural use, which is owned by SMI. There were no farming activities observed on the farm parcel during the survey period. An adjoining parcel located west of the survey location contains a gas compressor station operated by Chesapeake Appalachia LLC. The background noise environment at Survey Location 4 is characterized by sounds of free-flowing vehicle traffic on Route 414 and environmental sounds of birds, and insects in the wooded and agricultural areas and amphibians in wetland areas adjoining the survey location. Sounds of landfill operations and construction activities were not apparent at the location during the sound surveys.

Other properties on the east side of Route 414 opposite the landfill between the Highway Commercial corridor and Black Brook Road include agricultural parcels, undeveloped property, and the Seneca Meadows Wetland Preserve and trail system. The properties are contained in Agricultural zoning and Flood Plain Protection zoning classifications in the Town of Seneca Falls. The nearest occupied residences east of the facility boundaries are located along the west side of Black Brook Road at distances of 5600 feet and 6700 feet from Route 414. The depth of the woods between Route 414 and the residential properties ranges from 1400 feet to 3600 feet. The wooded areas are estimated to provide at least ten decibels of sound attenuation of landfill and highway traffic sounds, in addition to the attenuation from distance. As the result of the significant amount of sound attenuation from both distance and the wooded buffer zone, sounds of landfill operations are not perceptible at residential properties along Black Brook Road in comparison to the local background traffic noise and environmental noise. The predicted received sound levels along Black Brook Road are lower than the suburban sound level limits of the Part 360 regulations.

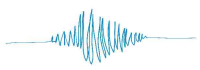
Properties that adjoin the eastern boundary of the landfill to the north of the original SMI landfill and the agricultural parcel are densely wooded and are contained in the zoning classification Refuse Disposal in the Town of Seneca Falls. The properties are landfill holdings of SMI. Additional properties located

directly north of the landfill holdings are zoned Agricultural and are heavily wooded and undeveloped. The landfill is separated from residences to the north along Strong Road by a wooded buffer area extending over 4000 feet in width. The wooded area is estimated to provide at least ten decibels of sound attenuation of landfill sounds, in addition to the attenuation from distance. As the result of the significant amount of sound attenuation from both distance and the wooded buffer zone, sounds of landfill operations are not perceptible at residential properties along Strong Road in comparison to the local background traffic noise and environmental noise. The predicted received sound levels are lower than the sound level limits of the Part 360 regulations. The dominant sources of background noise to the north include traffic on Route 414, traffic on Burgess Road, biological noises, and noise emissions from the natural gas compressor facility operated by Chesapeake Appalachia LLC that is located in the center of the northern wooded area.

Survey Location 5 represents a grouping of residential properties located on the east and west sides of Burgess Road, northwest of the original SMI landfill. The residences are contained in the Low-Density Residential zoning classification of the Town of Waterloo. The residences extend from the northwest corner of the SMI landfill north to Strong Road in a closely-spaced suburban-style arrangement. The survey location was located on the western boundary of the landfill on the east side of Black Brook, opposite the rear property lines of the closest residential properties on the east side of Burgess Road.

Survey Location 6 represents residential-use properties on the east side of Burgess Road that border the western boundary of the landfill opposite the WEX Stage 3-4 landfill area, and other residentially-authorized but undeveloped property on the west side of Burgess Road. The properties are included in a Low-Density Residential zoning district in the Town of Waterloo. The properties contain two residences on the east side of Burgess Road. One residence is located on a land parcel that borders the western boundary of the landfill holdings. The second residence is located on a parcel that is contained within the boundaries of the first property, and does not directly border the landfill boundaries. The properties that immediately adjoin the western boundary of the landfill are extensively used for agricultural purposes Properties on the west side of Burgess Road opposite survey Location 6 include fallow agricultural land, which are holdings of SMI. Further west is the Meadow View Mine soil mine. The soil mine was not in operation during the sound surveys.

Survey Location 7 is located at the southwest corner boundaries of the landfill, and represents several existing residential-use properties on the east side of Burgess Road between Salcman Road and North Road, and a number of former residential-use properties on the east side of Burgess Road north of the intersection. The properties are contained in an area zoned Moderate-Density Residential in the Town of Waterloo. Four of the five existing residential properties south of Salcman Road are holdings of SMI.

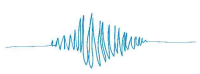


The vacant residential-use properties to the north of Salcman Road are also SMI property holdings. Non-residential properties around the survey location include the Meadow View Mine, undeveloped properties west of the survey location, the North Seneca Ambulance, Inc. facility at the intersection of North Road and Burgess Road, the Waterloo School District bus garage and maintenance facility to the south of Salcman Road, and undeveloped properties adjacent to the bus garage that are holdings of SMI.

Survey Locations 8 and 9 represent properties along the southern boundaries of the landfill facility. The properties include a small number of residential-use properties and mixed-use properties on the north side of North Road between Burgess Road and the Finger Lakes Railway grade crossing, which are located in the Town of Waterloo in a district zoned Moderate-Density Residential. Several of the residential-use properties along the southern boundary are holdings of SMI. Residential-use properties on the south side of North Road are contained in the boundaries of the Village of Waterloo. Location 8 was located on the north side of North Road to the west of the railroad grade crossing. Location 9 was located on the north side of North Road on the north boundaries of the residential properties, to the east of the access road to the bus garage. Non-residential facilities in the vicinity of the survey location include the Seneca County Fairgrounds, offices for the Seneca County government, and commercial dental laboratory facilities in the Village of Waterloo and in a Highway Commercial district of the Town of Seneca Falls.

The southeast corner of the landfill adjoins a number of commercial properties on the north side of North Road and west side of Route 414, including an auto parts store, a bank, an office building, industrial facilities, and a church property. Properties on the east side of Route 414 are zoned Industrial, and contain a self-storage facility, beverage container and packaging facilities, and a product finishing facility on property that is a holding of SMI. Properties on the south side of North Road include a Wal-Mart Super Center and a restaurant at the intersection of Route 414. Properties on the north and south sides of Balsey Road extending east of Route 414 include a bank, a hotel, a restaurant, office buildings, and a church property. The properties are located in a district zoned Highway Commercial in the Town of Seneca Falls. The properties that adjoin the southeast boundaries of the landfill facility contain no residences.

Survey Location 10 represents the western boundary of the landfill opposite the active Stage 6 landfill area and the Stage 5 area under construction. The location is opposite residentially-authorized properties along both sides of Burgess Road contained in a Low-Density Residential zoning district in the Town of Waterloo. The adjoining property between the east side of Burgess Road and the western boundary of the landfill was previously used for agricultural purposes and grazing and does not contain residences. The property was not being farmed during the sound surveys. The survey location in addition represents



a former residential property on the west side of Burgess Road, which is currently vacant except for a storage building. The properties on the west side of Burgess Road opposite the survey location are owned by SMI.

Sound levels were monitored at each of the ten represented residential-use boundary locations identified in Figure 2 to assess compliance with the sound level limits contained in the 6NYCRR Part 360 landfill regulations. The sound level monitoring characterized the background noise levels and the noise generated by operations of the landfill consisting of normal daily waste acceptance activities, waste placement activities, soil transport and cover operation, and maintenance operations, combined with landfill construction operations.

The acceptability of the noise levels received on the western and southern boundaries of the landfill, noise compliance was evaluated using sound level limits contained in 6 NYCRR Part 360 that apply to the *suburban* community, which were determined to be appropriate for the character of the residential and commercial community. The referenced Part 360 sound level limits are 62 dBA L_{eq} for daytime hours from 7:00 a.m. to 10:00 p.m., and 52 dBA L_{eq} for nighttime hours from 10:00 p.m. to 7:00 a.m.

The acceptability of the noise levels received at locations along the eastern landfill boundaries in daytime hours was evaluated in comparison to the Part 360 limits and to the background noise levels from highway traffic on Route 414. The background noise levels are referenced as alternate noise criteria for periods in which the levels of background noise exceeded the Part 360 standard daytime sound level limits. The Part 360 standard describes background noise as that component of the noise environment which excludes any contributions from the solid waste management facility. The acceptability of noise received at Locations 1 to 4 was evaluated based on the measured levels of background traffic noise levels, which were not influenced by sounds of landfill operations during the sound surveys. The acceptability of sounds received in nighttime hours at Locations 1 to 4 was evaluated based on the measurements of background traffic noise levels, and referencing the suburban nighttime sound level limits with the exception of the early morning peak traffic period.

The average traffic background noise levels varied among the survey locations along the eastern facility boundary. The variances are attributed to differences in speed and flow of traffic on the Route 414 highway. At locations opposite the original SMI landfill extending north, the traffic is free-flowing and produces fairly consistent noise levels in the daytime hours. At locations opposite the SELF and NEX landfill berms, the background noise is characterized by sounds of accelerating and decelerating trucks and automobiles near the signalized entrance to the landfill, at the drive to the SEI facility, and at the drive to the landfill leachate management facility, which increased the average noise levels. Additional

noise was generated by vehicles using jake braking to decelerate.

Along the western boundaries of the landfill, environmental sounds and traffic on Burgess Road contribute to the background noise environment at the residential receiving locations. Ambient sounds of Route 414 highway traffic are also perceptible at locations on the western boundary to the north of the landfill, where segments of the highway are not screened by landfill berms. Along the southern boundaries of the landfill, the background noise levels are largely due to traffic on North Road, environmental sources, and bus traffic and employee traffic on the roadway to the Waterloo school bus garage. Location 8 on the south boundary additionally receives background noise generated from train passes and train horns at the North Road grade crossing of the Finger Lakes Railway.

The dominant sources of environmental noise observed at each survey location on the boundaries of the landfill consisted of birds, insects, and wind blowing across vegetation, along with sounds of calling amphibians in wetland areas. The environmental sources largely contributed to the noise measurements along the southern and western boundaries. Along the facility's eastern boundary with Route 414, traffic sounds were significant above environmental sources in the daytime hours, whereas insect and amphibian noise increased in the evening. Farming operations were not observed on agricultural-use properties along the western and eastern boundaries of the landfill during the noise monitoring period.

Other sources of background noise that contributed to measurements along the eastern landfill boundaries included equipment at the Seneca Energy, Inc. gas-to-energy plant on Route 414, consisting of indoor gas engine generators and outdoor gas flares. The plant is perceptible between traffic passes in daytime hours during landfill operations, and may partly contribute to the received daytime noise levels. The SEI plant is increasingly perceptible in evening daytime hours after the normal hours of landfill operation when highway traffic volumes are reduced. In nighttime hours, the SEI plant, background traffic, and environmental sounds are the dominant contributors to the nighttime community background noise levels along the eastern landfill boundaries.

During the survey period, waste placement at the active Stage 6 landfill area was performed with Caterpillar 836K and AlJon 600 waste handlers, Caterpillar D6, D8 or D9 bulldozers, and three Phelps trailer tippers. Soil cover was being placed with Caterpillar D6 bulldozers and Volvo A40D, Volvo A40E, Terex TA400, and Bell B45E articulated trucks. Trenching and laying of collection pipe at Stage 6 was performed with Komatsu and Volvo excavators and a Caterpillar D6 bulldozer.

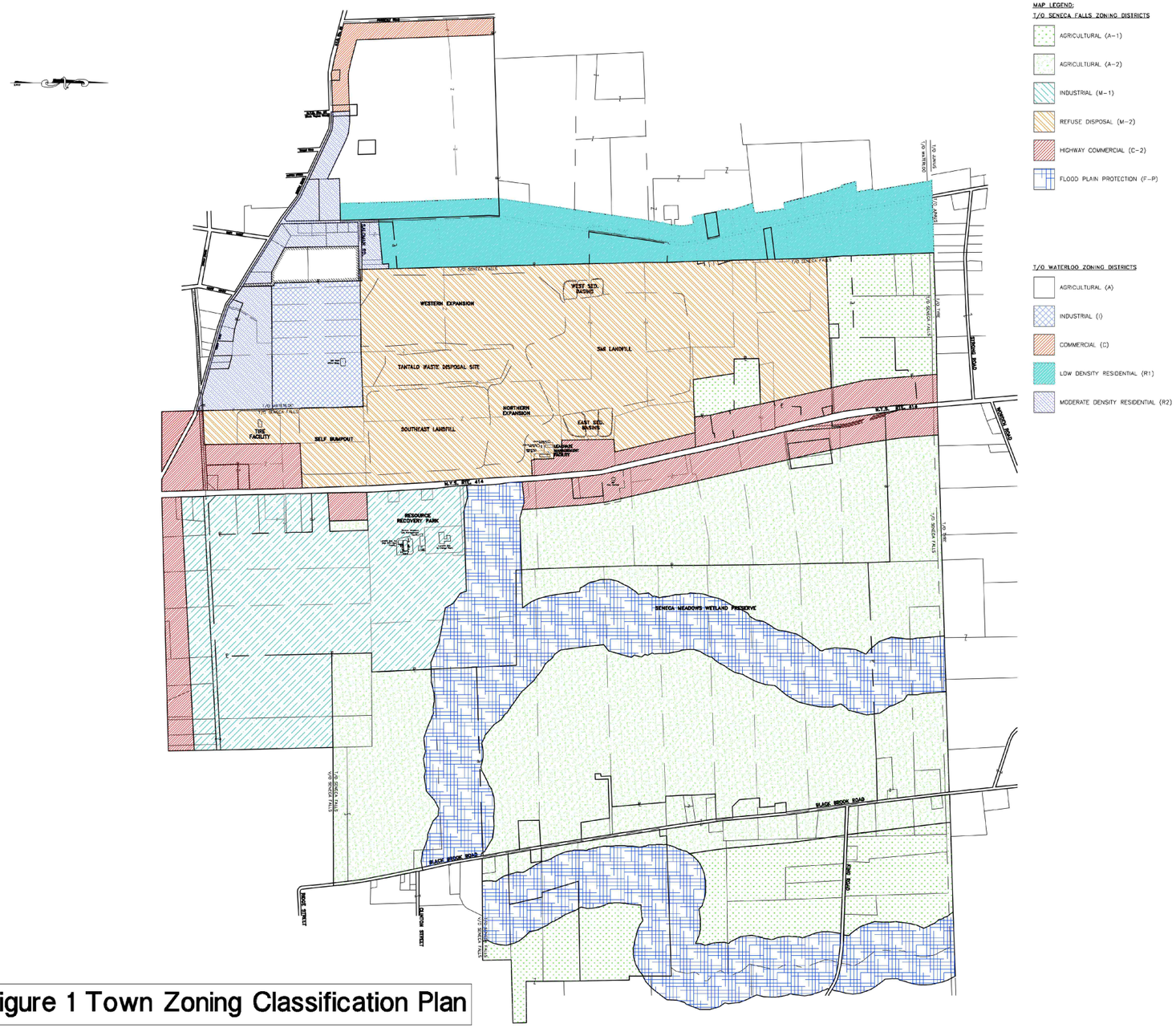


Figure 1 Town Zoning Classification Plan

Soil loading at the materials storage area was being performed with a Volvo EC700 excavator onto articulated trucks.

Soil excavation at the Stage 5 construction areas was performed with Kobelco SK485 and Komatsu PC300LC and PC 228USLC excavators for transport in articulated trucks with grading by John Deere 750J and 850J bulldozers. Soil drilling was performed with a Comacchio CH-650 excavator- based vertical drilling rig and a smaller track-mounted vertical drilling rig.

Soil loading at the WEX plateau was being performed with a Kobelco SK485 excavator and articulated trucks.

An enclosed odor neutralizing system at the southwest corner of the WEX berm was in rotating operation during the sound surveys. One or two truck-mounted HAWC 300-80D dust suppression and odor neutralizing systems were in rotating operation at the western edge of Stage 6.

A portable gas flare system was in use at the base of the WEX berm on the east side, which included a National Turbine NT88304 blower.

Road and site watering was performed with a Caterpillar 613C water truck and a Volvo articulated water truck. Street cleaning of the Salcman Road entrance and the shoulders of Route 414 was being performed with a Tymco Model 600 street sweeper.

Swale maintenance along the bus garage road was performed with a Volvo EC700 excavator. Excavation and laying of a collection pipe on the western downslope of the WEX berm was performed with a Volvo EC140DL excavator.

Leachate lines on the east outer berm of the SELF were being cleaned with a Vactor 2100 Plus vacuum truck and a Volvo articulated truck with KP Klein K-500 tanker.

Tire stockpiles at the tire recycling facility on Salcman Road were being sorted and processed using one or two Caterpillar excavators with claw hooks.

At survey Location 1 on the eastern boundary, the noise levels were generated by traffic on Route 414, and by accelerating and decelerating vehicles in the vicinity of the landfill and industrial facility driveway intersections. Waste placement operations and waste hauler truck traffic at the Stage 6 area, and construction operations at Stage 5, were not perceptible due to the intervening distance and shielding of the SELF berm. Soil placement operations on the top of NEX and WEX berms were not perceptible at Location 1 due to berm screening.

At survey Location 2 on the eastern boundary, the noise levels were primarily due to traffic on Route 414. Waste placement activities, waste hauler truck traffic, and construction were not perceptible at the measurement location due to berm shielding. Soil placement operations on the top of NEX and WEX berms were not perceptible at Location 2 due to berm screening. Leachate trucks that occasionally entered the adjacent leachate facility driveway were partly perceptible and may have produced brief peaks in the measured noise levels similar to traffic passes.

The SEI Gas-to-Energy plant and High-BTU facility were perceptible in the daytime at Location 1 and Location 2 between passes of traffic on Route 414. The sources of sound consist of enclosed engine-generators and outdoor flare stacks. In daytime hours after the peak afternoon traffic period and in nighttime hours, the plants were audible when background noise levels were lower from reduced traffic volume on Route 414. The plant sounds may have partly contributed to the nighttime background noise levels at each location.

At survey Locations 3 and 4 on the eastern boundary, the noise levels were primarily produced by traffic on Route 414 along with contributions of environmental sources in daytime hours. The environmental sources were more influential in evening and nighttime periods. Waste placement operations and construction activities were not perceptible at Locations 3 or 4.

At survey Location 5 on the western boundary, the measured background levels were largely due to environmental sounds that included birds, insects, wind, and amphibians, along with traffic on Burgess Road and ambient noise from Route 414, and occasional activities of neighbors. Sounds of landfill vehicles were occasionally faintly perceptible at Location 5 including backup alarms, but did not significantly contribute to the measured ambient noise levels.

At survey Location 6 on the western boundary, the measured background levels were largely due to environmental sounds that included birds, insects, and wind, along with traffic on Burgess Road. Sounds of landfill waste placement operations at Stage 6 and construction at Stage 5 were faintly perceptible. Periods of construction involving trenching with an excavator and placement of collection pipe on the western access road were recorded in the daytime in the latter part of the week. Farm hay cutting operations were observed on Friday of the survey week.

At survey Location 7 on the west boundary of the facility near the Salcman and Burgess Road intersection, the received sources of sound included waste hauler traffic on Salcman Road, soil excavation and transport activities at the Salcman Road materials storage area, and environmental sounds. The latter consisted of traffic on North and Burgess Roads, birds, insects, and amphibians. Not perceptible were waste placement operations at Stage 6, construction activities at Stage 5, or soil operations at the NEX and WEX berms. Mining operations were not active at the Meadow View Mine during the survey period.

At survey Locations 8 on the southern boundary of the facility, sounds of waste hauler traffic on Salcman Road were perceptible. The dominant source of noise was highway traffic on North Road. Environmental sources were partial contributors. Waste placement activities at Stage 6, construction at Stage 6, operations of the tire facility, and site maintenance activities were not distinguishable.

At Location 9 on the southern boundary, sources of sound included soil loading and transport operations in the materials storage area, environmental sources, and traffic on North Road, with occasional traffic on the bus garage driveway. Waste placement activities at Stage 6, construction at Stage 5, and maintenance activities were not distinguishable.

At survey Location 10 on the western boundary, measured sounds included waste placement operations at Stage 6, construction activities at Stage 5, and operations of the dust and odor suppression systems. Sounds of soil placement at NEX and soil excavation at WEX were not distinguishable due to distance. Environmental sounds were not significant in the daytime period and did not contribute to the to the measurements. The environmental sources are attributed to the nighttime measurements. No farming activities were observed in the adjoining agricultural field during the survey period.

The noise requirements of the Part 360 waste management regulations have been interpreted in NYSDEC rulings to apply to landfill operations and to not include construction activities. This was concluded in an interim decision from the Deputy Commissioner of NYSDEC issued in October 1995 in the matter of the Saratoga County Landfill. The noise levels monitored during the survey period at certain boundary locations may have included the contributions of noise from certain construction operations including liner material placement and other activities. However, it is not possible to separate the contributions of construction operations from waste placement operations in the measurements. Therefore, certain measurements are considered to be conservative including sound level averages obtained at Location 10 due to construction operations at Stages 5 and 6.

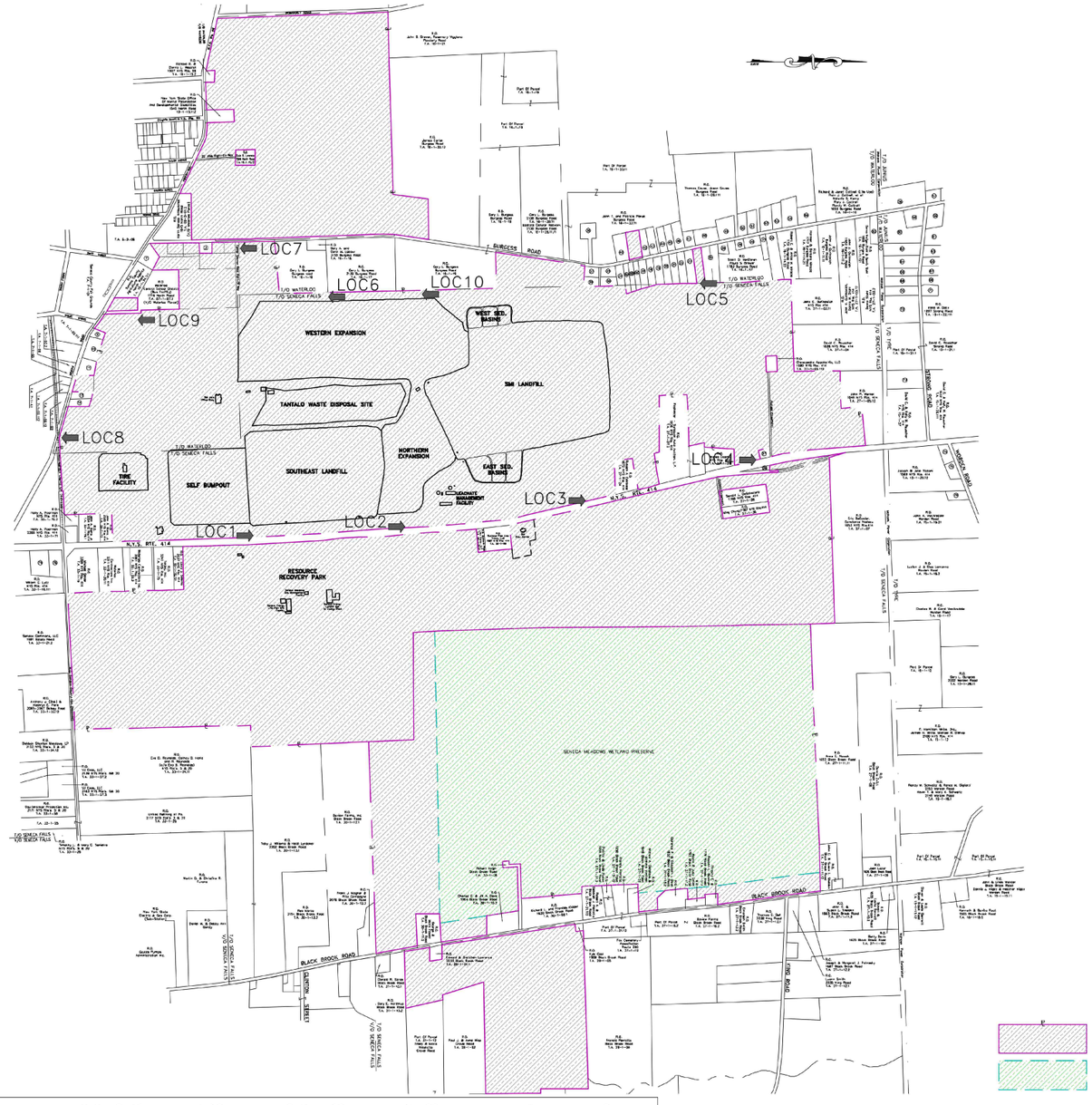


Figure 2 Property Holdings Plan with Sound Survey Locations

The surveys were scheduled to characterize the typical peak seasonal period of landfill waste acceptance and placement operations, site maintenance activities, and construction operations. The weekday daily volume of waste materials received from onsite and offsite sources and fill materials received from offsite sources was relatively uniform from Monday through Friday with minimum receipts on Monday and peak receipts on Tuesday. Normal operating hours for the facility are from 6:00 a.m. to 4:00 p.m. on weekdays and from 6:00 a.m. to 11:30 a.m. on Saturday. The total daily quantities of internal and external loads are summarized below, which are identified from SMI Hourly Tonnage Reports. The total volumes of receipts were typically highest on each day in the hours from 5:00 a.m. to 8:00 a.m. and from 12:00 p.m. to 3:00 p.m.

	Daily Total Internal and External	
	Tonnage	Loads
Monday July 29	11,355	763
Tuesday July 30	14,167	899
Wednesday July 31	12,572	842
Thursday August 1	12,026	802
Friday August 2	12,224	830
Saturday August 3	6,227	416

During the surveys the weather was typically clear or partly cloudy, with low to moderate wind speeds of 12 mph or below. There were slight increases from 4:00 p.m. to 6:00 p.m. on two days. There were two short rain storms on Tuesday July 30, with wind peaks up to 17 mph at midday and up to 19 mph from 2:00 p.m. to 6:00 p.m. coinciding with the rain events. The rain events caused three of the hourly averages to exceed the standard daytime sound level limit. The exceptions are clearly identified on the logging records and are excluded from the compliance conclusions.

There were no observed community events or activities at the county fairgrounds during the survey period that would have affected local traffic or generated environmental noise.

The following figures describe the observed activities during the period of the facility sound surveys, including waste placement operations at the active Stage 6 landfill area with compactors and bulldozers, trailer tippers, commercial tractor trailers, and soil trucks. The figures also describe maintenance operations, including soil loading and placement, watering, sweeping, leachate system cleaning, and odor and dust neutralizing. The figures further describe observed construction activities including excavation and transport of soils, grading, and drilling at Stage 5, and leachate system installation, which contributed to the operational noise levels.

Stage 6 Landfill, viewed from west

Stage 6 Landfill, viewed from south

Fill and soil placement was occurring on top of the NEX landfill on the right side of the photo, adjacent to the SMI landfill, left.

NEX soil unloading and placement, viewed from west

Soil was being loaded onto trucks from the top of the WEX Stage 3-4 berm using excavators for transport to other areas.

Soil loading on top of WEX Stage 3-4

Sorting operations were being performed at the tire recycling facility with a claw excavator, as shown below. The operations did not produce significant noise.

Tire sorting

A road sweeper was in use to maintain Salcman Road and the public highway along the eastern boundary of the facility.

Road maintenance

One or two odor and dust neutralizing systems were in operation on the western edge of Stage 6.

Odor and dust neutralizing systems

Two water trucks were in use on Salcman Road, on the landfill access roads, on the active sell area, and on the sites of soil extraction and placement. The trucks refilled from the retention ponds located south of Salcman Road and west of the original SMI landfill.

Water truck

Drain swale maintenance work was being performed on the bus garage road south of Salcman Road.

Swale Maintenance

Maintenance of the leachate collection was being performed on the eastern side of the SELF berm. The system was not audible at the eastern property line.

Leachate collection system maintenance

Fixed odor neutralizing sprayer systems were in rotating use around the landfill at various locations. A pump system is installed in a building enclosure located at the southwest corner of the WEX landfill area, as shown below.

Odor neutralizing system in noise enclosure

Soil loading was occurring at the materials storage area south of Salcman Road with excavators, loaders, and articulated trucks for transport to other areas.

Loading of soil at Salcman Road materials storage area

A flare stack and blower was in use at the base of the east side of the WEX berm. The trailer system is a facility in development that was not in use during the sound surveys.

Flare system

A portable concrete batch plant and construction equipment was located on the western side of Stage 5. The concrete plant was not in operation during the sound surveys.

Construction equipment at Stage 5

Various construction equipment was in use in at Stage 5, including a number of excavators, which parked at the western edge of Stage 6.

Construction activities and excavation equipment at Stages 5 and 6

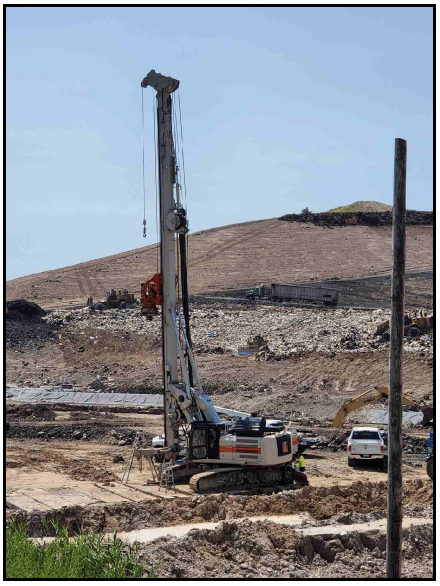
Soil was being excavated at the Stage 5 area during surveys for transport to other areas and for daily cover on Stage 6.

Soil excavation and construction at Stage 5

Leachate collection piping was being installed on the western downslope and across the western access of the Stage 3-4 berm opposite survey Location 6, which was observed in the logging records.

Leachate collection system construction on western slope of WEX berm

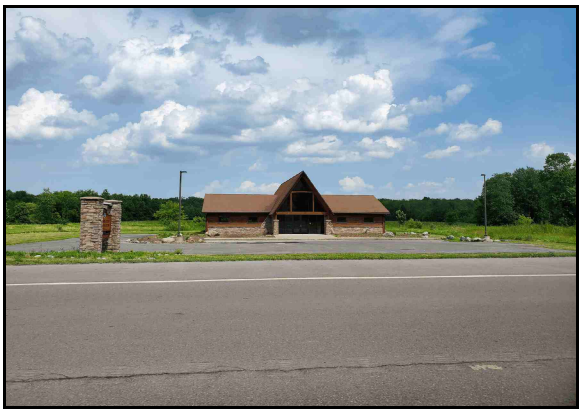
Soil drilling was in progress with two vertical drilling rigs on the eastern area of Stage 5.



Construction at Stage 5

The Seneca Energy, Inc. landfill gas-to-energy plant in the Renewable Resource Park is shown below, with the High BTU plant on the right. The facility includes gas turbine generators in the enclosed buildings and flare stacks between the buildings, at the center of the photograph. The facility noise is perceptible at Locations 1 and 2 on the eastern boundary of the landfill facility.

The Mobil gas pipeline facility on Route 414 adjoins the SMI landfill. The facility is not a prominent source of noise. The SMI Education Facility was not in use during surveys and did not generate traffic.



The Sherman Compressor Facility of Chesapeake Appalachia LLC is located north of the SMI landfill adjacent to an agricultural parcel at the northeast boundary of the landfill facility, and is audible at Survey Location 4.

The annual sound survey for the year 2019 determined that the sound levels measured at the boundaries of the landfill facility landfill were largely influenced by environmental sources including highway traffic. The sounds of waste placement operations, site maintenance activities, and site traffic were at times perceptible at the sound survey locations, but were not dominant contributors to the measured hourly-average sound levels. The prominent sources of background noise consisted of traffic on Route 414 highway, North Road, and Burgess Road, and environmental sources that included birds, insects, and wind across vegetation. The environmental background sources were more prominent than traffic along the wooded boundaries and agricultural parcels. Additional contributory sources of background noise along the southern boundaries included sounds of periodic train passes and whistles at the grade crossing of the Finger Lakes Railroad with North Road.

The noise levels measured at survey Locations 1 to 4 were dominated by sounds of traffic on Route 414. The traffic sound levels were highest in the peak daytime traffic hours from 6:00 a.m. to 6:00 p.m. At Locations 1 and 2 the daytime noise levels were specifically dominated by sounds of accelerating and decelerating traffic in the vicinity of the survey locations. At Locations 3 and 4 the daytime noise levels were dominated by sounds of free flowing traffic on Route 414. At Locations 1, 2, and 3 the measured daytime hourly-average noise levels between the hours of 6:00 a.m. and 6:00 p.m. consistently exceeded the 62 dBA daytime sound level limit of the Part 360 limit during landfill operational hours, and the sound levels at Location 4 periodically exceeded the daytime limit. Sounds of landfill operations were typically only faintly perceptible at the locations between traffic passes. Perceptible noise events occurred occasionally at Location 2 when landfill compactors and soil trucks operated close to the edge of the landfill berm, and faint operational and construction sounds were occasionally perceptible at Location 3. Leachate system maintenance operations on the side of the SELF berm were not perceptible in comparison to the background traffic noise levels.

The hourly-average noise levels in nighttime hours at Locations 1 to 4 consistently exceeded the 52 dBA nighttime sound level limit of the Part 360 limit without landfill operations due to traffic, environmental sources, and operations of the adjacent SEI gas-to-energy facility.

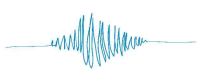
The hourly-average noise levels measured at Locations 5, 6, 7, 8 and 9 were dominated by sounds of traffic and environmental sources. Sounds of landfill operations and equipment were occasionally perceptible but did not significantly contribute to the measured levels. Stage 5 and 6 construction sounds were occasionally faintly perceptible at location 5. Location 6 was largely screened from sounds of waste placement operations at Stage 6. Sounds were perceived of construction activities at the Stage 5 area and movement of construction equipment. Locations 7, 8, and 9 were occasionally exposed to sounds of soil loading operations at the materials storage area. Location 7 in addition was occasionally exposed to sounds of waste placement on the top of the WEX area.

The daytime hourly-average noise levels measured at Location 10 during landfill operational hours were due to the combination of waste placement operations at Stage 6 and maintenance operations of odor and dust neutralizing systems, along with construction at Stage 5 and 6. The contributions of construction noise caused a limited number of minor exceptions to the daytime noise criterion. Because noise of construction activities is not regulated by the Part 360 landfill regulations, the exceptions are not significant.

The daytime hourly-average noise levels measured at Locations 1 and 2 in daytime hours during landfill operations consistently exceeded the Part 360 daytime sound level limit of 62 dBA. The exceptions are attributed to daytime traffic. The daytime hourly-average noise levels measured at Location 10 exceeded the daytime limit in several hours on Tuesday and during a few hours on other survey days. These exceptions are attributed to construction events. A number of daytime hourly-average sound levels measured at Location 8 exceeded the daytime limit, and are attributed to train passes at the adjoining grade crossing. The daytime hourly-average noise levels measured at Location 5 exceeded the daytime limit in two hours on Friday in the afternoon. The exceptions are attributed to residential lawn mowing. The average levels measured at Location 6 exceeded the daytime limit in one hours on Friday in the afternoon. The exception was due to hay cutting operations by tractor in the adjoining agricultural field.

The nighttime hourly-average noise levels measured after the normal hours of landfill operations consistently exceeded the Part 360 nighttime sound level limit of 52 dBA at Locations 1 to 2, and frequently exceeded the nighttime limit at Locations 3 and 4. The exceptions are attributed to nighttime traffic on Route 414 and operations of the SEI gas-to-energy facility. One exception occurred at Location 7 at the start of logging that was an artifact caused by the surveyor. Two exceptions occurred at Location 8 in nighttime hours that are attributed to train passes.

The daytime noise levels measured at each boundary survey location on Tuesday midday and afternoon exceeded the Part 360 daytime sound level limit in three hourly samples as result of brief periods of rain.



1.1 Measured Noise Levels Summary

Sound surveys were performed around the SMI facility in the period from the morning of July 29 to the evening of August 2, 2019 at ten boundary line locations, as identified in Figure 2. The sound levels were continuously monitored in daytime and nighttime hours throughout the survey period with installed noise loggers. The sound levels were recorded in consecutive fifteen-minute time history intervals in several metrics, including the average sound level, $L_{eq\text{-}15min}$. The fifteen-minute averages were logarithmically combined to produce one-hour sound level averages ($L_{eq\text{-}1\ hr}$) for comparison to the hourly-average sound level limits contained in the Part 360 regulations, as means to evaluate the acceptability of landfill sound received at the boundaries.

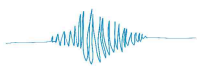
Additional sound level data was obtained with portable sound level analyzers in a number of sampling periods at each survey location. Surveys were performed on Monday on the starting day of continuous monitoring and on Friday on the final day of monitoring. The sampling surveys were obtained during portions of an hour in two daytime periods during landfill operating hours and in one evening period after the normal hours of waste acceptance.

Sound level sampling was performed in measurement periods of ten to twenty minutes using sample averaging times of one second. The sampling measurements identified the noise environment at each location over periods sufficient to represent one-hour average levels in accord with the Part 360 regulations. The sampled sound level data were obtained for comparison to the hourly-average sound levels obtained from the continuous monitoring in corresponding time periods and for comparison to the Part 360 sound level limits. Prominent sound sources that occurred during the sampling surveys were identified in the sampling records.

The continuous logging surveys and the sampling surveys identified the sound levels produced by normal daily operations of waste acceptance, placement, and cover activities at the active Stage 6 landfill, construction at Stage 5, and maintenance operations throughout the facility. The numbers of operating equipment and the hours in use at each waste placement area were relatively consistent on each day of the survey period, referencing the SMI daily equipment logs.

The volumes of accepted waste were relatively uniform on each survey day based on the landfill daily tonnage and vehicle reports. The total weekday material receipts was 68,572 tons. The weekday average of waste receipts of all classes was 12,470 tons.

The day with the highest volume of waste receipt was Tuesday, which volumes represented 20.6% of the weekday total and were 13.6% higher than the average. Receipts on Monday represented 20% of the weekday total and were 9% below the weekday average. Receipts on Wednesday represented 18% of the



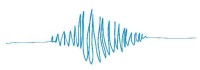
weekday total and were equivalent to the average. Receipts on Thursday represented 17.5% of the weekday total and were 4% below the average. Receipts on Friday represented 18% of the weekday total and were 2% below the average. Waste volumes received on Saturday morning represent just 9% of the total tonnage received in the six-day period from Monday to Saturday.

The landfill total vehicle count on each weekday was relatively uniform. The five-day average total vehicle count was 824. Traffic volume was 7.5% lower than the average on Monday, 9% higher on Tuesday, 2% higher on Wednesday, 3% lower on Thursday, and 1% higher on Friday. The volume of traffic on Saturday was 416, which was 10% of the six-day vehicle count total.

Sound survey Location 1 represents former residential-use properties adjoining the eastern boundary of the landfill on the east side of Route 414 near the former Salcman Road intersection. The properties are contained in the Highway Commercial zoning district in the Town of Seneca Falls. The former residential-use properties are adjacent to the Renewable Resource Park (RRP), which contains the Seneca Energy, Inc. (SEI) Gas-to-Energy plant and Seneca Energy II High-BTU plant. Each of the former residential-use properties are holdings of SMI, of which several are vacant and previously used for agricultural purposes. One of the former properties adjacent opposite Survey Location 1 contains a former residence, which is currently vacant and has previously been used as a construction office, mill shop, and vehicle storage site for projects at the Renewable Resource Park and for reconstruction of the Salcman Road intersection. The building was not in use at the time of the sound surveys.

During the survey period from the morning of Monday July 29 to the evening of Friday August 2, the hourly-hour average sound levels measured at Location 1 with continuous logging ranged from a minimum of 52.9 dBA in the nighttime hours from 10:00 p.m. to 7:00 a.m. to a maximum of 80.4 dBA in the daytime hours from 7:00 a.m. to 10:00 p.m. including rain-generated peaks and 72.8 dBA without the rain peaks. The number of daytime hourly-average samples was 73, of which 49 exceeded the 62 dBA daytime criterion due to traffic, excluding rain events. The numerical average of the daytime hourly-averages over the five-day survey period was 63.4 dBA. The sound levels in the daytime period of landfill operations and peak traffic from 7:00 a.m. to 6:00 p.m. averaged 64.4 dBA. During nighttime hours, 38 hourly-average sound levels were recorded, of which all exceeded the 52 dBA nighttime criterion, which are attributed to traffic and operations of the neighboring SEI plant. The numerical average of the nighttime hourly-averages over the survey period was 57.4 dBA.

Survey Location 2 represents a former residential-use and agricultural-use property on the east side of Route 414 adjoining the east boundary of the NEX landfill berm. The property contains one storage building and is a holding of SMI. The property is in the vicinity of the Seneca Energy, Inc. gas-to-energy plant. The background noise levels at the location are predominantly due to traffic on State Route 414,



including accelerating and decelerating traffic, and operations of the SEI plant that were audible between traffic. Sounds from the active Stage 6 landfill, site construction, and site maintenance operations were not perceptible at Location 2. The hourly-hour average sound levels measured at Location 2 with continuous logging ranged from a minimum of 53.4 dBA in the nighttime hours from 10:00 p.m. to 7:00 a.m. to a maximum of 78.8 dBA in the daytime hours from 7:00 a.m. to 10:00 p.m. including rain-generated peaks and 68.7 dBA without rain peaks. During daytime hours, 55 hourly-average samples were recorded, of which 39 exceeded the 62 dBA daytime criterion due to traffic, excluding rain events. The numerical average of the daytime hourly-averages over the five-day survey period was 64.0 dBA. The sound levels in the daytime period of landfill operations and peak traffic from 7:00 a.m. to 6:00 p.m. averaged 65.0 dBA. During nighttime hours, 29 hourly-average sound levels were recorded, of which all exceeded the 52 dBA nighttime criterion, which are attributed to traffic and operations of the neighboring SEI plant. The numerical average of the nighttime hourly-averages over the survey period was 58.3 dBA. The instrument experienced a premature turn off on Thursday, which may have been temperature related.

Survey Location 3 was located on the east boundary of the landfill along Route 414 opposite the original SMI landfill. The location represents a current residential-use property on the east side of the highway adjacent to survey location and a former residential-use property on the west side of the highway just north of the location. Surrounding properties are wooded and undeveloped and are holdings of SMI. Other nearby properties on both sides of the highway contain commercial operations including an automobile auction site north of the survey location and a gas transmission facility south of the location. Sounds of landfill operations and construction activities were imperceptible due to the screening of the adjoining woods and the attenuation due to distance. The background noise levels at the location are dominated by free-flowing traffic on Route 414. The commercial automobile operations to the north and industrial gas line facility operations to the south did not generate perceptible noise. The hourly-hour average sound levels measured at Location 3 with continuous logging ranged from a minimum of 54.4 dBA in the nighttime hours from 10:00 p.m. to 7:00 a.m. to a maximum of 83.4 dBA in the daytime hours from 7:00 a.m. to 10:00 p.m. including rain-generated peaks and 73.9 dBA excluding rain peaks. During daytime hours, 72 hourly-average sound levels were recorded, of which none exceeded the 62 dBA daytime criterion, excluding rain events. The numerical average of the daytime hourly-averages over the five-day survey period was 59.8 dBA. The sound levels in the daytime period of landfill operations and peak traffic from 7:00 a.m. to 6:00 p.m. averaged 60.5 dBA. During nighttime hours, 37 hourly-average sound levels were recorded, of which 25 samples exceeded the 52 dBA nighttime criterion, which are attributed to traffic. The numerical average of the nighttime hourly-averages over the survey period was 54.4 dBA.

Survey Location 4 was located on the east boundary of the landfill along Route 414, approximately 2000 feet north of the SMI landfill. The location represents current residential-use properties on the east and west sides of the highway adjacent to the survey location. The survey location adjoins a leased parcel on

the SMI property that is used agriculturally. The background noise levels at the location were largely due to free-flowing traffic on Route 414, and in part to environmental sounds and sounds of a gas transmission facility located west of the location. Sounds of landfill operations and construction activities were imperceptible as result of the screening of the adjoining woods and the attenuation due to distance. The hourly-hour average sound levels measured at Location 4 with continuous logging ranged from a minimum of 51.0 dBA in the nighttime hours from 10:00 p.m. to 7:00 a.m. to a maximum of 77.9 dBA in the daytime hours from 7:00 a.m. to 10:00 p.m. including rain-generated peaks and 67.8 without rain peaks. During daytime hours, 72 hourly-average sound levels were recorded, of which none exceeded the 62 dBA daytime criterion, excluding rain events. The numerical average of the daytime hourly-averages over the five-day survey period was 59.5 dBA. The sound levels in the daytime period of landfill operations and peak traffic from 7:00 a.m. to 6:00 p.m. averaged 60.4 dBA. During nighttime hours, 37 hourly-average sound levels were recorded, of which 31 samples exceeded the 52 dBA nighttime criterion, which are attributed to traffic, the compressor sounds, and environmental sources. The numerical average of the nighttime hourly-averages over the survey period was 55.0 dBA.

Survey Location 5 represents a suburban grouping of residences on Burgess Road along the western boundary of the landfill facility opposite the northwest corner of the landfill property. The residences on each side of Burgess Road are located in a district zoned Low-Density Residential in the Town of Waterloo. The measured noise levels were predominantly the result of environmental sounds of insects, birds, and amphibians, local traffic on Burgess Road, and distant traffic on Route 414. The hourly-hour average sound levels measured at Location 5 with continuous logging ranged from a minimum of 39.8 dBA in the nighttime hours from 10:00 p.m. to 7:00 a.m. to a maximum of 73.4 dBA in the daytime hours from 7:00 a.m. to 10:00 p.m. including rain-generated peaks and 73.4 dBA excluding rain peaks. During daytime hours, 67 hourly-average sound levels were recorded, of which two exceeded the 62 dBA daytime criterion that are attributed to activities of neighbors, excluding rain events. The numerical average of the daytime hourly-averages over the five-day survey period was 47.1 dBA. The sound levels in the daytime peak traffic period from 7:00 a.m. to 6:00 p.m. averaged 43.3 dBA. During nighttime hours, 36 hourly-average sound levels were recorded, of which none exceeded the 52 dBA nighttime criterion. The numerical average of the nighttime hourly-averages over the survey period was 43.3 dBA.

Survey Location 6 represents the western property line of the landfill facility opposite the WEX landfill area. The adjoining properties are zoned Low-Density Residential and are currently used for agricultural purposes. The location represents two residences located on the east side of Burgess Road approximately

700 feet to the west. One of the residences is located on the adjoining property parcel, whereas the other is located on a subdivision of the adjoining property. The location is characterized by environmental and traffic noise, and partly by sounds of landfill operations at Stage 6 and construction activities at Stage 5.

The hourly-hour average sound levels measured at Location 6 with continuous logging ranged from a minimum of 40.7 dBA in the nighttime hours from 10:00 p.m. to 7:00 a.m. to a maximum of 64.5 dBA in the daytime hours from 7:00 a.m. to 10:00 p.m. including rain-generated peaks and 64.5 dBA excluding rain peaks. During daytime hours, 68 hourly-average sound levels were recorded, of which one exceeded the 62 dBA daytime criterion due nearby hay cutting by a tractors, excluding rain events. The numerical average of the daytime hourly-averages over the five-day survey period was 48.0 dBA. The sound levels in the daytime peak traffic period from 7:00 a.m. to 6:00 p.m. averaged 49.3 dBA. During nighttime hours, 36 hourly-average sound levels were recorded, of which none exceeded the 52 dBA nighttime criterion. The numerical average of the nighttime hourly-averages over the survey period was 43.6 dBA.

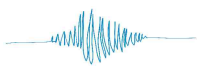
Location 7 represents the western boundary of the landfill near a group of residential properties at the intersection of Salcman Road and Burgess Road. The properties are contained in a Moderate-Density Residential district. Five residential properties containing residences are located south of the intersection on the east side of Burgess Road, of which four are current property holdings of SMI. Former residential properties located north of the intersection on the east side of Burgess are property holdings of SMI. The survey location is characterized by sounds of traffic on Burgess Road and North Road, environmental sources, waste hauler traffic on Salcman Road, and operations in the materials storage area south of Salcman Road. The hourly-hour average sound levels measured at Location 7 with continuous logging ranged from a minimum of 41.6 dBA in the nighttime hours from 10:00 p.m. to 7:00 a.m. to a maximum of 72.1 dBA in the daytime hours from 7:00 a.m. to 10:00 p.m. including rain-generated peaks and 57.7 dBA excluding rain peaks. During daytime hours, 73 hourly-average sound levels were recorded, of which none exceeded the 62 dBA daytime criterion, excluding rain events. The numerical average of the daytime hourly-averages over the five-day survey period was 48.1 dBA. The sound levels in the daytime peak traffic period from 7:00 a.m. to 6:00 p.m. averaged 48.6 dBA. During nighttime hours, 37 hourly-average sound levels were recorded, of which one exceeded the 52 dBA nighttime criterion, which is attributed to survey artifacts at the start of logging. The numerical average of the nighttime hourly-averages over the survey period was 44.3 dBA.

Location 8 represents the south boundary of the landfill adjoining residential properties on the north side of North Road in the Town of Waterloo, and properties on the south side of North Road in the Village of Waterloo, which are located west of the Finger Lakes Railroad grade crossing with North Road. The noise at the survey location is largely due to traffic on North Road, environmental sources, rail traffic with horns at the grade crossing, and traffic on Salcman Road. The hourly-hour average sound levels measured at Location 8 with continuous logging ranged from a minimum of 42.0 dBA in the nighttime hours from 10:00 p.m. to 7:00 a.m. to a maximum of 74.5 dBA in the daytime hours from 7:00 a.m. to 10:00 p.m. including rain-generated peaks and 64.8 dBA without rain peaks. During daytime hours, 72 hourly-average sound levels were recorded, of which 5 samples exceeded the 62 dBA daytime criterion,

which are attributed to the passbys of trains at the nearby grade crossing, excluding rain events. The numerical average of the daytime hourly-averages over the five-day survey period was 50.3 dBA. The sound levels in the daytime peak traffic period from 7:00 a.m. to 6:00 p.m. averaged 49.6 dBA. During nighttime hours, 36 hourly-average sound levels were recorded, of which 2 samples exceeded the 52 dBA nighttime criterion, which are attributed to train passes. The numerical average of the nighttime hourly-averages over the survey period was 44.6 dBA.

Location 9 represents the south boundary of the landfill adjoining residential properties on the north and south sides of North Road located east and west of Inslee Street. The noise levels were the combination of sounds of environmental sources, traffic on North Road, traffic on Salcman Road, soil loading activities at the materials storage area, and occasional traffic on the road to the bus garage and activities in the bus garage. The hourly-hour average sound levels measured at Location 9 with continuous logging ranged from a minimum of 42.6 dBA in the nighttime hours from 10:00 p.m. to 7:00 a.m. to a maximum of 77.2 dBA in the daytime hours from 7:00 a.m. to 10:00 p.m. including rain-generated peaks and 52.6 dBA excluding rain events. During daytime hours, 72 hourly-average sound levels were recorded, of which none exceeded the 62 dBA daytime criterion, excluding rain events. The numerical average of the daytime hourly-averages over the five-day survey period was 46.7 dBA. The sound levels in the daytime peak traffic period from 7:00 a.m. to 6:00 p.m. averaged 46.7 dBA. During nighttime hours, 36 hourly-average sound levels were recorded, of which none exceeded the 52 dBA nighttime criterion. The numerical average of the nighttime hourly-averages over the survey period was 44.1 dBA.

Location 10 represents the facility boundary west of the active Stage landfill area and Stage 5 construction area. The location is opposite adjoining agricultural-use properties on the east side of Burgess Road and a former residential-use property on the west side of Burgess Road. The residential property is a current holding of SMI. The properties adjoining the boundary location are zoned Low-Density Residential. The noise received at the survey location in daytime hours was the combination of sounds of landfill waste placement operations, site construction, site maintenance with odor and dust neutralizer systems, and environmental sources. In nighttime hours the noise was generated by environmental sounds and local traffic. The hourly-hour average sound levels measured at Location 10 with logging ranged from a minimum of 44.1 dBA in the nighttime hours from 10:00 p.m. to 7:00 a.m. to a maximum of 76.0 dBA in the daytime hours from 7:00 a.m. to 10:00 p.m. including rain-generated peaks and 69.8 dBA excluding rain events. During daytime hours, 68 hourly-average sound levels were recorded, of which 8 exceeded the 62 dBA daytime criterion, which are attributed to construction and maintenance activities adjacent to the survey location. The numerical average of the daytime hourly-averages over the five-day survey period was 58.0 dBA. The sound levels in the daytime peak traffic period from 7:00 a.m. to 6:00 p.m. averaged 60.7 dBA. During nighttime hours, 36 hourly-average sound levels were recorded, of which none exceeded the 52 dBA nighttime criterion. The numerical average of the nighttime hourly-averages over the survey period was 44.1 dBA.



1.2 Summary Conclusions

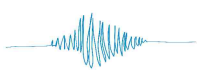
Noise levels were surveyed on the boundaries of the Seneca Meadows, Inc. landfill adjoining properties authorized for residential use to assess the acceptability of facility noise emissions for the year 2019 in accordance with requirements of New York State Department of Environmental Conservation 6 NYCRR Part 360 Regulations for Solid Waste Management Facilities and Department rulings.

The sound surveys characterized the noise levels generated during the annual peak period of facility operations from daily waste acceptance and placement operations, daily cover operations, site maintenance activities, and landfill construction activities. The surveys accordingly represent the highest hourly-average sound levels produced by operations.

Noise levels were continuously monitored at each survey location with installed noise loggers during the period from the morning of Monday, July 29 to the evening of Friday, August 2, 2019. The logged sound levels at each survey location included the L_{eq} sound level averaged for each fifteen-minute period. The fifteen-minute average data were processed into hourly-average noise levels ($L_{eq\text{-}1\ hr}$) for direct comparison to the Part 360 sound level criteria.

Noise levels were additionally sampled at each location using a portable sound level analyzer. The sampling surveys were obtained at each location over a portion of an hour each using one-second averaging periods. The sampled sound level data were determined to be appropriate representations of one-hour average sound levels. The sampling surveys were performed on Monday and Friday of the survey period in two daytime periods during normal operations of the landfill and in one daytime afternoon-evening period after the hours of normal landfill operations to evaluate daytime background sound levels. Prominent sources of sound received at the measurement locations were identified during the sampling surveys. The sampled sound level data were compared to the hourly-average sound level data obtained from the continuous logging to verify the logged data. The sampled data were further compared to the Part 360 sound level limits as additional means to assess the acceptability of the received noise levels.

The sound level data logged and sampled at the boundary locations adjoining residential-use properties were compared to the noise level criteria contained in 6 NYCRR Part 360 to assess the acceptability of the received noise levels and identify needs to mitigate prominent sound sources. The acceptability of the measured sound levels was assessed in comparison to the hourly-average sound level criteria that are associated with a suburban style community, which are 62 dBA for daytime periods (7:00 a.m. to 10:00 p.m.) and 52 dBA for nighttime periods (10:00 p.m. to 7:00 a.m.).



The noise criteria listed in subparagraph 360-1.19(j) of the Part 360 landfill regulations pertain to noise levels resulting from equipment or operations at a landfill facility which are received beyond the property line owned or controlled by the owner or operator of the facility at locations authorized for residential purposes. The acceptability of the sound levels at locations adjoining the landfill in the Town of Waterloo and in the Town of Seneca Falls was evaluated using the sound level limits associated with the suburban designation. The suburban designation has been used in past annual sound surveys and was chosen based on the character and density of the residential properties and residences, the type and extent of surrounding commercial and industrial development, and the volume and character of the surrounding highway and railroad transportation facilities.

The hourly-average daytime and nighttime sound levels measured at survey Locations 5, 6, 7, 8, 9 and 10 on the western and southern boundaries were determined to be acceptable in accord with the Part 360 sound level limits of 62 dBA L_{eq} in the daytime and 52 dBA L_{eq} in the nighttime for the suburban community character. Whereas a small number of daytime exceptions occurred at each location on Wednesday evening, these are attributed to brief periods of rain. Several exceptions occurred in the daytime hours at Location 8 that are attributed to train crossings or noisy vehicle events. Whereas the nighttime sound levels on Monday, Tuesday and Wednesday at each location exceeded the 52 dBA nighttime limits, this is attributed to insect activity. In contrast, the sound levels on Thursday night were acceptable in accord with the nighttime limits, which is attributed to reduced insect activity.

The daytime hourly-average noise levels measured at Locations 1 and 2 were found to consistently exceed the Part 360 daytime sound level limit of 62 dBA L_{eq} during the peak traffic period from 7:00 a.m. to 6:00 p.m. due to the dominant effects of daytime background traffic noise on State Route 414, including effects of vehicle acceleration and deceleration in the vicinity of industrial facility driveways with uses of jake brakes. Observations during the sampling surveys determined that the sounds of waste placement activities, site maintenance activities, and site vehicle traffic were imperceptible at the locations due to masking by background noise, and did significantly contribute to the measured sound levels. The sound levels in the remaining daytime period from 6:00 p.m. to 10:00 p.m. consistently complied with the Part 360 standard daytime sound level limit as result of reduced traffic volumes. The SEI gas-to energy plant is a secondary contributing daytime source at Locations 1 and 2.

The nighttime hourly-average sound levels at Locations 1 and 2 continuously exceeded the 52 dBA nighttime limit. The nighttime exceptions are attributed to the effects of traffic and the SEI gas-to-energy plant.

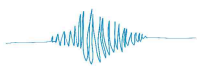
The daytime hourly-average sound levels measured at Locations 3 and 4 were found to consistently comply with the Part 360 sound level limits for the suburban community character for the daytime, excluding exceptions due to rain events. The nighttime hourly-average sound levels at the location in the majority of the nighttime periods exceeded the 52 dBA nighttime limit. The nighttime exceptions are attributed to the effects of traffic on State Route 414 and environmental sources. The ambient sound levels measured at Locations 3 and 4 are considered to be representative of the background noise levels along the highway with free-flowing traffic.

Because effects of traffic noise exceed the standard noise level limits, the acceptability of noise levels measured at Locations 1 to 4 was evaluated in accord with modified criteria specified in Part 360 Subparagraph 360-1.19(j)(1), which applies to receptor locations where the existing background noise levels without contributions of facility equipment and operations exceed the standard permissible sound level limits. The section states the combined sound levels must not exceed the sound levels of the background by more than three decibels. The hourly-average sound levels measured at Locations 1 and were found to be higher than the average levels measured at Locations 3 and 4. The differences are attributed to the added sounds of traffic accelerating and decelerating on the highway, and the effects of jake braking at industrial entrances and the signalized entrance to the landfill. The daytime hourly-average sound levels measured at Location 1 ranged from 1.9 to 9.6 dBA greater than the daytime sound levels measured at Location 4, with an average of 4 dBA. The daytime hourly-average at Location 2 were 3 to 6 dBA greater than the background daytime hourly-averages at Location 4. Whereas the differences are more than 3 dBA in some comparisons, the factors are due to increased traffic noise and not the effects of daytime landfill operations.

The nighttime hourly-average sound levels at Location 1 were 0.5 to 6.6 dBA more than the nighttime hourly-average levels measured at Location 4, with an average of 2.4 dBA. The nighttime hourly-average sound levels at Location 2 were 1.9 to 5 dBA more than the nighttime hourly-average levels measured at Location 4, with an average of 3.3 dBA. Whereas the differences are more than 3 dBA in some comparisons, the factors are due to increased traffic noise and not the effects of landfill operations.

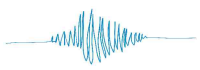
Because the landfill operations are not perceptible, and because the increases above background levels are due to traffic, it is concluded that the daytime and nighttime noise levels measured at Locations 1 to 4 are acceptable referencing the noise criteria of subparagraph 360-1.19(j)(1) of the Part 360 landfill regulations.

The measured sound levels at Locations 3 and 4 may be slightly attenuated in comparison to Locations 1 and 2 due to the presence of trees and tall vegetation along the highway near the measurement locations, which may cause sound absorption and scattering.



Seneca Meadows maintains a Complaint Management Program to address community concerns regarding noise, odor, traffic, litter, and other issues as a requirement of its Host Community Benefit Agreement. The program includes an "800" telephone service that can be used by the community to voice concerns related to the facility's operations. The service is used to alert SMI staff to investigate complaints, resolve issues by appropriately modifying operations, and to prepare responses. There were no complaints received in the year 2019 related to noise.

The NYSDEC 6 NYCRR Part 360 landfill noise regulations that are referenced to determine acceptability of noise of landfill operation are summarized in the following report sections, with discussions regarding the application of the regulations.



2.0 Noise Criteria

Operational requirements for solid waste management facilities in New York State are mandated by the Department of Environmental Conservation Division of Solid Waste 6 NYCRR Part 360 regulations, in Section 360-1.19 effective November 4, 2017. The relevant restrictions on noise are specified in Section 360-1.19 paragraph (j) and its subsections. The requirements are reproduced in the following section.

2.1 6 NYCRR Part 360 Regulations

6 NYCRR Part 360 Section 360-1.19 paragraph (j) states:

(j) The owner or operator of a facility must ensure that noise (other than that occurring during construction of the facility) resulting from equipment or operations at the facility does not exceed the following energy equivalent sound levels beyond the property line owned or controlled by the owner or operator of the facility at locations authorized for residential purposes:

Character of Community	*L_{eq} Energy Equivalent Sound Levels*	
within a one-mile radius of facility	*7:00 a.m.-10:00 p.m.*	*10:00 p.m.-7:00 a.m.*
Rural	*57 dBA*	*47 dBA*
Suburban	*62 dBA*	*52 dBA*
Urban	*67 dBA*	*57 dBA*

The L_{eq} is the equivalent steady-state sound level which contains the same acoustic energy as the time varying sound level during a one-hour period. It is not necessary that the measurements be taken over a full one-hour time interval, but sufficient measurements must be available to allow a valid extrapolation to a one-hour time interval.

(1) If the background sound level exceeds the referenced Leq sound level limit, the Leq sound levels from facility sources and background sources when combined must not exceed the Leq sound level of the background sources alone by more than three decibels (A).

(2) The background sound level, measured as Leq, is the existing ambient sound level during a period of peak acoustical energy measured in the absence of sound produced by equipment or operations at the facility. A background sound level monitoring protocol must be submitted to the department for approval prior to conducting background measurements.

(3) Sound levels must be measured using the slow time constant and A-weighting. During the measurement period, no precipitation must occur and wind speeds must not exceed 12 miles per hour.

(4) Measuring instruments must be type 1 or class 1 precision sound level meters, type 2 or class 2 general purpose sound level meters, or corresponding special sound level meters type S1A or S2A.

(5) Noise assessments must include details of the attenuation factors and calculations utilized. Noise assessment calculations are allowed to utilize average annual conditions when calculating atmospheric attenuation.

(6) Mufflers are required on all internal combustion-powered equipment used at the facility.

2.2 Regulations Discussion

The 6 NYCRR Part 360 landfill regulations in Section 360-1.19(j) define limits to sound levels received beyond the property line owned or controlled by the owner or operator of the landfill facility at locations authorized for residential purposes. The sound surveys identified the levels of sound received at residentially-authorized properties adjoining the Seneca Meadows, Inc. landfill in accord with the regulations.

The properties surrounding the landfill are located in zoning districts in the Town of Waterloo and the Town of Seneca Falls that are zoned or authorized for residential, including Low Density Residential, Agricultural, and Flood Plain Protection in the Town of Seneca Falls, and Medium Density Residential, Highway Commercial, and Industrial in the Town of Waterloo. The surrounding residential-use properties contain existing residences and are the sites of former residences. A number of the properties are currently used for agricultural purposes. Non-residential adjoining properties include wetland preserve areas and commercial and industrial facilities located in commercial and industrial zoning districts. Additional areas around the landfill are property holdings of SMI and provide wide buffers from more distant occupied property.

Sound levels received at residentially-authorized properties bordering the eastern boundary of the landfill extending from the south face of the SELF to the northern boundary of the landfill property were identified by measurements at sound survey Locations 1 through 4. The properties along the eastern boundary include a very small number of current residences. The remaining properties along the eastern boundary are extensively owned by SMI and are forested and undeveloped or used agriculturally.

Properties directly east of the SELF berm on the east side of Route 414 include a small number of former residential-use properties, which are contained in an Industrial zone in the Town of Seneca Falls. The adjoining properties are currently used for agricultural purposes and were fallow during the current sound survey period. One property at 2215 Route 414, which is owned by SMI, includes a former house that was previously used as a construction office and mill shop. The site was not in active use during the annual sound survey. Survey Location 1 represents the former residence and other former residential-use properties along the east side of Route 414.

Properties directly east of the NEX landfill on the east side of Route 414 include a small number of former residential-use and agricultural-use properties and undeveloped wooded properties in the Highway Commercial and Flood Plain Protection zoning districts in the Town of Seneca Falls. To the east of the corridor are located retention ponds for the landfill. Survey Location 2 represents a former residential-use and agricultural-use property on the east side of the highway, adjacent to undeveloped properties. The location is vacant with the exception of a storage building.

Properties to the south of Location 1, which extend from Salcman Road to the intersection of North Road and Balsey Road, are zoned Highway Commercial and Industrial in the Town of Seneca Falls and contain

a number of commercial and industrial facilities. Industrial properties on both sides of Route 414 at the Salcman Road landfill entrance are holdings of SMI.

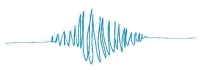
Properties between Location 2 and Location 3 directly east of the original SMI landfill include a small number of former residential-use properties and undeveloped wooded properties on both sides of Route 414, and commercial properties on the east side of the highway, which are contained in the Highway Commercial zoning district in the Town of Seneca Falls. The commercial properties include the Exxon Mobil Oil Pipeline facility and the Seneca Meadows Environmental Education Center.

Survey Location 3 represents residential-use properties adjoining the northeast corner of the SMI landfill, including a current residential property on the east side of Route 414, former residential-use properties without residences on both sides of the highway, and undeveloped wooded properties on both sides of the highway. The properties are contained in the Highway Commercial zone in the Town of Seneca Falls. Adjoining commercial property includes an automobile repair facility located north of Location 3.

Residentially-authorized properties adjoining the landfill between survey Location 3 and Location 4 along Route 414 include former residential-use properties on the west side of the highway, an agricultural field on the east side of the highway, and undeveloped wooded properties on both sides of the highway. The properties on both sides of the highway are contained in Highway Commercial zoning districts. Commercial operations in the vicinity of the survey locations include the Rochester-Syracuse Auto Auction barn, a commercial vehicle repair facility, and a graphics production office building.

Survey Location 4 represents residentially-authorized properties to the north of the landfill, including a current residential-use property on the west side of the highway, two residential-use properties on the east side of the highway, and undeveloped properties on both sides of the highway. The properties are contained in the Highway Commercial zoning district in the Town of Seneca Falls. Adjoining property includes undeveloped areas and an agricultural-use parcel contained in an Agricultural zoning district on the west side of the highway, which are SMI property holdings.

Properties east of the Route 414 Highway Corridor zoning district, which extend to Black Brook Road, include industrial properties, flood plain zones, agricultural properties, ponds, and wooded undeveloped properties. The properties include the Renewable Resource Park and the Seneca Meadows Wetlands Preserve, which are holdings of Seneca Meadows. The RRP is the site of the Seneca Energy, Inc. Gas-to-Energy facility and High BTU facility. The industrial properties and other properties provide a noise buffer between the landfill and the residential properties located along Black Brook Road approximately 6000 feet east of the landfill boundary. The depth of woods ranges from approximately 500 feet to 1000 feet. The sound attenuation due to distance from the active Stage 6 landfill area is estimated at 30 dBA or more. The additional sound attenuation from the vegetative screening is estimated at 10 dBA. Noise screening by the NEX berm is estimated at 10-20 dBA. The sound levels received along Black Brook



Road from the Stage 6 activities with the combined attenuation factors are projected to be below the local ambient levels.

Location 5 represents residential-use properties along the western boundary of the landfill, which are located on both sides of Burgess Road in a suburban grouping of residences to the northwest of the original SMI landfill. The properties are contained in a Low-Density Residential zoning district in the Town of Waterloo. One property on each side of the road were SMI holdings at the time of the surveys.

Survey Location 6 represents residentially-authorized properties along the western boundary of the landfill along the WEX landfill berm, including two current residential-use properties on the east side of Burgess Road. The properties between the western boundary of the landfill and the residences are extensively used for agricultural purposes. Property on the west side of Burgess Road opposite Location 6 is a holding of SMI and is used agriculturally. Further west of the Location 6 on the west side of Burgess Road is the Meadow View soil mine and various retention ponds, which are property holdings of SMI. The soil mine was not in active operation during the sound survey period. The properties along Burgess Road are contained in a Low-Density Residential zoning district in the Town of Waterloo.

Survey Location 7 represents residentially-authorized properties at the southwest corner of the landfill holdings, including several current and former residential-use properties located on the east side of Burgess Road, and agricultural-use and undeveloped land on the west side of Burgess Road. Several of the residential properties to the south of Salcman Road are holdings of SMI. Several properties to the north of Salcman Road are former residential-use properties without residences that are holdings of SMI. The North Seneca Ambulance company is located on property southwest of the survey location at the intersection of North Road and Burgess Road. Each of these properties are contained in a Moderate-Density Residential zoning in the Town of Waterloo. The nearest residence to the west is located approximately 1200 feet west of Burgess Road, located on Agricultural zoning district in the Town of Waterloo. The sound levels at the residence are estimated to be 10 dBA lower with respect to levels measured at survey Location 7 due to the added distance from the Stage 6 landfill area and the Salcman Road materials storage area.

Survey Locations 8 and 9 represent residential-use properties along the south boundary of the landfill on the north and south sides of North Road. Properties on the north side of North Road are located in the Moderate-Density Residential zoning district of the Town of Waterloo. Several of the properties are holdings of SMI. Properties on the south side of North Road are located in the Village of Waterloo. Other properties along the south boundaries of the landfill property include bus transportation facilities for the Town of Waterloo school district and the Seneca County Fairgrounds.

Survey Location 10 represents residentially-authorized properties along the western boundary of the landfill adjacent to the Stage 6 landfill area and the Stage 5 construction area. Properties on the east side

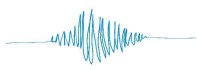
of Burgess Road are contained in Low-Density Residential zoning in the Town of Waterloo. The adjoining properties between the landfill's western boundary and Burgess Road are extensively used for agricultural purposes and do not contain residences. Properties on the west side of Burgess Road are contained in Low-Density Residential zoning in the Town of Waterloo, and include a former residential-use property that is vacant except for a storage building, and buffer properties to the north of the Meadow View Mine, which are current holdings of SMI.

Properties at the southeast corner of the facility in the vicinity of the intersection of North Road and Route 414 include the Seneca County Offices, Wal-Mart Super Center, Advanced Auto, Generations Bank, Hampton Inn, and other commercial operations. The properties are included in a Highway Commercial zoning district in the Town of Seneca Falls and in the Village of Waterloo. The Finger Lakes Railway borders a portion of the landfill's south boundary. The properties are contained in a Highway Commercial zoning district in the Town of Seneca Falls and in the Village of Waterloo. The properties do not contain any residences and were not represented in the property line sound surveys.

The north boundary of the landfill adjoins undeveloped wooded properties that are zoned Agricultural. The Sherman Compressor Facility of Chesapeake Appalachia LLC is located on a private parcel south of the landfill's northern property boundary. The undeveloped agricultural properties do not contain any permanent residences and were not represented in the property line sound surveys. The wooded properties provide a noise buffer between the landfill and the residential properties located along Strong Road approximately 8500 feet north of the active Stage 6 landfill area. The depth of woods is approximately 4800 feet deep. The sound attenuation due to distance from the active Stage 6 landfill area is estimated at over 30 dBA. The additional sound attenuation from the vegetative screening is estimated at 10 dBA. The additional sound attenuation from the SMI berm is estimated at 10-20 dBA. The sound levels received beyond the north boundary from the Stage 6 activities with the combined attenuation factors are projected to be below the local ambient levels.

The sound surveys and assessments for the Seneca Meadows Landfill operations reference the suburban community character to evaluate the acceptability of noise levels received at the boundaries of the landfill adjoining residential-use properties. The noise level limits described in Section 360-1.19(j) of the 6 NYCRR Part 360 regulations for the suburban community are 62 dBA L_{eq} in daytime hours (7:00 a.m. to 10:00 p.m.) and 52 dBA L_{eq} in nighttime hours (10:00 p.m. to 7:00 a.m.). The suburban character has been used in previous annual sound surveys and has determined to be the most appropriate community designation based on the character and density of the residential-use properties, the extent of the adjoining commercial and industrial facilities and their ongoing growth, and the volume and growth of highway and rail traffic on adjoining facilities, within one mile of the landfill.

The suburban designation was used to characterize the residential properties in the Low-Density and Moderate Density Residential zones and Highway Commercial zones and the extensive commercial and



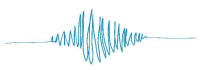
industrial development at the intersection of Route 414, North Road, and Balsey Road. Businesses include the Wal-Mart Super Center, Hampton Inn, Advance Auto Parts, and Generations Bank.

The volumes of traffic on the adjoining highways have experienced growth over the past several years. For State Route 414 opposite the landfill, NYSDOT Traffic Data Reports lists traffic counts (AADT) at 5890 for the most recent year 2017. This compares to AADT traffic counts of 5905 for the year 2016, 5632 for the year 2014, 5783 for the year 2013, 6020 for the year 2012, 5710 for the year 2011, 5690 for the year 2010, 5570 for the year 2009, and 5570 for the year 2008.

For the segment of North Road bordering the south boundary of the landfill from Route 414 to Burgess Road, the latest AADT estimates and counts are 6576 for the year 2016. This compares to 6602 for the year 2015, 6154 for the year 2014, 5929 for the year 2011, and 5347 for the year 2009. For North Road from Burgess Road to Route 96, the AADT estimates are 5511 for the year 2016, 5735 for the year 2015, 5709 for the year 2014, and 5770 for the year 2009.

The standard sound level limits of 6 NYCRR Part 360 Section 360-1.19(j) for the suburban community were referenced to evaluate the acceptability of sound levels at the noise monitoring locations. The surveys determined the daytime 62 dBA L_{eq} criterion was consistently exceeded at Locations 1 and 2, and the nighttime 52 dBA L_{eq} was consistently exceeded at Locations 1 to 4, as the result of elevated background noise. The background noise levels are defined as the ambient noise levels that exclude facility noise contributions, as described in Section 360-1.19(j)(2) of the 6 NYCRR Part 360 regulations. The daytime background noise levels during hours of facility operation and peak traffic period are dominated by traffic sounds. The nighttime background noise levels are dominated by traffic and environmental sounds. Part 360 subparagraph 360-1.19(j)(1) states that sound levels that do not exceed the background noise levels by more than three decibels. The measurements determined that background noise contributions from traffic and the SEI gas-to-energy facility are dominant sources at Locations 1 to 4, and it is not practical to measure facility noise alone. Sound level acceptability at these locations is accordingly additionally evaluated based on the perceptibility of landfill source sounds above the background noise environment.

The 6 NYCRR Part 360 regulations define requirements for sound level instrumentation in Subparagraphs 360-1.19(j)(3) and 360-1.19(j)(4). The sections specify measurements to be made with Type 1 or Class 1 precision sound level meters, Type 2 or Class 2 general purpose sound level meters, or Type S1A or S2A special purpose sound level meters, in terms of L_{eq} with settings of A-weighting and slow time response. All logging measurements during the survey period were obtained with Type 2 sound level meters, and all sampling measurements were obtained with a Type 1 sound level meter, as defined in accordance with ANSI S1.4-1983.



3.0 Noise Measurement Surveys

Sound levels were monitored along the facility boundaries of the Seneca Meadows, Inc. landfill to assess compliance of received facility noise levels during the year 2019 in accord with the landfill's approved Environmental Monitoring Plan. Noise measurements and assessments were performed in accord with the operational requirements section of the 6 NYCRR Part 360 *Regulations for Solid Waste Management Facilities* of November 2017 by the New York State Department of Environmental Conservation. The operational requirements stipulate that noise levels received beyond the landfill property lines at properties used or authorized for residential purposes that are produced by equipment or operations at the landfill not exceed designated sound level limits. The sound level limits are described in terms of the *energy equivalent sound level* referenced to a one-hour averaging period, designated ($L_{eq\text{-}1\ hr}$), and are defined by the character of the community (rural, suburban, and urban), and by the period of the day (daytime, nighttime).

3.1 Noise Assessment Methodology

The measured sound levels of landfill operations received at survey locations adjoining residentially-authorized properties were assessed for acceptability in comparison to the daytime and nighttime sound level limits specified for the suburban community character that are contained in 6 NYCRR Part 360 Section 360.1.19(j). At survey locations where the existing background noise levels were found to exceed the standard sound level limits, assessments of noise acceptability are based on comparisons of the measured sound levels to the background sound levels in accord with Section 360.1.19(j)(1), and relative to the perceived audibility of landfill sound. The community surrounding the landfill has been characterized by the suburban designation based on the character and density of the residential communities, the extent of commercial and industrial development around the site, and the volume and growth of traffic on the adjoining highways and roadways.

Sound level surveys were performed at ten representative locations on the boundaries of the facility adjoining properties zoned or authorized for residential use. The survey locations represent current residential-use properties with residences, former residential-use properties without residences, and properties within residentially-authorized districts that are undeveloped or used for agricultural purposes. The noise environment was characterized at each survey location over a five-day period of weekday operations. The points of compliance are described in Figure 2 as Locations 1 through 10.

Surveys determine the noise environment around the SMI facility is dominated by ambient noise generated by traffic, environmental sources, and industrial sources. The environmental sources consists of insects, birds, and wind, which contributed to the measured noise levels at each survey location and were in particular

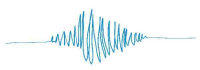
dominant along the western and southern boundaries of the landfill facility. Although a number of agricultural parcels exist along the western and eastern boundaries of the landfill, farming activities were not observed during the sound monitoring period. The Meadow View soil mine to the west of the landfill was not in operation during the survey period. Industrial sources that contributed to the ambient noise environment along the eastern boundary included the Seneca Energy Inc. gas-to-energy facility and a gas compressor station north of the landfill. Tire sorting and processing at the tire processing facility on Salcman Road, and normal landfill maintenance activities including leachate system maintenance on the SELF berm, and watering and sweeping of site roadways, were not audible at the boundary receptors.

Sounds of normal daily landfill operations were not perceptible at the majority of receptors and were only minimally perceptible at Location 10 to the west of operating Stage 6, and only occasionally faintly perceptible at Locations 5 and 6. Based on observations obtained during sampling surveys, the landfill operations were determined did not significantly contribute to the measured sound levels at boundaries with residential-use properties. Sounds of truck-mounted odor neutralizing system pumps located west of Stage 6 during the surveys were perceptible at Location 10, and faintly perceptible at Location 5 and 6.

Landfill site traffic and soil loading operations were minimally perceptible at survey Locations 7, 8, and 9 to the south and west. Sounds of street sweeping along the highway shoulders and on the site entrance were occasionally minimally perceptible at Location 1 and 2 but were not distinguishable at other survey locations.

The eastern boundary of the landfill facility along State Route 414 in the Town of Seneca Falls adjoins a number of business-use properties contained in properties zoned Industrial (I), a small number of former and current residential-use properties contained in properties zoned Highway Commercial (C-2), and undeveloped wooded areas.

Survey Locations 1 and 2 represent former residential-use properties opposite the SELF and NEX (Stages 7-8) landfill berms. The former residential-use properties are current holdings of SMI and do not contain residences. One previous residential-use property includes a former residence that has been used as a construction office, but was inactive during the sound surveys. Traffic on Route 414 is the dominant source of noise along the eastern boundary of the landfill adjacent to the highway. The survey locations are also in the vicinity of the Seneca Energy, Inc. Gas to energy plant and High BTU plant, located on the east side of Route 414 in an industrial park. The gas facilities were in full production during the sound surveys. Sounds of the SEI facilities were perceptible at Locations 1 and 2 in daytime hours between traffic passes, and were increasingly perceptible in the late afternoon period after the normal hours of landfill operation and in evening hours when highway traffic volumes were reduced. Sounds of landfill operations and maintenance activities were not perceptible at Locations 1 and 2 due to the screening of the SELF and NEX berms, and therefore did not contribute to the measured noise levels at Locations 1 and 2.

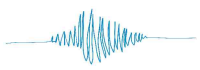


Properties south of survey Location 1 along Route 414 are contained in Highway Commercial and Industrial zoning districts, and include a number of commercial businesses and industrial facilities including bottling and packaging facilities and self-storage facilities, but not residences. Properties opposite the southeast corner of the landfill facility along Route 414 in the vicinity of the intersection of North Road and Balsey Road contain a number of commercial businesses including a welding facility and an automotive parts store, and do not contain residences.

Survey Location 3 represents residentially-authorized properties to the east of the original SMI landfill, including one residence on the east side of Route 414, one former residential-use property on the west side of the highway, and surrounding wooded undeveloped properties that are holdings of SMI. Other properties near Location 3 contain commercial facilities, including a three-bay automobile repair facility, the Seneca Meadows Environmental Education Center, and the Exxon Mobil Oil Pipeline facility. These facilities did not produce significant traffic or perceptible noise at the survey location during the survey period. Traffic on Route 414 is the dominant source of noise at Location 3. Other sources of sound were environmental, including birds, insects, and wind. Sounds of landfill operations and maintenance activities were not perceptible, and therefore did not contribute to the measured noise levels at Location 3.

Survey Location 4 represents residentially-authorized properties to the northeast of the original SMI landfill, including one residential-use property on the west side of Route 414, two residential-use properties on the east side of the highway that contain two residences, and surrounding undeveloped and agricultural-use properties that are property holdings of SMI. Other properties near Location 4 contain commercial facilities, including a commercial graphics facility, an automobile auction facility, and a vehicle repair facility on the west side of Route 414 . These did not produce significant traffic or noise at Location 4. The Sherman Gas Compressor Station is located north of the location, and produced steady noise that was perceptible in the daytime between traffic passes, and in afternoon and evening hours when highway traffic volumes on Route 414 were reduced. Traffic on Route 414 is the dominant source of noise at Location 4. Other sources of sound were environmental, including birds, insects, amphibians, and wind. Sounds of landfill operations and maintenance activities were not perceptible, therefore did not contribute to the measured noise levels at Location 4.

The sound surveys at Locations 1 and 2 determined that highway traffic on Route 414 caused the measured background noise levels to consistently exceed the Part 360 standard 62 dBA L_{eq} daytime criterion during the operational period of the landfill. The sound surveys at Locations 3 and 4 determined the daytime sound levels to conform to daytime limits. The relative exceedances at Locations 1 and 2 are attributed to added traffic noise from acceleration and deceleration events in the vicinity of the industrial driveways along the



highway, including uses of jake brakes, whereas traffic opposite Locations 3 and 4 was up to speed and relatively steady. The surveys at each Location 1 to 4 determined the nighttime background sound levels consistently exceed the standard 52 dBA L_{eq} criterion, in particular in the morning peak traffic period.

Other properties in the vicinity of Locations 1 to 4 located east of Route 414 include undeveloped wooded parcels owned by SMI, including the Seneca Meadows Wetland Preserve, which is contained on property zoned Flood Plain Protection. The properties function as buffer lands to separate the landfill from residential properties further to the east that are located along Black Brook Road approximately 6000 feet east of Route 414. The sounds of the landfill facility are not perceptible along Black Brook Road due to the attenuation of the intervening wooded lands, the large attenuation due to distance, and the dominant masking effects of noise of traffic on State Route 414. The residential property boundaries east of the landfill were therefore not included in sound surveys.

The western boundary of the facility along Burgess Road in the Town of Waterloo adjoins residential-use properties in districts zoned Low Density Residential (R1). Survey Location 5 represents a number of residentially-zoned properties located northwest of the original SMI landfill on both sides of Burgess Road opposite the western boundary of the landfill. The properties contain suburban-style residences and mobile homes. The properties are separated from the landfill by Black Brook and extensive wooded areas.

Properties along Burgess Road south of Location 5 are residentially-zoned and are densely wooded and undeveloped, and include private properties and holdings of SMI. The prominent sources of sound at Location 5 were environmental, including birds, insects, and traffic on Burgess Road and Route 414. Landfill sources operating at Stage 6 were only faintly audible at times.

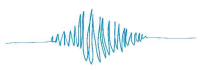
Survey Location 6 represents property on the east side of Burgess Road adjoining the Western Expansion Landfill (WEX), which includes two residences and agricultural-use parcels. The prominent sources of sound at Location 6 were largely environmental. Sounds of landfill operations and construction at Stage 6 and soil loading on top of the WEX Stage 3-4 berm were minimally perceptible due to screening of the WEX berm. Construction of leachate collection pipe system on the western downslope at the western access road caused temporary daytime increases in the measurement records on three of the survey days. The hourly-average sound levels at the location conformed to the Part 360 limit except for one hourly-average level that exceeded 62 dBA, however, construction noise is not regulated by Part 360.

Location 7 represents residentially-zoned properties at the southwest corner of the landfill facility on the east side of Burgess Road at the intersection of Salcman Road, which are zoned Moderate Density Residential

(R2) in the Town of Waterloo. The properties include five residences on the east side of the Burgess Road south of the intersection, of which four are owned by SMI, and two former residential-use properties on the east side of Burgess Road north of the intersection, which are owned by SMI and are without residences. Properties on the west side of Burgess Road opposite Location 7 are zoned Low Density Residential (R1) in the Town of Waterloo. The properties include the Meadow View Mine, which was not in operation during the sound surveys, and undeveloped parcels that have been used agriculturally but were fallow during the sound surveys. The properties are holdings of SMI. Sources of sound at Location 7 were largely environmental, consisting of traffic on North and Burgess Roads, birds, insects, wind, and amphibians. Sounds of landfill traffic on Salcman Road was partly audible, with sounds of soil loading and transport activities in the materials storage areas South of Salcman Road.

Locations 8 and 9 represent residentially-zoned properties bordering the southern boundaries of the landfill along the north side of North Road, which are located in the Town of Waterloo and are zoned Moderate Density Residential (R2). A small number of residences and small business operations are located in a suburban grouping between the grade crossing of the Finger Lakes Railway and the intersection of Inslee Street. Non-residential properties that adjoin the southern boundaries of the landfill include property annexed by the Village of Waterloo between Salcman Road and North Road that contains the transportation facilities for the Waterloo Central School District, and adjacent undeveloped parcels owned by SMI that do not contain residences. Properties along the south side of North Road opposite the landfill property holdings include a small number of residential located in the Village of Waterloo, and the Seneca County Fairgrounds between Inslee Road and Swift Street located in the Village of Seneca Falls. The southern boundary of the landfill, east of the railroad grade crossing on North Road, adjoins the Finger Lakes Railway and commercially-zoned properties zoned Highway Commercial in the Town of Seneca Falls, which contain a bank, auto parts store, and a church, and other properties that are wooded and undeveloped. Sound levels were not measured or characterized at the commercial properties at the southeast corner of the facility. Sources of sound at Locations 8 and 9 primarily consist of environmental sources, including birds, wind, insects, and traffic on North Road. Sounds of landfill traffic on Salcman Road was partly audible, with sounds of soil loading and transport activities in the materials storage areas South of Salcman Road. Sounds of refilling of water trucks at the south retention pond was not observed in sampling at Location 8 but would be included in the logging measurements. Other environmental sounds include daily train passes with horns at the North Road grade crossing.

Survey Location 10 represents agricultural-use properties on the east side of Burgess Road and a former residential-use property, undeveloped properties, and former agricultural-use properties on the west side of Burgess Road. The location is opposite the currently active landfill area and construction areas of Stage 6.



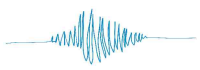
The agricultural parcel was fallow during the sound surveys. The former residential-use property and other properties adjacent to the survey location are holdings of SMI. The prominent sources of sound at Location 10 consisted of construction at the Stage 6 area and operation of one or two truck-mounted odor neutralizer systems on the western berm. Operating landfill sources, including truck traffic, compactors and bulldozers, and trailer tippers, were only partly perceptible due to screening of the berm.

No landfill operations or maintenance activities were observed at the SELF or SMI landfills during the sound survey period. Ongoing construction activities and site maintenance operations included placement of soils along the western edge of the top of the NEX berm, loading and transport of soil on top of the WEX berm, and excavation and loading of soil at the northern end of the materials storage area adjacent to Salcman Road.

The activities at the landfill during the survey period are considered to be representative of the seasonal peak period of landfill operations, based on SMI operational records identifying the volume of received waste products and beneficial materials transported to the landfill, and the extent of construction and maintenance operations.

The noise environment around the landfill facilities included sounds generated by ongoing construction operations in the Stage 6 area. The observed activities included excavation and transport of soils, grading, and soil drilling operations. Additional observed construction included placement of cover soils on the plateau of the NEX area. NYSDEC rulings have affirmed that the Part 360 noise regulations pertain to landfill facility operations and exclude construction activities. The construction activities and movements of construction equipment at Stage 6 are attributed to a limited number of noise exceptions of 1 dBA or less at survey Location 10. Due to the concurrence of daily operations with construction activities, it was not practical to separately identify and exclude the contributions of construction noise from measurements of landfill operations. The measured sound levels that include construction are therefore considered to be conservative representations of the noise environment at Location 10, closest to operations and construction at Stage 6.

The sound surveys representing operations for the year 2019 at Seneca Meadows were scheduled during the seasonal peak period of landfill waste placement operations, site maintenance operations, and construction activities. The survey period further coincided with the seasonal peak period for traffic on surrounding highways. The surveys therefore represent the typical maximum hourly-average noise levels received along the facility boundaries in the 2019 season. The monitoring period also corresponds to the period when the surrounding community residents might be outdoors and most sensitive to received noise. Evaluations of



the acceptability of the received noise were based on criteria contained in the 6 NYCRR Part 360 Solid Waste Management Facilities Regulations, in effect November 4, 2017.

Noise measurements and assessments reported herein were performed exclusively and independently by Aurora Acoustical Consultants Inc. of East Aurora, New York. The noise assessment procedures and survey locations used in the year 2019 correspond to those employed in previous annual sound surveys that were performed by the consultant.

Sound level monitoring was performed continuously at representative locations on the landfill property lines through a consecutive five-day period beginning on the morning of Monday, July 29, 2019 and extending to the evening of Friday, August 2, 2019. The sound level monitors continuously logged and identified the sound levels throughout daytime and nighttime periods. Sampling sound surveys were performed at each of the survey locations to additionally characterize the facility sound and ambient environment in three time periods on Monday and on Friday of the survey week.

During the sound survey period the combined operations of landfill waste acceptance and placement operations, site maintenance operations, and construction activities were relatively consistent on each day based on the hourly and total volumes of materials and numbers of vehicles, the landfill hourly tonnage reports, and the construction equipment logs.

The hourly number of received loads of external waste materials were fairly consistent throughout the operating hours on each weekday. The peak hour of waste acceptance was Friday from 7:00 a.m. to 8:00 a.m. The total number of trucks ranged from 463 to 520 on each weekday. The hourly number of transported loads of internal waste materials were fairly consistent throughout the operating hours on each weekday. The peak hours of waste transport were from 10:00 a.m. to 11:00 a.m. and from 12:00 p.m. to 3:00 p.m. The total number of trucks ranged from 172 to 223 on each weekday.

The hourly number of loads of external beneficial use material were variable. The peak period was typically from 6:00 a.m. to 8:00 a.m. with other distributed lesser peaks. The total number of trucks were highest on Thursday at 85, and ranged from 50 to 75 on each other weekday. Internal loads were limited to 5 loads or less on each day.

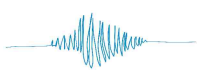
The hourly number of loads of external fill material were peak on Tuesday from 7:00-8:00 a.m. and from 12:00-1:00 p.m., and relatively consistent in each other hour on each day of the week. The total number of trucks were highest on Tuesday at 83 and ranged from 43 to 53 on each other weekday. The hourly volumes of internal fill materials amounting to a total of five trucks or less on each day.

The hourly number of loads of external tire acceptance were variable on each day. The total daily number of tire loads ranged from 9 to 21 on each weekday.

The hourly total number of loads of all received materials varied on each weekday, with a peak period from 7:00 a.m. to 8:00 a.m. on Friday and from 12:00 p.m. to 3:00 p.m. on each day. The daily total numbers of loads ranged from 763 to 899.

The sound level loggers and analyzers used to monitor and sample the noise levels are identified in Appendix A to this survey report, along with the acoustic calibrators used to field calibrate the instruments. The noise loggers used to continuously monitor the noise consisted of Metrosonics, Inc. model db3080 sound level analyzers. The loggers conform to requirements for Type 2 sound level meters established in American National Standard ANSI S1.4-1983(R2006) with Amendment S1.4A-1985 (R2006). The sound level loggers were calibrated using a CEL model 284/2 acoustic calibrator having performance characteristics conforming to ANSI Standard S1.40-2006 (R2016) having an acoustical output signal that is traceable to the National Institute of Standards and Technology. The logging instruments were sealed in steel boxes for purposes of security, which were weatherproof . The enclosures were externally sealed and waterproofed to further prevent effects of humidity and moisture on the loggers. The microphones were extended from the enclosures on extension poles to provide free-field measurements with minimal screening and reflection effects of the enclosures and poles. The microphones were covered with weatherproofed windscreens to minimize noise artifacts from wind and to minimize effects of moisture on the microphone cartridges. The loggers were secured to utility poles and trees on the boundaries of the SMI property holdings in locations that prevented intentional tampering and generation of noise artifacts by the public.

The noise loggers were programmed to continuously sample the instantaneous sound levels and record the average L_{eq} noise levels in consecutive fifteen minute periods ($L_{eq\text{-}15\,min}$). The fifteen-minute durations were used to obtain detailed data for identifying the presence of sporadic noise artifacts or unusual noise events, such as passes of noisy vehicles or trains. The data were processed into one-hour averages ($L_{eq\text{-}1\,hr}$) to allow direct comparison to the hourly-average sound level criteria of the Part 360 regulations. The complete logging data and graphical time histories of the average sound levels for each survey location are included on Appendix B to this report. The logging data describes both the $L_{eq\text{-}15\,min}$ and $L_{eq\text{-}1\,hr}$ average daytime and nighttime sound levels, and identifies peaks generated by rain events on Wednesday of the survey week and sporadic peaks that are attributed to train passes or noisy traffic. The $L_{eq\text{-}1\,hr}$ average noise level data obtained from the logging at each survey location are summarized in Table 1.



The noise loggers recorded additional sound level metrics, which are reported in the tabular record data, including the maximum A-weighted levels with slow time response, and statistical sound levels L_{10} and L_{99}, the latter which corresponds to the minimum sound level. The added metrics are not specifically used in determining compliance in accordance with noise requirements of the NYSDEC regulations. The added metrics were useful for characterizing the range of environmental sound levels at each location, including identifying the presence of artifacts in a sample period, in particular those generated at the start and ending of logging during the initiation and retrieval of the instruments. Artifacts generated by the surveyor during the installation and retrieval of the loggers in the starting and ending $L_{eq\text{-}15\ min}$ averages were excluded from the calculated $L_{eq\text{-}1\ hr}$ average sound levels.

Landfill sound sources were identified and characterized during the survey period with sampling surveys performed with the portable sound level analyzer. The surveys provide additional noise data and verify the data obtained by the continuous noise loggers. The surveys were performed in representative time periods on the initial day of logging and on the last day of logging. On each day the surveys were performed during two daytime periods coinciding with normal landfill operating hours, and in periods after the hours of normal waste acceptance. Sampling at each location occurred over a portion of an hour sufficiently long to characterize a one-hour sound level average as defined in the Part 360 regulations. The portable survey instrumentation included a Larson Davis model 831 sound level analyzer, which conforms to ANSI requirements for Class 1 (precision) sound level meters defined in ANSI/ASA S1.4-2014/Part 1 / IEC 61672:1-2013. The sound level analyzer was programmed to record the L_{eq} sound level data in consecutive one-second periods to allow detail characterization of prominent sound sources. The sound level analyzer was calibrated before and after each series of measurements using a CEL model 284/2 acoustic calibration source, which has characteristics conforming to ANSI/ASA S1.40-2006 (R2016) and acoustical output signal that is traceable to the National Institute of Standards and Technology. The portable analyzer model numbers are listed in Appendix A. The sampling data from the portable analyzer for surveys on Monday are reported in Appendix C and for Friday are reported in Appendix D. The sampling sound level data are summarized in Table 2.

3.2 Selection of Survey Locations

The survey locations used to perform noise logging and sampling are described on the Seneca Meadows, Inc. zoning and property holdings plan shown in Figure 2. The following section describes the community around each location. The survey locations and adjoining properties are further described in aerial photographs and photographs obtained during the sound surveys.

Survey Location 1 represents several former residential-use properties on the east side of Route 414, which adjoin the east boundary of the Southeast Landfill. The properties are contained in the Industrial and Highway Commercial zoning districts of the Town of Seneca Falls. The Renewable Resource Park borders the former residential-use properties to the east, which contains the Seneca Energy, Inc. gas-to-energy facility and High BTU facility, which were in full operation during the sound surveys. One former residential building remains on the property at number 2215 Route 414, which is not residentially occupied and is used on occasion as a construction office. The properties are holdings of SMI. The noise monitor was mounted to a power utility pole located on the eastern landfill boundary, 500 feet northeast of the former residence.

Noise levels received at survey Location 1 are predominantly generated by traffic on State Route 414, including sounds of vehicles accelerating and decelerating with jake brakes in the vicinity of Salcman Road. During surveys, leachate systems were being maintained on the eastern face of the SELF. The maintenance operations did not contribute to the measured sound levels. Sounds of landfill waste placement operations were not audible at Location 1. The Seneca Energy, Inc. gas-to-energy plant includes a number of engine-generators that are enclosed in buildings, and outdoor enclosed flares. The Seneca Energy II High BTU plant contains processing equipment and compressors that convert the landfill gas to pipeline grade renewable natural gas. Operations of the equipment at the facilities were perceptible between daytime traffic and in daytime evening periods after the afternoon peak traffic period. Construction activities at Stage 6 were not audible at Location 1.

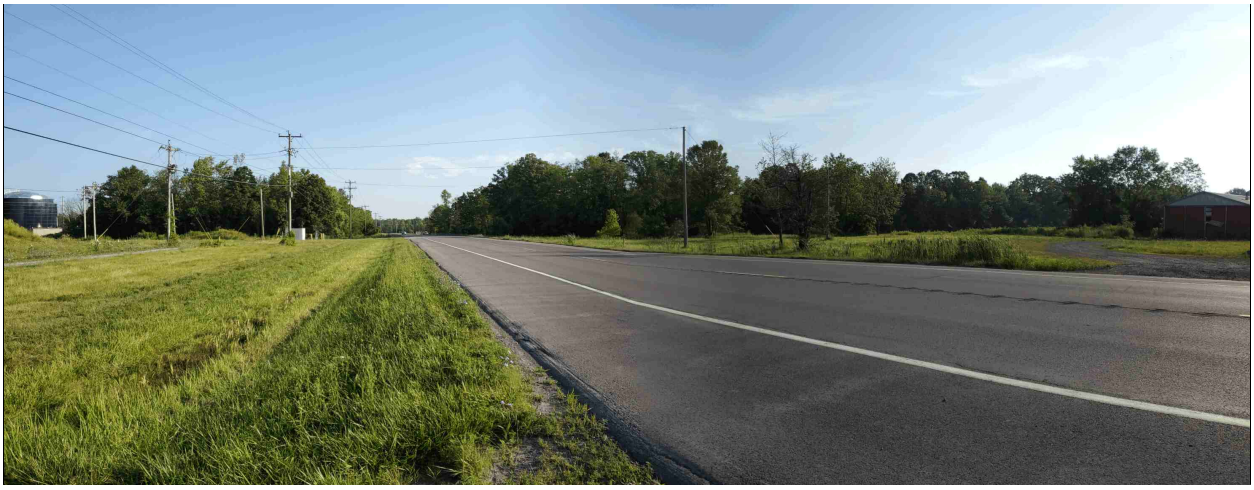
View to north of Location 1 with former residential-use properties and SEI facility on east of highway to right

View to south at Location 1 with former residence (construction office) on east side of highway to left

Aerial view of Location 1 at east boundary of SELF landfill, opposite former residential-use properties on east side of Rt 414

Survey Location 2 represents former residential-use property and undeveloped property on the west side of State Route 414 adjacent to the eastern boundary opposite the NEX landfill area. The adjoining properties are holdings of SMI. The former residential property contains a storage building and is the current site of the east retention ponds. A storage building exists but there are no residential buildings on the property. The noise logger was mounted to a utility pole on the eastern boundary adjacent to the eastern berm of the NEX landfill approximately 400 feet south of the entrance to the leachate storage facility.

Noise levels at survey Location 2 are dominated by traffic noise from State Route 414, including sounds of accelerating and decelerating vehicles and jake brakes. Waste placement activities at Stage 6 were not perceptible. Operations of the Seneca Energy, Inc. gas-to-energy facility were perceptible between traffic passes. Vehicles were occasionally observed to access the leachate facility on the adjacent entrance..



View to north of Location 2 with former residential-use properties and undeveloped properties on east side of Rt 414, right

View to south of Location 2 with former residential-use properties and SEI facility on east side of Rt 414, left

Aerial view of Location 2 adjacent to NEX landfill, opposite former residential property

Survey Location 3 represents a current residential-use property on the east side of Route 414, former residential use properties on the west side of Route 414, and undeveloped wooded property on both sides of the highway along to the eastern boundary of the landfill, opposite the northeast corner of the original SMI landfill. The properties are contained in the Highway Commercial zoning district in the Town of Seneca Falls. The noise monitor was located on the eastern boundary of the landfill at the site of a former residence at the edge of the wooded area. The survey location is approximately 300 feet south of the current residence

on the east side of the highway, 350 south of an automobile repair facility on the west side of the highway, and 800 feet south of the former residential property on the west side of the highway. Noise levels at survey Location 3 were dominated by sounds of traffic on State Route 414. Sounds of landfill operations at Stage 6 were not perceptible. Sounds of construction activities at the Stage 6 were also not perceptible.

View to north at Location 3 toward residence on east side of highway to right, behind spruce trees

View to south at Location 3 of undeveloped property on east side of highway to left and former residential-use property on west side of highway to right

Aerial view of Location 3 opposite SMI landfill with residence to northeast, former residence to north, and surrounding undeveloped properties

Survey Location 4 represents current residential-use properties on both sides of Route 414, and undeveloped wooded and agricultural parcels located northeast of the original SMI landfill. The survey location is 300 feet south of a residence on the west side of the highway, and 500 feet north of two residences on a private road on the west side of the highway. A commercial graphics facility is located on the adjacent property parcel to the south. An automobile auction facility and commercial vehicle repair facility are located 800

feet south of the location. The properties on both sides of the highway are contained in the Highway Commercial zoning district in the Town of Seneca Falls, and are extensively owned by SMI. The survey location was adjacent to an open agricultural field on the west side of the highway, which is zoned Agricultural and owned by SMI. There were no farming activities on the field at the time of the surveys. A gas compressor facility is located approximately 1600 feet west-northwest of the survey location, which produced audible noise in the daytime between traffic and in hours after the afternoon peak traffic period.

The noise levels measured at this location are due to traffic on Route 414 and environmental noise sources including birds, insects, and wind in trees. Landfill operations at Stage 6, site maintenance activities, and construction activities at Stage 6 area were not perceptible.

View to north from Location 4 (residence at left)

View to south from Location 4 with undeveloped property on east side of highway to left, and undeveloped property and commercial property on west side of highway to right

Aerial view of Location 4 adjacent to residential-use properties to north and southeast

Noise survey Location 5 represents a number of residential properties on the western boundary of the landfill, northwest of the SMI landfill. The location describes a suburban grouping of homes located on both sides of Burgess Road contained in a Low-Density Residential district in the Town of Waterloo. The survey location was on the landfill property line at Black Brook, approximately 500 feet east of Burgess Road and

430 feet west of the access road at the northwest corner of the original SMI landfill. The environment noise at the location is characterized by environmental sounds consisting of birds, insects, amphibians, and wind in trees, and ambient sounds of traffic on Burgess Road and Route 414. Sounds of landfill operations and construction activities at Stage 6 were occasionally faintly perceptible at times. Sounds of site maintenance operations and truck traffic were not specifically discernible due to the attenuation provided by the intervening distance and vegetation and the shielding provided by the SMI berm.

View from Burgess Road to north showing residential properties represented by Location 5.

View from Burgess Road to south showing residential properties represented by Location 5

Aerial view of Location 5 on landfill boundary, adjoining suburban residential grouping

Survey Location 6 represents the western boundary of the landfill adjacent to the WEX landfill. The location adjoins an agricultural property between Burgess Road and WEX containing two residences, which are located in a Low-Density Residential zoning district in the Town of Waterloo. The residences front the east side of Burgess Road, and are located approximately 800 feet west of the WEX boundary. The noise logger was located on the property line of the landfill approximately 900 feet east of Burgess Road and 1200 feet north of Salcman Road. The prominent sources of noise were environmental sources. Waste placement

operations and construction at Stage 6 were faintly perceptible. Site maintenance operations and soil operations at the NEX and WEX plateaus were not perceptible at the survey location, due to shielding of the WEX berm and the attenuation of the intervening distance. Farm hay cutting activities were observed on Friday of the survey period. The Meadow View soil mine to the west of Burgess Road was not in operastion during the sound surveys.

View from Location 6 toward west toward agricultural property with residential-use properties in background

View from Burgess Road opposite Location 6 toward north, with residences and agricultural properties on east side of road

Aerial view of Location 6 on west boundary adjoining residential and agricultural properties on east side of Burgess Road

Survey Location 7 represents residential-use properties on the western boundary of the landfill at the southwest corner of the landfill property, and was located approximately 190 feet east of Burgess Road and 90 feet north of Salcman Road. The properties are located in a Moderate-Density Residential district in the Town of Waterloo. Properties north of Salcman Road are vacant and owned by SMI. Five residential-use properties are located south of Salcman Road, of which four are owned by SMI. Prominent sound sources

at Location 7 were traffic on Burgess Road and North Road and environmental sounds. Perceptible sources included landfill traffic on Salcman Road and soil loading operations at the materials storage area. Waste placement and construction activities at Stage 6, and soil operations at NEX and WEX plateaus, were not discernible due to distance and screening of the WEX berm. The Meadow View soil mine to the west of Burgess Road was not in use during sound surveys.

View from Burgess Road to north at Location 7 with former residential-use properties on east side of Burgess Road to right (owned by SMI), with undeveloped areas and Meadow View Mine Drive to left

View from Burgess Road to south at Location 7 with residential-use properties on east side of Burgess Road to left (owned by SMI), with undeveloped areas and Meadow View Mine Drive to right

Aerial view of Location 7 representing residential-use properties along east side of Burgess Road to south of Salcman Road, and former residential-use properties to north of Salcman Road

Survey Location 8 represents residential-use properties along the southern boundary of the landfill property between of the grade crossing of the Fingerlakes Railway on North Road and Inslee Street. The location was approximately 170 feet north of North Road representing the south boundary. Properties include a small number of residential and mixed-use properties on the north side of North Road in the Town of Waterloo in

an area zoned Moderate-Density Residential, and a small number of residences located on the south side of North Road in the Village of Waterloo. Truck traffic on Salcman Road and activities at the materials storage area were occasionally perceptible. Prominent sound sources included vehicle traffic on North Road, environmental sources, train passes, and train horns. Landfill sources audible at the location consisted of site traffic on Salcman Road and soil loading operations at the materials storage area. Landfill operations at the NEX, WEX, and Stages 5 and 6 areas, site maintenance activities, and construction at the Stages 5 and 6 areas were not discernible at the location due to distance and screening of the WEX berm.

View from Location 8 to west along North Road with residential-use properties on both sides of road

View from Location 8 to east along North Road with undeveloped properties on north side of North Road (left) and commercial properties on south (right)

Aerial view of Location 8 showing residences along south boundary on both sides of North Road

Survey Location 9 represents residential-use properties along the south boundary of the landfill property on North Road in the vicinity of Inslee Street. The location was approximately 700 feet north of North Road and 300 feet east of the bus garage entrance along the south boundary. The nearest residence, which is owned by SMI, is located 460 feet to the southwest on the north side of North Road, on the west side of the entrance road to the bus garage and maintenance facility. The nearest residence to the south is at 650 feet

from the south boundary. Residential properties on the north side of North Road are located in a Moderate Density Residential zoning district in the Town of Waterloo. Residences on the south side of North Road are located in the Village of Waterloo. Non-residential properties nearby include the Seneca County Fair-grounds and the Waterloo school bus facilities. Prominent sources of sound include traffic on North Road, and environmental sources. There was occasional traffic leading to the adjoining bus garage. Perceptible landfill sources included landfill traffic on Salcman Road and soil loading operations at the materials storage area south of Salcman Road. There were no activities at the fair grounds during the sound surveys.

View from North Road to west opposite Location 9 with residences along North Road and fairgrounds to left

View from North Road to east opposite Location 9 with residences along North Road and fairgrounds to right

Aerial view of Location 9 adjacent to residential properties on North Road, with nearest residence to southwest on west side of bus garage entrance (owned by SMI)

Survey Location 10 represents the western boundary of the landfill adjacent to the active Stage 6 landfill and construction areas. The boundary location was located 800 west of Burgess Road, adjoining agricultural fields on the east side of Burgess Road. The location represents a former residential-use property on the west side of Burgess Road approximately 950 feet west of the location, and other wooded undeveloped properties and agricultural-use properties. The former residential-use and agricultural property on the west side of Burgess Road is owned by SMI. Properties on both sides of Burgess Road are contained in a Low Density Residential zoning district in the Town of Waterloo. The prominent sources of sound in the daytime at Location 10 consisted of waste placement operations at the center of Stage 6, construction along the north and east sides of Stage 6 areas, and operation of odor neutralizing systems on the western edge of the berm. Prominent sources of sound in the nighttime were environmental sources consisting of birds, wind in trees, insects, and traffic on Burgess Road. Site maintenance activities and cover operations at the NEX and WEX plateaus were not perceptible at Location 10 due to distance and screening of the WEX berm. Farming activities were not observed on the adjacent property during the survey period. The Meadow View soil mine to the west of Burgess Road was not in use during surveys.

View from Location 10 on west boundary toward west, showing adjacent agricultural property on east side of Burgess Road and storage building on former residential and agricultural property on east side of Burgess Road (owned by SMI).

View from Burgess Road opposite Location 10 toward north with agricultural properties on east side of Burgess Road to right and undeveloped properties on west side of Burgess Road to left.

View from Burgess Road opposite Location 10 toward south with former residential-use property on west side of Burgess Road at right

Aerial view of Location 10 showing adjoining agricultural properties on east side of Burgess Road, with former residential-use and agricultural properties on west side of Burgess Road.

4.0 Measured Noise Levels and Regulations Compliance

The annual sound surveys identified the levels of noise produced by peak seasonal operations of the Seneca Meadows, Inc. landfill facility during the year 2019. The surveys were performed in accord with requirements of the 6 NYCRR Part 360 Section 360-1.19(j) landfill regulations effective November 4, 2017 to identify noise generated by the combination of facility sound sources consisting of waste acceptance and placement operations, tire recycling operations, and site maintenance activities. The noise monitoring included contributions of sounds of construction activities, although construction sources are excluded from the Part 360 regulations. The surveys characterized the noise environment along the property lines of the landfill adjoining properties that are zoned or otherwise authorized for residential purposes, in accord with the regulations. The survey locations represent properties contained in zoning districts designated Low-Density Residential (R1) and Moderate-Density Residential (R2) in the Town of Waterloo, and properties in zoning districts designated Highway Commercial (C-2) and Industrial (M-1) in the Town of Seneca Falls. The survey locations represent boundaries with properties with existing residences, former residential-use properties without residences, and properties zoned or authorized for residential use that are wooded, undeveloped, or otherwise used for agricultural purposes. The sound surveys were obtained at ten monitoring locations representing the boundaries with residentially-authorized properties.

The noise monitoring period represents the annual peak period of waste acceptance and placement, site maintenance, recycling, and ongoing construction operations. The monitoring period further coincided with the seasonal peak period of traffic flows on the adjoining highways. The noise monitoring is therefore considered to represent the highest average noise emissions for the year 2019.

Noise level logging was performed with Metrosonics model db3080 noise level loggers, which were programmed to measure the received noise levels using A-weighting and slow metering response characteristics, in accord with the 6 NYCRR Part 360 Section 360-1.19(j) landfill regulations. Noise logging was performed continuously over the five-day weekday period from the morning of July 29, 2019 to the evening of Friday, August 2, 2019. The loggers computed and reported the average sound levels in consecutive fifteen-minute intervals ($L_{eq\text{-}15\,min}$) throughout the survey period in daytime and nighttime hours. The fifteen-minute sound level averages were processed into one-hour average sound levels ($L_{eq\text{-}1\,hr}$) for direct comparison to the hourly-average noise criteria contained in the Part 360 landfill regulations. The sound level loggers are rated Type 2 in accord with ANSI S1.4-1983 (R2006), which meets the instrumentation requirements of the Part 360 regulations. The measurements at each receptor location represent the combined noise contributions of landfill operations, maintenance activities, construction activities, and background sources

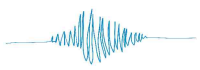


Table 1 summarizes the hourly-average sound levels, $L_{eq\text{-}1\ hr}$, obtained from continuous logging surveys at the ten monitoring locations on each survey day. Appendix B contains the detailed time history records of measured average sound levels ($L_{eq\text{-}15\ min}$) and the calculated hourly-average sound levels ($L_{eq\text{-}1\ hr}$) in graphical and tabular form for comparison to the sound level criteria. Sources of prominent noise peaks from environmental events, including brief periods of rain and passes of train and traffic, are identified in the sound survey records in Appendix B. Readings of fifteen-minute averages that included artifacts generated by the surveyor during the setup and retrieval of the loggers were excluded from the calculations of the hourly-average sound levels.

Sampling sound surveys were performed at each of the survey locations in three time periods on Monday and Friday of the logging period to confirm and supplement the logged noise level data. The sampling was performed for a portion of an hour at each location, which was determined sufficient to be representative of an hourly-average sound level ($L_{eq\text{-}1\ hr}$) as permitted in the 6 NYCRR Part 360 landfill regulations. The summary sound level data are presented in Table 2 for comparison to the continuously logged hourly-average sound levels summarized in Table 1 and presented in Appendix B. Sampling measurements were obtained with a Larson Davis model 831 sound level analyzer, which conforms to requirements of the current American instrument standard ANSI/ASA S1.4-2014/Part 1 / IEC 61672:1-2013 for a Class 1 sound level meter. The analyzer accordingly meets the instrumentation requirements of 6 NYCRR Part 360 Section 360-1.19(j). The sampling measurements characterized the operational noise levels received in two daytime periods and the background noise levels received in daytime periods after the peak afternoon traffic period, and after the hours of normal daily waste acceptance.

The acceptability of the sound levels received during landfill operations in the year 2019 is determined referencing the noise level limits contained in 6 NYCRR Part 360 Section 360-1.19(j) for the suburban community character. The regulation limits are 62 dBA ($L_{eq\text{-}1\ hr}$) in daytime hours from 7:00 a.m. to 10:00 p.m. and 52 dBA ($L_{eq\text{-}1\ hr}$) in nighttime hours from 10:00 p.m. to 7:00 a.m.

The sound surveys characterized noise levels generated by operations consisting of normal waste placement and compacting at each active area. Equipment used at the Stage 6 area for landfill operations consisted of bulldozers, compactors, and trailer tippers. Waste truck traffic accessed the active landfill area from Salcman Road and traveled along an internal road located on the west side of the SELF and NEX berm.

Other landfill facility operations included unloading and sorting of recycled tire materials at the tire facility on the south side of Salcman Road with one or two excavators with claw hooks.

Daily cover operations were provided by articulated soil trucks, excavators, and bulldozers, using soils obtained from Stage 5, the WEX plateau, and the materials storage area on the south side of Salcman Road Soil placement operations on the NEX landfill plateau were performed with bulldozers and articulated trucks. Soil loading and transport operations on the WEX landfill were performed with excavators and articulated trucks.

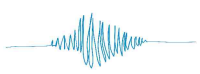
Other landfill maintenance activities included cleaning of leachate collection systems on the east face of the SELF with a water truck and pumper truck, watering of access roads with water trucks, and sweeping of Salcman Road and shoulders of the Route 414 highway with a sweeper truck. Equipment backup alarms were occasionally perceived at some survey locations. Bird chasing operations were infrequently observed during the surveys.

The sound levels surveyed at the majority of receptor locations were dominated by background noise produced by roadway traffic on Route 414, North Road, and Burgess Road and by environmental sources that included birds, insects, and wind. Sounds received at receiver locations along the eastern boundary opposite the SELF and NEX berms were additionally influenced by sounds of operations of the Seneca Energy, Inc. landfill gas-to-energy plant and High BTU facility, in particular in the nighttime.

Sound levels from landfill activities and site traffic were minimally perceptible at each receptor location on the south and west boundaries, with the exception of Location 10 opposite Stage 6. Daytime sound levels at Location 10 included partly perceptible contributions of landfill operations, along with construction activities at Stage 5, trench construction and movement of construction equipment on the berm on the west side of Stage 6, and maintenance operations of one or two truck-based odor and dust neutralizing systems.

Sound levels at Location 6 opposite the WEX Stage3-4 berm partially included contributions of construction of a leachate collection pipe system on the western down slope with an excavator during a portion of the sound surveys.

Two brief rain storms with periods of elevated winds occurred on Tuesday July 30 at midday and in the afternoon, which are clearly identified in the logging records for each location. Other background sources that affected southern boundary receiver locations included pass-bys of trains with signal horns at the North Road grade crossing. The following are conclusions based on the sound level logging records and sampling observations.



Location 1

The hourly-average sound levels at survey Location 1 on the east boundary ranged from 52.9 dBA in the nighttime to 72.8 dBA in daytime hours, excluding periods with rain events. In daytime hours from 7:00 a.m. to 10:00 p.m., 49 of 73 hourly-average samples (67%) exceeded the 62 dBA L_{eq} daytime sound level limit of 6 NYCRR Part 360. The daytime exceedances are attributed to sounds of traffic on State Route 414, including sounds generated by vehicle acceleration and deceleration with jake brakes at the signalized intersection at Salcman Road and at entrances to the SEI facility.

In nighttime hours from 10:00 p.m. to 7:00 a.m., 38 of 38 nighttime samples (100%) exceeded the 52 dBA L_{eq} nighttime limit. The nighttime exceedances are attributed to highway traffic and operations of the Seneca Energy, Inc. Gas-to-Energy and High BTU facilities.

The background traffic noise levels at Location 1 consistently exceed the standard suburban sound level limits of the Part 360 regulations both in daytime and nighttime periods. Noise acceptability was evaluated in terms of perceptibility of the landfill operations and their potential contributions to the measured levels, referencing 6 NYCRR Part 360 Section 360-1.19(j)(1). The sampling surveys and observations determined that the sounds generated by landfill waste placement operations, cover operations, site maintenance operations, operation of the flare system, and construction activities were not perceptible at Location 1 and were masked by elevated background traffic noise. Because noise from landfill operations was imperceptible and had no observable effect on the measured hourly-average sound levels, it is concluded that the facility noise levels received at Location 1 do not exceed the background noise levels and comply with the noise requirements of 6 NYCRR Part 360 Section 360-1.19(j)(1).

Location 2

The hourly-average sound levels at survey Location 2 on the east boundary ranged from 53.4 dBA in the nighttime to 68.7 in daytime hours, excluding periods with rain events. In daytime hours, 39 of 55 hourly-average samples (71%) exceeded the 62 dBA L_{eq} daytime sound level limit of 6 NYCRR Part 360. The daytime exceedances are attributed to sounds of Route 414 highway traffic, including sounds generated by vehicle acceleration and deceleration from the signalized intersection at Salcman Road and at the entrance to the leachate management facility, including use of jake brakes.

In nighttime hours, 29 of 29 nighttime samples (100%) exceeded the 52 dBA L_{eq} nighttime limit. The nighttime exceedances are attributed to highway traffic and operations of the Seneca Energy, Inc. gas-to-energy and High BTU facilities.

The background traffic noise levels at Location 2 consistently exceed the standard Part 360 noise criteria, therefore, noise acceptability was evaluated in terms of perceptibility of the landfill operations and their potential contributions to the measured levels, referencing 6 NYCRR Part 360 Section 360-1.19(j)(1). The sampling surveys and observations determined that the sounds generated by landfill waste placement operations, cover operations, site maintenance operations, operation of the flare system, and construction activities were not perceptible at Location 2, and had no observable effect on the measured hourly-average sound levels, it is concluded that the facility noise levels received at Location 2 do not exceed the background noise levels and comply with the noise requirements of 6 NYCRR Part 360 Section 360-1.19(j)(1).

Location 3

The hourly-average sound levels at survey Location 3 on the east boundary ranged from 54.4 dBA in the nighttime to 73.9 dBA in daytime hours, excluding periods with rain events. In daytime hours, none of 72 hourly-average samples (0%) exceeded the 62 dBA daytime sound level limit of 6 NYCRR Part 360. It is concluded the daytime sound levels comply with the noise requirements of 6 NYCRR Part 360 Section 360-1.19(j).

In nighttime hours, 23 of 36 nighttime samples (64%) exceeded the 52 dBA nighttime limit. Data obtained from the series of sampling surveys and observations determined that landfill operating sources were imperceptible at the location, therefore, the nighttime exceedances are attributed to highway traffic and environmental sources, considering the facility does not have significant noise producing operations in nighttime hours. Accordingly, it is concluded that the facility noise levels received at Location 3 generated in nighttime hours do not exceed the background noise levels and comply with the noise requirements of 6 NYCRR Part 360 Section 360-1.19(j)(1).

Location 4

The hourly-average sound levels at survey Location 4 on the east boundary ranged from 51.0 dBA in the nighttime to 67.8 dBA in the daytime, excluding periods with rain events. In daytime hours, none of 72 hourly-average samples (0%) exceeded the 62 dBA daytime sound level limit of 6 NYCRR Part 360. It is concluded the daytime sound levels comply with the noise requirements of 6 NYCRR Part 360 Section 360-1.19(j).

In nighttime hours, 31 of 37 nighttime samples (84%) exceeded the 52 dBA nighttime limit. Data obtained from the series of sampling surveys and observations determined that landfill operating sources were imperceptible at the location, therefore, the nighttime exceedances are attributed to highway traffic and environmental sources, considering the facility does not have significant noise producing operations in

nighttime hours. Accordingly, it is concluded that the facility noise levels received at Location 3 generated in nighttime hours do not exceed the background noise levels and comply with the noise requirements of 6 NYCRR Part 360 Section 360-1.19(j)(1).

The hourly-average noise levels at Locations 1 and 2 that are exposed to traffic acceleration and deceleration noise factors are 6 to 9.6 dBA more than the hourly-average sound levels measured at Location 4 that is exposed to free-flowing traffic. Trees and tall vegetation adjacent to Locations 3 and 4 may have attenuated the measured sound levels to a degree at those locations due to sound absorption and scattering effects, which may account for a portion of the level differences.

Black Brook Road

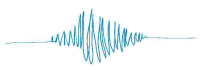
The sound levels received at residential receivers along Black Brook Road in the Town of Seneca Falls are predicted to be attenuated by 10 dBA or more due to added distance and an additional 10 dBA due to intervening wooded vegetation with respect to sound levels measured at Locations 1 to 4 along the eastern boundary from activities in Stage 6. The sound levels received along Black Brook Road from activities at Stage 6 are modeled at 20 to 25 dBA, which complies with the sound level limits of 6 NYCRR Part 360 Section 360-1.19(j).

Location 5

The hourly-average sound levels at survey Location 5 on the west boundary at the northwest corner of the landfill ranged from 39.8 dBA in the nighttime to 62.2 dBA in the daytime, excluding periods with rain events and neighbor activities. In daytime hours, two of 67 hourly-average samples (3%) exceeded the 62 dBA daytime sound level limit of 6 NYCRR Part 360 that is attributed to lawn mowing. In nighttime hours, none of 36 hourly-average samples (0%) exceeded the 52 dBA nighttime sound level limit of 6 NYCRR Part 360. It is concluded the sound levels at Location 5 comply with the suburban sound level limits requirements of 6 NYCRR Part 360 Section 360-1.19(j).

Location 6

The hourly-average sound levels at survey Location 6 on the west boundary ranged from 47.4 dBA in the nighttime to 61.9 dBA in the daytime excluding hours with rain events. In daytime hours, none of 69 hourly-average samples (0%) exceeded the 62 dBA daytime sound level limit of 6 NYCRR Part 360 excluding rain events. In nighttime hours, 27 of 36 hourly-average samples (75%) exceeded the 52 dBA nighttime sound level limit of 6 NYCRR Part 360 due to environmental sources. It is concluded the sound levels at Location 6 comply with the suburban sound level limits of 6 NYCRR Part 360 Section 360-1.19(j).



Location 7

The hourly-average sound levels at survey Location 7 on the west boundary at the southwest corner of the landfill ranged from 41.6 dBA in the nighttime to 57.7 dBA in the daytime, excluding periods with rain events. In daytime hours, none of 73 hourly-average samples (0%) exceeded the 62 dBA daytime sound level limit of 6 NYCRR Part 360. In nighttime hours, 1 of 37 hourly-average samples (3%) exceeded the 52 dBA nighttime sound level limit of 6 NYCRR Part 360 due to a surveyor artifact. It is concluded the sound levels at Location 7 comply with the suburban sound level limits of 6 NYCRR Part 360 Section 360-1.19(j).

North Road

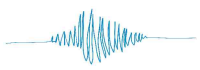
The sound levels received at the nearest residential receiver located west of Location 7 at 1569 North Road in the Town of Waterloo are predicted to be attenuated by 5 dBA or more due to distance with respect to sound levels measured at Location 7 on the western boundary. The sound levels received at the residence from Salcman Road traffic and activities in the Salcman Road soil storage area predicted to average approximately 37 dBA during daytime operational hours, which complies with the suburban sound level limits of 6 NYCRR Part 360 Section 360-1.19(j).

Location 8

The hourly-average sound levels at survey Location 8 on the south boundary ranged from 44.6 dBA in the nighttime to 64.8 dBA in the daytime, excluding periods with rain events. In daytime hours, 5 of 72 hourly-average samples (7%) exceeded the 62 dBA daytime sound level limit of 6 NYCRR Part 360, which are attributed to train passes and horns at the North Road grade crossing. In nighttime hours, 2 of 36 hourly-average samples (6%) exceeded the 52 dBA nighttime sound level limit of 6 NYCRR Part 360, which are attributed to train passes. It is concluded the sound levels at Location 8 comply with the sound level limits of 6 NYCRR Part 360 Section 360-1.19(j).

Location 9

The hourly-average sound levels at survey Location 9 on the south boundary ranged from 42.6 dBA in the nighttime to 52.7 dBA in the daytime, excluding periods with rain events. In daytime hours, none of 72 hourly-average samples (0%) exceeded the 62 dBA daytime sound level limit of 6 NYCRR Part 360. In nighttime hours, none of 36 hourly-average samples (0%) exceeded the 52 dBA nighttime sound level limit of 6 NYCRR Part 360 due to environmental sources. It is concluded the sound levels received at Location 9 comply with the suburban sound level limits of 6 NYCRR Part 360 Section 360-1.19(j).



Location 10

The hourly-average sound levels at survey Location 10 on the west boundary ranged from 42.5 dBA in the nighttime to 69.8 dBA in the daytime, excluding periods with rain events. In daytime hours, 8 of 68 hourly-average samples (12%) exceeded the 62 dBA daytime sound level limit of 6 NYCRR Part 360. These exceptions are attributed to construction events and movement of construction equipment, combined with landfill operations and maintenance activities. In nighttime hours, 0 of 36 hourly-average samples (0%) exceeded the 52 dBA nighttime sound level limit of 6 NYCRR Part 360. Because construction noise contributions are excluded from compliance assessments, it is concluded the sound levels at Location 10 comply with the suburban sound level limits of 6 NYCRR Part 360 Section 360-1.19(j).

Strong Road

The sound levels received at the nearest residential receiver along Strong Road are predicted to be attenuated by 30 dBA or more due to distance from the active Stage 6 landfill area and by an additional 30 dBA due to berm screening and foliage. The received facility sound levels are predicted to be negligible and below the ambient sound levels, and comply with the suburban sound level limits of 6 NYCRR Part 360 Section 360-1.19(j).

Sampling and logging data comparisons

Sampling measurements produced hourly-average equivalent sound levels for comparison to the Part 360 limits and to verify the hourly-average sound levels obtained with continuous logging. Observations were obtained during the sampling surveys to identify the perceptible landfill sound sources and prominent background sound sources. The sampling surveys were performed in two daytime periods during hours of landfill operations and in one daytime period after the normal hours of waste acceptance on Monday and Friday of the survey week. The measurement periods ranged from ten to twenty minutes each, as appropriate to be representative of an hourly-average sound level.

The sampled hourly-average sound levels corresponded to the logged sound levels at each survey location in comparable time periods within an average difference of 2.0 dBA from 67 sampling records. These are acceptable differences between readings from Type 1 and Type 2 sound level meters.

Table 1 summarizes the hourly-average sound levels obtained from continuous logging in the survey period from July 29, 2019 to August 2, 2019. The following Table 2 summarizes the average sound levels obtained from sampling surveys on Monday and Friday of the survey period.

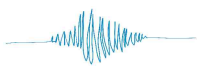


Table 1
Summary of L_{eq} Noise Levels (dBA) Measured Along Landfill Property Lines with Logging Instruments

Measure-ment Location	Location Description			July 29-30, 2019																						
				Daytime hourly average (L_{eq}), dBA															Nighttime hourly average (L_{eq}), dBA								
		5-6a	6-7a	7-8a	8-9	9-10	10-11	11-12	12-1p	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10p	10-11	11-12	12-1a	1-2	2-3	3-4	4-5	5-6	6-7a
Loc 1	Rt. 414 east of SELF berm	59.5	62.2	63.9	64.1	63.6	63.6	63.9	69.5	63.5	63.0	63.8	62.8	65.9	59.8	59.5	58.6	61.8	55.8	57.2	54.9	53.1	53.2	55.0	59.1	60.2	62.1
Loc 2	Rt. 414 east of NEX berm	61.8	63.8	65.2	64.7	64.8	65.0	65.0	65.9	64.6	64.0	64.6	63.2	62.8	60.1	60.7	59.7	60.3	57.6	57.6	55.7	54.6	53.4	56.3	60.7	61.8	63.5
Loc 3	Rt. 414 east of SMI berm	-	60.8	61.8	61.2	60.9	61.5	61.2	60.9	60.6	60.2	61.3	59.8	58.8	56.2	56.8	55.9	56.3	53.8	53.3	51.2	50.1	50.7	52.3	56.6	58.2	60.4
Loc 4	Rt. 414 north of SMI berm		61.3	61.7	60.7	60.4	60.8	60.4	59.9	59.4	59.2	60.2	57.9	57.9	55.2	56.3	55.5	56.3	54.2	54.1	51.4	51.9	51.0	52.7	57.6	59.4	60.6
Loc 5	West boundary northwest of SMI	-	-	-	-	-	-	44.9	59.0	50.2	42.1	44.2	42.2	44.7	42.6	43.4	40.8	41.1	41.2	40.2	40.2	40.5	39.9	39.8	40.1	42.0	44.1
Loc 6	West boundary at WEX berm	-	-	-	-	-	45.2	42.8	43.3	48.4	41.7	43.3	44.3	51.5	44.0	42.4	44.5	44.9	44.9	44.8	42.3	41.4	41.8	42.1	41.5	41.4	42.3
Loc 7	Burgess Road at Salcman Road	-	55.9	47.5	46.6	47.6	47.2	46.7	46.6	47.5	46.8	48.5	49.0	48.3	46.3	45.4	46.1	46.0	45.1	44.5	42.9	42.9	42.7	42.1	43.7	44.6	47.6
Loc 8	South boundary	-	-	48.0	46.5	49.1	47.9	47.4	54.5	49.2	63.6	48.8	50.0	49.3	47.2	46.4	47.9	59.0	44.5	43.6	43.9	42.3	42.8	42.4	44.3	45.8	47.5
Loc 9	South boundary	-	-	45.8	45.0	49.4	45.4	47.6	50.9	47.6	45.7	46.1	50.8	45.1	44.0	44.7	46.8	46.6	45.1	45.0	44.5	43.9	43.1	43.7	45.7	46.8	47.0
Loc 10	West boundary at Stage 6	-	-	-	-	-	62.1	61.9	69.8	50.0	49.9	52.6	47.9	48.5	45.3	43.4	43.2	45.3	43.9	43.7	43.3	42.5	42.8	42.6	42.8	44.8	61.8

All survey data was measured by Aurora Acoustical Consultants Inc.

Table 1 (cont.)
Summary of L_{eq} Noise Levels (dBA) Measured Along Landfill Property Lines with Logging Instruments

Measure-ment Location	Location Description	July 30-31, 2019																								
		Daytime hourly average (L_{eq}), dBA															Nighttime hourly average (L_{eq}), dBA								
		7-8a	8-9	9-10	10-11	11-12	12-1p	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10p	10-11	11-12	12-1a	1-2	2-3	3-4	4-5	5-6	6-7a
Loc 1	Rt. 414 east of SELF berm	63.0	65.1	63.9	64.4	64.1	80.4	64.6	64.9	63.4	63.4	79.6	72.8	59.6	56.7	56.6	55.7	54.3	55.1	52.9	53.9	53.6	56.2	59.5	60.4
Loc 2	Rt. 414 east of NEX berm	64.1	64.9	65.3	64.3	64.7	78.8	64.0	64.8	64.0	64.2	75.9	68.7	59.8	58.3	57.6	56.5	55.2	56.5	54.8	56.6	56.7	58.1	59.7	62.2
Loc 3	Rt. 414 east of SMI berm	61.0	61.1	61.4	60.5	60.8	83.4	60.4	60.2	59.6	60.0	65.2	73.9	56.5	54.7	59.0	52.0	51.0	51.8	49.6	52.1	52.0	53.4	55.8	58.1
Loc 4	Rt. 414 north of SMI berm	61.0	61.0	60.8	60.4	60.3	77.9	60.4	60.1	58.8	58.9	75.3	67.8	55.9	54.7	54.2	52.8	52.0	52.1	51.1	53.0	53.1	55.6	56.6	58.8
Loc 5	West boundary northwest of SMI	44.2	43.9	43.5	43.9	43.3	73.1	42.6	43.0	42.7	41.9	70.8	62.2	40.3	40.4	40.8	41.3	40.6	40.4	40.3	40.4	40.1	40.2	41.2	42.6
Loc 6	West boundary at WEX berm	42.4	42.6	45.2	44.0	45.2	57.1	44.6	50.8	54.6	45.3	55.4	44.5	43.0	42.5	48.1	47.3	50.7	50.0	49.5	48.7	47.3	47.3	46.7	42.8
Loc 7	Burgess Road at Salcman Road	46.9	46.5	46.2	46.9	47.4	72.1	47.0	51.2	49.8	49.3	71.2	57.7	45.0	43.9	44.9	47.1	44.4	43.6	43.2	42.6	43.9	44.1	44.4	46.8
Loc 8	South boundary	48.1	46.8	47.6	47.7	46.8	63.0	47.2	63.2	48.3	48.5	74.5	64.8	47.6	50.8	44.4	56.4	42.8	42.7	42.1	42.1	42.0	43.4	44.8	46.4
Loc 9	South boundary	45.5	45.1	45.0	46.5	49.4	75.4	45.8	49.5	48.1	47.1	77.2	52.7	43.7	43.1	44.9	46.7	44.6	43.5	44.1	43.6	42.8	45.1	46.0	45.5
Loc 10	West boundary at Stage 6	62.9	62.9	62.5	62.5	62.6	75.8	62.2	62.6	62.3	60.1	76.0	66.7	43.3	43.7	44.0	44.4	44.6	45.0	44.4	43.6	43.3	43.3	48.7	62.6

All survey data was measured by Aurora Acoustical Consultants Inc.

Table 1 (cont.)
Summary of L_{eq} Noise Levels (dBA) Measured Along Landfill Property Lines with Logging Instruments

Measure-ment Location	Location Description	July 31-August 1, 2019																								
		Daytime hourly average (L_{eq}), dBA															Nighttime hourly average (L_{eq}), dBA									
		7-8a	8-9	9-10	10-11	11-12	12-1p	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10p	10-11	11-12	12-1a	1-2	2-3	3-4	4-5	5-6	6-7a
Loc 1	Rt. 414 east of SELF berm	62.7	63.8	65.1	65.8	63.5	63.2	63.7	63.4	63.7	63.8	61.4	60.9	59.6	59.6	58.1	57.8	57.5	59.5	54.4	57.0	55.9	57.7	60.4	61.5
Loc 2	Rt. 414 east of NEX berm	63.8	63.7	64.9	64.4	64.8	65.1	64.4	63.9	64.4	64.2	62.0	61.3	60.3	59.6	58.4	57.9	57.5	57.9	56.2	58.0	56.2	59.1	61.0	63.0
Loc 3	Rt. 414 east of SMI berm	59.2	59.7	60.4	60.1	60.3	60.9	60.6	59.8	60.3	60.3	58.2	57.3	56.5	55.6	53.4	52.9	52.9	52.6	51.1	53.5	51.4	54.8	57.4	58.6
Loc 4	Rt. 414 north of SMI berm	59.6	60.0	60.5	60.0	60.3	60.3	60.0	59.5	59.6	59.6	57.2	56.3	56.8	55.1	54.1	53.7	54.3	52.9	53.3	53.9	53.5	57.2	58.5	59.8
Loc 5	West boundary northwest of SMI	48.3	47.4	42.7	43.7	42.5	42.3	45.2	46.1	48.1	46.8	48.8	48.7	48.1	46.0	46.2	46.7	46.4	46.3	45.1	44.3	44.5	44.7	44.6	45.4
Loc 6	West boundary at WEX berm	43.8	52.3	49.9	55.4	55.3	44.8	59.6	51.9	45.3	44.1	43.8	42.7	42.2	42.3	42.7	42.1	41.5	41.1	41.0	40.8	40.8	40.8	41.9	45.1
Loc 7	Burgess Road at Salcman Road	46.8	46.8	45.7	47.6	47.9	46.4	46.0	46.6	48.3	47.8	47.7	46.2	46.6	45.7	45.4	45.0	43.7	42.7	42.5	42.4	42.7	43.4	44.2	47.4
Loc 8	South boundary	47.0	47.0	46.6	48.7	47.1	47.8	63.9	47.6	47.7	47.8	48.4	46.3	46.2	59.8	45.7	44.4	43.9	42.7	42.4	42.5	42.9	44.3	45.8	47.2
Loc 9	South boundary	49.5	44.1	44.2	44.5	45.4	43.2	45.0	43.7	44.1	43.8	43.8	43.7	45.6	45.8	46.0	45.4	44.7	47.5	43.1	43.1	43.6	43.8	44.9	46.1
Loc 10	West boundary at Stage 6	62.4	62.3	62.3	62.3	61.9	61.5	63.1	62.1	62.2	55.7	47.0	45.0	46.8	45.2	45.0	44.1	43.9	43.4	43.2	42.9	43.3	43.4	45.8	60.3

All survey data was measured by Aurora Acoustical Consultants Inc.

Table 1 (cont.)
Summary of L_{eq} Noise Levels (dBA) Measured Along Landfill Property Lines with Logging Instruments

Measure-ment Location	Location Description	August 1-2, 2019																								
		Daytime hourly average (L_{eq}), dBA															Nighttime hourly average (L_{eq}), dBA									
		7-8a	8-9	9-10	10-11	11-12	12-1p	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10p	10-11	11-12	12-1a	1-2	2-3	3-4	4-5	5-6	6-7a
Loc 1	Rt. 414 east of SELF berm	62.5	63.1	62.8	64.0	63.6	63.4	63.3	64.0	64.6	64.5	64.0	61.5	60.4	59.3	58.4	57.2	57.4	57.5	55.9	60.2	56.8	57.5	60.0	63.0
Loc 2	Rt. 414 east of NEX berm	64.1	64.4	63.9	64.7	63.8	63.6	64.3	64.4	64.8	64.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Loc 3	Rt. 414 east of SMI berm	59.6	59.4	59.4	59.0	58.8	59.3	58.8	59.7	59.8	60.4	60.0	59.0	58.6	57.7	57.5	58.8	54.8	55.5	55.5	54.1	54.6	54.5	57.0	58.6
Loc 4	Rt. 414 north of SMI berm	60.5	59.9	59.5	59.9	59.4	59.3	59.4	59.5	59.2	59.6	58.3	57.5	56.5	55.6	54.3	53.8	54.3	55.8	53.2	54.1	53.7	55.5	58.9	60.2
Loc 5	West boundary northwest of SMI	45.1	45.3	44.7	46.5	46.6	47.4	45.3	45.8	47.8	46.1	45.5	43.6	46.0	51.0	45.3	49.7	47.2	46.1	45.1	45.0	45.0	46.4	45.8	46.6
Loc 6	West boundary at WEX berm	44.3	42.3	43.9	58.4	59.4	45.2	62.1	59.7	57.5	48.3	45.1	44.0	42.7	43.5	44.4	42.9	42.2	42.1	40.7	41.0	40.7	41.1	42.8	47.7
Loc 7	Burgess Road at Salcman Road	47.2	45.9	46.1	52.3	54.9	50.0	48.7	47.1	46.9	47.2	48.1	46.4	47.1	46.5	46.0	44.1	42.9	42.2	41.6	42.7	42.7	43.3	45.2	46.9
Loc 8	South boundary	47.8	46.1	46.9	48.6	48.4	47.8	62.6	48.1	49.2	49.6	49.6	48.0	46.9	60.2	46.4	45.3	44.9	43.5	43.1	42.8	43.3	44.9	46.3	48.8
Loc 9	South boundary	45.2	43.5	45.3	46.6	45.5	45.9	46.6	46.8	46.6	46.8	44.5	44.0	43.8	44.9	45.1	45.1	45.1	43.7	42.6	43.7	42.9	44.3	45.7	47.1
Loc 10	West boundary at Stage 6	60.2	59.9	59.9	59.9	59.8	59.7	59.8	60.3	60.1	60.2	50.6	45.9	46.6	45.0	44.9	44.8	44.1	43.3	43.3	43.1	43.4	43.4	48.5	61.0

All survey data was measured by Aurora Acoustical Consultants Inc.

Table 1 (cont.)
Summary of L_{eq} Noise Levels (dBA) Measured Along Landfill Property Lines with Logging Instruments

Measure-ment Location	Location Description	August 2, 2019																								
		Daytime hourly average (L_{eq}), dBA															Nighttime hourly average (L_{eq}), dBA									
		7-8a	8-9	9-10	10-11	11-12	12-1p	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10p	10-11	11-12	12-1a	1-2	2-3	3-4	4-5	5-6	6-7a
Loc 1	Rt. 414 east of SELF berm	64.6	63.0	65.7	63.9	63.8	64.2	63.7	63.4	63.6	62.9	61.5	60.7	62.3	-	-	-	-	-	-	-	-	-	-	-	-
Loc 2	Rt. 414 east of NEX berm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Loc 3	Rt. 414 east of SMI berm	60.5	60.1	61.0	59.7	59.7	59.1	58.5	58.8	59.1	59.5	56.4	55.4	-	-	-	-	-	-	-	-	-	-	-	-	-
Loc 4	Rt. 414 north of SMI berm	61.5	60.5	60.5	60.3	60.1	60.2	60.1	59.4	59.8	59.6	57.4	56.6	-	-	-	-	-	-	-	-	-	-	-	-	-
Loc 5	West boundary northwest of SMI	46.5	46.8	45.6	45.8	46.0	45.8	45.7	45.9	45.8	73.3	73.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Loc 6	West boundary at WEX berm	43.8	50.6	43.7	53.4	50.1	43.4	47.5	55.9	64.5	59.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Loc 7	Burgess Road at Salcman Road	47.9	46.2	45.8	46.7	48.4	46.5	47.3	46.8	48.9	49.7	48.8	47.6	46.2	-	-	-	-	-	-	-	-	-	-	-	-
Loc 8	South boundary	48.0	46.4	47.2	46.8	48.3	47.8	64.2	47.3	48.4	48.4	48.6	60.7	47.2	-	-	-	-	-	-	-	-	-	-	-	-
Loc 9	South boundary	45.4	44.3	45.0	46.3	46.4	46.2	46.2	45.5	45.8	44.9	43.9	44.6	44.0	-	-	-	-	-	-	-	-	-	-	-	-
Loc 10	West boundary at Stage 6	60.9	60.4	60.3	60.0	60.2	60.2	59.9	60.1	60.2	60.0	64.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-

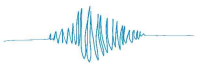
All survey data was measured by Aurora Acoustical Consultants Inc.

Table 2

Summary of L_{eq} Noise Levels (dBA) Sampled Along Landfill Property Lines with Handheld Meter on July 29 and August 2, 2019

Measure-ment Location	Location Description	July 29, 2019		August 2, 2019	
		Average Noise Level L_{eq}, dBA	Sample Start Time	Average Noise Level L_{eq}, dBA	Sample Start Time
Loc 1	East boundary at Rt. 414, east of SELF berm	62.7	5:17 AM	65.1	11:17 AM
		65.3	7:45 AM	65.7	3:35 PM
		64.7	3:11 PM	63.7	7:26 PM
		62.9	6:38 PM	-	-
Loc 2	East boundary at Rt. 414, east of NEX landfill site	64.6	5:36 AM	67.7	10:56 AM
		66.5	7:59 AM	67.8	3:45 PM
		66.0	2:55 PM	64.5	7:06 PM
		61.9	6:53 PM	-	-
Loc 3	East boundary at Rt. 414, east of SMI berm	61.3	5:51 AM	63.2	10:32 AM
		65.7	8:13 AM	62.1	3:58 PM
		64.2	2:40 PM	61.0	6:52 PM
		61.1	7:07 PM	-	-
Loc 4	East boundary at Rt. 414, northeast of SMI	59.4	6:10 AM	61.3	10:07 AM
		61.0	8:27 AM	59.7	4:10 PM
		58.2	2:23 PM	58.7	6:37 PM
		56.0	7:22 PM	-	-
Loc 5	West boundary, northwest of SMI berm	45.3	10:39 AM	46.3	9:38 AM
		47.7	3:32 PM	41.2	1:40 PM
		43.3	6:14 PM	39.6	6:08 PM
Loc 6	West boundary, west of WEX landfill	47.2	9:34 AM	53.6	8:37 AM
		43.3	4:10 PM	38.2	12:52 PM
		44.9	5:32 PM	56.3	5:12 PM
Loc 7	West boundary, at Salcman Road	49.7	6:33 AM	49.0	7:08 AM
		50.2	8:49 AM	46.8	2:17 PM
		48.5	1:45 PM	52.5	8:14 PM
		49.4	5:16 PM	-	-
Loc 8	South boundary	50.3	7:15 AM	49.7	7:51 AM
		51.5	1:10 PM	51.9	3:06 PM
		50.6	4:40 PM	48.8	7:42 PM
Loc 9	South boundary	44.8	6:57 AM	43.2	8:13 AM
		48.5	1:29 PM	44.0	2:41 PM
		41.8	5:00 PM	48.2	7:58 PM
Loc 10	West boundary, opposite Stages 5 and 6	64.0	10:09 AM	62.4	9:11 AM
		50.1	3:53 PM	62.9	1:17 PM
		50.2	5:49 PM	46.7	5:44 PM

All sampled data was measured by Aurora Acoustical Consultants Inc.



5.0 Conclusions

Sound levels were measured along the boundaries of the Seneca Meadows, Inc. landfill to characterize sound emissions of normal daytime landfill operations representative of the year 2019. The sound surveys were obtained in the five-day weekday period from the morning of July 29 through the evening of August 2, 2019. Surveys were obtained at ten representative boundary locations adjoining properties zoned or authorized for residential use, including current residential-use properties, former residential properties, undeveloped properties, and agricultural parcels. The survey period was scheduled to coincide with the seasonal peak period of landfill waste placement operations, landfill maintenance activities, and construction activities. The survey period additionally corresponds to the peak annual period of highway traffic on the adjoining Route 414 and Route 96. The sound levels were continuously monitored at each survey location throughout the survey period with logging instruments which obtained sound level data in fifteen-minute periods. The fifteen-minute average levels were processed into hourly-average sound levels, designated $L_{eq\text{-}1\ hr}$.

The acceptability of the measured sound levels were assessed referencing sound level limits specified in the 6 NYCRR Part 360 Regulations for Solid Waste Management Facilities effective November 4, 2017. The measured hourly-average sound levels were compared to the hourly-average sound level limits for daytime and nighttime periods associated with the *suburban* community character listed in 6 NYCRR Part 360 Section 360-1.19(j) to evaluate acceptability of the sounds produced by landfill operations. The suburban community character is considered representative of the adjoining properties based on the density of residences, the character and density of nearby commercial and industrial development, and the increasing volume of traffic on adjoining highways. The sound level limits associated with the community character are 62 dBA L_{eq} in daytime hours from 7:00 a.m. to 10:00 p.m. and 52 dBA L_{eq} in nighttime hours from 10:00 p.m. to 7:00 a.m.

The survey locations represented properties zoned or authorized for residential purposes in the Town of Waterloo and the Town of Seneca Falls, New York, including those zoned Low-Density Residential, High-Density Residential, Agricultural, and Highway Commercial. The surveys of noise, assessments of data, and reports of findings and conclusions were prepared by Aurora Acoustical Consultants Inc. of East Aurora, New York. Supporting information on landfill waste acceptance operations, maintenance operations, construction activities, and local weather data were supplied by Seneca Meadows, Inc.

The sound surveys characterized the sound levels produced by normal daily waste placement and cover activities at the Stage 6 landfill area. The waste placement operations were observed to involve waste compactors, bulldozers, trailer tippers, and waste hauling trucks. Daily cover operations were performed by articulated trucks and bulldozers using soils obtained from the materials storage area, excavation areas, and

other storage locations. Maintenance operations included soil cover operations on the plateau of NEX Stages 7-8, and soil loading operations at WEX Stages 3-4. Other site maintenance operations included watering of access roads and water loading at retention ponds, loading and transport of soils from storage areas, operations of odor-neutralizing systems, operation of the flare system, and cleaning of leachate collection systems. Daily operations included the use of a small flare blower system at the base of the WEX berm. Construction activities included soil excavation, grading, drilling, and loading at Stage 5, and installation of collection systems at Stage 6 and on the western side of the WEX berm.

During the operating year 2019, Seneca Meadows, Inc. received no noise complaints from occupants of the adjoining residential properties.

Locations 1, 2, 3, 4

Sound level logging and sampling surveys at Locations 1, 2, 3, and 4 identified the sound levels received at four existing residences, several former residential-use properties, and undeveloped wooded properties along the eastern boundary on both sides of Route 414. The properties are contained in Highway Commercial, which are authorized for residential use, and Flood Plain Protection zoning districts. Large areas of former residential-use properties and undeveloped properties on both sides of the highway are owned by SMI. Other properties along the eastern boundaries of the landfill include energy facilities, commercial operations, educational facilities, undeveloped wooded property, and agricultural fields located on parcels zoned Highway Commercial and Agricultural. Commercial developments include a vehicle auction facility, a commercial vehicle repair facility, an automobile repair facility, and a commercial office building. Educational facilities consist of the Seneca Meadows Environmental Education Center. Energy facilities consist of the Seneca Energy, Inc. gas-to-energy facility (SEI) and the Exxon-Mobil gas pipeline facility. Noise levels at non-residential properties are not regulated by Part 360.

Properties located east of the commercial corridor between Route 414 and Blackbrook Road comprise broad areas of undeveloped wooded land, agricultural-use parcels, and the Seneca Meadows wetland restoration area, which are holdings of SMI. The noise levels at residential properties along Black Brook Road are dominated by environmental and traffic sounds. The landfill sounds are predicted to be a minimum of 30 dBA lower than levels measured on the eastern boundary as the result of sound attenuation by distance, vegetative screening and absorption, and terrain absorption. The received sounds are imperceptible in comparison to the local ambient sound levels.

The dominant source of received sound at survey locations on the eastern landfill boundary is highway traffic on Route 414. At survey Locations 1 and 2, the background traffic noise levels include sounds of vehicles accelerating and decelerating vehicles in the vicinity of the signalized entrance to SMI and the driveway for the leachate storage area, which causes increases in traffic noise levels. At survey Locations

3 and 4 the traffic is free flowing and steady, with slightly lower noise emissions. Additional sources of sound at Locations 1 and 2 include components of the Seneca Energy Inc. gas-to-energy facility. Additional sources of received sounds observed at Locations 3 and 4 consisted of environmental sources including birds, insects, and wind in trees. The Chesapeake Appalachia LLC gas compressor station was perceptible between daytime traffic passes.

The nighttime noise levels at Locations 1 to 2 are due to the combination of traffic and operations of the SEI facility. The nighttime noise levels at Locations 3 and 4 are due to traffic and environmental sources. At Location 4, the Chesapeake Appalachia LLC gas compressor station and calling amphibians in wetland areas also contribute to noise levels in nighttime hours.

The daytime background hourly-average noise levels at survey Locations 1 and 2 were found to exceed the Part 360 standard daytime sound level limits during daytime hours of landfill operations. The nighttime background noise levels at Locations 1 to 2 were found to consistently exceed the Part 360 standard nighttime sound level limits in the nighttime hours. The nighttime levels at Locations 3 and 4 in the majority of nighttime periods exceeded the nighttime limits.

At survey Locations 3 and 4, the daytime background traffic noise levels during daytime hours of landfill operations were below the Part 360 standard daytime sound level limits. The levels at each location may be referenced as the background traffic noise levels along the eastern facility boundary. The background residual levels are defined in the regulations as the received sound levels without contributions of facility sound sources.

The acceptability of the measured sound levels at Locations 1 and 2 was determined by evaluating the perceptibility of landfill sources with respect to the background residual noise levels, and by evaluating the differences in sound levels with respect to the background sound levels at Location 4 referencing 6 NYCRR Part 360 in Section 360-1.19 (j)(1). At both locations, the landfill activities were not perceptible due to screening of berms and sound attenuation due to distance, and due to the masking of facility sounds by the higher levels of background traffic noise.

At Location 1, the daytime sound levels were within 3 dBA of the background levels at Location 4 during 9 of 69 daytime hours, excluding rain periods. At Location 2, the daytime sound levels were within 3 dBA of the background levels at Location 4 during 0 of 52 daytime hours. At Location 3, the daytime sound levels were within 3 dBA of the background levels at Location 4 during 67 of 69 daytime hours. The differences larger than 3 dBA are attributed to added traffic noise from vehicle acceleration and deceleration at Locations 1 and 2 compared to background noise from free-flowing traffic at Location 4. Vegetative effects at Location 4 may have also slightly reduced the received sound levels.

At Location 1, the nighttime sound levels were within 3 dBA of the background levels at Location 4 during 26 of 37 nighttime hours, excluding rain periods. At Location 2, the nighttime sound levels were within 3 dBA of the background levels at Location 4 during 10 of 28 recorded nighttime hours. At Location 3, the nighttime sound levels were within 3 dBA of the background levels at Location 4 during 36 of 37 nighttime hours. The differences larger than 3 dBA are attributed to added traffic noise from vehicle acceleration and deceleration and added noise from the SEI gas-to-energy facility at Locations 1 and 2, and vegetative effects at Location 4.

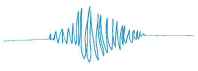
It is concluded from the daytime sound surveys and observations at Locations 1 and 2 that the measured hourly-average sound levels exceed the standard Part 360 daytime sound level limit due to elevated levels of background traffic noise. The background levels at Locations 1 and 2 are more than 3 dBA above background levels at Locations 3 and 4, however, the differences are due to traffic noise effects and contributions of the SEI facility. The landfill sounds are imperceptible compared to traffic noise, and do not significantly contribute to the measured sound levels. It is accordingly concluded the daytime sound levels at Locations 1 and 2 are acceptable in accord with the background noise level criterion stated in 6 NYCRR Part 360 in Section 360-1.19 (j)(1).

It is concluded from daytime sound surveys at Locations 3 and 4 that the measured hourly-average daytime sound levels do not exceed the 62 dBA $L_{eq\text{-}1\,hr}$ daytime noise level limit for the suburban community character defined in 6 NYCRR Part 360 Section 360-1.19(j) and are therefore acceptable.

It is concluded from the nighttime sound surveys and observations at Locations 1 to 4 that the measured hourly-average sound levels exceed the standard Part 360 nighttime sound level limit due to elevated levels of background traffic noise. The background levels at Locations 1 and 2 are more than 3 dBA above background levels at Locations 3 and 4, however, the differences are due to traffic noise effects and contributions of the SEI facility. The landfill does not produce significant noise in nighttime hours. It is accordingly concluded the nighttime sound levels at Locations 1 to 4 are acceptable in accord with the background noise level criterion stated in 6 NYCRR Part 360 in Section 360-1.19 (j)(1).

Locations 5, 6, 7, 10

Sound level logging and sampling surveys at Locations 5, 6, 7, and 10 on the western boundary of the landfill identified the sound levels received from landfill operations and environmental sources at adjoining properties zoned or authorized for residential use. The represented receptors include existing residential properties, former residential-use properties, agricultural-use parcels, and areas that are currently wooded and undeveloped.



The daytime sound levels at Location 5 were dominated by environmental sounds. In contrast, landfill operations were only faintly perceptible at Location 5 and did not significantly contribute to measured sound levels. Environmental sources were dominant in nighttime hours. It is concluded from surveys and observations that the monitored landfill noise levels at Location 5 comply with the 62 dBA daytime L_{eq} noise level criterion and the L_{eq} 52 dBA nighttime noise level criterion of 6 NYCRR Part 360 Section 360-1.19(j).

The daytime sound levels at Location 6 were largely influenced by environmental sounds. Landfill operations and construction at Stage 6 were only partly perceptible. Soil activities at the NEX and WEX berm and Salcman Road material storage area were imperceptible. Operation of the flare system was imperceptible. Nearby construction activities on the WEX berm face and farm activities in the adjoining agricultural parcel contributed to the property line noise levels in a number of the hourly averages. Environmental sources were dominant in nighttime hours. It is concluded from surveys and observations that the monitored landfill noise levels at Location 6 comply with the 62 dBA daytime L_{eq} noise level criterion and the L_{eq} 52 dBA nighttime noise level criterion of 6 NYCRR Part 360 Section 360-1.19(j).

The daytime sound levels at Location 7 consisted of environmental sounds combined with sounds of landfill traffic and soil operations at the Salcman Road material storage area. Landfill operations at Stage 6, area maintenance activities, operation of the flare system, and construction at Stages 5 and 6 were not perceptible at Location 7 and did not significantly contribute to measured sound levels. Environmental sources were dominant in nighttime hours. One nighttime noise exception was due to a surveyor artifact. It is concluded from surveys and observations that the monitored landfill noise levels at Location 7 comply with the 62 dBA daytime L_{eq} noise level criterion and the L_{eq} 52 dBA nighttime noise level criterion of 6 NYCRR Part 360 Section 360-1.19(j).

The daytime sound levels at Location 10 were due to the combination of landfill operations at Stage 6, construction at Stages 5 and 6, and maintenance operations at Stage 6. The combined activities caused increases of approximately 1 dBA in six daytime hours, and of less than 3 dBA and less than 8 dBA in two other hours, which are attributed to construction equipment. Environmental sources were dominant in nighttime hours. Construction operations at a landfill are not regulated under 6 NYCRR Part 360 in assessments of sound level compliance. Rulings of New York State Department of Environmental Conservation have concluded that noise contributions from construction sources are not regulated under the Part 360 regulations (Matter of Saratoga County Landfill, Second Interim Decision, October 3, 1995, page 8). It is concluded from surveys and observations that the monitored landfill noise levels at Location 10 comply with the 62 dBA L_{eq} daytime noise level criterion and the 52 dBA L_{eq} nighttime noise level criterion of 6 NYCRR Part 360 Section 360-1.19(j).

Locations 8, 9

Sound level logging and sampling surveys at Locations 8 and 9 on the southern boundary of the landfill identified the sound levels received from landfill operations and environmental sources at adjoining properties zoned or authorized for residential use, including existing residential properties and areas that are currently wooded and undeveloped.

The daytime sound levels at Location 8 were dominated by traffic and environmental sounds. Traffic on landfill roads was partly perceptible between traffic passes, and did not significantly contribute to measured sound levels. Environmental sources were dominant in nighttime hours. Exceptions occurred in five daytime hours and in two nighttime hours, which are attributed to train passes at the adjoining grade crossing. It is concluded from surveys and observations that the monitored landfill noise levels at Location 5 comply with the 62 dBA daytime L_{eq} noise level criterion and the L_{eq} 52 dBA nighttime noise level criterion of 6 NYCRR Part 360 Section 360-1.19(j).

The daytime sound levels at Location 9 were dominated by environmental sounds. Traffic on landfill roads and operations in the nearby materials storage area were partly perceptible, and did not significantly contribute to measured sound levels. Environmental sources were dominant in nighttime hours. It is concluded from surveys and observations that the monitored landfill noise levels at Location 5 comply with the 62 dBA daytime L_{eq} noise level criterion and the L_{eq} 52 dBA nighttime noise level criterion of 6 NYCRR Part 360 Section 360-1.19(j).

Black Brook Road, North Road, and Strong Road

Sound levels at the nearest non-contiguous residences east of the landfill along Black Brook Road are predicted to be attenuated a minimum of 30 dBA from the levels measured along the eastern boundary due to distance, vegetative screening, soil absorption, and berm screening. Sound levels at the nearest non-contiguous residences west of the landfill along North Road are predicted to be a minimum of 5 dBA lower than the levels measured at Location 7. Sound levels at the nearest non-contiguous residences north of the landfill along Strong Road are predicted to be attenuated a minimum of 90 dBA from east boundary levels. It is predicted the received sound levels at the nearest non-contiguous residences in each direction comply with the 62 dBA daytime L_{eq} noise level criterion and the L_{eq} 52 dBA nighttime noise level criterion of 6 NYCRR Part 360 Section 360-1.19(j).

Sound Surveys Summary

The findings of the logging surveys, sampling surveys, survey observations, and sound level assessments are summarized in Table 3 along with conclusions regarding the compliance of the noise levels received at the boundaries of the Seneca Meadows, Inc. landfill with respect to noise level limits associated with the suburban community character contained in 6 NYCRR Part 360 Section 360-1.19(j) and with respect to residual background noise levels as described in 6 NYCRR Part 360 Section 360-1.19(j) (1).

Table 3 2019 Annual Sound Survey Findings and Noise Compliance Summary

Location	Noise Monitoring Location Description	Background Sound Source & Landfill Operations Audibility and Compliance
Location 1	East boundary on east side of SELF, 1500 ft north of current Salcman Road entrance, 100 ft from edge of S.R. 414, adjacent to Highway Commercial zoning district. Represents former residential-use properties on east side of highway in Highway Commercial zoning (current holdings of SMI). Property to southeast contains a former residence, formerly used as a construction office and not in use during surveys, 450 ft from survey location. Other properties, previously used for agriculture, were not in farm use during surveys.	Dominant source of received noise levels is traffic on State Route 414 with added sounds of accelerating and decelerating vehicles and jake brakes at signalized SMI entrance, SEI driveway, and leachate area driveway. Landfill operations at Stage 6 and associated site truck traffic were imperceptible due to distance and screening of the SELF berm. The landfill sources did not contribute to the measured noise levels. Soil placement and transport activities at the WEX plateau and NEX plateau were imperceptible due to distance and screening of the SELF berm. The maintenance sources did not contribute to the measured noise levels. Operations of the gas flare system were imperceptible due to distance and screening of the SELF berm. The sources did not contribute to the measured noise levels. Construction operations at Stages 5 and 6 were imperceptible due to distance and screening of the SELF berm. The construction sources did not contribute to the measured noise levels. Leachate collection system maintenance on the eastern face of the SELF berm was imperceptible. The maintenance sources did not contribute to the measured noise levels. Operations of the SEI gas-to-energy plant and High BTU plant were perceptible in the daytime between traffic and in hours after landfill hours of operation. The sources partly contributed to the measured daytime noise levels. The sources were perceptible in nighttime hours and largely influenced the measured nighttime levels. Noise acceptability was assessed by assessing perceptibility with respect to the background noise, and by comparing measured sound levels to background traffic noise levels measured at Location 4 The measured hourly-average noise levels are attributed to daytime and nighttime traffic background sources and nighttime environmental sources, and are concluded to comply with the alternate background noise criteria of Part 360 Paragraph 360-1.19(j)(1) for daytime and nighttime hours.

Table 3 (Cont.) Sound Survey and Compliance Summary

Location	Noise Monitoring Location Description	Background Sound Source & Landfill Operations Audibility and Compliance
Location 2	Eastern boundary to east of NEX, 400 ft south of leachate facility driveway, 90 ft from edge of S.R. 414, adjacent to Highway Commercial zoning district. Represents former residential-use property, former agricultural-use property, and undeveloped property on east side of highway in Flood Plain Protection, Highway Commercial, an Agricultural zoning districts (current holdings of SMI, includes retention ponds).	Dominant source of received noise levels is traffic on State Route 414 with added sounds of accelerating and decelerating vehicles and jake brakes at signalized SMI entrance and leachate area driveway. Landfill operations at Stage 6 and associated site truck traffic were imperceptible due to distance and screening of the SELF and NEX berms. The landfill sources did not contribute to the measured noise levels. Soil placement and transport activities at the WEX plateau and NEX plateau were imperceptible due to distance and screening of the SELF and NEX berms. The maintenance sources did not contribute to the measured noise levels. Operations of the gas flare system were imperceptible due to distance and screening of the NEX and SELF berms. The sources did not contribute to the measured noise levels. Construction operations at Stages 5 and 6 were imperceptible due to distance and screening of the SELF berm. The construction sources did not contribute to the measured noise levels. Leachate collection system maintenance on the eastern face of the SELF berm was imperceptible. The maintenance sources did not contribute to the measured noise levels. Operations of the SEI gas-to-energy plant and High BTU plant were perceptible in the daytime between traffic and in hours after landfill hours of operation. The sources partly contributed to the measured daytime noise levels. The sources were perceptible in nighttime hours and largely influenced the measured nighttime levels. Noise acceptability was assessed by assessing perceptibility with respect to the background noise, and by comparing measured sound levels to background traffic noise levels measured at Location 4 The measured hourly-average noise levels are attributed to daytime and nighttime traffic background sources and nighttime environmental sources, and are concluded to comply with the alternate background noise criteria of Part 360 Paragraph 360-1.19(j)(1) for daytime and nighttime hours.

Table 3 (Cont.) Sound Survey and Compliance Summary

Location	Noise Monitoring Location Description	Background Sound Source & Landfill Operations Audibility and Compliance
Location 3	Eastern boundary, 6900 ft north of current Salcman Road entrance, 100 ft from edge of S.R. 414, at Highway Commercial zoning. Represents current residential-use property 300 ft northeast of location on east side of highway and former residential use property 750 ft to north on west side of highway. Represents former residential-use and undeveloped properties on west side of highway (owned by SMI) authorized for residential use in Highway Commercial zoning. Represents undeveloped properties on east side of highway (owned by SMI) authorized for residential use in Highway Commercial & Agricultural zoning.	Dominant source of received noise levels is traffic on State Route 414. Traffic is free flowing without significant acceleration and deceleration events. Environmental sources are contributory sources. Landfill operations at Stage 6 and associated site truck traffic were imperceptible due to distance and screening of the SMI and NEX berms. The landfill sources did not contribute to the measured noise levels. Soil placement and transport activities at the WEX plateau and NEX plateau were imperceptible due to distance and screening of the NEX and SMI berms. The maintenance sources did not contribute to the measured noise levels. Operations of the gas flare system were imperceptible due to distance and screening of the SMI and NEX berms. The sources did not contribute to the measured noise levels. Construction operations at Stages 5 and 6 were imperceptible due to distance and screening of the SMI and NEX berms. Leachate collection system maintenance on the eastern face of the SELF berm was imperceptible. The maintenance sources did not contribute to the measured noise levels. Operations of the SEI gas-to-energy plant and High BTU plant were occasionally faintly perceptible in the daytime between traffic and in hours after landfill hours of operation. The sources may have minimally contributed to the measured daytime and nighttime levels. The measured daytime hourly-average noise levels comply with the suburban limits of Part 360 Paragraph 360-1.19(j). Nighttime noise acceptability was assessed by assessing perceptibility with respect to the background noise, and by comparing measured sound levels to background traffic noise levels measured at Location 4 The measured hourly-average noise levels are attributed to nighttime traffic background sources and nighttime environmental sources, and are concluded to comply with the alternate background noise criteria of Part 360 Paragraph 360-1.19(j)(1) for daytime and nighttime hours.

Table 3 (Cont.) Sound Survey and Compliance Summary

Location	Noise Monitoring Location Description	Background Sound Source & Landfill Operations Audibility and Compliance
Location 4	Eastern boundary, 9350 ft north of current Salcman Road entrance, 100 ft from edge of S.R. 414, adjacent to Highway Commercial zoning. Represents residential-use property 230 ft north of location and adjacent agricultural properties west of location on west side of highway in Highway Commercial zoning. Represents two residential-use properties 580 ft and 800 ft southeast on east side of highway in Highway Commercial and Agricultural zoning. Represents undeveloped property on east side of highway (owned by SMI) in Highway Commercial and agricultural zoning.	Dominant source of received noise levels is traffic on State Route 414. Traffic is free flowing without significant acceleration and deceleration events. Secondary daytime sources and dominant nighttime sources are environmental, and the nearby gas compressor facility. Landfill operations at Stage 6 and associated site truck traffic were imperceptible. The landfill sources did not contribute to the measured noise levels. Soil placement and transport activities at the WEX plateau and NEX plateau were imperceptible due to distance and screening of the SELF and NEX berms. The maintenance sources did not contribute to the measured noise levels. Operations of the gas flare system were imperceptible due to distance and screening of the SMI and NEX berms. The sources did not contribute to the measured noise levels. Construction operations at Stages 5 and 6 were imperceptible due to distance and screening of the SMI and NEX berms. Leachate collection system maintenance on the eastern face of the SELF berm was imperceptible. The maintenance sources did not contribute to the measured noise levels. Operations of the SEI gas-to-energy plant and High BTU plant were not distinguishable. Sounds of the nearby compressor station were partly perceptible between traffic and in hours after normal hours of waste acceptance. The sources may have partly contributed to the measured noise levels. The measured daytime hourly-average noise levels comply with the suburban limits of Part 360 Paragraph 360-1.19(j). Nighttime noise acceptability was assessed by assessing perceptibility with respect to the background noise, and by comparing measured sound levels to background traffic noise levels measured at Location 4 The measured hourly-average noise levels are attributed to nighttime traffic background sources and nighttime environmental sources, and are concluded to comply with the alternate background noise criteria of Part 360 Paragraph 360-1.19(j)(1) for daytime and nighttime hours.

Table 3 (Cont.) Sound Survey and Compliance Summary

Location	Noise Monitoring Location Description	Background Sound Source & Landfill Operations Audibility and Compliance
Location 5	Western boundary, 900 ft northwest of northwest corner of original SMI landfill, 400 ft east of Burgess Road. Represents suburban residential development and undeveloped residentially authorized properties on east and west sides of Burgess Road, including property holdings of SMI, in Low-Density Residential zoning district.	Dominant sources of background noise are environmental sources (insects, birds, amphibians, wind), local traffic on Burgess Road, and ambient traffic on Route 414. Landfill operations at Stage 6 and associated site truck traffic were not distinguishable due to distance and screening by the Stage 6 berm and vegetation. The landfill sources did not significantly contribute to the measured noise levels. Soil placement and transport activities at the WEX plateau and NEX plateau were imperceptible due to distance and screening of the SELF and NEX berms. The maintenance sources did not contribute to the measured noise levels. Operations of the gas flare system were imperceptible due to distance and screening of the NEX berm. The sources did not contribute to the measured noise levels. Construction operations at Stages 5 and 6 were only occasionally faintly perceptible due to distance and screening of vegetation. The construction sources did not significantly contribute to the measured noise levels. The measured hourly-average noise levels comply with the suburban limits of Part 360 Paragraph 360-1.19(j) in the daytime hours. The hourly-average noise levels in nighttime hours exceeded the nighttime limits at times due to insect activity.

Table 3 (Cont.) Sound Survey and Compliance Summary

Location	Noise Monitoring Location Description	Background Sound Source & Landfill Operations Audibility and Compliance
Location 6	Western boundary, 1350 ft north of Salcman Road, 900 ft east of Burgess Road. Adjoins agricultural properties on east side of Burgess Road in Low-Density Residential zoning district. Represents two residences on east side of Burgess Road and undeveloped residentially authorized properties, including property holdings of SMI, in Low-Density Residential zoning district.	Dominant sources of background noise are environmental sources (insects, birds, wind), and local traffic on Burgess Road. Landfill operations at Stage 6 and associated site truck traffic were minimally perceptible due to screening of the WEX berm. The landfill sources minimally contributed to the measured noise levels. Soil placement and transport activities at the WEX plateau and NEX plateau were imperceptible due to distance and screening of the WEX berm. The maintenance sources did not contribute to the measured noise levels. Operations of the gas flare system were imperceptible due to distance and screening of the WEX berm. The sources did not contribute to the measured noise levels. Operations at Meadow View Mine were not in progress. Construction operations at Stages 5 and 6 were partly perceptible. The construction sources partly contributed to the measured noise levels. Construction on the western face of WEX contributed to the measurements. Farming activities influenced daytime measurements in one hour. The measured hourly-average noise levels comply with the suburban limits of Part 360 Paragraph 360-1.19(j) in the daytime and nighttime hours.

Table 3 (Cont.) Sound Survey and Compliance Summary

Location	Noise Monitoring Location Description	Background Sound Source & Landfill Operations Audibility and Compliance
Location 7	On western boundary near southwest corner of holdings, 100 ft north of Salcman Road, 200 ft east of Burgess Road. Represents five residences on south side of Salcman Road in suburban grouping on east side of Burgess Road (four owned by SMI), and former residential-use properties on east side of Burgess Road north of Salcman Road intersection (owned by SMI), in Moderate-Density Residential zoning district.	Received sound levels are the combination of traffic on Salcman Road, soil loading operations at the Salcman Road material storage area, and background traffic on Burgess Road and North Road, and sounds of environmental sources (birds, insects, amphibians, wind). Landfill operations at Stage 6 and associated site truck traffic were not distinguishable due to distance and screening by the WEX berm. The landfill sources did not significantly contribute to the measured noise levels. Soil placement and transport activities at the WEX plateau and NEX plateau were imperceptible due to distance and screening of the WEX berms. The maintenance sources did not contribute to the measured noise levels. Operations of the gas flare system were imperceptible due to distance and screening of the WEX berm. The sources did not contribute to the measured noise levels. Construction operations at Stages 5 and 6 were not perceptible due to distance and screening of the WEX berm. The construction sources did not contribute to the measured noise levels. The measured hourly-average noise levels comply with the suburban limits of Part 360 Paragraph 360-1.19(j) in the daytime and nighttime hours.

Table 3 (Cont.) Sound Survey and Compliance Summary

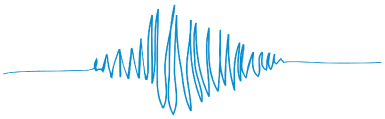
Location	Noise Monitoring Location Description	Background Sound Source & Landfill Operations Audibility and Compliance
Location 8	On southern boundary of facility holdings, south of southern retention ponds, 175 ft north of North Road, 175 ft west of railroad crossing. Represents suburban grouping of residences on north and south sides of North Road between railroad crossing and Burgess Road, including holdings of SMI on north side of road, in Moderate-Density Residential and Village zoning districts.	Received sound levels are the combination of traffic on Salcman Road, background traffic on North Road, train passes, and sounds of environmental sources (birds, insects, amphibians, wind). Landfill operations at Stage 6 and associated site truck traffic were not distinguishable due to distance. The landfill sources did not significantly contribute to the measured noise levels. Soil placement and transport activities at the WEX plateau and NEX plateau were imperceptible due to distance. The maintenance sources did not contribute to the measured noise levels. Operations of the gas flare system were imperceptible due to distance. The sources did not contribute to the measured noise levels. Construction operations at Stages 5 and 6 were not perceptible due to distance. The construction sources did not contribute to the measured noise levels. Train passes are attributed to 5 daytime and 2 nighttime exceptions. The measured hourly-average noise levels comply with the suburban limits of Part 360 Paragraph 360-1.19(j) in the daytime and nighttime hours.

Table 3 (Cont.) Sound Survey and Compliance Summary

Location	Noise Monitoring Location Description	Background Sound Source & Landfill Operations Audibility and Compliance
Location 9	On southern boundary of facility holdings, south of southern retention ponds, 800 ft north of North Road, 250 ft east of bus garage entrance. Represents residence 400 ft to southwest (owned by SMI), residence 650 ft south of location along North Road in Moderate-Density Residential, and residences 850 ft south in Village zoning districts.	Received sound levels are the combination of traffic on Salcman Road, soil loading activities at the Salcman Road material storage area, background traffic on North Road and the bus garage road, and sounds of environmental sources (birds, insects, amphibians, wind). Landfill operations at Stage 6 and associated site truck traffic were not distinguishable due to distance. The landfill sources did not significantly contribute to the measured noise levels. Soil placement and transport activities at the WEX plateau and NEX plateau were imperceptible due to distance. The maintenance sources did not contribute to the measured noise levels. Operations of the gas flare system were imperceptible due to distance. The sources did not contribute to the measured noise levels. Construction operations at Stages 5 and 6 were not perceptible due to distance. The construction sources did not contribute to the measured noise levels. The measured hourly-average noise levels comply with the suburban limits of Part 360 Paragraph 360-1.19(j) in the daytime and nighttime hours.

Table 3 (Cont.) Sound Survey and Compliance Summary

Location	Noise Monitoring Location Description	Background Sound Source & Landfill Operations Audibility and Compliance
Location 10	On western boundary, 2700 ft north of Salcman Road, 850 ft east of Burgess Road. Adjoins agricultural properties on east side of Burgess Road in Low-Density Residential zoning district. Represents residence on west side of Burgess Road (owned by SMI) in Low-Density Residential zoning district.	Received sound levels are the combination of waste placement activities at Stage 6 combined with construction activities at Stage 5 and 6 and maintenance operations from odor and dust neutralizing systems. Dominant nighttime sources were environmental background sources and traffic on Burgess Road. Soil placement and transport activities at the WEX plateau and NEX plateau were imperceptible due to distance. The maintenance sources did not contribute to the measured noise levels. Operations of the gas flare system were imperceptible due to distance and screening of the WEX berm. The sources did not contribute to the measured noise levels. Construction operations at Stages 5 and 6 and movements of construction equipment are attributed to eight daytime noise exceptions. The exceptions were typically 1 dBA or less. Noise of construction activities is not regulated under Part 360 regulations. The measured hourly-average noise levels comply with the suburban limits of Part 360 Paragraph 360-1.19(j) in the daytime and nighttime hours.
	Black Brook Road	The hourly-average noise levels from activities at Stage 6 are predicted to be attenuated by 50-60 dBA by distance, berms, and vegetation to levels of 20-25 dBA, and comply with the suburban limits of Part 360 Paragraph 360-1.19(j).
	Strong Road	The hourly-average noise levels from activities at Stage 6 are predicted to be attenuated by 60 dBA or more by distance, berms, and vegetation to negligible levels below ambient levels, and comply with the suburban limits of Part 360 Paragraph 360-1.19(j).
	North Road	The hourly-average noise levels from activities at Stage 6, Salcman Road traffic, and soil operations are predicted to be attenuated by 5 dBA or more than levels measured at Location 7 to levels of approximately 37 dBA, and comply with the suburban limits of Part 360 Paragraph 360-1.19(j).



AURORA ACOUSTICAL CONSULTANTS Inc.

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2019
ANNUAL NOISE SURVEY

FOR

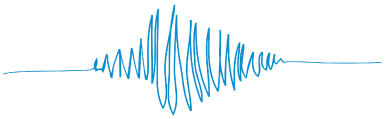
SENECA MEADOWS, INC.
SANITARY LANDFILL
WATERLOO, NEW YORK

VOLUME II

Prepared for
SENECA MEADOWS, Inc.
1786 Salcman Road
Waterloo, New York 13165

Prepared by: Daniel P. Prusinowski

February 18, 2020



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Appendix A

Descriptions of Sound Level Instrumentation

AURORA ACOUSTICAL CONSULTANTS Inc.

SOUND TEST DATE July 29-August 2, 2019

SOUND LEVEL METER:

☒	Larson Davis 831	s/n 0001466	☐	Larson Davis 831	s/n 0001057
	½" mic 377B02	s/n 143898		½" mic 377B20	s/n 105288
	preamp PRM831	s/n 0141		preamp PRM831	s/n 10126
☐	CEL 593.C1R	s/n 3/0991604	☐	Larson Davis 800B	s/n 0327
	½" mic mk250	s/n 2039		½" mic 2559	s/n 1422
	preamp CEL 527	s/n 3/099/1527		preamp 826B	s/n 141
☐	CEL 480	s/n 118393	☐	CEL 440	s/n 058195
	½" mic CEL 250	s/n 1734		½" mic 250	s/n 1554
	preamp CEL 495	s/n 108368		preamp CEL 495	s/n 058195
☐	Rion SA-77	s/n 10151076	☐	Rion SA-78	s/n 00730055
	½" mic B&K 4176R	s/n 1583199		½" mic B&K 4176R	s/n 1583199
	Preamp Rion NH-174	s/n 61582		Preamp Rion NH-174	s/n 61582

☐	Metrosonics db3100	s/n 1163	¼" mic mk3100R	☐	Metrosonics db3100	s/n 4677	¼" mic mk3100R
☒	Metrosonics db3100	s/n 1414	¼" mic mk3100R	☐	Metrosonics db3100	s/n 4763	¼" mic mk3100R
☒	Metrosonics db3100	s/n 1505	¼" mic mk3100R	☐	Metrosonics db3100	s/n 4680	¼" mic mk3100R
☒	Metrosonics db3100	s/n 1511	¼" mic mk3100R	☐	Metrosonics db3100	s/n 4684	¼" mic mk3100R
☐	Metrosonics db3100	s/n 1658	¼" mic mk3100R	☒	Metrosonics db3100	s/n 4689	¼" mic mk3100R
☒	Metrosonics db3100	s/n 3819	¼" mic mk3100R	☒	Metrosonics db3100	s/n 5727	¼" mic mk3100R
☐	Metrosonics db3080	s/n 3980	¼" mic mk3100R	☐	Metrosonics db3080	s/n 5914	¼" mic mk3100R
☒	Metrosonics db3080	s/n 3996	¼" mic mk3100R	☐	Metrosonics db3080	s/n 5916	¼" mic mk3100R
☒	Metrosonics db3080	s/n 4036	¼" mic mk3100R	☐	Metrosonics db3080	s/n 6603	¼" mic mk3100R
☒	Metrosonics db3080	s/n 4049	¼" mic mk3100R	☐	Metrosonics db3080	s/n 6611	¼" mic mk3100R
☐	Metrosonics db3080	s/n 4401	¼" mic mk3100R	☐	Metrosonics db3080	s/n 6614	¼" mic mk3100R
☐	Metrosonics db3080	s/n 4415	¼" mic mk3100R	☐	Metrosonics db3080	s/n 6621	¼" mic mk3100R
☐	Metrosonics db3080	s/n 4418	¼" mic mk3100R	☐	Metrosonics db3080	s/n 6622	¼" mic mk3100R
☒	Metrosonics db3080	s/n 4441	¼" mic mk3100R	☐	Metrosonics db3080	s/n 6623	¼" mic mk3100R
☐	Metrosonics db3080	s/n 4676	¼" mic mk3100R	☐	Metrosonics db3080	s/n 6624	¼" mic mk3100R

CALIBRATOR:

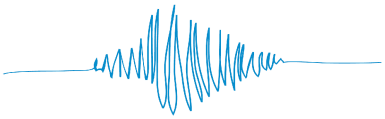
☐	CEL 284/2	s/n 02512942	☐	GenRad 1562	s/n HP138
☐	CEL 284/2	s/n 3/07819583	☐	GenRad 1562	s/n IT109
☒	CEL 284/2	s/n 3/09819815	☐	GenRad 1562A	s/n 6818
☐	CEL 284/2	s/n 4/09921209	☐	GenRad 1562A	s/n 20934
☐	Larson Davis CA250	s/n 0206	☐	GenRad 1567	s/n 15350
☐	Metrosonics cl304	s/n 2054			
☒	Metrosonics cl304	s/n 3067			
☐	Metrosonics cl304	s/n 4541			
☐	Metrosonics cl304	s/n 5523			
☐	Metrosonics cl304	s/n 01379			

WEATHER:

☒ Clear ☐ Cloudy ☒ Brief rain ☐ Fog ☐ Snowing ☐ Snow on Ground ☐ Wet Streets

Temperature = _____ F Winds = _____ @ _____ mph Relative Humidity = _____ %

NOTES: Detailed weather data for the survey week are summarized in Appendix E



AURORA ACOUSTICAL CONSULTANTS Inc.

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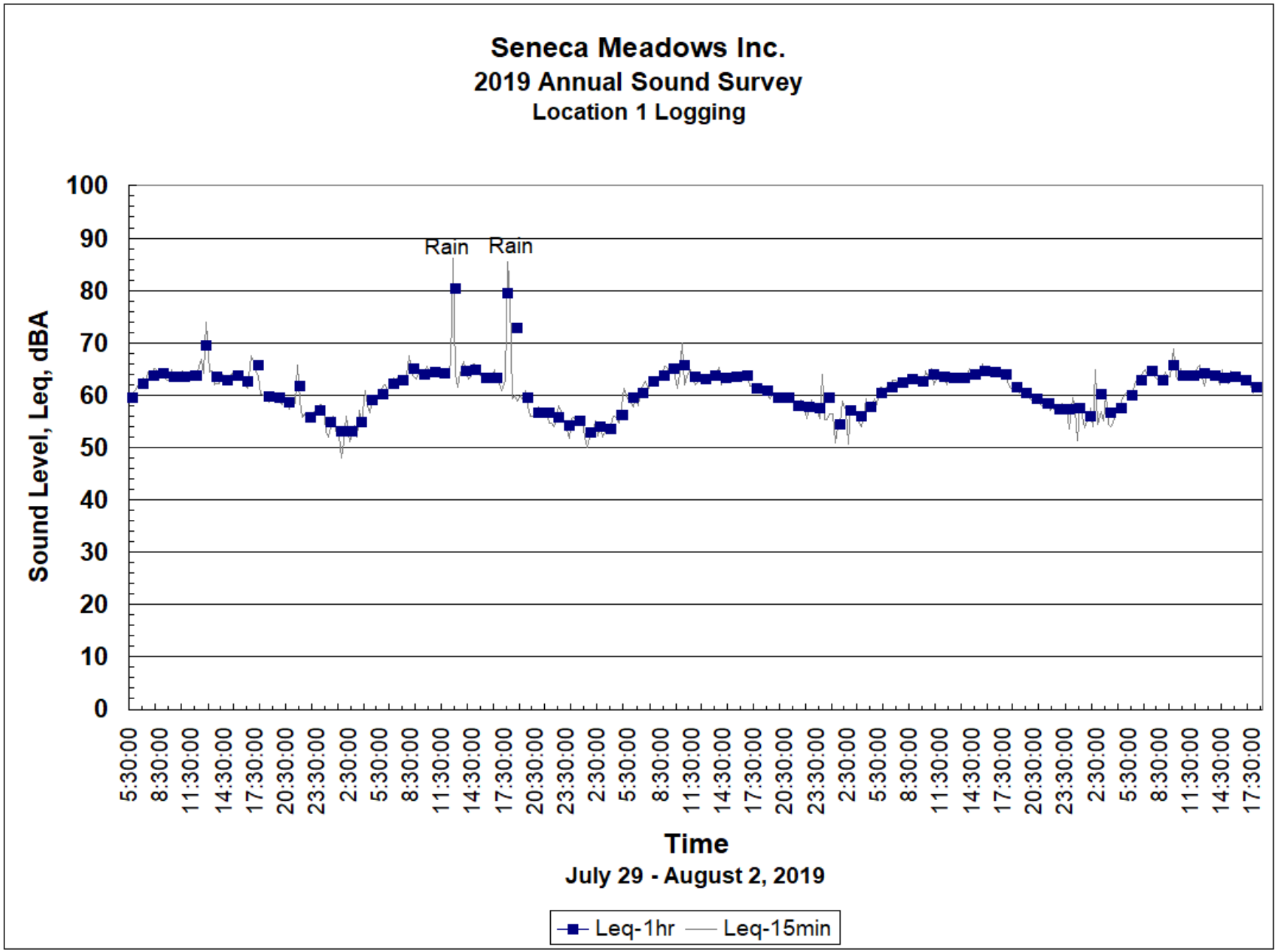
Appendix B

Sound Level Logging Surveys
July 29-August 2, 2019


Seneca Meadows Inc.
2019 Annual Sound Survey
Location 1 Logging
Sound Level, Leq, dBA
100
90
80
70
60
50
40
30
20
10
0
Rain
Rain
5:30:00
8:30:00
11:30:00
14:30:00
17:30:00
20:30:00
23:30:00
2:30:00
Time
July 29 - August 2, 2019
Leq-1hr
Leq-15min

****

Filename LOC1
Test Location 1
Employee Name
Employee No.
Department
Seneca Meadows Inc.
2019 Annual Sound Survey
Aurora Acoustical
Consultants Inc.
Calibrator type Metrosonics CL304 3067
Calibrator calibration date 4/17/2019

****

METROSONICS db-3080 V1.20 SERIAL # 1414
Report printed on 8/6/2019 at 15:23:40

Seneca Meadows Inc.
2019 Annual Sound Survey
Aurora Acoustical
Consultants Inc.
East Aurora, New York

Logging started at	7/29/2019 at 5:30:00
Total logging time	4 DAYS 13:57:39
Logging stopped at	8/2/2019 at 19:27:39
Total intervals	440
Interval length	0:15:00
Auto Stop	NO
Clock synch	YES
Response Rate	SLOW
Filter	A-WEIGHTED
Pre-Test Calibration Time	7/26/2019 at 14:49:21
Pre-Test Calibration Range	41 to 141 dB
Post-Test Calibration Time	8/6/2019 at 14:20:00
Post-Test Calibration Range	41 to 141
Cut-off used for time history Lav	NONE

<<< SUMMARY REPORT FOR TEST NUMBER 1 OF 1 >>>

Exchange Rate	3dB
Cutoffs	60dB 60dB
Ceiling	115dB
DOSE	Criterion level 90dB
DOSE	Criterion length 8 HOURS
Lav(60)	65.6dB
Lav(60)	65.4dB
Lav(60)	65.4dB
SEL	121.4dB
TWA	77.0dB
TWA(60)	76.8dB
TWA(60)	76.8dB
Lmax	104.2dB 7/30/2019 at 12:37:30
Lpk	137.4dB 7/30/2019 at 12:37:30
Time over 115 dB	00:00.0
DOSE(60)	4.69%
DOSE(60)	4.69%

<<< TIME HISTORY REPORT FOR TEST NUMBER 1 OF 1 >>>

	START TIME	Leq(15-min) dBA	Lmax dBA	L(10.0) dBA	L(99.0) dBA	Leq(1-hr) dBA
7/29/2019						
	5:30:00	58.8	72.8	63.0	44.0	
	5:45:00	60.1	73.6	64.0	45.0	59.5
	6:00:00	60.8	74.8	65.0	46.0	
	6:15:00	61.9	73.6	66.0	46.0	
	6:30:00	62.3	74.0	66.0	46.0	
	6:45:00	63.4	75.2	68.0	46.0	62.2
	7:00:00	61.9	73.5	66.0	45.0	
	7:15:00	64.4	76.8	69.0	44.0	
	7:30:00	63.5	74.6	68.0	46.0	
	7:45:00	65.1	80.4	68.0	46.0	63.9
	8:00:00	64.8	80.0	68.0	46.0	
	8:15:00	64.3	76.7	68.0	46.0	
	8:30:00	63.5	73.6	67.0	46.0	
	8:45:00	63.8	74.4	68.0	46.0	64.1
	9:00:00	62.8	75.2	67.0	45.0	
	9:15:00	62.9	78.8	67.0	45.0	
	9:30:00	64.8	80.0	68.0	44.0	
	9:45:00	63.5	78.8	67.0	44.0	63.6
	10:00:00	63.3	75.2	67.0	45.0	
	10:15:00	63.3	77.2	67.0	45.0	
	10:30:00	64.7	77.6	69.0	46.0	
	10:45:00	63.1	74.0	67.0	46.0	63.6
	11:00:00	62.9	74.0	66.0	47.0	
	11:15:00	64.2	78.0	68.0	46.0	
	11:30:00	64.3	79.6	68.0	47.0	
	11:45:00	64.0	76.4	68.0	46.0	63.9
	12:00:00	64.7	82.0	67.0	44.0	
	12:15:00	66.8	88.8	67.0	44.0	
	12:30:00	64.2	75.6	68.0	45.0	
	12:45:00	74.0	96.4	75.0	46.0	69.5
	13:00:00	64.5	79.2	68.0	44.0	
	13:15:00	64.6	76.9	68.0	45.0	
	13:30:00	62.1	74.0	66.0	43.0	
	13:45:00	62.3	74.1	66.0	45.0	63.5
	14:00:00	62.2	71.9	66.0	45.0	
	14:15:00	64.1	79.2	67.0	49.0	
	14:30:00	62.1	73.5	66.0	46.0	
	14:45:00	63.2	78.0	66.0	45.0	63.0
	15:00:00	63.7	77.4	67.0	48.0	
	15:15:00	64.3	80.7	67.0	45.0	
	15:30:00	63.2	76.9	66.0	47.0	
	15:45:00	64.1	79.2	66.0	48.0	63.8
	16:00:00	64.0	74.4	67.0	50.0	
	16:15:00	63.5	74.4	67.0	48.0	
	16:30:00	61.7	73.2	65.0	46.0	
	16:45:00	61.3	73.2	65.0	47.0	62.8
	17:00:00	67.6	80.3	71.0	51.0	
	17:15:00	66.5	75.2	70.0	53.0	
	17:30:00	64.6	75.2	68.0	52.0	
	17:45:00	63.8	77.1	66.0	49.0	65.9
	18:00:00	60.3	70.6	64.0	49.0	
	18:15:00	60.0	72.4	63.0	48.0	
	18:30:00	60.1	73.6	63.0	46.0	
	18:45:00	58.6	69.5	62.0	46.0	59.8
	19:00:00	59.0	72.0	63.0	44.0	
	19:15:00	59.9	76.1	63.0	44.0	
	19:30:00	60.0	73.2	64.0	44.0	
	19:45:00	59.1	74.0	63.0	44.0	59.5
	20:00:00	58.3	71.7	62.0	46.0	
	20:15:00	59.3	74.1	63.0	47.0	
	20:30:00	59.1	70.6	63.0	48.0	
	20:45:00	57.3	73.6	61.0	48.0	58.6
	21:00:00	58.9	73.6	62.0	49.0	

	21:15:00	58.5	76.0	62.0	49.0	
	21:30:00	65.7	88.0	64.0	49.0	
	21:45:00	59.0	77.6	61.0	49.0	61.8
	22:00:00	55.8	71.6	59.0	47.0	
	22:15:00	56.5	72.8	60.0	45.0	
	22:30:00	54.9	71.2	58.0	45.0	
	22:45:00	55.7	71.7	59.0	45.0	55.8
	23:00:00	56.6	71.6	60.0	45.0	
	23:15:00	56.9	70.0	60.0	46.0	
	23:30:00	56.9	76.0	59.0	45.0	
	23:45:00	58.2	78.0	59.0	44.0	57.2
	0:00:00	58.0	77.2	59.0	45.0	
	0:15:00	53.1	74.4	52.0	45.0	
	0:30:00	52.1	67.6	54.0	44.0	
	0:45:00	53.8	72.0	55.0	44.0	54.9
7/30/2019	1:00:00	56.1	74.8	55.0	44.0	
	1:15:00	52.4	69.5	50.0	44.0	
	1:30:00	52.2	71.6	50.0	45.0	
	1:45:00	48.0	64.0	47.0	44.0	53.1
	2:00:00	51.1	69.2	50.0	45.0	
	2:15:00	56.0	77.6	51.0	46.0	
	2:30:00	51.2	67.1	51.0	46.0	
	2:45:00	52.5	72.4	49.0	45.0	53.2
	3:00:00	54.2	72.4	53.0	43.0	
	3:15:00	52.1	68.1	54.0	44.0	
	3:30:00	57.1	74.1	59.0	44.0	
	3:45:00	55.0	74.4	56.0	44.0	55.0
	4:00:00	60.8	77.8	63.0	44.0	
	4:15:00	57.9	75.2	60.0	44.0	
	4:30:00	56.7	72.7	59.0	48.0	
	4:45:00	59.9	75.1	63.0	48.0	59.1
	5:00:00	58.5	74.2	61.0	47.0	
	5:15:00	59.5	72.0	63.0	46.0	
	5:30:00	60.5	73.6	64.0	46.0	
	5:45:00	61.8	74.3	66.0	46.0	60.2
	6:00:00	61.9	74.6	66.0	48.0	
	6:15:00	60.9	75.8	64.0	48.0	
	6:30:00	61.9	72.7	66.0	49.0	
	6:45:00	63.4	76.0	68.0	48.0	62.1
	7:00:00	62.9	76.8	66.0	46.0	
	7:15:00	63.6	77.2	68.0	45.0	
	7:30:00	62.6	75.6	66.0	46.0	
	7:45:00	62.8	75.0	67.0	45.0	63.0
	8:00:00	63.7	75.6	68.0	47.0	
	8:15:00	67.6	88.6	68.0	47.0	
	8:30:00	64.3	75.1	68.0	49.0	
	8:45:00	63.6	73.2	68.0	47.0	65.1
	9:00:00	63.2	79.2	67.0	45.0	
	9:15:00	64.2	78.4	68.0	46.0	
	9:30:00	64.2	76.8	68.0	45.0	
	9:45:00	64.1	77.8	68.0	47.0	63.9
	10:00:00	65.5	83.2	68.0	50.0	
	10:15:00	64.1	77.6	68.0	47.0	
	10:30:00	63.8	73.2	68.0	47.0	
	10:45:00	64.0	77.7	67.0	46.0	64.4
	11:00:00	64.8	76.8	68.0	49.0	
	11:15:00	63.4	76.4	67.0	47.0	
	11:30:00	64.6	83.6	67.0	45.0	
	11:45:00	63.5	75.1	67.0	46.0	64.1
	12:00:00	63.7	80.0	66.0	46.0	
	12:15:00	66.0	76.8	70.0	45.0	
	12:30:00	86.3	104.2	91.0	50.0	
	12:45:00	64.1	82.0	67.0	43.0	80.4
	13:00:00	61.6	74.9	65.0	44.0	
	13:15:00	64.2	82.7	67.0	46.0	
	13:30:00	66.5	86.8	67.0	45.0	
	13:45:00	64.6	81.6	67.0	46.0	64.6
	14:00:00	63.2	75.2	67.0	47.0	
	14:15:00	63.6	73.9	67.0	48.0	

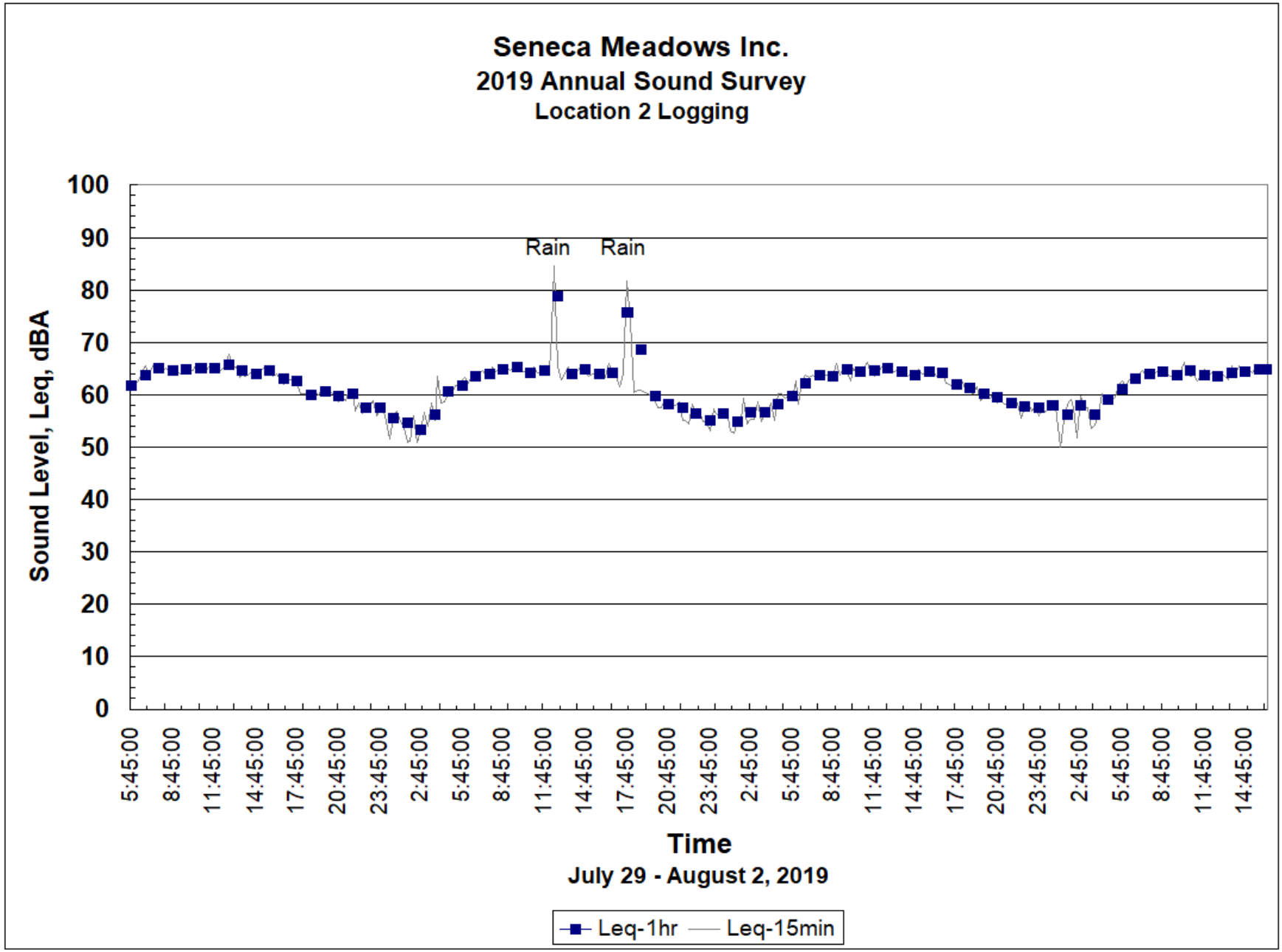
	14:30:00	66.1	80.8	69.0	49.0	
	14:45:00	65.8	79.9	69.0	48.0	64.9
	15:00:00	64.2	76.7	68.0	46.0	
	15:15:00	63.5	81.2	66.0	46.0	
	15:30:00	62.8	73.2	66.0	47.0	
	15:45:00	63.0	75.8	66.0	47.0	63.4
	16:00:00	62.7	78.0	66.0	46.0	
	16:15:00	63.1	73.6	67.0	47.0	
	16:30:00	64.9	84.4	67.0	46.0	
	16:45:00	62.4	75.3	66.0	45.0	63.4
	17:00:00	62.2	71.2	65.0	48.0	
	17:15:00	61.0	76.0	64.0	46.0	
	17:30:00	62.9	76.7	66.0	47.0	
	17:45:00	85.6	103.2	90.0	46.0	79.6
	18:00:00	78.7	97.7	79.0	45.0	
	18:15:00	59.3	73.4	63.0	43.0	
	18:30:00	60.1	74.4	64.0	43.0	
	18:45:00	58.9	72.0	62.0	43.0	72.8
	19:00:00	60.0	75.4	63.0	43.0	
	19:15:00	59.2	75.6	62.0	43.0	
	19:30:00	60.9	82.0	62.0	43.0	
	19:45:00	57.9	73.2	61.0	43.0	59.6
	20:00:00	56.0	73.1	60.0	44.0	
	20:15:00	56.0	70.8	60.0	44.0	
	20:30:00	56.8	69.2	61.0	45.0	
	20:45:00	57.8	73.1	62.0	44.0	56.7
	21:00:00	56.4	73.2	60.0	45.0	
	21:15:00	57.2	74.0	61.0	46.0	
	21:30:00	57.6	73.6	61.0	46.0	
	21:45:00	54.6	67.6	59.0	47.0	56.6
	22:00:00	54.6	68.3	58.0	47.0	
	22:15:00	54.0	64.7	58.0	46.0	
	22:30:00	55.3	68.8	59.0	45.0	
	22:45:00	57.9	77.2	60.0	45.0	55.7
	23:00:00	56.4	73.6	60.0	45.0	
	23:15:00	54.2	68.0	58.0	45.0	
	23:30:00	53.6	70.4	57.0	45.0	
	23:45:00	51.8	65.2	55.0	44.0	54.3
	0:00:00	55.5	71.7	58.0	44.0	
	0:15:00	55.7	72.4	58.0	45.0	
	0:30:00	54.4	74.1	55.0	44.0	
	0:45:00	54.7	74.4	54.0	44.0	55.1
7/31/2019	1:00:00	55.4	70.0	58.0	45.0	
	1:15:00	52.0	70.1	51.0	47.0	
	1:30:00	50.0	66.2	49.0	45.0	
	1:45:00	52.6	68.0	51.0	45.0	52.9
	2:00:00	53.0	70.6	52.0	45.0	
	2:15:00	55.1	71.7	55.0	45.0	
	2:30:00	52.3	69.7	49.0	45.0	
	2:45:00	54.6	72.4	50.0	44.0	53.9
	3:00:00	52.0	70.8	49.0	44.0	
	3:15:00	53.6	72.4	50.0	44.0	
	3:30:00	54.2	73.2	51.0	44.0	
	3:45:00	54.3	71.2	53.0	43.0	53.6
	4:00:00	56.1	71.9	58.0	44.0	
	4:15:00	55.8	71.6	58.0	45.0	
	4:30:00	54.6	68.2	57.0	45.0	
	4:45:00	57.8	74.0	60.0	45.0	56.2
	5:00:00	61.3	82.4	62.0	44.0	
	5:15:00	59.3	74.0	63.0	44.0	
	5:30:00	59.0	75.2	62.0	43.0	
	5:45:00	57.7	71.9	62.0	43.0	59.5
	6:00:00	59.8	73.3	64.0	44.0	
	6:15:00	58.0	73.2	62.0	43.0	
	6:30:00	60.8	73.0	65.0	44.0	
	6:45:00	62.1	74.4	66.0	44.0	60.4
	7:00:00	62.6	78.8	66.0	45.0	
	7:15:00	61.4	74.3	65.0	44.0	
	7:30:00	63.1	80.8	66.0	46.0	

7:45:00	63.6	76.4	67.0	46.0	62.7
8:00:00	62.9	74.6	66.0	45.0	
8:15:00	62.8	75.5	66.0	46.0	
8:30:00	63.5	82.8	66.0	45.0	
8:45:00	65.5	80.0	68.0	46.0	63.8
9:00:00	65.3	80.2	68.0	48.0	
9:15:00	64.7	78.8	68.0	47.0	
9:30:00	65.7	83.9	68.0	45.0	
9:45:00	64.6	78.4	68.0	47.0	65.1
10:00:00	61.3	72.8	65.0	46.0	
10:15:00	64.1	80.5	67.0	46.0	
10:30:00	69.9	92.8	68.0	46.0	
10:45:00	62.1	72.7	66.0	44.0	65.8
11:00:00	63.5	75.3	68.0	46.0	
11:15:00	64.8	80.1	68.0	45.0	
11:30:00	63.4	75.5	67.0	45.0	
11:45:00	62.0	78.3	65.0	44.0	63.5
12:00:00	62.5	73.0	66.0	46.0	
12:15:00	64.4	78.6	68.0	45.0	
12:30:00	63.1	74.4	67.0	46.0	
12:45:00	62.3	75.6	66.0	44.0	63.2
13:00:00	62.8	74.4	67.0	45.0	
13:15:00	64.4	78.8	68.0	46.0	
13:30:00	64.1	75.2	67.0	47.0	
13:45:00	63.3	74.8	67.0	45.0	63.7
14:00:00	65.4	85.2	67.0	44.0	
14:15:00	61.9	74.2	65.0	46.0	
14:30:00	62.8	81.0	66.0	44.0	
14:45:00	62.8	74.9	66.0	44.0	63.4
15:00:00	63.7	76.4	67.0	46.0	
15:15:00	64.1	77.6	68.0	45.0	
15:30:00	63.9	79.2	67.0	47.0	
15:45:00	62.8	72.8	66.0	47.0	63.7
16:00:00	63.9	79.5	67.0	43.0	
16:15:00	63.6	82.0	66.0	44.0	
16:30:00	63.1	80.6	65.0	46.0	
16:45:00	64.5	77.6	67.0	48.0	63.8
17:00:00	61.7	75.6	64.0	47.0	
17:15:00	61.5	72.5	64.0	47.0	
17:30:00	61.0	71.6	64.0	46.0	
17:45:00	61.3	72.5	64.0	47.0	61.4
18:00:00	61.7	70.8	65.0	49.0	
18:15:00	61.1	73.6	64.0	48.0	
18:30:00	60.2	72.4	63.0	47.0	
18:45:00	60.3	71.2	64.0	46.0	60.9
19:00:00	59.4	72.8	63.0	46.0	
19:15:00	60.7	71.6	64.0	47.0	
19:30:00	58.8	72.3	62.0	47.0	
19:45:00	59.4	73.6	62.0	47.0	59.6
20:00:00	60.0	76.8	63.0	47.0	
20:15:00	59.5	70.4	63.0	48.0	
20:30:00	59.9	73.2	63.0	49.0	
20:45:00	59.1	72.6	62.0	50.0	59.6
21:00:00	58.8	70.9	62.0	49.0	
21:15:00	58.4	69.6	62.0	47.0	
21:30:00	57.5	70.9	61.0	49.0	
21:45:00	57.5	72.7	61.0	50.0	58.1
22:00:00	59.1	73.6	62.0	48.0	
22:15:00	57.8	71.3	62.0	48.0	
22:30:00	55.6	67.2	60.0	48.0	
22:45:00	57.9	76.8	60.0	48.0	57.8
23:00:00	59.1	74.0	62.0	48.0	
23:15:00	57.3	70.4	61.0	48.0	
23:30:00	57.3	72.2	61.0	47.0	
23:45:00	55.6	69.9	59.0	47.0	57.5
0:00:00	63.9	88.1	58.0	48.0	
0:15:00	55.4	74.0	57.0	47.0	
0:30:00	55.4	70.0	57.0	46.0	
0:45:00	56.4	73.2	56.0	47.0	59.5

8/1/2019	1:00:00	56.4	71.2	58.0	47.0	
	1:15:00	51.0	64.8	51.0	46.0	
	1:30:00	53.9	69.2	56.0	46.0	
	1:45:00	54.7	71.2	54.0	47.0	54.4
	2:00:00	58.9	74.8	60.0	46.0	
	2:15:00	57.1	76.2	56.0	45.0	
	2:30:00	50.6	68.8	50.0	45.0	
	2:45:00	57.9	72.4	60.0	45.0	57.0
	3:00:00	56.4	72.8	59.0	45.0	
	3:15:00	57.4	79.7	55.0	45.0	
	3:30:00	55.3	73.6	56.0	46.0	
	3:45:00	53.9	69.6	56.0	44.0	55.9
	4:00:00	56.3	72.0	58.0	44.0	
	4:15:00	59.4	75.6	62.0	44.0	
	4:30:00	57.5	75.6	59.0	45.0	
	4:45:00	57.1	73.9	61.0	44.0	57.7
	5:00:00	59.3	74.2	63.0	45.0	
	5:15:00	58.3	72.3	62.0	45.0	
	5:30:00	61.4	74.3	65.0	45.0	
	5:45:00	61.6	73.2	66.0	45.0	60.4
	6:00:00	60.3	74.0	64.0	44.0	
	6:15:00	61.5	74.0	65.0	48.0	
	6:30:00	61.1	75.8	65.0	44.0	
	6:45:00	62.8	74.8	67.0	45.0	61.5
	7:00:00	62.9	76.8	66.0	46.0	
	7:15:00	62.7	74.6	66.0	44.0	
	7:30:00	62.1	74.8	65.0	44.0	
	7:45:00	62.2	78.4	66.0	45.0	62.5
	8:00:00	61.8	77.1	65.0	44.0	
	8:15:00	63.4	78.4	67.0	44.0	
	8:30:00	62.7	76.0	66.0	45.0	
	8:45:00	64.1	79.7	67.0	45.0	63.1
	9:00:00	63.0	74.5	67.0	45.0	
	9:15:00	63.2	77.6	67.0	46.0	
	9:30:00	62.9	73.6	67.0	46.0	
	9:45:00	61.8	73.0	66.0	46.0	62.8
	10:00:00	64.7	78.8	68.0	44.0	
	10:15:00	63.7	75.3	68.0	46.0	
	10:30:00	65.1	83.2	67.0	46.0	
	10:45:00	62.0	74.4	66.0	46.0	64.0
	11:00:00	63.0	78.1	66.0	46.0	
	11:15:00	63.6	80.0	66.0	44.0	
	11:30:00	64.1	82.6	66.0	45.0	
	11:45:00	63.6	76.8	67.0	46.0	63.6
	12:00:00	62.0	76.8	65.0	45.0	
	12:15:00	64.1	77.2	67.0	47.0	
	12:30:00	63.9	77.6	67.0	48.0	
	12:45:00	63.3	76.8	66.0	49.0	63.4
	13:00:00	64.2	79.2	67.0	49.0	
	13:15:00	63.0	73.6	66.0	47.0	
	13:30:00	62.6	74.0	65.0	49.0	
	13:45:00	63.4	75.2	66.0	49.0	63.3
	14:00:00	64.0	74.8	67.0	46.0	
	14:15:00	65.1	82.8	68.0	50.0	
	14:30:00	63.4	75.2	66.0	48.0	
	14:45:00	63.3	74.5	66.0	48.0	64.0
	15:00:00	63.1	74.8	66.0	48.0	
	15:15:00	63.3	77.3	66.0	46.0	
	15:30:00	66.1	77.8	69.0	55.0	
	15:45:00	65.1	76.0	68.0	52.0	64.6
	16:00:00	65.4	77.6	68.0	50.0	
	16:15:00	64.0	75.6	67.0	50.0	
	16:30:00	64.3	74.2	67.0	51.0	
	16:45:00	64.2	72.8	67.0	50.0	64.5
	17:00:00	64.4	74.6	67.0	51.0	
	17:15:00	64.4	76.4	67.0	51.0	
	17:30:00	63.6	76.0	66.0	49.0	
	17:45:00	63.7	72.4	67.0	48.0	64.0
	18:00:00	62.1	76.9	65.0	48.0	

	18:15:00	61.3	75.2	64.0	48.0	
	18:30:00	60.8	73.3	64.0	48.0	
	18:45:00	61.5	78.0	64.0	48.0	61.5
	19:00:00	60.5	75.0	64.0	47.0	
	19:15:00	60.9	75.0	64.0	47.0	
	19:30:00	60.3	69.9	64.0	49.0	
	19:45:00	59.9	72.8	63.0	47.0	60.4
	20:00:00	59.3	70.9	62.0	49.0	
	20:15:00	58.9	69.7	62.0	49.0	
	20:30:00	59.7	72.4	63.0	48.0	
	20:45:00	59.2	73.1	62.0	48.0	59.3
	21:00:00	58.5	70.4	62.0	50.0	
	21:15:00	58.1	69.8	61.0	48.0	
	21:30:00	58.3	71.6	62.0	48.0	
	21:45:00	58.7	76.0	62.0	48.0	58.4
	22:00:00	57.1	70.1	61.0	48.0	
	22:15:00	57.5	74.2	60.0	47.0	
	22:30:00	56.8	72.0	61.0	47.0	
	22:45:00	57.5	72.3	61.0	48.0	57.2
	23:00:00	58.5	74.6	61.0	48.0	
	23:15:00	58.1	72.5	62.0	47.0	
	23:30:00	58.0	71.2	61.0	48.0	
	23:45:00	53.6	67.3	56.0	47.0	57.4
	0:00:00	59.6	81.2	58.0	48.0	
	0:15:00	57.1	73.6	59.0	46.0	
	0:30:00	51.4	64.4	52.0	46.0	
	0:45:00	58.3	73.5	61.0	47.0	57.5
8/2/2019	1:00:00	56.1	72.0	58.0	46.0	
	1:15:00	53.7	69.5	54.0	46.0	
	1:30:00	55.6	69.9	58.0	45.0	
	1:45:00	57.5	72.8	58.0	46.0	55.9
	2:00:00	54.1	69.6	55.0	46.0	
	2:15:00	65.0	88.0	60.0	46.0	
	2:30:00	54.5	70.5	57.0	47.0	
	2:45:00	56.9	76.3	53.0	47.0	60.2
	3:00:00	55.1	72.4	57.0	44.0	
	3:15:00	60.2	77.3	63.0	45.0	
	3:30:00	54.4	71.6	56.0	45.0	
	3:45:00	54.0	70.0	57.0	46.0	56.8
	4:00:00	54.6	72.8	52.0	44.0	
	4:15:00	57.8	73.6	60.0	46.0	
	4:30:00	57.4	70.9	61.0	46.0	
	4:45:00	59.0	73.6	63.0	45.0	57.5
	5:00:00	59.8	73.7	63.0	45.0	
	5:15:00	60.4	74.4	64.0	47.0	
	5:30:00	59.9	73.6	64.0	46.0	
	5:45:00	59.9	75.1	63.0	47.0	60.0
	6:00:00	62.0	74.0	66.0	46.0	
	6:15:00	62.8	78.8	66.0	48.0	
	6:30:00	62.8	77.6	66.0	48.0	
	6:45:00	64.1	74.4	68.0	48.0	63.0
	7:00:00	64.8	80.0	69.0	44.0	
	7:15:00	63.7	76.2	67.0	44.0	
	7:30:00	64.2	77.2	68.0	44.0	
	7:45:00	65.4	81.6	69.0	44.0	64.6
	8:00:00	63.5	80.6	67.0	43.0	
	8:15:00	62.8	74.4	66.0	45.0	
	8:30:00	63.0	75.2	66.0	45.0	
	8:45:00	62.6	75.3	66.0	44.0	63.0
	9:00:00	64.4	76.4	68.0	44.0	
	9:15:00	63.5	79.1	67.0	46.0	
	9:30:00	63.5	75.3	67.0	46.0	
	9:45:00	68.9	91.1	68.0	44.0	65.7
	10:00:00	63.6	74.0	67.0	46.0	
	10:15:00	62.9	75.5	66.0	46.0	
	10:30:00	65.2	84.0	68.0	44.0	
	10:45:00	63.5	75.6	68.0	44.0	63.9
	11:00:00	64.5	83.2	67.0	46.0	
	11:15:00	62.8	74.4	67.0	45.0	

11:30:00	63.8	78.7	67.0	46.0	
11:45:00	64.0	76.0	67.0	44.0	63.8
12:00:00	64.9	78.1	68.0	47.0	
12:15:00	65.7	81.6	68.0	48.0	
12:30:00	63.3	79.3	67.0	47.0	
12:45:00	61.7	73.6	65.0	44.0	64.2
13:00:00	63.5	78.8	67.0	47.0	
13:15:00	63.8	78.8	66.0	47.0	
13:30:00	63.0	74.6	66.0	46.0	
13:45:00	64.4	74.8	68.0	49.0	63.7
14:00:00	63.2	74.0	67.0	46.0	
14:15:00	62.1	74.7	65.0	46.0	
14:30:00	65.0	83.6	67.0	47.0	
14:45:00	62.6	74.8	66.0	48.0	63.4
15:00:00	62.3	75.6	65.0	45.0	
15:15:00	64.7	75.4	68.0	48.0	
15:30:00	63.6	78.0	66.0	47.0	
15:45:00	63.6	74.8	67.0	48.0	63.6
16:00:00	63.0	77.2	65.0	48.0	
16:15:00	63.1	77.6	66.0	47.0	
16:30:00	62.0	72.4	65.0	49.0	
16:45:00	63.4	81.2	65.0	48.0	62.9
17:00:00	62.3	74.0	65.0	50.0	
17:15:00	61.7	73.6	64.0	49.0	
17:30:00	60.5	68.1	64.0	48.0	
17:45:00	61.2	72.8	64.0	49.0	61.5
18:00:00	60.7	70.0	64.0	48.0	
18:15:00	60.5	69.7	64.0	48.0	
18:30:00	60.2	71.2	64.0	48.0	
18:45:00	61.4	73.2	65.0	48.0	60.7
19:00:00	61.0	72.4	64.0	48.0	
19:15:00	65.0	87.3	66.0	49.0	62.3


Seneca Meadows Inc.
2019 Annual Sound Survey
Location 2 Logging
Sound Level, Leq, dBA
100
90
80
70
60
50
40
30
20
10
0
Rain
Rain
5:45:00
8:45:00
11:45:00
14:45:00
17:45:00
20:45:00
23:45:00
2:45:00
5:45:00
8:45:00
11:45:00
14:45:00
17:45:00
20:45:00
23:45:00
2:45:00
5:45:00
8:45:00
11:45:00
14:45:00
17:45:00
20:45:00
23:45:00
2:45:00
5:45:00
8:45:00
11:45:00
14:45:00
Time
July 29 - August 2, 2019
Leq-1hr
Leq-15min

****

Filename LOC2
Test Location 2
Employee Name
Employee No.
Department
Seneca Meadows Inc.
2019 Annual Sound Survey
Aurora Acoustical
Consultants Inc.
Calibrator type Metrosonics CL304 3067
Calibrator calibration date 4/17/2019

****

METROSONICS db-3080 V1.20 SERIAL #1505
Report printed on 8/6/2019 at 15:24:44

Seneca Meadows Inc.
2019 Annual Sound Survey
Aurora Acoustical
Consultants Inc.
East Aurora, New York

Logging started at	7/29/2019 at 5:45:00
Total logging time	3 DAYS 10:48:51
Logging stopped at	8/1/2019 at 16:33:51
Total intervals	331
Interval length	0:15:00
Auto Stop	NO
Clock synch	YES
Response Rate	SLOW
Filter	A-WEIGHTED
Pre-Test Calibration Time	7/26/2019 at 18:26:42
Pre-Test Calibration Range	40 to 140 dB
Post-Test Calibration Time	8/6/2019 at 14:14:31
Post-Test Calibration Range	40.3 to140.3
Cut-off used for time history Lav	NONE

<<< SUMMARY REPORT FOR TEST NUMBER 1 OF 1 >>>

Exchange Rate	3dB
Cutoffs	60dB 60dB
Ceiling	115dB
DOSE	Criterion level 90dB
DOSE	Criterion length 8 HOURS
Lav(60)	65.1dB
Lav(60)	64.9dB
Lav(60)	64.9dB
SEL	119.7dB
TWA	75.2dB
TWA(60)	75.0dB
TWA(60)	75.0dB
Lmax	101.7dB 7/30/2019 at 12:34:40
Lpk	133.7dB 7/30/2019 at 12:34:40
Time over 115 dB	00:00.0
DOSE(60)	3.15%
DOSE(60)	3.15%

<<< TIME HISTORY REPORT FOR TEST NUMBER 1 OF 1 >>>

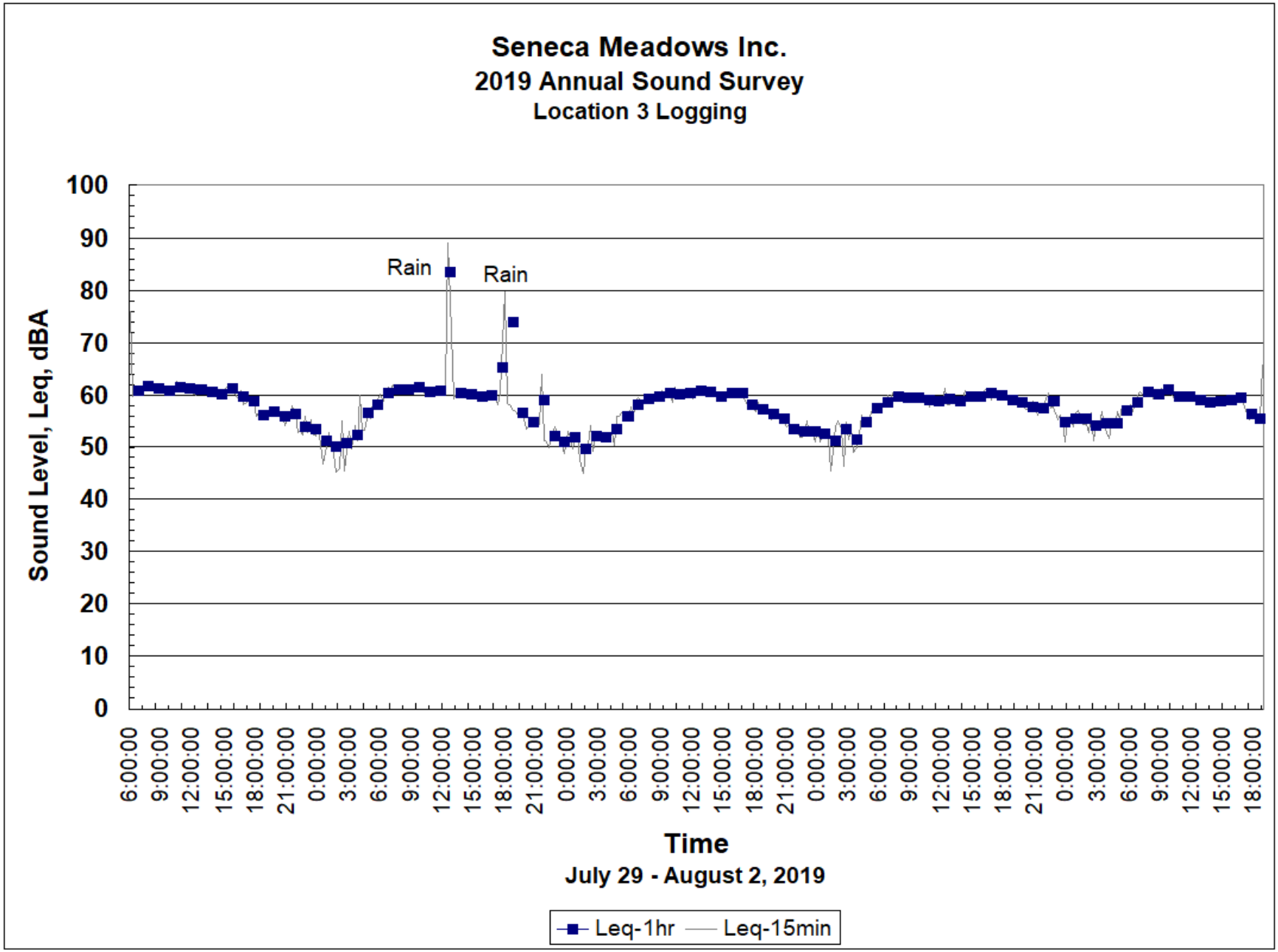
	START TIME	Leq(15-min) dBA	Lmax dBA	L(10.0) dBA	L(99.0) dBA	Leq(1-hr) dBA
7/29/2019						
	5:45:00	61.8	76.2	65.0	48.0	61.8
	6:00:00	62.2	75.2	66.0	49.0	
	6:15:00	62.6	75.0	66.0	47.0	
	6:30:00	64.2	80.4	68.0	48.0	
	6:45:00	65.5	83.0	69.0	50.0	63.8
	7:00:00	63.9	80.5	67.0	49.0	
	7:15:00	65.6	77.2	70.0	49.0	
	7:30:00	65.5	78.9	70.0	49.0	
	7:45:00	65.4	80.2	69.0	49.0	65.2
	8:00:00	64.4	78.8	68.0	50.0	
	8:15:00	65.2	78.9	69.0	48.0	
	8:30:00	64.7	76.9	68.0	49.0	
	8:45:00	64.3	76.8	69.0	49.0	64.7
	9:00:00	64.4	76.8	68.0	49.0	
	9:15:00	63.9	75.3	68.0	49.0	
	9:30:00	65.0	76.5	69.0	48.0	
	9:45:00	65.7	80.4	69.0	48.0	64.8
	10:00:00	64.5	76.0	68.0	50.0	
	10:15:00	64.6	76.6	68.0	48.0	
	10:30:00	65.9	77.4	70.0	48.0	
	10:45:00	64.9	75.3	69.0	48.0	65.0
	11:00:00	64.2	75.6	68.0	48.0	
	11:15:00	65.4	79.2	70.0	47.0	
	11:30:00	64.3	76.0	68.0	48.0	
	11:45:00	65.9	79.1	70.0	49.0	65.0
	12:00:00	64.4	76.5	68.0	46.0	
	12:15:00	64.8	79.2	68.0	47.0	
	12:30:00	65.6	78.0	70.0	50.0	
	12:45:00	67.8	85.6	71.0	50.0	65.9
	13:00:00	65.5	78.8	70.0	46.0	
	13:15:00	65.3	81.5	69.0	44.0	
	13:30:00	63.4	76.0	67.0	43.0	
	13:45:00	63.8	76.4	67.0	44.0	64.6
	14:00:00	63.6	76.7	66.0	46.0	
	14:15:00	63.9	77.4	67.0	44.0	
	14:30:00	64.5	79.6	68.0	46.0	
	14:45:00	64.1	75.2	68.0	46.0	64.0
	15:00:00	64.3	77.0	67.0	48.0	
	15:15:00	65.2	77.6	69.0	46.0	
	15:30:00	64.3	77.6	67.0	46.0	
	15:45:00	64.5	80.4	67.0	47.0	64.6
	16:00:00	63.5	76.6	67.0	46.0	
	16:15:00	64.1	78.8	67.0	45.0	
	16:30:00	62.8	78.0	65.0	45.0	
	16:45:00	62.1	73.6	65.0	43.0	63.2
	17:00:00	63.1	75.3	66.0	44.0	
	17:15:00	63.0	76.5	66.0	45.0	
	17:30:00	62.6	74.3	65.0	45.0	
	17:45:00	62.3	76.4	65.0	44.0	62.8
	18:00:00	60.2	71.2	63.0	47.0	
	18:15:00	60.2	73.8	63.0	46.0	
	18:30:00	60.5	75.2	63.0	45.0	
	18:45:00	59.2	71.2	63.0	43.0	60.1
	19:00:00	61.0	79.3	64.0	44.0	
	19:15:00	59.9	73.6	63.0	46.0	
	19:30:00	61.1	74.3	65.0	46.0	
	19:45:00	60.6	75.6	63.0	48.0	60.7
	20:00:00	59.8	73.4	63.0	48.0	
	20:15:00	60.4	75.8	63.0	48.0	
	20:30:00	59.8	72.1	63.0	46.0	
	20:45:00	58.6	75.1	61.0	50.0	59.7
	21:00:00	59.7	76.8	62.0	50.0	
	21:15:00	58.9	74.2	62.0	50.0	
	21:30:00	61.1	74.2	63.0	50.0	

	21:45:00	61.1	85.3	61.0	49.0	60.3
	22:00:00	56.8	75.1	60.0	48.0	
	22:15:00	58.5	78.1	60.0	48.0	
	22:30:00	56.5	74.2	58.0	49.0	
	22:45:00	58.3	78.8	60.0	48.0	57.6
	23:00:00	57.7	76.6	60.0	47.0	
	23:15:00	59.0	76.1	61.0	47.0	
	23:30:00	55.9	73.5	59.0	46.0	
	23:45:00	57.1	75.2	58.0	46.0	57.6
	0:00:00	58.1	77.8	59.0	47.0	
	0:15:00	55.0	74.2	54.0	47.0	
	0:30:00	51.6	65.6	52.0	47.0	
	0:45:00	55.6	76.0	55.0	47.0	55.7
7/30/2019	1:00:00	56.9	75.2	57.0	48.0	
	1:15:00	54.9	73.6	51.0	46.0	
	1:30:00	53.7	71.0	52.0	47.0	
	1:45:00	51.0	67.2	50.0	46.0	54.6
	2:00:00	51.1	69.4	49.0	46.0	
	2:15:00	56.1	77.2	51.0	46.0	
	2:30:00	51.0	66.2	50.0	47.0	
	2:45:00	53.3	72.4	50.0	46.0	53.4
	3:00:00	56.6	73.3	55.0	47.0	
	3:15:00	53.9	71.5	55.0	47.0	
	3:30:00	58.4	75.3	59.0	41.0	
	3:45:00	55.1	71.7	55.0	43.0	56.3
	4:00:00	63.5	79.6	66.0	46.0	
	4:15:00	58.5	77.6	58.0	46.0	
	4:30:00	58.6	73.8	60.0	48.0	
	4:45:00	60.3	75.3	62.0	46.0	60.7
	5:00:00	60.1	76.5	62.0	47.0	
	5:15:00	61.8	75.6	65.0	50.0	
	5:30:00	62.1	74.2	65.0	50.0	
	5:45:00	62.9	76.8	66.0	52.0	61.8
	6:00:00	63.3	74.9	68.0	50.0	
	6:15:00	62.3	78.7	65.0	47.0	
	6:30:00	63.6	77.8	67.0	49.0	
	6:45:00	64.4	76.3	68.0	47.0	63.5
	7:00:00	64.1	79.3	68.0	48.0	
	7:15:00	64.7	76.3	69.0	48.0	
	7:30:00	63.7	77.1	67.0	49.0	
	7:45:00	63.7	75.3	68.0	49.0	64.1
	8:00:00	65.4	78.8	70.0	49.0	
	8:15:00	64.4	75.5	68.0	48.0	
	8:30:00	65.2	77.8	70.0	47.0	
	8:45:00	64.4	75.1	68.0	47.0	64.9
	9:00:00	65.1	82.3	68.0	48.0	
	9:15:00	64.7	75.9	69.0	48.0	
	9:30:00	65.3	78.0	69.0	46.0	
	9:45:00	66.1	83.3	70.0	48.0	65.3
	10:00:00	64.5	76.2	68.0	48.0	
	10:15:00	64.4	79.6	68.0	45.0	
	10:30:00	64.5	74.4	69.0	48.0	
	10:45:00	63.8	76.7	67.0	42.0	64.3
	11:00:00	65.3	78.0	69.0	47.0	
	11:15:00	64.3	77.0	68.0	46.0	
	11:30:00	64.4	76.8	68.0	48.0	
	11:45:00	64.6	76.3	69.0	48.0	64.7
	12:00:00	63.8	76.6	67.0	47.0	
	12:15:00	67.2	78.4	71.0	47.0	
	12:30:00	84.7	101.7	89.0	52.0	
	12:45:00	65.3	81.6	69.0	44.0	78.8
	13:00:00	63.0	76.6	66.0	42.0	
	13:15:00	64.0	77.1	68.0	44.0	
	13:30:00	65.3	81.3	69.0	42.0	
	13:45:00	63.5	77.8	66.0	45.0	64.0
	14:00:00	64.7	77.4	69.0	49.0	
	14:15:00	64.6	76.0	68.0	44.0	
	14:30:00	65.5	79.6	69.0	49.0	
	14:45:00	64.5	78.0	68.0	50.0	64.8

	15:00:00	63.5	75.6	67.0	47.0	
	15:15:00	64.0	77.2	67.0	42.0	
	15:30:00	63.8	76.4	67.0	47.0	
	15:45:00	64.5	79.2	67.0	45.0	64.0
	16:00:00	63.2	75.4	66.0	44.0	
	16:15:00	63.4	75.2	67.0	47.0	
	16:30:00	66.0	84.8	68.0	45.0	
	16:45:00	63.6	75.2	67.0	46.0	64.2
	17:00:00	63.5	75.2	66.0	47.0	
	17:15:00	61.5	75.5	65.0	43.0	
	17:30:00	64.1	79.8	67.0	46.0	
	17:45:00	81.7	95.4	87.0	47.0	75.9
	18:00:00	74.2	88.0	78.0	46.0	
	18:15:00	60.5	73.7	64.0	47.0	
	18:30:00	60.9	74.2	64.0	47.0	
	18:45:00	60.8	74.8	64.0	46.0	68.7
	19:00:00	60.5	74.9	64.0	47.0	
	19:15:00	60.2	76.4	63.0	47.0	
	19:30:00	59.5	75.2	62.0	47.0	
	19:45:00	58.7	74.0	62.0	45.0	59.8
	20:00:00	57.6	75.2	61.0	46.0	
	20:15:00	57.6	74.3	60.0	46.0	
	20:30:00	59.0	72.3	63.0	47.0	
	20:45:00	58.9	73.4	62.0	47.0	58.3
	21:00:00	57.7	73.2	61.0	48.0	
	21:15:00	58.0	75.0	60.0	46.0	
	21:30:00	58.7	74.8	61.0	47.0	
	21:45:00	55.2	70.8	59.0	47.0	57.6
	22:00:00	55.1	70.7	59.0	46.0	
	22:15:00	54.5	69.6	58.0	46.0	
	22:30:00	58.2	76.0	60.0	48.0	
	22:45:00	57.0	72.9	59.0	47.0	56.5
	23:00:00	56.9	73.6	60.0	46.0	
	23:15:00	54.8	69.0	58.0	46.0	
	23:30:00	55.0	72.8	57.0	46.0	
	23:45:00	53.2	65.7	56.0	46.0	55.2
	0:00:00	57.4	74.5	59.0	47.0	
	0:15:00	56.4	72.9	58.0	46.0	
	0:30:00	56.1	75.2	55.0	47.0	
	0:45:00	55.8	76.8	54.0	47.0	56.5
7/31/2019	1:00:00	56.9	73.4	58.0	44.0	
	1:15:00	53.1	73.7	51.0	45.0	
	1:30:00	52.7	67.2	53.0	49.0	
	1:45:00	55.1	72.1	53.0	46.0	54.8
	2:00:00	55.4	72.5	53.0	48.0	
	2:15:00	59.3	80.6	56.0	47.0	
	2:30:00	54.5	74.6	52.0	47.0	
	2:45:00	55.4	76.1	51.0	46.0	56.6
	3:00:00	55.4	72.6	54.0	46.0	
	3:15:00	58.7	80.6	50.0	44.0	
	3:30:00	55.0	73.7	53.0	43.0	
	3:45:00	56.6	74.0	56.0	44.0	56.7
	4:00:00	57.2	75.9	57.0	44.0	
	4:15:00	58.4	78.9	58.0	45.0	
	4:30:00	55.2	69.2	58.0	46.0	
	4:45:00	60.2	79.3	60.0	46.0	58.1
	5:00:00	60.2	75.8	62.0	44.0	
	5:15:00	59.3	74.2	62.0	44.0	
	5:30:00	59.9	75.2	62.0	45.0	
	5:45:00	59.3	74.4	63.0	44.0	59.7
	6:00:00	62.6	78.8	65.0	45.0	
	6:15:00	58.3	72.1	62.0	43.0	
	6:30:00	62.7	77.6	66.0	44.0	
	6:45:00	63.7	76.1	68.0	44.0	62.2
	7:00:00	63.3	77.1	66.0	44.0	
	7:15:00	63.8	82.1	67.0	42.0	
	7:30:00	63.3	78.4	67.0	42.0	
	7:45:00	64.7	76.7	69.0	44.0	63.8
	8:00:00	63.6	77.1	67.0	47.0	

	8:15:00	63.8	79.2	67.0	44.0	
	8:30:00	63.8	76.2	68.0	44.0	
	8:45:00	63.4	76.1	67.0	43.0	63.7
	9:00:00	65.9	81.1	70.0	45.0	
	9:15:00	63.7	77.4	68.0	44.0	
	9:30:00	65.3	76.3	70.0	45.0	
	9:45:00	64.2	79.2	68.0	46.0	64.9
	10:00:00	62.7	76.0	66.0	43.0	
	10:15:00	65.1	78.8	69.0	46.0	
	10:30:00	64.0	76.0	68.0	45.0	
	10:45:00	65.2	78.6	69.0	46.0	64.4
	11:00:00	64.9	81.0	69.0	45.0	
	11:15:00	66.2	80.8	70.0	45.0	
	11:30:00	63.9	75.0	68.0	45.0	
	11:45:00	63.5	77.4	66.0	43.0	64.8
	12:00:00	64.1	76.3	68.0	44.0	
	12:15:00	65.1	78.0	69.0	44.0	
	12:30:00	65.5	81.1	69.0	44.0	
	12:45:00	65.4	82.0	68.0	43.0	65.1
	13:00:00	64.6	76.9	68.0	46.0	
	13:15:00	64.4	77.6	69.0	44.0	
	13:30:00	64.9	78.0	68.0	44.0	
	13:45:00	63.8	75.8	68.0	43.0	64.4
	14:00:00	63.8	78.0	68.0	42.0	
	14:15:00	63.5	81.6	66.0	44.0	
	14:30:00	64.0	78.0	68.0	42.0	
	14:45:00	64.2	78.6	67.0	43.0	63.9
	15:00:00	64.9	77.4	68.0	44.0	
	15:15:00	64.1	78.0	67.0	44.0	
	15:30:00	64.1	74.4	68.0	43.0	
	15:45:00	64.3	76.4	68.0	43.0	64.4
	16:00:00	64.9	76.0	69.0	43.0	
	16:15:00	63.8	76.8	67.0	43.0	
	16:30:00	63.3	75.8	66.0	45.0	
	16:45:00	64.7	79.6	68.0	44.0	64.2
	17:00:00	62.2	77.0	65.0	42.0	
	17:15:00	62.1	74.8	65.0	43.0	
	17:30:00	61.4	72.9	65.0	43.0	
	17:45:00	62.1	73.6	65.0	42.0	62.0
	18:00:00	61.1	74.1	64.0	43.0	
	18:15:00	62.5	78.8	65.0	46.0	
	18:30:00	60.6	73.7	64.0	42.0	
	18:45:00	60.5	72.8	64.0	42.0	61.3
	19:00:00	60.3	74.3	63.0	42.0	
	19:15:00	61.5	73.2	65.0	43.0	
	19:30:00	58.8	73.6	62.0	43.0	
	19:45:00	60.1	75.3	63.0	42.0	60.3
	20:00:00	60.2	74.4	64.0	43.0	
	20:15:00	59.3	75.0	63.0	44.0	
	20:30:00	60.3	74.8	63.0	46.0	
	20:45:00	58.4	70.8	62.0	47.0	59.6
	21:00:00	58.8	71.7	62.0	48.0	
	21:15:00	58.3	70.3	62.0	50.0	
	21:30:00	58.5	72.8	62.0	48.0	
	21:45:00	58.0	71.6	61.0	48.0	58.4
	22:00:00	59.2	74.6	62.0	49.0	
	22:15:00	58.5	76.0	61.0	49.0	
	22:30:00	55.5	67.7	59.0	47.0	
	22:45:00	57.4	75.0	59.0	46.0	57.9
	23:00:00	58.7	73.1	62.0	47.0	
	23:15:00	56.9	72.1	60.0	46.0	
	23:30:00	57.7	74.4	61.0	47.0	
	23:45:00	56.1	72.4	57.0	48.0	57.5
	0:00:00	58.5	79.6	59.0	48.0	
	0:15:00	56.6	72.8	57.0	49.0	
	0:30:00	57.3	72.6	57.0	49.0	
	0:45:00	58.9	73.8	59.0	51.0	57.9
8/1/2019	1:00:00	57.7	75.2	58.0	48.0	
	1:15:00	49.9	63.2	50.0	45.0	

1:30:00	55.2	72.8	57.0	45.0	
1:45:00	58.2	75.2	58.0	44.0	56.2
2:00:00	59.2	78.7	58.0	44.0	
2:15:00	57.5	75.6	57.0	46.0	
2:30:00	51.8	72.2	50.0	46.0	
2:45:00	59.8	76.1	59.0	47.0	58.0
3:00:00	57.8	75.4	58.0	46.0	
3:15:00	57.6	75.2	58.0	45.0	
3:30:00	53.5	72.4	54.0	45.0	
3:45:00	54.2	74.4	54.0	43.0	56.2
4:00:00	56.5	72.2	58.0	43.0	
4:15:00	60.2	75.2	62.0	43.0	
4:30:00	59.6	76.8	61.0	43.0	
4:45:00	59.2	76.4	62.0	43.0	59.1
5:00:00	58.9	73.8	61.0	43.0	
5:15:00	59.6	74.4	63.0	44.0	
5:30:00	62.0	74.9	66.0	45.0	
5:45:00	62.6	74.7	67.0	45.0	61.0
6:00:00	61.6	73.8	65.0	46.0	
6:15:00	62.8	76.0	65.0	45.0	
6:30:00	63.3	74.8	67.0	45.0	
6:45:00	64.1	76.1	68.0	48.0	63.0
7:00:00	63.8	76.7	67.0	47.0	
7:15:00	64.6	76.8	68.0	46.0	
7:30:00	63.8	77.3	66.0	44.0	
7:45:00	64.1	78.4	67.0	46.0	64.1
8:00:00	63.8	77.6	67.0	45.0	
8:15:00	64.5	77.8	68.0	45.0	
8:30:00	64.0	75.9	68.0	42.0	
8:45:00	65.1	80.2	69.0	43.0	64.4
9:00:00	64.3	75.8	68.0	45.0	
9:15:00	63.6	77.2	68.0	44.0	
9:30:00	63.4	74.4	68.0	46.0	
9:45:00	64.1	78.8	67.0	44.0	63.9
10:00:00	64.4	79.7	68.0	45.0	
10:15:00	66.2	77.5	71.0	43.0	
10:30:00	64.3	80.0	68.0	45.0	
10:45:00	63.6	79.6	67.0	43.0	64.7
11:00:00	63.7	77.0	68.0	44.0	
11:15:00	62.6	75.8	66.0	42.0	
11:30:00	63.7	74.8	67.0	46.0	
11:45:00	64.8	76.9	69.0	45.0	63.8
12:00:00	63.6	75.0	67.0	43.0	
12:15:00	64.2	76.6	68.0	45.0	
12:30:00	63.9	77.1	67.0	43.0	
12:45:00	62.6	75.2	66.0	45.0	63.6
13:00:00	64.5	76.2	68.0	44.0	
13:15:00	63.6	76.0	67.0	44.0	
13:30:00	62.8	75.8	66.0	46.0	
13:45:00	65.6	82.0	70.0	43.0	64.3
14:00:00	64.0	74.8	68.0	42.0	
14:15:00	65.5	77.3	70.0	46.0	
14:30:00	64.2	75.7	67.0	48.0	
14:45:00	63.8	73.6	67.0	45.0	64.4
15:00:00	64.6	81.0	68.0	46.0	
15:15:00	64.3	77.5	67.0	47.0	
15:30:00	65.2	78.0	69.0	45.0	
15:45:00	65.0	79.6	67.0	49.0	64.8
16:00:00	65.3	79.4	68.0	42.0	
16:15:00	64.5	75.2	68.0	45.0	64.9


Seneca Meadows Inc.
2019 Annual Sound Survey
Location 3 Logging
Sound Level, Leq, dBA
100
90
80
70
60
50
40
30
20
10
0
Rain
Rain
6:00:00
9:00:00
12:00:00
15:00:00
18:00:00
21:00:00
0:00:00
3:00:00
6:00:00
9:00:00
12:00:00
15:00:00
18:00:00
21:00:00
0:00:00
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9:00:00
12:00:00
15:00:00
18:00:00
21:00:00
0:00:00
3:00:00
6:00:00
9:00:00
12:00:00
15:00:00
18:00:00
Time
July 29 - August 2, 2019
Leq-1hr
Leq-15min

****

Filename LOC3
Test Location 3
Employee Name
Employee No.
Department
Seneca Meadows Inc.
2019 Annual Sound Survey
Aurora Acoustical
Consultants Inc.
Calibrator type Metrosonics CL304 3067
Calibrator calibration date 4/17/2019

****

METROSONICS db-3080 V1.20 SERIAL #1511
Report printed on 8/6/2019 a 15:26:43

Seneca Meadows Inc.
2019 Annual Sound Survey
Aurora Acoustical
Consultants Inc.
East Aurora, New York

Logging started at	7/29/2019 at 6:00:00
Total logging time	4 DAYS 12:55:57
Logging stopped at	8/2/2019 at 18:55:57
Total intervals	436
Interval length	0:15:00
Auto Stop	NO
Clock synch	YES
Response Rate	SLOW
Filter	A-WEIGHTED
Pre-Test Calibration Time	7/26/2019 at 14:56:45
Pre-Test Calibration Range	39.9 to 139.9 dB
Post-Test Calibration Time	8/6/2019 at 14:13:16
Post-Test Calibration Range	40 to 140
Cut-off used for time history Lav	NONE

<<< SUMMARY REPORT FOR TEST NUMBER 1 OF 1 >>>

Exchange Rate	3dB
Cutoffs	60dB 60dB
Ceiling	115dB
DOSE	Criterion level 90dB
DOSE	Criterion length 8 HOURS
Lav(60)	64.9dB
Lav(60)	64.7dB
Lav(60)	64.7dB
SEL	120.6dB
TWA	76.2dB
TWA(60)	75.9dB
TWA(60)	75.9dB
Lmax	110.4dB 7/30/2019 at 12:40:39
Lpk	138.2dB 7/29/2019 at 6:03:02
Time over 115 dB	00:00.0
DOSE(60)	3.90%
DOSE(60)	3.90%

<<< TIME HISTORY REPORT FOR TEST NUMBER 1 OF 1 >>>

	START TIME	Leq(15-min) dBA	Lmax dBA	L(10.0) dBA	L(99.0) dBA	Leq(1-hr) dBA
7/29/2019						
	6:00:00	75.9	97.9	73.9	41.9	
	6:15:00	59.6	70.9	64.9	41.9	
	6:30:00	61.1	74.0	65.9	41.9	
	6:45:00	61.5	77.6	65.9	41.9	60.8
	7:00:00	60.8	76.0	64.9	41.9	
	7:15:00	62.1	74.7	66.9	42.9	
	7:30:00	61.9	73.7	66.9	41.9	
	7:45:00	62.1	76.1	66.9	42.9	61.8
	8:00:00	61.2	73.6	65.9	42.9	
	8:15:00	61.6	81.9	65.9	40.9	
	8:30:00	61.5	72.8	66.9	41.9	
	8:45:00	60.4	70.5	65.9	40.9	61.2
	9:00:00	60.6	72.9	65.9	40.9	
	9:15:00	60.5	74.2	64.9	40.9	
	9:30:00	61.1	74.0	65.9	41.9	
	9:45:00	61.3	72.0	65.9	41.9	60.9
	10:00:00	61.2	74.5	65.9	40.9	
	10:15:00	61.1	74.0	65.9	42.9	
	10:30:00	62.5	77.5	66.9	41.9	
	10:45:00	61.2	74.5	65.9	42.9	61.5
	11:00:00	61.1	72.3	65.9	42.9	
	11:15:00	61.3	71.0	66.9	40.9	
	11:30:00	60.6	71.2	65.9	41.9	
	11:45:00	61.8	74.1	66.9	41.9	61.2
	12:00:00	60.4	74.3	64.9	41.9	
	12:15:00	59.9	72.5	64.9	41.9	
	12:30:00	61.8	73.1	66.9	43.9	
	12:45:00	61.3	75.3	65.9	42.9	60.9
	13:00:00	61.2	73.1	65.9	40.9	
	13:15:00	60.5	72.4	64.9	39.9	
	13:30:00	60.3	72.8	64.9	40.9	
	13:45:00	60.3	72.2	64.9	41.9	60.6
	14:00:00	60.3	73.4	64.9	40.9	
	14:15:00	59.5	70.9	63.9	40.9	
	14:30:00	60.4	74.0	64.9	41.9	
	14:45:00	60.4	71.7	64.9	41.9	60.2
	15:00:00	61.3	72.9	65.9	42.9	
	15:15:00	61.7	75.1	65.9	43.9	
	15:30:00	61.1	71.5	65.9	41.9	
	15:45:00	61.0	72.7	64.9	42.9	61.3
	16:00:00	60.2	71.2	64.9	41.9	
	16:15:00	59.3	72.3	62.9	40.9	
	16:30:00	60.9	81.7	62.9	42.9	
	16:45:00	58.2	69.6	62.9	40.9	59.8
	17:00:00	58.4	69.2	62.9	41.9	
	17:15:00	58.9	73.4	62.9	42.9	
	17:30:00	59.5	80.3	62.9	40.9	
	17:45:00	58.5	71.4	62.9	40.9	58.8
	18:00:00	55.9	65.5	60.9	40.9	
	18:15:00	56.6	70.4	60.9	40.9	
	18:30:00	56.6	72.0	60.9	40.9	
	18:45:00	55.6	67.7	60.9	40.9	56.2
	19:00:00	57.0	75.0	60.9	39.9	
	19:15:00	56.2	71.6	60.9	39.9	
	19:30:00	57.3	71.1	61.9	39.9	
	19:45:00	56.7	71.5	60.9	39.9	56.8
	20:00:00	56.0	68.4	60.9	39.9	
	20:15:00	56.6	72.3	60.9	39.9	
	20:30:00	56.3	69.5	60.9	40.9	
	20:45:00	54.1	71.9	57.9	39.9	55.9
	21:00:00	55.7	71.2	59.9	40.9	
	21:15:00	54.9	71.6	59.9	39.9	
	21:30:00	58.0	73.8	60.9	39.9	
	21:45:00	56.1	76.8	58.9	39.9	56.3

	22:00:00	52.8	69.7	57.9	39.9	
	22:15:00	53.2	72.0	56.9	39.9	
	22:30:00	52.3	70.0	56.9	39.9	
	22:45:00	55.9	76.0	57.9	39.9	53.8
	23:00:00	52.7	68.4	56.9	39.9	
	23:15:00	55.3	72.5	58.9	39.9	
	23:30:00	52.4	68.5	56.9	39.9	
	23:45:00	52.2	71.9	51.9	39.9	53.3
	0:00:00	54.1	72.7	56.9	39.9	
	0:15:00	50.5	70.9	49.9	39.9	
	0:30:00	46.8	62.0	48.9	39.9	
	0:45:00	50.2	70.0	50.9	39.9	51.2
7/30/2019	1:00:00	52.8	71.9	53.9	39.9	
	1:15:00	50.4	68.7	49.9	39.9	
	1:30:00	48.7	67.3	46.9	39.9	
	1:45:00	45.2	64.1	42.9	39.9	50.1
	2:00:00	45.8	65.6	42.9	39.9	
	2:15:00	54.9	78.3	46.9	39.9	
	2:30:00	45.5	63.5	41.9	39.9	
	2:45:00	49.5	68.8	45.9	39.9	50.7
	3:00:00	53.0	70.6	52.9	39.9	
	3:15:00	49.6	67.6	51.9	39.9	
	3:30:00	54.2	71.5	55.9	39.9	
	3:45:00	51.2	70.2	49.9	39.9	52.3
	4:00:00	59.9	79.1	62.9	39.9	
	4:15:00	53.0	70.7	53.9	39.9	
	4:30:00	53.3	69.9	56.9	39.9	
	4:45:00	56.6	71.2	60.9	39.9	56.6
	5:00:00	55.5	72.0	58.9	39.9	
	5:15:00	58.6	74.5	62.9	39.9	
	5:30:00	58.7	71.1	62.9	40.9	
	5:45:00	59.0	73.7	62.9	40.9	58.2
	6:00:00	60.2	72.5	65.9	40.9	
	6:15:00	58.8	72.9	62.9	40.9	
	6:30:00	60.7	74.1	64.9	42.9	
	6:45:00	61.4	73.1	66.9	40.9	60.4
	7:00:00	61.1	77.0	64.9	41.9	
	7:15:00	62.0	77.1	66.9	42.9	
	7:30:00	60.4	72.9	64.9	40.9	
	7:45:00	60.4	71.3	65.9	41.9	61.0
	8:00:00	61.5	72.4	66.9	43.9	
	8:15:00	60.5	71.6	65.9	40.9	
	8:30:00	61.5	74.4	66.9	40.9	
	8:45:00	60.6	71.6	65.9	41.9	61.1
	9:00:00	61.1	76.5	65.9	42.9	
	9:15:00	61.1	75.1	65.9	40.9	
	9:30:00	61.4	76.7	65.9	41.9	
	9:45:00	61.8	77.1	66.9	43.9	61.4
	10:00:00	60.6	71.1	65.9	41.9	
	10:15:00	60.4	74.9	64.9	41.9	
	10:30:00	61.2	72.0	65.9	43.9	
	10:45:00	59.6	72.9	63.9	41.9	60.5
	11:00:00	61.3	73.6	65.9	42.9	
	11:15:00	60.2	72.4	64.9	40.9	
	11:30:00	60.5	72.6	64.9	43.9	
	11:45:00	61.0	71.7	65.9	42.9	60.8
	12:00:00	59.9	72.3	63.9	41.9	
	12:15:00	60.7	71.9	65.9	42.9	
	12:30:00	89.1	110.4	90.9	46.9	
	12:45:00	78.1	95.7	71.9	42.9	83.4
	13:00:00	59.3	71.1	63.9	40.9	
	13:15:00	60.3	72.8	64.9	41.9	
	13:30:00	61.3	77.3	65.9	41.9	
	13:45:00	60.6	78.0	63.9	42.9	60.4
	14:00:00	59.4	72.0	63.9	42.9	
	14:15:00	59.8	73.8	63.9	40.9	
	14:30:00	60.9	75.2	65.9	44.9	
	14:45:00	60.5	71.8	64.9	43.9	60.2
	15:00:00	59.4	71.7	63.9	42.9	

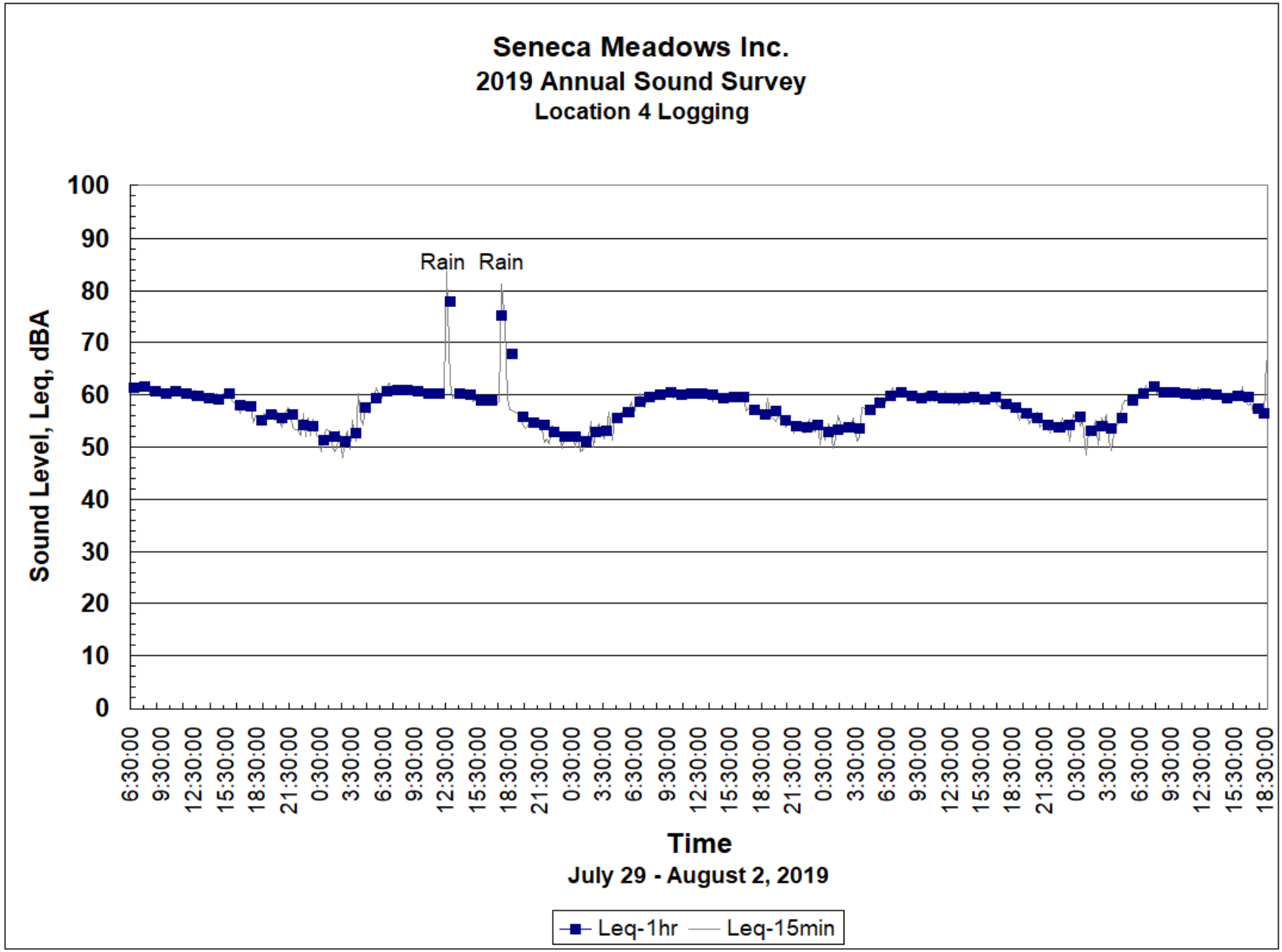
	15:15:00	59.6	72.3	63.9	42.9	
	15:30:00	59.3	70.5	62.9	42.9	
	15:45:00	60.1	75.5	63.9	42.9	59.6
	16:00:00	59.0	71.9	62.9	43.9	
	16:15:00	59.2	69.6	63.9	41.9	
	16:30:00	60.9	74.7	64.9	42.9	
	16:45:00	60.5	74.9	64.9	42.9	60.0
	17:00:00	59.9	72.3	64.9	42.9	
	17:15:00	58.2	71.3	62.9	40.9	
	17:30:00	60.4	73.4	64.9	42.9	
	17:45:00	70.2	91.5	71.9	40.9	65.2
	18:00:00	79.8	95.5	83.9	44.9	
	18:15:00	58.4	79.1	61.9	41.9	
	18:30:00	58.0	78.3	61.9	40.9	
	18:45:00	57.1	72.2	60.9	40.9	73.9
	19:00:00	56.9	72.1	60.9	40.9	
	19:15:00	56.1	70.3	60.9	39.9	
	19:30:00	56.6	72.0	60.9	40.9	
	19:45:00	56.5	76.1	59.9	39.9	56.5
	20:00:00	53.5	71.6	58.9	39.9	
	20:15:00	54.0	71.9	58.9	39.9	
	20:30:00	55.4	69.2	59.9	39.9	
	20:45:00	55.5	70.3	59.9	39.9	54.7
	21:00:00	54.3	69.7	58.9	39.9	
	21:15:00	54.3	72.0	58.9	39.9	
	21:30:00	64.0	93.1	58.9	39.9	
	21:45:00	51.3	64.8	56.9	39.9	59.0
	22:00:00	51.0	65.9	55.9	39.9	
	22:15:00	49.8	64.6	54.9	39.9	
	22:30:00	52.4	67.9	56.9	39.9	
	22:45:00	53.9	73.6	56.9	39.9	52.0
	23:00:00	53.1	69.7	57.9	39.9	
	23:15:00	50.6	66.7	54.9	39.9	
	23:30:00	50.3	67.7	54.9	39.9	
	23:45:00	48.7	63.1	52.9	39.9	51.0
	0:00:00	53.1	70.1	55.9	39.9	
	0:15:00	52.2	69.6	55.9	39.9	
	0:30:00	49.7	67.7	49.9	39.9	
	0:45:00	51.5	69.8	49.9	39.9	51.8
7/31/2019	1:00:00	52.4	69.3	54.9	39.9	
	1:15:00	47.4	67.8	44.9	39.9	
	1:30:00	44.9	63.1	42.9	39.9	
	1:45:00	50.1	68.0	47.9	39.9	49.6
	2:00:00	50.3	68.5	48.9	39.9	
	2:15:00	54.2	74.3	52.9	39.9	
	2:30:00	49.2	71.2	41.9	39.9	
	2:45:00	52.8	74.0	46.9	39.9	52.1
	3:00:00	51.5	71.1	48.9	39.9	
	3:15:00	53.1	74.3	46.9	39.9	
	3:30:00	51.2	71.0	50.9	39.9	
	3:45:00	51.8	70.0	52.9	39.9	52.0
	4:00:00	52.4	69.8	53.9	39.9	
	4:15:00	53.1	70.3	55.9	39.9	
	4:30:00	50.4	64.7	53.9	39.9	
	4:45:00	55.9	74.7	57.9	39.9	53.4
	5:00:00	55.8	71.1	58.9	39.9	
	5:15:00	56.5	70.4	60.9	40.9	
	5:30:00	55.9	70.1	60.9	40.9	
	5:45:00	55.0	69.5	59.9	40.9	55.8
	6:00:00	57.6	73.5	61.9	40.9	
	6:15:00	55.9	69.9	60.9	41.9	
	6:30:00	58.5	74.2	62.9	41.9	
	6:45:00	59.5	72.7	64.9	41.9	58.1
	7:00:00	58.8	72.6	62.9	41.9	
	7:15:00	58.3	70.4	62.9	40.9	
	7:30:00	59.2	76.2	63.9	40.9	
	7:45:00	60.2	73.5	64.9	42.9	59.2
	8:00:00	59.9	74.7	64.9	41.9	
	8:15:00	59.5	72.2	63.9	40.9	

	8:30:00	59.7	71.3	64.9	39.9	
	8:45:00	59.5	71.9	63.9	40.9	59.7
	9:00:00	60.9	72.7	65.9	40.9	
	9:15:00	59.7	72.5	63.9	40.9	
	9:30:00	60.8	72.5	65.9	40.9	
	9:45:00	60.0	73.9	64.9	40.9	60.4
	10:00:00	58.6	71.1	62.9	39.9	
	10:15:00	61.5	74.7	66.9	42.9	
	10:30:00	60.1	74.0	64.9	40.9	
	10:45:00	59.7	72.0	64.9	41.9	60.1
	11:00:00	60.0	72.7	64.9	39.9	
	11:15:00	61.1	72.8	65.9	41.9	
	11:30:00	59.8	71.8	63.9	40.9	
	11:45:00	60.0	77.7	64.9	39.9	60.3
	12:00:00	59.3	71.1	63.9	40.9	
	12:15:00	61.1	75.5	65.9	39.9	
	12:30:00	61.5	75.2	65.9	40.9	
	12:45:00	61.2	77.1	64.9	40.9	60.9
	13:00:00	60.4	71.9	64.9	40.9	
	13:15:00	61.2	76.0	65.9	40.9	
	13:30:00	60.7	72.0	65.9	40.9	
	13:45:00	60.0	71.6	63.9	40.9	60.6
	14:00:00	59.8	71.6	64.9	40.9	
	14:15:00	59.6	73.5	63.9	40.9	
	14:30:00	59.7	70.7	63.9	40.9	
	14:45:00	60.0	74.8	63.9	40.9	59.8
	15:00:00	60.6	73.5	64.9	40.9	
	15:15:00	60.0	73.0	63.9	41.9	
	15:30:00	60.0	71.0	64.9	41.9	
	15:45:00	60.6	72.0	64.9	42.9	60.3
	16:00:00	61.0	74.1	65.9	41.9	
	16:15:00	60.2	71.8	64.9	40.9	
	16:30:00	59.6	71.4	63.9	40.9	
	16:45:00	60.4	74.1	64.9	41.9	60.3
	17:00:00	58.8	74.0	62.9	40.9	
	17:15:00	58.2	70.4	62.9	40.9	
	17:30:00	57.7	68.4	61.9	40.9	
	17:45:00	57.9	69.7	62.9	40.9	58.2
	18:00:00	56.7	69.7	61.9	39.9	
	18:15:00	58.5	71.6	62.9	44.9	
	18:30:00	56.6	72.0	60.9	40.9	
	18:45:00	57.1	69.1	61.9	42.9	57.3
	19:00:00	56.5	73.9	60.9	39.9	
	19:15:00	57.6	71.1	61.9	39.9	
	19:30:00	55.3	69.7	59.9	39.9	
	19:45:00	56.1	71.2	59.9	39.9	56.5
	20:00:00	56.0	70.4	60.9	39.9	
	20:15:00	55.6	69.9	60.9	40.9	
	20:30:00	56.0	71.1	59.9	41.9	
	20:45:00	54.5	67.3	59.9	40.9	55.6
	21:00:00	53.8	67.5	58.9	40.9	
	21:15:00	54.1	67.1	59.9	41.9	
	21:30:00	52.8	67.5	57.9	41.9	
	21:45:00	52.6	69.3	56.9	40.9	53.4
	22:00:00	54.3	70.7	58.9	40.9	
	22:15:00	52.0	68.6	56.9	39.9	
	22:30:00	51.9	69.3	56.9	39.9	
	22:45:00	53.1	72.0	56.9	39.9	52.9
	23:00:00	55.1	73.3	58.9	39.9	
	23:15:00	52.2	68.2	55.9	39.9	
	23:30:00	52.4	68.3	55.9	39.9	
	23:45:00	50.9	68.0	53.9	40.9	52.9
	0:00:00	53.9	75.0	53.9	40.9	
	0:15:00	51.0	70.1	51.9	39.9	
	0:30:00	51.8	68.9	51.9	39.9	
	0:45:00	53.0	72.0	51.9	40.9	52.6
8/1/2019	1:00:00	51.8	69.7	52.9	40.9	
	1:15:00	45.5	61.5	44.9	39.9	
	1:30:00	49.4	68.3	48.9	39.9	

1:45:00	53.9	72.2	53.9	39.9	51.1
2:00:00	55.0	74.2	54.9	39.9	
2:15:00	53.6	73.1	53.9	39.9	
2:30:00	46.3	67.0	43.9	39.9	
2:45:00	54.8	73.5	54.9	40.9	53.5
3:00:00	51.5	69.9	50.9	39.9	
3:15:00	53.8	71.5	53.9	39.9	
3:30:00	49.0	68.4	49.9	40.9	
3:45:00	49.9	70.6	50.9	39.9	51.4
4:00:00	52.3	68.8	53.9	39.9	
4:15:00	56.2	70.9	59.9	40.9	
4:30:00	54.6	70.0	57.9	39.9	
4:45:00	55.2	73.5	58.9	40.9	54.8
5:00:00	55.8	71.1	58.9	40.9	
5:15:00	57.2	74.4	60.9	41.9	
5:30:00	57.7	70.9	61.9	41.9	
5:45:00	58.4	69.8	63.9	41.9	57.4
6:00:00	57.4	70.4	61.9	41.9	
6:15:00	58.1	71.5	61.9	41.9	
6:30:00	58.6	70.3	62.9	42.9	
6:45:00	59.9	72.0	64.9	44.9	58.6
7:00:00	59.1	73.1	62.9	42.9	
7:15:00	60.3	72.3	64.9	42.9	
7:30:00	59.8	72.8	63.9	42.9	
7:45:00	59.1	70.0	63.9	41.9	59.6
8:00:00	59.1	71.2	62.9	41.9	
8:15:00	59.0	70.4	63.9	40.9	
8:30:00	59.8	71.0	64.9	40.9	
8:45:00	59.5	71.5	64.9	40.9	59.4
9:00:00	60.1	72.6	64.9	40.9	
9:15:00	58.9	72.0	62.9	41.9	
9:30:00	59.4	69.9	64.9	41.9	
9:45:00	59.1	70.1	63.9	41.9	59.4
10:00:00	59.3	72.0	64.9	39.9	
10:15:00	59.7	70.5	64.9	40.9	
10:30:00	58.9	71.1	63.9	40.9	
10:45:00	57.7	75.5	61.9	40.9	59.0
11:00:00	58.8	72.7	63.9	40.9	
11:15:00	58.4	74.4	62.9	40.9	
11:30:00	58.7	71.1	62.9	42.9	
11:45:00	59.2	69.3	63.9	41.9	58.8
12:00:00	59.2	77.1	63.9	42.9	
12:15:00	61.2	77.5	64.9	42.9	
12:30:00	58.1	69.7	61.9	42.9	
12:45:00	58.1	69.3	62.9	42.9	59.3
13:00:00	58.9	69.5	63.9	42.9	
13:15:00	58.3	70.5	62.9	42.9	
13:30:00	58.3	70.3	62.9	42.9	
13:45:00	59.6	70.6	64.9	42.9	58.8
14:00:00	59.3	71.0	63.9	42.9	
14:15:00	60.7	72.7	64.9	42.9	
14:30:00	59.6	70.0	63.9	43.9	
14:45:00	59.1	70.8	63.9	41.9	59.7
15:00:00	60.1	71.9	64.9	43.9	
15:15:00	58.9	70.9	62.9	43.9	
15:30:00	59.9	72.0	63.9	43.9	
15:45:00	60.0	73.4	62.9	42.9	59.8
16:00:00	60.8	71.2	63.9	50.9	
16:15:00	61.1	70.7	64.9	48.9	
16:30:00	60.4	71.5	63.9	46.9	
16:45:00	59.0	70.7	62.9	47.9	60.4
17:00:00	59.9	71.1	63.9	47.9	
17:15:00	60.2	75.1	63.9	47.9	
17:30:00	60.0	74.8	62.9	49.9	
17:45:00	59.9	76.4	62.9	44.9	60.0
18:00:00	59.3	70.7	62.9	46.9	
18:15:00	59.0	69.1	62.9	48.9	
18:30:00	58.8	77.5	62.9	46.9	
18:45:00	59.0	72.5	62.9	45.9	59.0

	19:00:00	59.2	73.9	62.9	47.9	
	19:15:00	58.9	71.1	62.9	46.9	
	19:30:00	58.2	68.3	61.9	47.9	
	19:45:00	58.1	71.3	61.9	45.9	58.6
	20:00:00	57.4	70.0	60.9	46.9	
	20:15:00	57.1	69.8	60.9	44.9	
	20:30:00	57.3	71.2	60.9	46.9	
	20:45:00	58.7	71.2	62.9	46.9	57.7
	21:00:00	57.8	67.1	60.9	48.9	
	21:15:00	56.2	69.9	59.9	47.9	
	21:30:00	58.3	67.5	61.9	47.9	
	21:45:00	57.6	73.9	60.9	45.9	57.5
	22:00:00	59.3	68.6	62.9	45.9	
	22:15:00	60.3	69.7	64.9	48.9	
	22:30:00	57.4	67.0	61.9	46.9	
	22:45:00	57.7	71.1	61.9	46.9	58.8
	23:00:00	55.3	68.7	59.9	44.9	
	23:15:00	56.1	71.5	60.9	45.9	
	23:30:00	55.3	70.3	58.9	45.9	
	23:45:00	51.1	64.6	55.9	43.9	54.8
	0:00:00	55.7	74.5	55.9	44.9	
	0:15:00	55.2	70.3	57.9	45.9	
	0:30:00	54.0	75.2	55.9	44.9	
	0:45:00	56.6	74.0	59.9	44.9	55.5
8/2/2019	1:00:00	57.1	69.7	60.9	45.9	
	1:15:00	55.5	74.9	58.9	44.9	
	1:30:00	54.3	68.0	58.9	44.9	
	1:45:00	54.3	68.9	56.9	43.9	55.5
	2:00:00	52.7	66.4	55.9	44.9	
	2:15:00	56.5	74.4	59.9	45.9	
	2:30:00	51.2	63.8	54.9	44.9	
	2:45:00	54.1	72.1	53.9	45.9	54.1
	3:00:00	53.5	69.9	56.9	45.9	
	3:15:00	56.9	72.7	59.9	45.9	
	3:30:00	54.0	68.8	56.9	44.9	
	3:45:00	52.7	64.6	56.9	44.9	54.6
	4:00:00	51.6	68.8	50.9	43.9	
	4:15:00	54.1	71.0	55.9	44.9	
	4:30:00	53.9	69.1	56.9	44.9	
	4:45:00	56.8	70.5	60.9	45.9	54.5
	5:00:00	55.5	72.8	57.9	44.9	
	5:15:00	57.8	73.8	61.9	45.9	
	5:30:00	57.0	75.2	60.9	45.9	
	5:45:00	57.2	71.9	60.9	45.9	57.0
	6:00:00	58.1	71.9	61.9	46.9	
	6:15:00	56.9	71.2	60.9	46.9	
	6:30:00	58.8	73.6	61.9	46.9	
	6:45:00	59.9	70.8	64.9	47.9	58.6
	7:00:00	60.6	72.1	65.9	47.9	
	7:15:00	59.9	72.7	64.9	45.9	
	7:30:00	60.2	71.5	65.9	45.9	
	7:45:00	61.1	72.9	65.9	46.9	60.5
	8:00:00	60.3	76.3	64.9	45.9	
	8:15:00	59.2	71.2	63.9	45.9	
	8:30:00	60.2	71.6	63.9	47.9	
	8:45:00	60.5	73.9	64.9	46.9	60.1
	9:00:00	61.3	75.2	65.9	45.9	
	9:15:00	60.1	72.8	64.9	45.9	
	9:30:00	61.4	72.5	65.9	47.9	
	9:45:00	61.2	75.6	65.9	45.9	61.0
	10:00:00	60.2	72.8	64.9	44.9	
	10:15:00	59.1	70.9	62.9	44.9	
	10:30:00	59.3	73.3	63.9	45.9	
	10:45:00	60.1	70.4	64.9	45.9	59.7
	11:00:00	59.7	70.8	63.9	42.9	
	11:15:00	59.8	70.7	63.9	42.9	
	11:30:00	59.9	70.1	64.9	43.9	
	11:45:00	59.4	70.7	62.9	46.9	59.7
	12:00:00	59.4	69.1	63.9	46.9	

12:15:00	59.7	70.9	63.9	45.9	
12:30:00	59.0	70.5	62.9	44.9	
12:45:00	58.3	70.6	61.9	46.9	59.1
13:00:00	58.6	73.9	62.9	45.9	
13:15:00	58.7	72.7	62.9	45.9	
13:30:00	58.2	68.3	61.9	44.9	
13:45:00	58.4	69.9	62.9	44.9	58.5
14:00:00	58.7	70.6	62.9	44.9	
14:15:00	58.3	69.4	61.9	45.9	
14:30:00	59.3	69.1	63.9	46.9	
14:45:00	58.8	72.1	62.9	45.9	58.8
15:00:00	59.1	72.8	62.9	45.9	
15:15:00	59.5	70.1	63.9	43.9	
15:30:00	58.9	71.0	62.9	43.9	
15:45:00	59.0	69.5	62.9	44.9	59.1
16:00:00	59.6	70.3	63.9	46.9	
16:15:00	60.1	70.9	63.9	46.9	
16:30:00	59.1	69.1	62.9	44.9	
16:45:00	59.2	70.4	62.9	44.9	59.5
17:00:00	57.6	68.8	61.9	45.9	
17:15:00	56.3	70.4	59.9	43.9	
17:30:00	55.2	64.1	58.9	43.9	
17:45:00	56.0	66.8	59.9	42.9	56.4
18:00:00	55.9	65.4	60.9	44.9	
18:15:00	55.2	64.8	59.9	43.9	
18:30:00	55.1	66.4	59.9	44.9	55.4
18:45:00	66.0	90.8	66.9	44.9	


Seneca Meadows Inc.
2019 Annual Sound Survey
Location 4 Logging
Sound Level, Leq, dBA
100
90
80
70
60
50
40
30
20
10
0
Rain
Rain
6:30:00
9:30:00
12:30:00
15:30:00
18:30:00
21:30:00
0:30:00
3:30:00
6:30:00
9:30:00
12:30:00
15:30:00
18:30:00
21:30:00
0:30:00
3:30:00
6:30:00
9:30:00
12:30:00
15:30:00
18:30:00
21:30:00
0:30:00
3:30:00
6:30:00
9:30:00
12:30:00
15:30:00
18:30:00
Time
July 29 - August 2, 2019
Leq-1hr
Leq-15min

****

Filename LOC4
Test Location 4
Employee Name
Employee No.
Department
Seneca Meadows Inc.
2019 Annual Sound Survey
Aurora Acoustical
Consultants Inc.
Calibrator type Metrosonics CL304 3067
Calibrator calibration date 4/17/2019

****

METROSONICS db-3080 V1.20 SERIAL #3819
Report printed on 8/6/2019 at 15:28:16

Seneca Meadows Inc.
2019 Annual Sound Survey
Aurora Acoustical
Consultants Inc.
East Aurora, New York

Logging started at	7/29/2019 at 6:30:00
Total logging time	4 DAYS 12:04:40
Logging stopped at	8/2/2019 at 18:34:40
Total intervals	433
Interval length	0:15:00
Auto Stop	NO
Clock synch	YES
Response Rate	SLOW
Filter	A-WEIGHTED
Pre-Test Calibration Time	7/26/2019 at 15:05:26
Pre-Test Calibration Range	39.4 to 139.4 dB
Post-Test Calibration Time	8/6/2019 at 14:00:32
Post-Test Calibration Range	39.4 to 139.4
Cut-off used for time history Lav	NONE

<<< SUMMARY REPORT FOR TEST NUMBER 1 OF 1 >>>

Exchange Rate	3dB
Cutoffs	60dB 60dB
Ceiling	115dB
DOSE	Criterion level 90dB
DOSE	Criterion length 8 HOURS
Lav(60)	62.1dB
Lav(60)	61.5dB
Lav(60)	61.5dB
SEL	117.8dB
TWA	73.3dB
TWA(60)	72.8dB
TWA(60)	72.8dB
Lmax	99.6dB 7/30/2019 at 12:36:50
Lpk	132.0dB 7/30/2019 at 12:36:50
Time over 115 dB	00:00.0
DOSE(60)	1.86%
DOSE(60)	1.86%

<<< TIME HISTORY REPORT FOR TEST NUMBER 1 OF 1 >>>

	START TIME	Leq(15-min) dBA	Lmax dBA	L(10.0) dBA	L(99.0) dBA	Leq(1-hr) dBA
7/29/2019						
	6:30:00	61.0	75.8	65.4	46.4	
	6:45:00	61.6	78.9	65.4	45.4	61.3
	7:00:00	61.5	76.8	65.4	45.4	
	7:15:00	61.3	72.6	65.4	45.4	
	7:30:00	61.7	77.2	66.4	46.4	
	7:45:00	62.1	81.6	65.4	46.4	61.7
	8:00:00	61.9	75.6	65.4	46.4	
	8:15:00	60.2	72.8	64.4	44.4	
	8:30:00	60.2	72.4	64.4	45.4	
	8:45:00	60.1	71.2	64.4	45.4	60.7
	9:00:00	60.0	72.0	64.4	44.4	
	9:15:00	60.3	74.8	64.4	43.4	
	9:30:00	60.4	72.0	64.4	45.4	
	9:45:00	60.7	72.8	64.4	44.4	60.4
	10:00:00	60.6	72.0	64.4	45.4	
	10:15:00	60.8	74.4	64.4	45.4	
	10:30:00	61.4	74.4	65.4	44.4	
	10:45:00	60.1	70.4	64.4	44.4	60.8
	11:00:00	59.8	70.4	63.4	44.4	
	11:15:00	60.7	73.0	65.4	47.4	
	11:30:00	60.1	71.6	64.4	46.4	
	11:45:00	60.8	71.1	65.4	43.4	60.4
	12:00:00	59.7	72.8	64.4	43.4	
	12:15:00	58.9	71.6	63.4	46.4	
	12:30:00	61.0	72.1	65.4	46.4	
	12:45:00	59.7	70.8	64.4	45.4	59.9
	13:00:00	60.4	72.8	64.4	43.4	
	13:15:00	59.1	72.8	63.4	42.4	
	13:30:00	58.9	70.8	63.4	43.4	
	13:45:00	58.8	70.1	62.4	44.4	59.4
	14:00:00	59.2	71.6	63.4	44.4	
	14:15:00	58.5	70.8	62.4	44.4	
	14:30:00	60.2	74.4	63.4	44.4	
	14:45:00	58.9	71.6	62.4	43.4	59.2
	15:00:00	60.1	72.7	64.4	45.4	
	15:15:00	60.5	72.8	64.4	46.4	
	15:30:00	59.4	72.0	63.4	46.4	
	15:45:00	60.8	73.2	64.4	44.4	60.2
	16:00:00	58.9	72.8	62.4	47.4	
	16:15:00	58.2	70.4	61.4	45.4	
	16:30:00	57.9	70.2	61.4	45.4	
	16:45:00	56.4	68.0	60.4	44.4	57.9
	17:00:00	57.9	69.9	61.4	46.4	
	17:15:00	58.0	70.0	61.4	46.4	
	17:30:00	58.0	68.8	61.4	46.4	
	17:45:00	57.7	70.4	61.4	43.4	57.9
	18:00:00	54.7	66.3	58.4	44.4	
	18:15:00	56.0	70.0	59.4	43.4	
	18:30:00	55.6	70.0	58.4	43.4	
	18:45:00	54.5	67.9	58.4	43.4	55.2
	19:00:00	56.5	74.8	59.4	43.4	
	19:15:00	55.9	70.6	59.4	43.4	
	19:30:00	56.6	70.0	60.4	43.4	
	19:45:00	56.2	71.2	59.4	43.4	56.3
	20:00:00	55.2	68.8	58.4	43.4	
	20:15:00	56.9	70.1	59.4	43.4	
	20:30:00	55.5	67.1	58.4	44.4	
	20:45:00	53.9	71.2	57.4	43.4	55.5
	21:00:00	55.9	71.2	59.4	46.4	
	21:15:00	57.6	73.6	59.4	44.4	
	21:30:00	57.1	71.2	60.4	45.4	
	21:45:00	53.8	69.2	57.4	44.4	56.3
	22:00:00	53.4	68.8	57.4	46.4	

	22:15:00	53.3	70.0	56.4	46.4	
	22:30:00	52.3	68.0	55.4	45.4	
	22:45:00	56.5	74.8	58.4	45.4	54.2
	23:00:00	52.1	66.9	55.4	45.4	
	23:15:00	55.5	70.4	58.4	45.4	
	23:30:00	52.3	69.2	55.4	46.4	
	23:45:00	55.4	72.1	56.4	44.4	54.1
	0:00:00	52.2	68.8	54.4	45.4	
	0:15:00	51.8	69.2	53.4	44.4	
	0:30:00	49.2	61.6	52.4	45.4	
	0:45:00	51.8	69.7	53.4	45.4	51.4
7/30/2019	1:00:00	53.3	68.6	56.4	46.4	
	1:15:00	53.2	73.2	53.4	44.4	
	1:30:00	50.7	66.7	50.4	46.4	
	1:45:00	49.2	66.0	48.4	44.4	51.9
	2:00:00	49.8	66.8	49.4	44.4	
	2:15:00	53.1	75.5	47.4	44.4	
	2:30:00	47.9	61.3	48.4	44.4	
	2:45:00	51.6	68.4	51.4	44.4	51.0
	3:00:00	53.1	68.1	53.4	46.4	
	3:15:00	49.6	58.8	52.4	45.4	
	3:30:00	55.1	71.2	57.4	46.4	
	3:45:00	51.1	68.4	50.4	45.4	52.7
	4:00:00	60.2	75.2	64.4	46.4	
	4:15:00	55.3	75.2	55.4	44.4	
	4:30:00	54.2	70.0	57.4	45.4	
	4:45:00	58.3	72.6	62.4	46.4	57.6
	5:00:00	56.5	70.3	58.4	45.4	
	5:15:00	59.3	74.8	63.4	47.4	
	5:30:00	59.2	72.0	62.4	46.4	
	5:45:00	61.3	77.2	65.4	45.4	59.4
	6:00:00	60.2	71.6	64.4	45.4	
	6:15:00	59.3	73.6	62.4	44.4	
	6:30:00	61.3	75.0	65.4	46.4	
	6:45:00	61.4	73.5	65.4	45.4	60.6
	7:00:00	62.2	84.0	65.4	46.4	
	7:15:00	61.4	72.0	65.4	46.4	
	7:30:00	60.1	72.0	63.4	45.4	
	7:45:00	60.1	70.4	64.4	46.4	61.0
	8:00:00	61.7	72.0	66.4	46.4	
	8:15:00	60.5	72.4	64.4	45.4	
	8:30:00	60.6	73.6	65.4	46.4	
	8:45:00	60.9	71.1	65.4	44.4	61.0
	9:00:00	61.0	77.2	64.4	46.4	
	9:15:00	61.3	74.8	65.4	44.4	
	9:30:00	60.2	72.8	64.4	43.4	
	9:45:00	60.6	72.0	65.4	46.4	60.8
	10:00:00	60.3	72.0	64.4	46.4	
	10:15:00	60.6	75.6	65.4	44.4	
	10:30:00	60.9	74.0	65.4	46.4	
	10:45:00	59.5	72.9	62.4	46.4	60.4
	11:00:00	61.0	73.2	65.4	46.4	
	11:15:00	59.8	71.9	63.4	47.4	
	11:30:00	60.2	71.3	64.4	46.4	
	11:45:00	60.0	72.0	64.4	46.4	60.3
	12:00:00	60.5	74.0	64.4	48.4	
	12:15:00	60.6	72.4	64.4	46.4	
	12:30:00	83.8	99.6	88.4	52.4	
	12:45:00	62.6	83.8	65.4	44.4	77.9
	13:00:00	59.3	71.2	63.4	45.4	
	13:15:00	60.2	75.9	64.4	44.4	
	13:30:00	60.9	75.6	65.4	45.4	
	13:45:00	60.9	80.0	64.4	47.4	60.4
	14:00:00	59.3	69.6	63.4	46.4	
	14:15:00	60.2	74.0	64.4	46.4	
	14:30:00	60.5	71.3	64.4	50.4	
	14:45:00	60.2	70.4	64.4	49.4	60.1
	15:00:00	58.8	69.6	62.4	47.4	
	15:15:00	59.1	71.2	62.4	47.4	

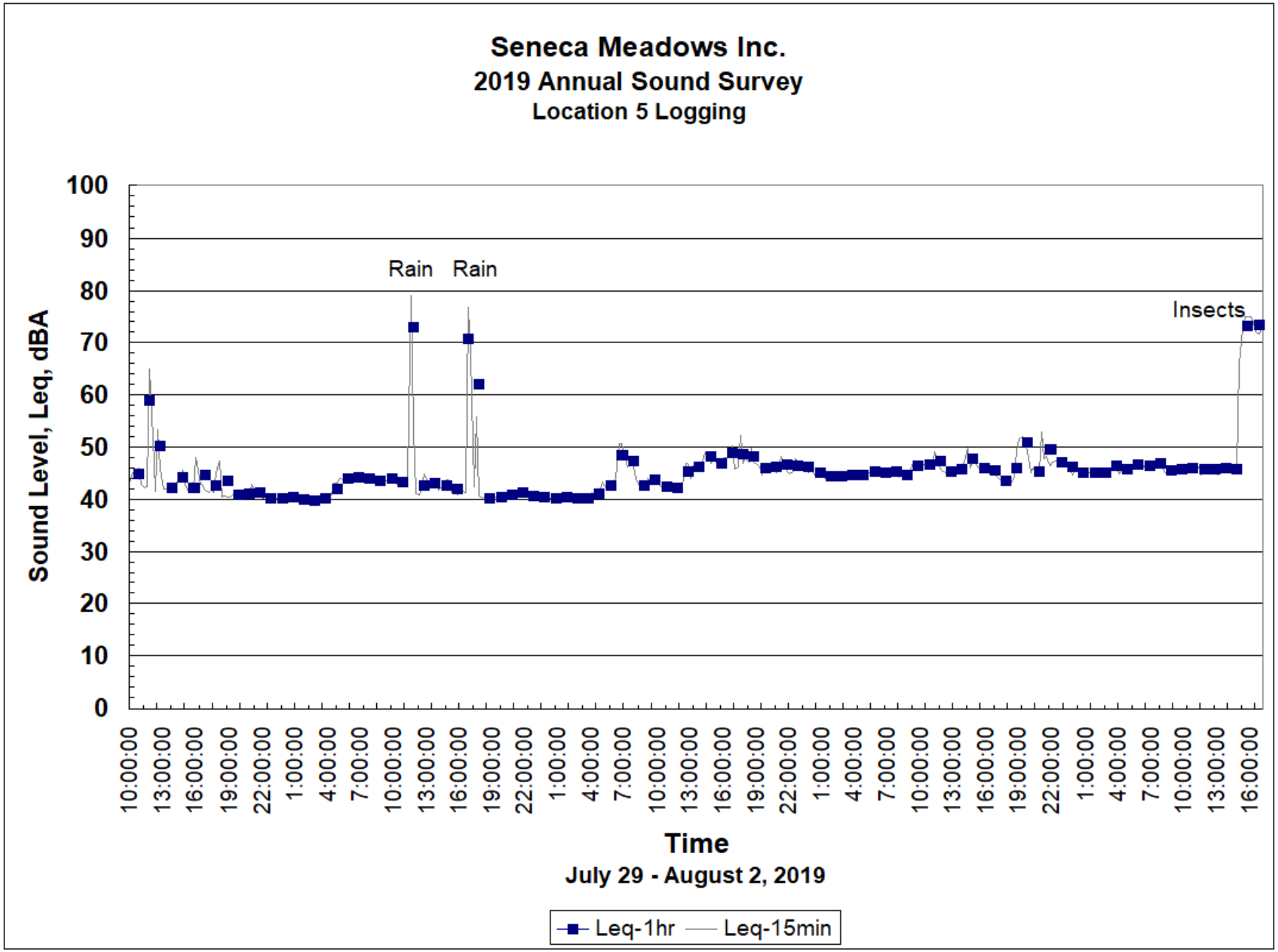
	15:30:00	58.1	70.0	61.4	48.4	
	15:45:00	59.2	75.2	62.4	48.4	58.8
	16:00:00	58.5	69.1	62.4	48.4	
	16:15:00	58.2	70.0	61.4	46.4	
	16:30:00	59.7	76.1	61.4	46.4	
	16:45:00	59.1	70.9	62.4	47.4	58.9
	17:00:00	58.8	74.0	62.4	46.4	
	17:15:00	58.2	70.8	61.4	46.4	
	17:30:00	58.7	71.2	62.4	44.4	
	17:45:00	81.2	97.2	86.4	45.4	75.3
	18:00:00	73.5	94.8	75.4	46.4	
	18:15:00	59.3	85.2	60.4	44.4	
	18:30:00	57.2	74.1	60.4	44.4	
	18:45:00	56.9	71.5	60.4	43.4	67.8
	19:00:00	56.6	70.5	59.4	44.4	
	19:15:00	56.5	77.2	59.4	42.4	
	19:30:00	55.8	70.4	58.4	43.4	
	19:45:00	54.3	69.2	57.4	43.4	55.9
	20:00:00	53.5	70.0	56.4	43.4	
	20:15:00	54.0	70.4	57.4	42.4	
	20:30:00	55.3	68.4	58.4	44.4	
	20:45:00	55.6	75.8	58.4	44.4	54.7
	21:00:00	54.5	70.0	57.4	45.4	
	21:15:00	55.5	78.8	57.4	45.4	
	21:30:00	54.7	70.4	57.4	45.4	
	21:45:00	50.8	60.0	55.4	45.4	54.2
	22:00:00	51.6	66.4	55.4	45.4	
	22:15:00	50.6	63.2	54.4	45.4	
	22:30:00	54.1	72.0	55.4	45.4	
	22:45:00	53.9	69.6	56.4	44.4	52.8
	23:00:00	52.9	68.2	56.4	44.4	
	23:15:00	51.8	64.8	56.4	44.4	
	23:30:00	49.8	66.5	52.4	44.4	
	23:45:00	52.8	72.0	54.4	44.4	52.0
	0:00:00	52.4	69.6	54.4	44.4	
	0:15:00	52.6	68.0	55.4	44.4	
	0:30:00	52.7	69.4	52.4	44.4	
	0:45:00	50.1	69.2	50.4	45.4	52.1
7/31/2019	1:00:00	53.0	67.8	53.4	45.4	
	1:15:00	49.2	68.0	49.4	44.4	
	1:30:00	49.4	66.8	49.4	44.4	
	1:45:00	51.5	69.6	52.4	44.4	51.1
	2:00:00	52.1	67.2	53.4	44.4	
	2:15:00	55.0	74.5	54.4	44.4	
	2:30:00	50.0	68.0	49.4	44.4	
	2:45:00	53.4	71.2	52.4	45.4	53.0
	3:00:00	54.4	74.8	53.4	45.4	
	3:15:00	52.6	72.5	51.4	45.4	
	3:30:00	51.5	69.4	50.4	45.4	
	3:45:00	53.3	68.4	53.4	45.4	53.1
	4:00:00	56.8	76.0	58.4	44.4	
	4:15:00	51.3	67.6	54.4	44.4	
	4:30:00	56.3	73.4	58.4	45.4	
	4:45:00	56.2	71.2	58.4	45.4	55.6
	5:00:00	55.9	71.4	58.4	45.4	
	5:15:00	56.7	75.6	59.4	46.4	
	5:30:00	57.5	69.6	61.4	46.4	
	5:45:00	56.2	69.6	59.4	46.4	56.6
	6:00:00	58.8	72.0	62.4	46.4	
	6:15:00	56.0	69.6	59.4	45.4	
	6:30:00	58.9	75.2	62.4	46.4	
	6:45:00	60.3	72.8	65.4	46.4	58.8
	7:00:00	59.6	71.8	64.4	45.4	
	7:15:00	57.5	70.5	61.4	45.4	
	7:30:00	60.0	72.8	64.4	45.4	
	7:45:00	60.6	71.6	65.4	46.4	59.6
	8:00:00	60.1	71.2	64.4	45.4	
	8:15:00	60.1	72.4	64.4	45.4	
	8:30:00	59.8	78.0	62.4	44.4	

	8:45:00	59.8	72.0	64.4	45.4	60.0
	9:00:00	60.9	74.0	64.4	45.4	
	9:15:00	60.0	72.0	64.4	45.4	
	9:30:00	60.7	71.6	65.4	44.4	
	9:45:00	60.5	74.4	64.4	44.4	60.5
	10:00:00	59.4	72.8	63.4	44.4	
	10:15:00	60.7	73.5	64.4	44.4	
	10:30:00	60.1	72.8	64.4	46.4	
	10:45:00	59.7	71.6	64.4	46.4	60.0
	11:00:00	60.3	71.6	65.4	44.4	
	11:15:00	61.1	73.3	65.4	47.4	
	11:30:00	59.8	72.4	64.4	46.4	
	11:45:00	60.0	71.6	63.4	46.4	60.3
	12:00:00	59.8	72.0	64.4	43.4	
	12:15:00	60.5	71.6	65.4	43.4	
	12:30:00	60.3	72.0	64.4	43.4	
	12:45:00	60.7	76.1	64.4	43.4	60.3
	13:00:00	60.2	73.9	64.4	44.4	
	13:15:00	60.2	72.4	64.4	44.4	
	13:30:00	60.6	72.8	64.4	46.4	
	13:45:00	58.7	71.7	62.4	44.4	60.0
	14:00:00	59.8	72.0	63.4	44.4	
	14:15:00	59.5	79.2	62.4	43.4	
	14:30:00	59.2	71.6	63.4	43.4	
	14:45:00	59.3	73.5	62.4	44.4	59.5
	15:00:00	60.3	74.0	64.4	45.4	
	15:15:00	59.8	72.4	64.4	44.4	
	15:30:00	59.3	70.2	63.4	44.4	
	15:45:00	58.8	69.6	62.4	43.4	59.6
	16:00:00	60.0	69.8	64.4	44.4	
	16:15:00	59.4	72.8	63.4	43.4	
	16:30:00	59.1	72.0	61.4	44.4	
	16:45:00	59.8	73.8	63.4	44.4	59.6
	17:00:00	56.9	71.6	59.4	45.4	
	17:15:00	57.7	70.0	61.4	43.4	
	17:30:00	57.2	67.0	60.4	44.4	
	17:45:00	57.0	68.8	60.4	44.4	57.2
	18:00:00	56.3	68.4	59.4	44.4	
	18:15:00	56.8	73.2	59.4	43.4	
	18:30:00	56.5	71.3	59.4	44.4	
	18:45:00	55.7	66.8	59.4	44.4	56.3
	19:00:00	59.4	80.8	59.4	44.4	
	19:15:00	56.0	67.5	60.4	44.4	
	19:30:00	55.5	70.3	58.4	43.4	
	19:45:00	54.9	71.3	57.4	43.4	56.8
	20:00:00	55.7	70.4	58.4	44.4	
	20:15:00	55.4	71.2	58.4	44.4	
	20:30:00	55.1	70.0	58.4	45.4	
	20:45:00	53.9	65.8	57.4	45.4	55.1
	21:00:00	54.5	66.9	57.4	47.4	
	21:15:00	54.0	66.9	57.4	47.4	
	21:30:00	52.7	65.5	55.4	48.4	
	21:45:00	54.8	68.8	57.4	48.4	54.1
	22:00:00	54.2	68.4	57.4	48.4	
	22:15:00	53.9	69.2	56.4	48.4	
	22:30:00	52.7	66.4	55.4	48.4	
	22:45:00	54.0	69.6	56.4	47.4	53.7
	23:00:00	55.3	72.8	57.4	48.4	
	23:15:00	53.4	67.8	56.4	47.4	
	23:30:00	53.0	69.6	56.4	46.4	
	23:45:00	55.1	74.8	55.4	46.4	54.3
	0:00:00	50.4	64.1	53.4	45.4	
	0:15:00	54.0	68.9	55.4	45.4	
	0:30:00	51.3	68.0	50.4	46.4	
	0:45:00	54.5	71.2	55.4	46.4	52.9
8/1/2019	1:00:00	53.2	70.8	53.4	46.4	
	1:15:00	49.7	67.4	49.4	46.4	
	1:30:00	51.7	68.8	53.4	46.4	
	1:45:00	56.0	71.1	58.4	45.4	53.3

2:00:00	54.7	73.1	56.4	45.4	
2:15:00	53.0	71.6	52.4	45.4	
2:30:00	54.5	75.2	53.4	45.4	
2:45:00	53.1	72.9	51.4	44.4	53.9
3:00:00	54.1	71.2	54.4	45.4	
3:15:00	55.5	74.0	54.4	46.4	
3:30:00	51.1	69.5	51.4	46.4	
3:45:00	51.8	70.8	52.4	46.4	53.5
4:00:00	57.5	82.8	58.4	46.4	
4:15:00	57.3	71.6	60.4	46.4	
4:30:00	56.7	71.2	60.4	46.4	
4:45:00	57.3	74.1	60.4	46.4	57.2
5:00:00	56.7	71.2	60.4	46.4	
5:15:00	58.0	72.4	61.4	45.4	
5:30:00	59.6	71.6	63.4	46.4	
5:45:00	59.2	70.8	63.4	48.4	58.5
6:00:00	58.9	73.6	62.4	46.4	
6:15:00	58.5	71.2	61.4	46.4	
6:30:00	60.8	76.6	64.4	47.4	
6:45:00	60.6	72.0	64.4	48.4	59.8
7:00:00	61.4	74.0	65.4	48.4	
7:15:00	59.9	73.4	63.4	48.4	
7:30:00	60.5	72.6	64.4	47.4	
7:45:00	60.1	74.0	64.4	45.4	60.5
8:00:00	59.6	73.2	63.4	44.4	
8:15:00	60.0	72.9	64.4	44.4	
8:30:00	60.3	72.5	64.4	44.4	
8:45:00	59.6	72.4	63.4	45.4	59.9
9:00:00	59.7	71.3	64.4	44.4	
9:15:00	59.6	75.7	63.4	44.4	
9:30:00	59.5	69.8	64.4	43.4	
9:45:00	59.1	76.4	62.4	44.4	59.5
10:00:00	60.4	70.9	65.4	44.4	
10:15:00	60.4	71.2	65.4	44.4	
10:30:00	58.7	71.6	62.4	42.4	
10:45:00	59.7	73.6	64.4	42.4	59.9
11:00:00	58.6	76.3	62.4	43.4	
11:15:00	59.7	74.4	64.4	42.4	
11:30:00	59.9	71.6	64.4	44.4	
11:45:00	59.1	71.6	63.4	43.4	59.4
12:00:00	60.7	78.0	64.4	44.4	
12:15:00	59.1	71.5	62.4	43.4	
12:30:00	59.0	70.4	62.4	44.4	
12:45:00	58.2	70.4	61.4	44.4	59.3
13:00:00	59.6	71.2	64.4	43.4	
13:15:00	58.1	68.6	61.4	43.4	
13:30:00	58.6	71.4	62.4	43.4	
13:45:00	60.8	77.3	65.4	45.4	59.4
14:00:00	59.4	70.4	63.4	45.4	
14:15:00	60.0	72.0	63.4	45.4	
14:30:00	60.2	70.4	64.4	46.4	
14:45:00	58.3	69.2	62.4	43.4	59.5
15:00:00	59.5	71.5	63.4	45.4	
15:15:00	58.5	70.4	61.4	45.4	
15:30:00	59.5	70.8	63.4	46.4	
15:45:00	59.1	72.1	62.4	44.4	59.2
16:00:00	59.9	76.3	62.4	44.4	
16:15:00	60.3	75.7	64.4	45.4	
16:30:00	59.3	69.6	62.4	45.4	
16:45:00	58.8	69.2	62.4	46.4	59.6
17:00:00	58.1	68.1	61.4	46.4	
17:15:00	57.6	68.0	60.4	44.4	
17:30:00	58.9	74.8	61.4	44.4	
17:45:00	58.4	69.5	61.4	44.4	58.3
18:00:00	57.8	70.8	61.4	45.4	
18:15:00	57.3	71.3	60.4	45.4	
18:30:00	57.4	70.9	60.4	45.4	
18:45:00	57.6	73.2	60.4	45.4	57.5
19:00:00	55.2	66.2	59.4	44.4	

	19:15:00	56.5	70.0	59.4	46.4	
	19:30:00	57.0	70.4	60.4	46.4	
	19:45:00	56.9	70.4	60.4	48.4	56.5
	20:00:00	54.5	65.2	58.4	46.4	
	20:15:00	55.4	67.6	58.4	47.4	
	20:30:00	55.8	70.0	58.4	47.4	
	20:45:00	56.6	69.6	59.4	48.4	55.6
	21:00:00	53.9	66.8	57.4	47.4	
	21:15:00	54.3	69.2	57.4	45.4	
	21:30:00	55.1	68.8	58.4	46.4	
	21:45:00	53.8	65.2	57.4	46.4	54.3
	22:00:00	52.6	63.6	56.4	46.4	
	22:15:00	54.0	69.9	57.4	46.4	
	22:30:00	53.7	66.4	57.4	48.4	
	22:45:00	54.5	69.2	57.4	47.4	53.8
	23:00:00	55.6	69.2	58.4	48.4	
	23:15:00	54.3	70.0	57.4	46.4	
	23:30:00	55.1	70.8	56.4	46.4	
	23:45:00	51.1	66.4	54.4	45.4	54.3
	0:00:00	56.3	72.0	57.4	46.4	
	0:15:00	55.5	76.4	53.4	46.4	
	0:30:00	56.7	75.2	56.4	46.4	
	0:45:00	54.1	72.8	53.4	46.4	55.8
8/2/2019	1:00:00	55.1	72.8	56.4	46.4	
	1:15:00	48.4	62.8	50.4	45.4	
	1:30:00	52.8	68.0	54.4	44.4	
	1:45:00	53.9	71.2	54.4	44.4	53.2
	2:00:00	53.3	70.0	54.4	45.4	
	2:15:00	55.2	69.8	56.4	47.4	
	2:30:00	50.4	64.0	50.4	47.4	
	2:45:00	55.6	73.7	55.4	47.4	54.1
	3:00:00	54.6	70.0	57.4	45.4	
	3:15:00	56.2	72.0	57.4	44.4	
	3:30:00	51.4	68.4	52.4	44.4	
	3:45:00	49.3	66.8	49.4	44.4	53.7
	4:00:00	54.1	71.2	55.4	44.4	
	4:15:00	54.3	71.2	55.4	44.4	
	4:30:00	54.7	69.6	57.4	46.4	
	4:45:00	57.8	72.8	60.4	46.4	55.5
	5:00:00	58.9	73.6	62.4	46.4	
	5:15:00	58.9	73.3	62.4	47.4	
	5:30:00	59.1	71.5	62.4	47.4	
	5:45:00	58.5	72.0	61.4	46.4	58.9
	6:00:00	59.1	71.6	62.4	46.4	
	6:15:00	59.3	77.6	61.4	46.4	
	6:30:00	61.3	73.8	65.4	47.4	
	6:45:00	60.7	72.8	64.4	48.4	60.2
	7:00:00	61.8	74.5	66.4	48.4	
	7:15:00	61.0	73.2	65.4	48.4	
	7:30:00	61.5	72.0	66.4	47.4	
	7:45:00	61.8	71.9	66.4	45.4	61.5
	8:00:00	60.2	74.0	63.4	43.4	
	8:15:00	60.7	72.8	64.4	46.4	
	8:30:00	60.2	72.0	64.4	45.4	
	8:45:00	60.7	73.7	64.4	43.4	60.5
	9:00:00	60.4	73.1	64.4	44.4	
	9:15:00	61.3	74.2	65.4	44.4	
	9:30:00	60.7	74.0	64.4	45.4	
	9:45:00	59.6	70.8	63.4	43.4	60.5
	10:00:00	60.3	74.4	64.4	42.4	
	10:15:00	60.0	74.0	64.4	43.4	
	10:30:00	60.0	73.6	64.4	42.4	
	10:45:00	61.0	70.4	65.4	45.4	60.3
	11:00:00	60.0	70.8	64.4	44.4	
	11:15:00	59.8	72.4	64.4	44.4	
	11:30:00	60.5	71.2	64.4	43.4	
	11:45:00	60.1	72.8	64.4	42.4	60.1
	12:00:00	61.3	72.8	65.4	44.4	
	12:15:00	60.3	73.6	64.4	42.4	

12:30:00	59.0	71.3	62.4	43.4	
12:45:00	59.8	71.5	64.4	43.4	60.2
13:00:00	60.0	76.0	63.4	42.4	
13:15:00	60.2	73.2	64.4	45.4	
13:30:00	60.0	70.4	64.4	44.4	
13:45:00	60.1	72.0	64.4	46.4	60.1
14:00:00	59.4	70.8	63.4	43.4	
14:15:00	59.1	69.8	62.4	44.4	
14:30:00	60.2	77.0	64.4	44.4	
14:45:00	58.6	71.6	61.4	44.4	59.4
15:00:00	60.3	74.3	63.4	45.4	
15:15:00	59.5	70.4	63.4	43.4	
15:30:00	60.1	70.4	63.4	45.4	
15:45:00	59.2	69.2	63.4	43.4	59.8
16:00:00	59.2	70.4	62.4	44.4	
16:15:00	61.7	84.0	63.4	45.4	
16:30:00	58.6	68.7	62.4	44.4	
16:45:00	58.0	69.6	61.4	43.4	59.6
17:00:00	58.3	71.6	60.4	44.4	
17:15:00	56.8	66.4	60.4	44.4	
17:30:00	56.8	65.2	60.4	44.4	
17:45:00	57.5	68.8	61.4	45.4	57.4
18:00:00	57.1	67.2	60.4	44.4	
18:15:00	56.0	66.4	59.4	44.4	56.6
18:30:00	66.7	82.0	71.4	46.4	


Seneca Meadows Inc.
2019 Annual Sound Survey
Location 5 Logging
Sound Level, Leq, dBA
100
90
80
70
60
50
40
30
20
10
0
Rain
Rain
Insects
10:00:00
13:00:00
16:00:00
19:00:00
22:00:00
1:00:00
4:00:00
7:00:00
10:00:00
13:00:00
16:00:00
19:00:00
22:00:00
1:00:00
4:00:00
7:00:00
10:00:00
13:00:00
16:00:00
19:00:00
22:00:00
1:00:00
4:00:00
7:00:00
10:00:00
13:00:00
16:00:00
Time
July 29 - August 2, 2019
Leq-1hr
Leq-15min

****

Filename LOC5
Test Location 5
Employee Name
Employee No.
Department
Seneca Meadows Inc.
2019 Annual Sound Survey
Aurora Acoustical
Consultants Inc.
Calibrator type Metrosonics CL304 3067
Calibrator calibration date 4/17/2019

****

METROSONICS db-3080 V1.20 SERIAL #4049
Report printed on 8/6/2019 at 15:29:17

Seneca Meadows Inc.
2019 Annual Sound Survey
Aurora Acoustical
Consultants Inc.
East Aurora, New York

Logging started at	7/29/2019 at 11:00:00
Total logging time	4 DAYS 7:05:53
Logging stopped at	8/2/2019 at 18:05:53
Total intervals	413
Interval length	0:15:00
Auto Stop	NO
Clock synch	YES
Response Rate	SLOW
Filter	A-WEIGHTED
Pre-Test Calibration Time	7/26/2019 at 15:12:15
Pre-Test Calibration Range	39.6 to 139.6 dB
Post-Test Calibration Time	8/6/2019 at 13:57:52
Post-Test Calibration Range	39.7 to 139.7
Cut-off used for time history Lav	NONE

<<< SUMMARY REPORT FOR TEST NUMBER 1 OF 1 >>>

Exchange Rate	3dB
Cutoffs	60dB 60dB
Ceiling	115dB
DOSE	Criterion level 90dB
DOSE	Criterion length 8 HOURS
Lav(60)	59.1dB
Lav(60)	58.9dB
Lav(60)	58.9dB
SEL	114.6dB
TWA	70.2dB
TWA(60)	70.0dB
TWA(60)	70.0dB
Lmax	96.5dB 7/30/2019 at 17:59:05
Lpk	129.6dB 7/30/2019 at 17:59:05
Time over 115 dB	00:00.0
DOSE(60)	0.98%
DOSE(60)	0.98%

<<< TIME HISTORY REPORT FOR TEST NUMBER 1 OF 1 >>>

	START TIME	Leq(15-min) dBA	Lmax dBA	L(10.0) dBA	L(99.0) dBA	Leq(1-hr) dBA
7/29/2019						
	11:00:00	43.6	51.6	45.6	40.6	
	11:15:00	45.2	50.5	47.6	41.6	
	11:30:00	44.6	49.2	46.6	41.6	
	11:45:00	46.0	56.1	47.6	42.6	44.9
	12:00:00	42.8	48.5	44.6	40.6	
	12:15:00	42.1	55.3	42.6	40.6	
	12:30:00	42.4	55.6	43.6	40.6	
	12:45:00	64.9	85.7	63.6	40.6	59.0
	13:00:00	51.8	80.8	42.6	39.6	
	13:15:00	41.6	55.7	43.6	39.6	
	13:30:00	53.3	82.5	44.6	39.6	
	13:45:00	45.8	60.8	44.6	40.6	50.2
	14:00:00	42.0	58.0	43.6	40.6	
	14:15:00	42.0	55.2	43.6	39.6	
	14:30:00	41.8	52.4	42.6	39.6	
	14:45:00	42.5	49.3	44.6	40.6	42.1
	15:00:00	42.9	49.3	44.6	40.6	
	15:15:00	43.4	48.5	45.6	40.6	
	15:30:00	44.5	56.3	45.6	40.6	
	15:45:00	45.6	63.3	46.6	40.6	44.2
	16:00:00	42.9	48.8	44.6	40.6	
	16:15:00	41.7	50.1	42.6	40.6	
	16:30:00	42.0	51.3	42.6	39.6	
	16:45:00	41.9	48.0	43.6	40.6	42.2
	17:00:00	48.1	70.7	43.6	40.6	
	17:15:00	42.9	48.1	43.6	41.6	
	17:30:00	42.7	47.7	43.6	41.6	
	17:45:00	41.7	48.1	42.6	40.6	44.7
	18:00:00	41.2	45.8	42.6	40.6	
	18:15:00	41.8	48.6	42.6	40.6	
	18:30:00	41.2	48.1	42.6	39.6	
	18:45:00	45.0	72.3	42.6	39.6	42.6
	19:00:00	47.4	75.7	42.6	39.6	
	19:15:00	40.3	43.2	41.6	39.6	
	19:30:00	40.6	48.8	42.6	39.6	
	19:45:00	40.5	46.0	42.6	39.6	43.4
	20:00:00	40.5	44.4	41.6	39.6	
	20:15:00	40.8	46.1	42.6	39.6	
	20:30:00	41.1	48.4	42.6	39.6	
	20:45:00	40.6	45.9	42.6	39.6	40.8
	21:00:00	41.0	45.4	42.6	39.6	
	21:15:00	41.5	51.7	42.6	39.6	
	21:30:00	41.4	52.1	42.6	40.6	
	21:45:00	40.5	46.9	41.6	39.6	41.1
	22:00:00	42.9	68.5	41.6	39.6	
	22:15:00	40.6	44.4	41.6	39.6	
	22:30:00	40.6	44.2	41.6	39.6	
	22:45:00	40.3	45.2	40.6	39.6	41.2
	23:00:00	40.2	44.8	41.6	39.6	
	23:15:00	40.3	42.9	40.6	39.6	
	23:30:00	39.9	42.5	40.6	39.6	
	23:45:00	40.4	45.6	41.6	39.6	40.2
	0:00:00	40.5	44.6	41.6	39.6	
	0:15:00	40.1	43.5	40.6	39.6	
	0:30:00	40.1	44.4	40.6	39.6	
	0:45:00	40.2	46.9	40.6	39.6	40.2
7/30/2019	1:00:00	40.7	48.3	41.6	39.6	
	1:15:00	40.2	45.5	41.6	39.6	
	1:30:00	40.4	48.9	41.6	39.6	
	1:45:00	40.5	43.1	41.6	39.6	40.5
	2:00:00	39.9	48.4	40.6	39.6	
	2:15:00	39.9	43.8	40.6	39.6	
	2:30:00	39.9	42.1	40.6	39.6	
	2:45:00	39.8	42.5	40.6	39.6	39.9

3:00:00	39.7	42.5	40.6	39.6	
3:15:00	39.7	41.6	39.6	39.6	
3:30:00	39.7	41.9	40.6	39.6	
3:45:00	40.0	43.7	40.6	39.6	39.8
4:00:00	40.3	47.7	41.6	39.6	
4:15:00	39.9	42.2	40.6	39.6	
4:30:00	40.0	43.0	40.6	39.6	
4:45:00	40.3	43.3	40.6	39.6	40.1
5:00:00	40.2	44.1	40.6	39.6	
5:15:00	40.8	45.4	42.6	39.6	
5:30:00	43.0	48.8	44.6	41.6	
5:45:00	43.1	56.9	44.6	40.6	42.0
6:00:00	44.0	60.0	45.6	41.6	
6:15:00	43.8	48.5	45.6	41.6	
6:30:00	44.5	50.5	45.6	42.6	
6:45:00	44.0	51.1	45.6	41.6	44.1
7:00:00	43.7	47.7	44.6	42.6	
7:15:00	44.4	48.4	45.6	42.6	
7:30:00	44.2	52.0	45.6	42.6	
7:45:00	44.4	53.9	44.6	41.6	44.2
8:00:00	43.5	48.5	45.6	41.6	
8:15:00	43.8	48.1	44.6	42.6	
8:30:00	44.4	58.9	45.6	41.6	
8:45:00	43.8	47.6	44.6	42.6	43.9
9:00:00	44.0	56.5	45.6	42.6	
9:15:00	42.9	45.3	44.6	41.6	
9:30:00	43.3	50.1	44.6	40.6	
9:45:00	43.9	60.5	44.6	41.6	43.5
10:00:00	43.7	49.1	45.6	41.6	
10:15:00	43.5	48.9	45.6	40.6	
10:30:00	44.2	50.0	46.6	40.6	
10:45:00	44.1	57.5	45.6	41.6	43.9
11:00:00	43.1	50.0	44.6	41.6	
11:15:00	42.9	53.8	44.6	40.6	
11:30:00	43.7	58.1	44.6	40.6	
11:45:00	43.6	53.3	44.6	41.6	43.3
12:00:00	43.7	50.9	45.6	41.6	
12:15:00	44.5	53.6	45.6	41.6	
12:30:00	79.1	94.1	83.6	42.6	
12:45:00	53.3	75.9	44.6	40.6	73.1
13:00:00	41.1	52.5	42.6	39.6	
13:15:00	40.9	48.5	41.6	39.6	
13:30:00	42.4	65.4	42.6	39.6	
13:45:00	44.9	62.1	46.6	40.6	42.6
14:00:00	43.5	49.7	44.6	41.6	
14:15:00	42.1	48.4	43.6	40.6	
14:30:00	42.8	46.3	44.6	40.6	
14:45:00	43.5	50.9	45.6	40.6	43.0
15:00:00	41.8	44.9	42.6	40.6	
15:15:00	42.1	48.1	43.6	40.6	
15:30:00	42.8	46.9	44.6	40.6	
15:45:00	43.7	60.1	44.6	41.6	42.7
16:00:00	43.5	49.2	45.6	39.6	
16:15:00	41.4	50.4	42.6	39.6	
16:30:00	41.4	45.7	42.6	39.6	
16:45:00	40.9	43.7	42.6	39.6	41.9
17:00:00	41.1	45.3	42.6	39.6	
17:15:00	41.6	49.7	43.6	39.6	
17:30:00	41.4	47.6	42.6	39.6	
17:45:00	76.8	96.5	81.6	39.6	70.8
18:00:00	67.9	88.4	64.6	40.6	
18:15:00	42.3	60.4	42.6	40.6	
18:30:00	55.7	84.2	41.6	39.6	
18:45:00	40.7	51.3	41.6	39.6	62.2
19:00:00	40.2	53.5	40.6	39.6	
19:15:00	40.6	56.3	40.6	39.6	
19:30:00	40.3	46.1	41.6	39.6	
19:45:00	40.0	43.7	40.6	39.6	40.3
20:00:00	40.0	44.0	40.6	39.6	

	20:15:00	40.4	52.3	41.6	39.6	
	20:30:00	40.7	60.5	40.6	39.6	
	20:45:00	40.6	48.1	41.6	39.6	40.4
	21:00:00	41.2	63.3	41.6	39.6	
	21:15:00	40.5	45.7	41.6	39.6	
	21:30:00	40.5	46.1	41.6	39.6	
	21:45:00	40.8	45.9	42.6	39.6	40.8
	22:00:00	41.0	46.4	41.6	39.6	
	22:15:00	41.3	51.7	41.6	39.6	
	22:30:00	41.8	49.7	43.6	40.6	
	22:45:00	41.1	46.9	42.6	40.6	41.3
	23:00:00	40.7	46.1	41.6	40.6	
	23:15:00	40.8	47.3	41.6	40.6	
	23:30:00	40.4	45.1	41.6	39.6	
	23:45:00	40.3	48.2	40.6	39.6	40.6
	0:00:00	40.3	47.7	40.6	39.6	
	0:15:00	40.4	44.1	41.6	39.6	
	0:30:00	40.4	45.7	41.6	39.6	
	0:45:00	40.3	46.4	40.6	39.6	40.4
7/31/2019	1:00:00	40.3	44.9	40.6	39.6	
	1:15:00	40.2	43.7	40.6	39.6	
	1:30:00	40.4	42.8	40.6	39.6	
	1:45:00	40.1	42.9	40.6	39.6	40.3
	2:00:00	40.4	45.7	40.6	39.6	
	2:15:00	40.2	43.0	40.6	39.6	
	2:30:00	40.5	44.7	41.6	39.6	
	2:45:00	40.3	44.5	40.6	39.6	40.4
	3:00:00	40.1	42.5	40.6	39.6	
	3:15:00	40.2	44.9	40.6	39.6	
	3:30:00	40.0	42.5	40.6	39.6	
	3:45:00	40.2	46.9	40.6	39.6	40.1
	4:00:00	40.0	42.5	40.6	39.6	
	4:15:00	40.0	42.9	40.6	39.6	
	4:30:00	40.3	43.3	40.6	39.6	
	4:45:00	40.3	42.9	40.6	39.6	40.2
	5:00:00	41.4	64.1	40.6	39.6	
	5:15:00	40.7	43.7	41.6	40.6	
	5:30:00	41.1	44.5	42.6	40.6	
	5:45:00	41.4	44.1	42.6	40.6	41.2
	6:00:00	43.3	57.9	43.6	40.6	
	6:15:00	42.4	45.7	43.6	40.6	
	6:30:00	42.1	46.9	42.6	40.6	
	6:45:00	42.4	45.7	43.6	41.6	42.6
	7:00:00	42.3	45.8	43.6	40.6	
	7:15:00	44.3	54.1	46.6	41.6	
	7:30:00	50.6	65.3	53.6	43.6	
	7:45:00	50.6	64.0	53.6	44.6	48.3
	8:00:00	48.6	60.5	50.6	44.6	
	8:15:00	46.2	54.4	48.6	43.6	
	8:30:00	47.9	56.0	50.6	43.6	
	8:45:00	46.2	55.3	48.6	41.6	47.4
	9:00:00	43.9	49.7	45.6	41.6	
	9:15:00	42.6	47.3	43.6	41.6	
	9:30:00	42.0	46.1	42.6	40.6	
	9:45:00	42.2	46.2	43.6	41.6	42.7
	10:00:00	43.9	50.9	45.6	41.6	
	10:15:00	43.6	53.2	44.6	41.6	
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	11:15:00	42.3	46.9	43.6	40.6	
	11:30:00	42.1	47.3	42.6	40.6	
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	12:00:00	42.9	46.7	43.6	41.6	
	12:15:00	41.7	45.7	42.6	40.6	
	12:30:00	42.1	48.1	43.6	40.6	
	12:45:00	42.4	48.7	43.6	40.6	42.3
	13:00:00	43.0	47.9	44.6	40.6	
	13:15:00	42.6	48.3	44.6	40.6	

	13:30:00	46.9	56.9	49.6	41.6	
	13:45:00	46.6	57.3	49.6	42.6	45.2
	14:00:00	43.9	53.3	45.6	41.6	
	14:15:00	47.2	54.8	50.6	41.6	
	14:30:00	47.2	56.4	50.6	42.6	
	14:45:00	45.4	53.5	47.6	42.6	46.1
	15:00:00	47.4	59.6	50.6	43.6	
	15:15:00	48.9	56.8	51.6	44.6	
	15:30:00	49.0	58.4	51.6	44.6	
	15:45:00	46.8	55.7	49.6	43.6	48.1
	16:00:00	47.5	54.3	50.6	43.6	
	16:15:00	47.1	54.1	48.6	44.6	
	16:30:00	46.7	57.2	48.6	43.6	
	16:45:00	45.9	52.1	46.6	44.6	46.8
	17:00:00	48.0	57.3	49.6	44.6	
	17:15:00	47.9	54.7	49.6	45.6	
	17:30:00	48.8	62.7	48.6	45.6	
	17:45:00	50.2	61.4	54.6	44.6	48.8
	18:00:00	45.8	50.7	46.6	44.6	
	18:15:00	46.1	50.4	47.6	44.6	
	18:30:00	52.2	62.8	56.6	44.6	
	18:45:00	46.9	61.3	47.6	44.6	48.7
	19:00:00	47.7	69.4	48.6	44.6	
	19:15:00	47.2	51.7	48.6	44.6	
	19:30:00	49.8	74.4	49.6	46.6	
	19:45:00	47.2	51.5	48.6	45.6	48.1
	20:00:00	46.7	56.9	47.6	44.6	
	20:15:00	46.2	54.5	47.6	44.6	
	20:30:00	44.7	49.1	45.6	43.6	
	20:45:00	46.0	61.2	46.6	43.6	46.0
	21:00:00	46.4	58.5	48.6	43.6	
	21:15:00	46.4	49.9	47.6	44.6	
	21:30:00	46.7	52.9	48.6	44.6	
	21:45:00	45.0	49.7	45.6	44.6	46.2
	22:00:00	46.2	56.0	47.6	44.6	
	22:15:00	48.3	59.3	50.6	44.6	
	22:30:00	46.4	52.9	48.6	43.6	
	22:45:00	45.4	51.5	46.6	43.6	46.7
	23:00:00	44.8	52.9	45.6	43.6	
	23:15:00	45.4	48.8	46.6	43.6	
	23:30:00	47.8	60.9	48.6	44.6	
	23:45:00	47.1	52.9	49.6	44.6	46.4
	0:00:00	46.9	53.6	48.6	44.6	
	0:15:00	47.0	52.5	48.6	44.6	
	0:30:00	45.8	55.7	47.6	43.6	
	0:45:00	45.0	49.3	46.6	43.6	46.3
8/1/2019	1:00:00	46.0	50.9	48.6	43.6	
	1:15:00	44.6	47.9	45.6	43.6	
	1:30:00	45.1	50.4	46.6	43.6	
	1:45:00	44.6	48.1	46.6	43.6	45.1
	2:00:00	44.3	49.7	45.6	42.6	
	2:15:00	43.9	49.2	44.6	42.6	
	2:30:00	44.1	50.1	44.6	42.6	
	2:45:00	45.0	54.7	46.6	43.6	44.3
	3:00:00	44.4	47.3	45.6	43.6	
	3:15:00	44.6	48.8	45.6	43.6	
	3:30:00	44.5	48.1	45.6	43.6	
	3:45:00	44.3	47.6	45.6	42.6	44.5
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	4:30:00	44.9	48.1	45.6	43.6	
	4:45:00	45.0	51.7	46.6	43.6	44.7
	5:00:00	44.5	49.4	45.6	43.6	
	5:15:00	44.5	50.9	45.6	43.6	
	5:30:00	44.6	50.1	45.6	43.6	
	5:45:00	44.7	47.7	45.6	43.6	44.6
	6:00:00	45.4	50.9	46.6	44.6	
	6:15:00	45.2	48.1	45.6	44.6	
	6:30:00	45.6	53.0	46.6	44.6	

6:45:00	45.4	51.2	46.6	43.6	45.4
7:00:00	44.7	47.1	45.6	43.6	
7:15:00	45.2	49.6	46.6	43.6	
7:30:00	45.7	56.9	46.6	43.6	
7:45:00	44.8	54.1	45.6	43.6	45.1
8:00:00	44.6	48.5	45.6	43.6	
8:15:00	44.7	48.5	45.6	43.6	
8:30:00	45.9	51.1	46.6	44.6	
8:45:00	45.7	51.3	46.6	43.6	45.3
9:00:00	44.2	47.7	44.6	42.6	
9:15:00	45.2	52.5	46.6	42.6	
9:30:00	44.9	48.5	45.6	43.6	
9:45:00	44.5	47.3	45.6	43.6	44.7
10:00:00	45.1	56.8	46.6	43.6	
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10:30:00	46.8	53.7	48.6	43.6	
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11:30:00	46.2	49.2	47.6	44.6	
11:45:00	47.2	54.7	49.6	44.6	46.6
12:00:00	45.9	52.5	47.6	44.6	
12:15:00	49.2	62.1	51.6	44.6	
12:30:00	47.7	57.3	48.6	44.6	
12:45:00	45.7	51.6	46.6	43.6	47.4
13:00:00	45.3	49.2	46.6	43.6	
13:15:00	45.2	48.9	46.6	43.6	
13:30:00	45.6	49.7	46.6	43.6	
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14:00:00	45.9	51.7	47.6	43.6	
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15:00:00	47.1	59.7	49.6	43.6	
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15:30:00	46.0	49.3	46.6	44.6	
15:45:00	47.2	51.3	48.6	45.6	47.8
16:00:00	46.9	51.3	48.6	44.6	
16:15:00	45.9	51.3	47.6	43.6	
16:30:00	45.4	49.6	46.6	43.6	
16:45:00	46.0	50.9	46.6	44.6	46.1
17:00:00	45.9	56.2	47.6	43.6	
17:15:00	44.8	48.1	45.6	43.6	
17:30:00	46.2	58.2	47.6	43.6	
17:45:00	45.1	52.1	46.6	43.6	45.5
18:00:00	44.2	46.7	45.6	42.6	
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19:00:00	43.3	48.1	44.6	42.6	
19:15:00	43.4	46.9	44.6	42.6	
19:30:00	44.5	55.3	45.6	42.6	
19:45:00	49.4	61.6	52.6	43.6	46.0
20:00:00	51.5	61.2	54.6	45.6	
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23:00:00	47.2	54.6	49.6	44.6	
23:15:00	47.4	53.6	49.6	43.6	
23:30:00	46.9	52.0	48.6	43.6	
23:45:00	47.3	59.7	49.6	43.6	47.2

	0:00:00	46.9	51.7	48.6	43.6	
	0:15:00	46.8	52.0	48.6	44.6	
	0:30:00	45.9	50.1	47.6	43.6	
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8/2/2019	1:00:00	45.6	51.5	46.6	43.6	
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	2:00:00	45.2	48.5	46.6	43.6	
	2:15:00	45.0	48.3	46.6	43.6	
	2:30:00	44.6	49.3	45.6	43.6	
	2:45:00	45.2	48.9	46.6	43.6	45.0
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	4:00:00	46.0	50.1	47.6	44.6	
	4:15:00	45.7	55.1	47.6	43.6	
	4:30:00	47.4	53.6	49.6	44.6	
	4:45:00	46.3	57.6	48.6	42.6	46.4
	5:00:00	44.8	50.5	46.6	43.6	
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	7:00:00	46.3	50.0	46.6	44.6	
	7:15:00	46.1	48.1	46.6	44.6	
	7:30:00	47.0	50.8	48.6	45.6	
	7:45:00	46.5	49.7	47.6	44.6	46.5
	8:00:00	46.5	52.1	48.6	44.6	
	8:15:00	47.1	56.8	48.6	43.6	
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	9:30:00	45.5	53.6	46.6	43.6	
	9:45:00	45.8	50.1	47.6	44.6	45.6
	10:00:00	45.3	47.6	46.6	43.6	
	10:15:00	45.7	50.2	46.6	44.6	
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	10:45:00	45.8	48.9	46.6	44.6	45.8
	11:00:00	45.8	49.0	46.6	44.6	
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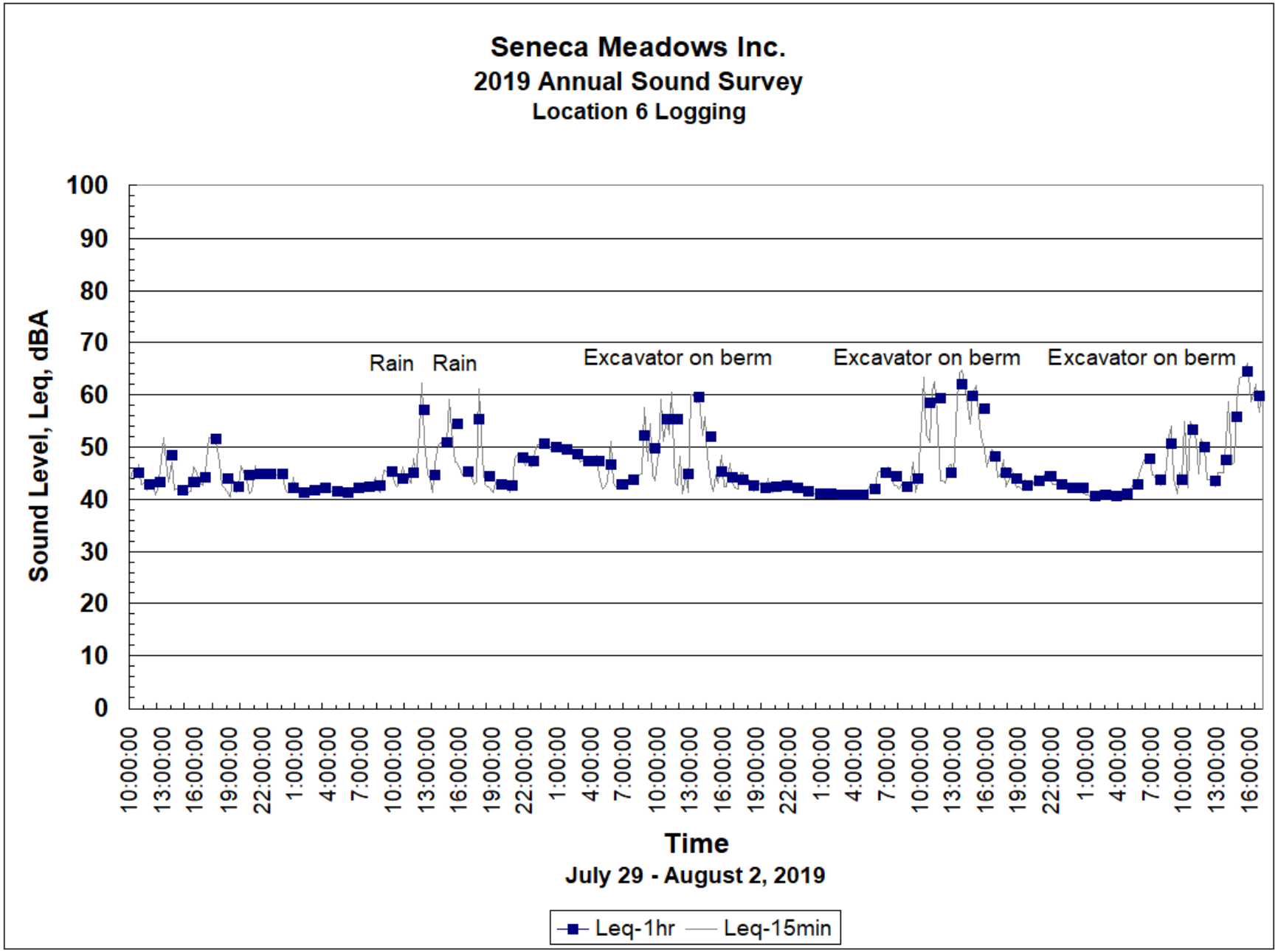
	12:00:00	46.6	54.0	47.6	43.6	
	12:15:00	46.2	52.1	47.6	43.6	
	12:30:00	44.7	47.7	45.6	43.6	
	12:45:00	45.3	53.1	46.6	42.6	45.8
	13:00:00	44.9	50.1	46.6	43.6	
	13:15:00	46.0	52.9	47.6	43.6	
	13:30:00	45.9	50.5	46.6	44.6	
	13:45:00	46.0	53.3	47.6	43.6	45.7
	14:00:00	44.6	48.1	45.6	43.6	
	14:15:00	46.5	52.1	47.6	44.6	
	14:30:00	46.7	52.1	48.6	43.6	
	14:45:00	45.4	50.1	46.6	43.6	45.9
	15:00:00	45.4	48.1	46.6	43.6	
	15:15:00	45.8	50.8	47.6	43.6	
	15:30:00	46.2	52.9	47.6	44.6	
	15:45:00	45.6	50.1	46.6	43.6	45.8
	16:00:00	66.0	73.7	71.6	44.6	
	16:15:00	72.6	75.3	75.6	46.6	
	16:30:00	74.9	75.3	75.6	72.6	
	16:45:00	75.0	75.2	75.6	74.6	73.3
	17:00:00	75.1	75.2	75.6	74.6	

17:15:00	73.8	75.2	75.6	68.6	
17:30:00	72.0	75.2	74.6	55.6	
17:45:00	71.6	75.0	74.6	53.6	73.4
18:00:00	72.8	77.3	74.6	65.6	


Seneca Meadows Inc.
2019 Annual Sound Survey
Location 6 Logging
Sound Level, Leq, dBA
100
90
80
70
60
50
40
30
20
10
0
Rain
Rain
Excavator on berm
Excavator on berm
Excavator on berm
10:00:00
13:00:00
16:00:00
19:00:00
22:00:00
1:00:00
4:00:00
7:00:00
10:00:00
13:00:00
16:00:00
19:00:00
22:00:00
1:00:00
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13:00:00
16:00:00
19:00:00
22:00:00
1:00:00
4:00:00
7:00:00
10:00:00
13:00:00
16:00:00
Time
July 29 - August 2, 2019
Leq-1hr
Leq-15min

****

Filename LOC6
Test Location 6
Employee Name
Employee No.
Department
Seneca Meadows Inc.
2019 Annual Sound Survey
Aurora Acoustical
Consultants Inc.
Calibrator type Metrosonics CL304 3067
Calibrator calibration date 4/17/2019

****

METROSONICS db-3080 V1.20 SERIAL #4036
Report printed on 8/6/2019 at 15:31:20

Seneca Meadows Inc.
2019 Annual Sound Survey
Aurora Acoustical
Consultants Inc.
East Aurora, New York

Logging started at	7/29/2019 at 10:00:00
Total logging time	4 DAYS 7:11:42
Logging stopped at	8/2/2019 at 17:11:42
Total intervals	413
Interval length	0:15:00
Auto Stop	NO
Clock synch	YES
Response Rate	SLOW
Filter	A-WEIGHTED
Pre-Test Calibration Time	7/26/2019 at 15:16:33
Pre-Test Calibration Range	32.5 to 132.5 dB
Post-Test Calibration Time	8/6/2019 at 13:34:16
Post-Test Calibration Range	32.7 to 132.7
Cut-off used for time history Lav	NONE

<<< SUMMARY REPORT FOR TEST NUMBER 1 OF 1 >>>

Exchange Rate	3dB
Cutoffs	60dB 60dB
Ceiling	115dB
DOSE	Criterion level 90dB
DOSE	Criterion length 8 HOURS
Lav(60)	51.7dB
Lav(60)	50.0dB
Lav(60)	50.0dB
SEL	107.2dB
TWA	62.8dB
TWA(60)	61.1dB
TWA(60)	61.1dB
Lmax	83.5dB 7/31/2019 at 11:21:54
Lpk	103.8dB 7/30/2019 at 12:37:28
Time over 115 dB	00:00.0
DOSE(60)	0.12%
DOSE(60)	0.12%

<<< TIME HISTORY REPORT FOR TEST NUMBER 1 OF 1 >>>

	START TIME	Leq(15-min) dBA	Lmax dBA	L(10.0) dBA	L(99.0) dBA	Leq(1-hr) dBA
7/29/2019						
	10:00:00	43.9	52.5	47.5	40.5	
	10:15:00	45.5	63.0	48.5	40.5	
	10:30:00	44.2	57.0	44.5	40.5	
	10:45:00	46.6	57.7	52.5	40.5	45.2
	11:00:00	42.9	57.4	44.5	40.5	
	11:15:00	43.1	54.1	46.5	39.5	
	11:30:00	41.8	55.4	42.5	40.5	
	11:45:00	43.1	54.2	45.5	40.5	42.8
	12:00:00	43.5	54.9	46.5	40.5	
	12:15:00	40.9	49.8	41.5	39.5	
	12:30:00	42.0	58.7	42.5	39.5	
	12:45:00	45.5	55.9	49.5	40.5	43.3
	13:00:00	51.8	79.4	46.5	39.5	
	13:15:00	47.3	61.6	50.5	39.5	
	13:30:00	43.4	58.1	43.5	39.5	
	13:45:00	47.2	64.4	46.5	40.5	48.4
	14:00:00	41.7	47.8	43.5	40.5	
	14:15:00	42.0	49.4	43.5	40.5	
	14:30:00	41.6	47.5	43.5	39.5	
	14:45:00	41.3	50.8	42.5	40.5	41.7
	15:00:00	41.4	47.4	42.5	40.5	
	15:15:00	41.4	47.8	42.5	39.5	
	15:30:00	41.6	53.0	42.5	39.5	
	15:45:00	46.3	60.7	46.5	40.5	43.3
	16:00:00	45.5	54.8	48.5	40.5	
	16:15:00	42.9	51.2	45.5	40.5	
	16:30:00	42.7	53.5	45.5	40.5	
	16:45:00	45.3	63.8	45.5	40.5	44.3
	17:00:00	51.7	66.2	55.5	40.5	
	17:15:00	51.5	62.9	55.5	41.5	
	17:30:00	51.9	69.2	55.5	42.5	
	17:45:00	50.9	64.6	54.5	42.5	51.5
	18:00:00	47.1	61.0	49.5	41.5	
	18:15:00	42.6	56.6	44.5	39.5	
	18:30:00	42.2	61.4	43.5	40.5	
	18:45:00	41.3	51.0	42.5	39.5	44.0
	19:00:00	40.3	44.2	40.5	39.5	
	19:15:00	44.2	54.6	47.5	40.5	
	19:30:00	41.4	61.0	41.5	39.5	
	19:45:00	42.7	51.4	45.5	39.5	42.4
	20:00:00	46.4	57.8	46.5	39.5	
	20:15:00	45.3	59.4	45.5	39.5	
	20:30:00	43.7	51.8	47.5	39.5	
	20:45:00	41.1	45.4	41.5	40.5	44.5
	21:00:00	41.6	52.2	42.5	40.5	
	21:15:00	46.5	63.9	48.5	40.5	
	21:30:00	44.7	46.6	45.5	42.5	
	21:45:00	45.5	55.0	46.5	41.5	44.9
	22:00:00	45.2	46.3	45.5	41.5	
	22:15:00	44.7	47.5	45.5	40.5	
	22:30:00	45.0	48.9	45.5	40.5	
	22:45:00	44.7	47.4	45.5	40.5	44.9
	23:00:00	44.5	46.2	45.5	40.5	
	23:15:00	44.6	55.0	46.5	41.5	
	23:30:00	45.0	47.0	46.5	40.5	
	23:45:00	44.9	49.3	46.5	40.5	44.8
	0:00:00	41.9	44.9	43.5	40.5	
	0:15:00	41.3	46.2	42.5	40.5	
	0:30:00	41.2	46.9	42.5	40.5	
	0:45:00	44.1	59.1	47.5	40.5	42.3
7/30/2019	1:00:00	41.6	48.1	43.5	40.5	
	1:15:00	42.0	45.0	43.5	40.5	
	1:30:00	41.0	49.0	42.5	40.5	
	1:45:00	40.7	42.5	42.5	40.5	41.4

2:00:00	42.1	51.4	42.5	40.5	
2:15:00	41.9	45.4	42.5	40.5	
2:30:00	41.3	45.8	42.5	40.5	
2:45:00	41.8	43.0	42.5	40.5	41.8
3:00:00	42.4	45.8	42.5	40.5	
3:15:00	42.5	45.6	42.5	40.5	
3:30:00	42.1	44.5	42.5	40.5	
3:45:00	41.2	46.6	42.5	40.5	42.1
4:00:00	41.2	52.7	42.5	40.5	
4:15:00	41.5	44.2	42.5	40.5	
4:30:00	42.1	46.2	42.5	40.5	
4:45:00	41.2	43.8	42.5	40.5	41.5
5:00:00	40.8	42.7	41.5	40.5	
5:15:00	41.1	49.0	41.5	40.5	
5:30:00	42.0	46.6	43.5	40.5	
5:45:00	41.6	48.9	42.5	40.5	41.4
6:00:00	42.0	50.0	42.5	40.5	
6:15:00	41.8	48.6	42.5	40.5	
6:30:00	42.2	47.0	43.5	41.5	
6:45:00	43.0	54.3	43.5	41.5	42.3
7:00:00	42.7	49.0	43.5	41.5	
7:15:00	42.3	54.2	43.5	40.5	
7:30:00	42.4	48.8	43.5	41.5	
7:45:00	42.1	60.9	42.5	40.5	42.4
8:00:00	42.4	51.8	44.5	40.5	
8:15:00	44.1	57.0	45.5	40.5	
8:30:00	42.0	52.6	43.5	40.5	
8:45:00	41.4	44.5	42.5	40.5	42.6
9:00:00	45.6	58.9	48.5	40.5	
9:15:00	45.3	61.4	45.5	40.5	
9:30:00	44.6	58.6	47.5	40.5	
9:45:00	45.3	59.1	47.5	40.5	45.2
10:00:00	43.1	51.8	45.5	40.5	
10:15:00	42.4	53.0	44.5	40.5	
10:30:00	43.5	54.2	45.5	40.5	
10:45:00	46.1	64.3	45.5	40.5	44.0
11:00:00	44.1	57.0	45.5	40.5	
11:15:00	44.1	56.9	45.5	40.5	
11:30:00	43.1	55.7	44.5	40.5	
11:45:00	47.8	63.8	47.5	40.5	45.2
12:00:00	44.5	58.1	46.5	40.5	
12:15:00	53.2	71.7	54.5	40.5	
12:30:00	62.2	78.6	66.5	42.5	
12:45:00	51.3	75.3	45.5	40.5	57.1
13:00:00	44.9	63.3	45.5	41.5	
13:15:00	43.8	50.2	45.5	40.5	
13:30:00	41.3	48.2	41.5	40.5	
13:45:00	46.8	58.9	49.5	41.5	44.6
14:00:00	50.4	58.2	52.5	42.5	
14:15:00	50.6	54.9	51.5	48.5	
14:30:00	51.6	59.1	53.5	48.5	
14:45:00	50.6	63.4	51.5	48.5	50.8
15:00:00	59.2	74.6	59.5	46.5	
15:15:00	53.2	71.5	51.5	43.5	
15:30:00	47.2	55.5	50.5	42.5	
15:45:00	46.9	55.4	49.5	42.5	54.6
16:00:00	46.0	56.6	47.5	41.5	
16:15:00	44.7	54.2	46.5	41.5	
16:30:00	45.1	61.9	46.5	41.5	
16:45:00	45.1	49.5	47.5	41.5	45.3
17:00:00	45.1	49.9	47.5	41.5	
17:15:00	42.8	56.6	44.5	40.5	
17:30:00	43.2	55.4	44.5	40.5	
17:45:00	61.2	76.2	65.5	41.5	55.4
18:00:00	47.7	66.6	50.5	41.5	
18:15:00	42.9	62.2	43.5	40.5	
18:30:00	42.3	51.0	43.5	40.5	
18:45:00	42.2	50.6	44.5	40.5	44.5
19:00:00	41.2	51.4	42.5	40.5	

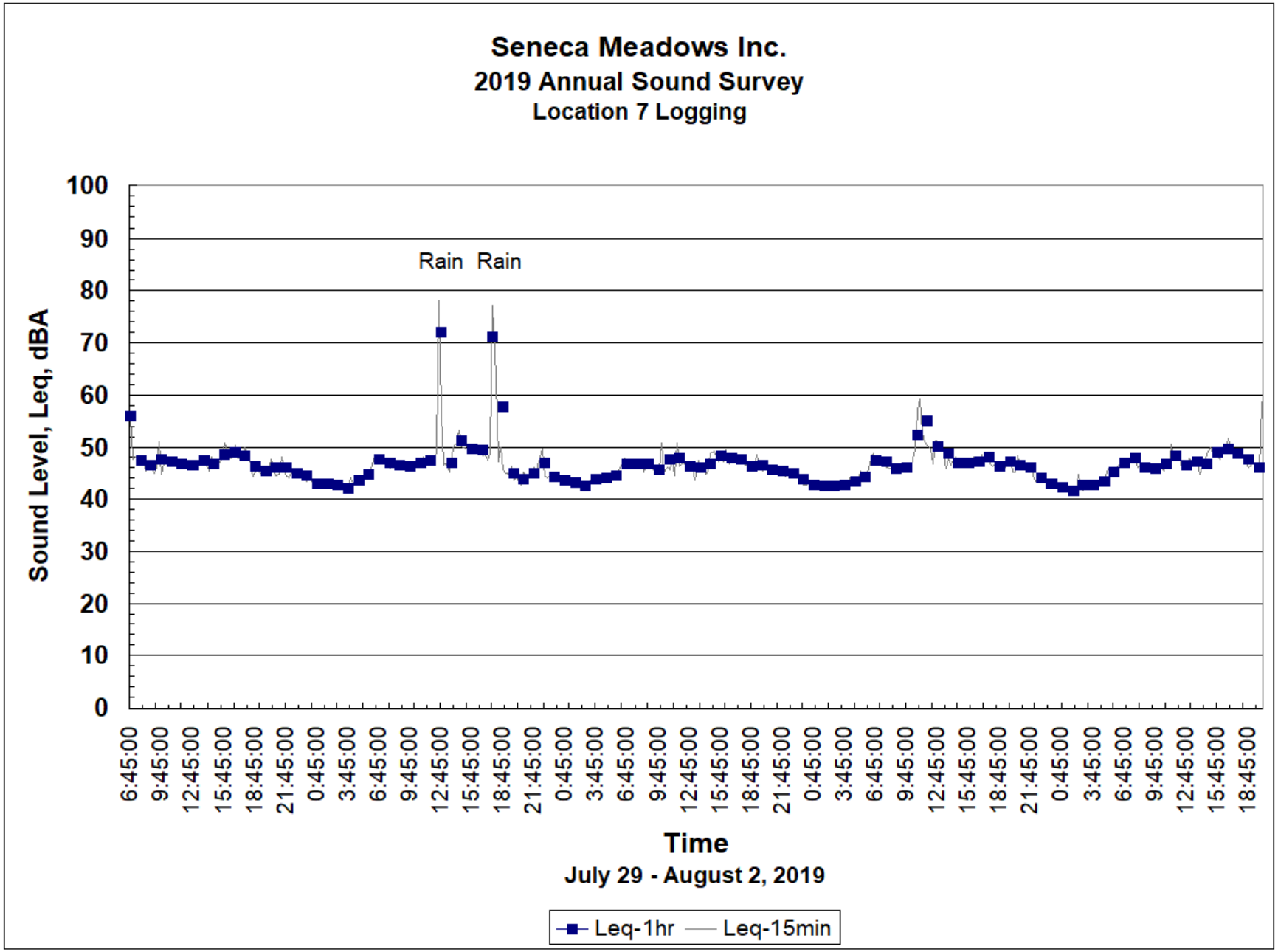
	19:15:00	43.3	51.6	45.5	40.5	
	19:30:00	43.1	47.0	44.5	40.5	
	19:45:00	43.8	55.4	44.5	41.5	43.0
	20:00:00	42.9	45.0	43.5	40.5	
	20:15:00	43.3	50.6	45.5	40.5	
	20:30:00	41.4	53.8	42.5	40.5	
	20:45:00	42.3	54.2	42.5	40.5	42.5
	21:00:00	47.5	49.7	49.5	40.5	
	21:15:00	48.4	51.8	49.5	41.5	
	21:30:00	48.3	49.4	48.5	43.5	
	21:45:00	48.1	49.8	49.5	44.5	48.1
	22:00:00	46.5	51.0	47.5	41.5	
	22:15:00	47.9	62.6	47.5	43.5	
	22:30:00	46.1	57.3	47.5	41.5	
	22:45:00	48.3	50.5	49.5	41.5	47.3
	23:00:00	50.5	52.6	51.5	44.5	
	23:15:00	50.5	53.9	51.5	43.5	
	23:30:00	50.6	51.4	51.5	41.5	
	23:45:00	51.0	51.8	51.5	49.5	50.7
	0:00:00	49.9	51.4	51.5	42.5	
	0:15:00	49.6	51.0	50.5	45.5	
	0:30:00	50.3	51.1	50.5	49.5	
	0:45:00	50.0	51.0	50.5	46.5	50.0
7/31/2019	1:00:00	49.3	50.7	50.5	41.5	
	1:15:00	49.8	51.2	50.5	46.5	
	1:30:00	49.4	50.6	50.5	40.5	
	1:45:00	49.6	50.7	50.5	48.5	49.5
	2:00:00	49.2	52.1	49.5	42.5	
	2:15:00	48.8	51.6	49.5	41.5	
	2:30:00	48.3	50.7	49.5	42.5	
	2:45:00	48.4	50.2	48.5	46.5	48.7
	3:00:00	47.1	49.5	48.5	40.5	
	3:15:00	47.6	48.8	48.5	44.5	
	3:30:00	47.1	48.1	47.5	40.5	
	3:45:00	47.5	49.9	48.5	41.5	47.3
	4:00:00	47.8	49.0	48.5	40.5	
	4:15:00	47.8	48.9	48.5	42.5	
	4:30:00	48.4	51.0	49.5	42.5	
	4:45:00	44.4	48.6	48.5	41.5	47.3
	5:00:00	41.9	47.0	42.5	40.5	
	5:15:00	42.3	47.4	43.5	41.5	
	5:30:00	43.5	50.6	44.5	41.5	
	5:45:00	51.2	73.1	49.5	42.5	46.7
	6:00:00	43.1	50.5	44.5	41.5	
	6:15:00	42.4	46.4	43.5	41.5	
	6:30:00	42.9	51.8	44.5	41.5	
	6:45:00	42.6	49.0	43.5	41.5	42.8
	7:00:00	43.5	59.0	43.5	41.5	
	7:15:00	43.8	59.0	44.5	41.5	
	7:30:00	43.9	55.8	45.5	42.5	
	7:45:00	43.9	50.2	45.5	42.5	43.8
	8:00:00	44.1	58.2	45.5	42.5	
	8:15:00	44.7	57.4	45.5	42.5	
	8:30:00	44.9	50.2	47.5	42.5	
	8:45:00	57.7	71.8	60.5	44.5	52.3
	9:00:00	47.3	58.5	48.5	44.5	
	9:15:00	54.5	70.6	55.5	41.5	
	9:30:00	44.6	54.8	46.5	41.5	
	9:45:00	43.5	53.1	45.5	40.5	49.9
	10:00:00	48.9	63.8	51.5	41.5	
	10:15:00	59.2	70.1	63.5	49.5	
	10:30:00	51.1	53.4	52.5	49.5	
	10:45:00	55.5	70.2	53.5	49.5	55.4
	11:00:00	52.4	66.9	52.5	50.5	
	11:15:00	60.6	83.5	51.5	40.5	
	11:30:00	43.1	55.8	43.5	40.5	
	11:45:00	42.7	56.5	42.5	40.5	55.3
	12:00:00	48.2	63.5	46.5	40.5	
	12:15:00	41.1	52.7	41.5	40.5	

	12:30:00	44.5	60.5	43.5	40.5	
	12:45:00	41.4	56.6	41.5	40.5	44.8
	13:00:00	60.1	75.0	64.5	39.5	
	13:15:00	59.9	77.4	63.5	50.5	
	13:30:00	58.5	79.0	59.5	50.5	
	13:45:00	59.7	73.1	61.5	51.5	59.6
	14:00:00	52.2	57.9	52.5	51.5	
	14:15:00	55.7	68.1	58.5	49.5	
	14:30:00	48.2	65.0	44.5	40.5	
	14:45:00	43.3	58.6	44.5	40.5	51.9
	15:00:00	41.6	48.9	43.5	40.5	
	15:15:00	44.6	58.3	45.5	40.5	
	15:30:00	43.0	53.8	44.5	40.5	
	15:45:00	48.5	61.8	52.5	40.5	45.3
	16:00:00	42.5	46.6	44.5	40.5	
	16:15:00	42.3	52.6	43.5	40.5	
	16:30:00	46.8	61.8	46.5	40.5	
	16:45:00	43.2	57.0	42.5	39.5	44.1
	17:00:00	42.2	50.2	43.5	40.5	
	17:15:00	41.9	50.6	43.5	40.5	
	17:30:00	45.0	59.3	45.5	40.5	
	17:45:00	45.2	57.8	48.5	40.5	43.8
	18:00:00	43.3	54.5	45.5	40.5	
	18:15:00	43.7	55.8	45.5	40.5	
	18:30:00	42.0	52.0	43.5	40.5	
	18:45:00	41.5	51.9	42.5	40.5	42.7
	19:00:00	42.4	52.0	43.5	40.5	
	19:15:00	43.0	58.3	42.5	40.5	
	19:30:00	41.9	50.1	43.5	40.5	
	19:45:00	41.5	46.6	42.5	40.5	42.2
	20:00:00	43.9	68.5	43.5	40.5	
	20:15:00	41.5	53.8	41.5	40.5	
	20:30:00	41.4	52.8	42.5	40.5	
	20:45:00	41.9	49.5	42.5	40.5	42.3
	21:00:00	42.5	53.8	42.5	40.5	
	21:15:00	43.2	51.0	44.5	41.5	
	21:30:00	42.5	48.6	43.5	41.5	
	21:45:00	42.4	47.4	43.5	41.5	42.7
	22:00:00	41.9	47.4	42.5	41.5	
	22:15:00	42.8	48.2	44.5	41.5	
	22:30:00	41.8	45.0	42.5	41.5	
	22:45:00	41.8	47.4	42.5	40.5	42.1
	23:00:00	41.9	49.7	43.5	40.5	
	23:15:00	41.7	46.6	42.5	40.5	
	23:30:00	41.2	44.5	41.5	40.5	
	23:45:00	41.3	49.0	42.5	40.5	41.5
	0:00:00	41.1	48.2	41.5	40.5	
	0:15:00	41.1	45.8	41.5	40.5	
	0:30:00	40.9	48.6	41.5	40.5	
	0:45:00	41.1	46.5	41.5	40.5	41.1
8/1/2019	1:00:00	41.2	43.4	41.5	40.5	
	1:15:00	40.8	41.5	41.5	40.5	
	1:30:00	41.0	42.6	41.5	40.5	
	1:45:00	41.0	44.2	41.5	40.5	41.0
	2:00:00	40.8	44.6	41.5	40.5	
	2:15:00	40.7	41.9	41.5	40.5	
	2:30:00	40.9	42.6	41.5	40.5	
	2:45:00	40.7	43.8	41.5	40.5	40.8
	3:00:00	40.7	42.6	41.5	40.5	
	3:15:00	41.0	43.8	41.5	40.5	
	3:30:00	40.7	41.4	41.5	40.5	
	3:45:00	40.9	46.2	41.5	40.5	40.8
	4:00:00	40.8	43.4	41.5	40.5	
	4:15:00	41.0	46.5	41.5	40.5	
	4:30:00	40.7	42.4	41.5	40.5	
	4:45:00	40.8	43.7	41.5	40.5	40.8
	5:00:00	41.4	44.6	42.5	40.5	
	5:15:00	42.3	52.2	43.5	40.5	
	5:30:00	41.8	47.3	42.5	40.5	

5:45:00	41.9	47.0	42.5	41.5	41.9
6:00:00	45.0	49.7	46.5	42.5	
6:15:00	45.3	52.4	46.5	42.5	
6:30:00	44.8	50.6	46.5	42.5	
6:45:00	45.3	48.6	46.5	43.5	45.1
7:00:00	46.1	53.3	48.5	43.5	
7:15:00	44.9	53.5	47.5	42.5	
7:30:00	42.6	48.9	43.5	41.5	
7:45:00	42.6	54.0	43.5	41.5	44.3
8:00:00	41.9	44.7	42.5	41.5	
8:15:00	43.1	65.8	43.5	40.5	
8:30:00	42.2	53.8	43.5	40.5	
8:45:00	42.0	55.0	42.5	40.5	42.3
9:00:00	41.7	47.8	42.5	40.5	
9:15:00	47.0	61.1	49.5	40.5	
9:30:00	41.3	51.1	41.5	40.5	
9:45:00	43.0	54.7	44.5	40.5	43.9
10:00:00	54.6	70.5	55.5	40.5	
10:15:00	63.4	74.3	66.5	50.5	
10:30:00	52.5	66.6	52.5	49.5	
10:45:00	50.9	63.0	51.5	49.5	58.4
11:00:00	60.8	77.9	64.5	49.5	
11:15:00	62.5	80.7	64.5	56.5	
11:30:00	56.5	78.6	60.5	40.5	
11:45:00	43.6	59.0	46.5	40.5	59.4
12:00:00	43.5	52.8	45.5	41.5	
12:15:00	43.1	53.4	44.5	40.5	
12:30:00	46.4	57.5	49.5	41.5	
12:45:00	46.6	57.8	49.5	41.5	45.2
13:00:00	44.4	56.6	46.5	41.5	
13:15:00	59.3	71.0	62.5	42.5	
13:30:00	64.3	79.8	65.5	57.5	
13:45:00	64.7	78.2	67.5	55.5	62.1
14:00:00	62.5	78.6	65.5	52.5	
14:15:00	57.9	66.9	59.5	51.5	
14:30:00	54.5	69.8	56.5	50.5	
14:45:00	60.3	78.2	62.5	52.5	59.7
15:00:00	61.9	80.3	63.5	48.5	
15:15:00	56.3	69.1	58.5	49.5	
15:30:00	52.3	65.0	54.5	45.5	
15:45:00	49.3	58.3	52.5	43.5	57.5
16:00:00	46.1	55.8	48.5	42.5	
16:15:00	47.9	60.7	49.5	42.5	
16:30:00	49.6	62.2	52.5	42.5	
16:45:00	48.8	61.0	51.5	43.5	48.3
17:00:00	44.3	56.3	45.5	41.5	
17:15:00	44.4	59.4	45.5	40.5	
17:30:00	47.6	61.3	47.5	40.5	
17:45:00	42.5	52.5	43.5	40.5	45.1
18:00:00	43.4	50.6	45.5	40.5	
18:15:00	45.8	56.1	48.5	41.5	
18:30:00	43.9	53.3	46.5	40.5	
18:45:00	42.2	56.1	43.5	40.5	44.0
19:00:00	42.4	57.8	43.5	40.5	
19:15:00	41.8	51.8	43.5	40.5	
19:30:00	43.8	59.5	43.5	40.5	
19:45:00	42.5	50.2	43.5	40.5	42.7
20:00:00	42.6	47.0	44.5	41.5	
20:15:00	42.8	49.4	44.5	41.5	
20:30:00	44.7	60.3	45.5	40.5	
20:45:00	43.6	52.1	45.5	41.5	43.5
21:00:00	43.5	48.8	45.5	41.5	
21:15:00	44.4	49.7	46.5	41.5	
21:30:00	45.4	55.0	46.5	42.5	
21:45:00	44.0	54.6	44.5	41.5	44.4
22:00:00	42.8	46.6	44.5	40.5	
22:15:00	42.8	44.9	43.5	40.5	
22:30:00	43.2	47.6	44.5	41.5	
22:45:00	42.7	45.5	43.5	41.5	42.9

	23:00:00	43.0	48.2	43.5	41.5	
	23:15:00	42.4	44.6	43.5	41.5	
	23:30:00	41.6	43.8	42.5	40.5	
	23:45:00	41.7	48.2	42.5	40.5	42.2
	0:00:00	42.1	44.6	42.5	40.5	
	0:15:00	42.7	47.0	43.5	41.5	
	0:30:00	42.4	45.8	43.5	40.5	
	0:45:00	41.1	45.3	41.5	40.5	42.1
8/2/2019	1:00:00	40.8	45.4	41.5	40.5	
	1:15:00	40.6	43.8	41.5	40.5	
	1:30:00	40.6	42.5	41.5	40.5	
	1:45:00	40.7	45.4	41.5	40.5	40.7
	2:00:00	40.7	43.6	41.5	40.5	
	2:15:00	41.7	52.2	43.5	40.5	
	2:30:00	41.0	47.8	41.5	40.5	
	2:45:00	40.3	41.6	40.5	40.5	41.0
	3:00:00	40.7	43.5	41.5	40.5	
	3:15:00	41.0	45.8	41.5	40.5	
	3:30:00	40.6	43.6	41.5	40.5	
	3:45:00	40.6	43.2	41.5	40.5	40.7
	4:00:00	40.7	45.4	41.5	40.5	
	4:15:00	41.0	47.3	42.5	40.5	
	4:30:00	41.3	47.8	42.5	40.5	
	4:45:00	41.5	44.5	42.5	40.5	41.1
	5:00:00	41.8	49.4	43.5	40.5	
	5:15:00	42.9	48.6	44.5	41.5	
	5:30:00	42.3	46.5	43.5	41.5	
	5:45:00	43.9	54.6	45.5	41.5	42.8
	6:00:00	46.3	55.9	48.5	42.5	
	6:15:00	47.5	51.8	48.5	44.5	
	6:30:00	48.3	52.4	49.5	45.5	
	6:45:00	48.3	54.9	49.5	45.5	47.7
	7:00:00	44.7	48.4	45.5	42.5	
	7:15:00	44.5	61.0	45.5	42.5	
	7:30:00	43.1	48.1	44.5	41.5	
	7:45:00	42.7	47.0	43.5	41.5	43.8
	8:00:00	44.3	58.8	45.5	41.5	
	8:15:00	43.9	53.0	46.5	41.5	
	8:30:00	51.9	70.5	56.5	41.5	
	8:45:00	54.1	73.4	58.5	41.5	50.6
	9:00:00	44.0	59.7	45.5	40.5	
	9:15:00	41.0	45.7	41.5	40.5	
	9:30:00	45.2	59.3	47.5	40.5	
	9:45:00	43.7	59.0	45.5	40.5	43.7
	10:00:00	55.0	78.5	52.5	40.5	
	10:15:00	42.1	62.6	42.5	40.5	
	10:30:00	55.0	68.1	60.5	40.5	
	10:45:00	53.6	68.2	58.5	46.5	53.4
	11:00:00	51.3	62.2	55.5	41.5	
	11:15:00	44.8	57.0	47.5	40.5	
	11:30:00	51.6	62.2	56.5	40.5	
	11:45:00	49.9	69.6	52.5	40.5	50.1
	12:00:00	43.8	57.8	46.5	40.5	
	12:15:00	43.7	52.5	47.5	40.5	
	12:30:00	43.8	56.6	45.5	40.5	
	12:45:00	42.3	51.0	43.5	40.5	43.4
	13:00:00	45.0	56.2	46.5	41.5	
	13:15:00	45.1	55.4	46.5	40.5	
	13:30:00	45.0	60.2	46.5	40.5	
	13:45:00	51.1	67.8	51.5	40.5	47.5
	14:00:00	58.8	72.5	59.5	41.5	
	14:15:00	46.7	61.7	48.5	40.5	
	14:30:00	47.0	59.8	49.5	41.5	
	14:45:00	58.4	71.9	60.5	42.5	55.9
	15:00:00	63.1	80.5	59.5	52.5	
	15:15:00	63.6	76.7	67.5	46.5	
	15:30:00	64.7	82.5	63.5	47.5	
	15:45:00	66.1	78.5	71.5	46.5	64.5
	16:00:00	58.8	76.9	63.5	45.5	

16:15:00	60.0	75.0	62.5	51.5	
16:30:00	62.1	75.0	65.5	55.5	
16:45:00	56.8	72.0	61.5	41.5	59.8
17:00:00	60.3	79.5	63.5	41.5	


Seneca Meadows Inc.
2019 Annual Sound Survey
Location 7 Logging
Rain Rain
Sound Level, Leq, dBA
100
90
80
70
60
50
40
30
20
10
0
6:45:00
9:45:00
12:45:00
15:45:00
18:45:00
21:45:00
0:45:00
3:45:00
Time
July 29 - August 2, 2019
Leq-1hr
Leq-15min

****

Filename LOC7
Test Location 7
Employee Name
Employee No.
Department
Seneca Meadows Inc.
2019 Annual Sound Survey
Aurora Acoustical
Consultants Inc.
Calibrator type Metrosonics CL304 3067
Calibrator calibration date 4/17/2019

****

METROSONICS db-3080 V1.20 SERIAL #3996
Report printed on 8/6/2019 at 15:32:09

Seneca Meadows Inc.
2019 Annual Sound Survey
Aurora Acoustical
Consultants Inc.
East Aurora, New York

Logging started at	7/29/2019 at 6:45:00
Total logging time	4 DAYS 13:29:43
Logging stopped at	8/2/2019 at 20:14:43
Total intervals	426
Interval length	0:15:00
Auto Stop	NO
Clock synch	YES
Response Rate	SLOW
Filter	A-WEIGHTED
Pre-Test Calibration Time	7/26/2019 at 15:30:51
Pre-Test Calibration Range	40.7 to 140.7 dB
Post-Test Calibration Time	8/6/2019 at 13:48:15
Post-Test Calibration Range	40.7 to 140.7
Cut-off used for time history Lav	NONE

<<< SUMMARY REPORT FOR TEST NUMBER 1 OF 1 >>>

Exchange Rate	3dB
Cutoffs	60dB 60dB
Ceiling	115dB
DOSE	Criterion level 90dB
DOSE	Criterion length 8 HOURS
Lav(60)	55.1dB
Lav(60)	54.5dB
Lav(60)	54.5dB
SEL	
TWA	66.5dB
TWA(60)	65.9dB
TWA(60)	65.9dB
Lmax	99.2dB 7/30/2019 at 17:57:12
Lpk	131.8dB 7/30/2019 at 17:57:12
Time over 115 dB	00:00.0
DOSE(60)	0.37%
DOSE(60)	0.37%

<<< TIME HISTORY REPORT FOR TEST NUMBER 1 OF 1 >>>

	START TIME	Leq(15-min) dBA	Lmax dBA	L(10.0) dBA	L(99.0) dBA	Leq(1-hr) dBA
7/29/2019						
	6:45:00	55.9	78.4	54.7	42.7	55.9
	7:00:00	47.7	59.7	51.7	42.7	
	7:15:00	48.2	62.0	51.7	42.7	
	7:30:00	47.0	56.8	50.7	42.7	
	7:45:00	47.1	61.2	50.7	42.7	47.5
	8:00:00	46.9	58.0	50.7	41.7	
	8:15:00	45.5	58.8	48.7	41.7	
	8:30:00	46.8	56.0	50.7	41.7	
	8:45:00	47.1	60.4	50.7	41.7	46.6
	9:00:00	44.9	53.6	48.7	41.7	
	9:15:00	46.0	58.0	49.7	41.7	
	9:30:00	51.1	68.4	50.7	41.7	
	9:45:00	44.8	57.2	48.7	41.7	47.6
	10:00:00	47.0	56.9	50.7	41.7	
	10:15:00	47.4	59.7	50.7	41.7	
	10:30:00	47.8	59.6	50.7	41.7	
	10:45:00	46.7	58.6	50.7	41.7	47.2
	11:00:00	47.0	61.3	49.7	41.7	
	11:15:00	46.6	58.4	50.7	41.7	
	11:30:00	46.2	61.2	48.7	40.7	
	11:45:00	46.9	59.6	50.7	41.7	46.7
	12:00:00	46.5	59.6	50.7	41.7	
	12:15:00	45.7	55.6	49.7	40.7	
	12:30:00	47.1	58.8	51.7	40.7	
	12:45:00	47.0	63.7	50.7	40.7	46.6
	13:00:00	47.1	65.2	50.7	40.7	
	13:15:00	46.6	59.6	50.7	40.7	
	13:30:00	48.0	61.2	52.7	40.7	
	13:45:00	48.0	62.8	51.7	40.7	47.5
	14:00:00	46.6	60.9	50.7	40.7	
	14:15:00	45.4	57.9	48.7	40.7	
	14:30:00	48.2	65.4	50.7	40.7	
	14:45:00	46.5	59.2	50.7	40.7	46.8
	15:00:00	47.0	58.8	50.7	41.7	
	15:15:00	46.9	56.8	51.7	40.7	
	15:30:00	48.3	66.3	50.7	41.7	
	15:45:00	50.7	64.8	52.7	41.7	48.5
	16:00:00	49.3	59.3	53.7	42.7	
	16:15:00	47.6	62.0	50.7	40.7	
	16:30:00	48.2	62.0	51.7	40.7	
	16:45:00	50.3	65.6	52.7	40.7	49.0
	17:00:00	47.8	62.8	51.7	40.7	
	17:15:00	47.8	61.6	51.7	41.7	
	17:30:00	47.6	61.2	51.7	41.7	
	17:45:00	49.8	60.1	53.7	41.7	48.3
	18:00:00	47.9	58.0	51.7	41.7	
	18:15:00	46.9	59.6	49.7	41.7	
	18:30:00	44.4	55.9	47.7	40.7	
	18:45:00	45.2	58.8	48.7	40.7	46.3
	19:00:00	45.7	63.3	48.7	40.7	
	19:15:00	45.0	54.8	48.7	41.7	
	19:30:00	46.1	58.4	50.7	41.7	
	19:45:00	44.5	56.0	48.7	40.7	45.4
	20:00:00	45.4	55.2	49.7	40.7	
	20:15:00	47.7	58.0	51.7	41.7	
	20:30:00	46.1	55.9	49.7	41.7	
	20:45:00	44.6	55.3	48.7	41.7	46.1
	21:00:00	44.7	56.4	47.7	41.7	
	21:15:00	48.1	63.6	50.7	42.7	
	21:30:00	45.9	55.2	49.7	42.7	
	21:45:00	44.3	55.1	45.7	42.7	46.0
	22:00:00	44.1	54.4	44.7	42.7	
	22:15:00	45.0	62.9	45.7	42.7	

	22:30:00	45.7	57.6	46.7	42.7	
	22:45:00	45.3	54.9	45.7	42.7	45.1
	23:00:00	45.1	55.2	45.7	42.7	
	23:15:00	45.0	55.2	44.7	42.7	
	23:30:00	44.5	52.1	44.7	42.7	
	23:45:00	43.3	55.6	44.7	41.7	44.5
	0:00:00	44.0	57.1	43.7	42.7	
	0:15:00	42.9	56.4	42.7	41.7	
	0:30:00	42.2	47.6	42.7	41.7	
	0:45:00	42.3	48.7	42.7	41.7	42.9
7/30/2019	1:00:00	42.7	54.4	42.7	41.7	
	1:15:00	42.0	44.5	42.7	41.7	
	1:30:00	43.9	60.4	42.7	41.7	
	1:45:00	42.6	52.0	42.7	41.7	42.9
	2:00:00	42.9	51.0	43.7	42.7	
	2:15:00	42.6	44.8	43.7	42.7	
	2:30:00	43.2	55.6	43.7	41.7	
	2:45:00	42.2	44.5	42.7	41.7	42.7
	3:00:00	42.1	53.7	42.7	41.7	
	3:15:00	42.4	54.0	42.7	41.7	
	3:30:00	41.6	48.0	42.7	41.7	
	3:45:00	42.2	55.6	42.7	41.7	42.1
	4:00:00	44.0	56.0	44.7	41.7	
	4:15:00	42.9	53.5	43.7	41.7	
	4:30:00	43.8	56.0	43.7	41.7	
	4:45:00	43.9	58.4	43.7	42.7	43.7
	5:00:00	43.5	54.4	43.7	41.7	
	5:15:00	44.7	56.4	45.7	42.7	
	5:30:00	45.2	55.0	47.7	41.7	
	5:45:00	45.0	57.6	45.7	41.7	44.6
	6:00:00	46.6	60.8	49.7	41.7	
	6:15:00	48.3	66.4	50.7	41.7	
	6:30:00	48.3	64.0	51.7	42.7	
	6:45:00	46.8	57.6	50.7	42.7	47.6
	7:00:00	47.3	60.8	50.7	42.7	
	7:15:00	47.3	59.2	51.7	42.7	
	7:30:00	47.1	56.9	51.7	41.7	
	7:45:00	45.8	55.2	49.7	41.7	46.9
	8:00:00	46.4	57.6	50.7	41.7	
	8:15:00	46.3	55.6	50.7	41.7	
	8:30:00	46.1	58.8	50.7	41.7	
	8:45:00	47.0	57.5	50.7	41.7	46.5
	9:00:00	46.5	58.0	50.7	41.7	
	9:15:00	46.3	57.2	50.7	41.7	
	9:30:00	46.3	61.6	49.7	41.7	
	9:45:00	45.7	59.5	49.7	41.7	46.2
	10:00:00	46.8	58.0	50.7	41.7	
	10:15:00	47.0	61.1	50.7	41.7	
	10:30:00	47.4	60.0	50.7	41.7	
	10:45:00	46.2	58.8	49.7	41.7	46.9
	11:00:00	48.0	63.2	50.7	41.7	
	11:15:00	47.0	57.6	50.7	41.7	
	11:30:00	46.5	56.0	50.7	41.7	
	11:45:00	47.9	66.0	50.7	41.7	47.4
	12:00:00	47.3	58.4	50.7	41.7	
	12:15:00	49.0	64.9	52.7	41.7	
	12:30:00	78.1	94.3	81.7	42.7	
	12:45:00	56.7	79.6	52.7	40.7	72.1
	13:00:00	46.6	63.2	50.7	40.7	
	13:15:00	46.7	61.6	49.7	40.7	
	13:30:00	45.3	56.7	49.7	40.7	
	13:45:00	48.7	58.2	52.7	41.7	47.0
	14:00:00	50.3	64.0	54.7	42.7	
	14:15:00	50.5	64.3	53.7	42.7	
	14:30:00	53.2	69.3	55.7	42.7	
	14:45:00	50.2	65.5	52.7	42.7	51.2
	15:00:00	49.6	65.6	52.7	42.7	
	15:15:00	50.6	65.7	54.7	42.7	
	15:30:00	49.8	63.6	53.7	43.7	

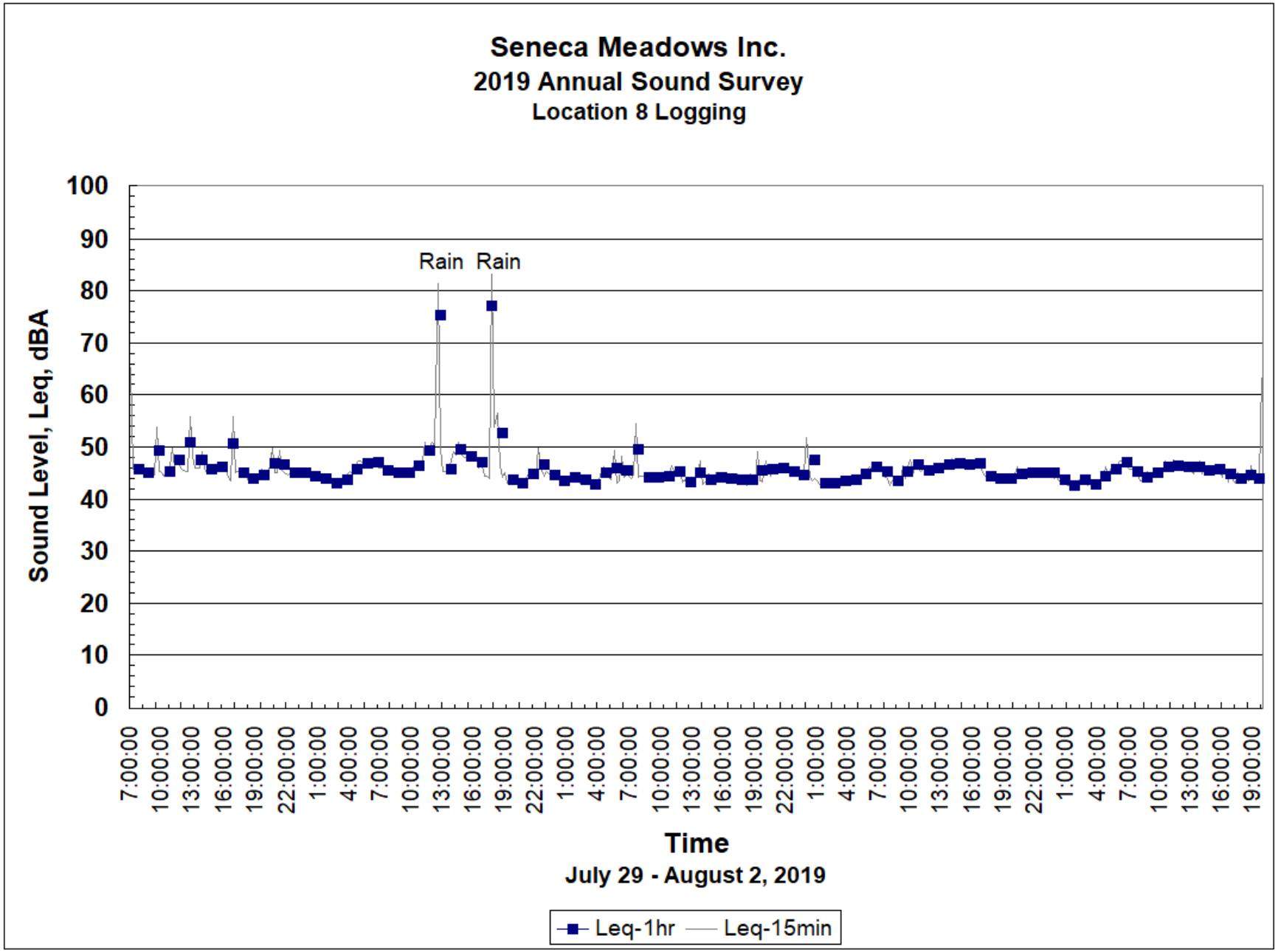
	15:45:00	48.9	60.4	52.7	42.7	49.8
	16:00:00	49.6	61.2	53.7	41.7	
	16:15:00	50.5	70.4	52.7	41.7	
	16:30:00	48.6	57.6	52.7	42.7	
	16:45:00	48.3	58.4	52.7	41.7	49.3
	17:00:00	48.6	61.2	52.7	41.7	
	17:15:00	47.4	62.4	51.7	40.7	
	17:30:00	48.8	62.1	52.7	41.7	
	17:45:00	77.2	99.2	79.7	41.7	71.2
	18:00:00	63.4	84.8	63.7	41.7	
	18:15:00	47.3	68.8	49.7	41.7	
	18:30:00	50.0	72.4	50.7	41.7	
	18:45:00	45.6	58.1	48.7	41.7	57.7
	19:00:00	44.9	56.0	48.7	41.7	
	19:15:00	44.7	54.8	48.7	41.7	
	19:30:00	46.4	64.4	49.7	40.7	
	19:45:00	43.7	55.0	47.7	40.7	45.0
	20:00:00	44.2	56.8	47.7	40.7	
	20:15:00	43.2	54.0	45.7	40.7	
	20:30:00	42.8	52.4	44.7	40.7	
	20:45:00	45.1	58.4	48.7	41.7	43.9
	21:00:00	44.5	53.5	47.7	41.7	
	21:15:00	44.2	53.6	45.7	42.7	
	21:30:00	44.7	56.4	44.7	43.7	
	21:45:00	46.1	61.2	47.7	43.7	44.9
	22:00:00	45.5	57.6	47.7	43.7	
	22:15:00	47.1	65.1	46.7	43.7	
	22:30:00	49.6	69.9	48.7	43.7	
	22:45:00	44.2	54.9	44.7	42.7	47.1
	23:00:00	44.1	53.6	44.7	42.7	
	23:15:00	44.6	57.6	44.7	42.7	
	23:30:00	44.8	54.4	45.7	43.7	
	23:45:00	44.0	58.0	43.7	42.7	44.4
	0:00:00	43.9	55.7	44.7	42.7	
	0:15:00	43.7	48.8	44.7	42.7	
	0:30:00	43.7	54.9	44.7	42.7	
	0:45:00	42.9	49.6	43.7	42.7	43.6
7/31/2019	1:00:00	43.3	55.2	43.7	42.7	
	1:15:00	42.9	54.1	43.7	42.7	
	1:30:00	43.3	55.1	43.7	42.7	
	1:45:00	43.1	54.0	43.7	41.7	43.2
	2:00:00	42.8	52.4	43.7	41.7	
	2:15:00	42.3	50.0	42.7	41.7	
	2:30:00	42.3	50.8	43.7	41.7	
	2:45:00	43.0	50.0	43.7	42.7	42.6
	3:00:00	43.3	53.6	43.7	42.7	
	3:15:00	43.9	53.2	44.7	42.7	
	3:30:00	43.3	52.0	44.7	42.7	
	3:45:00	44.8	60.8	44.7	42.7	43.9
	4:00:00	43.4	51.6	43.7	42.7	
	4:15:00	43.6	54.0	43.7	42.7	
	4:30:00	44.7	60.0	44.7	42.7	
	4:45:00	44.4	55.6	44.7	42.7	44.1
	5:00:00	44.4	54.3	44.7	42.7	
	5:15:00	44.4	54.4	44.7	42.7	
	5:30:00	44.7	56.4	45.7	42.7	
	5:45:00	44.2	56.8	44.7	42.7	44.4
	6:00:00	46.0	58.8	48.7	42.7	
	6:15:00	46.7	60.0	50.7	41.7	
	6:30:00	47.8	63.2	51.7	41.7	
	6:45:00	46.5	64.4	49.7	41.7	46.8
	7:00:00	45.8	61.9	48.7	41.7	
	7:15:00	47.7	63.8	50.7	41.7	
	7:30:00	46.7	59.6	50.7	41.7	
	7:45:00	46.7	57.6	50.7	41.7	46.8
	8:00:00	47.4	60.0	51.7	42.7	
	8:15:00	45.3	61.2	48.7	41.7	
	8:30:00	46.7	60.0	49.7	41.7	
	8:45:00	47.5	62.9	50.7	41.7	46.8

	9:00:00	47.0	58.4	50.7	41.7	
	9:15:00	45.3	58.4	48.7	40.7	
	9:30:00	44.7	55.6	48.7	40.7	
	9:45:00	45.5	60.0	47.7	40.7	45.7
	10:00:00	50.8	71.7	50.7	41.7	
	10:15:00	45.2	55.6	48.7	41.7	
	10:30:00	46.0	58.1	49.7	41.7	
	10:45:00	45.7	57.6	49.7	40.7	47.6
	11:00:00	47.6	58.0	51.7	40.7	
	11:15:00	44.6	53.8	48.7	40.7	
	11:30:00	50.7	63.7	53.7	41.7	
	11:45:00	46.4	56.6	50.7	40.7	47.9
	12:00:00	46.9	56.0	50.7	41.7	
	12:15:00	46.5	58.8	50.7	40.7	
	12:30:00	46.5	57.6	50.7	40.7	
	12:45:00	45.4	57.2	49.7	40.7	46.4
	13:00:00	46.3	58.0	50.7	40.7	
	13:15:00	43.6	52.8	46.7	40.7	
	13:30:00	47.4	60.4	50.7	40.7	
	13:45:00	45.8	57.3	49.7	40.7	46.0
	14:00:00	46.6	56.5	50.7	40.7	
	14:15:00	44.7	54.4	48.7	40.7	
	14:30:00	45.5	57.4	49.7	40.7	
	14:45:00	48.7	63.2	52.7	40.7	46.6
	15:00:00	49.3	68.4	51.7	40.7	
	15:15:00	48.1	60.4	51.7	41.7	
	15:30:00	47.2	57.6	51.7	40.7	
	15:45:00	48.4	61.7	51.7	40.7	48.3
	16:00:00	47.3	60.4	50.7	40.7	
	16:15:00	49.4	68.4	51.7	40.7	
	16:30:00	46.7	57.4	50.7	40.7	
	16:45:00	47.3	59.6	51.7	40.7	47.8
	17:00:00	48.6	62.9	52.7	40.7	
	17:15:00	47.4	62.0	50.7	40.7	
	17:30:00	47.4	58.5	51.7	40.7	
	17:45:00	47.2	61.2	50.7	40.7	47.7
	18:00:00	46.6	59.9	50.7	41.7	
	18:15:00	46.5	59.7	50.7	40.7	
	18:30:00	45.7	58.3	49.7	40.7	
	18:45:00	46.0	59.6	49.7	40.7	46.2
	19:00:00	46.2	57.2	50.7	41.7	
	19:15:00	48.5	68.0	49.7	41.7	
	19:30:00	45.6	56.4	48.7	41.7	
	19:45:00	45.5	58.0	48.7	41.7	46.6
	20:00:00	47.1	60.0	51.7	41.7	
	20:15:00	45.4	58.2	48.7	41.7	
	20:30:00	44.8	54.8	47.7	41.7	
	20:45:00	44.9	56.0	47.7	41.7	45.7
	21:00:00	45.8	63.2	48.7	41.7	
	21:15:00	46.2	61.2	48.7	42.7	
	21:30:00	44.7	56.0	45.7	42.7	
	21:45:00	44.6	54.4	45.7	42.7	45.4
	22:00:00	44.3	55.2	44.7	42.7	
	22:15:00	46.1	56.4	48.7	42.7	
	22:30:00	44.6	54.4	45.7	42.7	
	22:45:00	44.9	55.2	46.7	42.7	45.0
	23:00:00	44.4	54.4	44.7	42.7	
	23:15:00	44.4	56.7	43.7	41.7	
	23:30:00	43.1	52.8	43.7	41.7	
	23:45:00	42.8	54.0	43.7	41.7	43.7
	0:00:00	42.8	56.1	43.7	41.7	
	0:15:00	42.9	54.3	43.7	41.7	
	0:30:00	42.2	47.6	42.7	41.7	
	0:45:00	42.7	54.8	43.7	41.7	42.7
8/1/2019	1:00:00	42.8	52.4	43.7	41.7	
	1:15:00	42.1	44.8	42.7	41.7	
	1:30:00	42.3	45.6	43.7	41.7	
	1:45:00	42.6	51.6	43.7	41.7	42.5
	2:00:00	42.7	54.1	43.7	41.7	

2:15:00	42.3	54.5	42.7	41.7	
2:30:00	42.2	46.0	43.7	41.7	
2:45:00	42.5	47.5	43.7	41.7	42.4
3:00:00	42.3	45.6	43.7	41.7	
3:15:00	42.9	53.6	43.7	41.7	
3:30:00	42.4	50.8	43.7	41.7	
3:45:00	43.0	54.4	43.7	41.7	42.7
4:00:00	42.6	51.2	43.7	41.7	
4:15:00	44.1	58.7	44.7	41.7	
4:30:00	42.9	53.2	43.7	41.7	
4:45:00	43.8	58.4	43.7	41.7	43.4
5:00:00	43.5	56.4	43.7	41.7	
5:15:00	45.4	55.2	48.7	41.7	
5:30:00	44.1	58.0	44.7	41.7	
5:45:00	43.7	54.0	45.7	41.7	44.2
6:00:00	45.8	60.9	48.7	41.7	
6:15:00	47.9	63.2	51.7	42.7	
6:30:00	48.7	63.2	51.7	42.7	
6:45:00	46.5	57.2	49.7	42.7	47.4
7:00:00	47.5	60.2	50.7	42.7	
7:15:00	48.1	63.7	51.7	42.7	
7:30:00	46.9	56.4	50.7	41.7	
7:45:00	46.1	57.0	50.7	41.7	47.2
8:00:00	45.9	55.8	50.7	41.7	
8:15:00	45.8	57.6	49.7	41.7	
8:30:00	46.3	57.2	50.7	40.7	
8:45:00	45.6	57.6	49.7	41.7	45.9
9:00:00	46.0	56.4	49.7	41.7	
9:15:00	46.1	62.4	48.7	41.7	
9:30:00	47.0	58.1	51.7	40.7	
9:45:00	45.2	54.4	49.7	40.7	46.1
10:00:00	45.7	56.3	49.7	40.7	
10:15:00	46.5	58.4	49.7	41.7	
10:30:00	49.7	64.3	52.7	41.7	
10:45:00	57.0	66.2	59.7	42.7	52.3
11:00:00	59.2	66.3	62.7	50.7	
11:15:00	52.6	60.8	55.7	43.7	
11:30:00	50.9	62.8	53.7	41.7	
11:45:00	50.3	57.2	53.7	41.7	54.9
12:00:00	49.6	60.2	52.7	45.7	
12:15:00	46.7	57.1	50.7	40.7	
12:30:00	51.3	60.0	54.7	42.7	
12:45:00	51.1	60.9	54.7	41.7	50.0
13:00:00	50.1	61.6	54.7	41.7	
13:15:00	49.8	71.1	50.7	41.7	
13:30:00	45.8	55.9	49.7	41.7	
13:45:00	47.8	57.1	51.7	41.7	48.7
14:00:00	46.5	57.4	49.7	41.7	
14:15:00	47.5	58.4	50.7	41.7	
14:30:00	48.0	62.0	51.7	42.7	
14:45:00	46.0	55.3	49.7	41.7	47.1
15:00:00	46.5	57.6	50.7	41.7	
15:15:00	46.5	56.8	50.7	41.7	
15:30:00	46.9	56.0	50.7	41.7	
15:45:00	47.5	55.2	50.7	42.7	46.9
16:00:00	46.5	56.4	50.7	41.7	
16:15:00	48.0	62.8	51.7	41.7	
16:30:00	46.9	56.0	50.7	41.7	
16:45:00	47.2	56.5	50.7	41.7	47.2
17:00:00	48.6	64.8	51.7	41.7	
17:15:00	47.5	57.6	51.7	41.7	
17:30:00	48.7	62.9	51.7	41.7	
17:45:00	47.3	69.0	50.7	42.7	48.1
18:00:00	46.3	57.2	50.7	41.7	
18:15:00	46.7	59.6	50.7	41.7	
18:30:00	46.3	55.2	50.7	41.7	
18:45:00	46.3	56.5	50.7	41.7	46.4
19:00:00	46.4	57.6	50.7	41.7	
19:15:00	45.5	64.0	48.7	41.7	

	19:30:00	48.1	64.4	51.7	41.7	
	19:45:00	48.0	65.7	50.7	41.7	47.1
	20:00:00	45.2	56.8	48.7	40.7	
	20:15:00	45.1	54.8	49.7	41.7	
	20:30:00	48.4	66.8	49.7	41.7	
	20:45:00	46.6	61.6	49.7	42.7	46.5
	21:00:00	45.7	55.2	49.7	41.7	
	21:15:00	45.6	56.8	48.7	42.7	
	21:30:00	46.0	61.6	48.7	41.7	
	21:45:00	46.6	69.2	44.7	42.7	46.0
	22:00:00	44.6	56.0	45.7	42.7	
	22:15:00	43.5	53.4	43.7	41.7	
	22:30:00	44.5	56.0	46.7	41.7	
	22:45:00	43.9	53.3	44.7	41.7	44.1
	23:00:00	43.6	54.8	44.7	41.7	
	23:15:00	42.9	50.8	43.7	41.7	
	23:30:00	42.3	49.5	42.7	41.7	
	23:45:00	42.8	56.5	42.7	41.7	42.9
	0:00:00	42.0	50.4	42.7	41.7	
	0:15:00	42.2	52.6	42.7	41.7	
	0:30:00	42.5	52.8	42.7	41.7	
	0:45:00	42.0	50.8	42.7	40.7	42.2
8/2/2019	1:00:00	41.8	53.6	42.7	40.7	
	1:15:00	41.4	50.0	42.7	40.7	
	1:30:00	41.3	48.8	42.7	40.7	
	1:45:00	41.8	51.4	42.7	40.7	41.6
	2:00:00	41.8	44.8	42.7	40.7	
	2:15:00	44.8	61.2	44.7	40.7	
	2:30:00	41.9	54.1	42.7	40.7	
	2:45:00	41.6	50.8	42.7	40.7	42.7
	3:00:00	42.2	54.8	42.7	40.7	
	3:15:00	43.4	59.0	43.7	40.7	
	3:30:00	42.3	52.8	43.7	40.7	
	3:45:00	42.9	54.4	43.7	40.7	42.7
	4:00:00	42.6	52.0	43.7	41.7	
	4:15:00	43.3	54.1	43.7	41.7	
	4:30:00	43.2	53.8	44.7	41.7	
	4:45:00	44.0	55.7	45.7	42.7	43.3
	5:00:00	45.1	60.7	45.7	41.7	
	5:15:00	46.0	58.4	48.7	42.7	
	5:30:00	44.6	56.4	46.7	42.7	
	5:45:00	45.1	55.6	47.7	42.7	45.2
	6:00:00	46.4	58.9	48.7	42.7	
	6:15:00	46.8	59.2	49.7	42.7	
	6:30:00	47.6	56.4	51.7	43.7	
	6:45:00	46.8	58.3	49.7	43.7	46.9
	7:00:00	46.8	65.3	49.7	42.7	
	7:15:00	47.8	58.3	51.7	43.7	
	7:30:00	48.8	61.1	51.7	43.7	
	7:45:00	47.8	62.4	50.7	42.7	47.9
	8:00:00	46.1	57.2	48.7	42.7	
	8:15:00	46.3	57.2	50.7	41.7	
	8:30:00	46.3	61.2	49.7	41.7	
	8:45:00	45.9	55.7	49.7	41.7	46.2
	9:00:00	45.8	55.7	50.7	41.7	
	9:15:00	44.9	57.2	48.7	41.7	
	9:30:00	46.3	62.8	48.7	41.7	
	9:45:00	45.9	55.3	49.7	40.7	45.8
	10:00:00	46.7	56.8	50.7	41.7	
	10:15:00	46.6	64.0	49.7	41.7	
	10:30:00	45.5	58.8	49.7	40.7	
	10:45:00	47.7	63.3	50.7	41.7	46.7
	11:00:00	45.8	55.6	49.7	41.7	
	11:15:00	50.6	70.8	51.7	41.7	
	11:30:00	47.8	57.7	51.7	41.7	
	11:45:00	48.0	64.0	51.7	41.7	48.4
	12:00:00	47.8	58.0	51.7	41.7	
	12:15:00	46.0	55.3	49.7	41.7	
	12:30:00	46.2	54.6	49.7	41.7	

12:45:00	45.7	58.9	48.7	40.7	46.5
13:00:00	47.8	63.6	50.7	41.7	
13:15:00	47.4	58.3	51.7	40.7	
13:30:00	46.5	56.0	50.7	40.7	
13:45:00	47.2	57.2	51.7	41.7	47.3
14:00:00	44.8	57.6	47.7	41.7	
14:15:00	46.4	59.2	49.7	40.7	
14:30:00	46.3	58.4	50.7	40.7	
14:45:00	48.7	68.0	49.7	41.7	46.8
15:00:00	49.9	63.6	52.7	42.7	
15:15:00	48.7	63.2	50.7	42.7	
15:30:00	48.8	56.8	52.7	42.7	
15:45:00	48.0	61.6	50.7	42.7	48.9
16:00:00	47.6	58.8	50.7	42.7	
16:15:00	49.2	60.8	52.7	42.7	
16:30:00	49.3	58.0	52.7	44.7	
16:45:00	51.7	66.4	53.7	45.7	49.7
17:00:00	49.5	63.5	52.7	41.7	
17:15:00	48.6	60.5	51.7	41.7	
17:30:00	48.6	56.8	52.7	42.7	
17:45:00	48.2	62.4	50.7	41.7	48.8
18:00:00	48.8	64.3	51.7	41.7	
18:15:00	48.1	63.3	50.7	41.7	
18:30:00	46.8	56.8	50.7	41.7	
18:45:00	46.1	56.8	50.7	41.7	47.6
19:00:00	46.4	56.8	50.7	41.7	
19:15:00	47.3	59.3	50.7	41.7	
19:30:00	45.4	55.6	49.7	41.7	
19:45:00	45.2	56.4	49.7	41.7	46.2
20:00:00	58.8	83.6	54.7	41.7	


Seneca Meadows Inc.
2019 Annual Sound Survey
Location 8 Logging
Sound Level, Leq, dBA
100
90
80
70
60
50
40
30
20
10
0
Rain
Rain
7:00:00
10:00:00
13:00:00
16:00:00
19:00:00
22:00:00
1:00:00
4:00:00
7:00:00
10:00:00
13:00:00
16:00:00
19:00:00
22:00:00
1:00:00
4:00:00
7:00:00
10:00:00
13:00:00
16:00:00
19:00:00
22:00:00
1:00:00
4:00:00
7:00:00
10:00:00
13:00:00
16:00:00
19:00:00
Time
July 29 - August 2, 2019
Leq-1hr
Leq-15min

****

Filename LOC8
Test Location 8
Employee Name
Employee No.
Department
Seneca Meadows Inc.
2019 Annual Sound Survey
Aurora Acoustical
Consultants Inc.
Calibrator type Metrosonics CL304 3067
Calibrator calibration date 4/17/2019

****

METROSONICS db-3080 V1.20 SERIAL # 4441
Report printed on 8/6/2019 at 15:34:28

Seneca Meadows Inc.
2019 Annual Sound Survey
Aurora Acoustical
Consultants Inc.
East Aurora, New York

Logging started at	7/29/2019 at 7:30:00
Total logging time	4 DAYS 12:14:22
Logging stopped at	8/2/2019 at 19:44:22
Total intervals	433
Interval length	0:15:00
Auto Stop	NO
Clock synch	YES
Response Rate	SLOW
Filter	A-WEIGHTED
Pre-Test Calibration Time	7/26/2019 at 22:42:08
Pre-Test Calibration Range	39 to 139 dB
Post-Test Calibration Time	8/6/2019 at 14:58:53
Post-Test Calibration Range	39.3 to 139.3

<<< SUMMARY REPORT FOR TEST NUMBER 1 OF 1 >>>

Exchange Rate	3dB
Cutoffs	60dB 60dB
Ceiling	115dB
DOSE	Criterion level 90dB
DOSE	Criterion length 8 HOURS
Lav(60)	57.0dB
Lav(60)	56.6dB
Lav(60)	56.6dB
SEL	
TWA	68.3dB
TWA(60)	67.9dB
TWA(60)	67.9dB
Lmax	98.0dB 7/30/2019 at 17:57:22
Lpk	127.7dB 7/30/2019 at 17:56:30
Time over 115 dB	00:00.0
DOSE(60)	0.60%
DOSE(60)	0.60%

<<< TIME HISTORY REPORT FOR TEST NUMBER 1 OF 1 >>>

	START TIME	Leq(15-min) dBA	Lmax dBA	L(10.0) dBA	L(99.0) dBA	Leq(1-hr) dBA
7/29/2019						
	7:30:00	59.1	80.9	60.0	43.0	
	7:45:00	48.0	57.0	50.0	42.0	48.0
	8:00:00	47.1	57.3	49.0	42.0	
	8:15:00	46.6	55.2	48.0	42.0	
	8:30:00	46.6	54.3	49.0	42.0	
	8:45:00	45.4	52.4	47.0	42.0	46.5
	9:00:00	47.1	57.8	49.0	42.0	
	9:15:00	47.1	58.0	49.0	42.0	
	9:30:00	52.5	71.7	50.0	41.0	
	9:45:00	46.3	57.4	48.0	41.0	49.1
	10:00:00	47.0	56.5	49.0	41.0	
	10:15:00	46.9	62.1	49.0	41.0	
	10:30:00	48.5	62.3	50.0	42.0	
	10:45:00	48.8	61.7	51.0	42.0	47.9
	11:00:00	46.9	56.1	48.0	42.0	
	11:15:00	47.4	55.4	50.0	41.0	
	11:30:00	47.9	62.1	49.0	42.0	
	11:45:00	47.3	58.1	49.0	42.0	47.4
	12:00:00	48.9	65.7	50.0	42.0	
	12:15:00	47.1	56.6	49.0	42.0	
	12:30:00	47.3	59.7	49.0	42.0	
	12:45:00	59.8	88.5	52.0	43.0	54.5
	13:00:00	50.6	75.7	50.0	41.0	
	13:15:00	48.2	56.0	50.0	42.0	
	13:30:00	48.3	54.8	50.0	44.0	
	13:45:00	49.1	59.3	51.0	42.0	49.2
	14:00:00	69.5	94.7	56.0	42.0	
	14:15:00	47.3	60.3	49.0	42.0	
	14:30:00	47.7	55.3	50.0	42.0	
	14:45:00	47.6	56.6	50.0	42.0	63.6
	15:00:00	47.8	56.7	50.0	42.0	
	15:15:00	48.6	60.3	50.0	42.0	
	15:30:00	49.3	60.1	51.0	43.0	
	15:45:00	49.4	61.7	51.0	43.0	48.8
	16:00:00	48.5	61.7	50.0	42.0	
	16:15:00	49.1	56.0	51.0	43.0	
	16:30:00	47.5	58.1	49.0	42.0	
	16:45:00	52.9	70.9	52.0	42.0	50.0
	17:00:00	50.9	59.9	53.0	44.0	
	17:15:00	49.0	64.1	51.0	43.0	
	17:30:00	49.0	62.0	50.0	43.0	
	17:45:00	47.7	55.9	50.0	42.0	49.3
	18:00:00	47.8	58.1	50.0	42.0	
	18:15:00	48.1	59.3	50.0	42.0	
	18:30:00	46.2	59.3	48.0	41.0	
	18:45:00	46.6	65.4	48.0	40.0	47.2
	19:00:00	46.2	61.1	48.0	41.0	
	19:15:00	45.8	54.7	48.0	41.0	
	19:30:00	47.1	59.1	49.0	41.0	
	19:45:00	46.3	61.0	48.0	41.0	46.4
	20:00:00	47.7	57.4	50.0	41.0	
	20:15:00	49.2	60.3	51.0	43.0	
	20:30:00	48.3	57.3	50.0	42.0	
	20:45:00	45.8	54.9	48.0	41.0	47.9
	21:00:00	45.5	58.3	47.0	41.0	
	21:15:00	64.9	89.3	57.0	41.0	
	21:30:00	46.0	57.7	48.0	41.0	
	21:45:00	44.5	52.8	46.0	41.0	59.0
	22:00:00	45.4	58.5	47.0	41.0	
	22:15:00	44.5	51.1	46.0	41.0	
	22:30:00	44.0	56.7	46.0	41.0	
	22:45:00	44.0	52.0	45.0	41.0	44.5
	23:00:00	43.8	50.1	45.0	42.0	
	23:15:00	44.5	57.9	46.0	41.0	

	23:30:00	42.7	49.9	43.0	41.0	
	23:45:00	43.0	48.8	44.0	41.0	43.6
7/30/2019	0:00:00	43.2	54.3	44.0	41.0	
	0:15:00	45.2	64.5	45.0	41.0	
	0:30:00	43.1	50.9	43.0	41.0	
	0:45:00	43.6	55.1	44.0	41.0	43.9
	1:00:00	42.3	48.7	42.0	41.0	
	1:15:00	42.7	48.9	43.0	41.0	
	1:30:00	42.1	46.9	42.0	41.0	
	1:45:00	42.2	55.8	42.0	41.0	42.3
	2:00:00	42.8	50.2	43.0	41.0	
	2:15:00	42.4	52.0	42.0	41.0	
	2:30:00	42.7	49.7	43.0	41.0	
	2:45:00	43.1	56.8	43.0	41.0	42.8
	3:00:00	42.5	48.5	43.0	41.0	
	3:15:00	42.7	56.0	43.0	41.0	
	3:30:00	42.5	52.1	43.0	41.0	
	3:45:00	41.9	53.3	41.0	40.0	42.4
	4:00:00	43.4	54.4	44.0	41.0	
	4:15:00	43.1	60.5	44.0	41.0	
	4:30:00	43.0	49.7	44.0	41.0	
	4:45:00	46.6	58.4	49.0	42.0	44.3
	5:00:00	44.7	55.3	46.0	42.0	
	5:15:00	45.8	57.5	47.0	42.0	
	5:30:00	46.3	54.9	48.0	42.0	
	5:45:00	46.3	53.7	48.0	42.0	45.8
	6:00:00	46.1	53.2	48.0	42.0	
	6:15:00	47.5	55.3	49.0	43.0	
	6:30:00	47.8	57.3	50.0	44.0	
	6:45:00	48.3	54.5	50.0	43.0	47.5
	7:00:00	48.7	61.3	50.0	43.0	
	7:15:00	47.4	55.3	49.0	43.0	
	7:30:00	48.2	55.8	50.0	42.0	
	7:45:00	47.9	61.3	50.0	42.0	48.1
	8:00:00	46.7	56.8	49.0	42.0	
	8:15:00	46.9	54.3	49.0	42.0	
	8:30:00	46.8	53.6	49.0	42.0	
	8:45:00	46.6	51.6	48.0	43.0	46.8
	9:00:00	47.5	57.3	49.0	43.0	
	9:15:00	46.6	56.4	49.0	42.0	
	9:30:00	47.5	60.3	50.0	42.0	
	9:45:00	48.7	62.1	50.0	42.0	47.6
	10:00:00	48.0	56.8	50.0	42.0	
	10:15:00	47.9	60.2	49.0	43.0	
	10:30:00	47.6	58.5	50.0	42.0	
	10:45:00	47.1	56.6	49.0	42.0	47.7
	11:00:00	47.1	57.7	49.0	42.0	
	11:15:00	46.7	53.3	49.0	42.0	
	11:30:00	46.5	55.3	48.0	42.0	
	11:45:00	46.8	52.5	49.0	42.0	46.8
	12:00:00	49.1	59.9	51.0	42.0	
	12:15:00	49.2	63.7	51.0	42.0	
	12:30:00	68.4	88.8	69.0	44.0	
	12:45:00	59.1	86.8	51.0	43.0	63.0
	13:00:00	48.2	68.9	50.0	42.0	
	13:15:00	47.0	58.8	49.0	41.0	
	13:30:00	46.3	54.9	49.0	41.0	
	13:45:00	47.2	56.5	49.0	42.0	47.2
	14:00:00	69.1	93.1	55.0	43.0	
	14:15:00	48.2	58.2	50.0	43.0	
	14:30:00	50.3	63.8	52.0	44.0	
	14:45:00	47.7	55.2	49.0	43.0	63.2
	15:00:00	48.4	58.8	50.0	43.0	
	15:15:00	48.0	58.6	50.0	43.0	
	15:30:00	49.0	57.8	51.0	43.0	
	15:45:00	47.9	55.5	50.0	43.0	48.3
	16:00:00	48.7	54.7	50.0	44.0	
	16:15:00	48.5	62.7	50.0	42.0	
	16:30:00	48.8	69.8	49.0	43.0	

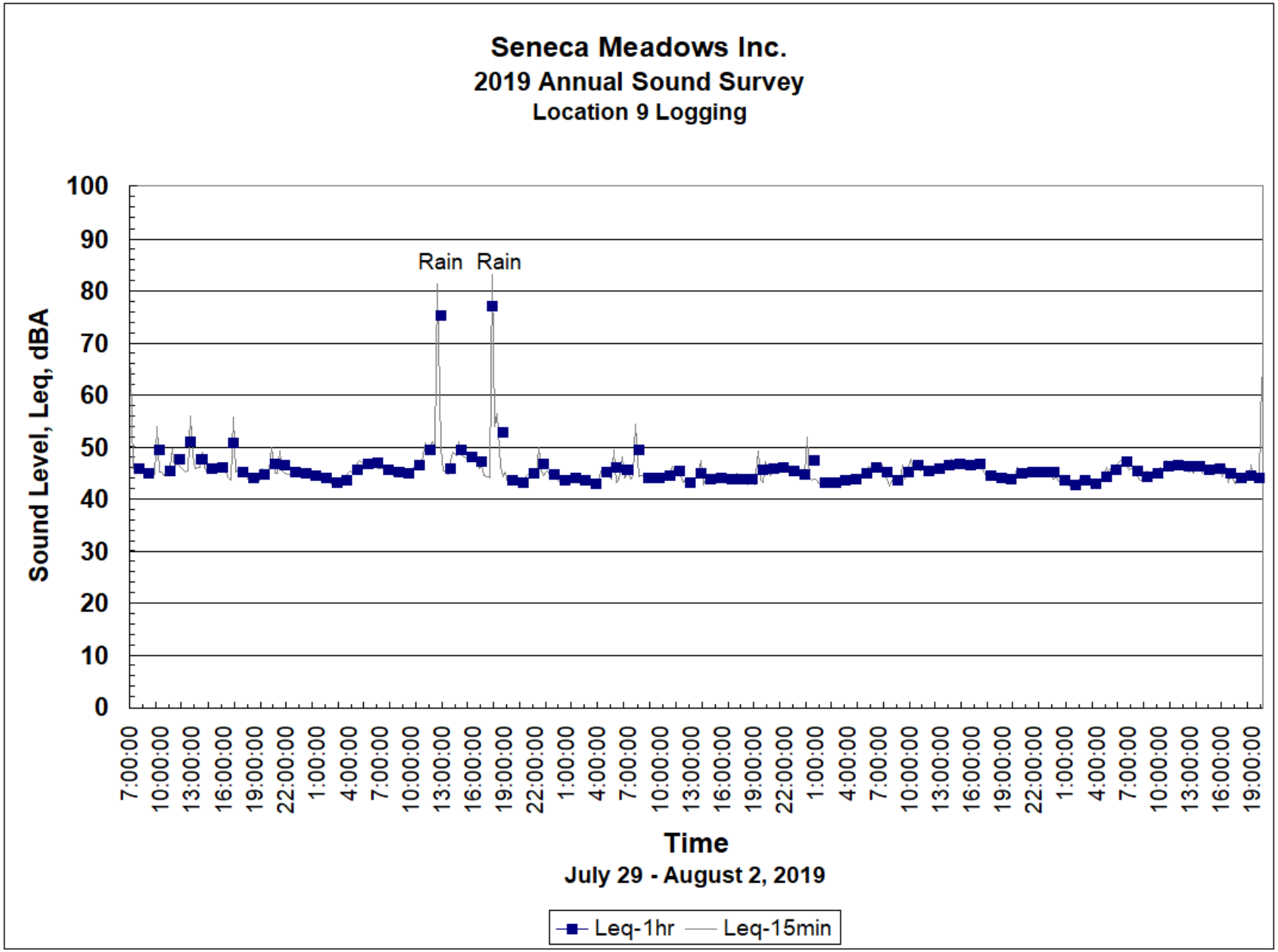
	16:45:00	48.0	57.2	50.0	42.0	48.5
	17:00:00	47.9	55.2	50.0	42.0	
	17:15:00	48.4	59.7	50.0	42.0	
	17:30:00	47.6	54.3	50.0	41.0	
	17:45:00	80.5	98.0	85.0	41.0	74.5
	18:00:00	70.6	89.5	71.0	42.0	
	18:15:00	52.4	73.7	52.0	42.0	
	18:30:00	52.4	78.9	49.0	42.0	
	18:45:00	50.6	76.1	50.0	42.0	64.8
	19:00:00	50.2	74.3	49.0	42.0	
	19:15:00	46.7	59.3	48.0	42.0	
	19:30:00	46.1	55.6	48.0	41.0	
	19:45:00	45.8	66.5	47.0	41.0	47.6
	20:00:00	55.9	84.9	47.0	41.0	
	20:15:00	45.4	55.2	48.0	41.0	
	20:30:00	45.3	62.0	47.0	41.0	
	20:45:00	44.6	52.5	46.0	41.0	50.8
	21:00:00	45.3	54.8	47.0	41.0	
	21:15:00	44.1	49.3	46.0	41.0	
	21:30:00	44.2	50.9	46.0	41.0	
	21:45:00	43.7	50.9	45.0	41.0	44.4
	22:00:00	43.8	49.0	45.0	42.0	
	22:15:00	62.2	88.4	55.0	41.0	
	22:30:00	45.6	58.5	47.0	42.0	
	22:45:00	43.1	53.5	45.0	41.0	56.4
	23:00:00	43.0	50.9	44.0	41.0	
	23:15:00	43.3	56.7	44.0	41.0	
	23:30:00	42.4	49.4	43.0	41.0	
	23:45:00	42.4	55.9	43.0	41.0	42.8
7/31/2019	0:00:00	43.1	65.5	43.0	41.0	
	0:15:00	42.1	48.0	42.0	41.0	
	0:30:00	43.3	59.1	44.0	41.0	
	0:45:00	42.1	50.5	42.0	41.0	42.7
	1:00:00	42.2	54.7	42.0	41.0	
	1:15:00	42.1	50.0	42.0	41.0	
	1:30:00	41.8	47.6	42.0	41.0	
	1:45:00	42.1	49.9	42.0	41.0	42.1
	2:00:00	41.8	49.3	42.0	41.0	
	2:15:00	42.3	60.5	42.0	41.0	
	2:30:00	42.3	54.8	42.0	41.0	
	2:45:00	41.8	46.0	42.0	41.0	42.1
	3:00:00	41.9	49.5	42.0	41.0	
	3:15:00	42.3	53.2	42.0	41.0	
	3:30:00	42.0	52.1	42.0	41.0	
	3:45:00	41.7	47.7	42.0	40.0	42.0
	4:00:00	42.2	49.3	43.0	41.0	
	4:15:00	43.1	51.3	45.0	41.0	
	4:30:00	43.6	54.8	45.0	41.0	
	4:45:00	44.3	51.7	46.0	41.0	43.4
	5:00:00	43.6	53.4	45.0	41.0	
	5:15:00	44.4	54.0	46.0	41.0	
	5:30:00	45.8	58.0	48.0	42.0	
	5:45:00	45.1	56.4	47.0	41.0	44.8
	6:00:00	45.3	57.7	48.0	41.0	
	6:15:00	45.8	55.7	48.0	42.0	
	6:30:00	46.5	57.3	49.0	42.0	
	6:45:00	47.6	62.3	49.0	42.0	46.4
	7:00:00	46.1	56.1	48.0	42.0	
	7:15:00	46.5	55.7	49.0	42.0	
	7:30:00	48.0	60.4	50.0	43.0	
	7:45:00	47.3	58.3	49.0	43.0	47.0
	8:00:00	48.0	58.5	50.0	43.0	
	8:15:00	46.6	56.8	48.0	42.0	
	8:30:00	47.1	56.6	49.0	42.0	
	8:45:00	45.9	53.9	48.0	41.0	47.0
	9:00:00	46.4	57.7	49.0	41.0	
	9:15:00	46.3	53.6	48.0	42.0	
	9:30:00	46.4	56.3	48.0	41.0	
	9:45:00	47.3	57.5	50.0	41.0	46.6

	10:00:00	47.2	54.2	49.0	42.0	
	10:15:00	50.5	64.2	52.0	44.0	
	10:30:00	47.8	60.3	50.0	42.0	
	10:45:00	48.5	63.3	50.0	42.0	48.7
	11:00:00	47.6	59.3	50.0	42.0	
	11:15:00	47.3	61.8	49.0	42.0	
	11:30:00	46.9	54.6	49.0	42.0	
	11:45:00	46.7	55.5	49.0	42.0	47.1
	12:00:00	47.9	57.3	50.0	41.0	
	12:15:00	47.6	62.5	49.0	42.0	
	12:30:00	47.7	57.2	50.0	42.0	
	12:45:00	48.1	57.7	50.0	42.0	47.8
	13:00:00	47.3	56.4	50.0	42.0	
	13:15:00	46.9	63.7	49.0	41.0	
	13:30:00	47.0	56.4	49.0	41.0	
	13:45:00	69.9	95.3	54.0	41.0	63.9
	14:00:00	47.7	59.8	50.0	41.0	
	14:15:00	47.3	64.1	49.0	41.0	
	14:30:00	46.8	58.3	49.0	41.0	
	14:45:00	48.5	61.7	50.0	42.0	47.6
	15:00:00	46.9	57.5	49.0	41.0	
	15:15:00	47.5	55.6	50.0	41.0	
	15:30:00	48.3	57.9	51.0	42.0	
	15:45:00	48.1	56.1	50.0	42.0	47.7
	16:00:00	47.4	54.5	49.0	42.0	
	16:15:00	47.4	55.3	49.0	42.0	
	16:30:00	48.2	55.7	50.0	42.0	
	16:45:00	48.1	54.9	50.0	42.0	47.8
	17:00:00	48.5	65.0	50.0	42.0	
	17:15:00	48.0	56.8	50.0	42.0	
	17:30:00	48.3	60.9	50.0	41.0	
	17:45:00	48.6	63.2	50.0	41.0	48.4
	18:00:00	47.0	54.8	50.0	41.0	
	18:15:00	46.6	54.8	49.0	42.0	
	18:30:00	46.2	58.8	48.0	41.0	
	18:45:00	45.2	52.1	47.0	41.0	46.3
	19:00:00	45.6	55.3	48.0	41.0	
	19:15:00	46.8	61.3	49.0	41.0	
	19:30:00	46.7	61.3	49.0	41.0	
	19:45:00	45.7	52.5	48.0	41.0	46.2
	20:00:00	46.2	56.8	49.0	41.0	
	20:15:00	65.6	89.7	56.0	41.0	
	20:30:00	49.0	62.7	51.0	41.0	
	20:45:00	46.4	58.5	49.0	41.0	59.8
	21:00:00	46.4	61.6	48.0	41.0	
	21:15:00	45.2	56.1	47.0	41.0	
	21:30:00	46.0	60.1	48.0	41.0	
	21:45:00	44.9	52.3	47.0	41.0	45.7
	22:00:00	44.9	55.6	47.0	41.0	
	22:15:00	44.4	53.7	46.0	41.0	
	22:30:00	43.9	50.4	46.0	41.0	
	22:45:00	44.2	50.7	46.0	41.0	44.4
	23:00:00	43.9	50.4	46.0	41.0	
	23:15:00	44.4	52.1	47.0	41.0	
	23:30:00	44.2	54.9	46.0	41.0	
	23:45:00	42.9	51.5	44.0	41.0	43.9
8/1/2019	0:00:00	42.5	52.0	42.0	41.0	
	0:15:00	42.6	49.3	43.0	41.0	
	0:30:00	43.3	56.9	44.0	41.0	
	0:45:00	42.5	50.0	43.0	41.0	42.7
	1:00:00	42.3	49.5	42.0	41.0	
	1:15:00	42.5	57.5	42.0	41.0	
	1:30:00	42.2	52.8	42.0	41.0	
	1:45:00	42.4	49.7	43.0	41.0	42.4
	2:00:00	42.0	47.0	42.0	41.0	
	2:15:00	42.3	48.5	43.0	41.0	
	2:30:00	42.7	56.3	43.0	41.0	
	2:45:00	42.9	55.6	44.0	41.0	42.5
	3:00:00	42.3	47.3	43.0	41.0	

3:15:00	42.9	52.3	44.0	41.0	
3:30:00	43.3	53.5	44.0	41.0	
3:45:00	42.9	52.0	44.0	41.0	42.9
4:00:00	42.7	52.9	43.0	41.0	
4:15:00	43.0	51.3	44.0	41.0	
4:30:00	44.7	60.8	46.0	41.0	
4:45:00	46.0	58.4	48.0	41.0	44.3
5:00:00	43.6	50.5	45.0	42.0	
5:15:00	46.9	62.1	48.0	42.0	
5:30:00	45.6	52.7	48.0	42.0	
5:45:00	46.4	56.0	48.0	42.0	45.8
6:00:00	46.5	59.1	48.0	42.0	
6:15:00	47.2	53.2	49.0	43.0	
6:30:00	47.5	56.9	50.0	42.0	
6:45:00	47.6	59.3	50.0	43.0	47.2
7:00:00	47.9	59.7	50.0	42.0	
7:15:00	47.8	55.8	50.0	42.0	
7:30:00	47.8	55.6	50.0	42.0	
7:45:00	47.6	54.6	50.0	42.0	47.8
8:00:00	46.7	55.3	49.0	41.0	
8:15:00	45.9	54.1	48.0	41.0	
8:30:00	46.2	56.6	48.0	41.0	
8:45:00	45.7	54.6	48.0	41.0	46.1
9:00:00	45.9	54.5	48.0	41.0	
9:15:00	46.5	55.7	49.0	41.0	
9:30:00	48.1	58.4	50.0	42.0	
9:45:00	46.6	54.8	49.0	42.0	46.9
10:00:00	48.0	55.2	50.0	42.0	
10:15:00	48.0	61.0	50.0	42.0	
10:30:00	49.8	72.4	51.0	42.0	
10:45:00	48.5	60.1	50.0	42.0	48.6
11:00:00	48.7	61.4	50.0	41.0	
11:15:00	48.2	60.1	50.0	42.0	
11:30:00	49.0	65.0	50.0	42.0	
11:45:00	47.6	60.4	49.0	42.0	48.4
12:00:00	48.3	57.5	50.0	42.0	
12:15:00	48.0	54.9	50.0	42.0	
12:30:00	47.9	54.9	50.0	43.0	
12:45:00	47.0	55.7	49.0	42.0	47.8
13:00:00	47.6	58.1	50.0	42.0	
13:15:00	47.6	58.5	50.0	42.0	
13:30:00	49.4	64.6	52.0	43.0	
13:45:00	68.5	94.0	55.0	43.0	62.6
14:00:00	48.8	60.7	51.0	44.0	
14:15:00	48.0	57.2	50.0	43.0	
14:30:00	48.0	56.6	50.0	42.0	
14:45:00	47.3	58.5	49.0	42.0	48.1
15:00:00	47.9	65.2	50.0	42.0	
15:15:00	48.0	58.6	50.0	43.0	
15:30:00	50.9	62.9	52.0	44.0	
15:45:00	49.1	57.2	51.0	44.0	49.2
16:00:00	50.0	59.7	51.0	43.0	
16:15:00	49.5	60.1	51.0	44.0	
16:30:00	49.6	61.5	51.0	44.0	
16:45:00	49.2	60.0	51.0	43.0	49.6
17:00:00	49.2	61.3	51.0	44.0	
17:15:00	49.3	58.5	51.0	44.0	
17:30:00	51.4	69.6	51.0	42.0	
17:45:00	47.4	58.5	49.0	42.0	49.6
18:00:00	46.7	57.7	49.0	42.0	
18:15:00	48.1	60.5	50.0	42.0	
18:30:00	48.1	56.7	51.0	42.0	
18:45:00	48.8	64.9	50.0	42.0	48.0
19:00:00	46.0	52.9	48.0	41.0	
19:15:00	47.2	58.4	50.0	42.0	
19:30:00	47.3	56.5	50.0	42.0	
19:45:00	47.0	60.3	49.0	42.0	46.9
20:00:00	47.6	55.9	50.0	42.0	
20:15:00	65.9	90.5	52.0	42.0	

	20:30:00	53.1	65.8	58.0	42.0	
	20:45:00	47.6	63.0	50.0	42.0	60.2
	21:00:00	46.1	55.3	48.0	42.0	
	21:15:00	47.0	60.0	50.0	42.0	
	21:30:00	46.3	58.1	48.0	42.0	
	21:45:00	46.0	54.4	48.0	42.0	46.4
	22:00:00	46.0	56.4	48.0	42.0	
	22:15:00	44.4	49.2	46.0	42.0	
	22:30:00	45.2	54.0	48.0	42.0	
	22:45:00	45.3	53.3	48.0	42.0	45.3
	23:00:00	44.7	63.2	46.0	42.0	
	23:15:00	44.8	51.3	47.0	42.0	
	23:30:00	46.1	68.4	45.0	42.0	
	23:45:00	43.4	55.6	44.0	41.0	44.9
8/2/2019	0:00:00	44.1	54.8	46.0	42.0	
	0:15:00	43.6	51.3	44.0	42.0	
	0:30:00	42.7	48.4	43.0	41.0	
	0:45:00	43.5	49.7	44.0	41.0	43.5
	1:00:00	43.0	48.5	44.0	41.0	
	1:15:00	43.4	53.3	44.0	41.0	
	1:30:00	42.8	58.3	43.0	41.0	
	1:45:00	43.0	53.3	44.0	41.0	43.1
	2:00:00	42.2	45.5	42.0	41.0	
	2:15:00	43.2	48.8	44.0	42.0	
	2:30:00	42.9	47.3	43.0	42.0	
	2:45:00	42.8	45.0	43.0	42.0	42.8
	3:00:00	43.2	59.3	43.0	41.0	
	3:15:00	43.4	58.8	44.0	42.0	
	3:30:00	43.9	53.3	45.0	42.0	
	3:45:00	42.6	48.4	42.0	41.0	43.3
	4:00:00	43.0	50.5	44.0	42.0	
	4:15:00	43.3	49.9	44.0	42.0	
	4:30:00	46.0	57.1	48.0	42.0	
	4:45:00	46.3	58.3	47.0	43.0	44.9
	5:00:00	45.1	56.7	46.0	43.0	
	5:15:00	46.3	56.8	48.0	43.0	
	5:30:00	46.6	55.2	48.0	43.0	
	5:45:00	46.9	57.3	48.0	43.0	46.3
	6:00:00	47.4	57.6	49.0	43.0	
	6:15:00	48.5	60.4	50.0	43.0	
	6:30:00	49.7	58.8	51.0	44.0	
	6:45:00	49.2	61.7	51.0	44.0	48.8
	7:00:00	48.0	60.7	50.0	44.0	
	7:15:00	47.9	60.0	50.0	43.0	
	7:30:00	48.4	64.6	50.0	42.0	
	7:45:00	47.6	58.2	50.0	42.0	48.0
	8:00:00	46.5	53.9	49.0	41.0	
	8:15:00	46.7	58.0	49.0	41.0	
	8:30:00	45.7	51.2	48.0	41.0	
	8:45:00	46.6	54.9	49.0	41.0	46.4
	9:00:00	47.3	60.4	49.0	41.0	
	9:15:00	47.5	67.0	49.0	41.0	
	9:30:00	47.1	58.8	49.0	41.0	
	9:45:00	46.7	53.1	50.0	41.0	47.2
	10:00:00	46.2	57.9	48.0	42.0	
	10:15:00	46.8	55.7	49.0	41.0	
	10:30:00	47.2	57.3	49.0	42.0	
	10:45:00	47.0	65.3	49.0	41.0	46.8
	11:00:00	46.9	55.7	49.0	42.0	
	11:15:00	50.4	74.5	50.0	42.0	
	11:30:00	46.5	54.5	49.0	41.0	
	11:45:00	48.3	59.7	50.0	42.0	48.3
	12:00:00	48.0	60.5	50.0	42.0	
	12:15:00	47.8	58.2	50.0	42.0	
	12:30:00	47.3	54.9	50.0	42.0	
	12:45:00	48.0	55.7	50.0	42.0	47.8
	13:00:00	70.1	94.0	53.0	42.0	
	13:15:00	47.9	61.3	50.0	42.0	
	13:30:00	47.8	57.4	50.0	42.0	

13:45:00	47.3	55.9	50.0	41.0	64.2
14:00:00	47.2	55.2	49.0	41.0	
14:15:00	47.4	55.9	49.0	42.0	
14:30:00	47.4	58.9	49.0	41.0	
14:45:00	47.2	55.7	49.0	42.0	47.3
15:00:00	47.2	54.3	49.0	42.0	
15:15:00	49.2	66.3	50.0	42.0	
15:30:00	48.4	60.1	50.0	42.0	
15:45:00	48.4	60.5	50.0	42.0	48.4
16:00:00	49.3	61.9	51.0	42.0	
16:15:00	48.2	57.3	50.0	42.0	
16:30:00	47.7	57.2	50.0	42.0	
16:45:00	48.2	56.9	50.0	42.0	48.4
17:00:00	49.2	62.4	51.0	42.0	
17:15:00	48.2	61.2	50.0	41.0	
17:30:00	48.9	61.6	51.0	42.0	
17:45:00	48.2	60.9	50.0	42.0	48.6
18:00:00	47.8	58.5	50.0	41.0	
18:15:00	47.9	59.2	50.0	42.0	
18:30:00	46.6	56.4	49.0	41.0	
18:45:00	66.6	91.6	52.0	42.0	60.7
19:00:00	47.1	55.3	49.0	42.0	
19:15:00	47.3	59.3	50.0	41.0	47.2
19:30:00	56.6	74.9	58.0	42.0	


Seneca Meadows Inc.
2019 Annual Sound Survey
Location 9 Logging
Sound Level, Leq, dBA
100
90
80
70
60
50
40
30
20
10
0
Rain
Rain
7:00:00
10:00:00
13:00:00
16:00:00
19:00:00
22:00:00
1:00:00
4:00:00
7:00:00
10:00:00
13:00:00
16:00:00
19:00:00
22:00:00
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7:00:00
10:00:00
13:00:00
16:00:00
19:00:00
22:00:00
1:00:00
4:00:00
7:00:00
10:00:00
13:00:00
16:00:00
19:00:00
Time
July 29 - August 2, 2019
Leq-1hr
Leq-15min

****

Filename LOC9
Test Location 9
Employee Name
Employee No.
Department
Seneca Meadows Inc.
2019 Annual Sound Survey
Aurora Acoustical
Consultants Inc.
Calibrator type Metrosonics CL304 3067
Calibrator calibration date 4/17/2019

****

METROSONICS db-3080 V1.20 SERIAL #5727
Report printed on 8/6/2019 at 15:35:32

Seneca Meadows Inc.
2019 Annual Sound Survey
Aurora Acoustical
Consultants Inc.
East Aurora, New York

Logging started at	7/29/2019 at 7:00:00
Total logging time	4 DAYS 12:52:08
Logging stopped at	8/2/2019 at 19:52:08
Total intervals	436
Interval length	0:15:00
Auto Stop	NO
Clock synch	YES
Response Rate	SLOW
Filter	A-WEIGHTED
Pre-Test Calibration Time	7/26/2019 at 20:49:54
Pre-Test Calibration Range	40.1 to 140.1 dB
Post-Test Calibration Time	8/6/2019 at 14:51:38
Post-Test Calibration Range	40.2 to 140.2
Cut-off used for time history Lav	NONE

<<< SUMMARY REPORT FOR TEST NUMBER 1 OF 1 >>>

Exchange Rate	3dB
Cutoffs	60dB 60dB
Ceiling	115dB
DOSE	Criterion level 90dB
DOSE	Criterion length 8 HOURS
Lav(60)	51.7dB
Lav(60)	50.0dB
Lav(60)	50.0dB
SEL	107.2dB
TWA	62.8dB
Lav(60)	59.3dB
Lav(60)	59.1dB
Lav(60)	59.1dB
SEL	115.1dB
TWA	70.6dB
TWA(60)	70.5dB
TWA(60)	70.5dB
Lmax	98.3dB 7/30/2019 at 17:51:33
Lpk	130.6dB 7/30/2019 at 12:33:24
Time over 115 dB	00:00.0
DOSE(60) 1.09%	
DOSE(60) 1.09%	

<<< TIME HISTORY REPORT FOR TEST NUMBER 1 OF 1 >>>

	START TIME	Leq(15-min) dBA	Lmax dBA	L(10.0) dBA	L(99.0) dBA	Leq(1-hr) dBA
7/29/2019						
	7:00:00	65.2	88.3	66.1	44.1	
	7:15:00	45.8	53.5	47.1	43.1	
	7:30:00	46.3	56.1	47.1	44.1	
	7:45:00	45.3	53.1	47.1	42.1	45.8
	8:00:00	45.4	52.8	47.1	43.1	
	8:15:00	45.7	52.4	47.1	43.1	
	8:30:00	44.5	52.3	46.1	42.1	
	8:45:00	44.2	51.5	45.1	42.1	45.0
	9:00:00	45.9	53.2	47.1	42.1	
	9:15:00	44.7	52.8	46.1	42.1	
	9:30:00	53.9	73.9	46.1	41.1	
	9:45:00	45.2	56.1	47.1	42.1	49.4
	10:00:00	45.1	51.5	47.1	42.1	
	10:15:00	44.4	54.6	46.1	42.1	
	10:30:00	45.8	59.5	47.1	42.1	
	10:45:00	46.1	52.9	48.1	43.1	45.4
	11:00:00	49.7	61.9	52.1	42.1	
	11:15:00	46.1	56.3	48.1	42.1	
	11:30:00	47.0	54.3	49.1	43.1	
	11:45:00	46.4	54.5	48.1	43.1	47.6
	12:00:00	45.6	57.1	47.1	42.1	
	12:15:00	45.2	53.5	47.1	42.1	
	12:30:00	45.3	51.3	47.1	42.1	
	12:45:00	55.9	80.7	55.1	42.1	50.9
	13:00:00	48.3	74.7	48.1	41.1	
	13:15:00	45.9	60.3	49.1	42.1	
	13:30:00	46.0	58.4	47.1	41.1	
	13:45:00	49.1	66.1	51.1	42.1	47.6
	14:00:00	45.9	60.7	47.1	42.1	
	14:15:00	45.1	55.1	46.1	42.1	
	14:30:00	45.2	53.1	46.1	43.1	
	14:45:00	46.6	55.4	48.1	43.1	45.7
	15:00:00	46.4	59.1	48.1	42.1	
	15:15:00	45.5	52.2	47.1	43.1	
	15:30:00	46.1	52.5	48.1	43.1	
	15:45:00	46.4	57.5	47.1	43.1	46.1
	16:00:00	46.8	58.3	49.1	43.1	
	16:15:00	44.2	54.7	45.1	42.1	
	16:30:00	43.6	51.6	45.1	41.1	
	16:45:00	55.8	78.0	49.1	41.1	50.8
	17:00:00	45.1	59.1	47.1	42.1	
	17:15:00	45.3	61.1	46.1	42.1	
	17:30:00	45.3	52.8	47.1	42.1	
	17:45:00	44.5	54.8	46.1	42.1	45.1
	18:00:00	44.4	51.5	46.1	42.1	
	18:15:00	43.6	49.5	44.1	41.1	
	18:30:00	43.4	49.0	45.1	41.1	
	18:45:00	44.4	48.7	46.1	41.1	44.0
	19:00:00	43.3	48.3	44.1	41.1	
	19:15:00	43.7	48.1	44.1	41.1	
	19:30:00	45.8	53.0	47.1	43.1	
	19:45:00	45.3	49.5	46.1	43.1	44.7
	20:00:00	45.0	48.8	45.1	43.1	
	20:15:00	45.3	50.3	46.1	42.1	
	20:30:00	49.8	75.1	49.1	43.1	
	20:45:00	45.0	50.0	46.1	43.1	46.8
	21:00:00	45.0	50.2	46.1	43.1	
	21:15:00	49.3	66.3	47.1	44.1	
	21:30:00	45.5	49.5	46.1	43.1	
	21:45:00	45.0	47.1	45.1	43.1	46.6
	22:00:00	44.7	50.1	45.1	43.1	
	22:15:00	44.8	53.5	45.1	43.1	
	22:30:00	45.1	48.7	45.1	43.1	

	22:45:00	45.6	46.8	46.1	44.1	45.1
	23:00:00	45.3	48.8	45.1	44.1	
	23:15:00	45.1	49.9	45.1	43.1	
	23:30:00	45.0	47.6	45.1	43.1	
	23:45:00	44.5	45.5	44.1	43.1	45.0
7/30/2019	0:00:00	44.5	50.7	44.1	43.1	
	0:15:00	44.4	45.8	45.1	43.1	
	0:30:00	44.6	46.0	45.1	43.1	
	0:45:00	44.3	55.3	44.1	43.1	44.5
	1:00:00	44.3	48.7	44.1	43.1	
	1:15:00	44.5	45.5	44.1	43.1	
	1:30:00	43.7	45.1	44.1	42.1	
	1:45:00	43.1	44.7	43.1	42.1	43.9
	2:00:00	43.4	47.5	43.1	42.1	
	2:15:00	43.0	48.1	43.1	42.1	
	2:30:00	42.9	43.5	43.1	42.1	
	2:45:00	43.1	45.5	43.1	42.1	43.1
	3:00:00	43.2	44.4	43.1	42.1	
	3:15:00	43.1	44.5	43.1	42.1	
	3:30:00	43.3	46.4	43.1	42.1	
	3:45:00	44.8	45.5	45.1	43.1	43.7
	4:00:00	45.4	51.1	45.1	44.1	
	4:15:00	44.9	47.1	45.1	43.1	
	4:30:00	45.0	46.3	45.1	44.1	
	4:45:00	47.0	51.1	48.1	44.1	45.7
	5:00:00	47.4	60.9	48.1	45.1	
	5:15:00	47.0	61.1	47.1	45.1	
	5:30:00	46.6	54.7	48.1	44.1	
	5:45:00	46.3	52.8	47.1	45.1	46.8
	6:00:00	46.9	68.1	47.1	45.1	
	6:15:00	47.4	55.9	49.1	44.1	
	6:30:00	47.7	60.0	50.1	43.1	
	6:45:00	45.9	56.8	47.1	44.1	47.0
	7:00:00	45.9	55.7	47.1	43.1	
	7:15:00	45.9	54.3	47.1	43.1	
	7:30:00	45.5	52.3	47.1	43.1	
	7:45:00	44.7	49.1	45.1	42.1	45.5
	8:00:00	45.1	51.7	46.1	43.1	
	8:15:00	44.6	49.7	46.1	42.1	
	8:30:00	45.8	53.6	47.1	42.1	
	8:45:00	44.8	55.5	46.1	42.1	45.1
	9:00:00	45.2	50.5	46.1	43.1	
	9:15:00	45.2	53.8	47.1	42.1	
	9:30:00	44.3	50.3	45.1	42.1	
	9:45:00	45.4	56.7	47.1	42.1	45.0
	10:00:00	45.4	49.5	47.1	42.1	
	10:15:00	46.6	58.8	49.1	42.1	
	10:30:00	47.3	54.7	49.1	42.1	
	10:45:00	46.5	53.1	48.1	43.1	46.5
	11:00:00	47.2	53.1	49.1	43.1	
	11:15:00	50.8	62.7	53.1	46.1	
	11:30:00	48.5	65.1	50.1	44.1	
	11:45:00	50.3	65.5	52.1	44.1	49.4
	12:00:00	51.0	64.3	53.1	44.1	
	12:15:00	50.2	65.6	53.1	44.1	
	12:30:00	81.4	98.3	83.1	44.1	
	12:45:00	49.6	74.0	46.1	43.1	75.4
	13:00:00	45.3	53.5	46.1	43.1	
	13:15:00	45.2	53.7	46.1	43.1	
	13:30:00	44.8	52.3	46.1	42.1	
	13:45:00	47.4	63.1	48.1	43.1	45.8
	14:00:00	49.1	62.6	50.1	44.1	
	14:15:00	48.4	58.8	50.1	44.1	
	14:30:00	50.9	70.6	52.1	45.1	
	14:45:00	49.0	61.2	51.1	45.1	49.5
	15:00:00	48.2	57.9	50.1	44.1	
	15:15:00	47.8	57.9	49.1	44.1	
	15:30:00	48.0	54.7	50.1	44.1	
	15:45:00	48.5	54.3	50.1	45.1	48.1

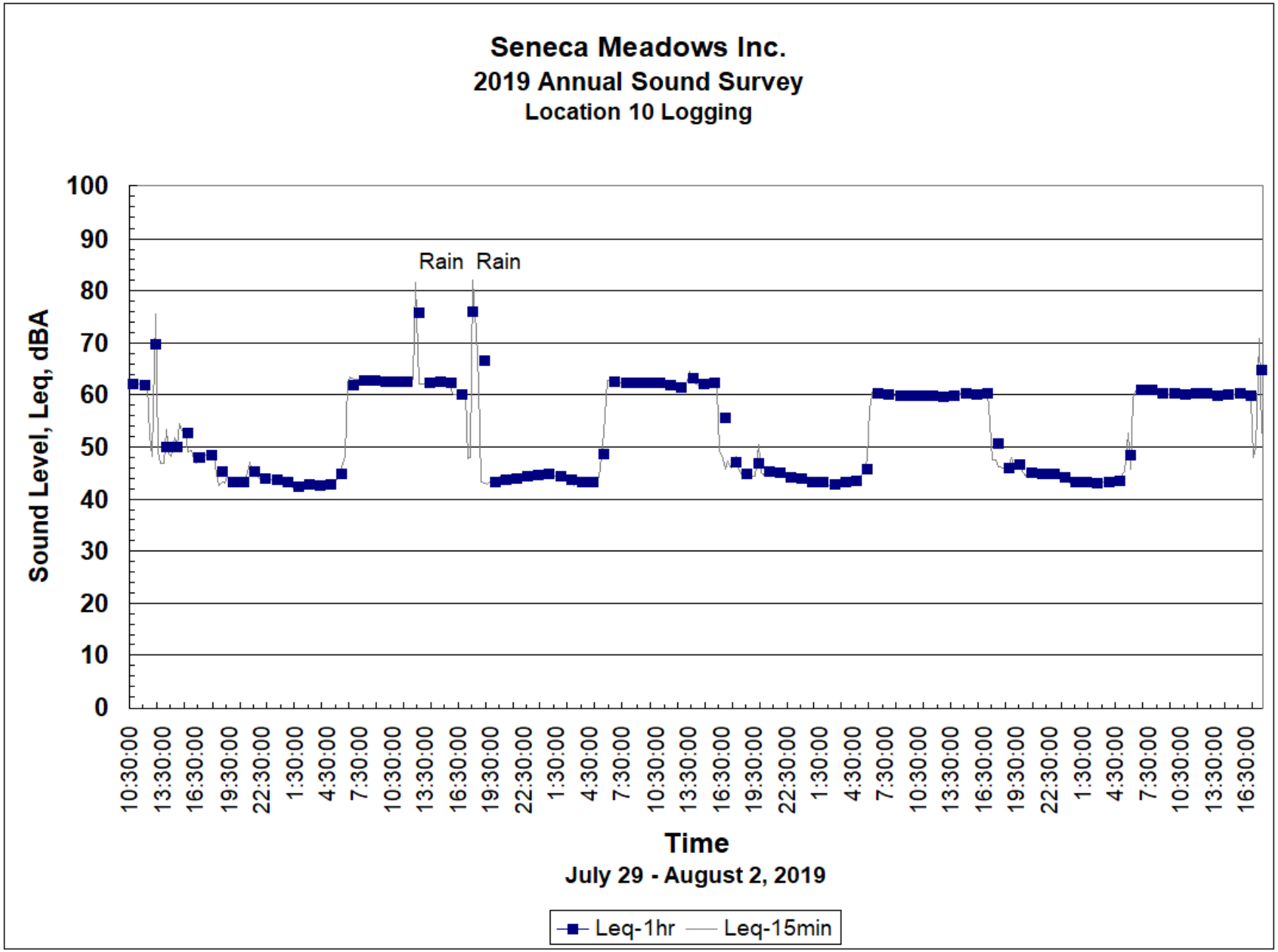
	16:00:00	47.6	59.0	49.1	43.1	
	16:15:00	48.1	61.9	50.1	43.1	
	16:30:00	45.9	53.5	47.1	42.1	
	16:45:00	46.5	54.7	49.1	43.1	47.1
	17:00:00	44.4	52.6	45.1	42.1	
	17:15:00	44.3	52.2	45.1	42.1	
	17:30:00	44.0	52.6	45.1	42.1	
	17:45:00	83.2	98.3	87.1	42.1	77.2
	18:00:00	53.9	75.3	53.1	42.1	
	18:15:00	56.4	85.1	45.1	42.1	
	18:30:00	46.4	72.3	43.1	42.1	
	18:45:00	44.2	58.3	45.1	42.1	52.7
	19:00:00	45.1	70.5	43.1	41.1	
	19:15:00	43.0	53.1	43.1	42.1	
	19:30:00	43.4	46.3	44.1	42.1	
	19:45:00	42.9	47.5	43.1	41.1	43.7
	20:00:00	42.9	46.2	43.1	42.1	
	20:15:00	42.9	48.3	43.1	41.1	
	20:30:00	43.4	52.3	44.1	41.1	
	20:45:00	43.2	46.7	43.1	42.1	43.1
	21:00:00	44.2	45.8	44.1	43.1	
	21:15:00	44.8	49.1	45.1	43.1	
	21:30:00	45.3	51.0	45.1	44.1	
	21:45:00	45.3	64.3	45.1	43.1	44.9
	22:00:00	44.7	52.3	45.1	43.1	
	22:15:00	49.8	68.6	51.1	43.1	
	22:30:00	45.6	61.8	45.1	43.1	
	22:45:00	44.4	46.0	44.1	43.1	46.7
	23:00:00	45.4	49.5	46.1	43.1	
	23:15:00	44.8	53.0	45.1	43.1	
	23:30:00	44.2	51.8	44.1	43.1	
	23:45:00	43.9	45.5	44.1	43.1	44.6
7/31/2019	0:00:00	44.0	46.9	44.1	43.1	
	0:15:00	43.4	45.1	43.1	42.1	
	0:30:00	43.3	46.3	43.1	42.1	
	0:45:00	43.4	44.7	43.1	42.1	43.5
	1:00:00	44.5	68.3	43.1	42.1	
	1:15:00	43.3	47.1	44.1	42.1	
	1:30:00	45.0	68.6	44.1	42.1	
	1:45:00	43.4	58.7	43.1	42.1	44.1
	2:00:00	44.6	69.1	43.1	42.1	
	2:15:00	43.0	47.9	43.1	42.1	
	2:30:00	43.2	47.7	43.1	42.1	
	2:45:00	43.5	45.9	43.1	42.1	43.6
	3:00:00	43.2	60.6	43.1	42.1	
	3:15:00	43.0	48.0	43.1	42.1	
	3:30:00	42.4	44.6	43.1	41.1	
	3:45:00	42.7	43.6	43.1	42.1	42.8
	4:00:00	42.8	45.0	43.1	42.1	
	4:15:00	45.3	69.4	43.1	42.1	
	4:30:00	46.1	71.7	43.1	41.1	
	4:45:00	45.5	69.1	44.1	43.1	45.1
	5:00:00	44.3	47.3	44.1	43.1	
	5:15:00	43.8	54.7	44.1	42.1	
	5:30:00	49.4	65.5	45.1	42.1	
	5:45:00	43.1	50.4	43.1	41.1	46.0
	6:00:00	43.5	58.3	44.1	41.1	
	6:15:00	48.1	75.5	45.1	42.1	
	6:30:00	44.1	49.9	45.1	42.1	
	6:45:00	44.9	67.5	45.1	42.1	45.5
	7:00:00	43.9	51.9	45.1	42.1	
	7:15:00	44.6	52.3	46.1	42.1	
	7:30:00	54.4	83.0	47.1	42.1	
	7:45:00	44.2	51.9	45.1	42.1	49.5
	8:00:00	44.4	48.8	45.1	42.1	
	8:15:00	44.5	52.8	45.1	42.1	
	8:30:00	44.2	52.8	45.1	41.1	
	8:45:00	43.4	49.0	44.1	41.1	44.1
	9:00:00	45.0	59.6	46.1	41.1	

	9:15:00	44.4	56.3	45.1	41.1	
	9:30:00	43.2	49.1	44.1	41.1	
	9:45:00	43.8	51.5	45.1	41.1	44.2
	10:00:00	44.6	57.5	46.1	42.1	
	10:15:00	44.7	55.9	46.1	42.1	
	10:30:00	43.8	54.3	45.1	41.1	
	10:45:00	44.7	51.6	46.1	41.1	44.5
	11:00:00	46.4	54.4	49.1	41.1	
	11:15:00	44.8	55.5	46.1	41.1	
	11:30:00	44.7	51.1	47.1	41.1	
	11:45:00	45.3	58.3	49.1	41.1	45.4
	12:00:00	43.2	55.1	44.1	41.1	
	12:15:00	43.8	56.3	45.1	40.1	
	12:30:00	42.9	57.9	44.1	40.1	
	12:45:00	42.9	54.4	43.1	41.1	43.2
	13:00:00	42.6	53.9	43.1	40.1	
	13:15:00	43.8	54.3	45.1	41.1	
	13:30:00	44.7	53.8	46.1	41.1	
	13:45:00	47.4	61.5	50.1	41.1	45.0
	14:00:00	42.8	46.7	43.1	41.1	
	14:15:00	43.6	48.4	45.1	41.1	
	14:30:00	44.8	59.0	45.1	41.1	
	14:45:00	43.5	53.3	45.1	41.1	43.7
	15:00:00	43.4	49.5	45.1	40.1	
	15:15:00	45.0	56.4	46.1	41.1	
	15:30:00	43.5	54.3	44.1	41.1	
	15:45:00	44.3	53.0	46.1	41.1	44.1
	16:00:00	43.6	52.9	45.1	41.1	
	16:15:00	43.9	53.8	44.1	41.1	
	16:30:00	44.4	49.2	46.1	42.1	
	16:45:00	43.4	49.8	44.1	41.1	43.8
	17:00:00	44.0	52.7	45.1	41.1	
	17:15:00	44.9	51.9	46.1	42.1	
	17:30:00	42.9	49.0	43.1	41.1	
	17:45:00	42.9	45.5	43.1	41.1	43.8
	18:00:00	43.0	47.8	43.1	41.1	
	18:15:00	42.7	47.0	43.1	41.1	
	18:30:00	44.8	51.9	47.1	41.1	
	18:45:00	44.1	51.2	47.1	41.1	43.7
	19:00:00	42.8	45.5	43.1	41.1	
	19:15:00	49.2	69.8	43.1	42.1	
	19:30:00	43.6	49.5	44.1	42.1	
	19:45:00	43.2	48.3	43.1	42.1	45.6
	20:00:00	47.2	73.7	44.1	42.1	
	20:15:00	45.6	61.7	45.1	42.1	
	20:30:00	44.5	50.8	45.1	42.1	
	20:45:00	45.4	49.2	46.1	43.1	45.8
	21:00:00	46.1	51.5	46.1	45.1	
	21:15:00	45.9	56.3	46.1	44.1	
	21:30:00	46.1	51.3	46.1	45.1	
	21:45:00	46.0	48.7	46.1	45.1	46.0
	22:00:00	46.0	47.9	46.1	45.1	
	22:15:00	45.4	52.1	46.1	43.1	
	22:30:00	44.7	47.1	45.1	43.1	
	22:45:00	45.2	47.9	45.1	44.1	45.4
	23:00:00	44.5	47.1	45.1	43.1	
	23:15:00	44.9	50.8	45.1	43.1	
	23:30:00	44.4	47.0	45.1	43.1	
	23:45:00	45.0	50.0	45.1	43.1	44.7
8/1/2019	0:00:00	51.8	78.0	45.1	43.1	
	0:15:00	44.1	45.9	44.1	43.1	
	0:30:00	43.5	45.8	44.1	42.1	
	0:45:00	43.9	46.3	44.1	43.1	47.5
	1:00:00	43.6	45.5	44.1	42.1	
	1:15:00	42.8	44.0	43.1	42.1	
	1:30:00	43.1	44.4	43.1	42.1	
	1:45:00	42.8	45.1	43.1	41.1	43.1
	2:00:00	43.2	45.9	43.1	42.1	
	2:15:00	42.8	44.7	43.1	42.1	

2:30:00	43.2	53.1	43.1	42.1	
2:45:00	43.0	51.5	43.1	42.1	43.1
3:00:00	43.3	46.3	43.1	42.1	
3:15:00	43.7	46.0	44.1	42.1	
3:30:00	43.9	45.5	44.1	43.1	
3:45:00	43.4	45.1	44.1	42.1	43.6
4:00:00	43.7	46.5	44.1	42.1	
4:15:00	44.0	49.9	44.1	42.1	
4:30:00	43.7	46.1	44.1	42.1	
4:45:00	43.9	50.7	44.1	42.1	43.8
5:00:00	44.7	46.8	45.1	43.1	
5:15:00	44.7	47.9	45.1	43.1	
5:30:00	44.7	48.4	45.1	42.1	
5:45:00	45.5	49.6	46.1	43.1	44.9
6:00:00	46.3	49.7	47.1	44.1	
6:15:00	45.6	52.2	47.1	43.1	
6:30:00	46.3	52.7	47.1	43.1	
6:45:00	46.3	53.5	48.1	43.1	46.1
7:00:00	45.7	51.5	47.1	43.1	
7:15:00	46.6	56.7	49.1	43.1	
7:30:00	44.2	49.6	45.1	42.1	
7:45:00	43.9	51.2	45.1	41.1	45.2
8:00:00	42.5	51.1	43.1	41.1	
8:15:00	43.5	64.3	44.1	40.1	
8:30:00	44.0	57.6	45.1	41.1	
8:45:00	43.9	51.0	45.1	41.1	43.5
9:00:00	43.5	53.8	44.1	41.1	
9:15:00	46.5	58.9	49.1	41.1	
9:30:00	43.9	50.7	45.1	42.1	
9:45:00	46.3	54.7	48.1	42.1	45.3
10:00:00	47.6	55.1	50.1	43.1	
10:15:00	45.1	55.3	46.1	41.1	
10:30:00	47.3	63.1	49.1	43.1	
10:45:00	45.9	51.9	48.1	42.1	46.6
11:00:00	45.4	53.1	47.1	42.1	
11:15:00	45.8	51.1	47.1	43.1	
11:30:00	45.4	59.5	46.1	42.1	
11:45:00	45.3	59.1	46.1	42.1	45.5
12:00:00	46.4	55.4	48.1	43.1	
12:15:00	44.9	50.3	46.1	42.1	
12:30:00	45.7	50.2	47.1	42.1	
12:45:00	46.4	65.5	47.1	42.1	45.9
13:00:00	45.1	52.1	47.1	41.1	
13:15:00	46.4	54.1	49.1	42.1	
13:30:00	47.4	60.3	49.1	42.1	
13:45:00	47.1	53.8	49.1	43.1	46.6
14:00:00	47.7	66.7	49.1	43.1	
14:15:00	46.8	55.9	48.1	44.1	
14:30:00	46.4	56.7	48.1	43.1	
14:45:00	46.1	54.5	48.1	42.1	46.8
15:00:00	46.3	52.4	47.1	43.1	
15:15:00	46.8	62.1	48.1	42.1	
15:30:00	47.0	55.9	48.1	43.1	
15:45:00	46.3	51.6	47.1	43.1	46.6
16:00:00	47.3	56.3	48.1	44.1	
16:15:00	47.2	53.1	49.1	44.1	
16:30:00	46.5	59.9	47.1	44.1	
16:45:00	46.2	57.7	47.1	43.1	46.8
17:00:00	45.3	53.0	46.1	43.1	
17:15:00	44.4	52.9	45.1	42.1	
17:30:00	44.2	51.9	45.1	42.1	
17:45:00	43.8	53.5	44.1	42.1	44.5
18:00:00	43.9	53.1	44.1	42.1	
18:15:00	44.1	51.1	45.1	42.1	
18:30:00	44.4	49.8	46.1	42.1	
18:45:00	43.7	51.9	44.1	42.1	44.0
19:00:00	43.3	50.0	43.1	42.1	
19:15:00	44.0	56.7	44.1	42.1	
19:30:00	43.7	46.3	44.1	42.1	

	19:45:00	44.3	50.9	45.1	42.1	43.8
	20:00:00	43.9	57.6	44.1	42.1	
	20:15:00	46.1	63.9	46.1	43.1	
	20:30:00	44.3	52.7	45.1	42.1	
	20:45:00	45.0	54.8	45.1	43.1	44.9
	21:00:00	45.1	51.0	45.1	44.1	
	21:15:00	45.1	49.2	45.1	44.1	
	21:30:00	45.1	51.8	45.1	43.1	
	21:45:00	45.2	47.5	45.1	44.1	45.1
	22:00:00	45.1	46.9	45.1	43.1	
	22:15:00	44.6	47.1	45.1	43.1	
	22:30:00	45.5	51.9	46.1	44.1	
	22:45:00	45.0	50.3	45.1	43.1	45.1
	23:00:00	45.3	52.7	46.1	43.1	
	23:15:00	45.1	50.0	45.1	43.1	
	23:30:00	45.8	56.7	46.1	43.1	
	23:45:00	43.9	47.9	44.1	42.1	45.1
8/2/2019	0:00:00	44.1	47.7	45.1	43.1	
	0:15:00	43.4	46.3	43.1	42.1	
	0:30:00	44.0	47.9	44.1	43.1	
	0:45:00	43.2	47.7	43.1	42.1	43.7
	1:00:00	42.6	45.1	43.1	42.1	
	1:15:00	42.4	44.6	42.1	41.1	
	1:30:00	42.4	46.7	42.1	41.1	
	1:45:00	43.1	53.5	43.1	42.1	42.6
	2:00:00	43.1	47.9	43.1	42.1	
	2:15:00	44.2	53.2	45.1	42.1	
	2:30:00	44.2	46.9	45.1	42.1	
	2:45:00	43.1	49.1	43.1	42.1	43.7
	3:00:00	42.7	48.9	43.1	42.1	
	3:15:00	43.1	45.5	43.1	42.1	
	3:30:00	43.3	46.1	44.1	41.1	
	3:45:00	42.4	45.1	42.1	41.1	42.9
	4:00:00	43.1	49.0	43.1	41.1	
	4:15:00	43.3	49.0	43.1	42.1	
	4:30:00	44.0	49.5	44.1	42.1	
	4:45:00	46.1	54.1	48.1	43.1	44.3
	5:00:00	44.8	50.1	45.1	43.1	
	5:15:00	46.2	52.3	47.1	44.1	
	5:30:00	45.5	57.2	46.1	44.1	
	5:45:00	46.0	50.9	47.1	44.1	45.7
	6:00:00	47.0	52.8	48.1	44.1	
	6:15:00	47.6	54.7	49.1	45.1	
	6:30:00	47.6	54.3	49.1	45.1	
	6:45:00	46.2	50.6	47.1	44.1	47.1
	7:00:00	45.7	53.5	46.1	43.1	
	7:15:00	45.8	52.3	47.1	43.1	
	7:30:00	45.4	53.1	47.1	43.1	
	7:45:00	44.6	53.1	45.1	42.1	45.4
	8:00:00	43.6	53.8	45.1	41.1	
	8:15:00	43.4	56.2	45.1	41.1	
	8:30:00	44.4	51.0	45.1	42.1	
	8:45:00	45.4	52.7	46.1	43.1	44.3
	9:00:00	44.3	51.1	45.1	42.1	
	9:15:00	44.5	50.3	46.1	42.1	
	9:30:00	45.8	55.2	48.1	42.1	
	9:45:00	45.4	51.5	47.1	42.1	45.0
	10:00:00	46.0	54.9	48.1	42.1	
	10:15:00	45.4	60.9	47.1	43.1	
	10:30:00	47.4	61.9	47.1	43.1	
	10:45:00	46.0	51.5	48.1	43.1	46.3
	11:00:00	45.8	52.9	47.1	42.1	
	11:15:00	47.5	66.0	49.1	42.1	
	11:30:00	45.6	52.4	47.1	42.1	
	11:45:00	46.5	53.9	48.1	42.1	46.4
	12:00:00	46.7	57.9	49.1	42.1	
	12:15:00	46.0	53.5	47.1	43.1	
	12:30:00	46.8	54.0	49.1	42.1	
	12:45:00	45.2	59.9	47.1	42.1	46.2

13:00:00	45.8	63.5	45.1	42.1	
13:15:00	44.9	49.2	46.1	42.1	
13:30:00	46.4	56.3	48.1	42.1	
13:45:00	47.3	59.1	49.1	42.1	46.2
14:00:00	44.9	52.8	46.1	41.1	
14:15:00	46.0	55.1	48.1	42.1	
14:30:00	44.9	56.3	46.1	41.1	
14:45:00	46.2	52.2	48.1	42.1	45.5
15:00:00	46.5	53.7	48.1	42.1	
15:15:00	45.6	53.9	48.1	42.1	
15:30:00	45.5	53.1	46.1	42.1	
15:45:00	45.7	52.7	47.1	43.1	45.8
16:00:00	44.2	48.5	45.1	42.1	
16:15:00	46.1	69.1	45.1	41.1	
16:30:00	43.2	50.7	44.1	41.1	
16:45:00	45.6	63.8	45.1	41.1	44.9
17:00:00	43.6	56.5	45.1	41.1	
17:15:00	43.0	52.4	43.1	41.1	
17:30:00	45.0	67.5	45.1	41.1	
17:45:00	43.9	49.6	45.1	41.1	43.9
18:00:00	43.8	49.9	44.1	42.1	
18:15:00	43.7	48.5	44.1	42.1	
18:30:00	43.5	47.5	44.1	42.1	
18:45:00	46.5	61.8	47.1	43.1	44.6
19:00:00	44.1	46.7	44.1	42.1	
19:15:00	43.9	46.8	44.1	43.1	
19:30:00	44.0	47.0	44.1	43.1	44.0
19:45:00	63.5	82.2	65.1	43.1	


Seneca Meadows Inc.
2019 Annual Sound Survey
Location 10 Logging
Sound Level, Leq, dBA
100
90
80
70
60
50
40
30
20
10
0
Rain
Rain
10:30:00
13:30:00
16:30:00
19:30:00
22:30:00
1:30:00
4:30:00
7:30:00
10:30:00
13:30:00
16:30:00
19:30:00
22:30:00
1:30:00
4:30:00
7:30:00
10:30:00
13:30:00
16:30:00
19:30:00
22:30:00
1:30:00
4:30:00
7:30:00
10:30:00
13:30:00
16:30:00
Time
July 29 - August 2, 2019
Leq-1hr
Leq-15min

****

Filename LOC10
Test Location 10
Employee Name
Employee No.
Department
Seneca Meadows Inc.
2019 Annual Sound Survey
Aurora Acoustical
Consultants Inc.
Calibrator type Metrosonics CL304 3067
Calibrator calibration date 4/17/2019

****

METROSONICS db-3080 V1.20 SERIAL #4684
Report printed on 8/6/2019 at 15:23:40 15:37:19

Seneca Meadows Inc.
2019 Annual Sound Survey
Aurora Acoustical
Consultants Inc.
East Aurora, New York

Logging started at	7/29/2019 at 10:30:00	
Total logging time	4 DAYS 7:15:30	
Logging stopped at	8/2/2019 at 17:45:30	
Total intervals	414	
Interval length	0:15:00	
Auto Stop	NO	
Clock synch	YES	
Response Rate	SLOW	
Filter	A-WEIGHTED	
Pre-Test Calibration Time	7/26/2019 at 21:08:55	
Pre-Test Calibration Range	39.2 to 139.2	dB
Post-Test Calibration Time	8/6/2019 at 14:48:31	
Post-Test Calibration Range	39.3 to 139.3	
Cut-off used for time history Lav	NONE	

<<< SUMMARY REPORT FOR TEST NUMBER 1 OF 1 >>>

Exchange Rate	3dB
Cutoffs	60dB 60dB
Ceiling	115dB
DOSE	Criterion level 90dB
DOSE	Criterion length 8 HOURS
Lav(60)	61.8dB
Lav(60)	61.5dB
Lav(60)	61.5dB
SEL	117.4dB
TWA	72.9dB
TWA(60)	72.6dB
TWA(60)	72.6dB
Lmax	97.5dB 8/2/2019 at 17:44:18
Lpk	129.2dB 7/30/2019 at 17:59:57
Time over 115 dB	00:00.0
DOSE(60)	1.79%
DOSE(60)	1.79%

<<< TIME HISTORY REPORT FOR TEST NUMBER 1 OF 1 >>>

	TIME	Leq(15-min) dBA	Lmax dBA	L(10.0) dBA	L(99.0) dBA	Leq(1-hr) dBA
7/29/2019						
	10:30:00	62.0	63.8	62.2	60.2	
	10:45:00	62.1	63.9	62.2	61.2	62.1
	11:00:00	61.9	63.3	62.2	60.2	
	11:15:00	62.0	63.8	62.2	60.2	
	11:30:00	61.9	64.1	62.2	60.2	
	11:45:00	61.8	63.6	62.2	60.2	61.9
	12:00:00	61.9	64.9	62.2	60.2	
	12:15:00	52.3	68.7	55.2	44.2	
	12:30:00	48.2	53.5	50.2	45.2	
	12:45:00	75.6	95.3	78.2	44.2	69.8
	13:00:00	49.1	72.9	49.2	44.2	
	13:15:00	46.8	50.9	48.2	43.2	
	13:30:00	46.8	54.3	48.2	43.2	
	13:45:00	53.4	71.3	50.2	45.2	50.0
	14:00:00	48.7	56.6	50.2	45.2	
	14:15:00	48.1	58.5	49.2	44.2	
	14:30:00	51.8	64.1	54.2	45.2	
	14:45:00	50.2	60.6	52.2	44.2	49.9
	15:00:00	54.4	62.7	57.2	47.2	
	15:15:00	52.8	61.1	56.2	46.2	
	15:30:00	52.5	67.3	55.2	45.2	
	15:45:00	49.1	60.7	50.2	45.2	52.6
	16:00:00	49.3	58.6	50.2	46.2	
	16:15:00	47.7	54.0	49.2	44.2	
	16:30:00	46.8	51.9	48.2	43.2	
	16:45:00	47.6	55.8	49.2	43.2	47.9
	17:00:00	48.4	61.9	50.2	45.2	
	17:15:00	48.5	62.7	49.2	45.2	
	17:30:00	48.8	58.3	50.2	44.2	
	17:45:00	48.3	53.9	50.2	44.2	48.5
	18:00:00	48.2	53.9	49.2	44.2	
	18:15:00	44.8	52.7	47.2	41.2	
	18:30:00	42.6	48.0	43.2	41.2	
	18:45:00	43.3	49.7	44.2	42.2	45.3
	19:00:00	43.1	57.0	43.2	41.2	
	19:15:00	44.3	59.3	45.2	41.2	
	19:30:00	42.9	47.1	43.2	41.2	
	19:45:00	43.0	59.5	43.2	41.2	43.4
	20:00:00	42.4	46.7	43.2	41.2	
	20:15:00	43.4	50.5	44.2	41.2	
	20:30:00	43.8	54.2	44.2	41.2	
	20:45:00	43.2	47.5	44.2	41.2	43.2
	21:00:00	44.2	48.3	45.2	42.2	
	21:15:00	47.1	64.3	46.2	43.2	
	21:30:00	44.9	51.5	45.2	43.2	
	21:45:00	44.5	46.0	45.2	43.2	45.3
	22:00:00	44.3	47.1	44.2	42.2	
	22:15:00	43.8	45.9	44.2	42.2	
	22:30:00	43.5	47.5	44.2	42.2	
	22:45:00	44.0	48.0	44.2	42.2	43.9
	23:00:00	44.0	48.1	44.2	42.2	
	23:15:00	43.8	48.7	44.2	42.2	
	23:30:00	43.4	46.1	43.2	42.2	
	23:45:00	43.6	47.0	44.2	42.2	43.7
7/30/2019	0:00:00	43.6	48.3	44.2	42.2	
	0:15:00	43.4	46.7	43.2	42.2	
	0:30:00	43.5	65.2	43.2	42.2	
	0:45:00	42.4	43.9	42.2	41.2	43.3
	1:00:00	42.8	57.5	43.2	41.2	
	1:15:00	42.2	42.8	42.2	41.2	
	1:30:00	42.4	50.5	42.2	41.2	
	1:45:00	42.4	46.0	43.2	41.2	42.5
	2:00:00	42.9	51.5	43.2	42.2	
	2:15:00	42.6	44.3	43.2	42.2	

2:30:00	42.8	46.9	43.2	41.2	
2:45:00	42.9	43.8	43.2	42.2	42.8
3:00:00	42.8	47.2	43.2	42.2	
3:15:00	42.5	47.5	42.2	41.2	
3:30:00	42.5	45.9	42.2	42.2	
3:45:00	42.4	47.3	42.2	41.2	42.6
4:00:00	42.7	48.1	44.2	41.2	
4:15:00	42.4	45.7	42.2	41.2	
4:30:00	42.8	46.5	43.2	42.2	
4:45:00	43.4	52.1	44.2	42.2	42.8
5:00:00	43.8	49.4	45.2	42.2	
5:15:00	43.8	48.7	45.2	42.2	
5:30:00	44.9	50.3	46.2	42.2	
5:45:00	46.2	55.5	48.2	42.2	44.8
6:00:00	48.3	56.1	50.2	43.2	
6:15:00	62.4	65.0	63.2	46.2	
6:30:00	63.4	64.7	63.2	62.2	
6:45:00	63.1	64.9	63.2	62.2	61.8
7:00:00	62.9	64.8	63.2	62.2	
7:15:00	63.0	64.4	63.2	62.2	
7:30:00	62.8	64.2	63.2	62.2	
7:45:00	62.8	64.1	63.2	61.2	62.9
8:00:00	62.9	64.4	63.2	61.2	
8:15:00	63.0	64.5	63.2	62.2	
8:30:00	62.8	64.3	63.2	61.2	
8:45:00	62.8	64.4	63.2	61.2	62.9
9:00:00	62.5	64.7	63.2	61.2	
9:15:00	62.5	63.9	63.2	61.2	
9:30:00	62.4	64.1	63.2	61.2	
9:45:00	62.4	63.9	63.2	61.2	62.5
10:00:00	62.5	64.1	63.2	61.2	
10:15:00	62.5	64.1	63.2	61.2	
10:30:00	62.4	64.3	63.2	61.2	
10:45:00	62.6	64.7	63.2	60.2	62.5
11:00:00	62.4	64.7	63.2	60.2	
11:15:00	62.8	69.7	63.2	61.2	
11:30:00	62.4	67.5	63.2	60.2	
11:45:00	62.6	64.1	63.2	61.2	62.6
12:00:00	62.6	64.3	63.2	61.2	
12:15:00	62.9	67.3	63.2	61.2	
12:30:00	81.7	94.9	86.2	61.2	
12:45:00	62.1	75.1	62.2	60.2	75.8
13:00:00	62.1	67.1	62.2	60.2	
13:15:00	62.2	64.1	62.2	60.2	
13:30:00	62.2	64.0	63.2	60.2	
13:45:00	62.4	64.7	63.2	60.2	62.2
14:00:00	62.6	66.1	63.2	60.2	
14:15:00	62.6	64.8	63.2	60.2	
14:30:00	62.7	67.1	63.2	60.2	
14:45:00	62.6	65.5	63.2	60.2	62.6
15:00:00	62.7	71.7	63.2	60.2	
15:15:00	62.6	64.9	63.2	61.2	
15:30:00	62.6	65.9	63.2	60.2	
15:45:00	60.9	64.5	63.2	58.2	62.3
16:00:00	60.1	62.1	60.2	58.2	
16:15:00	60.2	63.5	60.2	58.2	
16:30:00	59.9	61.9	60.2	58.2	
16:45:00	60.2	62.1	60.2	58.2	60.1
17:00:00	60.2	63.3	61.2	49.2	
17:15:00	47.7	54.7	49.2	44.2	
17:30:00	48.0	69.0	48.2	44.2	
17:45:00	82.0	96.3	86.2	44.2	76.0
18:00:00	72.3	94.3	73.2	42.2	
18:15:00	61.9	91.3	47.2	42.2	
18:30:00	43.3	47.9	44.2	41.2	
18:45:00	43.1	47.9	44.2	41.2	66.7
19:00:00	42.8	46.7	43.2	41.2	
19:15:00	43.2	50.7	44.2	41.2	
19:30:00	43.6	55.5	45.2	41.2	

	19:45:00	43.6	49.3	45.2	41.2	43.3
	20:00:00	43.2	50.0	44.2	41.2	
	20:15:00	44.3	66.3	44.2	42.2	
	20:30:00	42.9	50.7	43.2	41.2	
	20:45:00	44.3	53.1	45.2	42.2	43.7
	21:00:00	44.2	53.1	45.2	42.2	
	21:15:00	43.5	47.4	44.2	42.2	
	21:30:00	43.9	48.1	44.2	43.2	
	21:45:00	44.4	48.5	45.2	43.2	44.0
	22:00:00	44.4	49.5	45.2	43.2	
	22:15:00	44.5	57.1	44.2	43.2	
	22:30:00	44.9	55.6	46.2	43.2	
	22:45:00	43.6	48.7	43.2	42.2	44.4
	23:00:00	44.1	47.2	45.2	43.2	
	23:15:00	44.5	47.5	45.2	43.2	
	23:30:00	45.0	48.5	45.2	43.2	
	23:45:00	44.8	48.4	45.2	43.2	44.6
7/31/2019	0:00:00	44.8	49.8	44.2	43.2	
	0:15:00	45.0	47.9	45.2	43.2	
	0:30:00	45.1	46.5	45.2	43.2	
	0:45:00	44.9	48.5	45.2	42.2	45.0
	1:00:00	44.7	47.0	45.2	42.2	
	1:15:00	44.5	47.4	45.2	43.2	
	1:30:00	43.8	47.2	44.2	42.2	
	1:45:00	44.4	49.8	45.2	42.2	44.4
	2:00:00	43.6	48.2	44.2	42.2	
	2:15:00	44.1	45.1	44.2	42.2	
	2:30:00	43.9	44.9	44.2	42.2	
	2:45:00	42.8	45.3	43.2	42.2	43.6
	3:00:00	42.7	45.5	43.2	41.2	
	3:15:00	43.0	47.0	43.2	41.2	
	3:30:00	43.3	46.4	43.2	42.2	
	3:45:00	44.1	52.9	44.2	42.2	43.3
	4:00:00	43.6	51.9	44.2	42.2	
	4:15:00	42.8	46.3	43.2	41.2	
	4:30:00	43.2	47.1	43.2	42.2	
	4:45:00	43.6	50.1	44.2	42.2	43.3
	5:00:00	43.0	46.9	44.2	42.2	
	5:15:00	44.2	49.9	46.2	42.2	
	5:30:00	48.1	67.8	48.2	42.2	
	5:45:00	52.7	65.1	52.2	43.2	48.7
	6:00:00	62.8	63.5	63.2	62.2	
	6:15:00	62.7	63.7	63.2	62.2	
	6:30:00	62.4	64.2	62.2	61.2	
	6:45:00	62.4	64.7	62.2	61.2	62.6
	7:00:00	62.4	63.5	62.2	61.2	
	7:15:00	62.4	63.5	62.2	61.2	
	7:30:00	62.4	63.7	62.2	61.2	
	7:45:00	62.3	63.9	62.2	61.2	62.4
	8:00:00	62.2	63.9	62.2	61.2	
	8:15:00	62.4	64.3	63.2	61.2	
	8:30:00	62.4	64.0	63.2	61.2	
	8:45:00	62.3	64.3	62.2	61.2	62.3
	9:00:00	62.3	64.2	62.2	61.2	
	9:15:00	62.2	63.9	62.2	61.2	
	9:30:00	62.2	63.7	62.2	61.2	
	9:45:00	62.5	63.9	63.2	61.2	62.3
	10:00:00	62.5	63.9	63.2	61.2	
	10:15:00	62.4	64.0	63.2	61.2	
	10:30:00	62.1	63.9	62.2	60.2	
	10:45:00	62.1	64.3	62.2	60.2	62.3
	11:00:00	62.0	63.5	62.2	60.2	
	11:15:00	62.2	64.1	62.2	61.2	
	11:30:00	61.8	63.6	62.2	60.2	
	11:45:00	61.7	63.5	62.2	60.2	61.9
	12:00:00	61.4	63.2	62.2	60.2	
	12:15:00	61.4	63.2	61.2	60.2	
	12:30:00	61.6	63.9	62.2	60.2	
	12:45:00	61.4	63.1	61.2	60.2	61.5

	13:00:00	62.1	64.3	62.2	61.2	
	13:15:00	62.6	65.7	63.2	61.2	
	13:30:00	64.5	73.6	67.2	61.2	
	13:45:00	62.9	67.4	64.2	61.2	63.1
	14:00:00	62.2	63.9	62.2	61.2	
	14:15:00	61.9	63.6	62.2	59.2	
	14:30:00	62.0	64.3	62.2	60.2	
	14:45:00	62.1	71.7	62.2	60.2	62.1
	15:00:00	62.0	63.8	62.2	60.2	
	15:15:00	62.2	64.3	62.2	61.2	
	15:30:00	62.3	65.3	62.2	61.2	
	15:45:00	62.4	64.7	63.2	61.2	62.2
	16:00:00	61.1	63.6	62.2	50.2	
	16:15:00	49.4	57.9	51.2	45.2	
	16:30:00	47.7	55.5	49.2	44.2	
	16:45:00	45.7	49.9	47.2	43.2	55.7
	17:00:00	47.2	55.7	48.2	42.2	
	17:15:00	46.0	52.3	47.2	43.2	
	17:30:00	46.4	51.1	48.2	43.2	
	17:45:00	48.1	55.5	50.2	44.2	47.0
	18:00:00	46.0	53.9	48.2	42.2	
	18:15:00	44.7	57.1	46.2	42.2	
	18:30:00	44.4	56.6	45.2	42.2	
	18:45:00	44.5	55.5	46.2	42.2	45.0
	19:00:00	44.1	53.3	45.2	42.2	
	19:15:00	44.5	56.7	45.2	42.2	
	19:30:00	44.3	51.0	45.2	42.2	
	19:45:00	50.4	78.9	45.2	42.2	46.8
	20:00:00	45.0	52.8	46.2	42.2	
	20:15:00	44.7	52.9	45.2	42.2	
	20:30:00	45.9	56.7	47.2	43.2	
	20:45:00	45.2	54.7	46.2	43.2	45.2
	21:00:00	45.6	61.5	46.2	43.2	
	21:15:00	45.0	54.7	46.2	43.2	
	21:30:00	44.6	48.7	45.2	43.2	
	21:45:00	44.6	49.5	45.2	43.2	45.0
	22:00:00	44.1	47.5	44.2	42.2	
	22:15:00	44.6	50.9	45.2	43.2	
	22:30:00	43.7	47.9	44.2	42.2	
	22:45:00	43.9	51.9	44.2	42.2	44.1
	23:00:00	44.0	46.9	45.2	43.2	
	23:15:00	44.1	49.6	45.2	43.2	
	23:30:00	43.7	47.9	44.2	43.2	
	23:45:00	43.7	48.3	44.2	43.2	43.9
8/1/2019	0:00:00	43.5	48.7	43.2	42.2	
	0:15:00	43.7	47.6	45.2	42.2	
	0:30:00	43.0	44.3	43.2	42.2	
	0:45:00	43.3	46.7	43.2	42.2	43.4
	1:00:00	43.4	48.0	44.2	42.2	
	1:15:00	43.0	44.1	43.2	42.2	
	1:30:00	43.1	43.7	43.2	42.2	
	1:45:00	43.4	46.1	43.2	42.2	43.2
	2:00:00	43.3	49.5	43.2	42.2	
	2:15:00	42.7	49.9	43.2	41.2	
	2:30:00	42.8	43.7	43.2	41.2	
	2:45:00	42.8	44.3	43.2	41.2	42.9
	3:00:00	43.0	45.1	43.2	42.2	
	3:15:00	43.4	47.1	43.2	42.2	
	3:30:00	43.2	46.1	43.2	42.2	
	3:45:00	43.4	49.5	44.2	42.2	43.3
	4:00:00	43.3	46.7	43.2	42.2	
	4:15:00	43.5	49.1	44.2	42.2	
	4:30:00	43.4	49.9	43.2	42.2	
	4:45:00	43.5	52.3	43.2	42.2	43.4
	5:00:00	43.4	46.9	44.2	42.2	
	5:15:00	45.0	52.9	46.2	42.2	
	5:30:00	46.3	63.0	47.2	43.2	
	5:45:00	47.5	55.9	50.2	43.2	45.8
	6:00:00	57.3	62.1	61.2	45.2	

6:15:00	61.1	62.5	61.2	59.2	
6:30:00	60.9	62.5	61.2	60.2	
6:45:00	61.0	61.9	61.2	60.2	60.3
7:00:00	60.5	62.1	60.2	60.2	
7:15:00	60.2	61.3	60.2	59.2	
7:30:00	59.8	60.5	60.2	59.2	
7:45:00	60.1	77.6	60.2	58.2	60.2
8:00:00	59.6	60.9	60.2	58.2	
8:15:00	59.9	62.6	60.2	58.2	
8:30:00	59.9	61.5	60.2	58.2	
8:45:00	60.0	61.3	60.2	58.2	59.9
9:00:00	60.2	61.4	60.2	59.2	
9:15:00	59.9	61.3	60.2	59.2	
9:30:00	59.7	61.9	60.2	58.2	
9:45:00	59.8	65.5	60.2	58.2	59.9
10:00:00	59.6	62.9	60.2	58.2	
10:15:00	59.5	61.1	60.2	58.2	
10:30:00	60.2	62.3	61.2	59.2	
10:45:00	60.2	62.3	61.2	59.2	59.9
11:00:00	59.7	61.2	60.2	58.2	
11:15:00	60.0	73.1	60.2	58.2	
11:30:00	59.6	61.1	60.2	58.2	
11:45:00	59.9	61.5	60.2	58.2	59.8
12:00:00	59.9	67.3	60.2	58.2	
12:15:00	59.9	61.1	60.2	59.2	
12:30:00	59.6	60.9	60.2	58.2	
12:45:00	59.5	61.3	60.2	58.2	59.7
13:00:00	59.7	62.3	60.2	58.2	
13:15:00	59.8	62.9	60.2	58.2	
13:30:00	60.0	65.1	60.2	59.2	
13:45:00	59.8	64.4	60.2	58.2	59.8
14:00:00	59.9	62.3	60.2	58.2	
14:15:00	60.1	61.9	60.2	59.2	
14:30:00	60.9	64.1	62.2	59.2	
14:45:00	60.1	64.9	60.2	59.2	60.3
15:00:00	60.1	61.9	60.2	59.2	
15:15:00	60.1	62.1	60.2	58.2	
15:30:00	60.2	63.7	60.2	59.2	
15:45:00	60.1	64.1	60.2	58.2	60.1
16:00:00	60.1	61.5	60.2	59.2	
16:15:00	60.2	61.5	60.2	59.2	
16:30:00	60.3	61.6	60.2	59.2	
16:45:00	60.3	61.9	60.2	59.2	60.2
17:00:00	54.8	61.7	59.2	46.2	
17:15:00	47.6	55.9	49.2	45.2	
17:30:00	47.5	54.3	49.2	44.2	
17:45:00	46.1	54.4	47.2	43.2	50.6
18:00:00	46.3	53.0	48.2	43.2	
18:15:00	45.8	53.5	47.2	43.2	
18:30:00	45.2	48.8	46.2	43.2	
18:45:00	46.3	56.3	48.2	43.2	45.9
19:00:00	47.9	61.0	50.2	43.2	
19:15:00	45.8	52.5	47.2	43.2	
19:30:00	46.1	58.6	47.2	43.2	
19:45:00	46.4	60.4	47.2	43.2	46.6
20:00:00	45.0	49.9	47.2	43.2	
20:15:00	44.3	48.1	45.2	42.2	
20:30:00	45.4	59.1	47.2	42.2	
20:45:00	45.2	53.5	46.2	43.2	45.0
21:00:00	45.0	49.8	46.2	43.2	
21:15:00	45.3	53.2	47.2	43.2	
21:30:00	45.2	54.5	46.2	43.2	
21:45:00	44.0	49.2	45.2	42.2	44.9
22:00:00	44.8	52.7	46.2	43.2	
22:15:00	44.1	49.3	44.2	43.2	
22:30:00	45.7	49.4	47.2	43.2	
22:45:00	44.3	48.3	45.2	43.2	44.8
23:00:00	44.6	48.3	45.2	43.2	
23:15:00	44.1	48.1	45.2	42.2	

	23:30:00	43.7	46.1	44.2	42.2	
	23:45:00	44.1	50.7	45.2	42.2	44.1
8/2/2019	0:00:00	43.3	45.1	43.2	42.2	
	0:15:00	43.1	46.8	43.2	42.2	
	0:30:00	43.6	47.1	44.2	42.2	
	0:45:00	43.3	46.7	44.2	42.2	43.3
	1:00:00	43.3	47.5	43.2	42.2	
	1:15:00	43.5	46.2	44.2	42.2	
	1:30:00	43.3	46.5	44.2	42.2	
	1:45:00	43.0	46.5	43.2	42.2	43.3
	2:00:00	42.8	44.1	43.2	42.2	
	2:15:00	43.7	52.7	44.2	42.2	
	2:30:00	42.9	45.2	43.2	42.2	
	2:45:00	43.0	46.1	43.2	42.2	43.1
	3:00:00	43.1	48.7	43.2	42.2	
	3:15:00	43.3	47.1	43.2	42.2	
	3:30:00	43.6	50.3	44.2	42.2	
	3:45:00	43.5	48.9	44.2	42.2	43.4
	4:00:00	44.1	54.3	45.2	42.2	
	4:15:00	42.9	47.5	43.2	42.2	
	4:30:00	43.3	52.5	44.2	42.2	
	4:45:00	43.4	48.3	44.2	42.2	43.4
	5:00:00	44.8	53.2	46.2	42.2	
	5:15:00	45.4	51.5	46.2	42.2	
	5:30:00	52.6	80.9	47.2	44.2	
	5:45:00	45.7	56.1	47.2	43.2	48.5
	6:00:00	59.4	65.1	64.2	45.2	
	6:15:00	61.3	64.4	61.2	60.2	
	6:30:00	61.3	62.2	61.2	60.2	
	6:45:00	61.5	62.9	61.2	60.2	61.0
	7:00:00	61.5	62.5	61.2	60.2	
	7:15:00	61.0	61.9	61.2	60.2	
	7:30:00	60.6	62.8	61.2	59.2	
	7:45:00	60.5	61.3	60.2	59.2	60.9
	8:00:00	60.5	61.6	60.2	59.2	
	8:15:00	60.2	61.9	60.2	59.2	
	8:30:00	60.3	63.5	60.2	59.2	
	8:45:00	60.4	65.5	60.2	59.2	60.4
	9:00:00	60.2	63.3	60.2	59.2	
	9:15:00	60.0	61.5	60.2	58.2	
	9:30:00	60.5	61.7	60.2	59.2	
	9:45:00	60.6	62.7	61.2	59.2	60.3
	10:00:00	60.3	61.9	61.2	59.2	
	10:15:00	59.9	62.8	60.2	58.2	
	10:30:00	59.9	61.8	60.2	58.2	
	10:45:00	59.9	61.5	60.2	58.2	60.0
	11:00:00	60.1	62.3	60.2	58.2	
	11:15:00	60.1	61.9	60.2	58.2	
	11:30:00	60.2	62.1	60.2	59.2	
	11:45:00	60.5	72.0	60.2	59.2	60.2
	12:00:00	60.5	64.1	61.2	59.2	
	12:15:00	59.9	61.6	60.2	58.2	
	12:30:00	60.1	62.2	60.2	59.2	
	12:45:00	60.3	62.7	61.2	58.2	60.2
	13:00:00	59.8	61.3	60.2	58.2	
	13:15:00	59.9	62.1	60.2	58.2	
	13:30:00	59.9	61.6	60.2	58.2	
	13:45:00	60.0	63.2	60.2	58.2	59.9
	14:00:00	60.0	61.5	60.2	58.2	
	14:15:00	60.2	61.7	60.2	58.2	
	14:30:00	60.2	62.3	60.2	59.2	
	14:45:00	60.0	63.2	60.2	58.2	60.1
	15:00:00	60.3	62.1	60.2	59.2	
	15:15:00	60.2	65.9	60.2	59.2	
	15:30:00	60.2	65.0	61.2	59.2	
	15:45:00	60.2	63.1	60.2	59.2	60.2
	16:00:00	60.3	62.9	61.2	59.2	
	16:15:00	60.2	61.9	60.2	59.2	
	16:30:00	60.0	61.7	60.2	59.2	

16:45:00	59.3	63.6	60.2	48.2	60.0
17:00:00	47.9	55.1	49.2	45.2	
17:15:00	49.7	59.9	51.2	46.2	
17:30:00	70.8	97.5	62.2	46.2	
17:45:00	52.4	58.8	55.2	46.2	64.9

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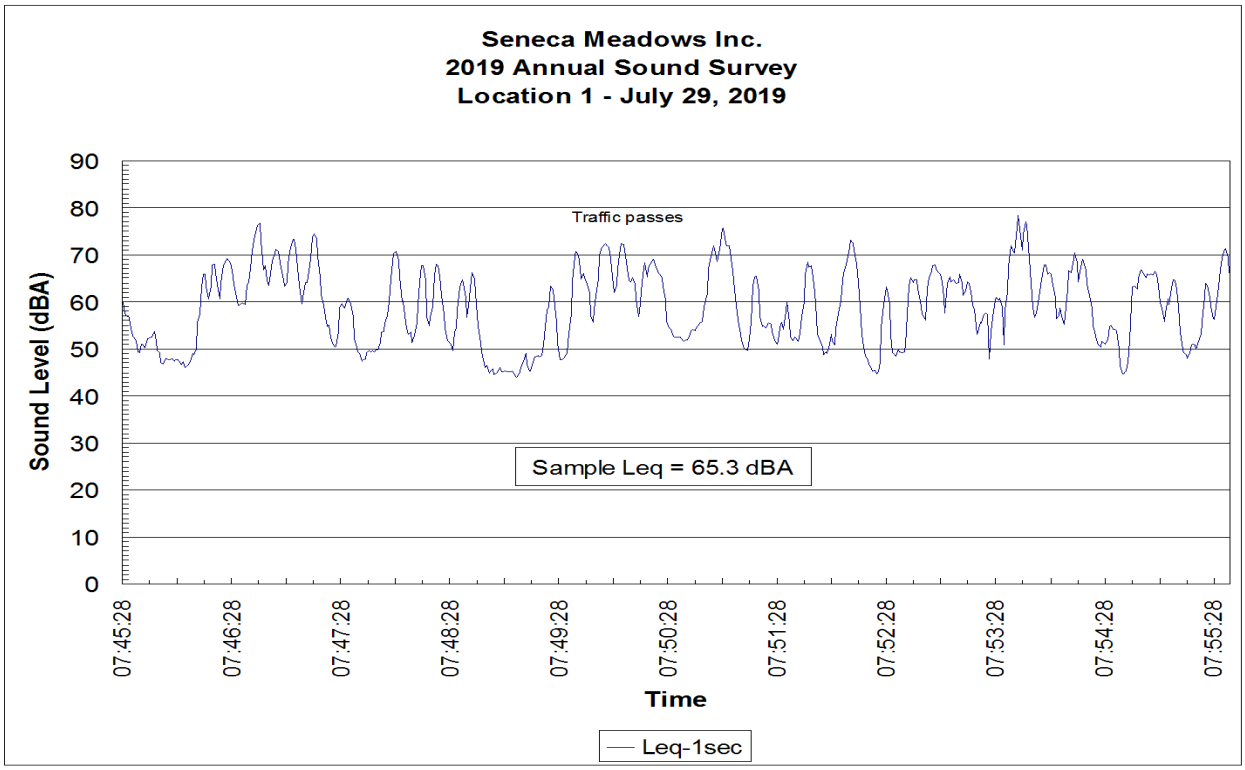
Appendix C

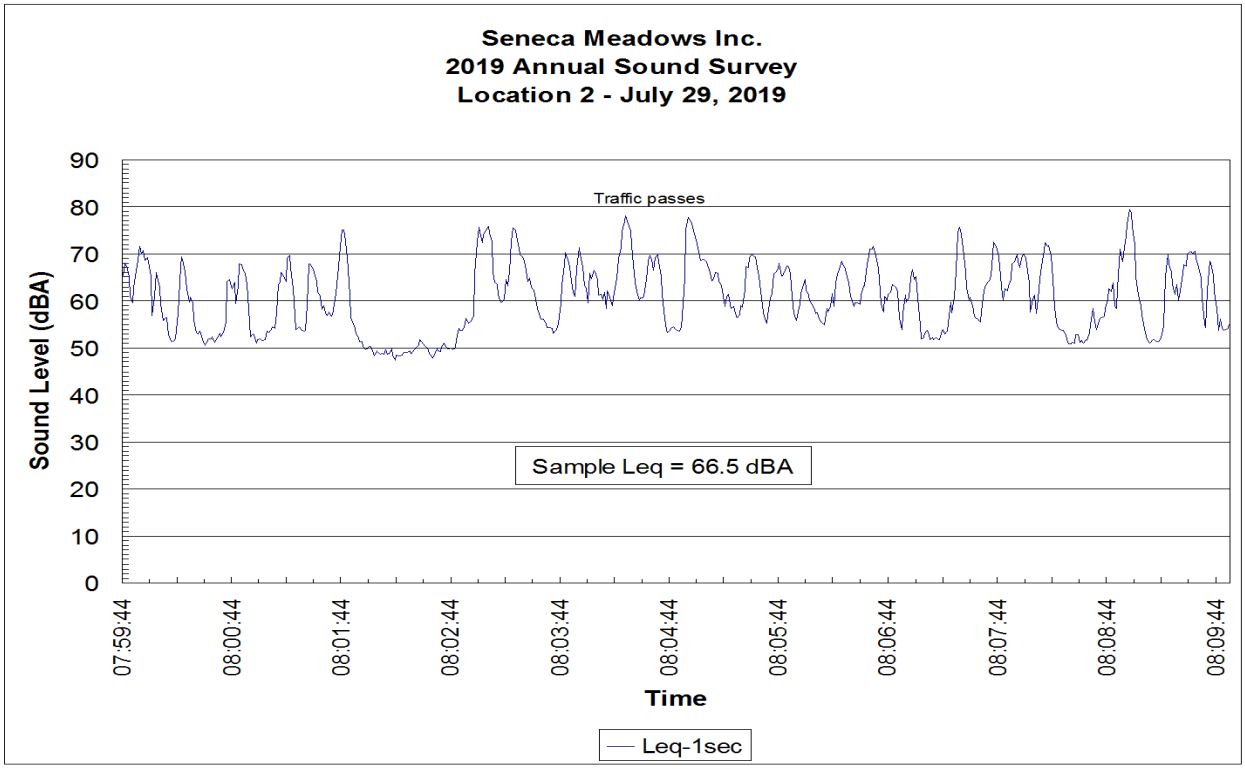
Hand-Held Sound Surveys

July 29, 2019

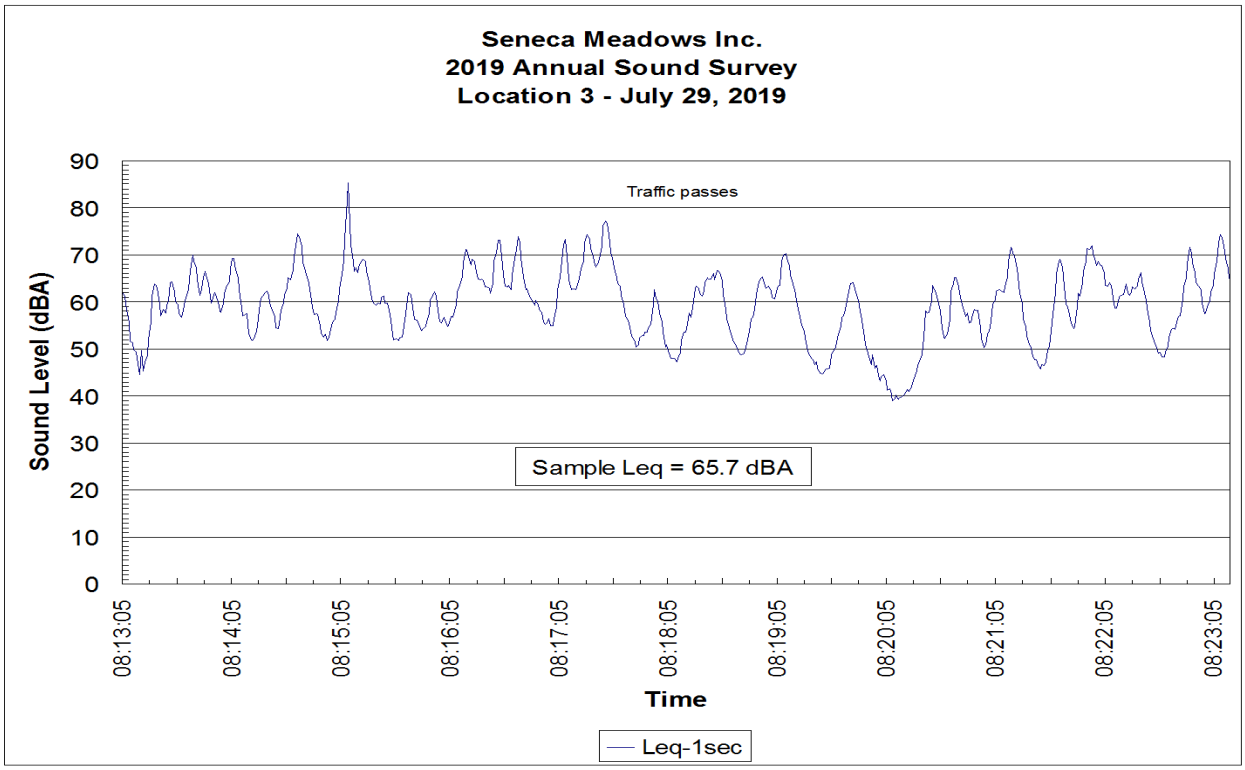
Morning Period



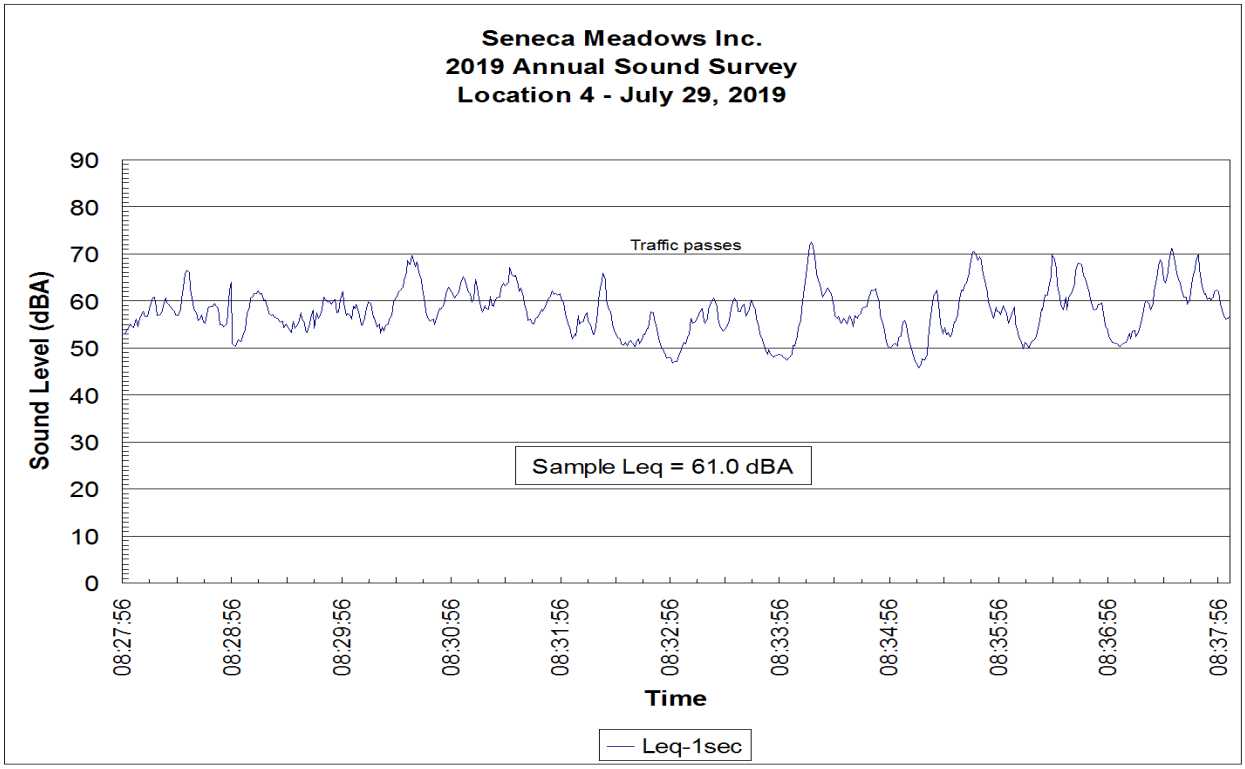
Location 1: Leq = 65.3 dBA
Traffic on Rt. 414, SEI plant.



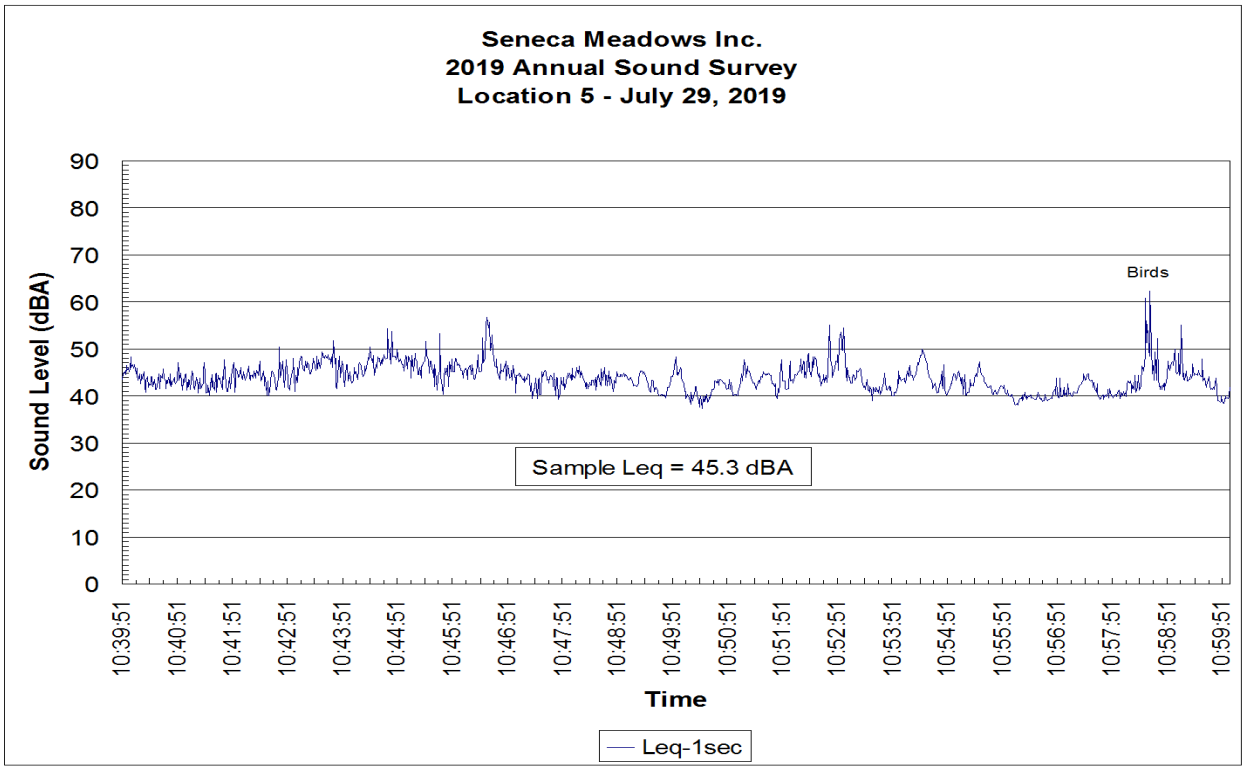
Location 2: Leq = 66.5 dBA
Traffic on Rt. 414, SEI plant.



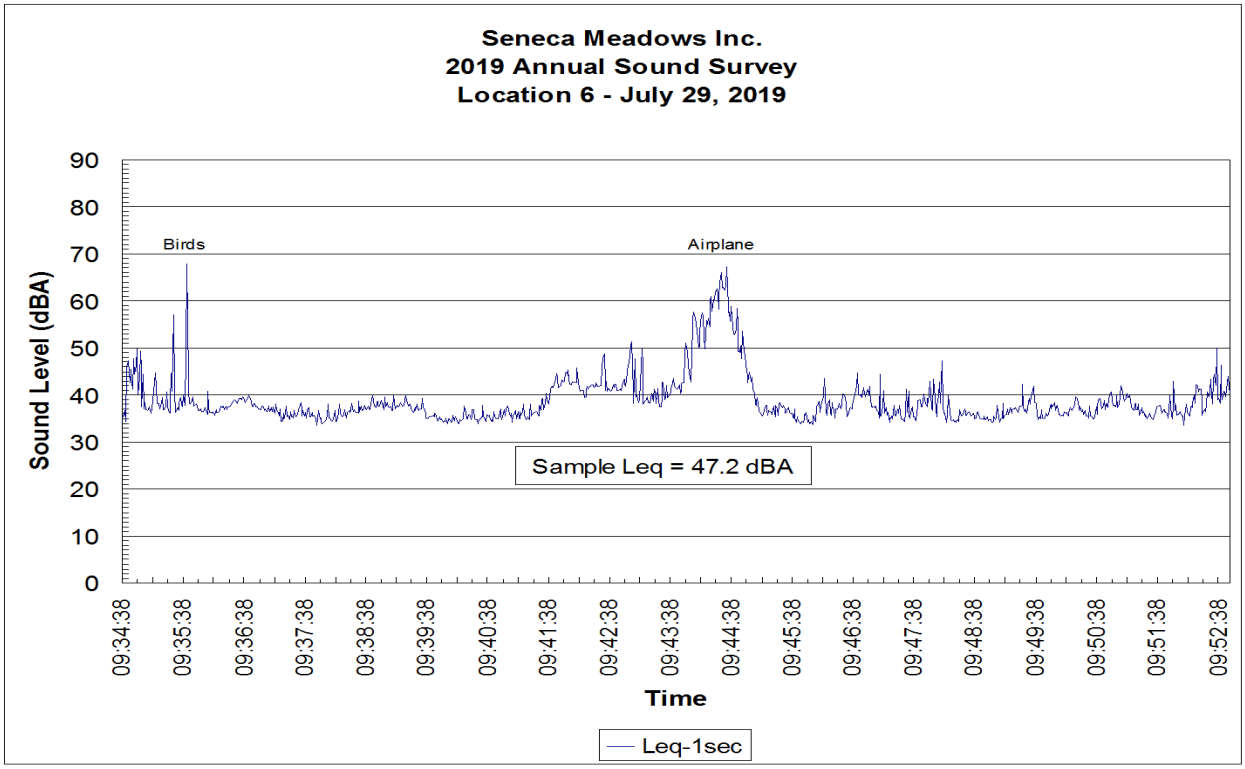
Location 3: Leq = 65.7 dBA
Traffic on Rt. 414, birds.



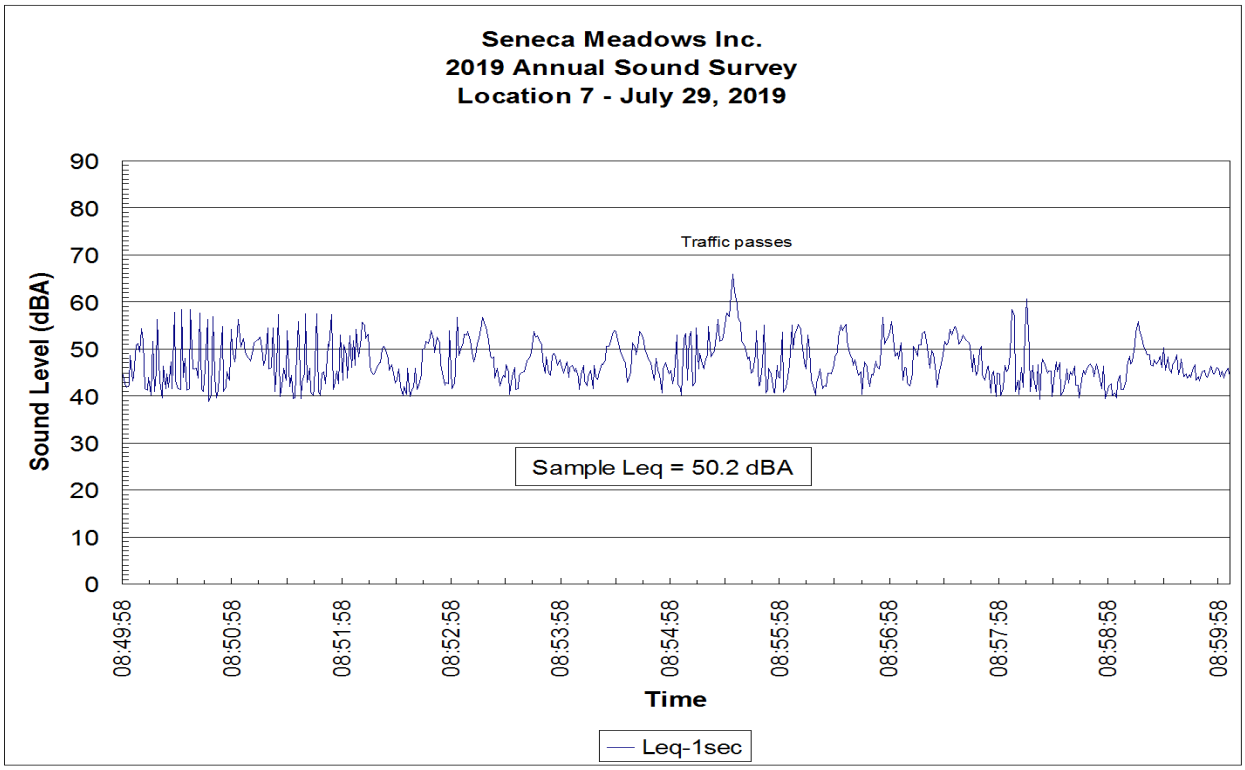
Location 4: Leq = 61.0 dBA
Traffic on Rt. 414, birds.



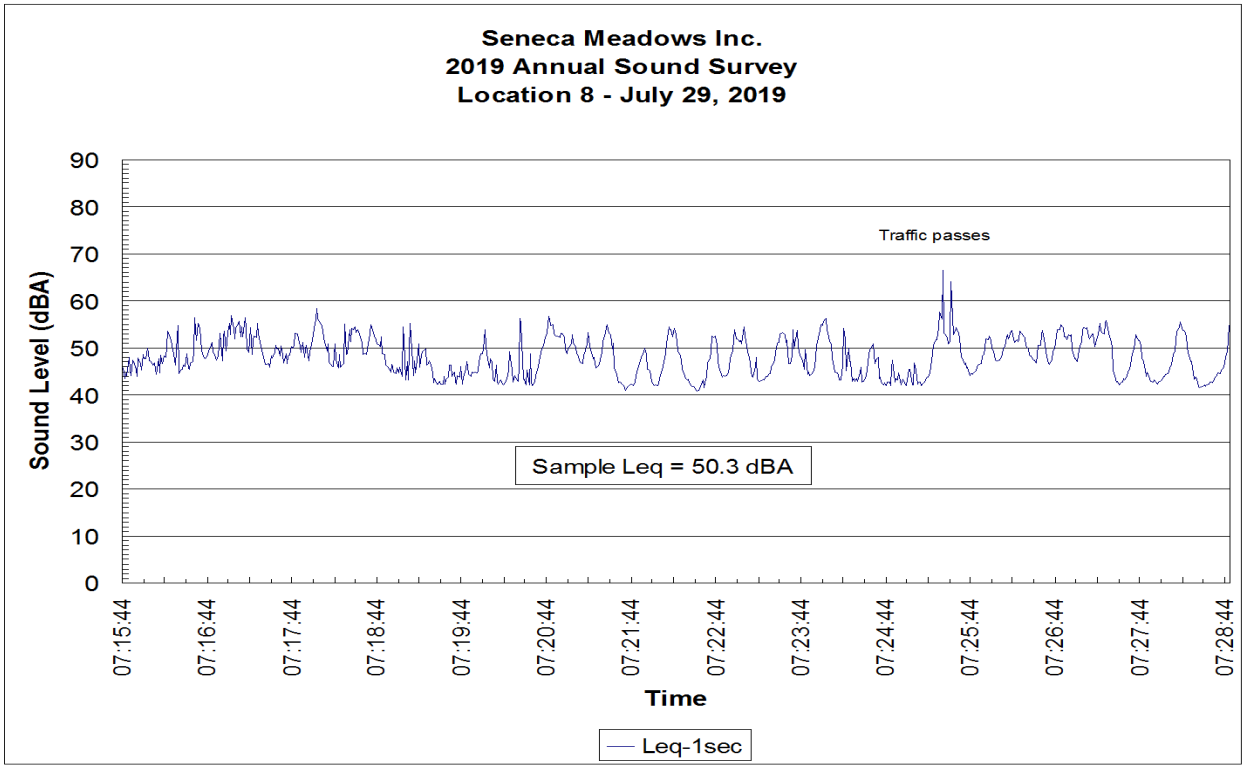
Location 5: Leq = 45.3 dBA
Traffic on Burgess Road and Rt. 414, insects, birds.



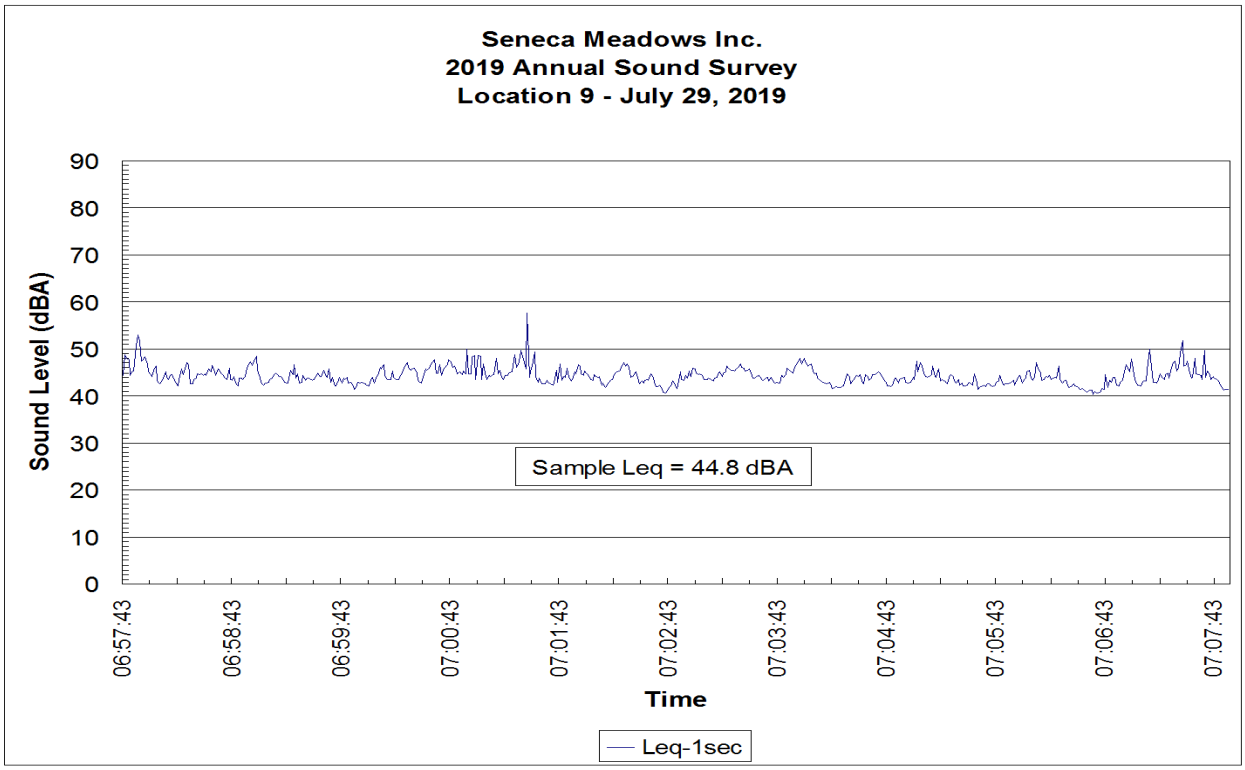
Location 6: Leq = 47.2 dBA
Birds, insects, wind, airplane, traffic on Burgess Road.



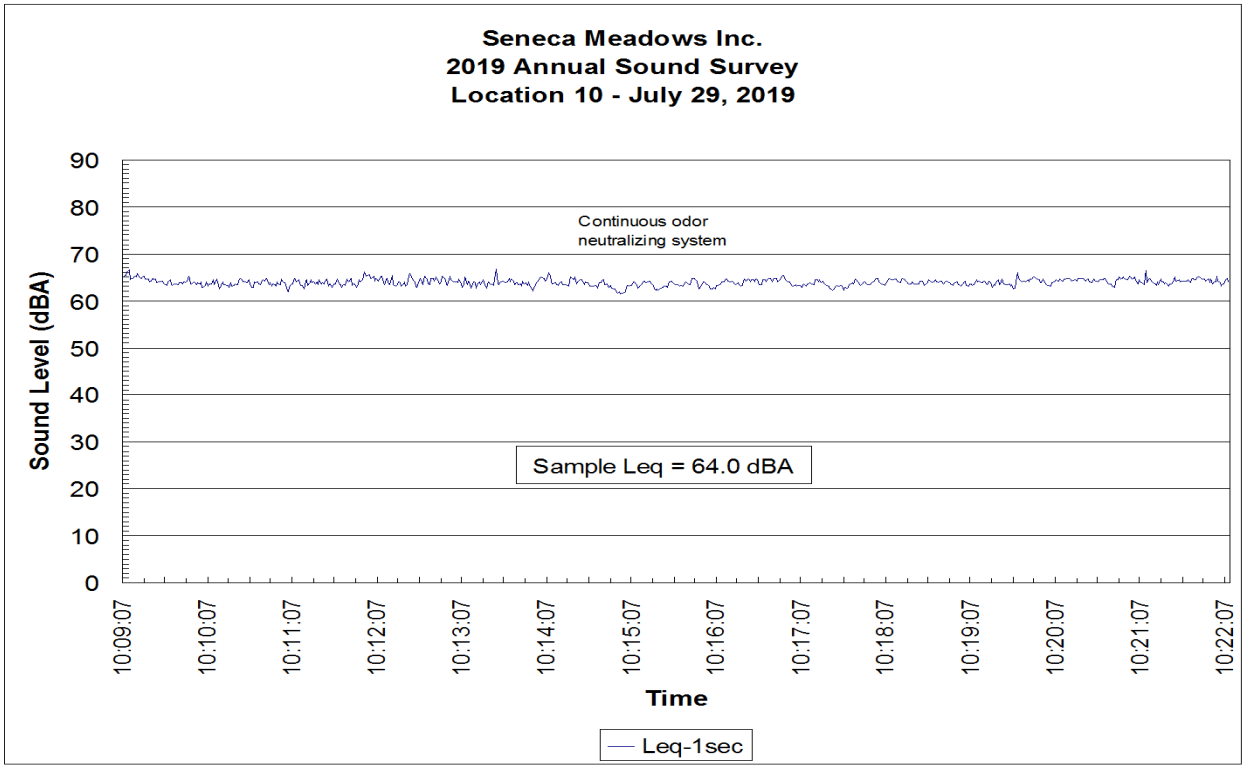
Location 7: Leq =50.2 dBA
Traffic on North and Burgess Roads, insects, birds.



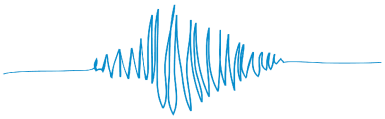
Location 8: Leq = 50.3 dBA
Traffic passes on North Road, landfill traffic.



Location 9: Leq = 44.8 dBA
Traffic on North Road, landfill traffic, birds.



Location 10: Leq = 64.0 dBA
Odor neutralizer system on berm.



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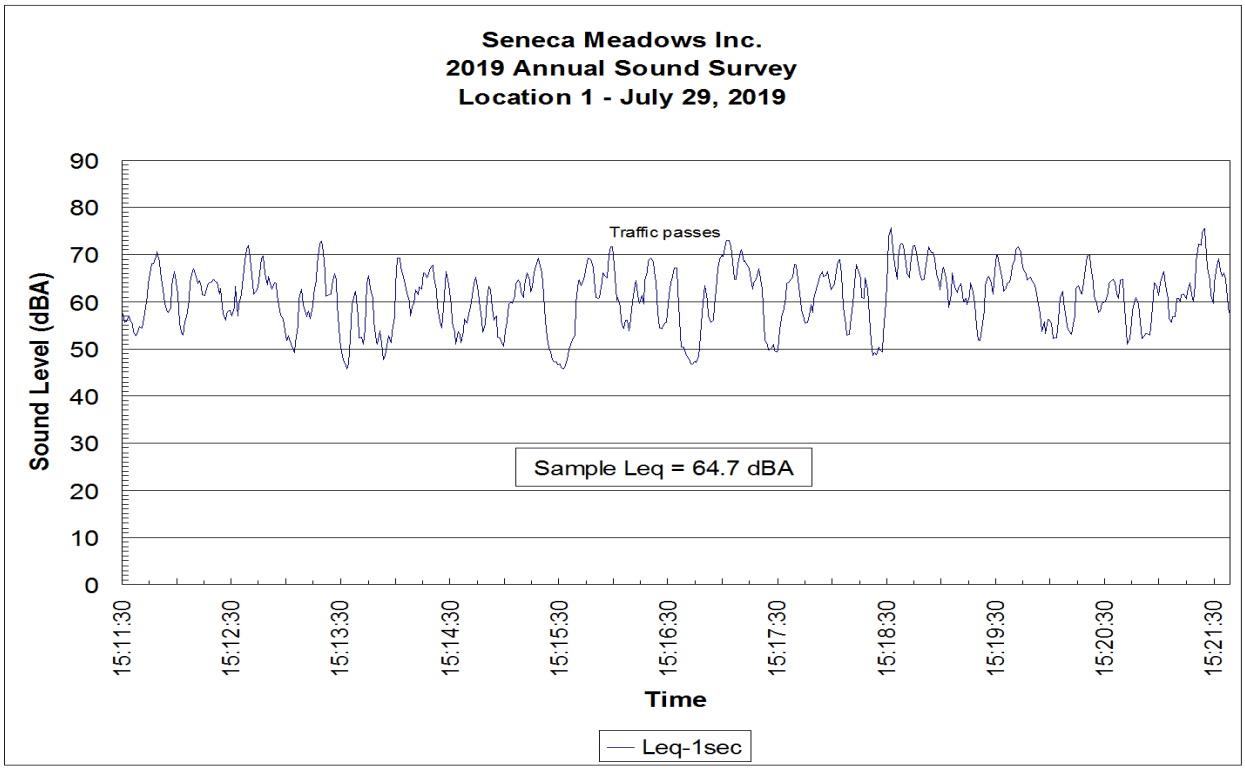
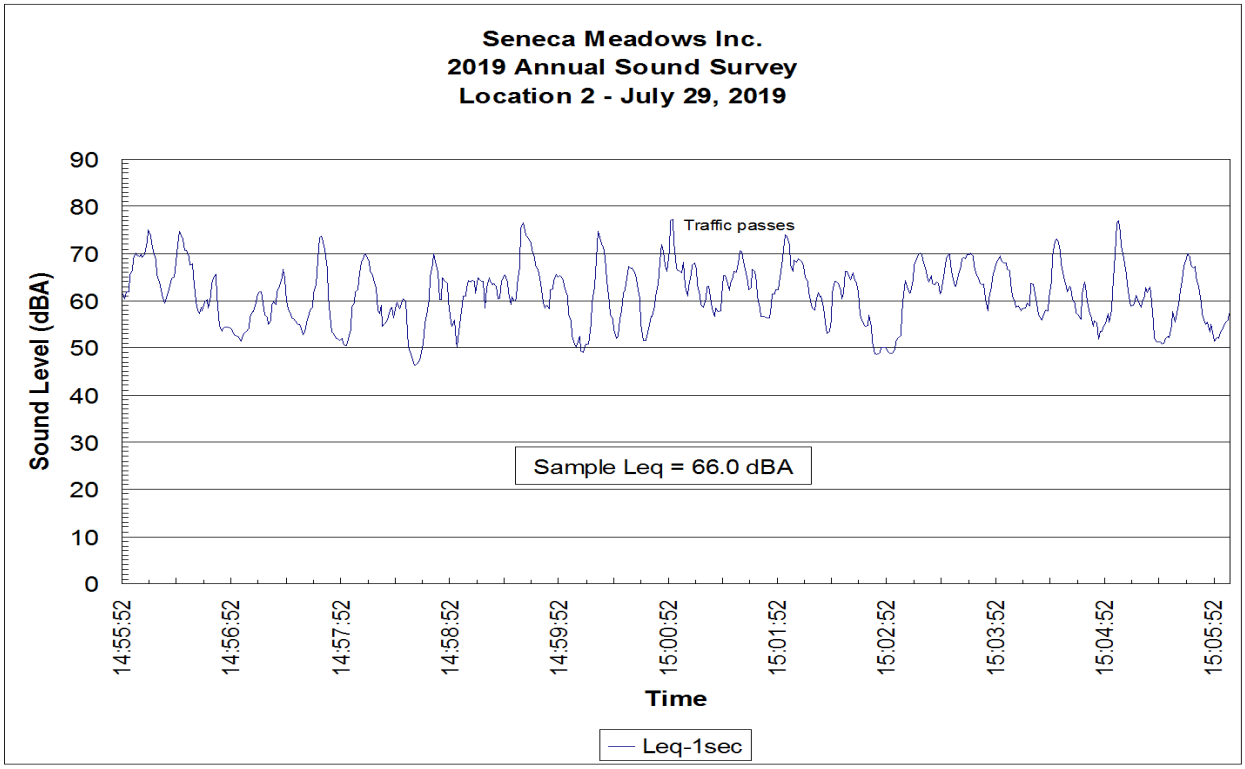
Hand-Held Sound Surveys

July 29, 2019

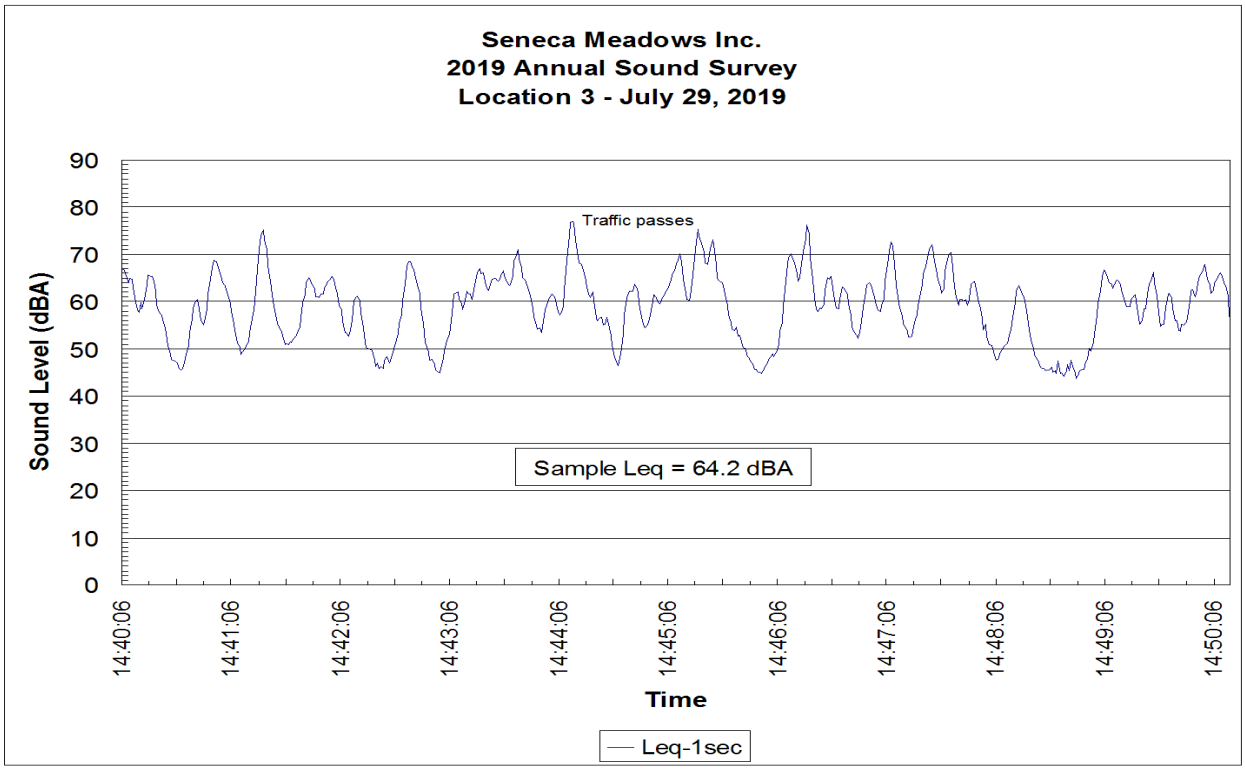
Mid-day to Afternoon Period



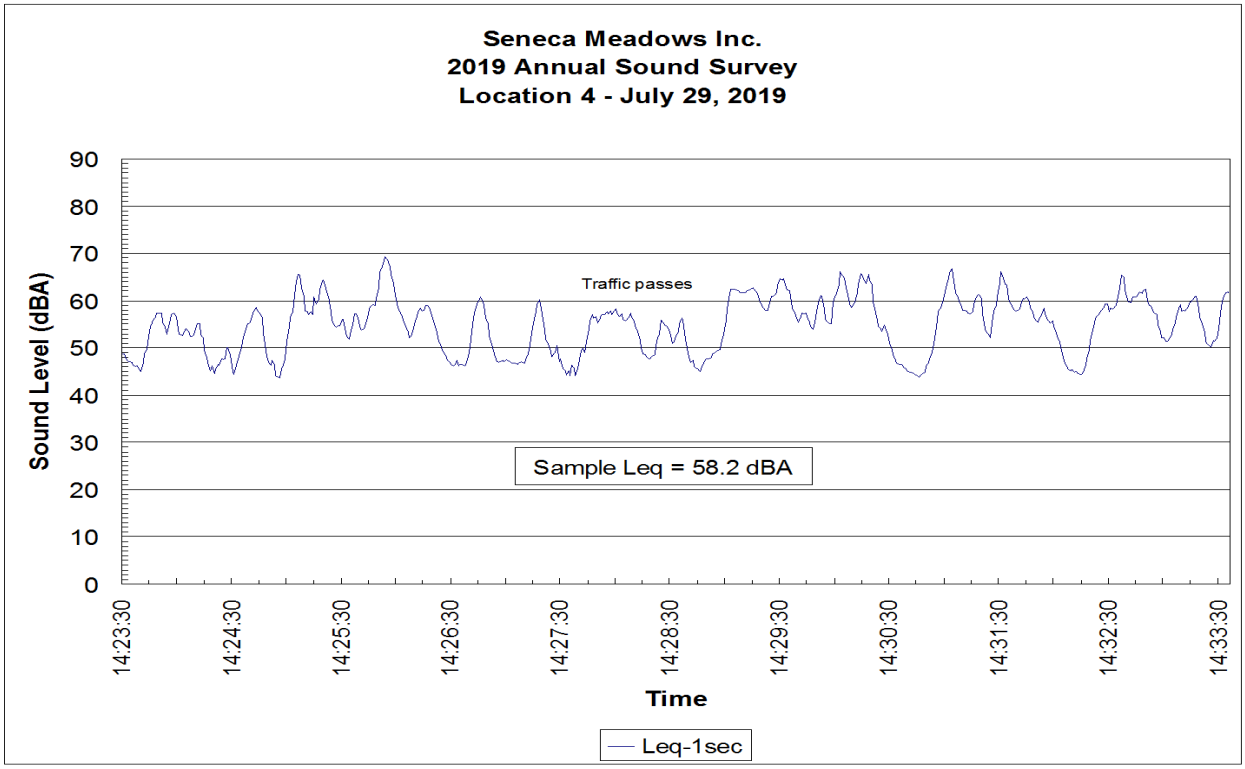
Location 1: Leq = 64.7 dBA
Traffic on Rt. 414; SEI plant.



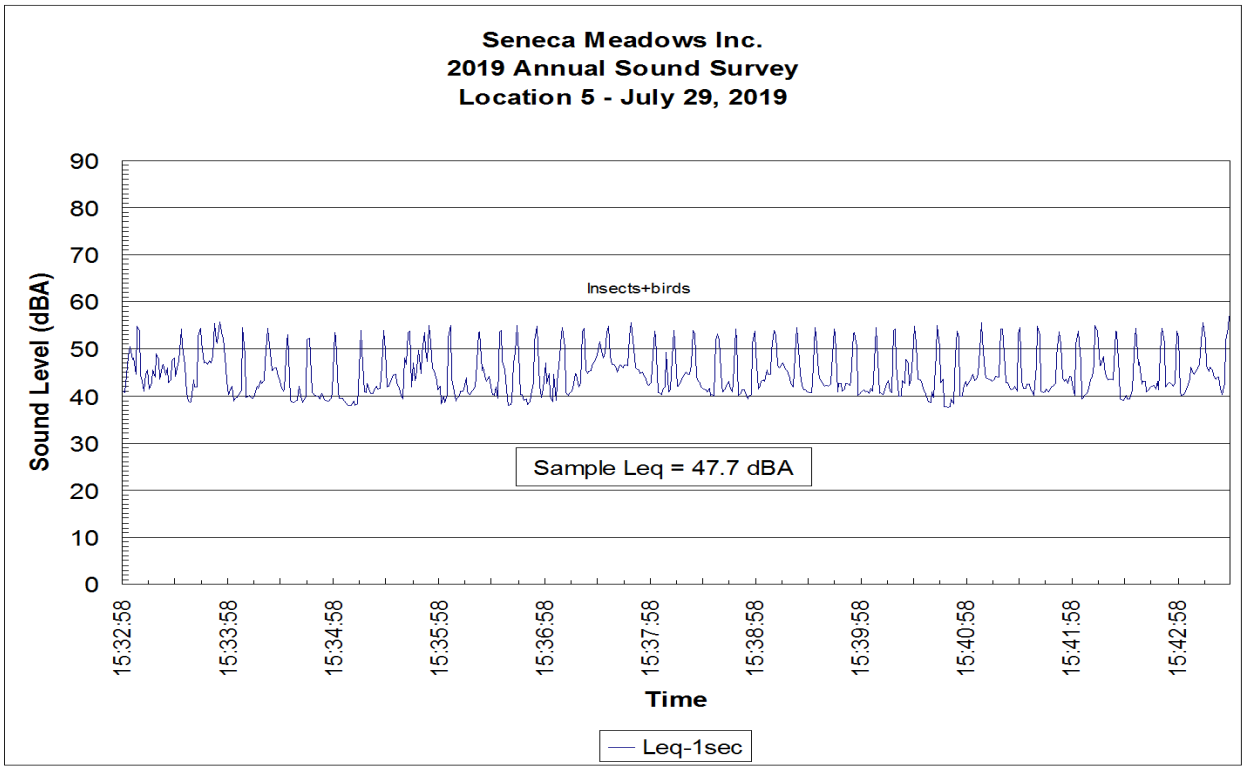
Location 2: Leq = 66.0 dBA
Traffic on Rt. 414, SEI plant.



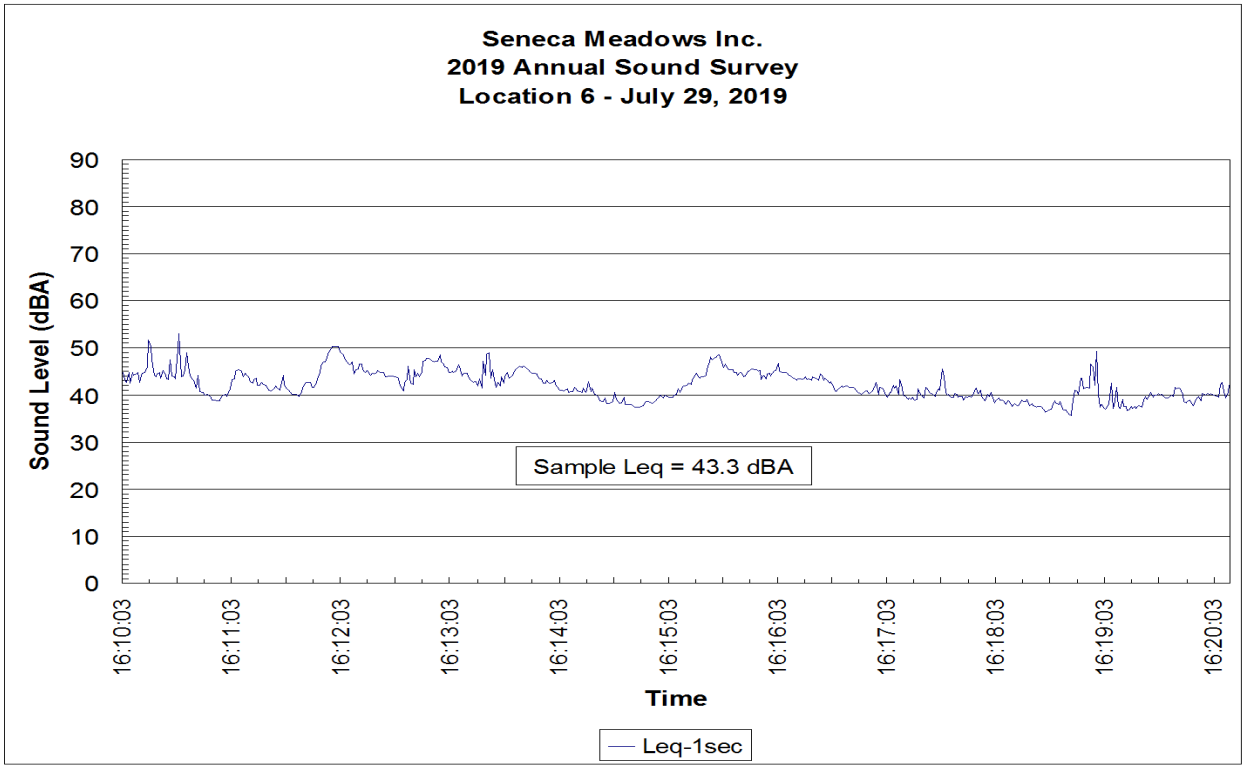
Location 3: Leq = 64.2 dBA
Traffic on Rt. 414.



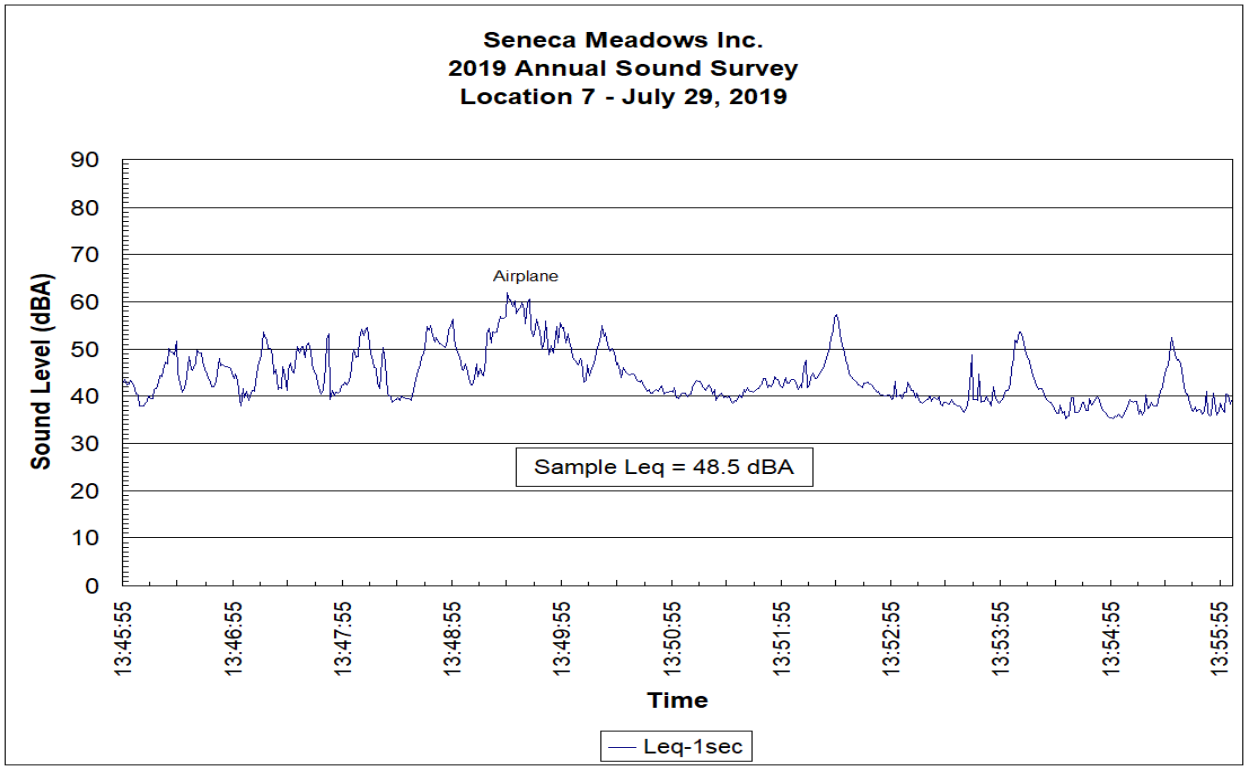
Location 4: Leq = 58.2 dBA
Traffic on Rt. 414, insects.



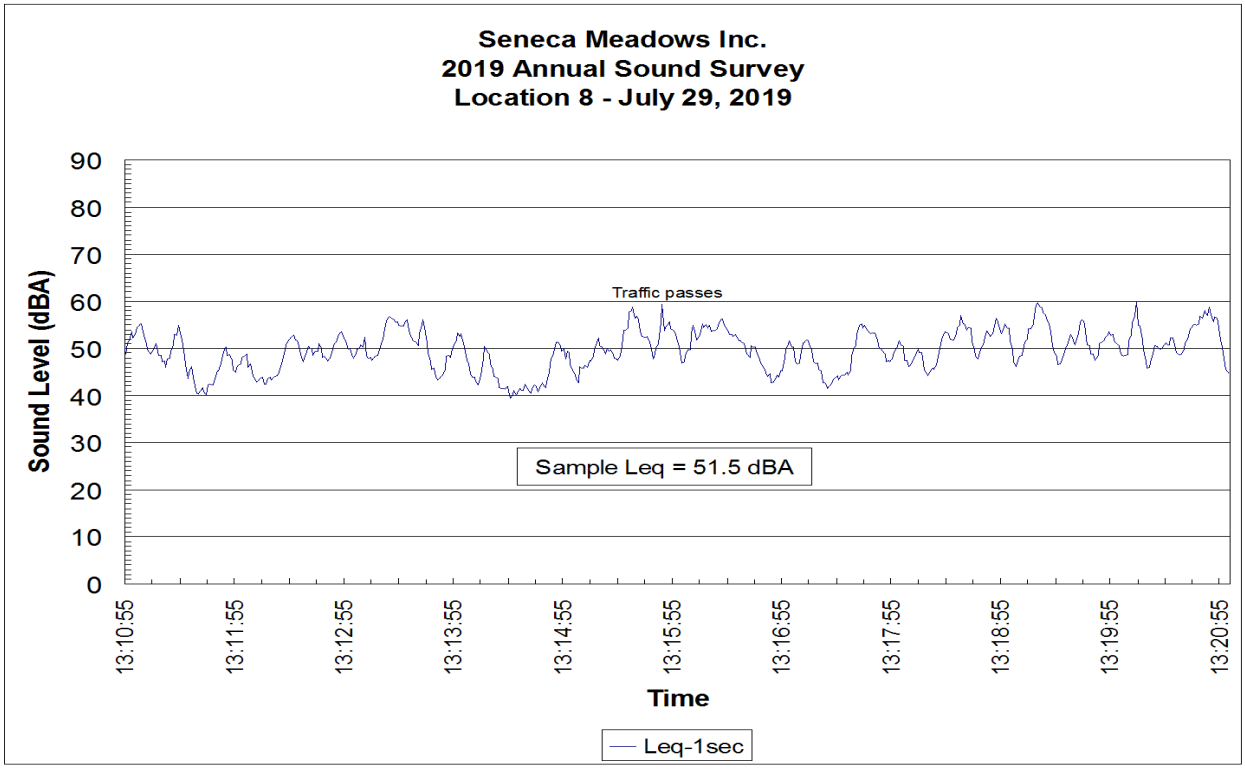
Location 5: Leq = 47.7 dBA
Insects, birds, traffic on Burgess Road and Rt. 414, occasional backup alarms.



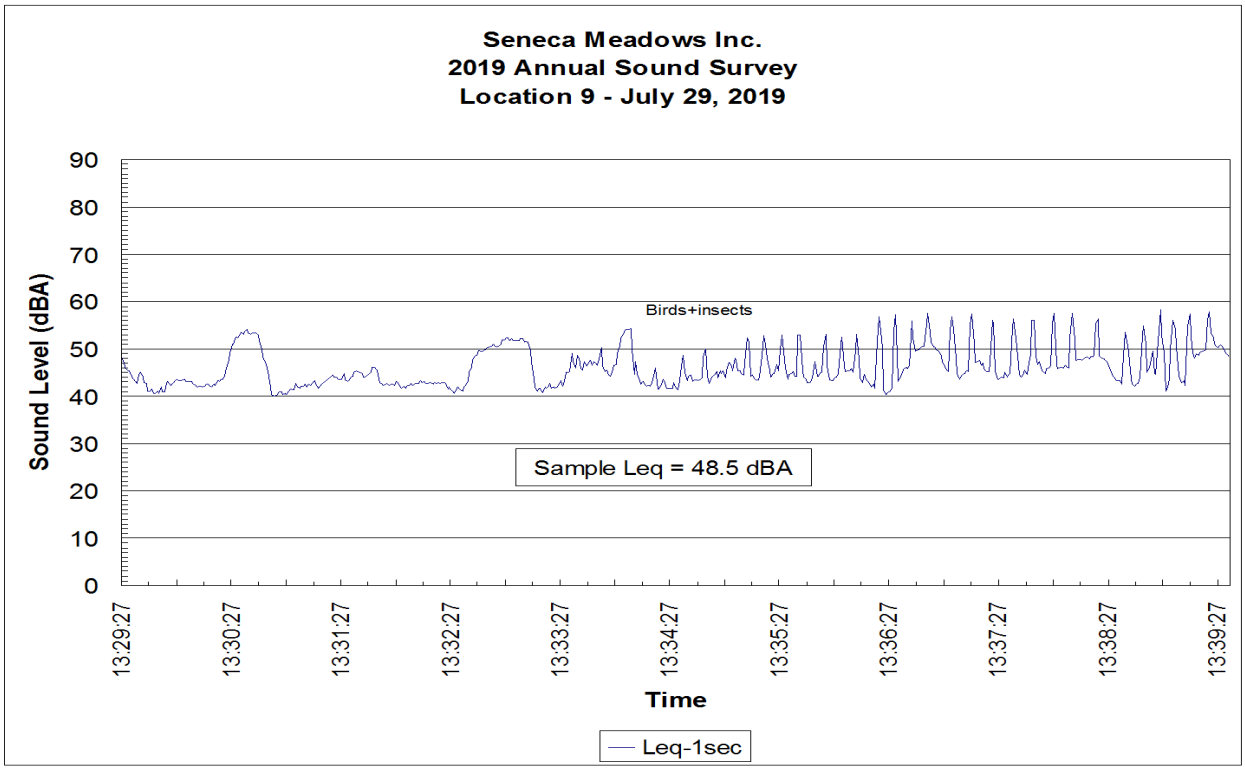
Location 6: Leq = 43.3 dBA
Insects, birds, traffic on Burgess Road.



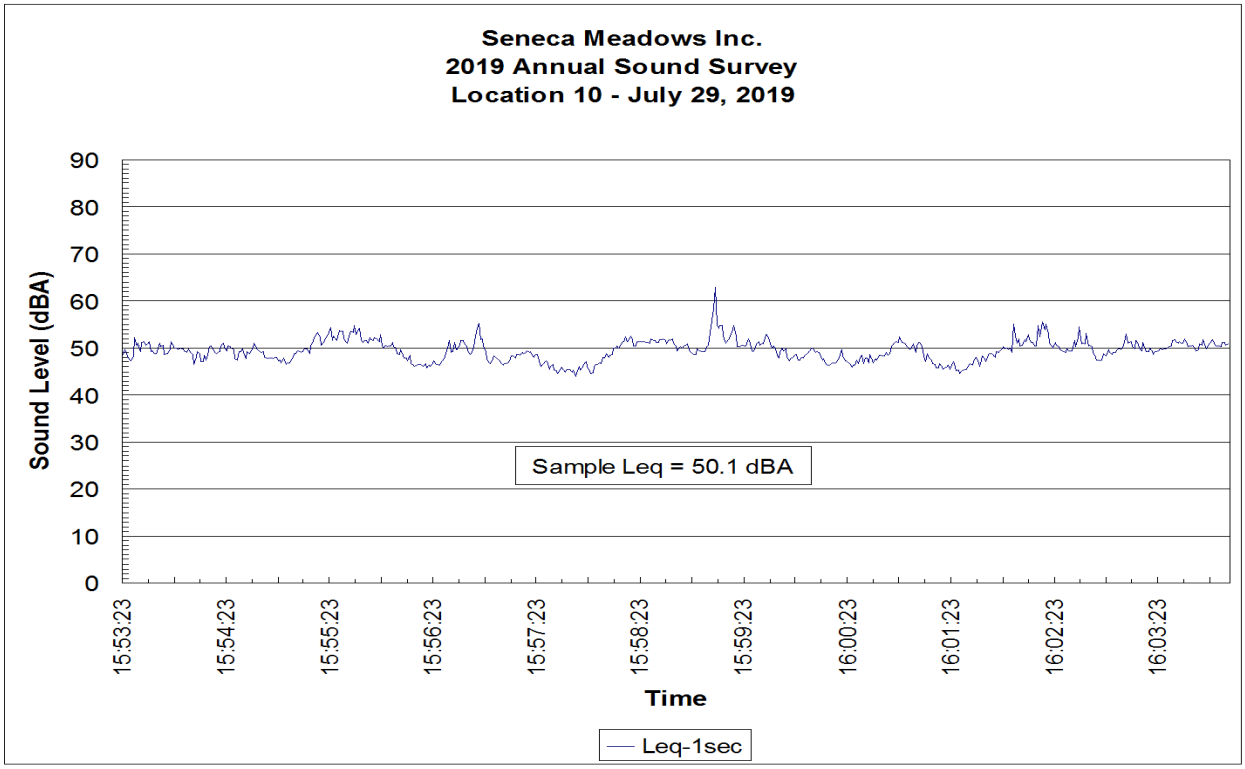
Location 7: Leq = 48.5 dBA
Traffic on North and Burgess Roads, insects, birds, airplane.



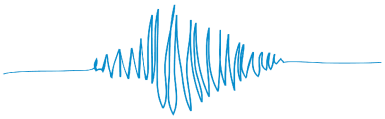
Location 8: Leq = 51.5 dBA
Traffic on North Road, insects, birds, landfill traffic.



Location 9: Leq = 48.5 dBA
Insects, birds, traffic on North Road, faint landfill traffic.



Location 10: Leq = 50.1 dBA
Soil trucks, compactors constructing liner.



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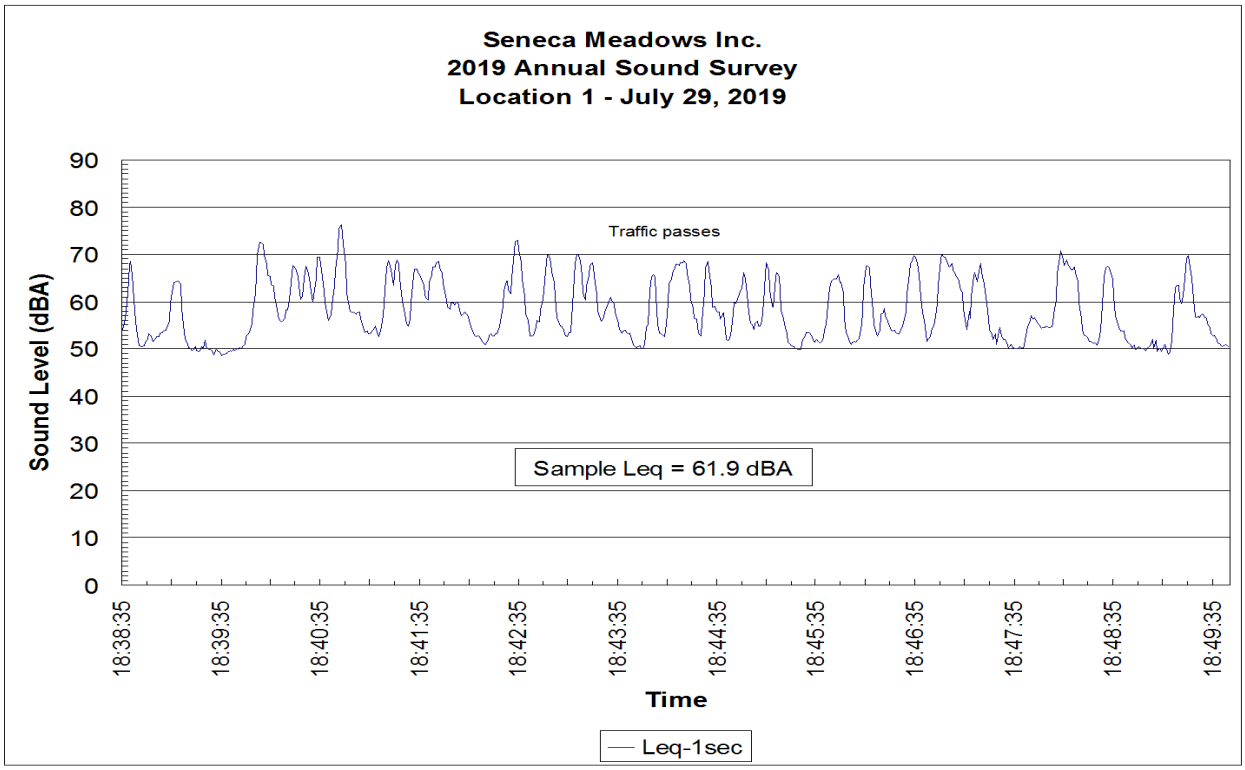
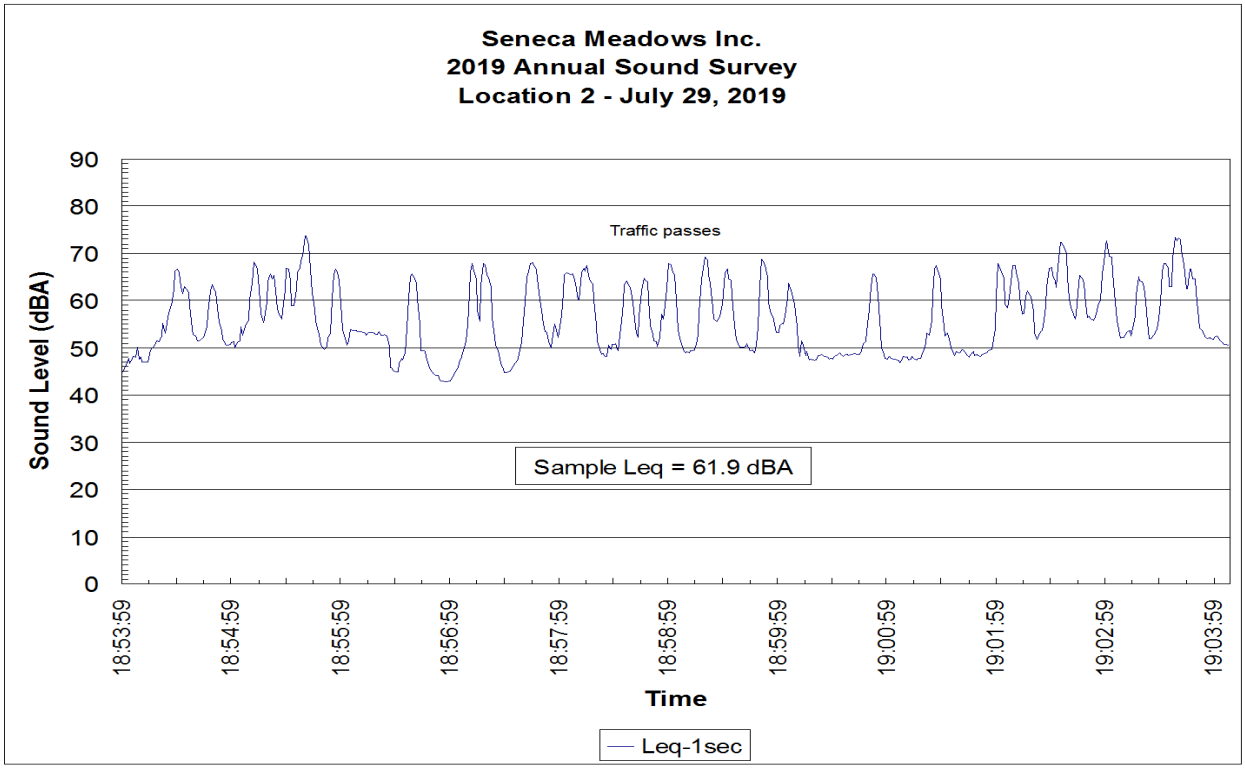
Hand-Held Sound Surveys

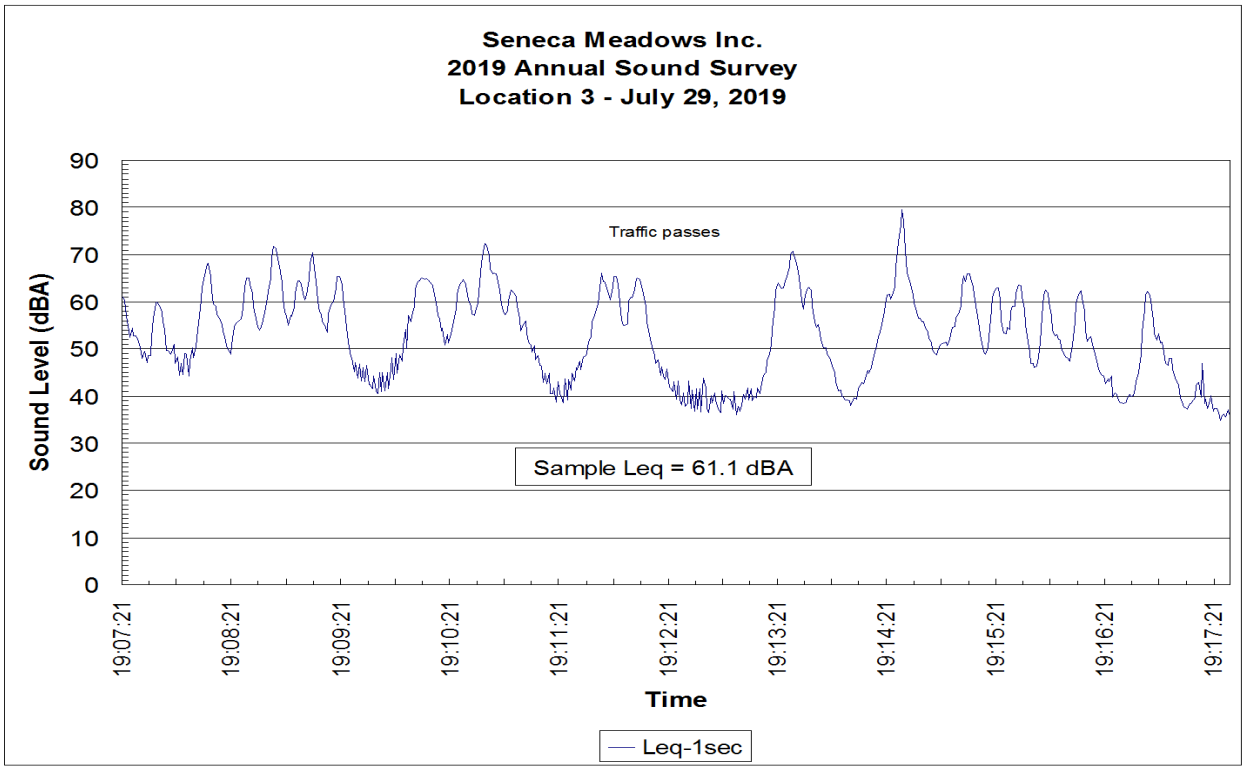
July 29, 2019
Evening Period



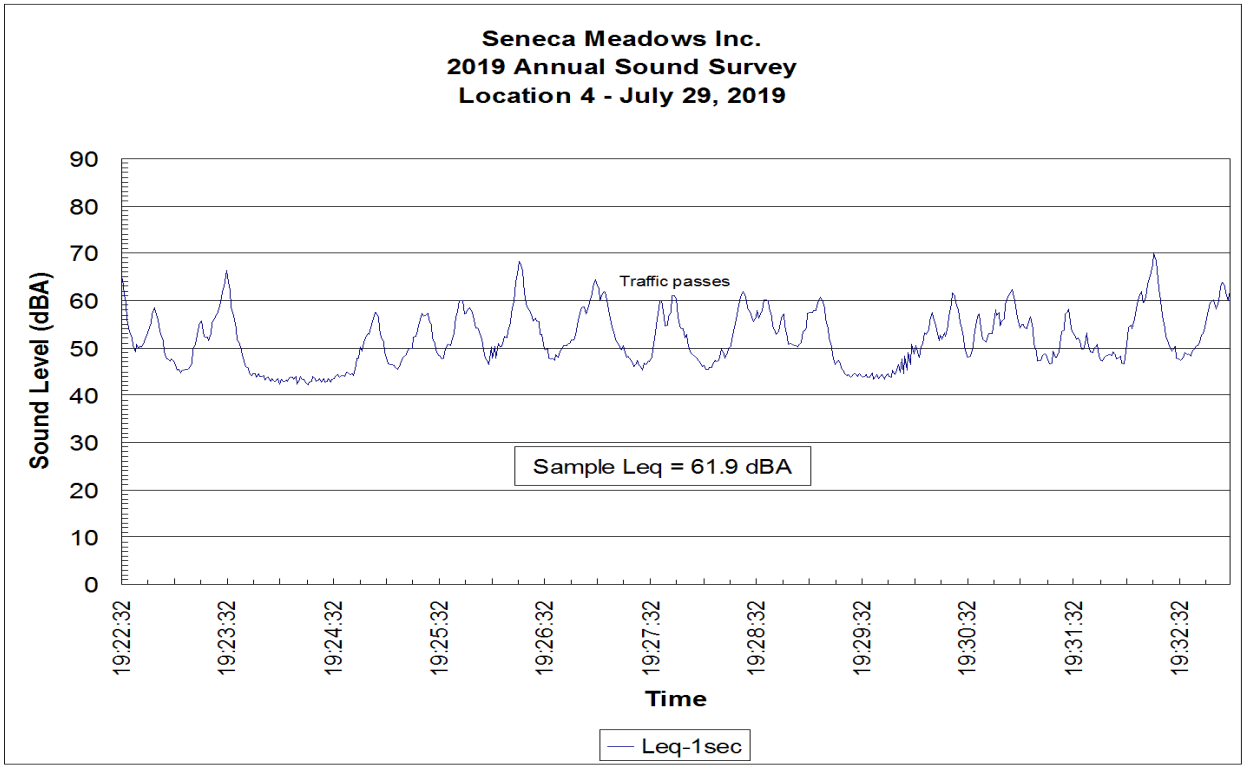
Location 1: Leq = 61.9 dBA
Traffic on Rt. 414, SEI plant, insects.



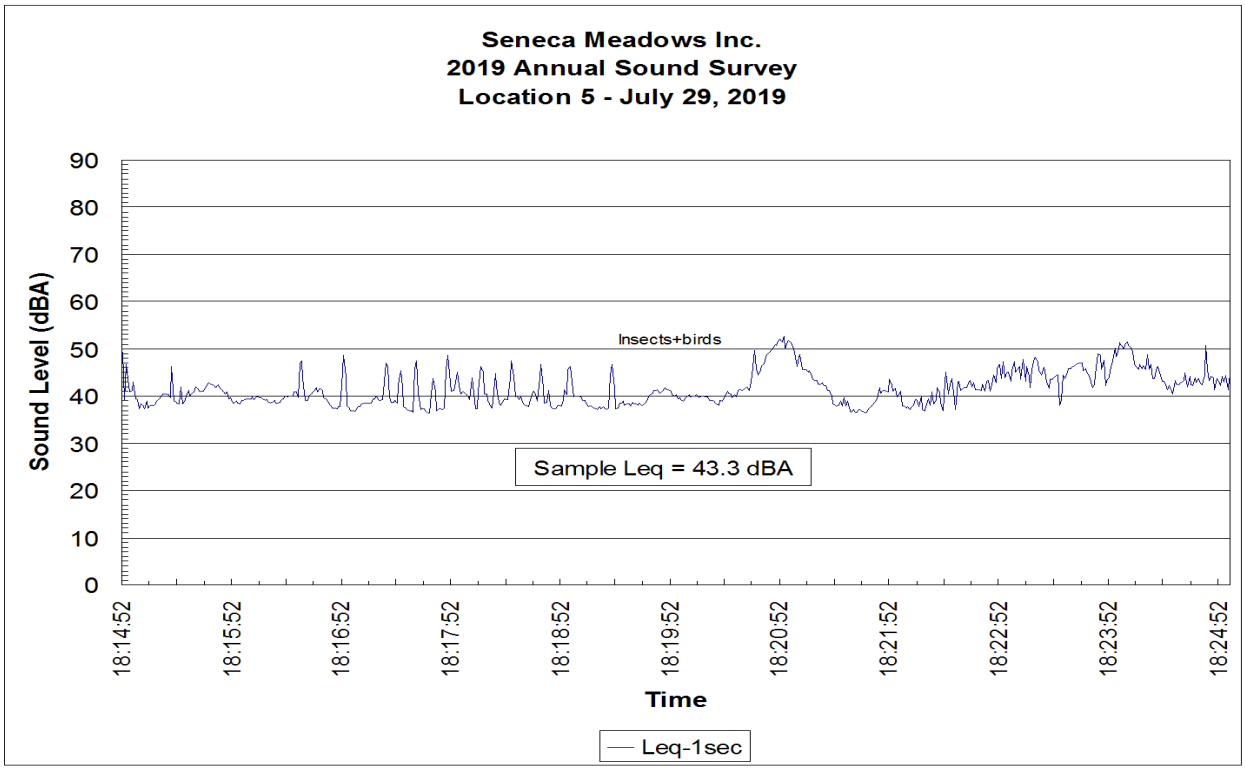
Location 2: Leq = 61.9 dBA
Traffic on Rt. 414, SEI plant, insects.



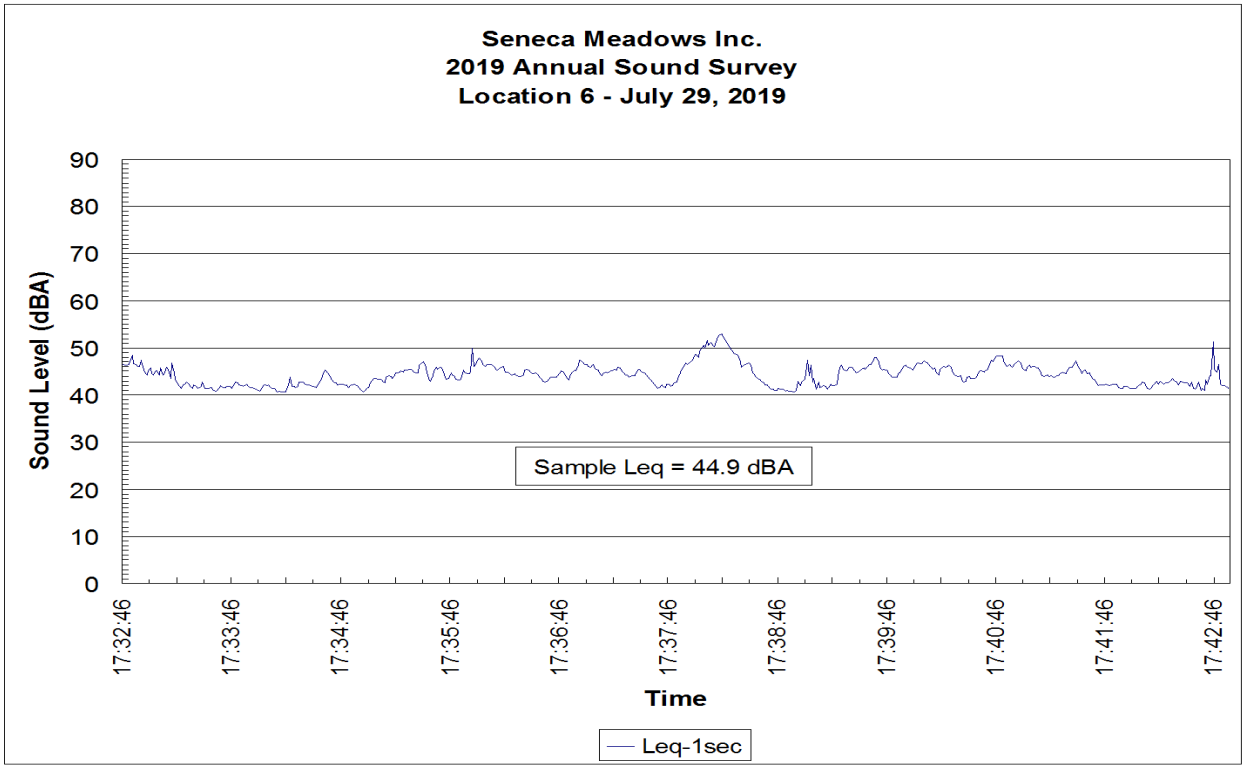
Location 3: Leq = 61.1 dBA
Traffic on Rt. 414, insects, birds.



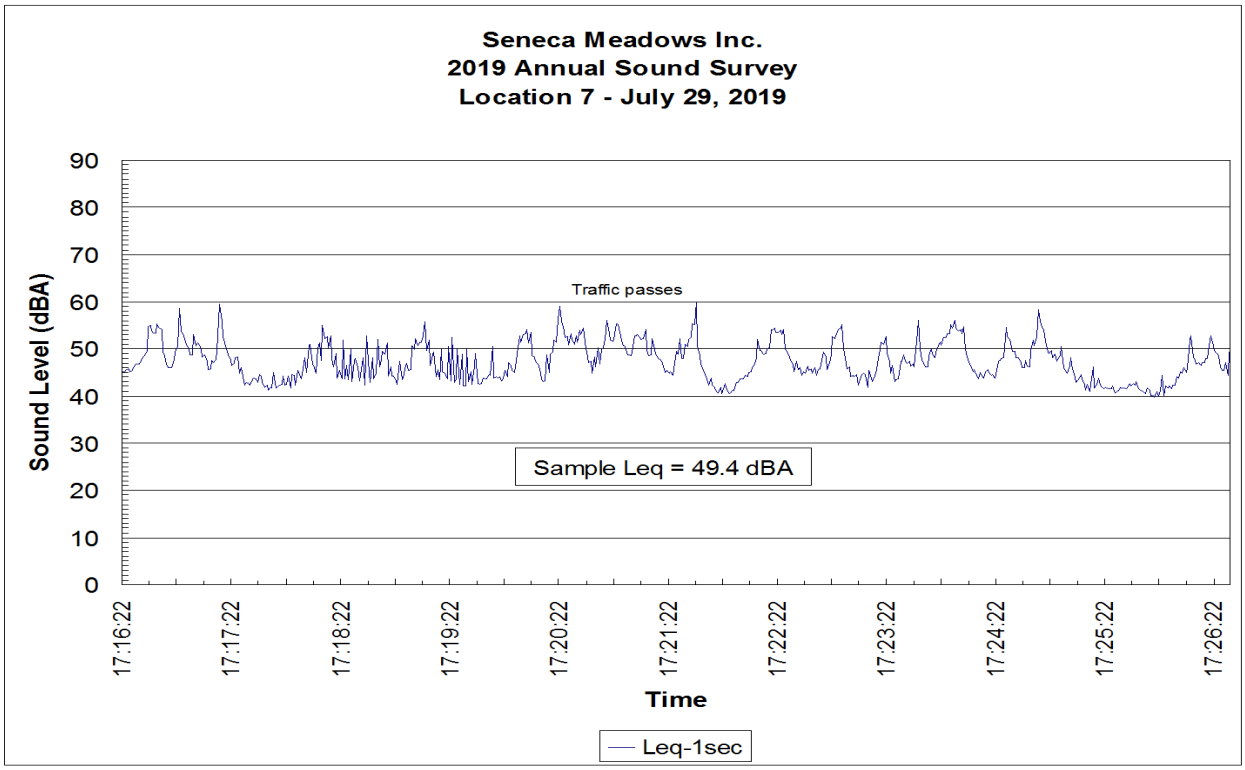
Location 4: Leq = 61.9 dBA
Traffic on Rt. 414, insects, birds.



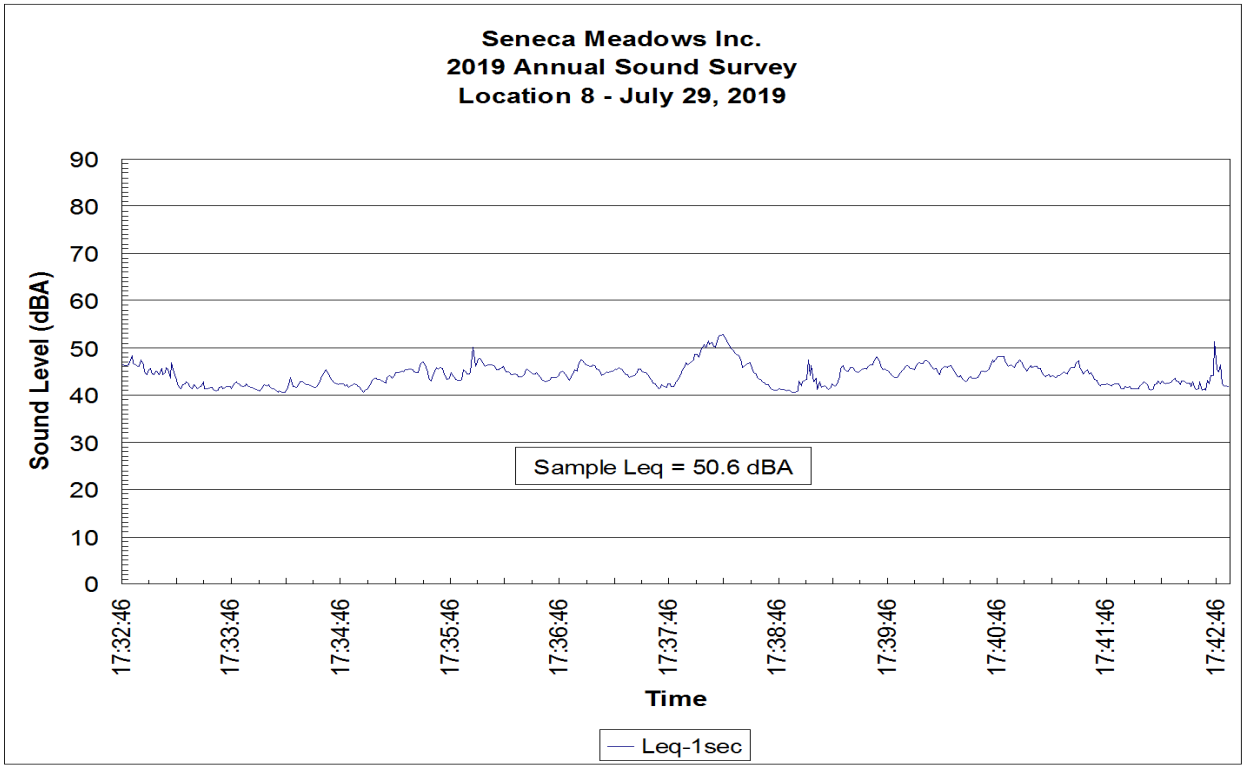
Location 5: Leq = 43.3 dBA
Insects, birds, traffic on Burgess Road and Rt. 414.



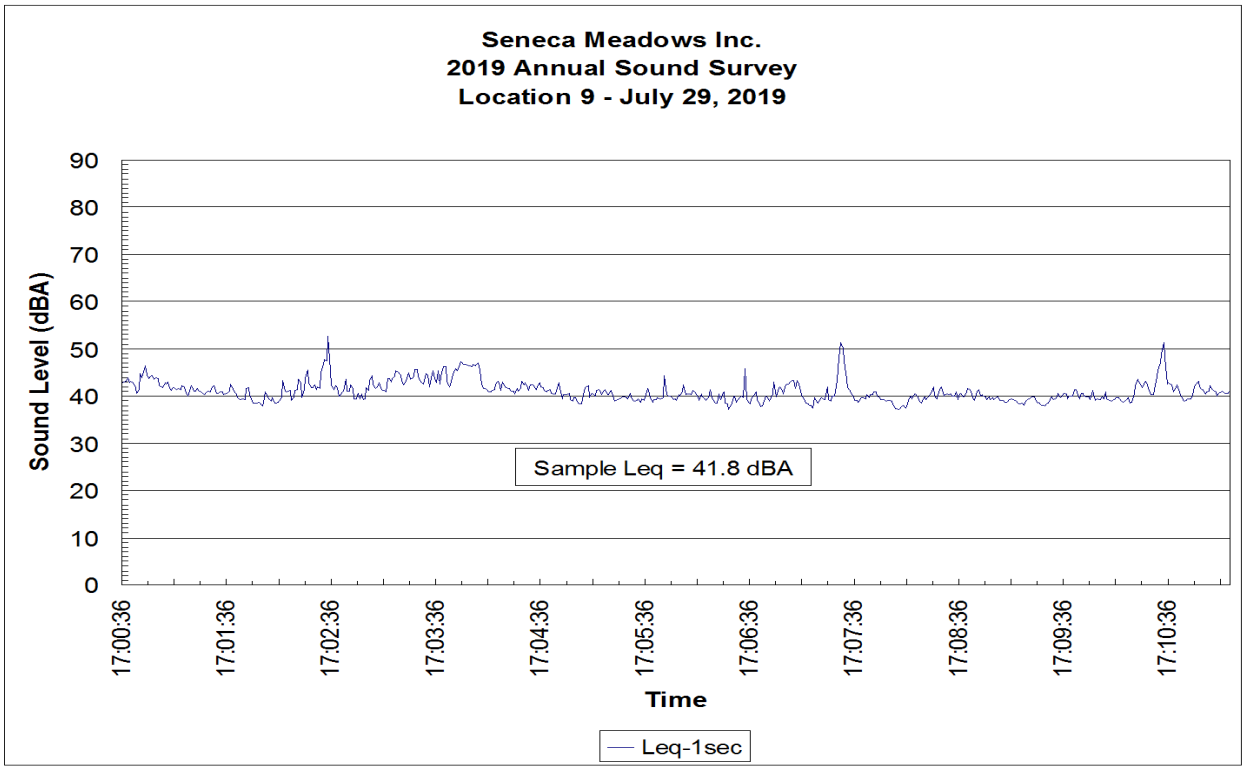
Location 6: Leq = 44.9 dBA
Insects, birds, wind, traffic on Burgess Road.



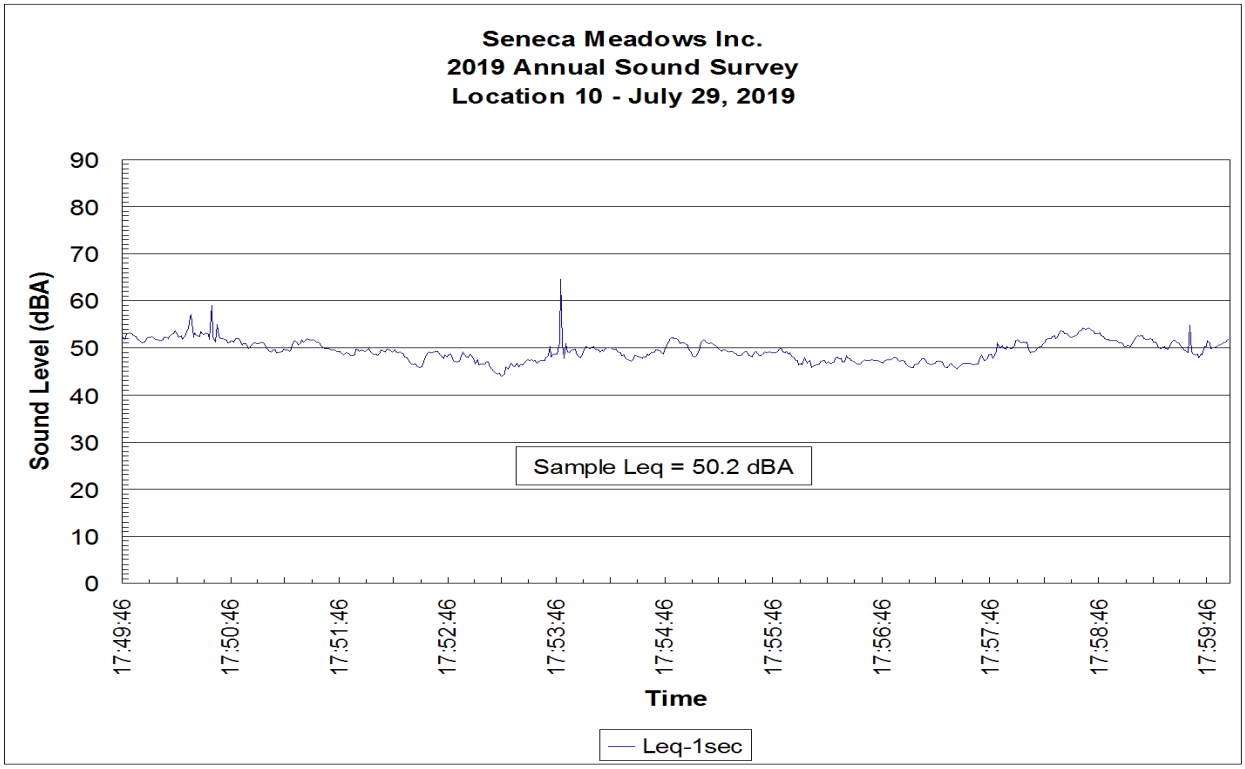
Location 7: Leq = 49.4 dBA
Insects, birds, wind, traffic on North and Burgess Roads.



Location 8: Leq = 50.6 dBA
Traffic on North Road, insects.



Location 9: Leq = 41.8 dBA
Traffic on North Road, insects, wind.



Location 10: Leq = 50.2 dBA
Wind, idling bulldozer on berm.

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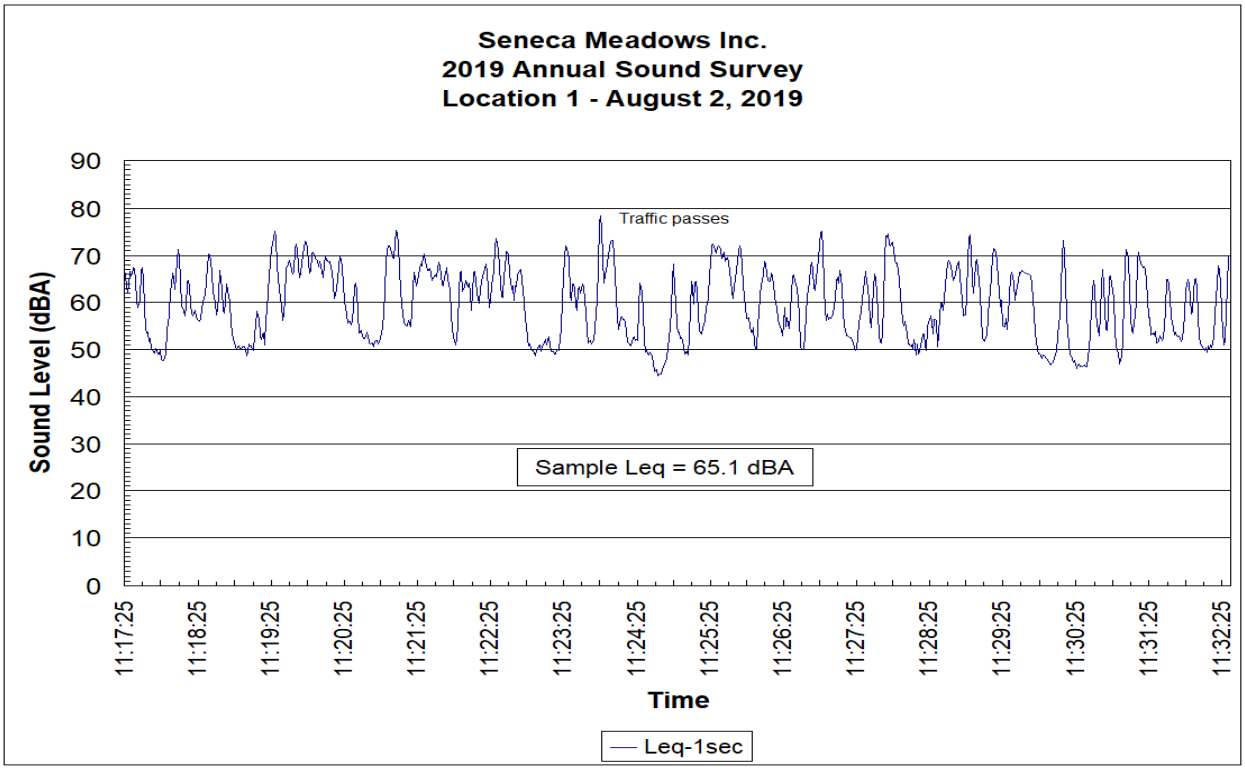
Appendix D

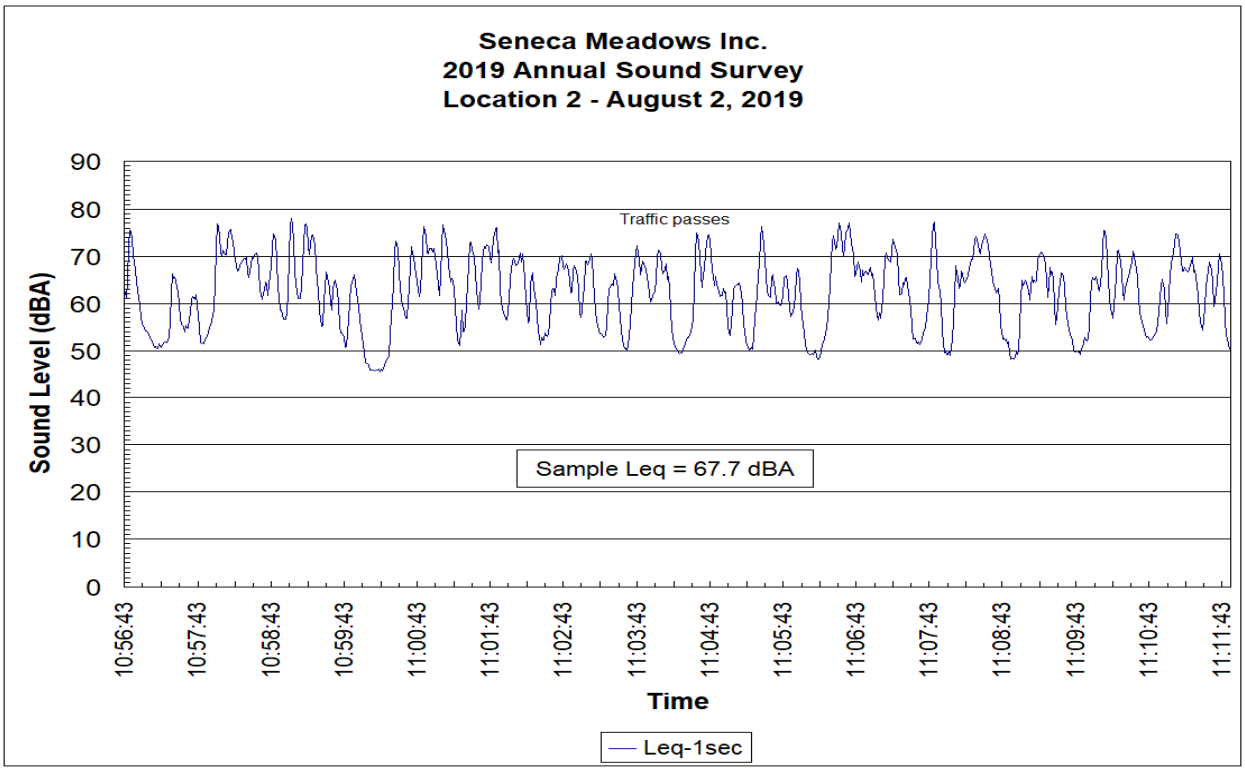
Hand-Held Sound Surveys

August 2, 2019

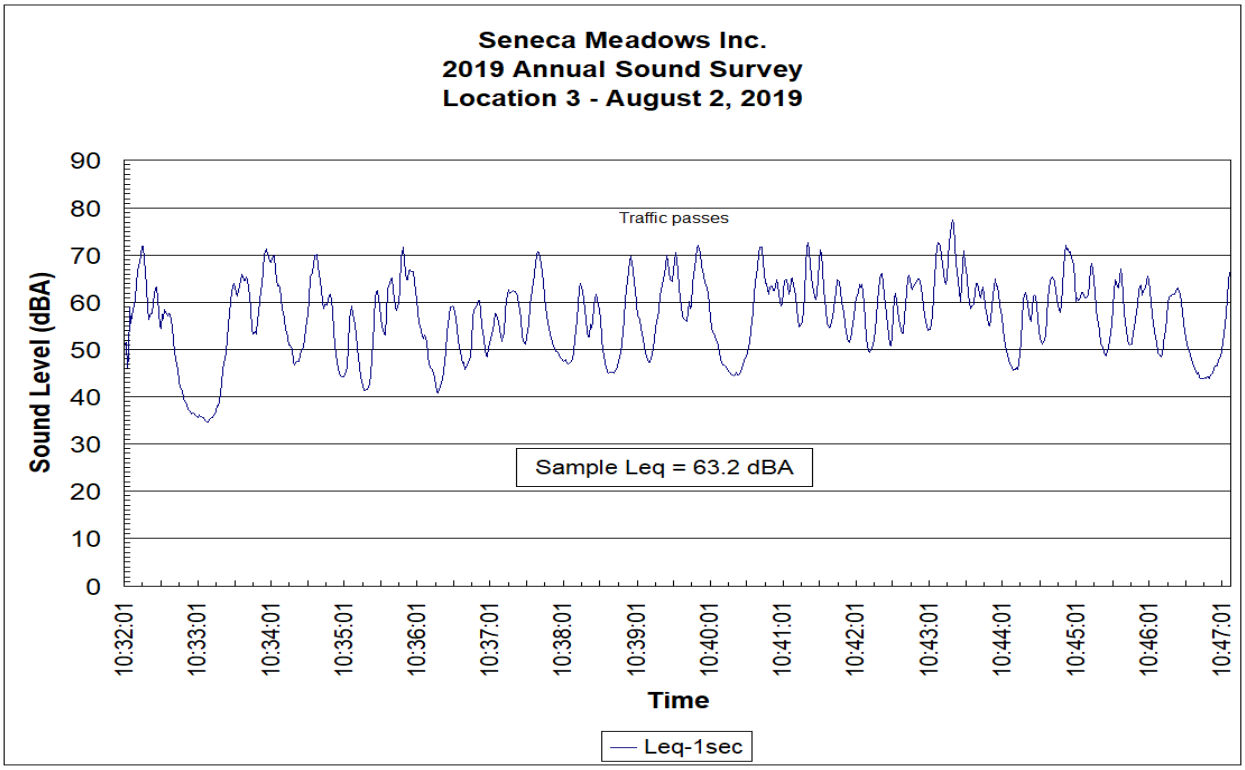
Morning Period



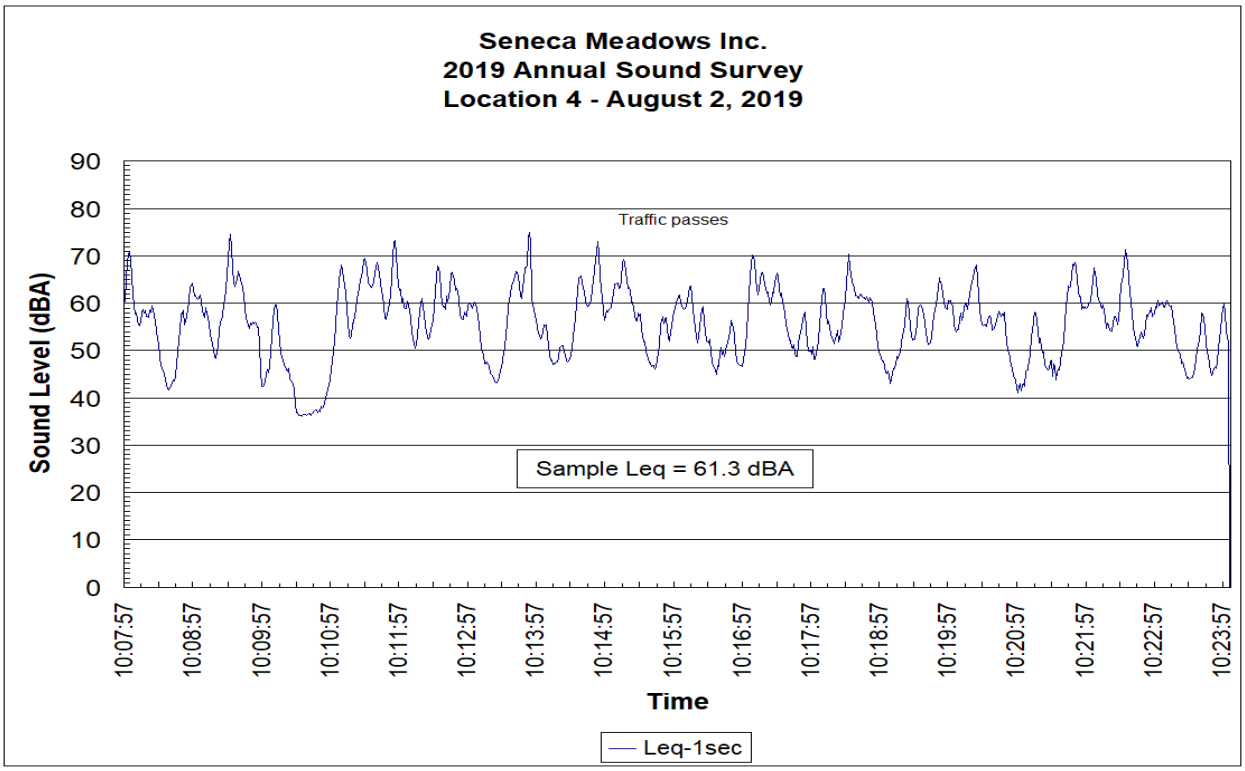
Location 1: Leq = 65.1 dBA
Traffic on Rt. 414, SEI plant.



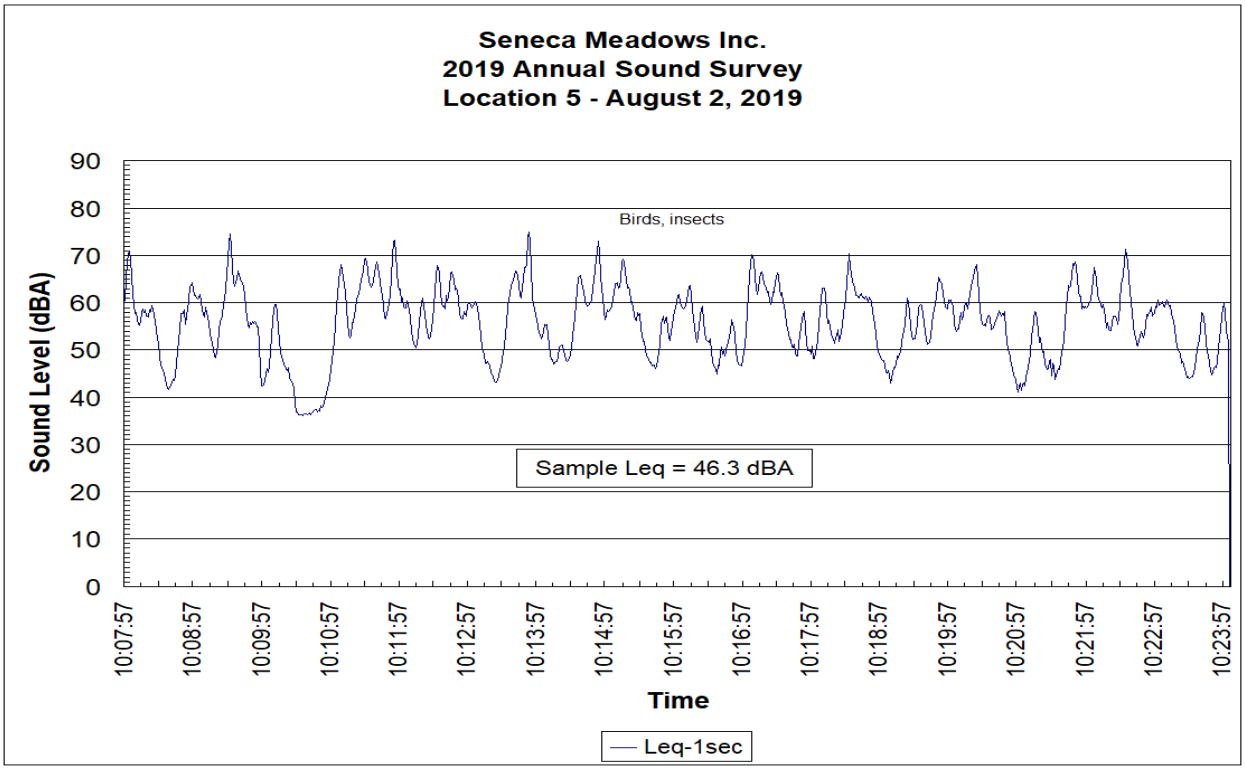
Location 2: Leq = 67.7 dBA
Traffic on Rt. 414, SEI plant.



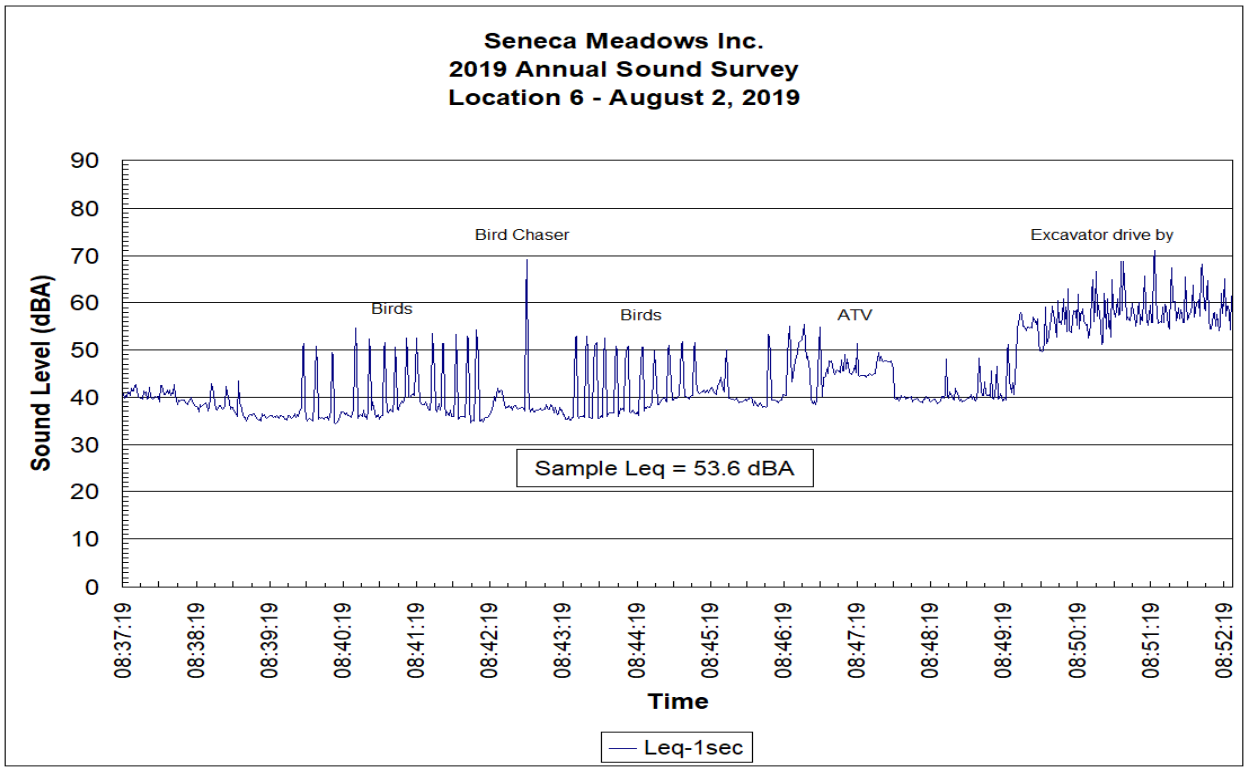
Location 3: Leq = 63.2 dBA
Traffic on Rt. 414.



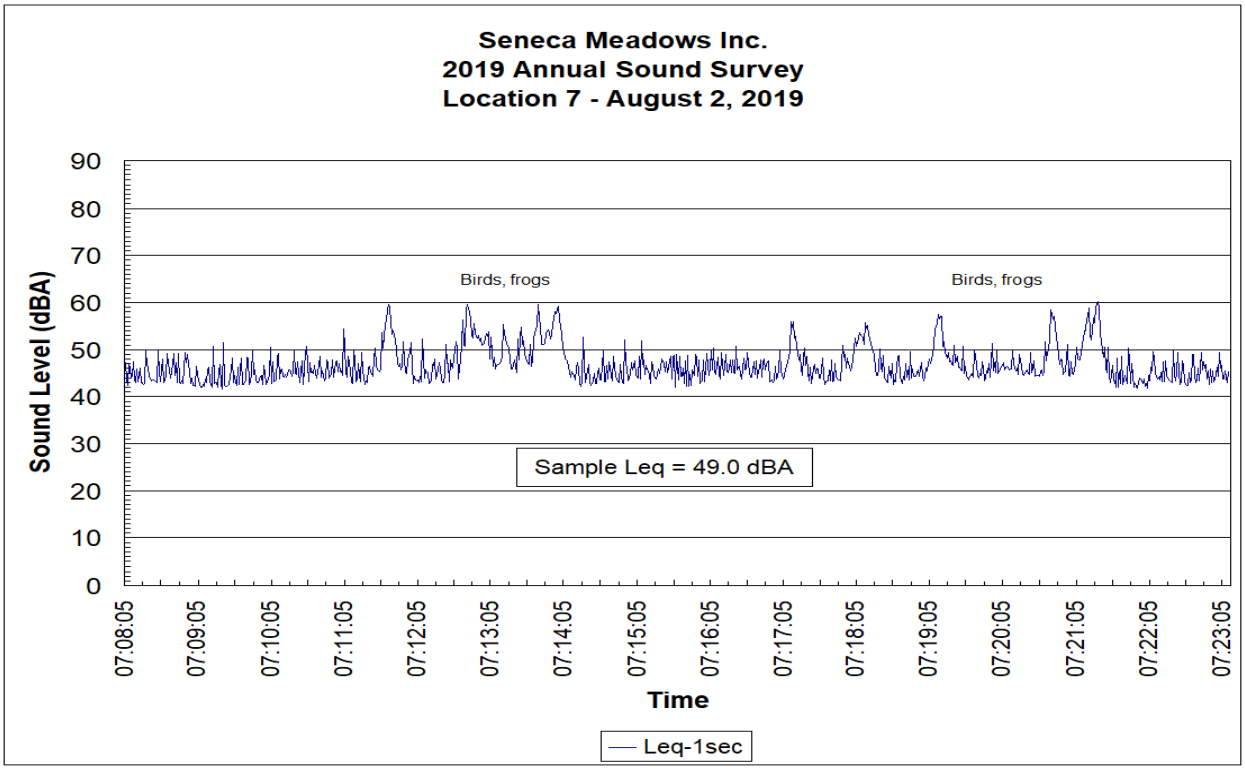
Location 4: Leq = 61.3 dBA
Traffic on Rt. 414, insects, birds.



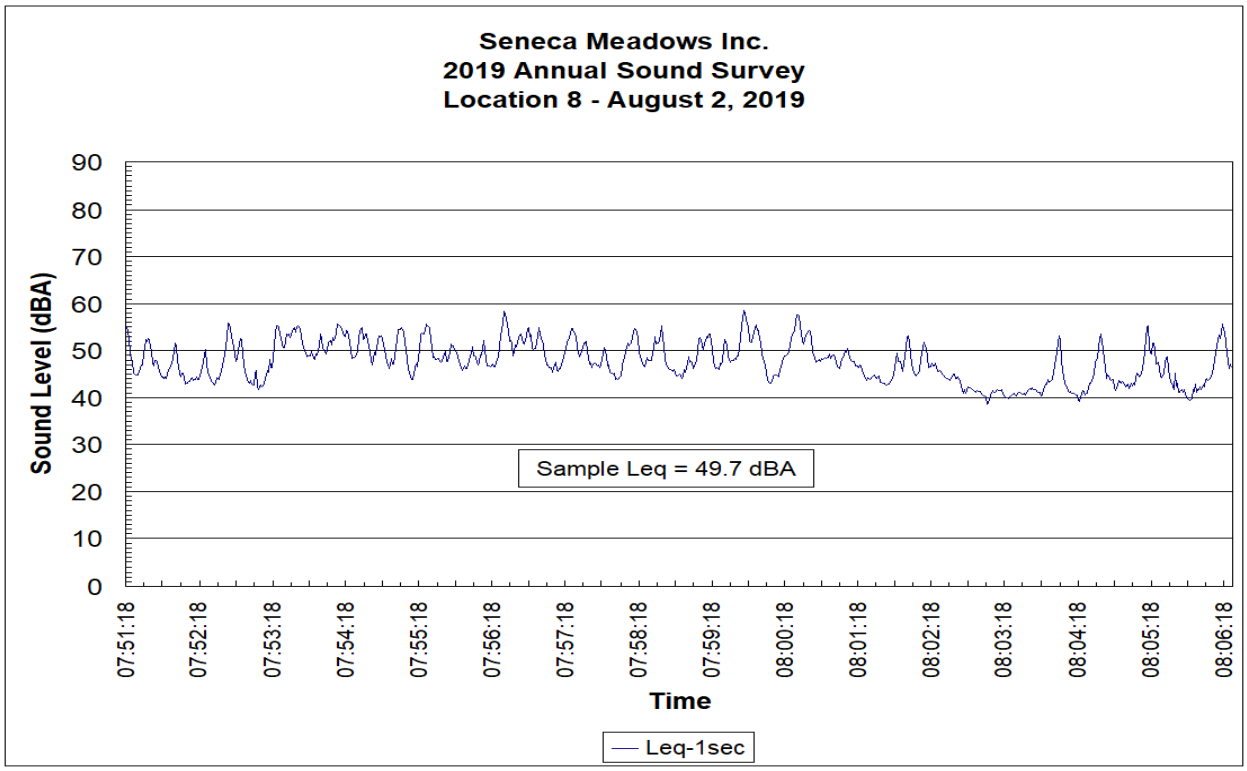
Location 5: Leq = 46.3 dBA
Birds, insects, traffic on Burgess Road and Rt. 414.



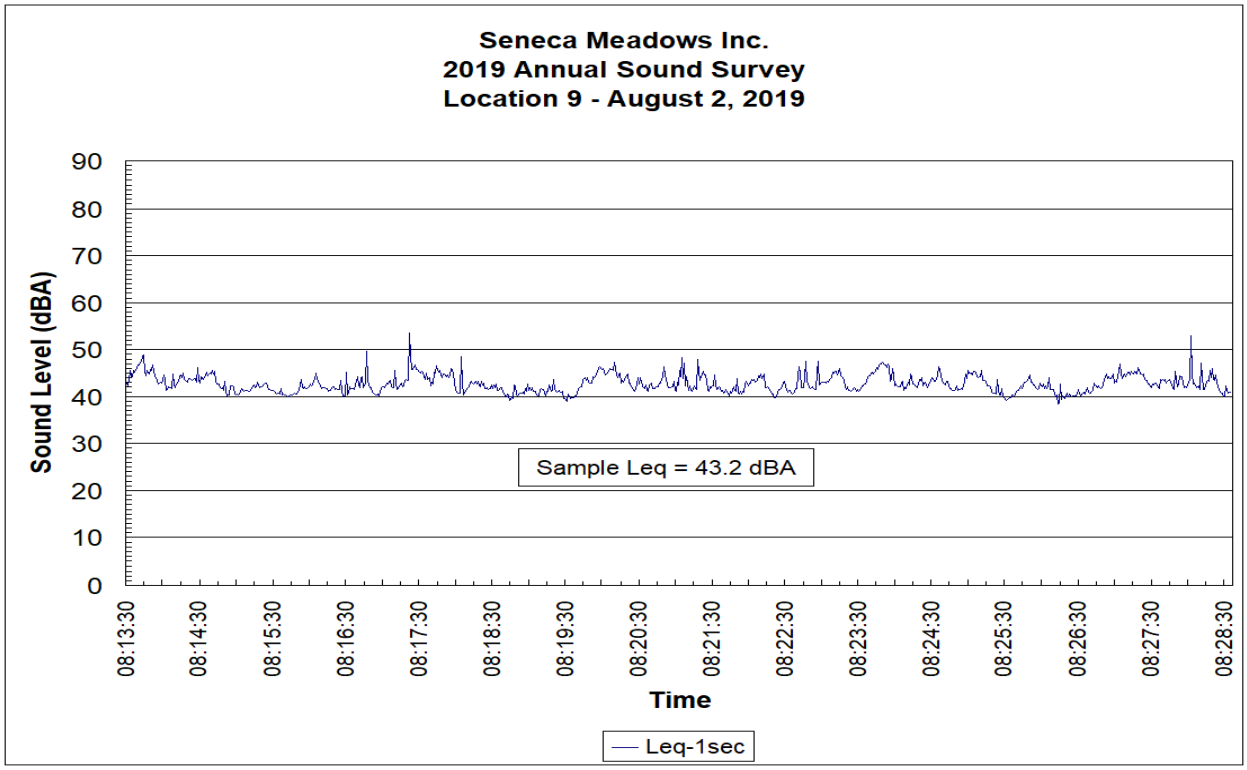
Location 6: Leq = 53.6 dBA
Birds, insects, bird chaser, ATV, excavator drive by.



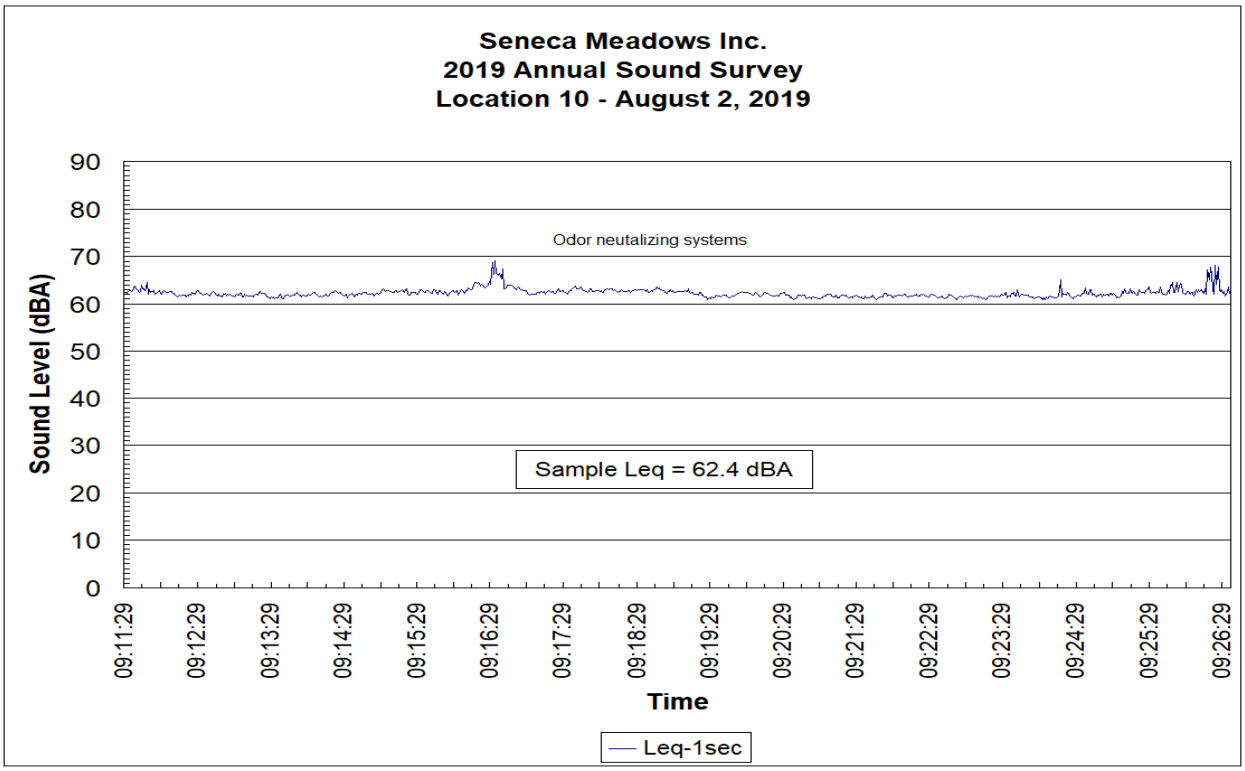
Location 7: Leq =49.0 dBA
Traffic on North and Burgess Roads, birds, frog calling.



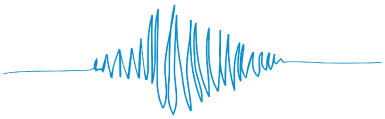
Location 8: Leq = 49.7 dBA
Traffic passes on North Road, landfill traffic, birds.



Location 9: Leq = 43.2 dBA
Traffic on North Road, landfill traffic, birds, soil storage area activities.



Location 10: Leq = 62.4 dBA
Odor neutralizing system on berm.



AURORA ACOUSTICAL CONSULTANTS Inc.

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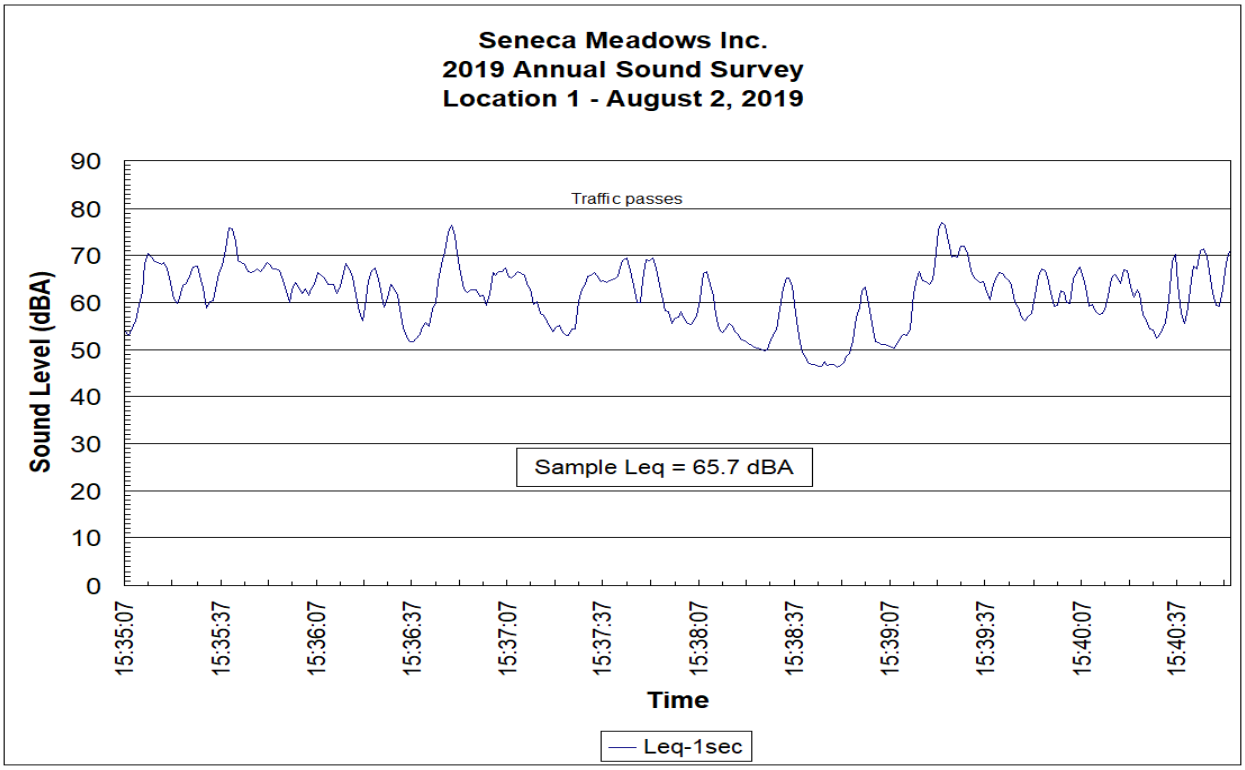
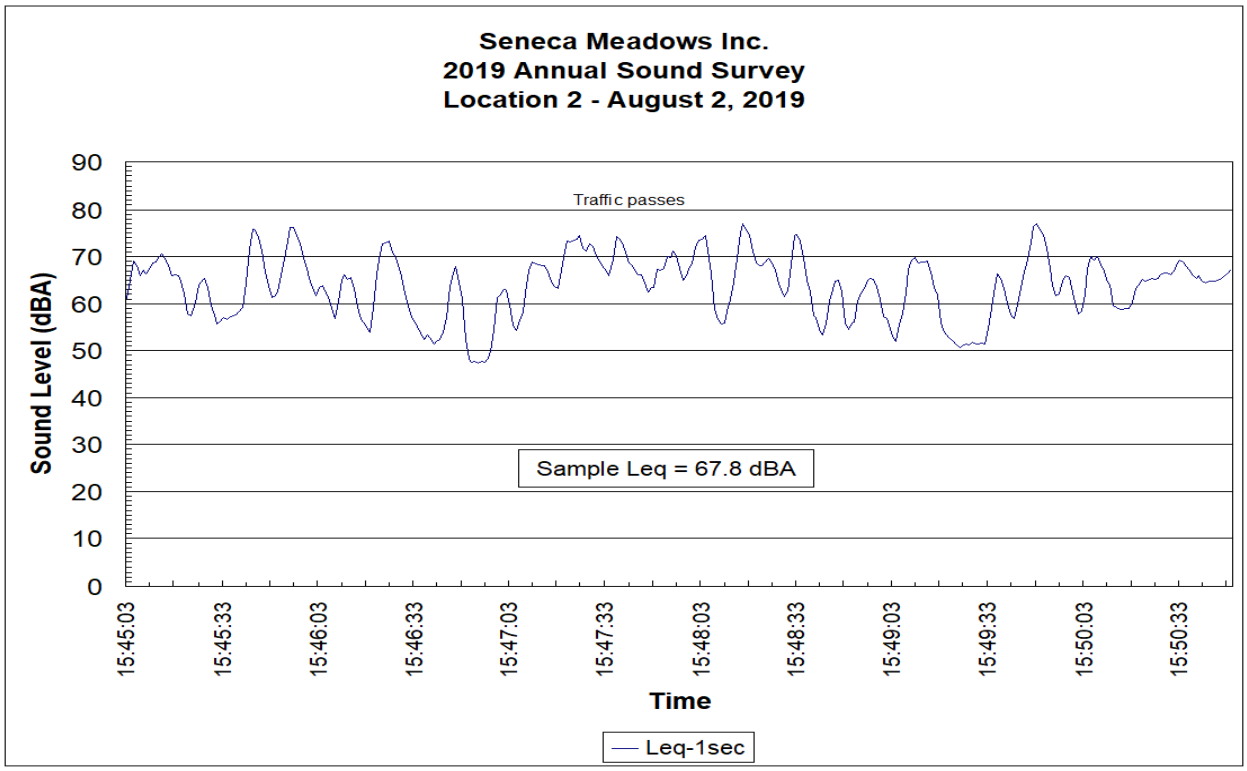
Hand-Held Sound Surveys

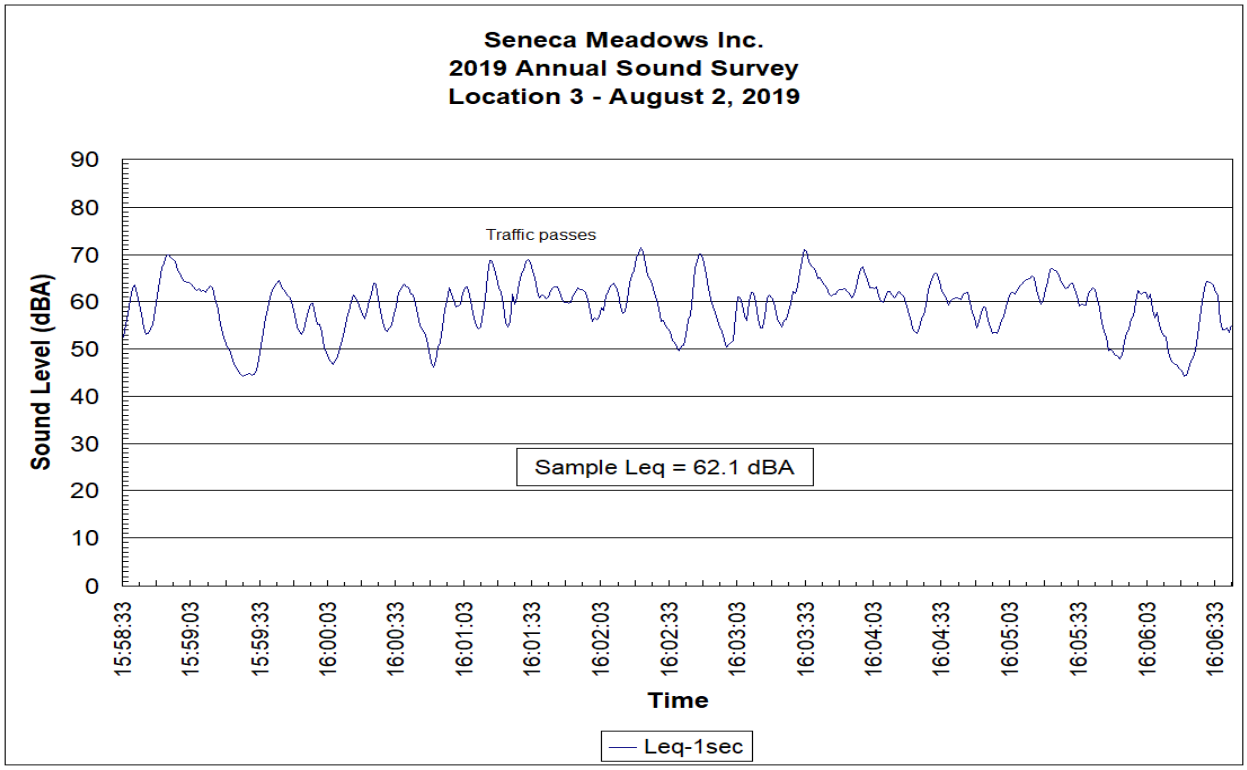
August 2, 2019
Mid-day to Afternoon Period



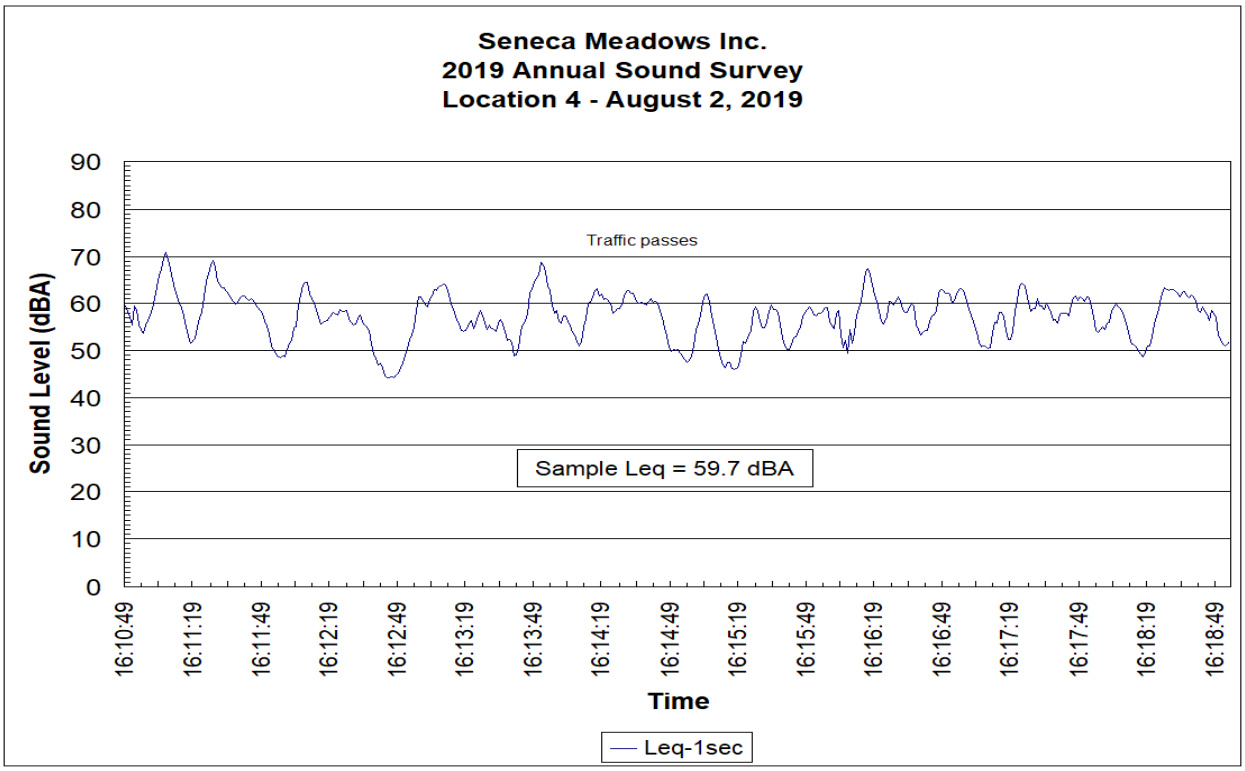
Location 1: Leq = 65.7 dBA
Traffic on Rt. 414; SEI plant.



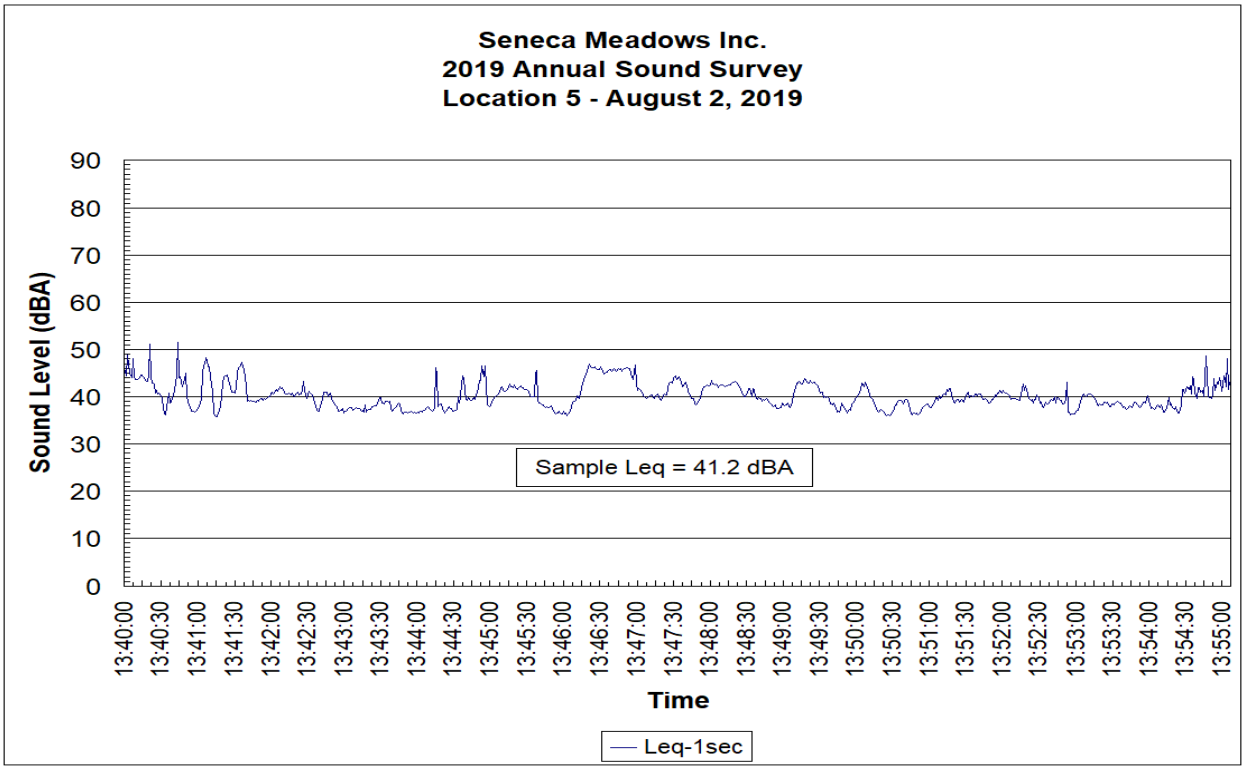
Location 2: Leq = 67.8 dBA
Traffic on Rt. 414, SEI plant.



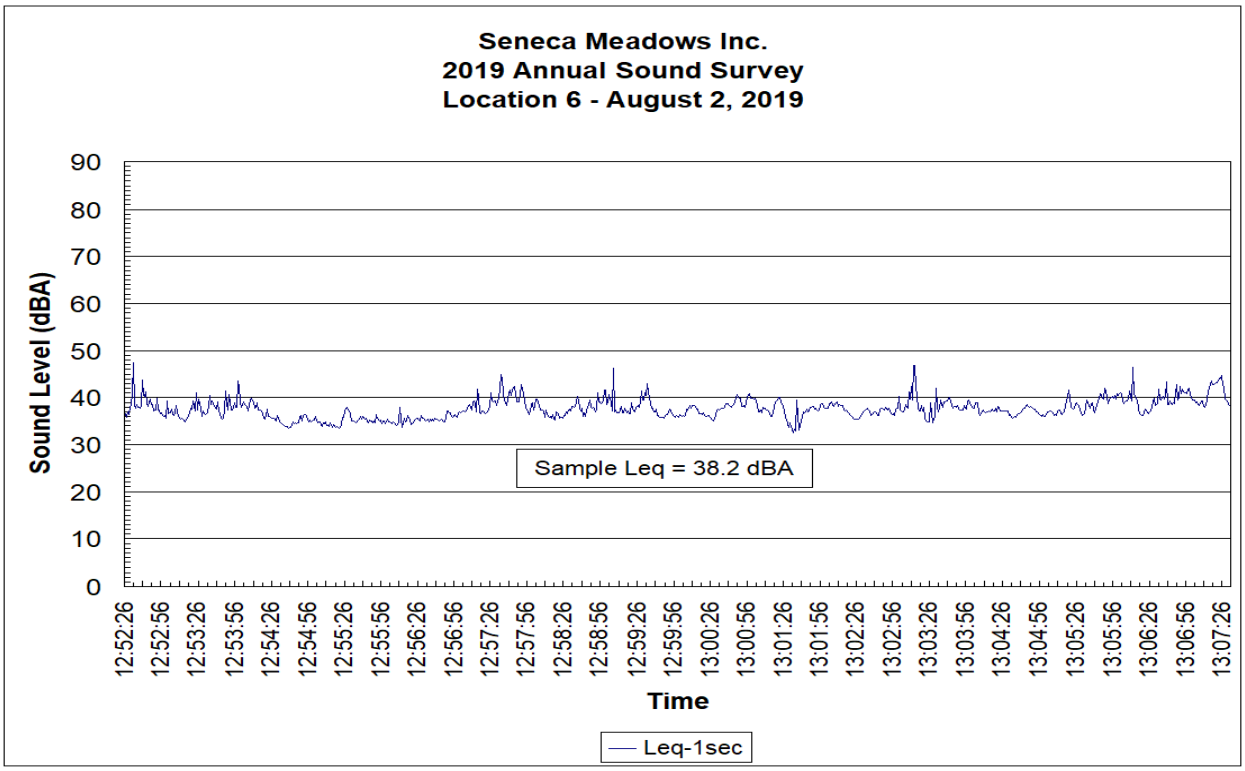
Location 3: Leq = 64.2 dBA
Traffic on Rt. 414, insects.



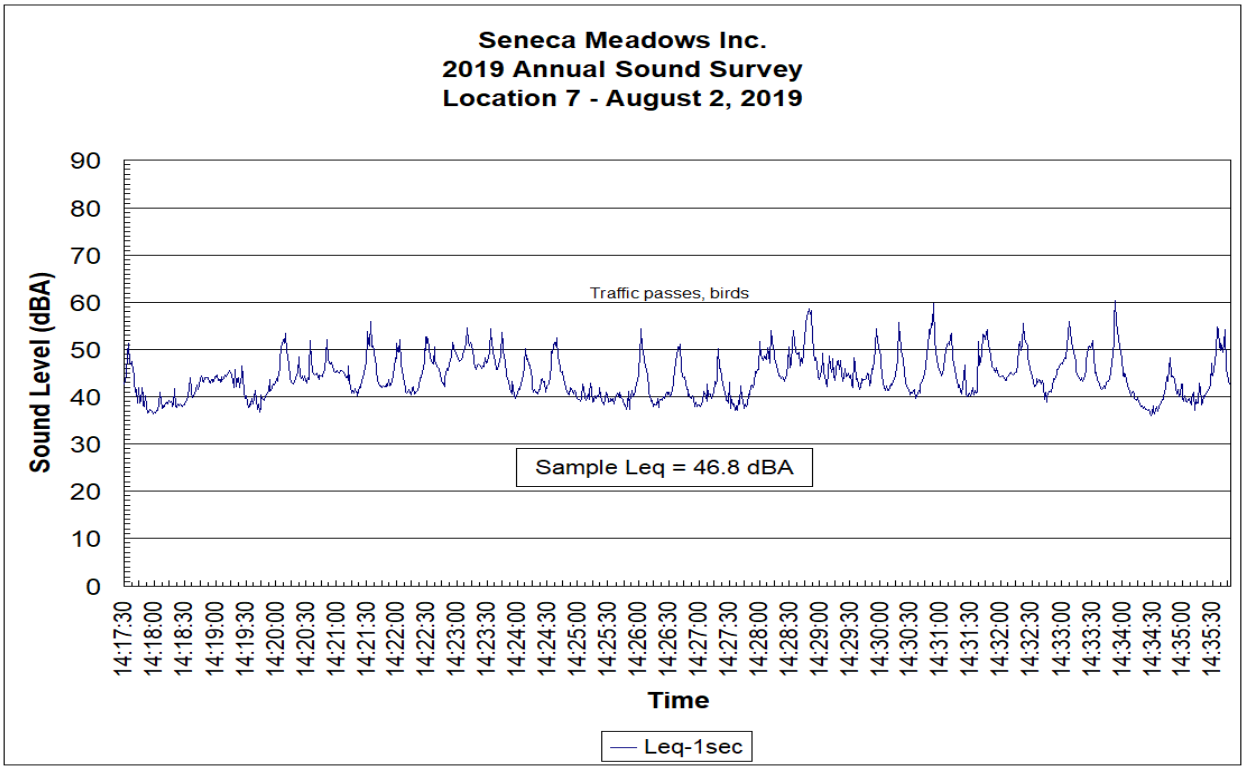
Location 4: Leq = 59.7 dBA
Traffic on Rt. 414, insects.



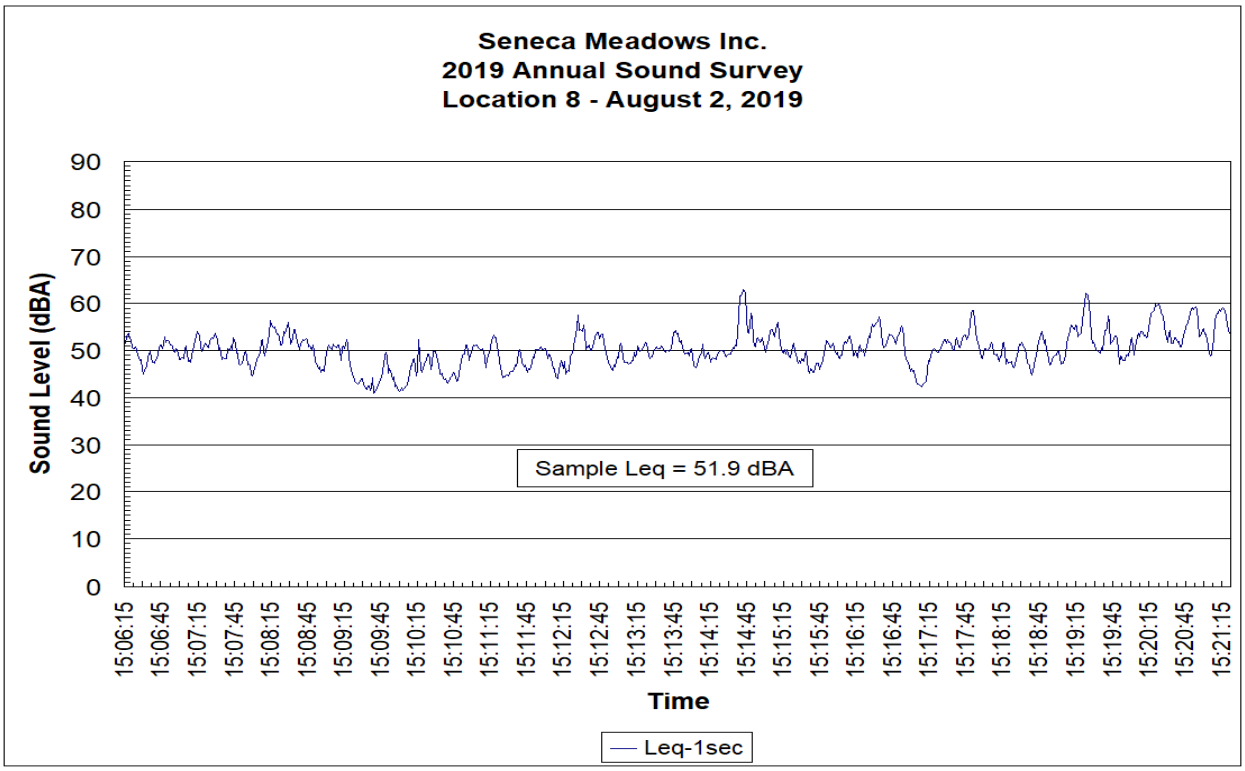
Location 5: Leq = 41.2 dBA
Insects, birds, traffic on Burgess Road and Rt. 414.



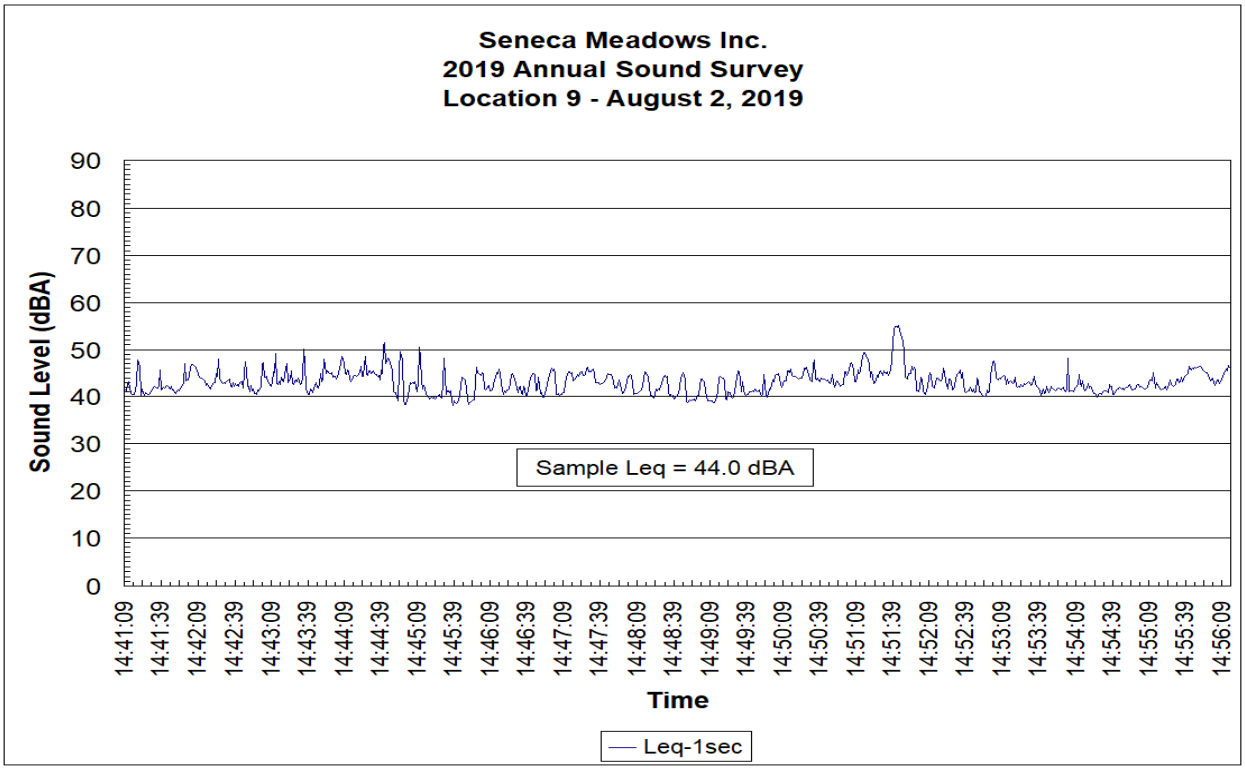
Location 6: Leq = 38.2 dBA
Birds, traffic on Burgess Road. odor neutralizers.



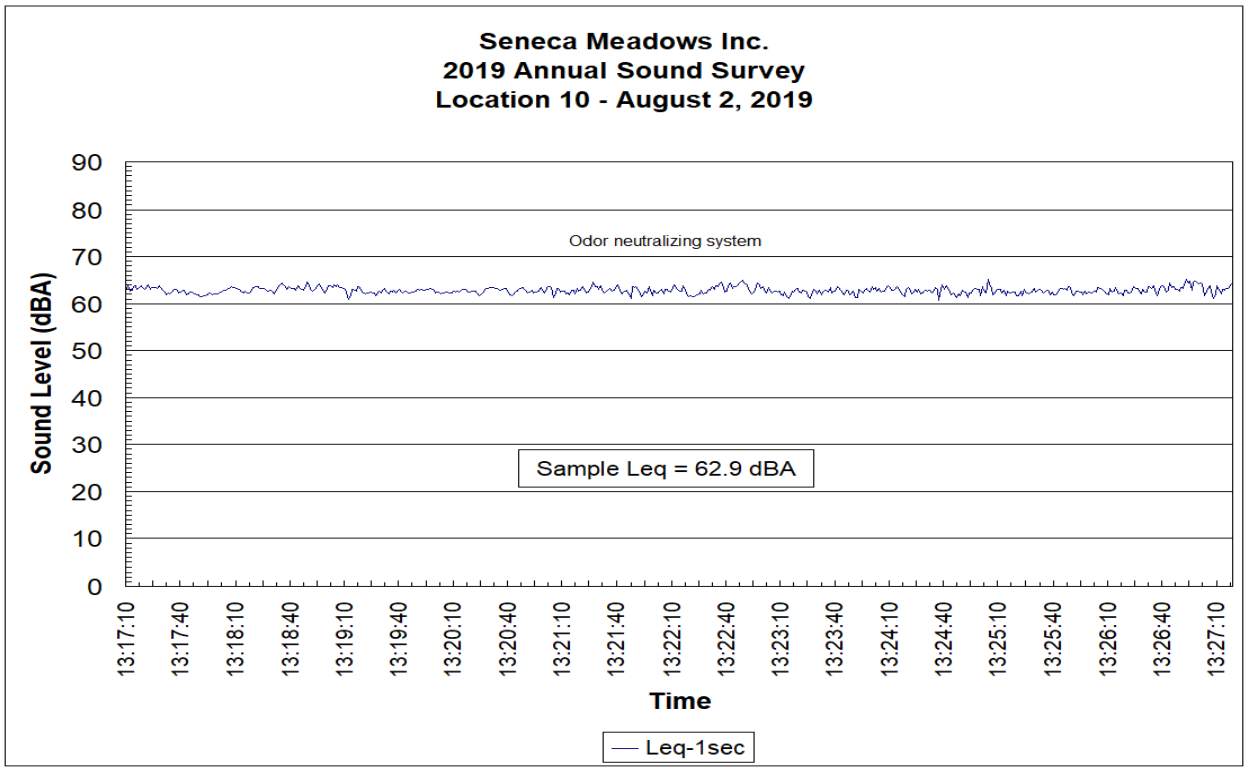
Location 7: Leq = 46.8 dBA
Traffic on North and Burgess Roads, birds. soil storage area activities.



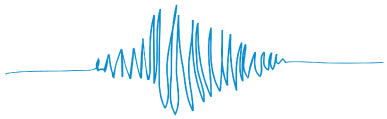
Location 8: Leq = 51.9 dBA
Traffic on North Road, insects, landfill traffic.



Location 9: Leq = 44.0 dBA
Activities in soil storage area, excavator on north end of bus road dredging swales, traffic on North Road, faint landfill traffic.



Location 10: Leq = 62.9 dBA
Odor neutralizing system on berm.



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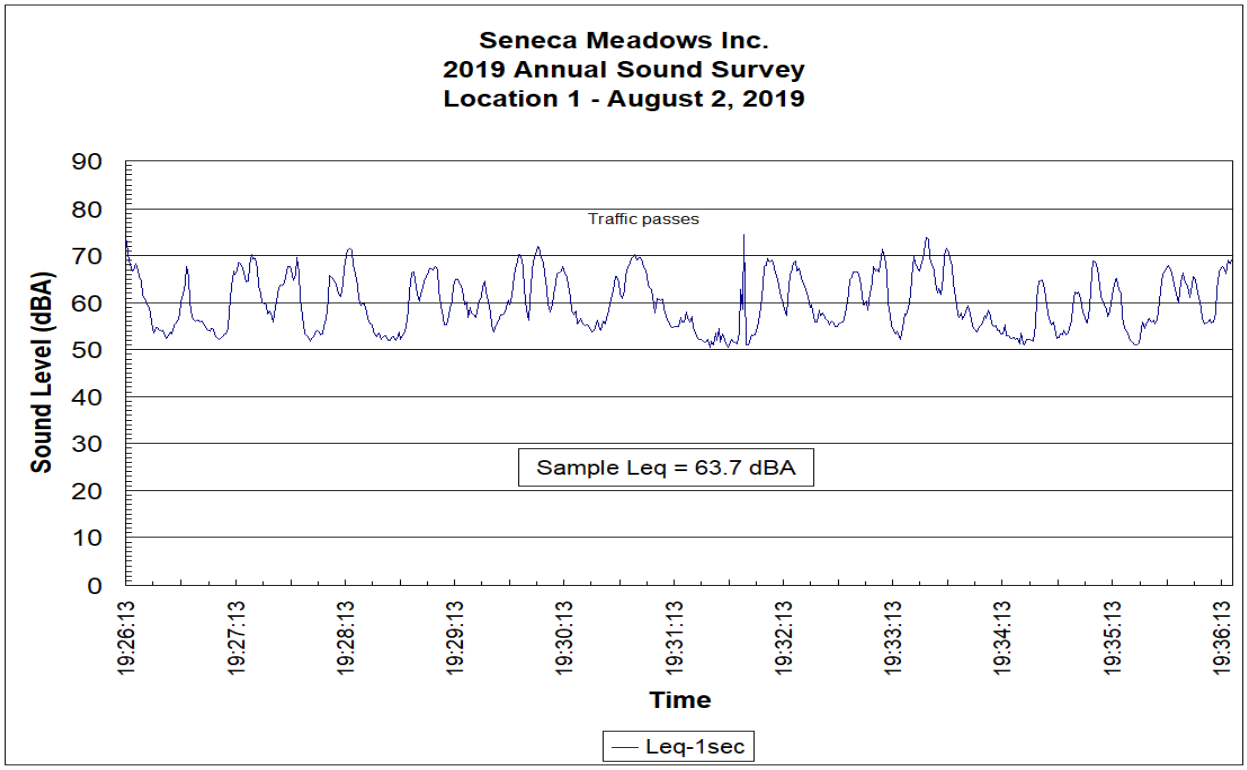
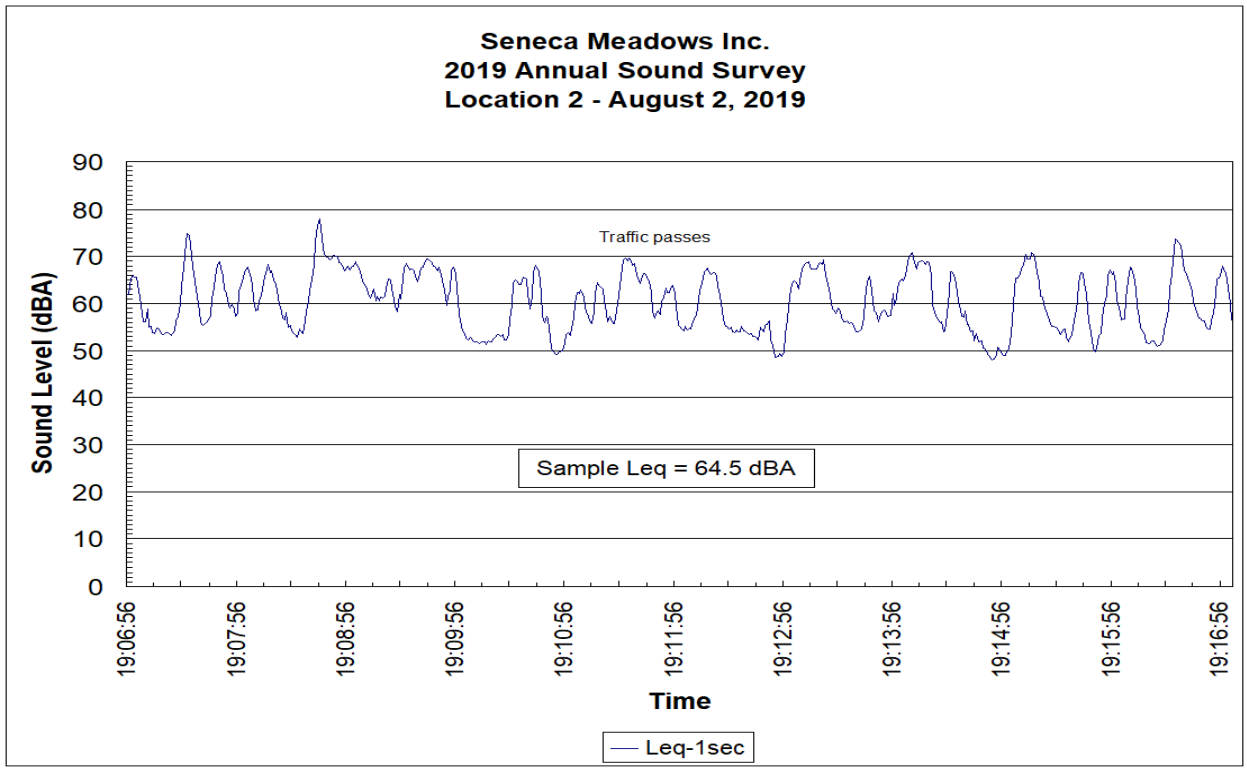
Hand-Held Sound Surveys

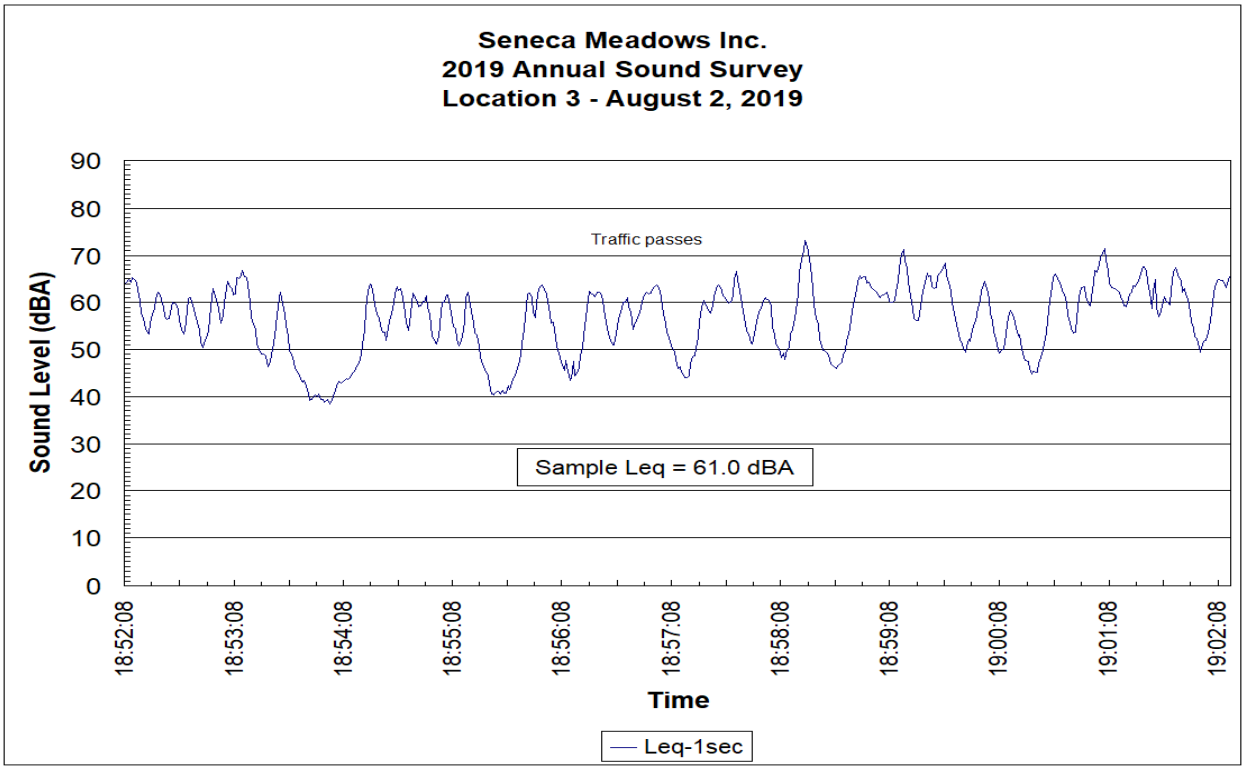
August 2, 2019
Evening Period



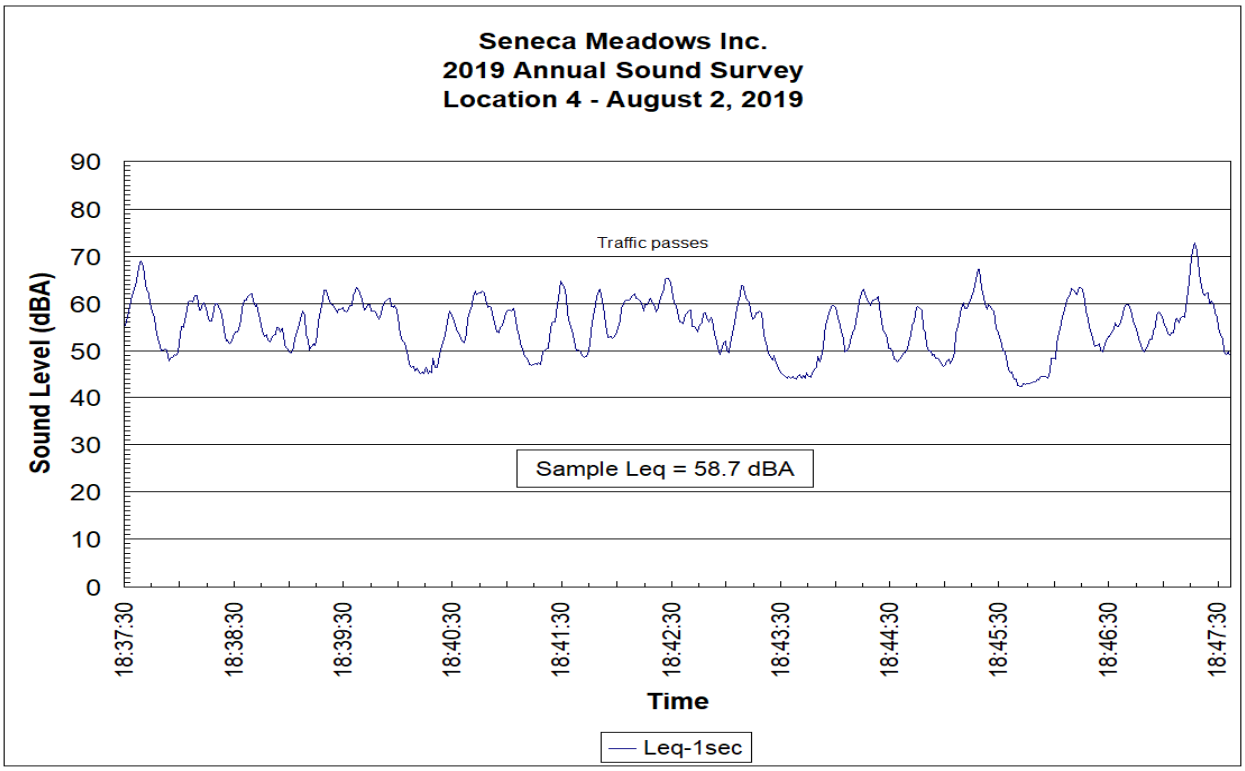
Location 1: Leq = 63.7 dBA
Traffic on Rt. 414, SEI plant.



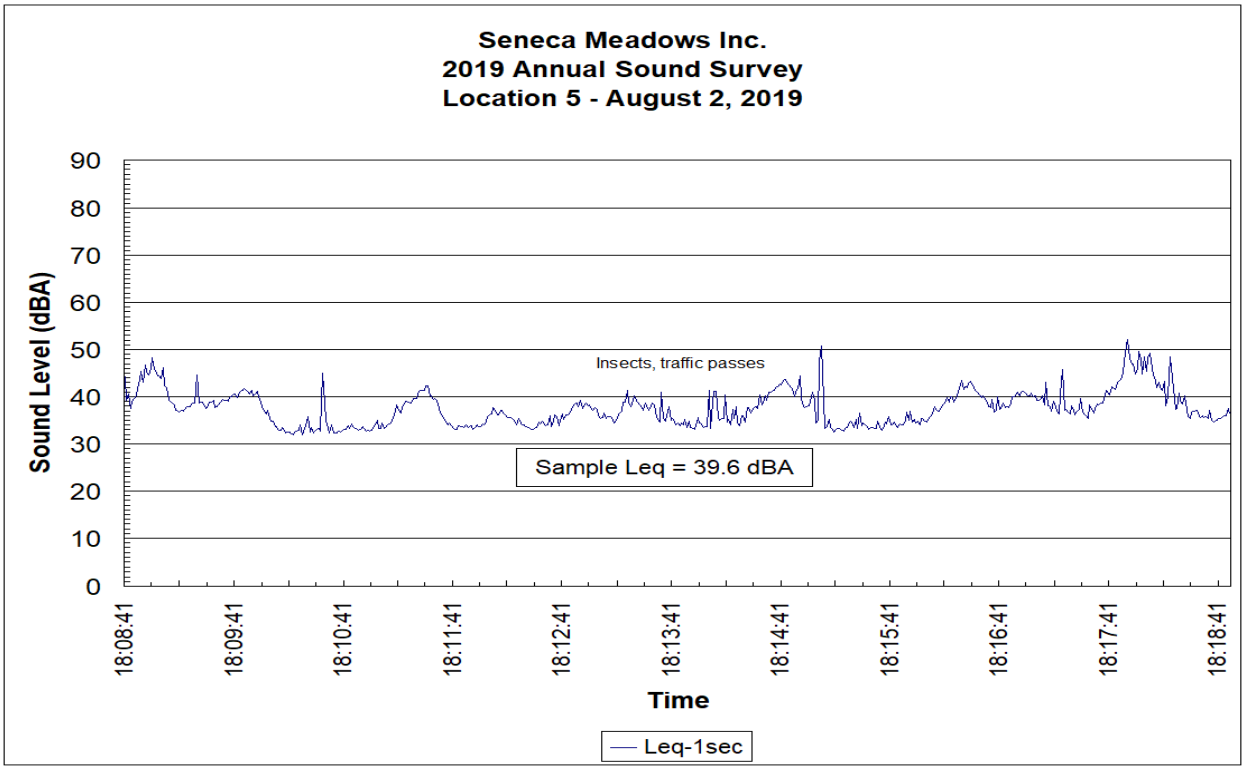
Location 2: Leq = 64.5 dBA
Traffic on Rt. 414, SEI plant.



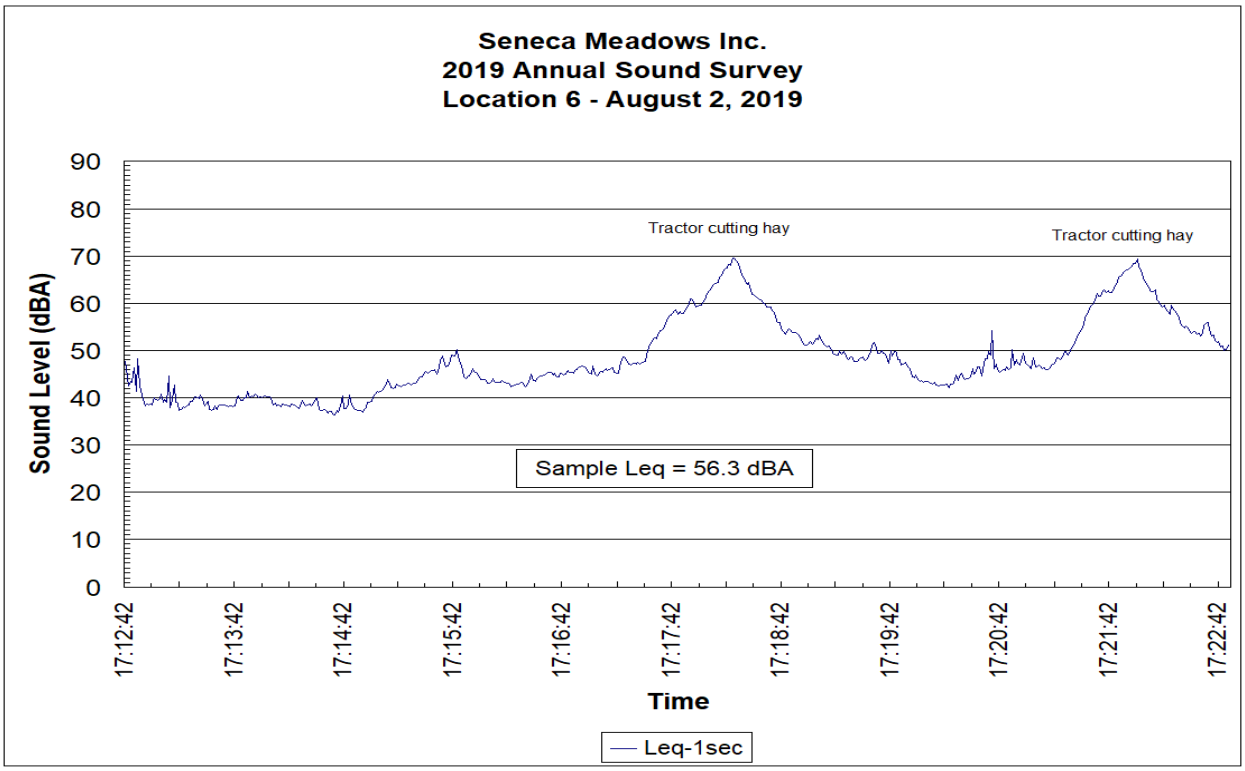
Location 3: Leq = 61.0 dBA
Traffic on Rt. 414, insects.



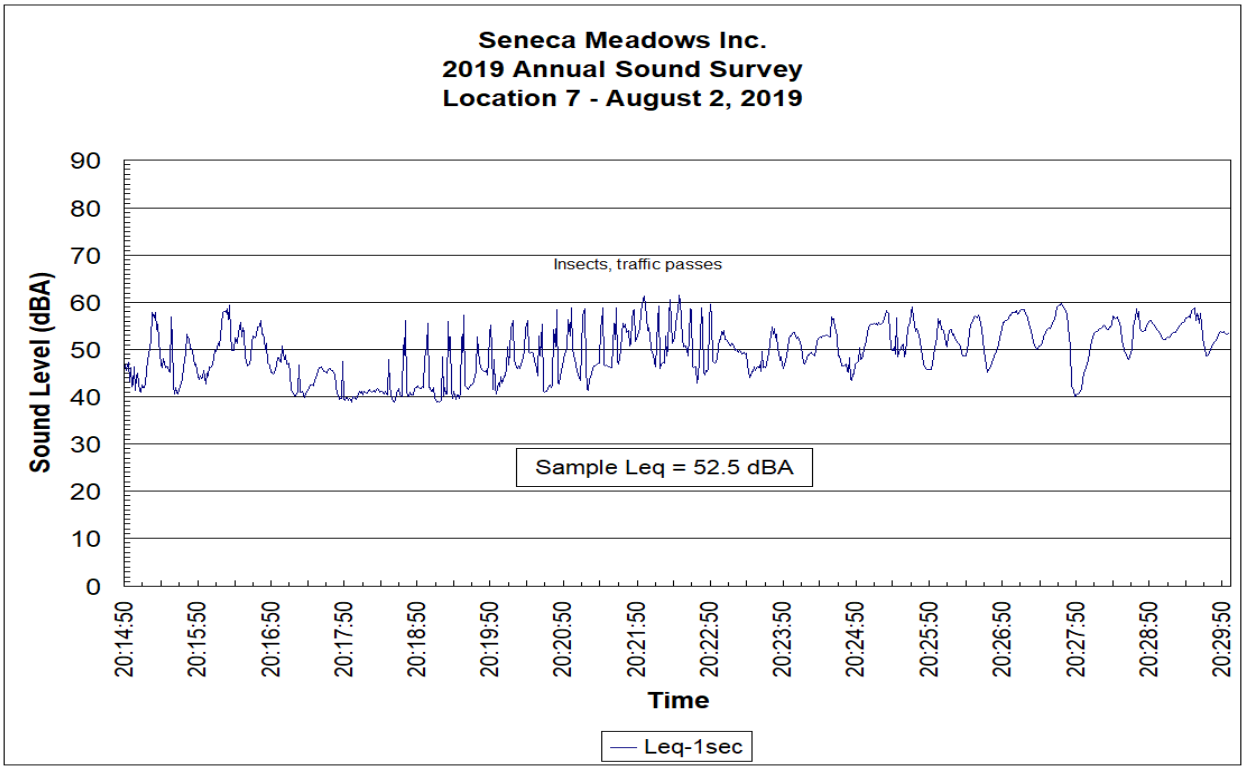
Location 4: Leq = 58.7 dBA
Traffic on Rt. 414, insects.



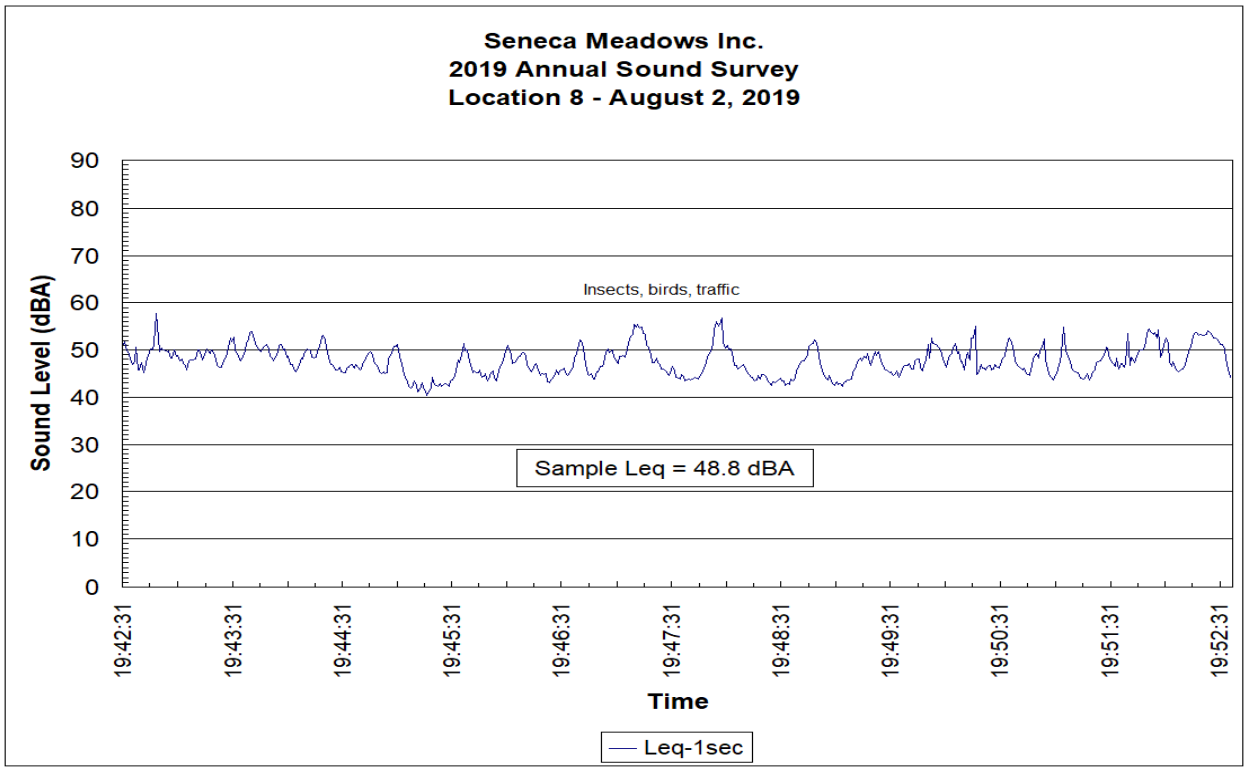
Location 5: Leq = 39.6 dBA
Insects, traffic on Burgess Road and Rt. 414.



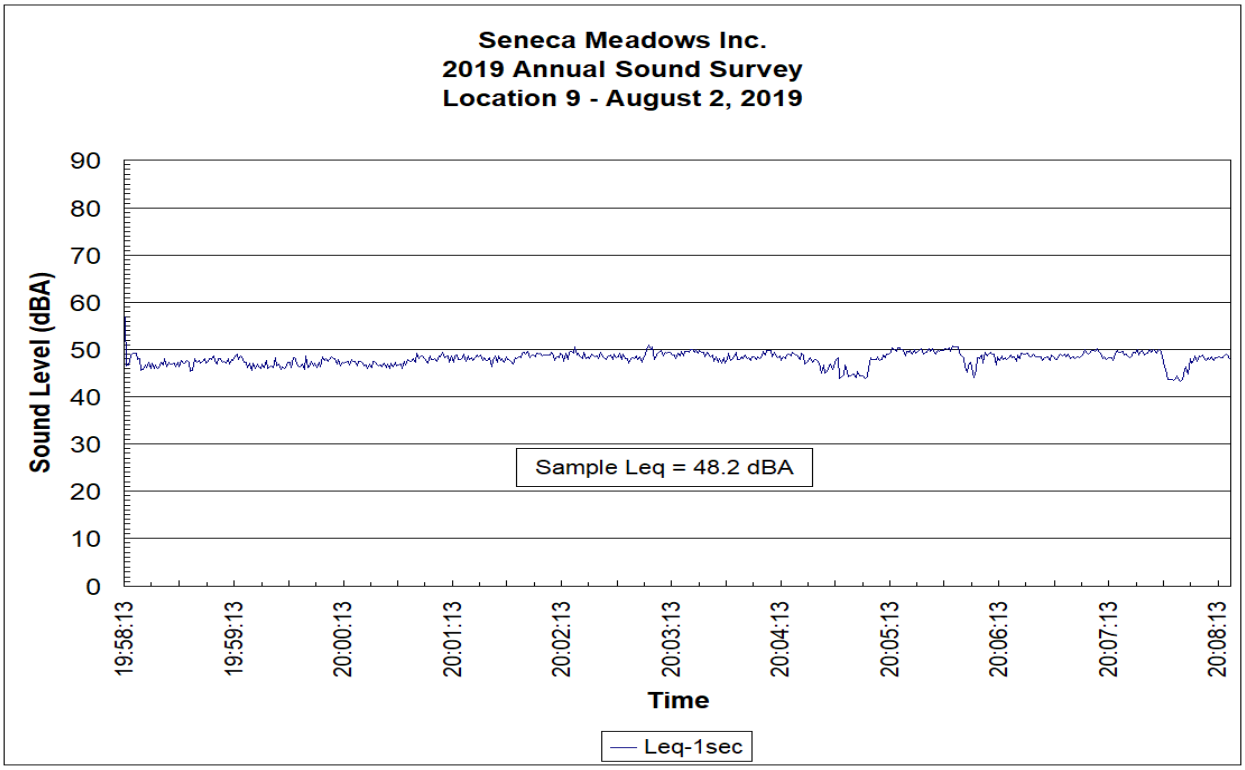
Location 6: Leq = 56.3 dBA
Tractor cutting hay, traffic on Burgess Road.



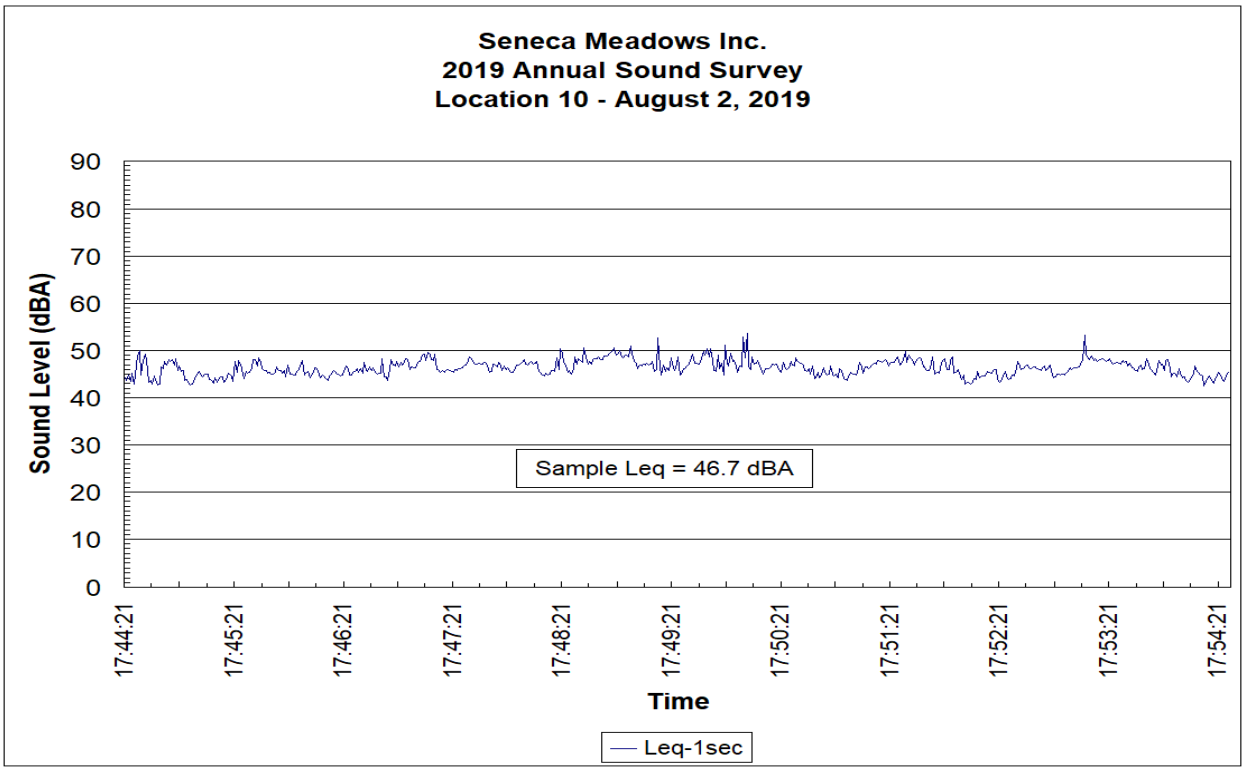
Location 7: Leq = 52.5 dBA
Insects, traffic on North and Burgess Roads.



Location 8: Leq = 48.8 dBA
Insects, birds, traffic on North Road.



Location 9: Leq = 48.2 dBA
Traffic on North Road, insects.



Location 10: Leq = 46.7 dBA
Trucks, compactor, bulldozers constructing liner.

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Appendix E

Detailed Weather Data

Seneca Meadows, Inc.
Local Weather Monitoring Station
July 28 - August 3, 2019

Date & Time	Barom	Temp	High	Low	Humidity	Dew	Wet	Wind	Wind	Wind	High	High	Wind	Heat	THW	THSW	Rain	Rain	Solar	Solar	High	ET	UV	UV	High	Heating	Cooling
7/28/2019 0:00	29.77	75	75	75	75	67	69	3	SW	0.2	5	SW	75	77	77	75	0	0	0	0	0	0	0	0	0	0	0.035
7/28/2019 0:05	29.77	75	75	75	76	67	69	4	SW	0.3	6	SW	75	77	77	74	0	0	0	0	0	0	0	0	0	0	0.034
7/28/2019 0:10	29.76	75	75	75	77	67	69	4	SSW	0.3	6	SSW	75	76	76	74	0	0	0	0	0	0	0	0	0	0	0.034
7/28/2019 0:15	29.76	75	75	75	77	67	69	4	SSW	0.3	7	SSW	75	76	76	74	0	0	0	0	0	0	0	0	0	0	0.033
7/28/2019 0:20	29.77	74	75	74	78	67	69	4	S	0.3	6	S	74	76	76	74	0	0	0	0	0	0	0	0	0	0	0.033
7/28/2019 0:25	29.77	74	74	74	78	67	69	4	S	0.3	6	S	74	76	76	74	0	0	0	0	0	0	0	0	0	0	0.032
7/28/2019 0:30	29.76	74	74	74	78	67	69	4	S	0.3	6	S	74	76	76	74	0	0	0	0	0	0	0	0	0	0	0.032
7/28/2019 0:35	29.77	74	74	74	78	67	69	3	S	0.2	6	S	74	76	76	74	0	0	0	0	0	0	0	0	0	0	0.032
7/28/2019 0:40	29.77	74	74	74	78	67	69	3	S	0.2	6	S	74	76	76	73	0	0	0	0	0	0	0	0	0	0	0.031
7/28/2019 0:45	29.76	74	74	74	78	67	69	3	S	0.2	4	SSW	74	76	76	73	0	0	0	0	0	0	0	0	0	0	0.031
7/28/2019 0:50	29.76	74	74	74	79	67	69	2	SSE	0.2	5	SSE	74	76	76	73	0	0	0	0	0	0	0	0	0	0	0.031
7/28/2019 0:55	29.76	74	74	74	78	67	69	4	S	0.3	6	S	74	76	76	73	0	0	0	0	0	0	0	0	0	0	0.031
7/28/2019 1:00	29.76	74	74	74	78	66	68	4	S	0.3	7	S	74	75	75	73	0	0	0	0	0	0	0	0	0	0	0.03
7/28/2019 1:05	29.76	74	74	74	79	67	69	4	S	0.3	6	SSE	74	75	75	73	0	0	0	0	0	0	0	0	0	0	0.03
7/28/2019 1:10	29.76	74	74	74	79	67	69	3	S	0.2	5	S	74	75	75	73	0	0	0	0	0	0	0	0	0	0	0.03
7/28/2019 1:15	29.76	73	74	73	78	66	68	4	S	0.3	7	S	73	75	75	73	0	0	0	0	0	0	0	0	0	0	0.029
7/28/2019 1:20	29.76	73	73	73	77	66	68	4	S	0.3	7	S	73	75	75	73	0	0	0	0	0	0	0	0	0	0	0.029
7/28/2019 1:25	29.75	73	73	73	77	66	68	4	S	0.3	7	S	73	75	75	73	0	0	0	0	0	0	0	0	0	0	0.029
7/28/2019 1:30	29.75	73	73	73	77	66	68	5	S	0.4	7	SSW	73	75	75	73	0	0	0	0	0	0	0	0	0	0	0.029
7/28/2019 1:35	29.75	73	73	73	77	66	68	5	S	0.4	10	S	73	75	75	73	0	0	0	0	0	0	0	0	0	0	0.029
7/28/2019 1:40	29.75	73	73	73	77	66	68	5	S	0.4	9	SSW	73	75	75	73	0	0	0	0	0	0	0	0	0	0	0.029
7/28/2019 1:45	29.75	73	73	73	77	66	68	4	S	0.3	7	S	73	75	75	72	0	0	0	0	0	0	0	0	0	0	0.028
7/28/2019 1:50	29.75	73	73	73	77	65	67	4	S	0.3	7	S	73	74	74	72	0	0	0	0	0	0	0	0	0	0	0.028
7/28/2019 1:55	29.75	73	73	73	77	65	67	5	S	0.4	9	S	73	74	74	72	0	0	0	0	0	0	0	0	0	0	0.027
7/28/2019 2:00	29.75	73	73	73	77	65	67	4	S	0.3	8	S	73	74	74	72	0	0	0	0	0	0	0	0	0	0	0.027
7/28/2019 2:05	29.75	73	73	73	77	65	67	5	S	0.4	9	S	73	74	74	72	0	0	0	0	0	0	0	0	0	0	0.027
7/28/2019 2:10	29.75	73	73	73	78	65	67	5	S	0.4	7	SSE	73	74	74	72	0	0	0	0	0	0	0	0	0	0	0.027
7/28/2019 2:15	29.75	73	73	73	78	65	67	4	S	0.3	7	S	73	74	74	72	0	0	0	0	0	0	0	0	0	0	0.026
7/28/2019 2:20	29.75	72	73	72	78	65	67	4	S	0.3	6	SSW	72	74	74	72	0	0	0	0	0	0	0	0	0	0	0.026
7/28/2019 2:25	29.75	72	72	72	78	65	67	3	S	0.2	6	S	72	74	74	72	0	0	0	0	0	0	0	0	0	0	0.026
7/28/2019 2:30	29.75	72	72	72	78	65	67	3	S	0.2	5	S	72	74	74	71	0	0	0	0	0	0	0	0	0	0	0.025
7/28/2019 2:35	29.75	72	72	72	78	65	67	3	S	0.2	5	S	72	74	74	71	0	0	0	0	0	0	0	0	0	0	0.025
7/28/2019 2:40	29.75	72	72	72	78	65	67	2	S	0.2	5	S	72	74	74	71	0	0	0	0	0	0	0	0	0	0	0.025
7/28/2019 2:45	29.74	72	72	72	77	65	67	3	S	0.2	6	S	72	74	74	71	0	0	0	0	0	0	0	0	0	0	0.025
7/28/2019 2:50	29.74	72	72	72	77	65	67	3	S	0.2	6	S	72	74	74	71	0	0	0	0	0	0	0	0	0	0	0.025
7/28/2019 2:55	29.74	72	72	72	77	65	67	2	S	0.2	5	S	72	74	74	71	0	0	0	0	0	0	0	0	0	0	0.025
7/28/2019 3:00	29.74	72	72	72	77	65	67	2	SSE	0.2	5	S	72	74	74	71	0	0	0	0	0	0	0	0	0	0	0.025
7/28/2019 3:05	29.74	72	72	72	78	65	67	3	SSE	0.2	6	SSE	72	74	74	71	0	0	0	0	0	0	0	0	0	0	0.025
7/28/2019 3:10	29.74	72	72	72	77	65	67	4	SSE	0.3	6	SSE	72	74	74	71	0	0	0	0	0	0	0	0	0	0	0.025

7/28/2019 3:15	29.74	72	72	72	78	65	67	4	SSE	0.3	6	SSE	72	74	74	71	0	0	0	0	0	0	0	0	0	0.025
7/28/2019 3:20	29.74	72	72	72	78	65	67	3	SSE	0.2	7	SSE	72	73	73	71	0	0	0	0	0	0	0	0	0	0.024
7/28/2019 3:25	29.74	72	72	72	78	65	67	3	SSE	0.2	7	S	72	73	73	71	0	0	0	0	0	0	0	0	0	0.024
7/28/2019 3:30	29.74	72	72	72	78	65	67	3	S	0.2	6	S	72	73	73	71	0	0	0	0	0	0	0	0	0	0.024
7/28/2019 3:35	29.73	72	72	72	78	65	67	3	SSE	0.2	5	S	72	73	73	71	0	0	0	0	0	0	0	0	0	0.024
7/28/2019 3:40	29.73	72	72	72	78	65	67	2	S	0.2	6	SSE	72	73	73	71	0	0	0	0	0	0	0	0	0	0.024
7/28/2019 3:45	29.73	72	72	72	78	65	67	3	SSE	0.2	6	S	72	73	73	71	0	0	0	0	0	0	0	0	0	0.024
7/28/2019 3:50	29.73	72	72	72	79	65	67	2	S	0.2	5	S	72	73	73	71	0	0	0	0	0	0	0	0	0	0.024
7/28/2019 3:55	29.73	72	72	72	79	65	67	2	SSE	0.2	5	S	72	73	73	71	0	0	0	0	0	0	0	0	0	0.024
7/28/2019 4:00	29.73	72	72	72	79	65	67	2	SSE	0.2	5	SSE	72	73	73	71	0	0	0	0	0	0	0	0	0	0.024
7/28/2019 4:05	29.73	72	72	72	79	65	67	3	SSE	0.2	6	SSE	72	73	73	71	0	0	0	0	0	0	0	0	0	0.024
7/28/2019 4:10	29.73	72	72	72	80	65	67	3	SSE	0.2	5	SSE	72	73	73	71	0	0	0	0	0	0	0	0	0	0.023
7/28/2019 4:15	29.73	72	72	72	80	65	67	3	SSE	0.2	5	SSE	72	73	73	71	0	0	0	0	0	0	0	0	0	0.023
7/28/2019 4:20	29.73	71	72	71	81	65	67	4	SSE	0.3	6	SSE	71	73	73	71	0	0	0	0	0	0	0	0	0	0.022
7/28/2019 4:25	29.73	71	71	71	82	65	67	3	SSE	0.2	6	SSE	71	73	73	71	0	0	0	0	0	0	0	0	0	0.022
7/28/2019 4:30	29.73	71	71	71	82	65	67	3	SSE	0.2	4	SSE	71	73	73	70	0	0	0	0	0	0	0	0	0	0.021
7/28/2019 4:35	29.73	71	71	71	82	65	67	3	SSE	0.2	6	SSE	71	73	73	70	0	0	0	0	0	0	0	0	0	0.021
7/28/2019 4:40	29.73	71	71	71	81	65	67	3	SSE	0.2	5	SSE	71	73	73	71	0	0	0	0	0	0	0	0	0	0.022
7/28/2019 4:45	29.73	72	72	71	80	65	67	4	SSE	0.3	6	SSE	72	73	73	71	0	0	0	0	0	0	0	0	0	0.023
7/28/2019 4:50	29.73	72	72	72	80	65	67	4	SSE	0.3	6	SE	72	73	73	71	0	0	0	0	0	0	0	0	0	0.023
7/28/2019 4:55	29.73	72	72	72	80	65	67	3	SSE	0.2	6	SSE	72	73	73	71	0	0	0	0	0	0	0	0	0	0.023
7/28/2019 5:00	29.73	72	72	72	79	65	67	4	SSE	0.3	8	SE	72	73	73	71	0	0	0	0	0	0	0	0	0	0.024
7/28/2019 5:05	29.73	72	72	72	78	65	67	4	S	0.3	7	S	72	74	74	71	0	0	0	0	0	0	0	0	0	0.025
7/28/2019 5:10	29.72	73	73	72	77	65	67	5	S	0.4	8	S	73	74	74	72	0	0	0	0	0	0	0	0	0	0.026
7/28/2019 5:15	29.73	73	73	73	76	65	67	5	S	0.4	9	SSE	73	74	74	72	0	0	0	0	0	0	0	0	0	0.027
7/28/2019 5:20	29.73	73	73	73	75	65	67	6	S	0.5	9	S	73	74	74	72	0	0	0	0	0	0	0	0	0	0.028
7/28/2019 5:25	29.73	73	73	73	75	65	67	6	S	0.5	10	S	73	74	74	72	0	0	0	0	0	0	0	0	0	0.028
7/28/2019 5:30	29.73	73	73	73	75	65	67	5	S	0.4	10	SSW	73	74	74	72	0	0	0	0	0	0	0	0	0	0.028
7/28/2019 5:35	29.73	73	73	73	75	65	67	7	S	0.6	11	SSW	73	75	75	72	0	0	0	0	0	0	0	0	0	0.028
7/28/2019 5:40	29.73	73	73	73	75	65	67	7	S	0.6	12	S	73	75	75	72	0	0	0	0	0	0	0	0	0	0.029
7/28/2019 5:45	29.73	73	73	73	75	65	67	6	S	0.5	9	S	73	75	75	72	0	0	0	0	0	0	0	0	0	0.028
7/28/2019 5:50	29.73	73	73	73	75	65	67	7	S	0.6	13	SSW	73	74	74	72	0	0	0	0	0	0	0	0	0	0.028
7/28/2019 5:55	29.72	73	73	73	75	65	67	8	SSW	0.7	14	S	72	75	74	71	0	0	0	0	0	0	0	0	0	0.028
7/28/2019 6:00	29.73	73	73	73	75	65	67	8	SSW	0.7	12	S	72	75	74	71	0	0	0	0	0	0	0	0	0	0.028
7/28/2019 6:05	29.72	73	73	73	75	65	67	8	SSW	0.7	12	S	72	75	74	71	0	0	3	0.02	5	0	0	0	0	0.028
7/28/2019 6:10	29.72	73	73	73	75	65	67	8	SSW	0.7	12	SW	72	74	73	71	0	0	7	0.05	7	0	0	0	0	0.028
7/28/2019 6:15	29.72	73	73	73	75	65	67	6	SSW	0.5	9	SSW	73	74	74	72	0	0	10	0.07	12	0	0	0	0	0.028
7/28/2019 6:20	29.72	73	73	73	74	64	67	8	SSW	0.7	15	SW	72	74	73	71	0	0	14	0.1	16	0	0	0	0	0.028
7/28/2019 6:25	29.73	73	73	73	74	64	67	8	SW	0.7	12	SSE	72	74	74	72	0	0	19	0.14	21	0	0	0	0	0.028
7/28/2019 6:30	29.72	73	73	73	74	64	67	9	SW	0.8	14	WSW	72	74	73	71	0	0	23	0.16	23	0	0	0	0	0.028

7/28/2019 6:35	29.73	73	73	73	74	64	67	9	SSW	0.8	13	SW	72	74	73	71	0	0	26	0.19	26	0	0	0	0	0	0.028
7/28/2019 6:40	29.73	73	73	73	74	64	67	9	SSW	0.8	13	SSW	72	74	73	73	0	0	29	0.21	33	0	0	0	0	0	0.028
7/28/2019 6:45	29.73	73	73	73	74	64	67	9	SSW	0.8	13	S	72	74	73	74	0	0	48	0.34	53	0	0	0	0	0	0.028
7/28/2019 6:50	29.72	73	73	73	74	64	67	8	SW	0.7	12	SW	72	74	73	74	0	0	56	0.4	60	0	0	0	0	0	0.028
7/28/2019 6:55	29.72	73	73	73	74	64	67	7	SSW	0.6	14	SSW	73	74	74	76	0	0	63	0.45	63	0	0	0	0	0	0.028
7/28/2019 7:00	29.72	73	73	73	74	64	67	6	SSW	0.5	10	SW	73	74	74	75	0	0	52	0.37	65	0	0	0	0	0	0.028
7/28/2019 7:05	29.72	73	73	73	73	64	67	6	SSW	0.5	10	WSW	73	74	74	76	0	0	55	0.39	63	0	0	0	0	0	0.029
7/28/2019 7:10	29.72	73	73	73	74	65	67	6	SSW	0.5	10	SW	73	75	75	77	0	0	86	0.62	125	0	0	0	0	0	0.029
7/28/2019 7:15	29.72	74	74	73	74	65	67	6	SSW	0.5	9	SSW	74	75	75	79	0	0	141	1.01	155	0	0	0	0	0	0.03
7/28/2019 7:20	29.72	74	74	74	73	65	67	7	SSW	0.6	11	SW	74	75	75	77	0	0	92	0.66	137	0	0	0	0	0	0.031
7/28/2019 7:25	29.72	74	74	74	73	65	67	7	SSW	0.6	11	SW	74	75	75	76	0	0	56	0.4	62	0	0	0	0	0	0.031
7/28/2019 7:30	29.73	74	74	74	73	65	67	8	SSW	0.7	13	SW	73	75	74	76	0	0	72	0.52	79	0	0	0	0	0	0.031
7/28/2019 7:35	29.73	74	74	74	73	65	67	8	SSW	0.7	11	SSW	73	75	74	76	0	0	85	0.61	97	0	1	0	1	0	0.031
7/28/2019 7:40	29.73	74	74	74	73	65	67	7	SSW	0.6	10	SW	74	75	75	78	0	0	97	0.7	139	0	1	0	1	0	0.031
7/28/2019 7:45	29.73	74	74	74	73	65	67	8	SSW	0.7	15	SSW	73	75	74	78	0	0	129	0.92	186	0	1	0	1	0	0.031
7/28/2019 7:50	29.73	74	74	74	73	65	67	8	SSW	0.7	16	SW	73	75	74	78	0	0	126	0.9	185	0	1	0	1	0	0.031
7/28/2019 7:55	29.73	74	74	74	73	65	67	8	SSW	0.7	11	SW	73	76	75	79	0	0	152	1.09	183	0	1	0	1	0	0.032
7/28/2019 8:00	29.73	75	75	74	72	65	67	7	SSW	0.6	11	SSW	75	76	76	81	0	0	197	1.41	216	0	1	0	1	0	0.033
7/28/2019 8:05	29.73	75	75	75	71	65	68	10	SSW	0.8	16	SW	73	76	74	80	0	0	214	1.53	244	0	1	0	1	0	0.035
7/28/2019 8:10	29.73	75	75	75	71	65	68	11	SSW	0.9	19	S	73	76	74	78	0	0	176	1.26	230	0	1	0	1	0	0.035
7/28/2019 8:15	29.73	75	75	75	71	65	68	10	SSW	0.8	15	SW	73	76	74	78	0	0	171	1.23	239	0	1	0	1	0	0.035
7/28/2019 8:20	29.73	75	75	75	71	65	68	11	SSW	0.9	17	WSW	73	76	74	77	0	0	164	1.18	279	0	1	0	1	0	0.035
7/28/2019 8:25	29.73	75	75	75	72	66	68	9	SSW	0.8	15	S	74	77	75	82	0	0	270	1.94	287	0	1	0.1	2	0	0.036
7/28/2019 8:30	29.73	76	76	76	71	66	68	11	SSW	0.9	18	S	73	77	75	81	0	0	301	2.16	309	0	2	0.1	2	0	0.037
7/28/2019 8:35	29.73	76	76	76	72	66	69	10	SSW	0.8	18	SSE	74	77	75	83	0	0	324	2.32	334	0	2	0.1	2	0	0.038
7/28/2019 8:40	29.73	76	76	76	71	66	68	10	SSW	0.8	17	SW	74	77	75	83	0	0	346	2.48	353	0	2	0.1	2	0	0.038
7/28/2019 8:45	29.72	76	76	76	71	66	68	12	SW	1	17	SW	73	77	75	82	0	0	365	2.62	369	0	2	0.1	2	0	0.038
7/28/2019 8:50	29.72	76	76	76	71	66	69	10	SSW	0.8	17	SW	74	78	76	84	0	0	384	2.75	399	0	2	0.1	2	0	0.039
7/28/2019 8:55	29.72	76	76	76	70	66	69	11	S	0.9	18	S	74	78	76	84	0	0	431	3.09	459	0	2	0.1	2	0	0.04
7/28/2019 9:00	29.72	76	76	76	70	66	69	11	SSW	0.9	19	SSW	74	78	76	84	0	0	467	3.35	471	0.01	2	0.1	2	0	0.04
7/28/2019 9:05	29.73	77	77	76	70	66	69	11	SSW	0.9	17	SSW	74	78	76	84	0	0	446	3.2	475	0	2	0.1	2	0	0.041
7/28/2019 9:10	29.73	77	77	77	70	66	69	11	SW	0.9	20	SW	74	78	76	79	0	0	186	1.33	206	0	2	0.1	2	0	0.041
7/28/2019 9:15	29.73	77	77	77	70	66	69	12	SW	1	20	SW	74	78	76	83	0	0	392	2.81	508	0	2	0.1	2	0	0.041
7/28/2019 9:20	29.73	77	77	77	69	66	69	12	SW	1	25	SW	74	79	76	81	0	0	298	2.14	547	0	2	0.1	2	0	0.042
7/28/2019 9:25	29.73	77	77	77	69	66	69	12	SW	1	18	SW	75	79	76	83	0	0	367	2.63	534	0	2	0.1	3	0	0.043
7/28/2019 9:30	29.73	78	78	77	69	67	69	12	SW	1	16	SW	75	79	77	86	0	0	534	3.83	548	0	3	0.1	3	0	0.044
7/28/2019 9:35	29.73	78	78	78	69	67	70	12	SSW	1	18	S	75	80	77	86	0	0	571	4.09	621	0	3	0.1	3	0	0.045
7/28/2019 9:40	29.73	78	78	78	69	67	70	9	SSW	0.8	14	SW	77	80	79	88	0	0	477	3.42	606	0	3	0.1	3	0	0.045
7/28/2019 9:45	29.73	78	78	78	69	67	70	9	SSW	0.8	14	SW	77	80	79	89	0	0	617	4.42	780	0	3	0.1	4	0	0.046
7/28/2019 9:50	29.73	79	79	78	69	68	70	11	SSW	0.9	18	S	77	81	79	88	0	0	673	4.83	816	0	3	0.1	4	0	0.047

7/28/2019 9:55	29.73	78	79	78	69	67	70	11	SSW	0.9	17	SSW	76	80	78	83	0	0	292	2.09	323	0	2	0.1	2	0	0.045
7/28/2019 10:00	29.73	78	78	78	70	67	70	11	SSW	0.9	18	SW	76	80	78	84	0	0	338	2.42	380	0.01	2	0.1	3	0	0.045
7/28/2019 10:05	29.73	78	78	78	69	67	70	11	SSW	0.9	15	S	76	80	78	83	0	0	300	2.15	309	0	2	0.1	2	0	0.045
7/28/2019 10:10	29.73	78	78	78	68	67	70	12	SSW	1	16	WSW	76	80	78	83	0	0	339	2.43	364	0	3	0.1	3	0	0.046
7/28/2019 10:15	29.73	79	79	78	68	68	71	9	SW	0.8	15	SW	78	82	80	92	0	0	869	6.23	916	0	4	0.1	4	0	0.05
7/28/2019 10:20	29.73	80	80	79	67	68	71	8	S	0.7	12	WSW	79	83	82	89	0	0	387	2.77	401	0	4	0.1	4	0	0.052
7/28/2019 10:25	29.73	80	80	80	67	68	71	8	SSW	0.7	12	SSW	79	82	81	89	0	0	409	2.93	473	0	3	0.1	3	0	0.051
7/28/2019 10:30	29.73	80	80	80	66	67	70	11	SW	0.9	19	SW	78	82	80	87	0	0	404	2.9	422	0	3	0.1	4	0	0.051
7/28/2019 10:35	29.72	80	80	80	67	68	71	10	SSW	0.8	16	SSW	78	83	81	91	0	0	854	6.12	868	0	4	0.2	4	0	0.052
7/28/2019 10:40	29.72	81	81	80	66	68	71	9	SSW	0.8	14	SW	80	83	82	90	0	0	453	3.25	640	0	3	0.1	4	0	0.055
7/28/2019 10:45	29.72	80	81	80	68	68	71	10	SSW	0.8	20	S	78	82	81	85	0	0	273	1.96	285	0	2	0.1	2	0	0.051
7/28/2019 10:50	29.72	79	80	79	69	68	71	9	S	0.8	16	SSE	78	82	81	85	0	0	272	1.95	279	0	2	0.1	3	0	0.05
7/28/2019 10:55	29.72	79	79	79	69	68	71	7	S	0.6	12	S	79	81	81	87	0	0	314	2.25	346	0	3	0.1	3	0	0.049
7/28/2019 11:00	29.72	80	80	79	69	69	71	7	SSW	0.6	12	SSW	80	83	83	92	0	0	496	3.56	554	0.01	4	0.2	5	0	0.052
7/28/2019 11:05	29.72	81	81	80	68	70	72	6	S	0.5	11	SSW	81	85	85	95	0	0	522	3.74	522	0	5	0.2	6	0	0.057
7/28/2019 11:10	29.72	82	82	81	66	70	72	5	SSE	0.4	9	SSE	82	86	86	97	0	0	913	6.55	983	0	5	0.2	6	0	0.059
7/28/2019 11:15	29.72	82	82	82	66	69	72	7	SSW	0.6	12	S	82	85	85	91	0	0	320	2.29	343	0	3	0.1	3	0	0.058
7/28/2019 11:20	29.71	81	82	81	64	68	71	10	SSW	0.8	18	WSW	80	84	83	88	0	0	331	2.37	404	0	3	0.1	3	0	0.057
7/28/2019 11:25	29.71	81	81	81	65	68	71	12	SW	1	21	SW	79	84	82	88	0	0	428	3.07	487	0	4	0.1	4	0	0.056
7/28/2019 11:30	29.71	81	81	81	66	69	72	11	SSW	0.9	19	SSE	80	84	83	93	0	0	1000	7.17	1005	0	6	0.2	6	0	0.057
7/28/2019 11:35	29.71	82	82	81	64	69	72	10	SW	0.8	17	SW	81	85	84	95	0	0	1053	7.55	1081	0	5	0.2	6	0	0.059
7/28/2019 11:40	29.71	83	83	82	62	68	72	12	SW	1	19	WSW	81	86	84	94	0	0	1023	7.34	1023	0	5	0.2	6	0	0.061
7/28/2019 11:45	29.71	82	83	82	64	68	71	11	SSW	0.9	18	W	80	85	83	89	0	0	395	2.83	417	0	4	0.1	4	0	0.058
7/28/2019 11:50	29.71	81	82	81	66	68	71	11	SSW	0.9	16	SSW	79	83	82	88	0	0	430	3.08	475	0	4	0.1	4	0	0.055
7/28/2019 11:55	29.71	81	81	81	66	68	71	11	SSW	0.9	16	WSW	79	84	82	89	0	0	442	3.17	471	0	4	0.1	4	0	0.055
7/28/2019 12:00	29.71	81	81	81	67	69	72	10	SSW	0.8	16	SW	79	84	83	90	0	0	432	3.1	454	0.02	5	0.2	6	0	0.055
7/28/2019 12:05	29.71	82	82	81	66	69	72	7	S	0.6	12	SW	82	85	85	95	0	0	591	4.24	591	0	5	0.2	6	0	0.058
7/28/2019 12:10	29.7	82	82	82	63	69	72	10	SSW	0.8	16	WSW	81	86	84	95	0	0	742	5.32	914	0	6	0.2	7	0	0.06
7/28/2019 12:15	29.71	82	82	82	63	68	71	10	SW	0.8	13	SSW	81	85	84	91	0	0	459	3.29	476	0	4	0.1	4	0	0.059
7/28/2019 12:20	29.71	82	82	82	65	69	72	9	SSW	0.8	18	S	81	85	84	92	0	0	431	3.09	445	0	4	0.1	4	0	0.059
7/28/2019 12:25	29.71	82	82	82	63	68	72	12	WSW	1	18	WSW	80	85	84	91	0	0	501	3.59	533	0	6	0.2	7	0	0.06
7/28/2019 12:30	29.71	83	83	82	64	69	72	7	WSW	0.6	12	WSW	83	87	87	96	0	0	512	3.67	531	0	5	0.2	7	0	0.062
7/28/2019 12:35	29.7	82	83	82	62	68	71	9	S	0.8	17	SSE	81	85	84	92	0	0	504	3.61	504	0	4	0.1	6	0	0.06
7/28/2019 12:40	29.7	82	82	82	62	68	71	9	SSW	0.8	13	SW	81	84	83	90	0	0	417	2.99	429	0	4	0.1	4	0	0.058
7/28/2019 12:45	29.7	82	82	82	63	68	71	10	SSW	0.8	17	S	81	85	83	91	0	0	440	3.15	508	0	4	0.1	5	0	0.059
7/28/2019 12:50	29.7	82	82	82	62	68	71	8	SSW	0.7	12	SSW	81	85	84	93	0	0	483	3.46	548	0	5	0.2	6	0	0.059
7/28/2019 12:55	29.7	83	83	82	63	69	72	6	S	0.5	10	W	83	87	87	99	0	0	750	5.38	1171	0	6	0.2	7	0	0.063
7/28/2019 13:00	29.7	84	84	83	60	68	72	8	S	0.7	15	S	83	87	86	92	0	0	320	2.29	332	0.02	4	0.1	7	0	0.065
7/28/2019 13:05	29.7	83	84	83	62	68	72	10	SSW	0.8	16	SW	81	86	85	91	0	0	375	2.69	408	0	4	0.1	5	0	0.061
7/28/2019 13:10	29.7	82	83	82	62	68	71	8	SSW	0.7	12	SSW	82	85	85	91	0	0	368	2.64	422	0	3	0.1	4	0	0.06

7/28/2019 13:15	29.7	82	82	82	63	68	71	7	SSW	0.6	11	SW	82	85	85	90	0	0	256	1.84	269	0	2	0.1	2	0	0.059
7/28/2019 13:20	29.7	82	82	82	64	69	72	6	SW	0.5	10	WSW	82	85	85	87	0	0	153	1.1	169	0	1	0	2	0	0.059
7/28/2019 13:25	29.7	82	82	82	64	69	72	7	SW	0.6	12	WSW	82	85	85	88	0	0	163	1.17	179	0	2	0.1	2	0	0.059
7/28/2019 13:30	29.7	82	82	82	63	68	72	7	SW	0.6	10	WSW	82	85	85	88	0	0	174	1.25	223	0	2	0.1	2	0	0.06
7/28/2019 13:35	29.7	82	82	82	64	69	72	6	WSW	0.5	10	WSW	82	86	86	87	0	0	117	0.84	135	0	1	0	1	0	0.06
7/28/2019 13:40	29.7	82	82	82	66	69	72	6	SW	0.5	10	SSE	82	85	85	86	0	0	80	0.57	102	0	1	0	1	0	0.059
7/28/2019 13:45	29.7	82	82	82	68	70	73	5	WSW	0.4	9	WSW	82	85	85	86	0	0	89	0.64	141	0	1	0	1	0	0.058
7/28/2019 13:50	29.7	82	82	82	69	70	73	4	SW	0.3	7	WSW	82	86	86	90	0	0	251	1.8	278	0	2	0.1	4	0	0.057
7/28/2019 13:55	29.69	82	82	82	68	70	73	5	WSW	0.4	9	WSW	82	85	85	92	0	0	317	2.27	406	0	3	0.1	4	0	0.058
7/28/2019 14:00	29.69	82	82	82	68	71	73	6	WSW	0.5	11	WSW	82	87	87	96	0	0	496	3.56	540	0.01	4	0.1	4	0	0.06
7/28/2019 14:05	29.69	83	83	82	65	70	73	5	WSW	0.4	11	W	83	87	87	97	0	0	522	3.74	589	0	6	0.2	7	0	0.063
7/28/2019 14:10	29.69	84	84	83	63	70	73	7	WSW	0.6	12	WSW	84	88	88	98	0	0	582	4.17	624	0	5	0.2	5	0	0.065
7/28/2019 14:15	29.68	85	85	84	61	70	73	5	W	0.4	11	W	85	90	90	101	0	0	700	5.02	1016	0	6	0.2	7	0	0.069
7/28/2019 14:20	29.68	86	86	85	60	70	73	6	W	0.5	10	W	86	90	90	98	0	0	391	2.8	413	0	3	0.1	4	0	0.072
7/28/2019 14:25	29.69	86	86	86	60	70	73	6	W	0.5	12	W	86	90	90	98	0	0	412	2.95	476	0	3	0.1	4	0	0.072
7/28/2019 14:30	29.69	86	86	86	59	70	73	7	W	0.6	12	W	86	91	91	99	0	0	437	3.13	508	0	4	0.1	4	0	0.073
7/28/2019 14:35	29.68	86	86	86	58	70	73	8	W	0.7	15	W	86	91	90	98	0	0	422	3.03	432	0	4	0.1	4	0	0.073
7/28/2019 14:40	29.69	86	86	86	58	70	73	8	W	0.7	13	WNW	86	91	91	100	0	0	521	3.74	538	0	4	0.2	5	0	0.074
7/28/2019 14:45	29.68	87	87	86	59	71	74	6	W	0.5	12	W	87	92	92	101	0	0	469	3.36	517	0	4	0.1	4	0	0.075
7/28/2019 14:50	29.68	87	87	87	58	70	74	6	W	0.5	11	W	87	92	92	101	0	0	501	3.59	543	0	4	0.2	5	0	0.076
7/28/2019 14:55	29.68	87	87	87	58	70	74	6	W	0.5	12	WNW	87	92	92	101	0	0	470	3.37	547	0	4	0.1	4	0	0.076
7/28/2019 15:00	29.68	87	87	87	57	70	73	7	W	0.6	14	W	87	92	92	102	0	0	545	3.91	668	0.02	4	0.2	5	0	0.076
7/28/2019 15:05	29.68	87	87	87	57	70	73	8	W	0.7	15	WNW	87	92	92	102	0	0	838	6.01	882	0	5	0.2	6	0	0.076
7/28/2019 15:10	29.68	87	87	87	58	70	74	10	WNW	0.8	14	WNW	86	92	91	102	0	0	793	5.69	793	0	4	0.2	4	0	0.076
7/28/2019 15:15	29.68	87	87	87	57	70	73	7	WNW	0.6	12	WNW	87	92	92	98	0	0	308	2.21	308	0	3	0.1	3	0	0.076
7/28/2019 15:20	29.68	86	87	86	58	70	73	7	W	0.6	12	WNW	86	91	91	97	0	0	316	2.27	352	0	2	0.1	3	0	0.074
7/28/2019 15:25	29.67	86	86	86	59	70	74	5	WSW	0.4	9	W	86	92	92	103	0	0	789	5.66	928	0	5	0.2	5	0	0.075
7/28/2019 15:30	29.67	86	87	86	58	70	73	8	WSW	0.7	14	WSW	86	91	91	99	0	0	427	3.06	464	0	4	0.1	4	0	0.075
7/28/2019 15:35	29.67	86	86	86	59	70	74	7	W	0.6	12	W	86	92	92	99	0	0	347	2.49	392	0	3	0.1	4	0	0.075
7/28/2019 15:40	29.67	87	87	86	59	71	74	6	W	0.5	13	WSW	87	92	92	104	0	0	655	4.7	779	0	4	0.2	4	0	0.075
7/28/2019 15:45	29.67	87	87	87	58	70	74	8	W	0.7	14	W	87	92	92	99	0	0	362	2.6	362	0	4	0.1	4	0	0.076
7/28/2019 15:50	29.66	87	87	87	57	70	74	7	W	0.6	14	W	87	93	93	104	0	0	778	5.58	798	0	4	0.1	5	0	0.077
7/28/2019 15:55	29.66	87	87	87	57	70	73	10	WNW	0.8	15	W	86	91	91	94	0	0	215	1.54	274	0	2	0.1	3	0	0.075
7/28/2019 16:00	29.66	86	86	86	59	70	73	8	W	0.7	16	WNW	85	90	90	94	0	0	210	1.51	239	0.02	2	0.1	4	0	0.072
7/28/2019 16:05	29.66	86	86	86	57	69	73	9	W	0.8	15	W	86	90	90	98	0	0	477	3.42	789	0	3	0.1	4	0	0.073
7/28/2019 16:10	29.66	86	86	86	60	70	74	9	W	0.8	15	W	85	91	90	101	0	0	746	5.35	752	0	4	0.1	4	0	0.073
7/28/2019 16:15	29.66	86	86	86	59	70	73	12	WSW	1	15	WSW	85	91	90	99	0	0	684	4.9	721	0	4	0.1	4	0	0.073
7/28/2019 16:20	29.65	87	87	87	59	71	74	7	W	0.6	12	WNW	87	93	93	104	0	0	725	5.2	729	0	4	0.1	4	0	0.076
7/28/2019 16:25	29.65	88	88	87	59	72	75	7	W	0.6	13	NW	88	95	95	107	0	0	736	5.28	749	0	4	0.1	4	0	0.08
7/28/2019 16:30	29.65	88	88	88	56	71	74	9	WSW	0.8	17	WSW	88	94	94	104	0	0	701	5.03	714	0	4	0.1	4	0	0.081

7/28/2019 16:35	29.65	88	88	88	58	71	74	10	W	0.8	16	SW	87	94	93	103	0	0	685	4.91	693	0	4	0.1	4	0	0.078
7/28/2019 16:40	29.65	88	88	87	58	71	74	6	W	0.5	17	W	88	93	93	99	0	0	235	1.69	248	0	3	0.1	3	0	0.078
7/28/2019 16:45	29.65	87	88	87	59	71	74	10	SW	0.8	19	SW	86	92	92	97	0	0	266	1.91	350	0	3	0.1	3	0	0.075
7/28/2019 16:50	29.65	84	87	84	62	70	73	8	SSE	0.7	16	W	84	89	88	99	0	0	652	4.68	666	0	3	0.1	3	0	0.067
7/28/2019 16:55	29.65	83	84	83	65	70	73	5	S	0.4	8	SSW	83	88	88	99	0	0	612	4.39	624	0	3	0.1	3	0	0.063
7/28/2019 17:00	29.64	84	84	83	65	71	74	3	SSW	0.2	9	SSW	84	89	89	96	0	0	300	2.15	534	0.02	2	0.1	2	0	0.066
7/28/2019 17:05	29.65	84	84	84	66	72	74	5	SSW	0.4	9	SSW	84	90	90	96	0	0	267	1.91	341	0	2	0.1	2	0	0.067
7/28/2019 17:10	29.64	85	85	84	65	72	74	5	SSW	0.4	10	WSW	85	90	90	100	0	0	385	2.76	628	0	2	0.1	2	0	0.068
7/28/2019 17:15	29.64	85	85	85	65	72	74	5	SSW	0.4	11	SW	85	90	90	95	0	0	198	1.42	279	0	2	0.1	2	0	0.068
7/28/2019 17:20	29.64	84	85	84	65	71	74	5	WSW	0.4	9	WNW	84	90	90	95	0	0	188	1.35	195	0	1	0	1	0	0.068
7/28/2019 17:25	29.65	84	85	84	64	71	74	7	SW	0.6	12	WSW	84	89	89	92	0	0	134	0.96	158	0	1	0	1	0	0.067
7/28/2019 17:30	29.65	84	84	84	65	71	74	4	WSW	0.3	7	WSW	84	89	89	90	0	0	88	0.63	109	0	1	0	1	0	0.066
7/28/2019 17:35	29.65	84	84	84	66	71	74	6	SSW	0.5	13	SW	84	89	89	91	0	0	104	0.75	111	0	1	0	1	0	0.065
7/28/2019 17:40	29.65	84	84	84	65	70	73	7	WSW	0.6	11	WSW	84	88	88	91	0	0	133	0.95	153	0	1	0	1	0	0.064
7/28/2019 17:45	29.65	84	84	84	64	70	73	8	WSW	0.7	13	WSW	83	88	88	91	0	0	155	1.11	156	0	1	0	1	0	0.065
7/28/2019 17:50	29.65	84	84	84	64	70	73	8	W	0.7	13	W	83	88	88	91	0	0	151	1.08	153	0	1	0	1	0	0.065
7/28/2019 17:55	29.65	84	84	84	64	70	73	7	W	0.6	12	W	84	88	88	92	0	0	150	1.08	153	0	1	0	1	0	0.065
7/28/2019 18:00	29.65	84	84	84	64	70	73	6	W	0.5	10	W	84	88	88	92	0	0	142	1.02	146	0.01	1	0	1	0	0.065
7/28/2019 18:05	29.65	84	84	84	64	70	73	6	W	0.5	11	W	84	88	88	92	0	0	134	0.96	139	0	1	0	1	0	0.065
7/28/2019 18:10	29.65	84	84	84	65	70	73	6	W	0.5	11	W	84	88	88	91	0	0	121	0.87	125	0	1	0	1	0	0.064
7/28/2019 18:15	29.65	84	84	83	65	70	73	6	W	0.5	12	W	84	88	88	92	0	0	126	0.9	128	0	1	0	1	0	0.064
7/28/2019 18:20	29.65	84	84	84	65	70	73	5	W	0.4	10	W	84	88	88	92	0	0	129	0.92	130	0	1	0	1	0	0.064
7/28/2019 18:25	29.65	83	84	83	65	70	73	5	SW	0.4	8	W	83	88	88	92	0	0	131	0.94	132	0	1	0	1	0	0.064
7/28/2019 18:30	29.65	83	83	83	65	70	73	7	WSW	0.6	14	WSW	83	87	87	91	0	0	128	0.92	130	0	1	0	1	0	0.063
7/28/2019 18:35	29.65	83	83	83	66	70	73	8	WSW	0.7	13	W	82	87	87	90	0	0	124	0.89	127	0	1	0	1	0	0.062
7/28/2019 18:40	29.65	83	83	83	66	70	73	9	WSW	0.8	15	WSW	82	87	86	89	0	0	119	0.85	121	0	1	0	1	0	0.061
7/28/2019 18:45	29.66	82	83	82	67	70	73	8	WSW	0.7	15	W	82	87	86	89	0	0	111	0.8	116	0	1	0	1	0	0.061
7/28/2019 18:50	29.65	82	82	82	67	70	73	7	WSW	0.6	11	W	82	87	87	90	0	0	107	0.77	107	0	0	0	0	0	0.061
7/28/2019 18:55	29.65	82	82	82	67	70	73	9	SW	0.8	17	WSW	81	87	86	89	0	0	105	0.75	107	0	0	0	0	0	0.06
7/28/2019 19:00	29.65	82	82	82	68	71	73	5	WSW	0.4	10	SW	82	87	87	90	0	0	100	0.72	102	0.01	0	0	0	0	0.06
7/28/2019 19:05	29.65	82	82	82	68	71	73	5	SW	0.4	9	WSW	82	87	87	90	0	0	98	0.7	100	0	0	0	0	0	0.06
7/28/2019 19:10	29.65	83	83	82	67	71	73	5	W	0.4	9	WSW	83	87	87	90	0	0	92	0.66	95	0	0	0	0	0	0.061
7/28/2019 19:15	29.65	82	83	82	67	70	73	5	SW	0.4	9	WSW	82	87	87	90	0	0	92	0.66	97	0	0	0	0	0	0.061
7/28/2019 19:20	29.65	82	82	82	68	71	73	6	SW	0.5	12	SW	82	87	87	90	0	0	88	0.63	93	0	0	0	0	0	0.06
7/28/2019 19:25	29.66	82	82	82	68	70	73	7	SW	0.6	11	WSW	82	86	86	89	0	0	77	0.55	81	0	0	0	0	0	0.059
7/28/2019 19:30	29.66	82	82	82	69	71	73	6	SSW	0.5	9	SSW	82	86	86	88	0	0	69	0.49	72	0	0	0	0	0	0.059
7/28/2019 19:35	29.66	82	82	82	69	70	73	7	SSW	0.6	10	WSW	82	86	86	87	0	0	63	0.45	65	0	0	0	0	0	0.058
7/28/2019 19:40	29.65	81	82	81	70	71	73	7	SSW	0.6	12	SSW	81	85	85	85	0	0	56	0.4	58	0	0	0	0	0	0.057
7/28/2019 19:45	29.65	81	81	81	71	71	73	6	SSW	0.5	9	SSW	81	85	85	84	0	0	47	0.34	53	0	0	0	0	0	0.056
7/28/2019 19:50	29.65	81	81	81	72	71	73	6	SSW	0.5	9	SW	81	85	85	84	0	0	41	0.29	42	0	0	0	0	0	0.055

7/28/2019 19:55	29.65	80	81	80	73	71	73	7	SSW	0.6	11	SW	80	85	85	84	0	0	34	0.24	39	0	0	0	0	0	0.054
7/28/2019 20:00	29.65	80	80	80	74	71	73	6	SSW	0.5	11	SW	80	84	84	84	0	0	41	0.29	49	0	0	0	0	0	0.053
7/28/2019 20:05	29.66	80	80	80	75	72	74	6	SSW	0.5	12	SW	80	84	84	84	0	0	44	0.32	51	0	0	0	0	0	0.053
7/28/2019 20:10	29.66	80	80	80	75	71	73	8	SSW	0.7	13	SSW	79	84	83	82	0	0	35	0.25	37	0	0	0	0	0	0.051
7/28/2019 20:15	29.66	79	80	79	76	71	73	6	SSW	0.5	10	SSW	79	83	83	82	0	0	29	0.21	30	0	0	0	0	0	0.05
7/28/2019 20:20	29.66	79	79	79	76	71	73	7	S	0.6	10	S	79	82	82	81	0	0	22	0.16	25	0	0	0	0	0	0.049
7/28/2019 20:25	29.66	79	79	79	77	71	73	6	S	0.5	10	S	79	82	82	80	0	0	15	0.11	18	0	0	0	0	0	0.047
7/28/2019 20:30	29.66	78	79	78	77	70	72	9	SSW	0.8	13	S	77	81	80	78	0	0	10	0.07	12	0	0	0	0	0	0.045
7/28/2019 20:35	29.66	78	78	78	77	70	72	8	S	0.7	14	SW	77	80	79	78	0	0	6	0.04	7	0	0	0	0	0	0.044
7/28/2019 20:40	29.67	77	78	77	78	70	72	9	S	0.8	13	SW	76	80	78	77	0	0	5	0.04	5	0	0	0	0	0	0.042
7/28/2019 20:45	29.67	77	77	77	79	70	72	8	S	0.7	13	S	76	79	78	77	0	0	1	0.01	5	0	0	0	0	0	0.041
7/28/2019 20:50	29.67	77	77	77	79	70	71	8	SSW	0.7	12	SW	76	79	78	76	0	0	0	0	0	0	0	0	0	0	0.041
7/28/2019 20:55	29.67	76	77	76	79	69	71	9	SSW	0.8	14	SSW	75	79	77	76	0	0	0	0	0	0	0	0	0	0	0.04
7/28/2019 21:00	29.67	76	76	76	79	69	71	8	SSW	0.7	13	S	75	79	78	76	0	0	0	0	0	0	0	0	0	0	0.04
7/28/2019 21:05	29.67	76	76	76	79	69	71	9	SSW	0.8	13	SSW	75	78	77	75	0	0	0	0	0	0	0	0	0	0	0.039
7/28/2019 21:10	29.68	76	76	76	78	69	71	9	SSW	0.8	14	S	75	78	77	75	0	0	0	0	0	0	0	0	0	0	0.039
7/28/2019 21:15	29.67	76	76	76	79	69	71	9	SSW	0.8	16	SW	75	78	77	75	0	0	0	0	0	0	0	0	0	0	0.038
7/28/2019 21:20	29.68	76	76	76	78	69	70	9	SSW	0.8	13	SSE	74	78	77	75	0	0	0	0	0	0	0	0	0	0	0.038
7/28/2019 21:25	29.68	76	76	76	78	68	70	8	SSW	0.7	11	SW	75	78	77	75	0	0	0	0	0	0	0	0	0	0	0.038
7/28/2019 21:30	29.68	76	76	76	79	69	70	9	SSW	0.8	14	SW	74	78	76	74	0	0	0	0	0	0	0	0	0	0	0.037
7/28/2019 21:35	29.68	76	76	76	79	69	70	7	S	0.6	9	SSW	76	78	78	76	0	0	0	0	0	0	0	0	0	0	0.036
7/28/2019 21:40	29.68	75	75	75	79	68	70	6	S	0.5	10	S	75	77	77	75	0	0	0	0	0	0	0	0	0	0	0.035
7/28/2019 21:45	29.68	75	75	75	80	68	70	7	S	0.6	13	S	75	77	77	75	0	0	0	0	0	0	0	0	0	0	0.034
7/28/2019 21:50	29.68	75	75	75	81	68	70	7	S	0.6	13	SSE	75	77	77	75	0	0	0	0	0	0	0	0	0	0	0.033
7/28/2019 21:55	29.69	74	75	74	81	68	70	9	S	0.8	14	SSE	73	76	75	73	0	0	0	0	0	0	0	0	0	0	0.033
7/28/2019 22:00	29.68	74	74	74	81	68	70	8	SSW	0.7	14	SW	73	76	75	73	0	0	0	0	0	0	0	0	0	0	0.032
7/28/2019 22:05	29.68	74	74	74	82	68	70	8	SSW	0.7	11	S	73	76	75	73	0	0	0	0	0	0	0	0	0	0	0.031
7/28/2019 22:10	29.68	74	74	74	82	68	70	8	SSW	0.7	13	SW	73	76	75	73	0	0	0	0	0	0	0	0	0	0	0.031
7/28/2019 22:15	29.68	74	74	74	82	68	69	8	SSW	0.7	12	S	73	76	75	73	0	0	0	0	0	0	0	0	0	0	0.03
7/28/2019 22:20	29.68	74	74	74	82	68	69	8	SSW	0.7	11	SW	73	75	74	73	0	0	0	0	0	0	0	0	0	0	0.03
7/28/2019 22:25	29.68	73	74	73	82	68	69	8	SSW	0.7	13	SSW	72	75	74	72	0	0	0	0	0	0	0	0	0	0	0.029
7/28/2019 22:30	29.68	73	73	73	82	68	69	7	SSW	0.6	10	S	73	75	75	73	0	0	0	0	0	0	0	0	0	0	0.029
7/28/2019 22:35	29.68	73	73	73	82	67	69	7	SSW	0.6	11	SSW	73	75	75	73	0	0	0	0	0	0	0	0	0	0	0.029
7/28/2019 22:40	29.68	73	73	73	82	67	69	7	SSW	0.6	9	S	73	75	75	73	0	0	0	0	0	0	0	0	0	0	0.028
7/28/2019 22:45	29.67	73	73	73	82	67	69	6	S	0.5	9	S	73	75	75	73	0	0	0	0	0	0	0	0	0	0	0.028
7/28/2019 22:50	29.68	73	73	73	82	67	69	5	SSW	0.4	7	SSW	73	75	75	73	0	0	0	0	0	0	0	0	0	0	0.028
7/28/2019 22:55	29.68	73	73	73	82	67	69	6	SSW	0.5	8	SSW	73	75	75	73	0	0	0	0	0	0	0	0	0	0	0.028
7/28/2019 23:00	29.67	73	73	73	82	67	69	5	SSW	0.4	7	SSW	73	75	75	73	0	0	0	0	0	0	0	0	0	0	0.027
7/28/2019 23:05	29.67	73	73	73	83	67	69	5	SSW	0.4	8	SSW	73	75	75	73	0	0	0	0	0	0	0	0	0	0	0.027
7/28/2019 23:10	29.67	73	73	73	83	67	69	5	SSW	0.4	7	S	73	75	75	73	0	0	0	0	0	0	0	0	0	0	0.027

7/28/2019 23:15	29.67	73	73	73	83	67	69	5	S	0.4	7	S	73	74	74	72	0	0	0	0	0	0	0	0	0	0	0.027
7/28/2019 23:20	29.67	73	73	73	84	67	69	3	S	0.2	6	S	73	74	74	72	0	0	0	0	0	0	0	0	0	0	0.026
7/28/2019 23:25	29.67	72	73	72	85	68	69	3	SSE	0.2	5	S	72	74	74	72	0	0	0	0	0	0	0	0	0	0	0.026
7/28/2019 23:30	29.67	72	72	72	85	68	69	4	SSE	0.3	7	S	72	74	74	72	0	0	0	0	0	0	0	0	0	0	0.025
7/28/2019 23:35	29.67	72	72	72	85	67	69	3	SSE	0.2	6	SSE	72	74	74	72	0	0	0	0	0	0	0	0	0	0	0.025
7/28/2019 23:40	29.67	72	72	72	85	67	69	3	SSE	0.2	6	SSE	72	74	74	72	0	0	0	0	0	0	0	0	0	0	0.024
7/28/2019 23:45	29.67	72	72	72	85	67	68	3	SSE	0.2	6	SSE	72	74	74	72	0	0	0	0	0	0	0	0	0	0	0.024
7/28/2019 23:50	29.67	72	72	72	86	67	68	2	S	0.2	6	SSE	72	73	73	71	0	0	0	0	0	0	0	0	0	0	0.023
7/28/2019 23:55	29.67	72	72	72	86	67	68	2	S	0.2	5	SSE	72	73	73	71	0	0	0	0	0	0	0	0	0	0	0.023
7/29/2019 0:00	29.67	71	72	71	86	67	68	3	S	0.2	5	S	71	73	73	71	0	0	0	0	0	0	0	0	0	0	0.022
7/29/2019 0:05	29.66	71	71	71	86	67	68	2	S	0.2	5	S	71	73	73	71	0	0	0	0	0	0	0	0	0	0	0.022
7/29/2019 0:10	29.67	71	71	71	86	67	68	2	SSE	0.2	5	SSE	71	73	73	71	0	0	0	0	0	0	0	0	0	0	0.022
7/29/2019 0:15	29.67	71	71	71	87	67	68	2	SSE	0.2	4	S	71	73	73	71	0	0	0	0	0	0	0	0	0	0	0.021
7/29/2019 0:20	29.66	71	71	71	87	67	68	2	SSE	0.2	6	SSE	71	73	73	71	0	0	0	0	0	0	0	0	0	0	0.02
7/29/2019 0:25	29.67	71	71	71	88	67	68	2	SSE	0.2	6	SSE	71	73	73	71	0	0	0	0	0	0	0	0	0	0	0.02
7/29/2019 0:30	29.67	71	71	71	88	67	68	2	SSE	0.2	5	S	71	73	73	71	0	0	0	0	0	0	0	0	0	0	0.02
7/29/2019 0:35	29.67	71	71	71	88	67	68	2	SSE	0.2	6	S	71	73	73	71	0	0	0	0	0	0	0	0	0	0	0.02
7/29/2019 0:40	29.67	71	71	71	88	67	68	3	SSE	0.2	7	S	71	73	73	70	0	0	0	0	0	0	0	0	0	0	0.019
7/29/2019 0:45	29.67	71	71	70	89	67	68	4	S	0.3	7	S	71	73	73	71	0	0	0	0	0	0	0	0	0	0	0.019
7/29/2019 0:50	29.68	71	71	70	89	67	68	4	SSW	0.3	6	S	71	73	73	71	0	0	0	0	0	0	0	0	0	0	0.019
7/29/2019 0:55	29.68	71	71	71	88	67	68	4	S	0.3	7	S	71	73	73	71	0	0	0	0	0	0	0	0	0	0	0.02
7/29/2019 1:00	29.67	71	71	71	88	67	68	3	S	0.2	6	S	71	73	73	71	0	0	0	0	0	0	0	0	0	0	0.02
7/29/2019 1:05	29.68	71	71	71	88	67	68	3	SSE	0.2	7	SSE	71	73	73	71	0	0	0	0	0	0	0	0	0	0	0.02
7/29/2019 1:10	29.67	71	71	71	88	67	68	3	SSE	0.2	6	SSE	71	73	73	71	0	0	0	0	0	0	0	0	0	0	0.021
7/29/2019 1:15	29.67	71	71	71	88	67	68	2	SSE	0.2	5	SSE	71	73	73	71	0	0	0	0	0	0	0	0	0	0	0.021
7/29/2019 1:20	29.67	71	71	71	88	67	68	2	SSE	0.2	4	SSE	71	73	73	71	0	0	0	0	0	0	0	0	0	0	0.021
7/29/2019 1:25	29.67	71	71	71	88	67	68	2	SSE	0.2	4	SSE	71	73	73	71	0	0	0	0	0	0	0	0	0	0	0.021
7/29/2019 1:30	29.67	71	71	71	88	67	68	2	SSE	0.2	3	SSE	71	73	73	71	0	0	0	0	0	0	0	0	0	0	0.02
7/29/2019 1:35	29.67	71	71	71	88	67	68	2	SSE	0.2	3	SSE	71	73	73	71	0	0	0	0	0	0	0	0	0	0	0.02
7/29/2019 1:40	29.67	71	71	71	88	67	68	2	SSE	0.2	3	SSE	71	73	73	70	0	0	0	0	0	0	0	0	0	0	0.019
7/29/2019 1:45	29.67	71	71	71	88	67	68	2	SSE	0.2	4	SSE	71	73	73	70	0	0	0	0	0	0	0	0	0	0	0.019
7/29/2019 1:50	29.67	70	71	70	89	67	68	2	SSE	0.2	4	SSE	70	72	72	70	0	0	0	0	0	0	0	0	0	0	0.019
7/29/2019 1:55	29.67	70	70	70	89	67	68	2	SSE	0.2	4	SSE	70	72	72	70	0	0	0	0	0	0	0	0	0	0	0.018
7/29/2019 2:00	29.66	70	70	70	89	67	68	2	SSE	0.2	5	S	70	72	72	70	0	0	0	0	0	0	0	0	0	0	0.018
7/29/2019 2:05	29.67	70	70	70	89	67	68	2	S	0.2	5	S	70	72	72	70	0	0	0	0	0	0	0	0	0	0	0.018
7/29/2019 2:10	29.66	70	70	70	89	67	68	1	S	0.1	4	SSE	70	72	72	70	0	0	0	0	0	0	0	0	0	0	0.018
7/29/2019 2:15	29.66	70	70	70	89	67	68	2	SSE	0.2	5	SSE	70	72	72	70	0	0	0	0	0	0	0	0	0	0	0.018
7/29/2019 2:20	29.66	70	70	70	89	67	68	2	SSE	0.2	5	SE	70	72	72	70	0	0	0	0	0	0	0	0	0	0	0.018
7/29/2019 2:25	29.65	70	70	70	89	66	67	4	SE	0.3	5	SE	70	72	72	70	0	0	0	0	0	0	0	0	0	0	0.017
7/29/2019 2:30	29.65	70	70	70	89	66	67	3	SE	0.2	5	SE	70	72	72	70	0	0	0	0	0	0	0	0	0	0	0.016

7/29/2019 2:35	29.65	70	70	70	89	66	67	3	SE	0.2	5	SE	70	72	72	69	0	0	0	0	0	0	0	0	0	0.016
7/29/2019 2:40	29.65	70	70	70	89	66	67	3	SE	0.2	5	SE	70	72	72	69	0	0	0	0	0	0	0	0	0	0.016
7/29/2019 2:45	29.65	70	70	70	89	66	67	3	SE	0.2	5	SE	70	72	72	70	0	0	0	0	0	0	0	0	0	0.016
7/29/2019 2:50	29.65	70	70	70	89	66	67	2	SE	0.2	4	SE	70	72	72	70	0	0	0	0	0	0	0	0	0	0.016
7/29/2019 2:55	29.65	70	70	70	89	66	67	3	SE	0.2	5	SE	70	72	72	70	0	0	0	0	0	0	0	0	0	0.016
7/29/2019 3:00	29.65	70	70	70	88	66	67	4	SE	0.3	5	SE	70	72	72	70	0	0	0	0	0	0	0	0	0	0.017
7/29/2019 3:05	29.66	70	70	70	88	66	67	2	SSE	0.2	5	SSE	70	72	72	70	0	0	0	0	0	0	0	0	0	0.018
7/29/2019 3:10	29.65	70	70	70	88	66	67	1	S	0.1	4	S	70	72	72	70	0	0	0	0	0	0	0	0	0	0.018
7/29/2019 3:15	29.65	70	70	70	88	66	67	2	SSE	0.2	4	SSE	70	72	72	70	0	0	0	0	0	0	0	0	0	0.017
7/29/2019 3:20	29.66	70	70	70	89	66	67	1	S	0.1	4	SSE	70	72	72	70	0	0	0	0	0	0	0	0	0	0.016
7/29/2019 3:25	29.65	70	70	70	89	66	67	0		0	2	S	70	72	72	70	0	0	0	0	0	0	0	0	0	0.016
7/29/2019 3:30	29.65	70	70	70	89	66	67	0		0	2	SSE	70	72	72	70	0	0	0	0	0	0	0	0	0	0.016
7/29/2019 3:35	29.65	70	70	70	89	66	67	1	SSE	0.1	4	SSE	70	72	72	69	0	0	0	0	0	0	0	0	0	0.016
7/29/2019 3:40	29.65	70	70	70	89	66	67	1	SSE	0.1	4	SSE	70	72	72	69	0	0	0	0	0	0	0	0	0	0.016
7/29/2019 3:45	29.65	70	70	70	89	66	67	1	SSE	0.1	2	SSE	70	72	72	70	0	0	0	0	0	0	0	0	0	0.016
7/29/2019 3:50	29.65	70	70	70	89	66	67	3	SSE	0.2	4	SSE	70	72	72	70	0	0	0	0	0	0	0	0	0	0.016
7/29/2019 3:55	29.65	70	70	70	89	66	67	3	SSE	0.2	5	SSE	70	72	72	69	0	0	0	0	0	0	0	0	0	0.016
7/29/2019 4:00	29.65	69	70	69	88	66	67	2	SSE	0.2	5	SE	69	71	71	69	0	0	0	0	0	0	0	0	0	0.015
7/29/2019 4:05	29.65	69	70	69	89	66	67	2	SSE	0.2	5	SSE	69	71	71	69	0	0	0	0	0	0	0	0	0	0.015
7/29/2019 4:10	29.65	69	70	69	89	66	67	1	SSE	0.1	5	SSE	69	71	71	69	0	0	0	0	0	0	0	0	0	0.015
7/29/2019 4:15	29.65	69	69	69	89	66	67	3	S	0.2	6	S	69	71	71	69	0	0	0	0	0	0	0	0	0	0.015
7/29/2019 4:20	29.65	69	69	69	88	66	67	3	S	0.2	5	S	69	71	71	69	0	0	0	0	0	0	0	0	0	0.015
7/29/2019 4:25	29.65	69	69	69	88	66	67	3	SSE	0.2	5	S	69	71	71	69	0	0	0	0	0	0	0	0	0	0.015
7/29/2019 4:30	29.65	70	70	69	88	66	67	3	S	0.2	5	S	70	71	71	69	0	0	0	0	0	0	0	0	0	0.016
7/29/2019 4:35	29.65	70	70	70	88	66	67	3	S	0.2	6	S	70	71	71	69	0	0	0	0	0	0	0	0	0	0.016
7/29/2019 4:40	29.65	70	70	70	88	66	67	3	S	0.2	6	S	70	71	71	69	0	0	0	0	0	0	0	0	0	0.016
7/29/2019 4:45	29.65	70	70	70	88	66	67	2	SSE	0.2	5	S	70	71	71	69	0	0	0	0	0	0	0	0	0	0.016
7/29/2019 4:50	29.64	70	70	70	88	66	67	2	S	0.2	5	SSE	70	71	71	69	0	0	0	0	0	0	0	0	0	0.016
7/29/2019 4:55	29.65	70	70	70	88	66	67	2	SSE	0.2	6	SSE	70	71	71	69	0	0	0	0	0	0	0	0	0	0.016
7/29/2019 5:00	29.65	70	70	70	88	66	67	2	SSE	0.2	4	S	70	72	72	69	0	0	0	0	0	0	0	0	0	0.016
7/29/2019 5:05	29.65	70	70	70	88	66	67	3	SSE	0.2	6	S	70	72	72	69	0	0	0	0	0	0	0	0	0	0.016
7/29/2019 5:10	29.65	70	70	70	88	66	67	3	SSE	0.2	6	SSE	70	72	72	69	0	0	0	0	0	0	0	0	0	0.016
7/29/2019 5:15	29.65	70	70	70	88	66	67	3	S	0.2	6	S	70	71	71	69	0	0	0	0	0	0	0	0	0	0.016
7/29/2019 5:20	29.65	69	70	69	88	66	67	2	SSE	0.2	4	S	69	71	71	69	0	0	0	0	0	0	0	0	0	0.015
7/29/2019 5:25	29.65	69	69	69	88	65	67	2	S	0.2	5	S	69	71	71	69	0	0	0	0	0	0	0	0	0	0.015
7/29/2019 5:30	29.65	69	69	69	88	65	66	2	S	0.2	5	S	69	71	71	69	0	0	0	0	0	0	0	0	0	0.014
7/29/2019 5:35	29.65	69	69	69	89	66	67	2	S	0.2	4	S	69	71	71	69	0	0	0	0	0	0	0	0	0	0.014
7/29/2019 5:40	29.65	69	69	69	89	66	67	2	S	0.2	5	SSE	69	71	71	69	0	0	0	0	0	0	0	0	0	0.014
7/29/2019 5:45	29.65	69	69	69	89	66	67	2	SSE	0.2	4	SSE	69	71	71	69	0	0	0	0	0	0	0	0	0	0.014
7/29/2019 5:50	29.65	69	69	69	90	66	67	2	SSE	0.2	5	SSE	69	71	71	69	0	0	0	0	0	0	0	0	0	0.014

7/29/2019 5:55	29.65	69	69	69	89	65	66	2	SSE	0.2	4	SSE	69	71	71	69	0	0	0	0	0	0	0	0	0	0.013
7/29/2019 6:00	29.65	69	69	69	90	66	67	2	SSE	0.2	3	SSE	69	71	71	69	0	0	3	0.02	5	0	0	0	0	0.013
7/29/2019 6:05	29.65	69	69	69	90	66	67	2	SSE	0.2	5	SSE	69	71	71	69	0	0	7	0.05	9	0	0	0	0	0.013
7/29/2019 6:10	29.65	69	69	69	90	66	67	3	SSE	0.2	5	SSE	69	71	71	69	0	0	13	0.09	14	0	0	0	0	0.013
7/29/2019 6:15	29.65	69	69	69	90	66	67	3	SSE	0.2	5	SSE	69	71	71	69	0	0	18	0.13	19	0	0	0	0	0.013
7/29/2019 6:20	29.65	69	69	69	90	66	67	2	SSE	0.2	4	SSE	69	71	71	69	0	0	21	0.15	23	0	0	0	0	0.013
7/29/2019 6:25	29.65	69	69	69	90	66	67	3	SSE	0.2	5	SSE	69	71	71	69	0	0	25	0.18	26	0	0	0	0	0.013
7/29/2019 6:30	29.65	69	69	69	90	66	67	3	SSE	0.2	5	SSE	69	71	71	69	0	0	28	0.2	30	0	0	0	0	0.013
7/29/2019 6:35	29.65	69	69	69	90	66	67	3	SSE	0.2	4	SSE	69	71	71	69	0	0	33	0.24	39	0	0	0	0	0.013
7/29/2019 6:40	29.65	69	69	69	90	66	67	3	SSE	0.2	5	SE	69	71	71	72	0	0	45	0.32	49	0	0	0	0	0.014
7/29/2019 6:45	29.65	69	69	69	90	66	67	2	SSE	0.2	5	SSE	69	71	71	72	0	0	51	0.37	53	0	0	0	0	0.014
7/29/2019 6:50	29.66	69	69	69	90	66	67	2	SSE	0.2	4	SSE	69	71	71	72	0	0	53	0.38	58	0	0	0	0	0.014
7/29/2019 6:55	29.66	69	69	69	90	66	67	2	SSE	0.2	4	SSE	69	71	71	72	0	0	49	0.35	53	0	0	0	0	0.014
7/29/2019 7:00	29.66	69	69	69	90	66	67	2	SSE	0.2	3	SSE	69	71	71	73	0	0	57	0.41	65	0	0	0	0	0.015
7/29/2019 7:05	29.66	70	70	69	90	67	67	2	SSE	0.2	4	SE	70	72	72	74	0	0	74	0.53	76	0	0	0	0	0.016
7/29/2019 7:10	29.66	70	70	70	90	67	68	3	SSE	0.2	5	SSE	70	72	72	74	0	0	81	0.58	93	0	0	0	0	0.017
7/29/2019 7:15	29.66	70	70	70	89	67	68	3	SSE	0.2	5	S	70	72	72	75	0	0	85	0.61	104	0	0	0	0	0.018
7/29/2019 7:20	29.66	70	70	70	89	67	68	3	SSE	0.2	7	SSE	70	72	72	75	0	0	92	0.66	113	0	0	0	0	0.018
7/29/2019 7:25	29.66	71	71	70	88	67	68	4	SSE	0.3	7	SSE	71	73	73	77	0	0	152	1.09	165	0	1	0	1	0	0.02
7/29/2019 7:30	29.66	71	71	71	88	67	68	3	SSE	0.2	6	SSE	71	73	73	78	0	0	169	1.21	171	0	1	0	1	0	0.021
7/29/2019 7:35	29.66	72	72	71	87	67	69	3	SSE	0.2	5	SSE	72	73	73	79	0	0	174	1.25	183	0	1	0	1	0	0.023
7/29/2019 7:40	29.66	72	72	72	86	67	69	3	SSE	0.2	6	SSE	72	74	74	80	0	0	189	1.36	192	0	1	0	1	0	0.024
7/29/2019 7:45	29.66	72	72	72	86	68	69	3	SSE	0.2	6	SSE	72	74	74	80	0	0	186	1.33	188	0	1	0	1	0	0.026
7/29/2019 7:50	29.66	73	73	72	84	68	69	4	S	0.3	7	SSW	73	75	75	80	0	0	188	1.35	188	0	1	0	1	0	0.027
7/29/2019 7:55	29.66	73	73	73	83	68	69	4	S	0.3	7	S	73	75	75	80	0	0	182	1.3	186	0	1	0	1	0	0.028
7/29/2019 8:00	29.66	73	73	73	83	68	69	4	SSE	0.3	9	SSE	73	75	75	80	0	0	175	1.25	176	0	1	0	1	0	0.029
7/29/2019 8:05	29.66	74	74	73	83	68	69	5	SSE	0.4	9	SSE	74	75	75	80	0	0	174	1.25	179	0	1	0	1	0	0.03
7/29/2019 8:10	29.66	74	74	74	82	68	69	5	SSE	0.4	9	SSE	74	76	76	81	0	0	194	1.39	207	0	1	0	1	0	0.03
7/29/2019 8:15	29.65	74	74	74	82	68	70	4	SSE	0.3	8	SSE	74	76	76	82	0	0	225	1.61	239	0	1	0	1	0	0.031
7/29/2019 8:20	29.65	74	74	74	82	69	70	4	S	0.3	7	SSE	74	76	76	84	0	0	260	1.86	272	0	1	0.1	2	0	0.033
7/29/2019 8:25	29.65	75	75	74	81	69	70	5	SSE	0.4	9	SSE	75	77	77	85	0	0	289	2.07	299	0	2	0.1	2	0	0.034
7/29/2019 8:30	29.65	75	75	75	80	68	70	5	SSE	0.4	9	SSE	75	77	77	85	0	0	307	2.2	323	0	2	0.1	2	0	0.034
7/29/2019 8:35	29.65	75	75	75	80	69	70	4	SSE	0.3	7	SSE	75	77	77	86	0	0	334	2.39	345	0	2	0.1	2	0	0.035
7/29/2019 8:40	29.65	76	76	75	81	69	71	4	SSE	0.3	7	S	76	78	78	87	0	0	355	2.55	360	0	2	0.1	2	0	0.037
7/29/2019 8:45	29.65	76	76	76	80	70	71	5	SSE	0.4	9	SSE	76	79	79	88	0	0	368	2.64	374	0	2	0.1	2	0	0.039
7/29/2019 8:50	29.65	76	76	76	79	69	71	5	SSE	0.4	9	SE	76	79	79	88	0	0	383	2.75	390	0	2	0.1	2	0	0.04
7/29/2019 8:55	29.65	77	77	76	79	70	71	4	SSE	0.3	7	SSE	77	79	79	89	0	0	397	2.85	403	0	2	0.1	2	0	0.041
7/29/2019 9:00	29.65	77	77	77	78	70	72	4	SSE	0.3	7	SSE	77	80	80	90	0	0	411	2.95	418	0.01	2	0.1	2	0	0.042
7/29/2019 9:05	29.65	77	77	77	76	69	71	6	S	0.5	9	SSW	77	80	80	90	0	0	425	3.05	431	0	2	0.1	2	0	0.043
7/29/2019 9:10	29.65	78	78	77	76	69	71	6	SSE	0.5	9	SSE	78	80	80	90	0	0	438	3.14	445	0	2	0.1	2	0	0.043

7/29/2019 9:15	29.65	78	78	78	76	70	72	6	SSW	0.5	11	SSW	78	81	81	91	0	0	451	3.23	459	0	2	0.1	3	0	0.045
7/29/2019 9:20	29.65	78	78	78	75	69	71	7	SSW	0.6	10	SSW	78	81	81	91	0	0	465	3.33	471	0	3	0.1	3	0	0.045
7/29/2019 9:25	29.65	78	78	78	75	70	72	5	SSE	0.4	10	SE	78	81	81	91	0	0	477	3.42	485	0	3	0.1	3	0	0.046
7/29/2019 9:30	29.65	79	79	78	74	70	72	5	S	0.4	8	SSW	79	82	82	92	0	0	491	3.52	497	0	3	0.1	3	0	0.048
7/29/2019 9:35	29.65	79	79	79	73	70	72	6	SSW	0.5	9	SSW	79	82	82	92	0	0	503	3.61	508	0	3	0.1	3	0	0.049
7/29/2019 9:40	29.65	79	79	79	73	70	72	7	SSW	0.6	11	SW	79	83	83	93	0	0	509	3.65	524	0	3	0.1	3	0	0.05
7/29/2019 9:45	29.65	80	80	79	73	70	72	4	SSE	0.3	13	S	80	83	83	94	0	0	526	3.77	531	0	3	0.1	3	0	0.05
7/29/2019 9:50	29.65	80	80	80	72	70	72	5	SSE	0.4	9	SE	80	83	83	94	0	0	540	3.87	545	0	3	0.1	3	0	0.052
7/29/2019 9:55	29.65	80	80	80	71	70	72	5	SSE	0.4	8	SE	80	83	83	94	0	0	555	3.98	561	0	3	0.1	4	0	0.052
7/29/2019 10:00	29.65	80	80	80	71	70	72	4	SSE	0.3	9	SSE	80	84	84	95	0	0	574	4.12	580	0.01	4	0.1	4	0	0.053
7/29/2019 10:05	29.65	81	81	80	70	70	73	5	S	0.4	9	SSW	81	85	85	96	0	0	589	4.22	601	0	4	0.1	4	0	0.055
7/29/2019 10:10	29.65	82	82	81	70	71	73	3	SSE	0.2	9	SSW	82	86	86	97	0	0	566	4.06	596	0	4	0.1	4	0	0.057
7/29/2019 10:15	29.65	82	82	82	69	70	73	6	S	0.5	11	SW	82	86	86	97	0	0	601	4.31	603	0	4	0.1	4	0	0.057
7/29/2019 10:20	29.64	82	82	82	68	70	73	6	S	0.5	12	SW	82	85	85	96	0	0	612	4.39	617	0	4	0.1	4	0	0.057
7/29/2019 10:25	29.64	82	82	81	69	70	73	6	SSW	0.5	12	SW	82	86	86	97	0	0	621	4.45	631	0	4	0.1	4	0	0.058
7/29/2019 10:30	29.65	82	82	82	69	70	73	5	SSE	0.4	9	SSW	82	86	86	97	0	0	595	4.27	640	0	4	0.1	4	0	0.057
7/29/2019 10:35	29.65	82	82	82	70	71	74	5	SSE	0.4	10	SSW	82	87	87	97	0	0	584	4.19	622	0	4	0.1	4	0	0.059
7/29/2019 10:40	29.65	82	82	82	69	71	73	5	SSW	0.4	9	SSW	82	86	86	98	0	0	650	4.66	661	0	4	0.2	4	0	0.058
7/29/2019 10:45	29.65	82	82	82	69	71	73	5	S	0.4	9	SSW	82	87	87	98	0	0	668	4.79	675	0	5	0.2	5	0	0.059
7/29/2019 10:50	29.65	83	83	82	69	72	74	5	S	0.4	8	WSW	83	88	88	100	0	0	682	4.89	691	0	5	0.2	5	0	0.062
7/29/2019 10:55	29.65	83	83	83	68	71	74	5	SSE	0.4	10	SSE	83	88	88	99	0	0	746	5.35	798	0	5	0.2	5	0	0.061
7/29/2019 11:00	29.65	83	83	83	69	72	74	4	SSE	0.3	7	SE	83	88	88	96	0	0	415	2.98	448	0.02	4	0.1	4	0	0.062
7/29/2019 11:05	29.65	82	83	82	69	71	74	5	S	0.4	9	SSW	82	87	87	97	0	0	523	3.75	598	0	4	0.1	4	0	0.061
7/29/2019 11:10	29.64	82	82	82	70	71	74	6	S	0.5	9	SE	82	87	87	95	0	0	400	2.87	768	0	4	0.1	5	0	0.06
7/29/2019 11:15	29.64	83	83	82	69	72	74	4	SSW	0.3	7	SSW	83	89	89	100	0	0	705	5.06	752	0	5	0.2	5	0	0.063
7/29/2019 11:20	29.64	84	84	83	68	72	75	5	SSE	0.4	9	S	84	90	90	102	0	0	731	5.24	744	0	5	0.2	5	0	0.066
7/29/2019 11:25	29.64	84	84	84	68	72	75	5	SSE	0.4	9	SSE	84	90	90	102	0	0	713	5.11	719	0	5	0.2	5	0	0.066
7/29/2019 11:30	29.64	84	84	84	67	72	74	4	SSE	0.3	10	SSE	84	90	90	102	0	0	705	5.06	728	0	5	0.2	5	0	0.066
7/29/2019 11:35	29.64	84	84	84	67	72	75	5	S	0.4	12	S	84	90	90	102	0	0	687	4.93	728	0	5	0.2	6	0	0.067
7/29/2019 11:40	29.64	84	84	84	66	72	74	6	SSE	0.5	10	SSE	84	90	90	102	0	0	763	5.47	770	0	6	0.2	6	0	0.067
7/29/2019 11:45	29.63	85	85	84	67	73	75	5	S	0.4	10	SW	85	91	91	104	0	0	774	5.55	780	0	6	0.2	6	0	0.069
7/29/2019 11:50	29.63	85	85	85	65	72	75	5	S	0.4	10	S	85	92	92	104	0	0	770	5.52	780	0	6	0.2	6	0	0.07
7/29/2019 11:55	29.63	86	86	85	66	73	76	7	SSE	0.6	12	SW	86	93	93	105	0	0	793	5.69	796	0	6	0.2	6	0	0.072
7/29/2019 12:00	29.63	86	86	86	64	72	75	6	SE	0.5	9	S	86	92	92	105	0	0	790	5.66	803	0.02	6	0.2	6	0	0.072
7/29/2019 12:05	29.63	86	86	86	64	72	75	7	S	0.6	11	SSE	86	93	93	105	0	0	810	5.81	819	0	6	0.2	6	0	0.073
7/29/2019 12:10	29.63	87	87	86	64	73	76	6	SW	0.5	11	WSW	87	94	94	106	0	0	782	5.61	796	0	6	0.2	6	0	0.075
7/29/2019 12:15	29.63	88	88	87	62	73	76	2	SE	0.2	8	SW	88	96	96	108	0	0	843	6.04	888	0	6	0.2	7	0	0.079
7/29/2019 12:20	29.63	88	88	88	61	73	76	8	SW	0.7	14	SW	88	97	97	107	0	0	912	6.54	928	0	6	0.2	7	0	0.081
7/29/2019 12:25	29.62	88	89	88	60	72	75	5	SSE	0.4	11	SSW	88	95	95	107	0	0	893	6.4	909	0	5	0.2	7	0	0.079
7/29/2019 12:30	29.62	87	88	87	63	73	76	5	SSW	0.4	10	SSW	87	95	95	107	0	0	898	6.44	914	0	6	0.2	7	0	0.077

7/29/2019 12:35	29.62	88	88	87	62	73	76	4	S	0.3	9	SSE	88	95	95	104	0	0	433	3.1	473	0	5	0.2	6	0	0.078
7/29/2019 12:40	29.62	88	88	88	61	72	75	6	SSE	0.5	9	SE	88	95	95	107	0	0	889	6.37	937	0	6	0.2	7	0	0.078
7/29/2019 12:45	29.62	87	87	87	63	73	76	4	S	0.3	7	SSE	87	95	95	102	0	0	411	2.95	422	0	5	0.2	6	0	0.076
7/29/2019 12:50	29.62	87	88	87	62	73	76	4	SSE	0.3	8	WSW	87	95	95	102	0	0	338	2.42	359	0	3	0.1	3	0	0.078
7/29/2019 12:55	29.62	86	87	86	65	73	76	7	SSW	0.6	11	SSW	86	94	94	97	0	0	185	1.33	241	0	2	0.1	2	0	0.074
7/29/2019 13:00	29.62	86	86	86	67	74	76	5	S	0.4	10	S	86	94	94	96	0	0	161	1.15	213	0.02	2	0.1	2	0	0.072
7/29/2019 13:05	29.61	85	86	85	65	72	75	5	SSW	0.4	8	SSW	85	92	92	97	0	0	266	1.91	281	0	4	0.1	6	0	0.071
7/29/2019 13:10	29.61	86	86	85	66	74	76	3	S	0.2	9	SW	86	95	95	107	0	0	796	5.71	833	0	6	0.2	6	0	0.074
7/29/2019 13:15	29.61	88	88	86	62	73	76	1	SSE	0.1	3	SSE	88	96	96	109	0	0	784	5.62	800	0	6	0.2	6	0	0.08
7/29/2019 13:20	29.61	89	89	88	58	72	76	6	WSW	0.5	12	WSW	89	97	97	107	0	0	528	3.79	802	0	4	0.2	6	0	0.084
7/29/2019 13:25	29.61	90	90	89	57	73	76	3	WSW	0.2	10	W	90	98	98	106	0	0	406	2.91	452	0	5	0.2	7	0	0.087
7/29/2019 13:30	29.61	90	90	90	54	72	75	4	W	0.3	10	WSW	90	98	98	103	0	0	266	1.91	276	0	5	0.2	6	0	0.089
7/29/2019 13:35	29.61	91	91	90	55	72	76	4	W	0.3	9	WSW	91	99	99	111	0	0	829	5.94	842	0	6	0.2	6	0	0.09
7/29/2019 13:40	29.61	92	92	91	53	72	76	4	W	0.3	12	WSW	92	100	100	113	0	0	877	6.29	886	0	7	0.2	7	0	0.094
7/29/2019 13:45	29.6	92	92	92	52	72	75	7	WSW	0.6	13	WSW	92	99	99	111	0	0	864	6.2	888	0	7	0.2	7	0	0.093
7/29/2019 13:50	29.6	92	92	92	51	71	75	10	WSW	0.8	16	WSW	92	98	98	109	0	0	834	5.98	868	0	7	0.2	7	0	0.092
7/29/2019 13:55	29.6	91	91	91	52	71	75	8	WSW	0.7	14	W	91	99	99	110	0	0	854	6.12	867	0	7	0.2	7	0	0.092
7/29/2019 14:00	29.59	91	92	91	51	70	74	10	WSW	0.8	15	WSW	91	97	97	108	0	0	862	6.18	874	0.02	7	0.2	7	0	0.09
7/29/2019 14:05	29.59	91	91	91	51	70	74	8	SW	0.7	16	SW	91	97	97	108	0	0	882	6.32	905	0	7	0.2	7	0	0.09
7/29/2019 14:10	29.59	91	91	91	51	70	74	9	WSW	0.8	17	SW	91	97	97	107	0	0	897	6.43	923	0	7	0.2	7	0	0.09
7/29/2019 14:15	29.59	92	92	91	49	70	74	7	W	0.6	12	W	92	97	97	109	0	0	729	5.23	905	0	6	0.2	7	0	0.092
7/29/2019 14:20	29.59	92	92	91	50	70	74	4	WSW	0.3	13	W	92	98	98	103	0	0	250	1.79	260	0	5	0.2	6	0	0.092
7/29/2019 14:25	29.59	92	92	92	49	70	74	8	W	0.7	13	WSW	92	98	98	105	0	0	399	2.86	659	0	5	0.2	6	0	0.093
7/29/2019 14:30	29.59	92	92	92	48	70	74	7	W	0.6	13	WNW	92	99	99	107	0	0	483	3.46	483	0	5	0.2	6	0	0.095
7/29/2019 14:35	29.59	92	92	92	47	69	73	11	SW	0.9	15	SW	92	97	97	103	0	0	404	2.9	404	0	6	0.2	6	0	0.093
7/29/2019 14:40	29.58	91	92	91	49	69	73	6	WSW	0.5	13	SW	91	97	97	105	0	0	404	2.9	404	0	6	0.2	6	0	0.091
7/29/2019 14:45	29.58	90	92	90	49	69	73	11	SSW	0.9	17	SSW	90	95	95	99	0	0	291	2.09	313	0	4	0.2	6	0	0.088
7/29/2019 14:50	29.58	90	90	90	50	69	73	10	W	0.8	16	SW	90	94	94	102	0	0	471	3.38	837	0	4	0.1	6	0	0.086
7/29/2019 14:55	29.58	89	90	89	50	68	72	9	SSW	0.8	14	WSW	89	94	94	98	0	0	241	1.73	267	0	3	0.1	3	0	0.085
7/29/2019 15:00	29.58	89	89	89	54	70	74	8	SSW	0.7	12	SSW	89	95	95	106	0	0	642	4.6	977	0.02	4	0.2	6	0	0.084
7/29/2019 15:05	29.58	90	90	89	51	69	73	9	SSW	0.8	15	WSW	90	95	95	105	0	0	640	4.59	838	0	5	0.2	6	0	0.086
7/29/2019 15:10	29.58	90	90	90	52	70	74	9	WSW	0.8	13	SW	90	95	95	100	0	0	256	1.84	269	0	3	0.1	4	0	0.086
7/29/2019 15:15	29.58	90	90	90	51	69	73	5	SSW	0.4	9	WSW	90	95	95	100	0	0	227	1.63	246	0	3	0.1	3	0	0.087
7/29/2019 15:20	29.58	89	90	89	53	69	73	8	S	0.7	16	S	89	94	94	97	0	0	193	1.38	221	0	3	0.1	3	0	0.083
7/29/2019 15:25	29.58	89	89	88	54	70	74	7	WSW	0.6	12	WSW	89	94	94	104	0	0	497	3.56	844	0	4	0.2	5	0	0.083
7/29/2019 15:30	29.58	89	89	89	54	71	74	7	SW	0.6	13	WSW	89	95	95	106	0	0	788	5.65	788	0	4	0.1	5	0	0.085
7/29/2019 15:35	29.57	90	90	89	52	70	73	8	SSW	0.7	14	SW	90	95	95	99	0	0	215	1.54	234	0	3	0.1	5	0	0.085
7/29/2019 15:40	29.57	89	89	89	53	70	74	6	SW	0.5	13	WSW	89	95	95	98	0	0	189	1.36	204	0	2	0.1	2	0	0.084
7/29/2019 15:45	29.57	89	89	89	55	70	74	9	SSW	0.8	14	SSW	88	94	94	98	0	0	207	1.48	234	0	2	0.1	2	0	0.082
7/29/2019 15:50	29.57	88	89	88	55	70	74	8	SSW	0.7	14	WSW	88	94	94	98	0	0	196	1.41	227	0	2	0.1	2	0	0.082

7/29/2019 15:55	29.57	88	88	88	55	70	74	6	S	0.5	11	S	88	94	94	97	0	0	176	1.26	199	0	2	0.1	2	0	0.081
7/29/2019 16:00	29.56	89	89	88	56	71	74	8	SSW	0.7	12	SW	89	95	95	105	0	0	569	4.08	846	0.01	3	0.1	4	0	0.083
7/29/2019 16:05	29.56	90	90	89	54	71	75	9	W	0.8	19	SW	90	97	97	108	0	0	684	4.9	838	0	3	0.1	4	0	0.087
7/29/2019 16:10	29.56	91	91	90	52	71	74	11	SW	0.9	19	WSW	91	97	97	107	0	0	762	5.46	833	0	4	0.2	5	0	0.089
7/29/2019 16:15	29.56	91	91	91	51	70	74	10	W	0.8	17	W	91	97	97	107	0	0	611	4.38	830	0	4	0.2	5	0	0.091
7/29/2019 16:20	29.56	91	91	91	53	72	75	10	WSW	0.8	18	WSW	91	98	98	108	0	0	694	4.98	812	0	4	0.2	5	0	0.091
7/29/2019 16:25	29.56	92	92	91	50	71	74	9	WSW	0.8	17	W	92	98	98	109	0	0	599	4.3	803	0	4	0.1	5	0	0.093
7/29/2019 16:30	29.56	92	92	92	50	71	74	6	W	0.5	13	W	92	98	98	106	0	0	350	2.51	392	0	3	0.1	3	0	0.093
7/29/2019 16:35	29.56	92	92	92	51	71	75	3	SSW	0.2	8	WNW	92	99	99	106	0	0	329	2.36	343	0	3	0.1	3	0	0.093
7/29/2019 16:40	29.56	91	92	91	57	74	77	6	NNE	0.5	10	N	91	101	101	109	0	0	369	2.65	698	0	2	0.1	3	0	0.091
7/29/2019 16:45	29.56	89	91	89	59	72	76	6	N	0.5	10	N	89	96	96	102	0	0	271	1.94	288	0	2	0.1	3	0	0.082
7/29/2019 16:50	29.56	89	89	88	60	73	76	2	ENE	0.2	5	N	89	97	97	104	0	0	326	2.34	687	0	2	0.1	3	0	0.082
7/29/2019 16:55	29.56	89	89	89	61	74	77	2	NE	0.2	5	ENE	89	98	98	102	0	0	196	1.41	214	0	2	0.1	2	0	0.083
7/29/2019 17:00	29.56	88	89	88	63	74	77	3	NE	0.2	5	NE	88	98	98	102	0	0	170	1.22	174	0.01	2	0.1	2	0	0.081
7/29/2019 17:05	29.56	88	88	88	64	74	77	3	ENE	0.2	6	ENE	88	97	97	101	0	0	171	1.23	176	0	2	0.1	2	0	0.079
7/29/2019 17:10	29.57	87	88	87	65	74	77	5	NE	0.4	9	NE	87	96	96	103	0	0	267	1.91	533	0	2	0.1	2	0	0.077
7/29/2019 17:15	29.56	86	87	86	66	73	76	11	NE	0.9	20	NE	85	93	92	98	0	0	307	2.2	355	0	2	0.1	2	0	0.072
7/29/2019 17:20	29.58	83	86	83	66	71	73	13	NE	1.1	20	NNE	81	88	86	92	0	0	280	2.01	299	0	2	0.1	2	0	0.064
7/29/2019 17:25	29.57	83	83	83	68	71	74	10	NNE	0.8	17	NE	81	88	86	97	0	0	571	4.09	585	0	2	0.1	2	0	0.061
7/29/2019 17:30	29.57	82	83	82	68	71	73	12	NE	1	16	NE	80	87	85	91	0	0	312	2.24	517	0	2	0.1	2	0	0.06
7/29/2019 17:35	29.57	82	82	82	69	70	73	11	NE	0.9	17	NE	80	86	84	87	0	0	160	1.15	192	0	2	0.1	2	0	0.057
7/29/2019 17:40	29.57	81	82	81	71	70	73	11	NE	0.9	17	NE	79	85	83	89	0	0	271	1.94	378	0	2	0.1	2	0	0.055
7/29/2019 17:45	29.57	80	81	80	72	70	73	11	NE	0.9	19	E	78	84	82	86	0	0	181	1.3	297	0	1	0	2	0	0.053
7/29/2019 17:50	29.57	80	80	80	73	70	73	12	NE	1	16	NE	78	83	81	86	0	0	199	1.43	374	0	2	0.1	2	0	0.051
7/29/2019 17:55	29.57	80	80	80	73	70	72	12	NE	1	16	NE	77	83	81	86	0	0	207	1.48	378	0	2	0.1	2	0	0.051
7/29/2019 18:00	29.57	80	80	80	71	70	72	13	NE	1.1	19	ENE	77	83	81	88	0	0	346	2.48	380	0.01	2	0.1	2	0	0.052
7/29/2019 18:05	29.57	80	80	80	71	70	72	11	NE	0.9	15	NE	78	84	82	89	0	0	309	2.22	357	0	2	0.1	2	0	0.053
7/29/2019 18:10	29.57	80	80	80	72	70	73	11	ENE	0.9	14	ENE	78	84	82	89	0	0	260	1.86	350	0	1	0.1	1	0	0.053
7/29/2019 18:15	29.56	80	80	80	71	70	72	12	ENE	1	17	ENE	78	84	81	88	0	0	274	1.96	339	0	1	0	1	0	0.053
7/29/2019 18:20	29.56	80	80	80	71	70	72	9	ENE	0.8	14	ENE	79	83	82	83	0	0	68	0.49	84	0	1	0	1	0	0.052
7/29/2019 18:25	29.56	80	80	80	72	70	72	9	ENE	0.8	12	ENE	78	83	81	82	0	0	54	0.39	56	0	0	0	1	0	0.05
7/29/2019 18:30	29.56	79	80	79	72	69	72	8	ENE	0.7	12	ENE	78	82	81	82	0	0	48	0.34	51	0	0	0	0	0	0.049
7/29/2019 18:35	29.57	79	79	79	72	69	72	5	NE	0.4	7	NE	79	82	82	83	0	0	47	0.34	49	0	0	0	0	0	0.049
7/29/2019 18:40	29.56	79	79	79	72	69	72	4	NE	0.3	7	NE	79	82	82	83	0	0	49	0.35	51	0	0	0	0	0	0.049
7/29/2019 18:45	29.56	79	79	79	74	70	72	2	NNE	0.2	5	NNE	79	82	82	83	0	0	46	0.33	46	0	0	0	0	0	0.048
7/29/2019 18:50	29.57	79	79	79	73	70	72	1	SSE	0.1	2	NNE	79	82	82	83	0	0	55	0.39	76	0	0	0	0	0	0.049
7/29/2019 18:55	29.57	79	79	79	74	70	72	8	NNW	0.7	14	NNW	78	82	81	83	0	0	71	0.51	84	0	0	0	0	0	0.049
7/29/2019 19:00	29.58	79	79	79	76	70	72	5	N	0.4	12	WNW	79	82	82	85	0	0	106	0.76	111	0	0	0	0	0	0.048
7/29/2019 19:05	29.57	79	79	79	76	70	72	1	ESE	0.1	3	ESE	79	82	82	85	0	0	98	0.7	105	0	0	0	0	0	0.048
7/29/2019 19:10	29.57	79	79	79	76	71	73	1	ESE	0.1	2	ESE	79	82	82	85	0	0	95	0.68	137	0	0	0	0	0	0.048

7/29/2019 19:15	29.57	79	79	79	76	71	73	2	ESE	0.2	5	SSW	79	83	83	87	0	0	145	1.04	155	0	0	0	0	0	0.049
7/29/2019 19:20	29.57	79	79	79	74	70	72	3	SSW	0.2	5	ENE	79	83	83	86	0	0	115	0.82	146	0	0	0	0	0	0.05
7/29/2019 19:25	29.57	80	80	79	74	70	73	2	NE	0.2	8	SE	80	83	83	86	0	0	107	0.77	109	0	0	0	0	0	0.05
7/29/2019 19:30	29.57	79	80	79	74	70	72	7	SE	0.6	11	SSE	79	83	83	86	0	0	100	0.72	104	0	0	0	0	0	0.05
7/29/2019 19:35	29.57	79	79	79	72	70	72	9	ESE	0.8	12	SE	78	82	81	81	0	0	99	0.71	114	0	0	0	0	0	0.05
7/29/2019 19:40	29.57	80	80	79	72	70	72	7	ESE	0.6	10	ESE	80	83	83	83	0	0	104	0.75	114	0	0	0	0	0	0.051
7/29/2019 19:45	29.58	80	80	80	73	71	73	6	SE	0.5	8	SE	80	84	84	83	0	0	79	0.57	90	0	0	0	0	0	0.052
7/29/2019 19:50	29.58	80	80	80	74	71	73	5	SE	0.4	9	SE	80	83	83	83	0	0	68	0.49	74	0	0	0	0	0	0.051
7/29/2019 19:55	29.58	79	80	79	77	72	73	5	SE	0.4	9	SE	79	83	83	83	0	0	51	0.37	56	0	0	0	0	0	0.05
7/29/2019 20:00	29.58	79	79	79	77	71	73	5	SE	0.4	8	SE	79	82	82	81	0	0	43	0.31	46	0	0	0	0	0	0.048
7/29/2019 20:05	29.58	79	79	79	78	71	73	3	SE	0.2	7	SE	79	82	82	81	0	0	30	0.22	35	0	0	0	0	0	0.048
7/29/2019 20:10	29.58	79	79	79	77	71	73	2	SSE	0.2	3	SE	79	82	82	81	0	0	22	0.16	25	0	0	0	0	0	0.048
7/29/2019 20:15	29.58	79	79	79	77	71	73	1	SSE	0.1	3	SSE	79	82	82	80	0	0	17	0.12	19	0	0	0	0	0	0.047
7/29/2019 20:20	29.58	79	79	79	78	71	73	2	SSE	0.2	5	SSE	79	82	82	80	0	0	12	0.09	14	0	0	0	0	0	0.047
7/29/2019 20:25	29.58	78	79	78	78	71	73	2	SE	0.2	4	SE	78	82	82	80	0	0	8	0.06	9	0	0	0	0	0	0.047
7/29/2019 20:30	29.58	78	78	78	77	71	72	4	SE	0.3	5	SE	78	82	82	80	0	0	2	0.01	5	0	0	0	0	0	0.047
7/29/2019 20:35	29.58	78	78	78	77	70	72	4	SE	0.3	6	ESE	78	81	81	79	0	0	0	0	0	0	0	0	0	0	0.046
7/29/2019 20:40	29.59	78	78	78	77	70	72	3	SE	0.2	4	SE	78	81	81	79	0	0	0	0	0	0	0	0	0	0	0.046
7/29/2019 20:45	29.58	78	78	78	77	70	72	3	SE	0.2	4	SE	78	81	81	79	0	0	0	0	0	0	0	0	0	0	0.045
7/29/2019 20:50	29.58	78	78	78	78	71	72	3	ESE	0.2	5	SE	78	81	81	79	0	0	0	0	0	0	0	0	0	0	0.045
7/29/2019 20:55	29.58	78	78	78	78	70	72	5	ESE	0.4	7	ESE	78	81	81	79	0	0	0	0	0	0	0	0	0	0	0.045
7/29/2019 21:00	29.58	78	78	78	79	71	72	6	ESE	0.5	9	ESE	78	81	81	79	0	0	0	0	0	0	0	0	0	0	0.044
7/29/2019 21:05	29.59	78	78	78	79	71	72	6	ESE	0.5	9	ESE	78	81	81	79	0	0	0	0	0	0	0	0	0	0	0.044
7/29/2019 21:10	29.58	78	78	78	80	71	72	6	ESE	0.5	8	ESE	78	80	80	78	0	0	0	0	0	0	0	0	0	0	0.043
7/29/2019 21:15	29.59	77	78	77	80	71	72	4	SE	0.3	7	SE	77	80	80	78	0	0	0	0	0	0	0	0	0	0	0.042
7/29/2019 21:20	29.59	77	77	77	81	71	72	4	SE	0.3	7	ESE	77	80	80	78	0	0	0	0	0	0	0	0	0	0	0.042
7/29/2019 21:25	29.59	77	77	77	81	71	72	3	SE	0.2	5	SE	77	80	80	78	0	0	0	0	0	0	0	0	0	0	0.041
7/29/2019 21:30	29.59	77	77	77	81	71	72	3	SE	0.2	5	SE	77	80	80	78	0	0	0	0	0	0	0	0	0	0	0.041
7/29/2019 21:35	29.59	77	77	77	82	71	72	3	SE	0.2	5	SE	77	79	79	77	0	0	0	0	0	0	0	0	0	0	0.04
7/29/2019 21:40	29.59	76	77	76	82	71	72	3	SE	0.2	4	SE	76	79	79	77	0	0	0	0	0	0	0	0	0	0	0.04
7/29/2019 21:45	29.59	76	76	76	83	71	72	2	SE	0.2	4	SE	76	79	79	77	0	0	0	0	0	0	0	0	0	0	0.039
7/29/2019 21:50	29.59	76	76	76	82	70	72	3	SE	0.2	5	SE	76	79	79	77	0	0	0	0	0	0	0	0	0	0	0.039
7/29/2019 21:55	29.59	76	76	76	83	70	72	3	SE	0.2	5	SE	76	79	79	77	0	0	0	0	0	0	0	0	0	0	0.038
7/29/2019 22:00	29.59	76	76	76	83	70	72	3	SE	0.2	5	SE	76	79	79	77	0	0	0	0	0	0	0	0	0	0	0.038
7/29/2019 22:05	29.6	76	76	76	84	71	72	3	SE	0.2	5	SE	76	78	78	76	0	0	0	0	0	0	0	0	0	0	0.038
7/29/2019 22:10	29.6	76	76	76	84	71	72	3	SSE	0.2	5	SSE	76	78	78	76	0	0	0	0	0	0	0	0	0	0	0.038
7/29/2019 22:15	29.6	76	76	76	84	71	72	3	SSE	0.2	5	SE	76	78	78	76	0	0	0	0	0	0	0	0	0	0	0.038
7/29/2019 22:20	29.6	76	76	76	84	71	72	3	SSE	0.2	5	SSE	76	78	78	76	0	0	0	0	0	0	0	0	0	0	0.037
7/29/2019 22:25	29.59	76	76	76	84	71	72	3	SSE	0.2	5	SSE	76	78	78	76	0	0	0	0	0	0	0	0	0	0	0.037
7/29/2019 22:30	29.59	76	76	76	85	71	72	3	SSE	0.2	5	SSE	76	78	78	76	0	0	0	0	0	0	0	0	0	0	0.037

7/29/2019 22:35	29.59	76	76	76	85	71	72	3	SSE	0.2	5	SSE	76	78	78	76	0	0	0	0	0	0	0	0	0	0.037
7/29/2019 22:40	29.59	76	76	76	85	71	72	4	SSE	0.3	5	SSE	76	78	78	76	0	0	0	0	0	0	0	0	0	0.037
7/29/2019 22:45	29.59	76	76	76	86	71	72	2	SSE	0.2	4	SE	76	78	78	76	0	0	0	0	0	0	0	0	0	0.037
7/29/2019 22:50	29.59	76	76	76	86	71	72	2	SSE	0.2	5	SSE	76	78	78	76	0	0	0	0	0	0	0	0	0	0.037
7/29/2019 22:55	29.59	75	76	75	86	71	72	2	S	0.2	5	S	75	78	78	76	0	0	0	0	0	0	0	0	0	0.036
7/29/2019 23:00	29.59	75	75	75	86	71	72	2	S	0.2	4	SSE	75	78	78	76	0	0	0	0	0	0	0	0	0	0.036
7/29/2019 23:05	29.59	75	75	75	86	71	72	2	S	0.2	5	SSE	75	78	78	76	0	0	0	0	0	0	0	0	0	0.036
7/29/2019 23:10	29.59	75	75	75	86	71	72	2	SSE	0.2	5	SSE	75	78	78	76	0	0	0	0	0	0	0	0	0	0.035
7/29/2019 23:15	29.59	75	75	75	87	71	72	3	SSE	0.2	6	S	75	78	78	76	0	0	0	0	0	0	0	0	0	0.036
7/29/2019 23:20	29.59	75	75	75	87	71	72	3	SSE	0.2	6	SSE	75	78	78	76	0	0	0	0	0	0	0	0	0	0.036
7/29/2019 23:25	29.59	75	75	75	86	71	72	3	SSE	0.2	6	SSE	75	78	78	76	0	0	0	0	0	0	0	0	0	0.036
7/29/2019 23:30	29.59	75	75	75	86	71	72	3	SSE	0.2	6	SSE	75	78	78	76	0	0	0	0	0	0	0	0	0	0.036
7/29/2019 23:35	29.59	75	75	75	86	71	72	3	S	0.2	5	S	75	78	78	76	0	0	0	0	0	0	0	0	0	0.036
7/29/2019 23:40	29.59	75	75	75	86	71	72	2	S	0.2	5	S	75	78	78	76	0	0	0	0	0	0	0	0	0	0.036
7/29/2019 23:45	29.59	75	75	75	86	71	72	2	S	0.2	4	S	75	78	78	76	0	0	0	0	0	0	0	0	0	0.035
7/29/2019 23:50	29.59	75	75	75	85	70	72	2	S	0.2	4	S	75	78	78	76	0	0	0	0	0	0	0	0	0	0.035
7/29/2019 23:55	29.59	75	75	75	86	71	72	2	S	0.2	5	S	75	78	78	76	0	0	0	0	0	0	0	0	0	0.035
7/30/2019 0:00	29.59	75	75	75	85	70	72	2	SSE	0.2	4	SSE	75	78	78	76	0	0	0	0	0	0	0	0	0	0.035
7/30/2019 0:05	29.59	75	75	75	85	70	72	3	SSE	0.2	5	SSE	75	78	78	76	0	0	0	0	0	0	0	0	0	0.035
7/30/2019 0:10	29.59	75	75	75	85	70	71	3	SSE	0.2	7	SSE	75	78	78	75	0	0	0	0	0	0	0	0	0	0.035
7/30/2019 0:15	29.59	75	75	75	85	70	71	3	SSE	0.2	5	SSE	75	78	78	75	0	0	0	0	0	0	0	0	0	0.035
7/30/2019 0:20	29.59	75	75	75	84	70	71	3	SSE	0.2	6	SSE	75	77	77	75	0	0	0	0	0	0	0	0	0	0.035
7/30/2019 0:25	29.59	75	75	75	84	70	71	3	SSE	0.2	6	SSE	75	77	77	75	0	0	0	0	0	0	0	0	0	0.034
7/30/2019 0:30	29.59	75	75	75	85	70	71	3	SSE	0.2	5	SSE	75	77	77	75	0	0	0	0	0	0	0	0	0	0.034
7/30/2019 0:35	29.59	75	75	75	84	70	71	4	SSE	0.3	6	SE	75	77	77	75	0	0	0	0	0	0	0	0	0	0.034
7/30/2019 0:40	29.59	75	75	75	84	70	71	3	SSE	0.2	5	SSE	75	77	77	75	0	0	0	0	0	0	0	0	0	0.034
7/30/2019 0:45	29.59	75	75	75	84	70	71	3	SSE	0.2	5	SSE	75	77	77	75	0	0	0	0	0	0	0	0	0	0.034
7/30/2019 0:50	29.59	75	75	75	84	70	71	2	SSE	0.2	5	SSE	75	77	77	75	0	0	0	0	0	0	0	0	0	0.034
7/30/2019 0:55	29.59	75	75	75	84	70	71	2	SSE	0.2	2	SSE	75	77	77	75	0	0	0	0	0	0	0	0	0	0.034
7/30/2019 1:00	29.59	75	75	74	84	69	71	2	SSE	0.2	4	SSE	75	77	77	75	0	0	0	0	0	0	0	0	0	0.033
7/30/2019 1:05	29.58	74	75	74	84	69	71	2	SSE	0.2	5	SSE	74	77	77	75	0	0	0	0	0	0	0	0	0	0.033
7/30/2019 1:10	29.58	74	74	74	84	69	71	2	SSE	0.2	5	SSE	74	77	77	75	0	0	0	0	0	0	0	0	0	0.033
7/30/2019 1:15	29.58	74	74	74	84	69	71	3	SSE	0.2	6	S	74	77	77	75	0	0	0	0	0	0	0	0	0	0.033
7/30/2019 1:20	29.58	74	74	74	83	69	70	3	S	0.2	5	S	74	76	76	74	0	0	0	0	0	0	0	0	0	0.032
7/30/2019 1:25	29.58	74	74	74	83	69	70	2	S	0.2	4	S	74	76	76	74	0	0	0	0	0	0	0	0	0	0.032
7/30/2019 1:30	29.58	74	74	74	83	69	70	2	SSE	0.2	5	SSE	74	76	76	74	0	0	0	0	0	0	0	0	0	0.032
7/30/2019 1:35	29.58	74	74	74	84	69	70	3	SSE	0.2	5	SSE	74	76	76	74	0	0	0	0	0	0	0	0	0	0.032
7/30/2019 1:40	29.58	74	74	74	84	69	70	3	SSE	0.2	4	SSE	74	76	76	74	0	0	0	0	0	0	0	0	0	0.032
7/30/2019 1:45	29.59	74	74	74	83	69	70	2	SSE	0.2	5	SSE	74	76	76	74	0	0	0	0	0	0	0	0	0	0.032
7/30/2019 1:50	29.59	74	74	74	84	69	70	2	SSE	0.2	5	SSE	74	76	76	74	0	0	0	0	0	0	0	0	0	0.032

7/30/2019 1:55	29.58	74	74	74	83	69	70	2	SSE	0.2	6	S	74	77	77	74	0	0	0	0	0	0	0	0	0	0.033
7/30/2019 2:00	29.58	74	74	74	83	69	70	2	SSE	0.2	5	SSE	74	77	77	74	0	0	0	0	0	0	0	0	0	0.033
7/30/2019 2:05	29.58	74	74	74	83	69	70	2	SSE	0.2	5	SSE	74	76	76	74	0	0	0	0	0	0	0	0	0	0.032
7/30/2019 2:10	29.58	74	74	74	83	69	70	2	SSE	0.2	5	SSE	74	76	76	74	0	0	0	0	0	0	0	0	0	0.032
7/30/2019 2:15	29.58	74	74	74	83	69	70	2	SSE	0.2	4	SSE	74	76	76	74	0	0	0	0	0	0	0	0	0	0.032
7/30/2019 2:20	29.58	74	74	74	83	69	70	2	SSE	0.2	4	SSE	74	76	76	74	0	0	0	0	0	0	0	0	0	0.032
7/30/2019 2:25	29.58	74	74	74	83	69	70	2	SSE	0.2	4	SSE	74	77	77	74	0	0	0	0	0	0	0	0	0	0.033
7/30/2019 2:30	29.58	74	74	74	82	69	70	2	SSE	0.2	4	SSE	74	76	76	74	0	0	0	0	0	0	0	0	0	0.033
7/30/2019 2:35	29.58	74	74	74	82	69	70	2	SSE	0.2	5	SSE	74	76	76	74	0	0	0	0	0	0	0	0	0	0.033
7/30/2019 2:40	29.58	74	74	74	82	69	70	3	SSE	0.2	4	SSE	74	76	76	74	0	0	0	0	0	0	0	0	0	0.033
7/30/2019 2:45	29.58	74	74	74	82	69	70	2	SSE	0.2	4	SSE	74	76	76	74	0	0	0	0	0	0	0	0	0	0.033
7/30/2019 2:50	29.58	74	74	74	82	69	70	2	SSE	0.2	5	S	74	77	77	74	0	0	0	0	0	0	0	0	0	0.033
7/30/2019 2:55	29.58	75	75	74	82	69	70	3	S	0.2	5	S	75	77	77	75	0	0	0	0	0	0	0	0	0	0.034
7/30/2019 3:00	29.58	75	75	75	82	69	71	4	S	0.3	7	S	75	77	77	75	0	0	0	0	0	0	0	0	0	0.034
7/30/2019 3:05	29.58	75	75	75	80	69	70	5	S	0.4	9	WSW	75	77	77	75	0	0	0	0	0	0	0	0	0	0.035
7/30/2019 3:10	29.58	75	75	75	80	69	70	5	SSW	0.4	8	SSW	75	77	77	75	0	0	0	0	0	0	0	0	0	0.035
7/30/2019 3:15	29.58	75	75	75	80	69	70	4	SSW	0.3	6	SSW	75	77	77	75	0	0	0	0	0	0	0	0	0	0.035
7/30/2019 3:20	29.58	75	75	75	80	69	70	2	SW	0.2	5	SW	75	77	77	75	0	0	0	0	0	0	0	0	0	0.035
7/30/2019 3:25	29.58	75	75	75	80	69	70	3	SSW	0.2	5	SW	75	77	77	75	0	0	0	0	0	0	0	0	0	0.035
7/30/2019 3:30	29.58	75	75	75	79	68	70	3	SW	0.2	4	SSW	75	77	77	75	0	0	0	0	0	0	0	0	0	0.035
7/30/2019 3:35	29.58	75	75	75	80	69	70	2	SW	0.2	4	SW	75	77	77	75	0	0	0	0	0	0	0	0	0	0.035
7/30/2019 3:40	29.58	75	75	75	80	69	70	4	WSW	0.3	14	NW	75	77	77	75	0	0	0	0	0	0	0	0	0	0.035
7/30/2019 3:45	29.58	74	75	74	82	68	70	8	NW	0.7	14	NW	73	76	75	73	0	0	0	0	0	0	0	0	0	0.032
7/30/2019 3:50	29.58	74	74	74	83	68	70	2	W	0.2	4	W	74	76	76	74	0	0	0	0	0	0	0	0	0	0.031
7/30/2019 3:55	29.58	74	74	74	83	68	70	2	WSW	0.2	3	WSW	74	76	76	73	0	0	0	0	0	0	0	0	0	0.03
7/30/2019 4:00	29.58	74	74	74	83	68	69	1	W	0.1	3	W	74	75	75	73	0	0	0	0	0	0	0	0	0	0.03
7/30/2019 4:05	29.58	73	74	73	84	68	70	5	NNW	0.4	8	NW	73	75	75	73	0	0	0	0	0	0	0	0	0	0.029
7/30/2019 4:10	29.58	73	73	73	84	68	70	2	W	0.2	4	NNW	73	75	75	73	0	0	0	0	0	0	0	0	0	0.029
7/30/2019 4:15	29.58	73	73	73	84	68	70	3	S	0.2	7	SW	73	75	75	73	0	0	0	0	0	0	0	0	0	0.029
7/30/2019 4:20	29.58	74	74	73	84	68	70	2	S	0.2	4	S	74	75	75	73	0	0	0	0	0	0	0	0	0	0.03
7/30/2019 4:25	29.58	74	74	74	83	68	69	1	S	0.1	3	S	74	75	75	73	0	0	0	0	0	0	0	0	0	0.03
7/30/2019 4:30	29.58	73	74	73	84	68	70	1	SSW	0.1	3	SSW	73	75	75	73	0	0	0	0	0	0	0	0	0	0.029
7/30/2019 4:35	29.58	73	73	73	85	69	70	1	S	0.1	3	S	73	75	75	73	0	0	0	0	0	0	0	0	0	0.029
7/30/2019 4:40	29.58	73	73	73	85	69	70	1	S	0.1	2	S	73	75	75	73	0	0	0	0	0	0	0	0	0	0.029
7/30/2019 4:45	29.58	73	73	73	85	68	70	2	S	0.2	3	S	73	75	75	73	0	0	0	0	0	0	0	0	0	0.028
7/30/2019 4:50	29.58	73	73	73	85	68	69	1	SSE	0.1	4	S	73	75	75	73	0	0	0	0	0	0	0	0	0	0.027
7/30/2019 4:55	29.58	73	73	73	85	68	69	2	SSE	0.2	4	SSE	73	75	75	73	0	0	0	0	0	0	0	0	0	0.027
7/30/2019 5:00	29.58	73	73	73	85	68	69	3	SSE	0.2	7	SE	73	75	75	73	0	0	0	0	0	0	0	0	0	0.028
7/30/2019 5:05	29.58	73	73	73	86	69	70	3	SSE	0.2	5	SE	73	75	75	73	0	0	0	0	0	0	0	0	0	0.028
7/30/2019 5:10	29.58	73	73	73	85	68	69	3	SSE	0.2	6	SE	73	75	75	73	0	0	0	0	0	0	0	0	0	0.027

7/30/2019 5:15	29.59	73	73	73	85	68	69	3	SE	0.2	5	SSE	73	75	75	72	0	0	0	0	0	0	0	0	0	0	0.027
7/30/2019 5:20	29.59	73	73	73	85	68	69	2	SE	0.2	4	SE	73	74	74	72	0	0	0	0	0	0	0	0	0	0	0.026
7/30/2019 5:25	29.59	73	73	72	85	68	69	1	SE	0.1	3	SE	73	74	74	72	0	0	0	0	0	0	0	0	0	0	0.026
7/30/2019 5:30	29.59	73	73	73	85	68	69	1	SSE	0.1	2	SE	73	74	74	72	0	0	0	0	0	0	0	0	0	0	0.026
7/30/2019 5:35	29.59	73	73	73	86	68	69	1	SSE	0.1	2	SSE	73	75	75	72	0	0	0	0	0	0	0	0	0	0	0.027
7/30/2019 5:40	29.59	73	73	73	86	68	69	1	SSE	0.1	3	SSE	73	75	75	72	0	0	0	0	0	0	0	0	0	0	0.026
7/30/2019 5:45	29.59	72	73	72	87	68	70	1	SSE	0.1	2	SSE	72	74	74	72	0	0	0	0	0	0	0	0	0	0	0.026
7/30/2019 5:50	29.59	72	73	72	87	68	69	1	SSE	0.1	3	SSE	72	74	74	72	0	0	0	0	0	0	0	0	0	0	0.026
7/30/2019 5:55	29.59	72	72	72	87	68	69	2	SSE	0.2	3	SSE	72	74	74	72	0	0	0	0	0	0	0	0	0	0	0.025
7/30/2019 6:00	29.6	72	72	72	87	68	69	2	SSE	0.2	4	SSE	72	74	74	72	0	0	0	0	0	0	0	0	0	0	0.025
7/30/2019 6:05	29.6	72	72	72	86	68	69	2	S	0.2	3	S	72	74	74	72	0	0	4	0.03	7	0	0	0	0	0	0.025
7/30/2019 6:10	29.6	72	72	72	86	68	69	2	S	0.2	3	S	72	74	74	72	0	0	7	0.05	9	0	0	0	0	0	0.026
7/30/2019 6:15	29.6	73	73	72	87	69	70	1	S	0.1	2	S	73	75	75	73	0	0	9	0.06	11	0	0	0	0	0	0.026
7/30/2019 6:20	29.6	72	73	72	87	68	69	2	S	0.2	5	SSE	72	74	74	73	0	0	14	0.1	16	0	0	0	0	0	0.026
7/30/2019 6:25	29.6	72	72	72	86	68	69	3	SSE	0.2	5	SSE	72	74	74	72	0	0	19	0.14	19	0	0	0	0	0	0.025
7/30/2019 6:30	29.6	72	72	72	86	68	69	1	SSE	0.1	3	SSE	72	74	74	72	0	0	22	0.16	23	0	0	0	0	0	0.025
7/30/2019 6:35	29.6	72	72	72	86	68	69	1	SSE	0.1	3	SSE	72	74	74	73	0	0	27	0.19	30	0	0	0	0	0	0.025
7/30/2019 6:40	29.6	72	72	72	87	68	69	0		0	1	SSE	72	74	74	75	0	0	35	0.25	39	0	0	0	0	0	0.025
7/30/2019 6:45	29.6	72	72	72	86	68	69	1	SSE	0.1	3	SSE	72	74	74	75	0	0	43	0.31	46	0	0	0	0	0	0.025
7/30/2019 6:50	29.6	72	72	72	86	68	69	4	SE	0.3	6	SSE	72	74	74	75	0	0	52	0.37	54	0	0	0	0	0	0.026
7/30/2019 6:55	29.6	73	73	72	86	68	69	4	SE	0.3	7	SSE	73	75	75	76	0	0	60	0.43	63	0	0	0	0	0	0.026
7/30/2019 7:00	29.6	73	73	72	85	68	69	3	SSE	0.2	5	SSE	73	74	74	76	0	0	66	0.47	69	0	0	0	0	0	0.026
7/30/2019 7:05	29.6	73	73	73	85	68	69	3	SSE	0.2	7	SE	73	74	74	76	0	0	75	0.54	79	0	0	0	0	0	0.026
7/30/2019 7:10	29.6	73	73	73	85	68	69	2	SE	0.2	5	SE	73	75	75	77	0	0	88	0.63	95	0	0	0	0	0	0.027
7/30/2019 7:15	29.61	73	73	73	85	68	69	3	SSE	0.2	5	SSE	73	75	75	78	0	0	103	0.74	109	0	0	0	0	0	0.027
7/30/2019 7:20	29.6	73	73	73	85	68	70	3	SSE	0.2	6	SE	73	75	75	79	0	0	120	0.86	125	0	0	0	0	0	0.028
7/30/2019 7:25	29.6	74	74	73	85	69	70	3	SSE	0.2	7	SSE	74	76	76	80	0	0	131	0.94	135	0	1	0	1	0	0.03
7/30/2019 7:30	29.6	74	74	74	84	69	70	4	SSE	0.3	7	S	74	76	76	80	0	0	144	1.03	148	0	1	0	1	0	0.031
7/30/2019 7:35	29.61	74	74	74	83	69	70	4	SSE	0.3	7	SE	74	77	77	81	0	0	151	1.08	155	0	1	0	1	0	0.033
7/30/2019 7:40	29.61	75	75	74	82	69	70	5	SSE	0.4	9	SE	75	77	77	82	0	0	159	1.14	163	0	1	0	1	0	0.034
7/30/2019 7:45	29.61	75	75	75	82	69	71	4	S	0.3	7	SE	75	77	77	83	0	0	170	1.22	174	0	1	0	1	0	0.035
7/30/2019 7:50	29.61	75	75	75	81	69	71	4	S	0.3	7	SSE	75	78	78	83	0	0	176	1.26	176	0	1	0	1	0	0.036
7/30/2019 7:55	29.61	76	76	75	81	69	71	5	SSE	0.4	8	SSE	76	78	78	83	0	0	170	1.22	172	0	1	0	1	0	0.037
7/30/2019 8:00	29.61	76	76	76	81	69	71	5	SSE	0.4	9	SSE	76	78	78	83	0	0	169	1.21	171	0	1	0	1	0	0.037
7/30/2019 8:05	29.61	76	76	76	80	69	71	4	SSE	0.3	8	SSE	76	78	78	83	0	0	175	1.25	181	0	1	0	1	0	0.038
7/30/2019 8:10	29.61	76	76	76	80	70	71	4	SSE	0.3	8	SSE	76	79	79	84	0	0	198	1.42	209	0	1	0	1	0	0.039
7/30/2019 8:15	29.61	76	76	76	80	70	72	5	SSE	0.4	9	SSE	76	79	79	85	0	0	227	1.63	239	0	1	0	1	0	0.04
7/30/2019 8:20	29.61	77	77	76	79	70	71	5	SSE	0.4	9	SSE	77	79	79	86	0	0	254	1.82	265	0	1	0	1	0	0.041
7/30/2019 8:25	29.61	77	77	77	79	70	72	5	SSE	0.4	9	SSE	77	80	80	87	0	0	276	1.98	285	0	1	0.1	2	0	0.042
7/30/2019 8:30	29.61	77	77	77	79	70	72	6	SSE	0.5	10	SSE	77	80	80	88	0	0	297	2.13	304	0	2	0.1	2	0	0.042

7/30/2019 8:35	29.61	77	77	77	78	70	72	5	SSE	0.4	8	SSE	77	80	80	88	0	0	318	2.28	327	0	2	0.1	2	0	0.043
7/30/2019 8:40	29.61	78	78	77	78	70	72	5	S	0.4	9	SSE	78	81	81	89	0	0	334	2.39	341	0	2	0.1	2	0	0.044
7/30/2019 8:45	29.61	78	78	78	76	70	72	6	SSE	0.5	13	SSE	78	81	81	89	0	0	350	2.51	355	0	2	0.1	2	0	0.045
7/30/2019 8:50	29.62	78	78	78	76	70	72	5	S	0.4	9	S	78	81	81	90	0	0	363	2.6	369	0	2	0.1	2	0	0.046
7/30/2019 8:55	29.62	79	79	78	75	70	72	6	S	0.5	10	S	79	82	82	91	0	0	376	2.7	383	0	2	0.1	2	0	0.048
7/30/2019 9:00	29.62	79	79	79	75	70	73	6	SSW	0.5	9	SSW	79	82	82	92	0	0	389	2.79	392	0.01	2	0.1	2	0	0.049
7/30/2019 9:05	29.62	79	79	79	74	70	72	9	SSW	0.8	15	WSW	78	82	81	90	0	0	405	2.9	415	0	2	0.1	2	0	0.049
7/30/2019 9:10	29.61	79	79	79	73	70	72	9	SW	0.8	14	WSW	78	82	81	90	0	0	417	2.99	422	0	2	0.1	2	0	0.049
7/30/2019 9:15	29.61	79	79	79	73	70	72	7	SW	0.6	13	SW	79	83	83	92	0	0	432	3.1	436	0	2	0.1	2	0	0.05
7/30/2019 9:20	29.61	80	80	79	73	70	72	9	S	0.8	13	S	78	83	82	91	0	0	447	3.21	459	0	2	0.1	3	0	0.05
7/30/2019 9:25	29.61	80	80	79	73	70	72	9	S	0.8	15	S	78	83	82	91	0	0	466	3.34	473	0	3	0.1	3	0	0.05
7/30/2019 9:30	29.6	80	80	80	73	71	73	8	SSW	0.7	10	SW	79	84	83	93	0	0	481	3.45	487	0	3	0.1	3	0	0.052
7/30/2019 9:35	29.61	80	80	80	72	70	73	8	SSW	0.7	12	S	79	84	83	93	0	0	493	3.53	496	0	3	0.1	3	0	0.053
7/30/2019 9:40	29.61	80	80	80	72	71	73	9	SSW	0.8	13	SSW	79	84	83	93	0	0	505	3.62	510	0	3	0.1	3	0	0.053
7/30/2019 9:45	29.6	81	81	80	72	71	74	6	SSW	0.5	11	SSE	81	86	86	96	0	0	517	3.71	522	0	3	0.1	3	0	0.056
7/30/2019 9:50	29.6	82	82	81	71	71	74	6	S	0.5	12	S	82	86	86	97	0	0	530	3.8	536	0	3	0.1	3	0	0.058
7/30/2019 9:55	29.61	82	82	82	71	71	74	7	S	0.6	11	S	82	86	86	97	0	0	543	3.89	548	0	3	0.1	3	0	0.058
7/30/2019 10:00	29.61	82	82	82	71	72	74	6	S	0.5	10	S	82	87	87	98	0	0	558	4	564	0.01	3	0.1	4	0	0.059
7/30/2019 10:05	29.61	82	82	82	70	71	74	8	S	0.7	15	SSW	81	87	86	96	0	0	576	4.13	585	0	4	0.1	4	0	0.059
7/30/2019 10:10	29.61	82	82	82	70	71	73	10	SSW	0.8	16	SSW	80	86	85	95	0	0	596	4.27	601	0	4	0.1	4	0	0.058
7/30/2019 10:15	29.6	82	82	82	70	71	74	9	S	0.8	15	S	81	87	86	96	0	0	637	4.57	680	0	4	0.1	4	0	0.059
7/30/2019 10:20	29.61	82	82	82	70	71	74	8	SSW	0.7	12	S	81	87	86	97	0	0	604	4.33	714	0	4	0.1	4	0	0.06
7/30/2019 10:25	29.6	82	82	82	69	71	73	8	S	0.7	14	S	81	87	86	93	0	0	370	2.65	445	0	3	0.1	4	0	0.06
7/30/2019 10:30	29.61	82	82	82	68	71	73	10	SW	0.8	15	WSW	81	87	86	95	0	0	597	4.28	652	0	4	0.1	4	0	0.06
7/30/2019 10:35	29.61	83	83	82	67	71	73	8	SSW	0.7	12	S	82	88	87	98	0	0	663	4.75	684	0	4	0.2	4	0	0.062
7/30/2019 10:40	29.61	84	84	83	65	70	73	8	S	0.7	12	SW	83	88	88	99	0	0	728	5.22	754	0	5	0.2	5	0	0.064
7/30/2019 10:45	29.61	84	84	84	65	71	74	8	SSW	0.7	11	WSW	83	89	88	99	0	0	766	5.49	766	0	4	0.2	5	0	0.066
7/30/2019 10:50	29.61	84	84	84	64	71	74	10	SSW	0.8	18	WSW	83	90	89	99	0	0	705	5.06	708	0	5	0.2	5	0	0.067
7/30/2019 10:55	29.6	84	84	84	62	70	73	11	SSW	0.9	18	S	83	89	87	97	0	0	720	5.16	729	0	5	0.2	5	0	0.067
7/30/2019 11:00	29.61	84	84	84	62	70	73	11	SW	0.9	17	SW	83	89	87	97	0	0	736	5.28	745	0.02	5	0.2	5	0	0.067
7/30/2019 11:05	29.61	85	85	84	61	70	73	10	SSW	0.8	14	SSW	84	90	89	99	0	0	770	5.52	800	0	5	0.2	6	0	0.069
7/30/2019 11:10	29.61	85	85	85	60	70	73	12	WSW	1	17	WSW	84	90	89	98	0	0	806	5.78	865	0	6	0.2	6	0	0.071
7/30/2019 11:15	29.61	86	86	85	60	71	74	10	WSW	0.8	17	WSW	85	92	91	101	0	0	885	6.35	898	0	6	0.2	6	0	0.074
7/30/2019 11:20	29.6	86	86	86	61	71	74	9	SSW	0.8	14	SSW	85	91	91	101	0	0	628	4.5	628	0	6	0.2	6	0	0.073
7/30/2019 11:25	29.61	87	87	86	58	71	74	6	SSW	0.5	14	SW	87	93	93	103	0	0	887	6.36	905	0	6	0.2	6	0	0.077
7/30/2019 11:30	29.61	86	87	86	61	71	74	9	SW	0.8	14	S	86	92	91	102	0	0	830	5.95	830	0	6	0.2	6	0	0.073
7/30/2019 11:35	29.6	86	86	86	58	70	73	12	SW	1	18	W	85	91	90	99	0	0	879	6.3	896	0	6	0.2	6	0	0.074
7/30/2019 11:40	29.6	86	86	86	59	70	74	10	SW	0.8	16	WSW	86	92	91	101	0	0	771	5.53	840	0	6	0.2	6	0	0.074
7/30/2019 11:45	29.6	87	87	86	58	70	73	8	SW	0.7	12	WSW	86	92	92	102	0	0	890	6.38	935	0	6	0.2	6	0	0.075
7/30/2019 11:50	29.6	87	87	87	57	70	73	12	SW	1	20	WSW	86	91	90	98	0	0	541	3.88	970	0	5	0.2	6	0	0.075

7/30/2019 11:55	29.6	86	86	86	58	69	73	11	SW	0.9	16	SW	85	90	89	96	0	0	404	2.9	443	0	4	0.1	5	0	0.073
7/30/2019 12:00	29.6	86	86	86	59	70	73	7	SSW	0.6	11	WSW	86	91	91	95	0	0	262	1.88	276	0.02	3	0.1	3	0	0.073
7/30/2019 12:05	29.6	86	86	86	62	71	74	9	SW	0.8	13	S	85	91	91	96	0	0	294	2.11	316	0	4	0.1	6	0	0.072
7/30/2019 12:10	29.6	85	86	85	61	70	74	8	SSW	0.7	12	SSW	85	90	90	100	0	0	585	4.19	956	0	4	0.1	6	0	0.071
7/30/2019 12:15	29.59	86	86	85	61	71	74	6	SSW	0.5	10	SSW	86	91	91	96	0	0	235	1.69	255	0	4	0.1	6	0	0.073
7/30/2019 12:20	29.59	85	86	85	62	71	74	5	S	0.4	11	S	85	90	90	93	0	0	160	1.15	227	0	2	0.1	3	0	0.07
7/30/2019 12:25	29.59	85	85	85	63	71	74	9	SSW	0.8	14	S	84	90	89	90	0	0	124	0.89	130	0	2	0.1	2	0	0.068
7/30/2019 12:30	29.6	81	85	81	68	70	72	12	SSE	1	22	SSE	79	85	83	83	0	0	77	0.55	98	0	1	0	1	0	0.057
7/30/2019 12:35	29.59	80	81	80	73	70	72	9	SSE	0.8	16	SE	78	83	82	83	0	0	137	0.98	149	0	1	0	1	0	0.05
7/30/2019 12:40	29.61	79	80	79	71	69	71	17	W	1.4	40	W	75	82	78	79	0.01	0	90	0.65	128	0	1	0	1	0	0.049
7/30/2019 12:45	29.6	75	79	75	78	68	70	14	WNW	1.2	40	W	72	77	74	75	0.05	2.74	150	1.08	290	0	2	0.1	3	0	0.036
7/30/2019 12:50	29.59	75	75	75	87	71	72	3	WSW	0.2	7	WSW	75	78	78	88	0.01	0.16	957	6.86	993	0	7	0.2	7	0	0.035
7/30/2019 12:55	29.6	76	76	75	85	71	72	5	W	0.4	9	WSW	76	79	79	90	0	0.08	899	6.45	926	0	7	0.2	7	0	0.038
7/30/2019 13:00	29.61	77	77	76	84	72	73	4	WSW	0.3	11	SW	77	81	81	92	0	0.05	916	6.57	926	0.01	7	0.2	7	0	0.043
7/30/2019 13:05	29.6	79	79	78	80	72	74	5	W	0.4	13	W	79	83	83	94	0	0	951	6.82	969	0	7	0.3	7	0	0.049
7/30/2019 13:10	29.59	80	80	79	77	73	74	5	W	0.4	14	WNW	80	85	85	98	0	0	799	5.73	974	0	6	0.2	7	0	0.053
7/30/2019 13:15	29.59	82	82	80	78	74	76	6	W	0.5	10	W	82	88	88	100	0	0	1050	7.53	1071	0	8	0.3	8	0	0.058
7/30/2019 13:20	29.58	84	84	82	73	74	76	4	WNW	0.3	11	WNW	84	91	91	102	0	0	598	4.29	1018	0	5	0.2	7	0	0.065
7/30/2019 13:25	29.58	84	84	84	71	73	76	6	W	0.5	10	WNW	84	90	90	96	0	0	261	1.87	306	0	3	0.1	3	0	0.065
7/30/2019 13:30	29.58	84	84	84	72	74	76	4	W	0.3	9	W	84	91	91	99	0	0	401	2.88	424	0	4	0.1	4	0	0.065
7/30/2019 13:35	29.58	84	84	84	70	73	76	4	W	0.3	9	W	84	91	91	99	0	0	401	2.88	455	0	4	0.1	4	0	0.066
7/30/2019 13:40	29.57	85	85	84	70	74	76	5	WSW	0.4	10	W	85	93	93	103	0	0	952	6.83	1005	0	7	0.3	8	0	0.069
7/30/2019 13:45	29.57	86	86	85	67	74	76	5	W	0.4	11	W	86	94	94	105	0	0	976	7	997	0	8	0.3	8	0	0.073
7/30/2019 13:50	29.57	87	87	86	65	74	76	7	W	0.6	13	W	87	95	95	106	0	0	960	6.88	976	0	7	0.2	8	0	0.076
7/30/2019 13:55	29.57	88	88	87	65	74	77	8	WSW	0.7	14	WSW	88	97	97	107	0	0	928	6.65	932	0	7	0.3	7	0	0.079
7/30/2019 14:00	29.57	88	88	88	59	72	75	13	W	1.1	22	W	87	94	93	102	0	0	941	6.75	960	0.02	7	0.2	7	0	0.079
7/30/2019 14:05	29.57	87	88	87	57	70	74	19	WSW	1.6	32	WSW	85	93	91	98	0	0	931	6.68	944	0	7	0.3	7	0	0.077
7/30/2019 14:10	29.58	87	87	87	56	70	73	15	WSW	1.2	27	SW	86	92	91	99	0	0	975	6.99	991	0	7	0.2	7	0	0.077
7/30/2019 14:15	29.58	87	88	87	62	72	75	15	NW	1.2	26	WNW	86	94	93	101	0	0	991	7.11	991	0	6	0.2	7	0	0.077
7/30/2019 14:20	29.58	85	87	85	66	73	75	17	NNW	1.4	22	NNW	83	92	90	98	0	0	973	6.98	1013	0	6	0.2	7	0	0.07
7/30/2019 14:25	29.59	85	85	85	65	72	75	16	NW	1.3	23	NW	83	92	89	97	0	0	942	6.75	998	0	7	0.2	7	0	0.07
7/30/2019 14:30	29.59	85	85	85	67	73	76	13	WNW	1.1	20	WNW	84	93	91	100	0	0	954	6.84	979	0	7	0.2	7	0	0.07
7/30/2019 14:35	29.59	86	86	85	64	72	75	12	WNW	1	19	W	85	93	91	101	0	0	986	7.07	986	0	5	0.2	7	0	0.073
7/30/2019 14:40	29.59	86	86	86	60	71	74	13	WNW	1.1	25	W	85	91	90	99	0	0	905	6.49	923	0	6	0.2	7	0	0.073
7/30/2019 14:45	29.58	86	86	86	60	71	74	13	WNW	1.1	23	NW	85	92	91	99	0	0	872	6.25	879	0	6	0.2	7	0	0.074
7/30/2019 14:50	29.59	86	86	86	61	71	74	16	WNW	1.3	28	WNW	84	91	89	98	0	0	745	5.34	854	0	6	0.2	6	0	0.073
7/30/2019 14:55	29.59	85	86	85	61	70	73	13	W	1.1	24	WNW	84	90	88	92	0	0	239	1.71	248	0	4	0.1	6	0	0.07
7/30/2019 15:00	29.58	85	85	85	60	70	73	14	WNW	1.2	25	W	83	89	87	96	0	0	732	5.25	972	0.03	6	0.2	6	0	0.069
7/30/2019 15:05	29.59	85	85	85	62	71	74	10	WNW	0.8	22	WNW	84	90	89	95	0	0	339	2.43	388	0	4	0.1	6	0	0.07
7/30/2019 15:10	29.58	84	85	84	62	70	73	16	WNW	1.3	30	WNW	82	89	86	91	0	0	360	2.58	380	0	3	0.1	3	0	0.067

7/30/2019 15:15	29.59	84	84	84	62	69	72	14	W	1.2	27	W	82	88	86	90	0	0	286	2.05	302	0	3	0.1	3	0	0.065
7/30/2019 15:20	29.58	84	84	84	62	69	72	13	WNW	1.1	22	W	82	88	86	92	0	0	420	3.01	541	0	4	0.1	5	0	0.065
7/30/2019 15:25	29.58	84	84	84	62	69	72	12	WNW	1	24	WNW	82	87	86	91	0	0	357	2.56	476	0	3	0.1	4	0	0.065
7/30/2019 15:30	29.57	84	84	83	63	70	73	13	WNW	1.1	24	NW	82	88	86	96	0	0	908	6.51	976	0	6	0.2	6	0	0.065
7/30/2019 15:35	29.57	85	85	84	61	70	73	14	WNW	1.2	25	WNW	83	89	87	95	0	0	787	5.64	809	0	5	0.2	6	0	0.068
7/30/2019 15:40	29.58	86	86	85	61	71	74	10	W	0.8	19	WNW	85	91	90	100	0	0	804	5.76	837	0	5	0.2	6	0	0.072
7/30/2019 15:45	29.58	87	87	86	59	71	74	14	WNW	1.2	26	W	85	92	91	100	0	0	878	6.3	916	0	5	0.2	6	0	0.075
7/30/2019 15:50	29.58	86	87	86	59	70	74	14	WNW	1.2	23	W	85	92	90	99	0	0	784	5.62	893	0	5	0.2	6	0	0.075
7/30/2019 15:55	29.58	86	86	86	58	70	73	14	W	1.2	26	W	85	91	90	98	0	0	767	5.5	795	0	5	0.2	5	0	0.074
7/30/2019 16:00	29.58	86	86	86	58	70	73	15	W	1.2	25	W	85	91	90	98	0	0	711	5.1	735	0.02	5	0.2	5	0	0.075
7/30/2019 16:05	29.58	87	87	86	58	71	74	11	W	0.9	20	W	86	93	92	102	0	0	738	5.29	770	0	5	0.2	5	0	0.077
7/30/2019 16:10	29.58	87	87	87	56	69	73	12	W	1	24	W	86	91	90	101	0	0	812	5.82	824	0	4	0.1	5	0	0.076
7/30/2019 16:15	29.57	86	87	86	57	69	73	12	W	1	27	W	85	91	90	96	0	0	324	2.32	712	0	3	0.1	4	0	0.075
7/30/2019 16:20	29.57	86	86	86	58	69	73	14	WNW	1.2	23	WNW	84	90	88	91	0	0	169	1.21	181	0	2	0.1	2	0	0.072
7/30/2019 16:25	29.57	85	86	85	61	70	73	9	WNW	0.8	19	NW	84	89	88	92	0	0	212	1.52	255	0	2	0.1	2	0	0.068
7/30/2019 16:30	29.57	85	85	84	61	70	73	9	W	0.8	17	W	84	89	88	97	0	0	441	3.16	561	0	3	0.1	4	0	0.068
7/30/2019 16:35	29.58	86	86	85	59	70	73	10	WNW	0.8	17	WNW	85	90	89	101	0	0	756	5.42	807	0	4	0.1	4	0	0.072
7/30/2019 16:40	29.58	86	86	86	56	69	72	13	WNW	1.1	23	W	85	91	89	98	0	0	664	4.76	687	0	4	0.1	4	0	0.075
7/30/2019 16:45	29.57	87	87	86	55	69	73	11	W	0.9	23	W	86	92	91	101	0	0	693	4.97	707	0	4	0.1	4	0	0.077
7/30/2019 16:50	29.57	87	87	87	55	69	72	14	WNW	1.2	19	WNW	85	91	90	98	0	0	639	4.58	671	0	3	0.1	3	0	0.076
7/30/2019 16:55	29.57	87	87	87	56	69	73	11	WNW	0.9	19	W	86	91	90	100	0	0	593	4.25	617	0	3	0.1	3	0	0.076
7/30/2019 17:00	29.57	87	87	87	56	69	73	12	WNW	1	19	NW	86	92	91	100	0	0	594	4.26	608	0.02	3	0.1	3	0	0.077
7/30/2019 17:05	29.58	86	87	86	58	70	73	11	WNW	0.9	17	WNW	85	91	90	95	0	0	255	1.83	269	0	2	0.1	2	0	0.073
7/30/2019 17:10	29.58	85	86	85	60	70	73	12	NW	1	18	NW	84	90	89	93	0	0	215	1.54	318	0	2	0.1	2	0	0.071
7/30/2019 17:15	29.59	85	85	85	60	69	73	10	WNW	0.8	15	NW	84	89	88	92	0	0	206	1.48	216	0	2	0.1	2	0	0.068
7/30/2019 17:20	29.58	84	85	84	62	70	73	7	WNW	0.6	12	W	84	89	89	93	0	0	172	1.23	213	0	1	0.1	2	0	0.067
7/30/2019 17:25	29.58	84	84	84	62	70	73	7	NNW	0.6	11	NNW	84	89	89	91	0	0	119	0.85	123	0	1	0	1	0	0.067
7/30/2019 17:30	29.58	84	84	84	63	70	73	5	WNW	0.4	9	NNW	84	89	89	92	0	0	136	0.98	142	0	1	0	1	0	0.067
7/30/2019 17:35	29.58	84	84	84	63	70	73	7	NNW	0.6	11	NNW	84	89	89	93	0	0	170	1.22	221	0	1	0	1	0	0.066
7/30/2019 17:40	29.58	84	84	84	63	70	73	8	NW	0.7	12	NNW	83	88	87	89	0	0	103	0.74	121	0	1	0	1	0	0.065
7/30/2019 17:45	29.59	83	84	83	63	69	72	8	WNW	0.7	12	WNW	83	87	87	88	0	0	88	0.63	104	0	0	0	1	0	0.064
7/30/2019 17:50	29.58	83	83	83	63	69	72	7	NNW	0.6	9	NNW	83	87	87	91	0	0	166	1.19	192	0	1	0	1	0	0.063
7/30/2019 17:55	29.58	83	83	83	64	70	73	7	WNW	0.6	10	NNW	83	87	87	88	0	0	62	0.44	120	0	0	0	1	0	0.063
7/30/2019 18:00	29.6	82	83	82	68	71	73	14	W	1.2	41	W	80	87	85	85	0.03	2.82	36	0.26	67	0.01	0	0	0	0	0.06
7/30/2019 18:05	29.59	79	82	79	74	70	72	6	W	0.5	41	W	79	82	82	86	0.08	3.29	156	1.12	209	0	1	0	1	0	0.048
7/30/2019 18:10	29.6	77	79	77	78	70	71	3	SW	0.2	8	NW	77	79	79	86	0	0.1	231	1.66	250	0	1	0	1	0	0.041
7/30/2019 18:15	29.61	76	77	76	81	69	71	4	SW	0.3	8	WSW	76	78	78	83	0	0.05	171	1.23	190	0	1	0	1	0	0.037
7/30/2019 18:20	29.6	74	76	74	83	69	70	3	S	0.2	7	S	74	77	77	81	0	0.04	143	1.03	149	0	1	0	1	0	0.033
7/30/2019 18:25	29.6	74	74	74	85	69	70	4	S	0.3	7	SSW	74	76	76	80	0	0	145	1.04	151	0	1	0	1	0	0.031
7/30/2019 18:30	29.6	74	74	74	87	70	71	3	SSE	0.2	6	S	74	76	76	81	0	0	150	1.08	156	0	1	0	1	0	0.031

7/30/2019 18:35	29.6	74	74	74	87	70	71	4	SSE	0.3	6	SSE	74	76	76	81	0	0	161	1.15	172	0	1	0	1	0	0.032
7/30/2019 18:40	29.6	74	74	74	86	70	71	5	SSE	0.4	9	SSE	74	76	76	82	0	0	170	1.22	178	0	1	0	1	0	0.031
7/30/2019 18:45	29.6	74	74	74	87	70	71	4	SSE	0.3	9	SSE	74	76	76	80	0	0	125	0.9	149	0	1	0	1	0	0.031
7/30/2019 18:50	29.61	74	74	74	87	70	71	4	SSE	0.3	8	SSE	74	76	76	79	0	0	87	0.62	95	0	0	0	0	0	0.031
7/30/2019 18:55	29.61	74	74	74	88	70	71	4	SSE	0.3	8	SSE	74	76	76	79	0	0	76	0.54	77	0	0	0	0	0	0.032
7/30/2019 19:00	29.61	74	74	74	88	71	72	3	SSE	0.2	6	SSE	74	77	77	79	0	0	69	0.49	72	0	0	0	0	0	0.033
7/30/2019 19:05	29.61	74	74	74	87	70	71	4	SSE	0.3	7	SSE	74	77	77	78	0	0	54	0.39	58	0	0	0	0	0	0.033
7/30/2019 19:10	29.62	74	75	74	87	70	71	6	SSE	0.5	10	SSE	74	77	77	78	0	0	52	0.37	54	0	0	0	0	0	0.033
7/30/2019 19:15	29.61	74	74	74	88	70	71	5	SSE	0.4	7	S	74	76	76	77	0	0	40	0.29	46	0	0	0	0	0	0.031
7/30/2019 19:20	29.62	74	74	74	88	70	71	5	SSW	0.4	7	S	74	76	76	76	0	0	26	0.19	32	0	0	0	0	0	0.03
7/30/2019 19:25	29.62	74	74	74	89	70	71	5	S	0.4	7	SSW	74	76	76	75	0	0	21	0.15	23	0	0	0	0	0	0.03
7/30/2019 19:30	29.63	74	74	74	89	70	71	4	SSE	0.3	7	SSE	74	76	76	76	0	0	24	0.17	26	0	0	0	0	0	0.03
7/30/2019 19:35	29.63	74	74	74	90	70	71	5	SSE	0.4	8	SE	74	76	76	75	0	0	29	0.21	32	0	0	0	0	0	0.03
7/30/2019 19:40	29.62	74	74	74	90	70	71	4	SSE	0.3	9	SSE	74	76	76	75	0	0	34	0.24	37	0	0	0	0	0	0.03
7/30/2019 19:45	29.63	74	74	74	90	71	71	5	SW	0.4	8	WSW	74	76	76	75	0	0	38	0.27	40	0	0	0	0	0	0.03
7/30/2019 19:50	29.63	74	74	74	90	71	72	2	SW	0.2	4	SW	74	76	76	75	0	0	39	0.28	40	0	0	0	0	0	0.031
7/30/2019 19:55	29.63	74	74	74	90	71	71	1	S	0.1	3	S	74	76	76	75	0	0	37	0.27	37	0	0	0	0	0	0.03
7/30/2019 20:00	29.63	74	74	74	90	71	71	1	S	0.1	3	S	74	76	76	75	0	0	33	0.24	35	0	0	0	0	0	0.03
7/30/2019 20:05	29.63	74	74	74	90	71	71	2	SSE	0.2	4	SSE	74	76	76	75	0	0	27	0.19	28	0	0	0	0	0	0.03
7/30/2019 20:10	29.63	74	74	74	90	71	71	3	SE	0.2	5	SE	74	76	76	75	0	0	26	0.19	26	0	0	0	0	0	0.03
7/30/2019 20:15	29.63	74	74	74	90	70	71	4	SSE	0.3	7	SE	74	76	76	74	0	0	17	0.12	21	0	0	0	0	0	0.03
7/30/2019 20:20	29.64	73	74	73	90	70	71	5	SE	0.4	8	SE	73	75	75	74	0	0	13	0.09	14	0	0	0	0	0	0.028
7/30/2019 20:25	29.64	73	73	73	90	70	71	3	SSE	0.2	5	SE	73	75	75	74	0	0	11	0.08	11	0	0	0	0	0	0.028
7/30/2019 20:30	29.64	73	73	73	91	70	71	5	SE	0.4	8	ESE	73	75	75	73	0	0	8	0.06	9	0	0	0	0	0	0.027
7/30/2019 20:35	29.63	73	73	73	91	70	71	4	SSE	0.3	8	SSE	73	75	75	73	0	0	3	0.02	5	0	0	0	0	0	0.026
7/30/2019 20:40	29.63	73	73	73	92	70	71	4	SSE	0.3	8	SSE	73	75	75	73	0	0	0	0	0	0	0	0	0	0	0.026
7/30/2019 20:45	29.63	72	73	72	91	70	70	3	S	0.2	6	SSE	72	75	75	73	0	0	0	0	0	0	0	0	0	0	0.026
7/30/2019 20:50	29.64	72	72	72	92	70	70	3	SSE	0.2	6	S	72	74	74	73	0	0	0	0	0	0	0	0	0	0	0.025
7/30/2019 20:55	29.64	72	72	72	92	70	70	3	SSE	0.2	6	S	72	74	74	73	0	0	0	0	0	0	0	0	0	0	0.025
7/30/2019 21:00	29.64	72	72	72	92	70	70	4	SSE	0.3	7	S	72	74	74	73	0	0	0	0	0	0	0	0	0	0	0.025
7/30/2019 21:05	29.64	72	72	72	92	70	70	3	S	0.2	6	S	72	74	74	73	0	0	0	0	0	0	0	0	0	0	0.024
7/30/2019 21:10	29.64	72	72	72	93	70	70	4	S	0.3	6	S	72	74	74	73	0	0	0	0	0	0	0	0	0	0	0.024
7/30/2019 21:15	29.64	72	72	72	93	70	70	5	SSW	0.4	7	S	72	74	74	72	0	0	0	0	0	0	0	0	0	0	0.024
7/30/2019 21:20	29.64	72	72	72	93	70	70	5	S	0.4	7	SSW	72	74	74	72	0	0	0	0	0	0	0	0	0	0	0.024
7/30/2019 21:25	29.65	72	72	72	93	70	70	4	SSE	0.3	8	SSE	72	74	74	72	0	0	0	0	0	0	0	0	0	0	0.024
7/30/2019 21:30	29.65	72	72	72	93	70	70	4	SSE	0.3	7	SSE	72	74	74	72	0	0	0	0	0	0	0	0	0	0	0.024
7/30/2019 21:35	29.65	72	72	72	93	69	70	4	SSE	0.3	6	S	72	74	74	72	0	0	0	0	0	0	0	0	0	0	0.023
7/30/2019 21:40	29.65	72	72	72	94	70	70	4	SSE	0.3	7	S	72	74	74	72	0	0	0	0	0	0	0	0	0	0	0.023
7/30/2019 21:45	29.65	71	72	71	94	70	70	4	S	0.3	7	S	71	74	74	72	0	0	0	0	0	0	0	0	0	0	0.022
7/30/2019 21:50	29.66	71	71	71	93	69	70	5	SSW	0.4	7	SSW	71	74	74	72	0	0	0	0	0	0	0	0	0	0	0.022

7/30/2019 21:55	29.66	71	71	71	93	69	70	4	SSW	0.3	6	SSW	71	73	73	72	0	0	0	0	0	0	0	0	0	0.021
7/30/2019 22:00	29.66	71	71	71	93	69	69	2	S	0.2	4	SSW	71	73	73	72	0	0	0	0	0	0	0	0	0	0.021
7/30/2019 22:05	29.66	71	71	71	93	69	69	2	SSE	0.2	4	S	71	73	73	72	0	0	0	0	0	0	0	0	0	0.021
7/30/2019 22:10	29.66	71	71	71	93	69	69	3	SSE	0.2	6	SSE	71	73	73	71	0	0	0	0	0	0	0	0	0	0.02
7/30/2019 22:15	29.66	71	71	71	93	69	69	2	SSE	0.2	5	SSE	71	73	73	71	0	0	0	0	0	0	0	0	0	0.02
7/30/2019 22:20	29.66	71	71	71	93	69	69	3	S	0.2	6	S	71	73	73	71	0	0	0	0	0	0	0	0	0	0.02
7/30/2019 22:25	29.66	71	71	71	93	69	69	3	S	0.2	6	S	71	73	73	71	0	0	0	0	0	0	0	0	0	0.02
7/30/2019 22:30	29.66	71	71	71	93	69	69	4	S	0.3	6	S	71	73	73	71	0	0	0	0	0	0	0	0	0	0.02
7/30/2019 22:35	29.66	71	71	71	93	69	69	3	S	0.2	6	SSE	71	73	73	71	0	0	0	0	0	0	0	0	0	0.02
7/30/2019 22:40	29.66	71	71	71	93	69	69	3	SSE	0.2	6	SSE	71	73	73	71	0	0	0	0	0	0	0	0	0	0.02
7/30/2019 22:45	29.66	71	71	71	92	68	69	4	S	0.3	7	S	71	73	73	71	0	0	0	0	0	0	0	0	0	0.02
7/30/2019 22:50	29.66	70	71	70	92	68	69	4	S	0.3	5	S	70	73	73	71	0	0	0	0	0	0	0	0	0	0.019
7/30/2019 22:55	29.66	70	70	70	92	68	69	4	SSW	0.3	5	SSW	70	73	73	71	0	0	0	0	0	0	0	0	0	0.019
7/30/2019 23:00	29.66	70	70	70	92	68	69	3	S	0.2	5	S	70	73	73	71	0	0	0	0	0	0	0	0	0	0.019
7/30/2019 23:05	29.66	70	70	70	92	68	69	2	S	0.2	5	S	70	73	73	71	0	0	0	0	0	0	0	0	0	0.019
7/30/2019 23:10	29.66	70	70	70	92	68	69	1	S	0.1	3	S	70	73	73	71	0	0	0	0	0	0	0	0	0	0.018
7/30/2019 23:15	29.67	70	70	70	93	68	69	2	SSE	0.2	4	SSE	70	73	73	71	0	0	0	0	0	0	0	0	0	0.019
7/30/2019 23:20	29.66	70	70	70	93	68	69	3	SSE	0.2	6	SSE	70	73	73	71	0	0	0	0	0	0	0	0	0	0.019
7/30/2019 23:25	29.67	70	70	70	93	68	69	4	SSE	0.3	6	SE	70	73	73	71	0	0	0	0	0	0	0	0	0	0.019
7/30/2019 23:30	29.67	70	70	70	93	68	69	3	SSE	0.2	6	SSE	70	73	73	71	0	0	0	0	0	0	0	0	0	0.019
7/30/2019 23:35	29.67	70	70	70	93	68	69	2	SSE	0.2	5	SSE	70	73	73	71	0	0	0	0	0	0	0	0	0	0.019
7/30/2019 23:40	29.67	70	70	70	93	68	69	3	S	0.2	5	S	70	73	73	71	0	0	0	0	0	0	0	0	0	0.018
7/30/2019 23:45	29.67	70	70	70	93	68	69	3	SSE	0.2	5	S	70	73	73	71	0	0	0	0	0	0	0	0	0	0.018
7/30/2019 23:50	29.67	70	70	70	93	68	69	3	S	0.2	6	S	70	72	72	71	0	0	0	0	0	0	0	0	0	0.018
7/30/2019 23:55	29.67	70	70	70	93	68	68	3	S	0.2	5	S	70	72	72	71	0	0	0	0	0	0	0	0	0	0.017
7/31/2019 0:00	29.67	70	70	70	93	68	68	3	S	0.2	5	S	70	72	72	70	0	0	0	0	0	0	0	0	0	0.017
7/31/2019 0:05	29.67	70	70	70	93	68	68	3	S	0.2	5	S	70	72	72	70	0	0	0	0	0	0	0	0	0	0.017
7/31/2019 0:10	29.67	70	70	70	93	68	68	3	S	0.2	5	SSE	70	72	72	70	0	0	0	0	0	0	0	0	0	0.017
7/31/2019 0:15	29.67	70	70	70	94	68	69	2	S	0.2	4	S	70	72	72	70	0	0	0	0	0	0	0	0	0	0.017
7/31/2019 0:20	29.67	70	70	70	94	68	68	2	S	0.2	4	S	70	72	72	70	0	0	0	0	0	0	0	0	0	0.016
7/31/2019 0:25	29.67	70	70	70	94	68	68	2	S	0.2	3	S	70	72	72	70	0	0	0	0	0	0	0	0	0	0.016
7/31/2019 0:30	29.67	70	70	70	94	68	68	0		0	2	S	70	72	72	70	0	0	0	0	0	0	0	0	0	0.016
7/31/2019 0:35	29.67	70	70	70	94	68	68	2	S	0.2	4	S	70	72	72	70	0	0	0	0	0	0	0	0	0	0.016
7/31/2019 0:40	29.67	70	70	70	94	68	68	3	SSW	0.2	4	S	70	72	72	70	0	0	0	0	0	0	0	0	0	0.016
7/31/2019 0:45	29.67	70	70	70	94	68	68	2	SSW	0.2	4	SSW	70	72	72	70	0	0	0	0	0	0	0	0	0	0.016
7/31/2019 0:50	29.68	70	70	70	94	68	68	1	S	0.1	3	S	70	72	72	70	0	0	0	0	0	0	0	0	0	0.016
7/31/2019 0:55	29.67	70	70	70	93	67	68	2	S	0.2	3	S	70	72	72	70	0	0	0	0	0	0	0	0	0	0.016
7/31/2019 1:00	29.68	70	70	70	94	68	68	2	S	0.2	3	S	70	72	72	70	0	0	0	0	0	0	0	0	0	0.016
7/31/2019 1:05	29.68	70	70	70	94	68	68	2	S	0.2	3	S	70	72	72	70	0	0	0	0	0	0	0	0	0	0.016
7/31/2019 1:10	29.68	69	70	69	93	67	68	2	S	0.2	3	S	69	72	72	70	0	0	0	0	0	0	0	0	0	0.015

7/31/2019 1:15	29.68	69	69	69	94	67	68	0		0	2	S	69	72	72	70	0	0	0	0	0	0	0	0	0	0.015
7/31/2019 1:20	29.67	69	69	69	94	67	68	1	S	0.1	4	SSE	69	72	72	70	0	0	0	0	0	0	0	0	0	0.015
7/31/2019 1:25	29.67	69	69	69	94	68	68	2	SSE	0.2	4	SSE	69	72	72	70	0	0	0	0	0	0	0	0	0	0.015
7/31/2019 1:30	29.68	69	69	69	93	67	68	2	SSE	0.2	4	SSE	69	72	72	70	0	0	0	0	0	0	0	0	0	0.015
7/31/2019 1:35	29.68	69	69	69	93	67	68	2	SE	0.2	4	SE	69	71	71	69	0	0	0	0	0	0	0	0	0	0.014
7/31/2019 1:40	29.68	69	69	69	93	67	68	0		0	3	SE	69	71	71	69	0	0	0	0	0	0	0	0	0	0.014
7/31/2019 1:45	29.68	69	69	69	94	67	68	2	SSE	0.2	5	SSE	69	71	71	70	0	0	0	0	0	0	0	0	0	0.014
7/31/2019 1:50	29.67	69	69	69	94	67	68	2	SSE	0.2	4	SSE	69	71	71	69	0	0	0	0	0	0	0	0	0	0.013
7/31/2019 1:55	29.67	69	69	69	94	67	68	1	SSE	0.1	5	SSE	69	71	71	69	0	0	0	0	0	0	0	0	0	0.014
7/31/2019 2:00	29.68	69	69	69	94	67	68	3	SSE	0.2	5	SSE	69	71	71	69	0	0	0	0	0	0	0	0	0	0.013
7/31/2019 2:05	29.68	69	69	69	94	67	67	3	SE	0.2	5	SE	69	71	71	69	0	0	0	0	0	0	0	0	0	0.012
7/31/2019 2:10	29.68	69	69	69	94	67	67	3	SSE	0.2	6	SSE	69	71	71	69	0	0	0	0	0	0	0	0	0	0.012
7/31/2019 2:15	29.68	68	69	68	94	67	67	2	SSE	0.2	5	SSE	68	71	71	69	0	0	0	0	0	0	0	0	0	0.012
7/31/2019 2:20	29.67	68	68	68	94	67	67	2	SSE	0.2	5	SSE	68	71	71	69	0	0	0	0	0	0	0	0	0	0.012
7/31/2019 2:25	29.67	68	68	68	94	67	67	2	SSE	0.2	4	SSE	68	71	71	69	0	0	0	0	0	0	0	0	0	0.012
7/31/2019 2:30	29.67	68	68	68	94	67	67	2	SSE	0.2	4	SSE	68	71	71	69	0	0	0	0	0	0	0	0	0	0.012
7/31/2019 2:35	29.67	68	68	68	94	67	67	1	SSE	0.1	4	SSE	68	70	70	69	0	0	0	0	0	0	0	0	0	0.011
7/31/2019 2:40	29.67	68	68	68	94	67	67	2	SSE	0.2	4	SSE	68	70	70	69	0	0	0	0	0	0	0	0	0	0.011
7/31/2019 2:45	29.68	68	68	68	94	66	67	2	SSE	0.2	4	SSE	68	70	70	68	0	0	0	0	0	0	0	0	0	0.011
7/31/2019 2:50	29.68	68	68	68	94	66	67	2	SSE	0.2	4	SSE	68	70	70	68	0	0	0	0	0	0	0	0	0	0.011
7/31/2019 2:55	29.68	68	68	68	95	67	67	2	SSE	0.2	5	SSE	68	71	71	69	0.01	0	0	0	0	0	0	0	0	0.012
7/31/2019 3:00	29.68	68	68	68	94	66	67	3	S	0.2	5	S	68	70	70	68	0	0	0	0	0	0	0	0	0	0.011
7/31/2019 3:05	29.68	68	68	68	95	67	67	3	SSE	0.2	5	SSE	68	71	71	69	0	0	0	0	0	0	0	0	0	0.011
7/31/2019 3:10	29.68	68	68	68	95	67	67	2	SSE	0.2	5	SSE	68	71	71	69	0	0	0	0	0	0	0	0	0	0.011
7/31/2019 3:15	29.68	68	68	68	95	67	67	3	SSE	0.2	4	SSE	68	71	71	69	0	0	0	0	0	0	0	0	0	0.011
7/31/2019 3:20	29.68	68	68	68	95	67	67	1	SSE	0.1	4	SSE	68	70	70	68	0	0	0	0	0	0	0	0	0	0.011
7/31/2019 3:25	29.68	68	68	68	95	67	67	2	S	0.2	5	SSW	68	70	70	68	0	0	0	0	0	0	0	0	0	0.011
7/31/2019 3:30	29.68	68	68	68	95	67	67	3	SSW	0.2	4	SSW	68	71	71	69	0	0	0	0	0	0	0	0	0	0.011
7/31/2019 3:35	29.68	68	68	68	95	67	67	2	SSW	0.2	3	SSW	68	71	71	69	0	0	0	0	0	0	0	0	0	0.012
7/31/2019 3:40	29.68	68	68	68	95	67	67	2	SSW	0.2	3	SSW	68	71	71	69	0	0	0	0	0	0	0	0	0	0.012
7/31/2019 3:45	29.69	69	69	68	95	67	68	2	WSW	0.2	6	W	69	71	71	69	0	0	0	0	0	0	0	0	0	0.012
7/31/2019 3:50	29.69	69	69	69	95	68	68	2	SW	0.2	4	WSW	69	72	72	70	0	0	0	0	0	0	0	0	0	0.014
7/31/2019 3:55	29.69	69	69	69	95	68	68	3	SW	0.2	5	SW	69	72	72	70	0	0	0	0	0	0	0	0	0	0.014
7/31/2019 4:00	29.69	69	69	69	94	67	68	3	SW	0.2	5	SW	69	71	71	69	0	0	0	0	0	0	0	0	0	0.014
7/31/2019 4:05	29.69	69	69	69	94	67	68	2	SW	0.2	4	SW	69	71	71	69	0	0	0	0	0	0	0	0	0	0.014
7/31/2019 4:10	29.68	69	69	69	94	67	68	2	SW	0.2	3	SW	69	71	71	69	0	0	0	0	0	0	0	0	0	0.014
7/31/2019 4:15	29.69	69	69	69	94	67	68	1	SW	0.1	3	SW	69	71	71	70	0	0	0	0	0	0	0	0	0	0.014
7/31/2019 4:20	29.69	69	69	69	94	67	68	1	SSW	0.1	3	SSW	69	71	71	70	0	0	0	0	0	0	0	0	0	0.014
7/31/2019 4:25	29.69	69	69	69	94	67	68	2	SSE	0.2	4	SSE	69	72	72	70	0	0	0	0	0	0	0	0	0	0.014
7/31/2019 4:30	29.69	69	69	69	94	67	68	2	SSE	0.2	5	SSE	69	72	72	70	0	0	0	0	0	0	0	0	0	0.015

7/31/2019 4:35	29.69	69	69	69	94	68	68	3	SSE	0.2	5	SSE	69	72	72	70	0	0	0	0	0	0	0	0	0	0.015
7/31/2019 4:40	29.69	69	69	69	94	68	68	2	SSE	0.2	5	S	69	72	72	70	0	0	0	0	0	0	0	0	0	0.015
7/31/2019 4:45	29.69	69	69	69	94	67	68	2	S	0.2	5	S	69	72	72	70	0	0	0	0	0	0	0	0	0	0.015
7/31/2019 4:50	29.69	69	69	69	94	67	68	1	S	0.1	3	S	69	72	72	70	0	0	0	0	0	0	0	0	0	0.015
7/31/2019 4:55	29.69	69	69	69	93	67	68	2	S	0.2	3	S	69	72	72	70	0	0	0	0	0	0	0	0	0	0.015
7/31/2019 5:00	29.69	69	69	69	93	67	68	1	S	0.1	2	S	69	71	71	69	0	0	0	0	0	0	0	0	0	0.014
7/31/2019 5:05	29.7	69	69	69	93	67	68	0		0	2	S	69	71	71	69	0	0	0	0	0	0	0	0	0	0.014
7/31/2019 5:10	29.7	69	69	69	93	67	67	0		0	2	S	69	71	71	69	0	0	0	0	0	0	0	0	0	0.014
7/31/2019 5:15	29.7	69	69	69	94	67	68	1	S	0.1	2	S	69	71	71	69	0	0	0	0	0	0	0	0	0	0.014
7/31/2019 5:20	29.7	69	69	69	94	67	68	0		0	2	S	69	71	71	69	0	0	0	0	0	0	0	0	0	0.014
7/31/2019 5:25	29.7	69	69	69	93	67	68	1	SSW	0.1	3	SSW	69	71	71	69	0	0	0	0	0	0	0	0	0	0.014
7/31/2019 5:30	29.7	69	69	69	93	67	67	2	SSW	0.2	3	SSW	69	71	71	69	0	0	0	0	0	0	0	0	0	0.014
7/31/2019 5:35	29.7	69	69	69	93	67	67	1	SSW	0.1	2	SSW	69	71	71	69	0	0	0	0	0	0	0	0	0	0.013
7/31/2019 5:40	29.7	69	69	69	93	67	67	2	SSW	0.2	3	SSW	69	71	71	69	0	0	0	0	0	0	0	0	0	0.013
7/31/2019 5:45	29.7	69	69	69	93	67	67	0		0	2	SSW	69	71	71	69	0	0	0	0	0	0	0	0	0	0.013
7/31/2019 5:50	29.7	69	69	69	93	66	67	0		0	0		69	71	71	69	0	0	0	0	0	0	0	0	0	0.012
7/31/2019 5:55	29.7	69	69	69	94	67	67	0		0	1	SSW	69	71	71	69	0	0	0	0	0	0	0	0	0	0.012
7/31/2019 6:00	29.7	69	69	69	93	66	67	1	SSW	0.1	2	SSW	69	71	71	69	0	0	0	0	0	0	0	0	0	0.012
7/31/2019 6:05	29.71	68	69	68	93	66	67	1	SSW	0.1	2	SSW	68	71	71	69	0	0	0	0	0	0	0	0	0	0.012
7/31/2019 6:10	29.71	68	68	68	93	66	67	0		0	2	SSW	68	71	71	69	0	0	3	0.02	5	0	0	0	0	0.012
7/31/2019 6:15	29.71	68	68	68	93	66	67	0		0	2	SSW	68	70	70	69	0	0	8	0.06	11	0	0	0	0	0.011
7/31/2019 6:20	29.71	68	68	68	93	66	67	0		0	1	SSW	68	70	70	69	0	0	14	0.1	16	0	0	0	0	0.011
7/31/2019 6:25	29.71	68	68	68	93	66	67	0		0	1	SSW	68	70	70	69	0	0	19	0.14	21	0	0	0	0	0.011
7/31/2019 6:30	29.71	68	68	68	93	66	67	1	SSW	0.1	2	SSW	68	70	70	69	0	0	25	0.18	28	0	0	0	0	0.011
7/31/2019 6:35	29.71	68	68	68	93	66	67	0		0	2	SSW	68	70	70	69	0	0	34	0.24	37	0	0	0	0	0.011
7/31/2019 6:40	29.72	68	68	68	93	66	67	0		0	1	SSW	68	70	70	71	0	0	42	0.3	42	0	0	0	0	0.011
7/31/2019 6:45	29.72	68	68	68	93	66	67	1	SSW	0.1	3	SSW	68	70	70	71	0	0	52	0.37	60	0	0	0	0	0.011
7/31/2019 6:50	29.72	68	68	68	93	66	67	2	SSW	0.2	4	SSW	68	70	70	71	0	0	61	0.44	69	0	0	0	0	0.01
7/31/2019 6:55	29.72	68	68	68	93	66	66	2	SW	0.2	4	SW	68	70	70	71	0	0	67	0.48	74	0	0	0	0	0.01
7/31/2019 7:00	29.72	68	68	68	93	66	66	0		0	1	SW	68	70	70	72	0	0	75	0.54	76	0	0	0	0	0.01
7/31/2019 7:05	29.72	68	68	68	93	66	67	1	SW	0.1	3	SW	68	70	70	72	0	0	76	0.54	81	0	0	0	0	0.01
7/31/2019 7:10	29.72	68	68	68	93	66	67	1	SW	0.1	2	SSW	68	70	70	73	0	0	97	0.7	105	0	0	0	0	0.011
7/31/2019 7:15	29.72	68	68	68	93	66	67	1	SW	0.1	2	SW	68	70	70	74	0	0	106	0.76	109	0	0	0	0	0.011
7/31/2019 7:20	29.72	68	68	68	93	66	67	0		0	3	SW	68	71	71	74	0	0	117	0.84	123	0	0	0	0	0.012
7/31/2019 7:25	29.73	69	69	68	93	66	67	2	W	0.2	4	W	69	71	71	75	0	0	129	0.92	132	0	0	0	1	0.012
7/31/2019 7:30	29.73	69	69	69	93	67	67	3	W	0.2	6	WNW	69	71	71	76	0	0	157	1.13	169	0	1	0	1	0.013
7/31/2019 7:35	29.73	69	69	69	92	66	67	4	W	0.3	7	W	69	71	71	76	0	0	171	1.23	179	0	1	0	1	0.013
7/31/2019 7:40	29.73	69	69	69	92	66	67	6	WNW	0.5	9	NW	69	71	71	76	0	0	176	1.26	188	0	1	0	1	0.013
7/31/2019 7:45	29.73	69	69	69	92	66	67	6	WNW	0.5	10	WNW	69	71	71	76	0	0	165	1.18	202	0	1	0	1	0.013
7/31/2019 7:50	29.73	69	69	69	91	66	67	7	WNW	0.6	11	WNW	69	71	71	77	0	0	199	1.43	211	0	1	0	1	0.014

7/31/2019 7:55	29.73	69	69	69	91	66	67	7	WNW	0.6	11	WNW	69	71	71	78	0	0	219	1.57	230	0	1	0	1	0	0.015
7/31/2019 8:00	29.73	69	69	69	90	66	67	5	WNW	0.4	10	W	69	72	72	78	0	0	211	1.51	234	0	1	0	1	0	0.015
7/31/2019 8:05	29.73	70	70	69	89	66	67	7	WNW	0.6	11	WNW	70	72	72	78	0	0	218	1.56	225	0	1	0	1	0	0.016
7/31/2019 8:10	29.73	70	70	70	89	67	68	5	WNW	0.4	9	NW	70	72	72	79	0	0	253	1.81	272	0	1	0	1	0	0.018
7/31/2019 8:15	29.74	71	71	70	88	67	68	5	WNW	0.4	9	WNW	71	73	73	81	0	0	306	2.19	318	0	1	0.1	1	0	0.02
7/31/2019 8:20	29.74	71	71	71	85	67	68	7	WNW	0.6	12	NNW	71	73	73	81	0	0	301	2.16	309	0	2	0.1	2	0	0.022
7/31/2019 8:25	29.74	71	71	71	84	66	68	11	WNW	0.9	15	WNW	69	73	70	77	0	0	291	2.09	295	0	1	0.1	2	0	0.022
7/31/2019 8:30	29.74	71	71	71	84	66	68	9	WNW	0.8	13	NNW	70	73	71	79	0	0	321	2.3	341	0	2	0.1	2	0	0.022
7/31/2019 8:35	29.74	71	71	71	84	66	68	7	WNW	0.6	12	WNW	71	73	73	82	0	0	356	2.55	399	0	2	0.1	2	0	0.022
7/31/2019 8:40	29.74	72	72	71	84	66	68	8	WNW	0.7	12	W	71	73	72	82	0	0	408	2.93	443	0	2	0.1	2	0	0.023
7/31/2019 8:45	29.74	72	72	72	84	67	68	7	WNW	0.6	11	WNW	72	74	74	84	0	0	428	3.07	441	0	2	0.1	2	0	0.025
7/31/2019 8:50	29.74	72	72	72	82	66	68	8	WNW	0.7	12	WNW	71	74	73	82	0	0	416	2.98	471	0	2	0.1	2	0	0.025
7/31/2019 8:55	29.74	72	72	72	81	66	68	8	WNW	0.7	13	WNW	71	74	73	81	0	0	354	2.54	381	0	2	0.1	2	0	0.025
7/31/2019 9:00	29.75	73	73	72	80	66	68	7	WNW	0.6	11	WNW	73	74	74	83	0	0	369	2.65	392	0.01	2	0.1	2	0	0.026
7/31/2019 9:05	29.75	73	73	73	80	67	69	4	W	0.3	9	WNW	73	75	75	85	0	0	405	2.9	441	0	2	0.1	2	0	0.029
7/31/2019 9:10	29.75	74	74	73	77	66	68	7	NW	0.6	10	NNW	74	75	75	83	0	0	347	2.49	390	0	2	0.1	2	0	0.03
7/31/2019 9:15	29.75	74	74	74	77	66	68	7	NW	0.6	11	NNW	74	75	75	84	0	0	384	2.75	425	0	2	0.1	2	0	0.031
7/31/2019 9:20	29.75	74	74	74	77	66	68	7	NW	0.6	11	NW	74	75	75	84	0	0	388	2.78	403	0	2	0.1	2	0	0.031
7/31/2019 9:25	29.75	74	74	74	78	66	68	6	WNW	0.5	10	WNW	74	75	75	83	0	0	364	2.61	388	0	2	0.1	2	0	0.03
7/31/2019 9:30	29.75	74	74	74	77	66	68	8	WNW	0.7	12	NW	73	75	74	82	0	0	359	2.57	380	0	2	0.1	2	0	0.03
7/31/2019 9:35	29.75	73	74	73	77	65	68	8	WNW	0.7	11	WNW	72	75	74	81	0	0	363	2.6	387	0	2	0.1	2	0	0.028
7/31/2019 9:40	29.75	73	73	73	78	66	68	5	W	0.4	10	WNW	73	75	75	82	0	0	325	2.33	341	0	2	0.1	2	0	0.029
7/31/2019 9:45	29.75	74	74	73	78	66	68	4	WNW	0.3	9	WNW	74	75	75	83	0	0	357	2.56	371	0	2	0.1	2	0	0.03
7/31/2019 9:50	29.75	74	74	74	75	66	68	6	NNW	0.5	10	NNW	74	76	76	84	0	0	401	2.88	441	0	3	0.1	3	0	0.032
7/31/2019 9:55	29.76	75	75	74	75	66	69	3	NW	0.2	7	NW	75	77	77	85	0	0	434	3.11	487	0	3	0.1	3	0	0.034
7/31/2019 10:00	29.76	76	76	75	72	66	68	5	WNW	0.4	10	NW	76	77	77	88	0	0	529	3.79	578	0.01	3	0.1	3	0	0.037
7/31/2019 10:05	29.76	75	76	75	70	65	68	6	NNW	0.5	10	NNW	75	77	77	86	0	0	457	3.28	490	0	3	0.1	3	0	0.036
7/31/2019 10:10	29.76	75	75	75	72	66	68	6	NNW	0.5	12	NNW	75	77	77	86	0	0	493	3.53	533	0	3	0.1	3	0	0.035
7/31/2019 10:15	29.76	75	75	75	72	65	68	6	NNW	0.5	11	NW	75	76	76	85	0	0	442	3.17	462	0	3	0.1	3	0	0.034
7/31/2019 10:20	29.76	75	75	75	72	65	68	5	NNW	0.4	9	N	75	76	76	86	0	0	479	3.43	547	0	3	0.1	4	0	0.034
7/31/2019 10:25	29.76	75	75	75	72	65	68	5	N	0.4	10	N	75	76	76	87	0	0	591	4.24	643	0	4	0.1	4	0	0.035
7/31/2019 10:30	29.76	75	75	75	71	65	67	7	NNW	0.6	12	NW	75	76	76	87	0	0	693	4.97	717	0	4	0.1	4	0	0.034
7/31/2019 10:35	29.76	75	75	75	71	65	68	8	NNW	0.7	12	N	74	76	75	86	0	0	646	4.63	705	0	4	0.2	4	0	0.035
7/31/2019 10:40	29.76	75	75	75	72	66	68	6	N	0.5	12	NNW	75	77	77	88	0	0	706	5.06	728	0	5	0.2	5	0	0.036
7/31/2019 10:45	29.76	75	75	75	71	65	68	7	N	0.6	10	NNE	75	77	77	88	0	0	676	4.85	722	0	4	0.2	5	0	0.036
7/31/2019 10:50	29.76	76	76	75	68	65	68	6	WNW	0.5	10	WNW	76	78	78	89	0	0	653	4.68	691	0	4	0.2	5	0	0.04
7/31/2019 10:55	29.77	77	77	76	68	66	69	7	NNW	0.6	12	NW	77	79	79	90	0	0	728	5.22	758	0	5	0.2	5	0	0.042
7/31/2019 11:00	29.77	78	78	77	67	66	69	3	N	0.2	8	NNW	78	79	79	89	0	0	580	4.16	698	0.02	4	0.1	5	0	0.044
7/31/2019 11:05	29.76	78	78	78	64	65	68	5	W	0.4	10	WNW	78	80	80	89	0	0	528	3.79	598	0	4	0.1	4	0	0.046
7/31/2019 11:10	29.76	78	78	78	63	64	68	7	N	0.6	11	WNW	78	79	79	89	0	0	603	4.32	735	0	5	0.2	5	0	0.045

7/31/2019 11:15	29.76	78	78	77	65	65	68	3	WNW	0.2	8	NW	78	79	79	90	0	0	779	5.59	819	0	5	0.2	5	0	0.044
7/31/2019 11:20	29.76	79	79	78	64	65	69	2	WSW	0.2	7	W	79	80	80	91	0	0	702	5.03	865	0	5	0.2	6	0	0.047
7/31/2019 11:25	29.76	79	79	79	61	65	68	2	W	0.2	6	W	79	81	81	92	0	0	716	5.13	754	0	5	0.2	6	0	0.05
7/31/2019 11:30	29.76	79	80	79	60	64	67	8	NNW	0.7	13	N	78	80	79	89	0	0	638	4.57	680	0	5	0.2	5	0	0.048
7/31/2019 11:35	29.76	78	79	78	64	64	68	8	NNW	0.7	11	N	77	79	78	88	0	0	706	5.06	745	0	5	0.2	5	0	0.043
7/31/2019 11:40	29.76	78	78	77	62	64	67	5	NNE	0.4	12	NNW	78	78	78	90	0	0	695	4.98	761	0	5	0.2	5	0	0.044
7/31/2019 11:45	29.76	78	78	78	60	63	66	7	N	0.6	13	N	78	78	78	89	0	0	847	6.07	877	0	5	0.2	6	0	0.044
7/31/2019 11:50	29.76	78	78	78	62	63	67	4	N	0.3	8	N	78	78	78	90	0	0	699	5.01	766	0	5	0.2	6	0	0.043
7/31/2019 11:55	29.76	79	79	78	63	65	68	2	N	0.2	4	N	79	80	80	92	0	0	789	5.66	789	0	5	0.2	6	0	0.047
7/31/2019 12:00	29.76	80	80	79	59	65	68	2	ENE	0.2	8	WSW	80	82	82	93	0	0	781	5.6	814	0.02	6	0.2	6	0	0.053
7/31/2019 12:05	29.76	82	82	80	56	64	68	3	WSW	0.2	9	W	82	83	83	95	0	0	814	5.84	891	0	6	0.2	6	0	0.058
7/31/2019 12:10	29.76	82	82	82	56	65	69	4	W	0.3	10	NW	82	84	84	95	0	0	846	6.07	868	0	6	0.2	6	0	0.059
7/31/2019 12:15	29.76	83	83	82	54	65	69	3	SW	0.2	6	W	83	84	84	96	0	0	875	6.27	904	0	6	0.2	6	0	0.062
7/31/2019 12:20	29.76	84	84	83	53	65	69	2	SW	0.2	5	NNE	84	86	86	98	0	0	853	6.12	853	0	6	0.2	6	0	0.066
7/31/2019 12:25	29.76	83	84	83	54	65	69	3	W	0.2	8	NNW	83	85	85	95	0	0	584	4.19	631	0	5	0.2	6	0	0.064
7/31/2019 12:30	29.75	84	84	83	52	64	69	3	WSW	0.2	8	WNW	84	85	85	97	0	0	819	5.87	844	0	6	0.2	6	0	0.066
7/31/2019 12:35	29.75	85	85	84	50	64	69	3	WSW	0.2	8	W	85	86	86	98	0	0	825	5.92	902	0	6	0.2	6	0	0.069
7/31/2019 12:40	29.75	86	86	85	48	64	68	4	NW	0.3	11	NW	86	87	87	98	0	0	655	4.7	677	0	5	0.2	6	0	0.071
7/31/2019 12:45	29.75	84	85	84	50	63	68	4	N	0.3	10	WNW	84	85	85	95	0	0	549	3.94	687	0	5	0.2	5	0	0.066
7/31/2019 12:50	29.76	84	84	84	52	64	68	3	NNW	0.2	8	N	84	85	85	97	0	0	697	5	766	0	6	0.2	6	0	0.065
7/31/2019 12:55	29.75	84	84	84	50	63	68	1	NNW	0.1	5	NW	84	85	85	97	0	0	705	5.06	758	0	6	0.2	6	0	0.066
7/31/2019 13:00	29.76	84	85	84	49	63	67	3	NNW	0.2	10	NNW	84	85	85	96	0	0	642	4.6	657	0.02	5	0.2	5	0	0.067
7/31/2019 13:05	29.76	84	84	84	49	63	68	3	WNW	0.2	10	WNW	84	86	86	97	0	0	679	4.87	715	0	5	0.2	6	0	0.067
7/31/2019 13:10	29.76	85	85	84	47	62	67	5	W	0.4	10	WNW	85	86	86	97	0	0	756	5.42	840	0	6	0.2	6	0	0.069
7/31/2019 13:15	29.75	86	86	85	45	62	67	3	W	0.2	8	W	86	86	86	96	0	0	612	4.39	722	0	5	0.2	6	0	0.071
7/31/2019 13:20	29.75	85	86	85	44	61	66	3	WSW	0.2	6	W	85	85	85	95	0	0	562	4.03	573	0	5	0.2	5	0	0.07
7/31/2019 13:25	29.75	85	85	85	47	62	67	4	SW	0.3	11	NW	85	86	86	96	0	0	632	4.53	721	0	5	0.2	6	0	0.069
7/31/2019 13:30	29.75	83	85	83	48	61	66	5	NNW	0.4	10	NNW	83	84	84	95	0	0	739	5.3	875	0	6	0.2	6	0	0.063
7/31/2019 13:35	29.75	82	83	82	49	61	66	7	NW	0.6	11	WNW	82	83	83	94	0	0	862	6.18	949	0	6	0.2	7	0	0.06
7/31/2019 13:40	29.75	83	83	82	51	63	67	5	WNW	0.4	10	WNW	83	84	84	95	0	0	888	6.37	939	0	7	0.2	7	0	0.061
7/31/2019 13:45	29.75	83	83	83	49	62	66	4	N	0.3	9	W	83	83	83	95	0	0	784	5.62	817	0	6	0.2	6	0	0.062
7/31/2019 13:50	29.75	83	83	83	49	62	67	5	NNE	0.4	10	N	83	84	84	95	0	0	809	5.8	865	0	6	0.2	6	0	0.063
7/31/2019 13:55	29.75	84	84	83	50	64	68	3	W	0.2	8	WNW	84	85	85	97	0	0	781	5.6	805	0	6	0.2	6	0	0.067
7/31/2019 14:00	29.75	85	85	84	46	62	67	2	E	0.2	4	NNE	85	86	86	97	0	0	800	5.74	831	0.02	6	0.2	6	0	0.069
7/31/2019 14:05	29.75	86	86	85	45	62	67	2	NNW	0.2	6	N	86	87	87	98	0	0	891	6.39	921	0	7	0.2	7	0	0.074
7/31/2019 14:10	29.74	85	86	85	46	62	67	3	NNE	0.2	6	N	85	86	86	97	0	0	872	6.25	935	0	6	0.2	7	0	0.07
7/31/2019 14:15	29.74	86	86	85	48	64	69	3	NE	0.2	9	WSW	86	87	87	99	0	0	825	5.92	889	0	6	0.2	6	0	0.073
7/31/2019 14:20	29.74	86	86	86	47	64	68	3	WSW	0.2	8	W	86	88	88	100	0	0	804	5.76	853	0	6	0.2	6	0	0.075
7/31/2019 14:25	29.74	87	87	86	46	64	68	2	SW	0.2	5	WNW	87	88	88	100	0	0	789	5.66	875	0	6	0.2	7	0	0.076
7/31/2019 14:30	29.74	88	88	87	45	64	68	1	S	0.1	4	S	88	89	89	100	0	0	875	6.27	904	0	6	0.2	7	0	0.078

7/31/2019 14:35	29.74	87	88	87	49	66	70	4	W	0.3	8	W	87	90	90	101	0	0	836	5.99	884	0	6	0.2	6	0	0.077
7/31/2019 14:40	29.74	87	87	87	48	65	69	4	WNW	0.3	8	WNW	87	88	88	100	0	0	808	5.79	895	0	6	0.2	6	0	0.075
7/31/2019 14:45	29.74	85	86	85	50	64	68	5	NNE	0.4	9	N	85	86	86	98	0	0	796	5.71	854	0	6	0.2	6	0	0.068
7/31/2019 14:50	29.73	83	85	83	53	64	69	2	NNE	0.2	4	N	83	85	85	97	0	0	784	5.62	879	0	6	0.2	6	0	0.064
7/31/2019 14:55	29.73	84	84	83	53	65	69	2	NE	0.2	3	NE	84	86	86	97	0	0	841	6.03	902	0	6	0.2	6	0	0.065
7/31/2019 15:00	29.74	86	86	84	50	65	69	3	N	0.2	8	NNW	86	87	87	99	0	0	826	5.92	926	0.02	5	0.2	6	0	0.072
7/31/2019 15:05	29.73	84	86	84	54	66	70	7	NNW	0.6	14	NNW	84	87	87	98	0	0	925	6.63	935	0	6	0.2	6	0	0.068
7/31/2019 15:10	29.73	83	84	83	56	65	69	7	N	0.6	13	NNE	83	85	85	96	0	0	691	4.95	954	0	5	0.2	6	0	0.062
7/31/2019 15:15	29.73	83	83	82	58	67	70	3	NNE	0.2	9	NNW	83	85	85	97	0	0	870	6.24	919	0	6	0.2	6	0	0.062
7/31/2019 15:20	29.73	85	85	83	52	66	70	4	NE	0.3	13	NNW	85	87	87	98	0	0	832	5.97	844	0	6	0.2	6	0	0.07
7/31/2019 15:25	29.73	84	85	84	54	66	70	4	N	0.3	10	N	84	86	86	98	0	0	767	5.5	773	0	5	0.2	6	0	0.066
7/31/2019 15:30	29.73	84	84	84	55	66	70	2	NW	0.2	6	NNW	84	86	86	98	0	0	842	6.04	842	0	5	0.2	5	0	0.066
7/31/2019 15:35	29.73	85	85	84	53	66	70	2	NNE	0.2	7	WNW	85	88	88	99	0	0	738	5.29	786	0	4	0.2	5	0	0.071
7/31/2019 15:40	29.72	87	87	85	50	66	70	4	W	0.3	12	W	87	89	89	100	0	0	761	5.46	777	0	5	0.2	5	0	0.075
7/31/2019 15:45	29.72	86	87	86	49	64	69	6	NNW	0.5	12	N	86	87	87	98	0	0	759	5.44	768	0	5	0.2	5	0	0.072
7/31/2019 15:50	29.72	84	86	84	52	64	68	7	NNW	0.6	11	N	84	85	85	96	0	0	731	5.24	747	0	5	0.2	5	0	0.065
7/31/2019 15:55	29.71	83	84	83	53	64	68	7	NNW	0.6	11	N	83	85	85	96	0	0	713	5.11	729	0	5	0.2	5	0	0.064
7/31/2019 16:00	29.72	83	83	83	54	65	69	5	NNW	0.4	11	NNW	83	85	85	95	0	0	725	5.2	733	0.02	4	0.1	4	0	0.062
7/31/2019 16:05	29.72	84	84	83	50	63	68	3	N	0.2	9	N	84	85	85	96	0	0	708	5.08	710	0	4	0.1	4	0	0.065
7/31/2019 16:10	29.71	85	85	84	51	65	69	3	N	0.2	12	NNW	85	87	87	98	0	0	739	5.3	742	0	4	0.1	4	0	0.069
7/31/2019 16:15	29.71	85	85	85	49	64	68	5	N	0.4	11	NNW	85	87	87	97	0	0	704	5.05	722	0	4	0.1	4	0	0.07
7/31/2019 16:20	29.71	86	86	85	50	65	69	5	N	0.4	9	N	86	87	87	98	0	0	696	4.99	710	0	4	0.1	4	0	0.071
7/31/2019 16:25	29.71	86	86	86	49	65	69	5	NW	0.4	10	NW	86	88	88	99	0	0	674	4.83	682	0	4	0.1	4	0	0.073
7/31/2019 16:30	29.71	85	86	85	49	64	68	7	NNW	0.6	12	NNW	85	87	87	93	0	0	329	2.36	652	0	3	0.1	4	0	0.07
7/31/2019 16:35	29.71	85	85	85	51	65	69	5	NW	0.4	10	NW	85	87	87	98	0	0	635	4.55	638	0	3	0.1	4	0	0.069
7/31/2019 16:40	29.7	86	86	85	50	65	70	3	WSW	0.2	12	W	86	88	88	100	0	0	618	4.43	635	0	3	0.1	3	0	0.074
7/31/2019 16:45	29.7	87	87	86	49	66	70	4	W	0.3	8	WNW	87	90	90	101	0	0	612	4.39	617	0	3	0.1	3	0	0.077
7/31/2019 16:50	29.7	88	88	87	47	65	69	5	W	0.4	10	W	88	89	89	100	0	0	600	4.3	613	0	3	0.1	3	0	0.078
7/31/2019 16:55	29.7	87	88	87	48	65	69	6	NNW	0.5	12	NNW	87	89	89	99	0	0	446	3.2	589	0	3	0.1	3	0	0.076
7/31/2019 17:00	29.7	84	87	84	52	65	69	10	NNW	0.8	14	NNW	83	86	85	94	0	0	560	4.02	568	0.02	3	0.1	3	0	0.066
7/31/2019 17:05	29.7	83	84	83	53	64	68	7	N	0.6	13	N	83	84	84	95	0	0	559	4.01	561	0	3	0.1	3	0	0.062
7/31/2019 17:10	29.7	82	83	82	55	65	68	8	NNW	0.7	12	NW	82	84	83	93	0	0	575	4.12	584	0	3	0.1	3	0	0.06
7/31/2019 17:15	29.7	82	82	82	58	66	70	7	NNW	0.6	11	N	82	84	84	96	0	0	580	4.16	585	0	3	0.1	3	0	0.06
7/31/2019 17:20	29.7	82	82	82	60	66	70	11	N	0.9	16	N	80	84	82	88	0	0	265	1.9	573	0	2	0.1	2	0	0.058
7/31/2019 17:25	29.7	81	82	81	63	67	70	10	NNW	0.8	12	N	79	83	82	86	0	0	214	1.53	227	0	2	0.1	2	0	0.055
7/31/2019 17:30	29.7	81	81	81	63	67	70	7	NNE	0.6	12	N	81	83	83	92	0	0	373	2.67	543	0	2	0.1	2	0	0.054
7/31/2019 17:35	29.7	81	81	81	62	67	70	8	NNE	0.7	14	NNE	80	83	82	92	0	0	482	3.46	527	0	2	0.1	2	0	0.055
7/31/2019 17:40	29.7	81	81	81	63	67	70	8	NNE	0.7	13	NNE	80	83	82	92	0	0	449	3.22	454	0	2	0.1	2	0	0.055
7/31/2019 17:45	29.7	81	81	81	61	66	70	9	N	0.8	12	NNW	80	83	82	91	0	0	430	3.08	439	0	2	0.1	2	0	0.056
7/31/2019 17:50	29.7	81	81	81	63	67	70	10	NNW	0.8	13	NNE	79	83	81	90	0	0	414	2.97	417	0	2	0.1	2	0	0.055

7/31/2019 17:55	29.7	80	81	80	65	68	71	11	N	0.9	15	NW	79	83	81	89	0	0	406	2.91	410	0	2	0.1	2	0	0.053
7/31/2019 18:00	29.7	80	80	80	65	67	70	9	N	0.8	14	N	79	82	81	90	0	0	391	2.8	399	0.01	2	0.1	2	0	0.053
7/31/2019 18:05	29.7	80	80	80	66	68	70	9	NNE	0.8	13	NNE	79	82	81	90	0	0	380	2.72	383	0	2	0.1	2	0	0.052
7/31/2019 18:10	29.71	80	80	80	66	67	70	10	N	0.8	12	N	78	82	80	89	0	0	371	2.66	376	0	2	0.1	2	0	0.051
7/31/2019 18:15	29.7	80	80	80	67	68	70	10	N	0.8	14	NNW	78	82	80	88	0	0	354	2.54	359	0	2	0.1	2	0	0.051
7/31/2019 18:20	29.7	79	80	79	66	67	70	10	NNE	0.8	13	N	77	81	79	87	0	0	333	2.39	345	0	1	0.1	1	0	0.049
7/31/2019 18:25	29.71	79	79	79	67	67	70	10	NNE	0.8	14	NNE	77	81	79	87	0	0	311	2.23	320	0	1	0	1	0	0.048
7/31/2019 18:30	29.71	78	79	78	67	67	69	10	NNE	0.8	14	NNE	77	80	79	86	0	0	288	2.07	297	0	1	0	1	0	0.047
7/31/2019 18:35	29.71	78	78	78	68	67	70	9	NNE	0.8	14	NNE	77	80	79	86	0	0	272	1.95	276	0	1	0	1	0	0.046
7/31/2019 18:40	29.71	78	78	78	68	67	70	9	N	0.8	12	N	77	80	79	86	0	0	260	1.86	267	0	1	0	1	0	0.046
7/31/2019 18:45	29.72	78	78	78	68	67	69	10	N	0.8	13	NNW	76	80	78	84	0	0	244	1.75	251	0	1	0	1	0	0.045
7/31/2019 18:50	29.72	78	78	78	67	66	69	8	NNE	0.7	13	N	77	79	79	85	0	0	224	1.61	232	0	1	0	1	0	0.045
7/31/2019 18:55	29.72	78	78	78	68	66	69	9	NNE	0.8	11	NNE	76	79	78	84	0	0	206	1.48	213	0	1	0	1	0	0.044
7/31/2019 19:00	29.72	78	78	78	68	66	69	9	NNE	0.8	12	NNE	76	79	78	83	0	0	187	1.34	195	0.01	1	0	1	0	0.043
7/31/2019 19:05	29.72	78	78	77	68	66	69	7	NNE	0.6	11	NNE	78	79	79	84	0	0	170	1.22	178	0	1	0	1	0	0.043
7/31/2019 19:10	29.72	78	78	78	68	66	69	7	NNE	0.6	11	NNE	78	79	79	84	0	0	156	1.12	158	0	1	0	1	0	0.043
7/31/2019 19:15	29.72	77	78	77	68	66	69	7	NNE	0.6	10	NNE	77	79	79	83	0	0	136	0.98	146	0	0	0	1	0	0.043
7/31/2019 19:20	29.72	77	77	77	68	66	69	6	NNE	0.5	9	NNE	77	79	79	82	0	0	116	0.83	121	0	0	0	0	0	0.042
7/31/2019 19:25	29.73	77	77	77	68	66	69	6	NNE	0.5	9	N	77	79	79	82	0	0	108	0.77	111	0	0	0	0	0	0.042
7/31/2019 19:30	29.72	77	77	77	68	66	69	6	N	0.5	10	NNE	77	79	79	81	0	0	98	0.7	102	0	0	0	0	0	0.042
7/31/2019 19:35	29.73	77	77	77	68	66	68	8	N	0.7	11	N	76	78	77	77	0	0	86	0.62	91	0	0	0	0	0	0.041
7/31/2019 19:40	29.73	77	77	77	69	66	68	8	NNE	0.7	11	NNE	76	78	77	76	0	0	72	0.52	77	0	0	0	0	0	0.041
7/31/2019 19:45	29.73	76	77	76	70	66	68	8	NNE	0.7	10	N	75	78	77	76	0	0	65	0.47	69	0	0	0	0	0	0.039
7/31/2019 19:50	29.73	76	76	76	70	66	68	7	NNE	0.6	10	NNE	76	77	77	76	0	0	54	0.39	58	0	0	0	0	0	0.038
7/31/2019 19:55	29.73	76	76	76	71	66	68	8	NNE	0.7	11	NNE	75	77	76	75	0	0	42	0.3	47	0	0	0	0	0	0.037
7/31/2019 20:00	29.73	75	76	75	71	65	68	7	NNE	0.6	11	NE	75	77	77	75	0	0	34	0.24	37	0	0	0	0	0	0.036
7/31/2019 20:05	29.73	75	75	75	72	65	68	6	NNE	0.5	9	NNE	75	77	77	75	0	0	26	0.19	30	0	0	0	0	0	0.035
7/31/2019 20:10	29.73	75	75	75	73	66	68	6	NNE	0.5	9	NNE	75	76	76	75	0	0	20	0.14	23	0	0	0	0	0	0.034
7/31/2019 20:15	29.73	75	75	75	73	65	68	6	NNE	0.5	9	NNE	75	76	76	74	0	0	17	0.12	18	0	0	0	0	0	0.033
7/31/2019 20:20	29.73	74	75	74	74	66	68	5	NNE	0.4	7	NNE	74	76	76	74	0	0	13	0.09	14	0	0	0	0	0	0.033
7/31/2019 20:25	29.73	74	74	74	74	65	68	4	NNE	0.3	5	NE	74	76	76	74	0	0	11	0.08	12	0	0	0	0	0	0.032
7/31/2019 20:30	29.73	74	74	74	75	66	68	3	NNE	0.2	4	NNE	74	76	76	73	0	0	8	0.06	9	0	0	0	0	0	0.032
7/31/2019 20:35	29.73	74	74	74	75	66	68	1	NNE	0.1	3	NNE	74	76	76	73	0	0	5	0.04	7	0	0	0	0	0	0.031
7/31/2019 20:40	29.73	74	74	74	75	65	68	1	NNE	0.1	2	NNE	74	75	75	73	0	0	0	0	0	0	0	0	0	0	0.031
7/31/2019 20:45	29.74	74	74	74	75	65	68	2	NW	0.2	4	WNW	74	75	75	73	0	0	0	0	0	0	0	0	0	0	0.03
7/31/2019 20:50	29.73	74	74	74	74	65	67	2	NNE	0.2	4	NNE	74	75	75	72	0	0	0	0	0	0	0	0	0	0	0.03
7/31/2019 20:55	29.74	74	74	73	73	64	67	2	NNE	0.2	3	NNE	74	75	75	72	0	0	0	0	0	0	0	0	0	0	0.03
7/31/2019 21:00	29.74	74	74	74	75	65	67	0		0	2	N	74	75	75	73	0	0	0	0	0	0	0	0	0	0	0.03
7/31/2019 21:05	29.74	74	74	74	76	65	68	1	NW	0.1	2	NW	74	75	75	73	0	0	0	0	0	0	0	0	0	0	0.03
7/31/2019 21:10	29.74	73	74	73	76	65	67	1	W	0.1	4	WSW	73	75	75	72	0	0	0	0	0	0	0	0	0	0	0.029

7/31/2019 21:15	29.74	73	73	73	77	65	68	0		0	1	WSW	73	75	75	72	0	0	0	0	0	0	0	0	0	0	0.028
7/31/2019 21:20	29.74	73	73	73	77	65	67	0		0	0		73	74	74	72	0	0	0	0	0	0	0	0	0	0	0.027
7/31/2019 21:25	29.75	73	73	73	78	65	67	1	WSW	0.1	3	WSW	73	74	74	72	0	0	0	0	0	0	0	0	0	0	0.027
7/31/2019 21:30	29.75	72	73	72	79	65	67	3	NW	0.2	4	NW	72	74	74	71	0	0	0	0	0	0	0	0	0	0	0.025
7/31/2019 21:35	29.75	72	72	72	80	65	67	2	NNE	0.2	4	N	72	73	73	71	0	0	0	0	0	0	0	0	0	0	0.024
7/31/2019 21:40	29.75	72	72	72	81	65	67	2	NNE	0.2	3	NNE	72	73	73	71	0	0	0	0	0	0	0	0	0	0	0.023
7/31/2019 21:45	29.75	71	72	71	82	65	67	3	NNE	0.2	4	NNE	71	73	73	70	0	0	0	0	0	0	0	0	0	0	0.022
7/31/2019 21:50	29.75	71	71	71	81	65	66	3	NNW	0.2	4	N	71	72	72	70	0	0	0	0	0	0	0	0	0	0	0.02
7/31/2019 21:55	29.75	71	71	71	82	65	67	2	NNW	0.2	3	NNW	71	73	73	70	0	0	0	0	0	0	0	0	0	0	0.02
7/31/2019 22:00	29.75	71	71	71	82	65	67	1	NNW	0.1	2	NNW	71	73	73	70	0	0	0	0	0	0	0	0	0	0	0.021
7/31/2019 22:05	29.76	71	71	71	83	65	67	0		0	2	NNW	71	73	73	70	0	0	0	0	0	0	0	0	0	0	0.02
7/31/2019 22:10	29.75	71	71	71	83	65	67	2	NNW	0.2	3	NNW	71	72	72	70	0	0	0	0	0	0	0	0	0	0	0.02
7/31/2019 22:15	29.76	70	71	70	83	65	67	1	NNW	0.1	2	NNW	70	72	72	70	0	0	0	0	0	0	0	0	0	0	0.019
7/31/2019 22:20	29.76	70	70	70	84	65	67	2	NNW	0.2	3	NNW	70	72	72	70	0	0	0	0	0	0	0	0	0	0	0.018
7/31/2019 22:25	29.76	70	70	70	84	65	66	2	NNW	0.2	4	NW	70	72	72	69	0	0	0	0	0	0	0	0	0	0	0.017
7/31/2019 22:30	29.76	70	70	70	84	65	66	1	N	0.1	3	N	70	72	72	69	0	0	0	0	0	0	0	0	0	0	0.017
7/31/2019 22:35	29.76	70	70	70	83	64	66	0		0	1	N	70	71	71	69	0	0	0	0	0	0	0	0	0	0	0.016
7/31/2019 22:40	29.76	70	70	70	83	64	66	1	NNW	0.1	4	NW	70	71	71	69	0	0	0	0	0	0	0	0	0	0	0.016
7/31/2019 22:45	29.75	69	70	69	82	64	65	4	NW	0.3	5	NW	69	71	71	68	0	0	0	0	0	0	0	0	0	0	0.015
7/31/2019 22:50	29.75	70	70	69	80	63	65	4	NW	0.3	7	NW	70	71	71	69	0	0	0	0	0	0	0	0	0	0	0.016
7/31/2019 22:55	29.75	70	70	70	79	63	65	3	NW	0.2	7	WNW	70	71	71	69	0	0	0	0	0	0	0	0	0	0	0.017
7/31/2019 23:00	29.75	70	70	70	77	63	65	2	W	0.2	4	WNW	70	71	71	69	0	0	0	0	0	0	0	0	0	0	0.018
7/31/2019 23:05	29.75	70	70	70	79	63	65	2	W	0.2	3	W	70	71	71	69	0	0	0	0	0	0	0	0	0	0	0.018
7/31/2019 23:10	29.75	70	70	70	79	63	65	2	W	0.2	3	W	70	71	71	69	0	0	0	0	0	0	0	0	0	0	0.017
7/31/2019 23:15	29.75	70	70	70	80	63	65	2	W	0.2	3	W	70	71	71	69	0	0	0	0	0	0	0	0	0	0	0.016
7/31/2019 23:20	29.75	69	70	69	79	62	64	2	W	0.2	2	W	69	70	70	68	0	0	0	0	0	0	0	0	0	0	0.015
7/31/2019 23:25	29.75	69	69	69	78	61	64	2	W	0.2	3	W	69	70	70	67	0	0	0	0	0	0	0	0	0	0	0.012
7/31/2019 23:30	29.75	68	69	68	77	61	63	4	WNW	0.3	5	WNW	68	69	69	66	0	0	0	0	0	0	0	0	0	0	0.011
7/31/2019 23:35	29.75	68	68	68	76	60	62	2	WNW	0.2	4	WNW	68	69	69	66	0	0	0	0	0	0	0	0	0	0	0.01
7/31/2019 23:40	29.75	68	68	68	76	60	62	1	WNW	0.1	3	WNW	68	69	69	66	0	0	0	0	0	0	0	0	0	0	0.01
7/31/2019 23:45	29.75	68	68	68	78	61	63	3	WNW	0.2	4	NW	68	69	69	66	0	0	0	0	0	0	0	0	0	0	0.01
7/31/2019 23:50	29.75	68	68	68	77	61	63	3	WNW	0.2	4	WNW	68	69	69	66	0	0	0	0	0	0	0	0	0	0	0.011
7/31/2019 23:55	29.75	68	68	68	75	60	62	2	WNW	0.2	2	WNW	68	69	69	66	0	0	0	0	0	0	0	0	0	0	0.01
8/1/2019 0:00	29.75	68	68	68	75	60	62	1	WNW	0.1	2	WNW	68	68	68	66	0	0	0	0	0	0	0	0	0	0	0.01
8/1/2019 0:05	29.76	68	--	--	75	60	62	0		0	0		68	68	68	66	0	0	0	0	0	0	0	0	0	0	0.01
8/1/2019 0:10	29.76	68	68	68	78	60	63	0		0	2	WNW	68	68	68	66	0	0	0	0	0	0	0	0	0	0	0.009
8/1/2019 0:15	29.76	68	68	68	81	62	63	0		0	1	WNW	68	69	69	66	0	0	0	0	0	0	0	0	0	0	0.009
8/1/2019 0:20	29.76	68	68	68	83	62	64	0		0	0		68	69	69	66	0	0	0	0	0	0	0	0	0	0	0.009
8/1/2019 0:25	29.76	68	68	68	84	62	64	0		0	0		68	69	69	66	0	0	0	0	0	0	0	0	0	0	0.009
8/1/2019 0:30	29.76	67	68	67	84	62	64	0		0	0		67	68	68	66	0	0	0	0	0	0	0	0	0	0	0.008

8/1/2019 0:35	29.76	67	67	67	84	62	63	0		0	0		67	68	68	65	0	0	0	0	0	0	0	0	0	0	0.007
8/1/2019 0:40	29.76	67	67	67	84	62	63	0		0	0		67	68	68	65	0	0	0	0	0	0	0	0	0	0	0.006
8/1/2019 0:45	29.76	66	67	66	84	62	63	0		0	0		66	68	68	65	0	0	0	0	0	0	0	0	0	0	0.005
8/1/2019 0:50	29.76	66	66	66	84	61	63	0		0	0		66	67	67	65	0	0	0	0	0	0	0	0	0	0	0.005
8/1/2019 0:55	29.76	66	66	66	84	61	63	0		0	0		66	67	67	64	0	0	0	0	0	0	0	0	0	0	0.004
8/1/2019 1:00	29.76	66	66	66	84	61	62	0		0	0		66	67	67	64	0	0	0	0	0	0	0	0	0	0	0.003
8/1/2019 1:05	29.76	66	66	66	85	61	63	0		0	0		66	67	67	64	0	0	0	0	0	0	0	0	0	0	0.003
8/1/2019 1:10	29.76	66	66	66	85	61	63	0		0	0		66	67	67	64	0	0	0	0	0	0	0	0	0	0	0.002
8/1/2019 1:15	29.76	66	66	66	86	61	63	0		0	0		66	66	66	64	0	0	0	0	0	0	0	0	0	0	0.002
8/1/2019 1:20	29.76	65	66	65	86	61	62	0		0	1	WNW	65	66	66	64	0	0	0	0	0	0	0	0	0	0	0.001
8/1/2019 1:25	29.76	65	65	65	87	61	62	0		0	0		65	66	66	64	0	0	0	0	0	0	0	0	0	0	0.001
8/1/2019 1:30	29.77	65	65	65	87	61	62	0		0	0		65	66	66	63	0	0	0	0	0	0	0	0	0	0	0
8/1/2019 1:35	29.77	65	65	65	87	61	62	0		0	0		65	66	66	63	0	0	0	0	0	0	0	0	0	0	0
8/1/2019 1:40	29. 77	65	65	65	88	61	62	0		0	0		65	66	66	63	0	0	0	0	0	0	0	0	0	0. 001	0
8/1/2019 1:45	29. 77	65	65	65	88	61	62	0		0	0		65	66	66	63	0	0	0	0	0	0	0	0	0	0. 001	0
8/1/2019 1:50	29. 77	65	65	65	89	61	62	0		0	0		65	66	66	63	0	0	0	0	0	0	0	0	0	0. 001	0
8/1/2019 1:55	29.77	65	65	65	90	62	63	0		0	0		65	66	66	63	0	0	0	0	0	0	0	0	0	0	0
8/1/2019 2:00	29.77	65	65	65	90	62	63	0		0	2	WSW	65	66	66	64	0	0	0	0	0	0	0	0	0	0	0
8/1/2019 2:05	29.77	65	65	65	91	63	63	1	WSW	0.1	2	WSW	65	67	67	64	0	0	0	0	0	0	0	0	0	0	0.001
8/1/2019 2:10	29.77	65	66	65	91	63	64	1	SW	0.1	2	WSW	65	67	67	64	0	0	0	0	0	0	0	0	0	0	0.001
8/1/2019 2:15	29.77	65	66	65	91	63	64	0		0	2	SW	65	67	67	64	0	0	0	0	0	0	0	0	0	0	0.001
8/1/2019 2:20	29.77	65	65	65	91	63	63	1	SW	0.1	3	SW	65	67	67	64	0	0	0	0	0	0	0	0	0	0	0.001
8/1/2019 2:25	29.77	65	65	65	91	63	63	1	SW	0.1	3	SW	65	66	66	64	0	0	0	0	0	0	0	0	0	0	0.001
8/1/2019 2:30	29.77	65	65	65	91	62	63	0		0	2	SSW	65	66	66	64	0	0	0	0	0	0	0	0	0	0	0
8/1/2019 2:35	29.77	65	65	65	91	62	63	0		0	0		65	66	66	64	0	0	0	0	0	0	0	0	0	0	0
8/1/2019 2:40	29. 77	65	65	65	91	62	63	0		0	0		65	66	66	63	0	0	0	0	0	0	0	0	0	0. 001	0
8/1/2019 2:45	29. 77	65	65	65	91	62	63	0		0	0		65	66	66	63	0	0	0	0	0	0	0	0	0	0. 001	0
8/1/2019 2:50	29. 77	65	65	65	91	62	63	0		0	1	SSW	65	66	66	63	0	0	0	0	0	0	0	0	0	0. 001	0
8/1/2019 2:55	29. 77	65	65	65	91	62	63	0		0	0		65	66	66	63	0	0	0	0	0	0	0	0	0	0. 001	0
8/1/2019 3:00	29. 77	64	65	64	91	62	63	0		0	0		64	66	66	63	0	0	0	0	0	0	0	0	0	0. 002	0
8/1/2019 3:05	29. 78	64	64	64	92	62	63	0		0	2	SSW	64	66	66	63	0	0	0	0	0	0	0	0	0	0. 002	0
8/1/2019 3:10	29. 78	64	64	64	92	62	63	0		0	0		64	66	66	63	0	0	0	0	0	0	0	0	0	0. 002	0
8/1/2019 3:15	29. 78	64	64	64	92	62	63	0		0	1	SSW	64	66	66	63	0	0	0	0	0	0	0	0	0	0. 002	0
8/1/2019 3:20	29. 78	64	64	64	92	62	63	0		0	2	SSW	64	65	65	63	0	0	0	0	0	0	0	0	0	0. 002	0
8/1/2019 3:25	29. 78	64	64	64	92	62	63	0		0	1	SSW	64	65	65	63	0	0	0	0	0	0	0	0	0	0. 002	0
8/1/2019 3:30	29. 78	64	64	64	91	62	62	0		0	1	SSW	64	65	65	63	0	0	0	0	0	0	0	0	0	0. 003	0
8/1/2019 3:35	29. 78	64	64	64	92	62	63	0		0	0		64	65	65	63	0	0	0	0	0	0	0	0	0	0. 002	0
8/1/2019 3:40	29. 78	64	64	64	92	62	63	0		0	0		64	65	65	63	0	0	0	0	0	0	0	0	0	0. 002	0
8/1/2019 3:45	29. 78	64	64	64	92	62	63	0		0	0		64	65	65	63	0	0	0	0	0	0	0	0	0	0. 003	0
8/1/2019 3:50	29. 78	64	64	64	92	62	63	0		0	3	SSW	64	65	65	63	0	0	0	0	0	0	0	0	0	0. 003	0

8/1/2019 3:55	29. 78	64	64	64	92	62	62	1	SSW	0.1	3	SSW	64	65	65	63	0	0	0	0	0	0	0	0	0	0. 003	0
8/1/2019 4:00	29. 78	64	64	64	92	62	62	1	SSW	0.1	2	SSW	64	65	65	62	0	0	0	0	0	0	0	0	0	0. 003	0
8/1/2019 4:05	29. 78	64	64	64	92	62	62	0		0	2	SSW	64	65	65	62	0	0	0	0	0	0	0	0	0	0. 004	0
8/1/2019 4:10	29. 78	64	64	64	92	61	62	0		0	0		64	65	65	62	0	0	0	0	0	0	0	0	0	0. 004	0
8/1/2019 4:15	29. 78	64	64	64	92	61	62	0		0	0		64	65	65	62	0	0	0	0	0	0	0	0	0	0. 005	0
8/1/2019 4:20	29. 78	64	64	64	92	61	62	0		0	1	SSW	64	64	64	62	0	0	0	0	0	0	0	0	0	0. 005	0
8/1/2019 4:25	29. 78	63	64	63	92	61	62	0		0	0		63	64	64	62	0	0	0	0	0	0	0	0	0	0. 006	0
8/1/2019 4:30	29. 78	63	63	63	91	61	62	0		0	0		63	64	64	62	0	0	0	0	0	0	0	0	0	0. 006	0
8/1/2019 4:35	29. 78	63	63	63	91	61	61	0		0	3	SSW	63	64	64	61	0	0	0	0	0	0	0	0	0	0. 006	0
8/1/2019 4:40	29. 78	63	63	63	91	61	61	0		0	0		63	64	64	61	0	0	0	0	0	0	0	0	0	0. 006	0
8/1/2019 4:45	29. 78	63	63	63	91	60	61	0		0	0		63	64	64	61	0	0	0	0	0	0	0	0	0	0. 007	0
8/1/2019 4:50	29. 78	63	63	63	91	60	61	0		0	0		63	64	64	61	0	0	0	0	0	0	0	0	0	0. 007	0
8/1/2019 4:55	29. 78	63	63	63	91	60	61	0		0	0		63	64	64	61	0	0	0	0	0	0	0	0	0	0. 007	0
8/1/2019 5:00	29. 78	63	63	63	91	60	61	0		0	0		63	64	64	61	0	0	0	0	0	0	0	0	0	0. 008	0
8/1/2019 5:05	29. 78	63	63	63	91	60	61	0		0	0		63	64	64	61	0	0	0	0	0	0	0	0	0	0. 008	0
8/1/2019 5:10	29. 78	63	63	63	91	60	61	0		0	0		63	64	64	61	0	0	0	0	0	0	0	0	0	0. 008	0
8/1/2019 5:15	29. 78	63	63	63	91	60	61	0		0	0		63	64	64	61	0	0	0	0	0	0	0	0	0	0. 008	0
8/1/2019 5:20	29. 78	63	63	63	91	60	61	0		0	0		63	64	64	61	0	0	0	0	0	0	0	0	0	0. 007	0
8/1/2019 5:25	29. 78	63	63	63	91	60	61	0		0	0		63	64	64	61	0	0	0	0	0	0	0	0	0	0. 007	0
8/1/2019 5:30	29. 78	63	63	63	91	60	61	0		0	0		63	64	64	61	0	0	0	0	0	0	0	0	0	0. 007	0
8/1/2019 5:35	29. 78	63	63	63	91	60	61	0		0	0		63	64	64	61	0	0	0	0	0	0	0	0	0	0. 007	0
8/1/2019 5:40	29. 78	63	63	63	90	60	61	0		0	0		63	64	64	61	0	0	0	0	0	0	0	0	0	0. 007	0
8/1/2019 5:45	29. 78	63	63	63	90	60	61	0		0	0		63	64	64	61	0	0	0	0	0	0	0	0	0	0. 007	0
8/1/2019 5:50	29. 78	63	63	63	90	60	61	0		0	0		63	64	64	61	0	0	0	0	0	0	0	0	0	0. 007	0
8/1/2019 5:55	29. 78	63	63	63	89	60	61	0		0	0		63	64	64	61	0	0	0	0	0	0	0	0	0	0. 007	0
8/1/2019 6:00	29. 79	63	63	63	89	59	61	0		0	0		63	63	63	61	0	0	0	0	0	0	0	0	0	0. 008	0
8/1/2019 6:05	29. 79	63	63	63	89	59	61	0		0	0		63	63	63	61	0	0	4	0.03	5	0	0	0	0	0. 008	0
8/1/2019 6:10	29. 79	63	63	63	89	59	60	0		0	0		63	63	63	61	0	0	8	0.06	9	0	0	0	0	0. 008	0
8/1/2019 6:15	29. 79	62	63	62	89	59	60	0		0	0		62	63	63	61	0	0	10	0.07	11	0	0	0	0	0. 009	0
8/1/2019 6:20	29. 79	62	62	62	89	59	60	0		0	0		62	63	63	61	0	0	13	0.09	14	0	0	0	0	0. 009	0
8/1/2019 6:25	29.8	62	62	62	90	60	61	0		0	0		62	63	63	61	0	0	16	0.11	18	0	0	0	0	0. 009	0
8/1/2019 6:30	29.8	62	62	62	90	60	61	0		0	0		62	63	63	61	0	0	19	0.14	19	0	0	0	0	0. 009	0
8/1/2019 6:35	29.8	63	63	62	91	60	61	0		0	0		63	63	63	61	0	0	21	0.15	23	0	0	0	0	0. 008	0
8/1/2019 6:40	29.8	63	63	63	91	60	61	0		0	0		63	64	64	63	0	0	32	0.23	40	0	0	0	0	0. 008	0
8/1/2019 6:45	29.8	63	63	63	91	60	61	0		0	0		63	64	64	64	0	0	46	0.33	49	0	0	0	0	0. 008	0
8/1/2019 6:50	29.8	63	63	63	91	60	61	0		0	0		63	64	64	65	0	0	55	0.39	58	0	0	0	0	0. 007	0
8/1/2019 6:55	29.8	63	63	63	91	60	61	0		0	0		63	64	64	65	0	0	62	0.44	65	0	0	0	0	0. 007	0
8/1/2019 7:00	29.8	63	63	63	91	61	62	0		0	0		63	64	64	66	0	0	69	0.49	72	0	0	0	0	0. 006	0
8/1/2019 7:05	29. 81	64	64	63	92	61	62	0		0	0		64	65	65	66	0	0	78	0.56	83	0	0	0	0	0. 005	0
8/1/2019 7:10	29.8	64	64	64	92	61	62	0		0	0		64	65	65	67	0	0	90	0.65	97	0	0	0	0	0. 004	0

8/1/2019 7:15	29.8	64	64	64	91	61	62	0		0	0		64	65	65	68	0	0	109	0.78	116	0	0	0	0	0. 003	0
8/1/2019 7:20	29.8	64	64	64	91	62	62	0		0	0		64	65	65	69	0	0	125	0.9	130	0	0	0	0	0. 002	0
8/1/2019 7:25	29.8	64	64	64	91	62	63	0		0	0		64	66	66	70	0	0	138	0.99	142	0	1	0	1	0. 002	0
8/1/2019 7:30	29. 81	65	65	64	91	62	63	0		0	0		65	66	66	70	0	0	145	1.04	149	0	1	0	1	0. 001	0
8/1/2019 7:35	29.81	65	65	65	90	62	63	0		0	0		65	66	66	71	0	0	153	1.1	155	0	1	0	1	0	0.001
8/1/2019 7:40	29.81	66	66	65	89	62	63	0		0	0		66	67	67	71	0	0	158	1.13	160	0	1	0	1	0	0.002
8/1/2019 7:45	29.81	66	66	66	88	62	64	0		0	0		66	67	67	72	0	0	165	1.18	167	0	1	0	1	0	0.004
8/1/2019 7:50	29.81	66	66	66	87	63	64	0		0	0		66	68	68	72	0	0	165	1.18	167	0	1	0	1	0	0.005
8/1/2019 7:55	29.81	67	67	66	86	63	64	0		0	0		67	68	68	72	0	0	159	1.14	162	0	1	0	1	0	0.007
8/1/2019 8:00	29.81	67	67	67	85	63	64	0		0	0		67	69	69	73	0	0	157	1.13	160	0	1	0	1	0	0.008
8/1/2019 8:05	29.81	68	68	67	84	63	64	0		0	0		68	69	69	74	0	0	176	1.26	186	0	1	0	1	0	0.01
8/1/2019 8:10	29.81	68	68	68	83	63	64	0		0	1	SSW	68	70	70	75	0	0	206	1.48	220	0	1	0	1	0	0.011
8/1/2019 8:15	29.81	69	69	68	82	63	65	2	SW	0.2	4	WSW	69	70	70	77	0	0	237	1.7	248	0	1	0	1	0	0.013
8/1/2019 8:20	29.81	69	69	69	81	63	65	4	WSW	0.3	7	W	69	70	70	78	0	0	266	1.91	278	0	1	0.1	1	0	0.014
8/1/2019 8:25	29.81	69	69	69	81	63	65	4	W	0.3	8	WNW	69	71	71	78	0	0	291	2.09	302	0	2	0.1	2	0	0.015
8/1/2019 8:30	29.82	70	70	69	81	64	65	3	W	0.2	6	WNW	70	71	71	79	0	0	318	2.28	327	0	2	0.1	2	0	0.016
8/1/2019 8:35	29.82	70	70	70	80	64	66	3	W	0.2	7	NW	70	72	72	80	0	0	339	2.43	346	0	2	0.1	2	0	0.018
8/1/2019 8:40	29.82	70	71	70	79	64	66	4	W	0.3	8	W	70	72	72	81	0	0	354	2.54	359	0	2	0.1	2	0	0.019
8/1/2019 8:45	29.82	71	71	70	79	64	66	4	W	0.3	9	W	71	72	72	81	0	0	362	2.6	376	0	2	0.1	2	0	0.02
8/1/2019 8:50	29.82	71	71	71	79	64	66	4	W	0.3	8	WNW	71	72	72	81	0	0	385	2.76	390	0	2	0.1	2	0	0.02
8/1/2019 8:55	29.82	71	71	71	79	64	66	4	W	0.3	8	WNW	71	72	72	81	0	0	397	2.85	406	0	2	0.1	2	0	0.02
8/1/2019 9:00	29.82	71	71	71	79	65	66	2	W	0.2	7	W	71	73	73	82	0	0	416	2.98	425	0.01	2	0.1	2	0	0.022
8/1/2019 9:05	29.82	72	72	72	78	64	66	3	W	0.2	8	NW	72	73	73	82	0	0	425	3.05	432	0	2	0.1	2	0	0.023
8/1/2019 9:10	29.82	72	72	72	79	65	67	3	W	0.2	7	WNW	72	74	74	83	0	0	435	3.12	438	0	2	0.1	2	0	0.025
8/1/2019 9:15	29.82	73	73	72	78	66	68	3	WNW	0.2	6	W	73	74	74	84	0	0	461	3.31	475	0	2	0.1	2	0	0.027
8/1/2019 9:20	29.83	74	74	73	77	66	68	2	N	0.2	6	W	74	75	75	85	0	0	483	3.46	487	0	3	0.1	3	0	0.03
8/1/2019 9:25	29.82	74	74	74	75	66	68	2	ESE	0.2	5	NNE	74	76	76	86	0	0	502	3.6	515	0	3	0.1	3	0	0.033
8/1/2019 9:30	29.82	75	75	74	74	66	68	2	NNE	0.2	3	NNE	75	76	76	87	0	0	543	3.89	575	0	3	0.1	3	0	0.034
8/1/2019 9:35	29.83	74	75	74	74	66	68	3	NE	0.2	5	NE	74	76	76	87	0	0	592	4.24	628	0	3	0.1	3	0	0.033
8/1/2019 9:40	29.82	75	75	74	74	66	69	1	NE	0.1	3	NE	75	77	77	83	0	0	308	2.21	308	0	3	0.1	3	0	0.035
8/1/2019 9:45	29.83	75	75	75	73	65	68	4	NNE	0.3	7	NNE	75	76	76	86	0	0	490	3.51	594	0	3	0.1	3	0	0.034
8/1/2019 9:50	29.82	75	75	74	75	66	68	1	NNE	0.1	3	NNE	75	76	76	87	0	0	606	4.35	608	0	3	0.1	3	0	0.033
8/1/2019 9:55	29.83	75	75	75	73	66	68	2	NE	0.2	5	E	75	77	77	88	0	0	601	4.31	610	0	3	0.1	3	0	0.036
8/1/2019 10:00	29.83	75	76	75	73	66	69	4	NNE	0.3	7	NNE	75	77	77	88	0	0	616	4.42	633	0.01	3	0.1	4	0	0.036
8/1/2019 10:05	29.83	75	75	75	73	66	68	4	NNE	0.3	7	NNE	75	76	76	87	0	0	569	4.08	606	0	3	0.1	4	0	0.034
8/1/2019 10:10	29.83	75	75	75	74	66	69	2	NE	0.2	5	NE	75	77	77	88	0	0	640	4.59	654	0	4	0.1	4	0	0.035
8/1/2019 10:15	29.83	76	76	75	72	66	69	1	NE	0.1	4	NE	76	78	78	89	0	0	642	4.6	657	0	4	0.1	4	0	0.038
8/1/2019 10:20	29.83	76	76	76	72	66	69	3	N	0.2	5	N	76	77	77	82	0	0	239	1.71	239	0	3	0.1	4	0	0.038
8/1/2019 10:25	29.83	76	76	76	73	66	69	4	N	0.3	6	ENE	76	77	77	88	0	0	606	4.35	657	0	4	0.1	4	0	0.036
8/1/2019 10:30	29.83	75	76	75	72	66	68	3	NE	0.2	7	NE	75	77	77	88	0	0	720	5.16	722	0	4	0.1	4	0	0.036

8/1/2019 10:35	29.83	76	76	75	73	66	69	3	ENE	0.2	9	ENE	76	77	77	86	0	0	444	3.18	687	0	4	0.1	4	0	0.037
8/1/2019 10:40	29.83	76	76	76	71	66	68	4	NE	0.3	8	ENE	76	77	77	87	0	0	486	3.48	522	0	3	0.1	4	0	0.038
8/1/2019 10:45	29.83	76	76	76	72	66	69	3	ENE	0.2	5	ENE	76	78	78	88	0	0	550	3.94	729	0	4	0.1	4	0	0.039
8/1/2019 10:50	29.83	76	76	76	72	67	69	5	NE	0.4	8	NNE	76	78	78	90	0	0	722	5.18	742	0	4	0.2	5	0	0.039
8/1/2019 10:55	29.83	77	77	76	72	67	69	4	ENE	0.3	10	N	77	78	78	90	0	0	728	5.22	740	0	5	0.2	5	0	0.041
8/1/2019 11:00	29.83	77	77	77	71	66	69	6	NE	0.5	12	NE	77	78	78	90	0	0	733	5.26	742	0.01	5	0.2	5	0	0.04
8/1/2019 11:05	29.83	77	77	77	71	67	69	4	ENE	0.3	8	ENE	77	78	78	90	0	0	663	4.75	703	0	4	0.2	5	0	0.041
8/1/2019 11:10	29.83	77	77	77	69	66	69	5	ENE	0.4	10	ENE	77	78	78	90	0	0	714	5.12	726	0	5	0.2	5	0	0.041
8/1/2019 11:15	29.83	78	78	77	68	66	69	3	NE	0.2	7	ESE	78	79	79	91	0	0	666	4.78	780	0	4	0.1	5	0	0.044
8/1/2019 11:20	29.84	78	78	78	68	67	70	2	NE	0.2	5	NE	78	80	80	92	0	0	704	5.05	856	0	5	0.2	5	0	0.046
8/1/2019 11:25	29.83	80	80	78	64	67	70	4	ESE	0.3	8	ESE	80	82	82	92	0	0	883	6.33	916	0	5	0.2	5	0	0.051
8/1/2019 11:30	29.83	80	80	80	65	67	70	5	ENE	0.4	9	NNE	80	82	82	88	0	0	294	2.11	309	0	3	0.1	4	0	0.052
8/1/2019 11:35	29.84	78	80	78	67	66	69	5	NE	0.4	9	NE	78	80	80	85	0	0	258	1.85	301	0	4	0.1	5	0	0.046
8/1/2019 11:40	29.83	77	78	77	68	66	69	5	NNE	0.4	10	NNE	77	79	79	82	0	0	212	1.52	220	0	3	0.1	3	0	0.043
8/1/2019 11:45	29.84	76	77	76	69	65	68	4	NE	0.3	8	NNE	76	78	78	85	0	0	386	2.77	907	0	4	0.1	5	0	0.04
8/1/2019 11:50	29.84	78	78	76	66	65	68	3	ENE	0.2	7	ENE	78	79	79	88	0	0	525	3.76	928	0	4	0.1	6	0	0.044
8/1/2019 11:55	29.84	78	78	78	66	66	69	2	E	0.2	7	ENE	78	80	80	85	0	0	282	2.02	302	0	3	0.1	4	0	0.046
8/1/2019 12:00	29.84	78	78	78	67	66	69	4	ENE	0.3	10	NE	78	80	80	85	0	0	282	2.02	301	0.01	3	0.1	3	0	0.046
8/1/2019 12:05	29.83	77	78	77	66	65	68	6	NE	0.5	11	NE	77	78	78	86	0	0	416	2.98	923	0	4	0.1	6	0	0.042
8/1/2019 12:10	29.84	78	78	77	66	66	69	4	NNE	0.3	9	NNE	78	79	79	90	0	0	947	6.79	976	0	6	0.2	6	0	0.045
8/1/2019 12:15	29.83	79	79	78	65	66	69	2	ENE	0.2	7	NE	79	81	81	92	0	0	964	6.91	979	0	6	0.2	6	0	0.049
8/1/2019 12:20	29.83	81	81	79	63	67	71	3	ESE	0.2	7	ESE	81	84	84	94	0	0	958	6.87	963	0	6	0.2	6	0	0.057
8/1/2019 12:25	29.83	80	82	80	62	66	69	7	NNW	0.6	10	N	80	82	82	87	0	0	265	1.9	279	0	3	0.1	4	0	0.053
8/1/2019 12:30	29.83	80	80	80	63	66	69	4	N	0.3	8	N	80	82	82	86	0	0	271	1.94	279	0	3	0.1	3	0	0.051
8/1/2019 12:35	29.83	80	--	--	63	66	69	--	--	--	0		--	82	--	--	0	0	279	2	279	0	3	0.1	3	0	0.051
8/1/2019 12:40	29.83	78	78	78	67	66	69	8	NNE	0.7	11	NNE	77	79	78	82	0	0	259	1.86	287	0	3	0.1	3	0	0.044
8/1/2019 12:45	29.83	77	78	77	67	65	68	9	NNE	0.8	13	N	76	78	77	80	0	0	202	1.45	221	0	3	0.1	3	0	0.042
8/1/2019 12:50	29.83	77	77	77	67	65	68	7	NE	0.6	13	NE	77	78	78	82	0	0	220	1.58	236	0	3	0.1	3	0	0.041
8/1/2019 12:55	29.84	77	77	77	64	64	67	6	NNE	0.5	11	N	77	78	78	83	0	0	268	1.92	287	0	4	0.1	5	0	0.041
8/1/2019 13:00	29.84	77	77	77	66	65	68	5	NNE	0.4	11	N	77	78	78	90	0	0	773	5.54	773	0.01	5	0.2	6	0	0.042
8/1/2019 13:05	29.84	78	78	77	65	65	68	9	NNE	0.8	15	NNE	76	79	78	87	0	0	954	6.84	970	0	6	0.2	6	0	0.044
8/1/2019 13:10	29.84	78	78	78	64	65	68	8	NNE	0.7	14	N	77	79	79	88	0	0	958	6.87	979	0	6	0.2	6	0	0.046
8/1/2019 13:15	29.83	78	78	78	61	64	67	9	NNE	0.8	13	NNE	77	79	78	84	0	0	338	2.42	366	0	4	0.1	5	0	0.047
8/1/2019 13:20	29.83	79	79	78	60	64	67	6	NE	0.5	12	NNE	79	80	80	90	0	0	968	6.94	993	0	6	0.2	7	0	0.048
8/1/2019 13:25	29.83	80	80	79	58	64	68	4	ENE	0.3	10	ENE	80	81	81	91	0	0	935	6.7	953	0	7	0.2	7	0	0.052
8/1/2019 13:30	29.83	81	81	80	56	64	68	5	ENE	0.4	11	NE	81	83	83	93	0	0	933	6.69	951	0	7	0.2	7	0	0.057
8/1/2019 13:35	29.83	81	81	81	54	63	67	7	NNE	0.6	13	NNE	81	82	82	93	0	0	906	6.5	944	0	6	0.2	6	0	0.055
8/1/2019 13:40	29.83	81	81	80	57	64	68	6	NNE	0.5	12	NNE	81	82	82	92	0	0	959	6.88	977	0	6	0.2	6	0	0.054
8/1/2019 13:45	29.83	80	81	80	57	64	68	9	NNE	0.8	15	NNE	79	82	80	91	0	0	803	5.76	1014	0	5	0.2	6	0	0.054
8/1/2019 13:50	29.83	80	80	80	56	63	67	9	NE	0.8	12	NNE	79	81	80	89	0	0	931	6.68	944	0	6	0.2	6	0	0.053

8/1/2019 13:55	29.83	80	80	80	56	63	67	8	NNE	0.7	12	NNE	79	81	80	90	0	0	900	6.45	905	0	6	0.2	6	0	0.052
8/1/2019 14:00	29.83	80	80	80	55	62	67	8	NE	0.7	13	NE	79	81	80	91	0	0	882	6.32	896	0.03	6	0.2	6	0	0.052
8/1/2019 14:05	29.83	80	80	80	55	63	67	7	NNE	0.6	11	N	80	81	81	92	0	0	874	6.27	877	0	6	0.2	6	0	0.053
8/1/2019 14:10	29.83	81	81	80	54	62	67	9	NE	0.8	13	NE	79	81	80	90	0	0	877	6.29	895	0	6	0.2	6	0	0.054
8/1/2019 14:15	29.82	80	81	80	53	62	66	10	NNE	0.8	16	N	79	81	80	89	0	0	879	6.3	893	0	6	0.2	6	0	0.054
8/1/2019 14:20	29.83	80	81	80	51	61	65	8	NE	0.7	15	NNE	80	81	80	91	0	0	853	6.12	858	0	6	0.2	6	0	0.054
8/1/2019 14:25	29.83	80	80	80	50	60	65	8	NE	0.7	14	NE	79	80	80	90	0	0	841	6.03	853	0	6	0.2	6	0	0.053
8/1/2019 14:30	29.83	80	80	80	50	60	65	8	NE	0.7	14	NE	79	80	79	90	0	0	850	6.09	867	0	6	0.2	6	0	0.052
8/1/2019 14:35	29.82	80	80	80	49	59	64	9	NE	0.8	14	NNE	79	80	79	89	0	0	842	6.04	844	0	6	0.2	6	0	0.053
8/1/2019 14:40	29.82	80	80	80	48	59	64	6	NE	0.5	11	NNE	80	80	80	91	0	0	844	6.05	853	0	6	0.2	6	0	0.054
8/1/2019 14:45	29.83	81	81	80	48	60	64	7	NE	0.6	14	NE	81	81	81	92	0	0	835	5.99	856	0	5	0.2	6	0	0.056
8/1/2019 14:50	29.82	81	81	81	49	60	65	7	NE	0.6	12	NE	81	81	81	92	0	0	822	5.89	828	0	6	0.2	6	0	0.056
8/1/2019 14:55	29.82	81	81	81	47	59	64	7	NE	0.6	14	NE	81	81	81	92	0	0	808	5.79	817	0	5	0.2	6	0	0.056
8/1/2019 15:00	29.82	81	81	81	47	59	64	10	N	0.8	15	N	80	81	79	89	0	0	791	5.67	798	0.03	5	0.2	5	0	0.056
8/1/2019 15:05	29.82	80	81	80	47	58	63	10	NE	0.8	17	NNE	79	80	79	88	0	0	788	5.65	791	0	5	0.2	5	0	0.053
8/1/2019 15:10	29.82	81	81	80	46	58	63	6	ENE	0.5	13	NE	81	80	80	91	0	0	790	5.66	795	0	5	0.2	5	0	0.055
8/1/2019 15:15	29.82	81	81	81	45	58	63	7	ENE	0.6	13	ENE	81	80	80	91	0	0	782	5.61	788	0	5	0.2	5	0	0.056
8/1/2019 15:20	29.81	82	82	81	45	58	64	7	ENE	0.6	12	ENE	82	81	81	92	0	0	771	5.53	773	0	5	0.2	5	0	0.058
8/1/2019 15:25	29.81	82	82	82	46	59	64	7	NE	0.6	12	NNE	82	81	81	92	0	0	766	5.49	770	0	5	0.2	5	0	0.058
8/1/2019 15:30	29.81	81	82	81	46	58	63	6	NE	0.5	12	NNE	81	81	81	91	0	0	771	5.53	780	0	5	0.2	5	0	0.055
8/1/2019 15:35	29.81	81	81	81	46	58	63	11	NE	0.9	19	NNE	79	81	79	88	0	0	762	5.46	770	0	5	0.2	5	0	0.055
8/1/2019 15:40	29.81	81	81	81	47	59	64	12	NNE	1	18	NE	78	80	78	87	0	0	740	5.31	752	0	5	0.2	5	0	0.054
8/1/2019 15:45	29.81	80	81	80	46	58	63	12	NNE	1	17	NNE	78	80	78	87	0	0	715	5.13	724	0	4	0.2	5	0	0.053
8/1/2019 15:50	29.81	80	80	80	46	58	63	11	NNE	0.9	17	NNE	78	80	78	87	0	0	697	5	701	0	4	0.2	4	0	0.053
8/1/2019 15:55	29.8	80	80	80	46	58	63	12	NNE	1	17	N	78	80	78	86	0	0	687	4.93	689	0	4	0.1	4	0	0.053
8/1/2019 16:00	29.81	80	80	80	47	58	63	11	NNE	0.9	16	N	79	80	78	88	0	0	683	4.9	687	0.02	4	0.1	4	0	0.053
8/1/2019 16:05	29.8	80	81	80	45	57	62	12	N	1	17	NNE	78	80	78	87	0	0	671	4.81	677	0	4	0.1	4	0	0.053
8/1/2019 16:10	29.81	80	80	80	47	58	63	10	NNE	0.8	16	N	78	80	78	88	0	0	657	4.71	664	0	4	0.1	4	0	0.052
8/1/2019 16:15	29.8	80	80	80	46	57	63	8	NE	0.7	16	NNE	79	80	79	89	0	0	648	4.65	650	0	4	0.1	4	0	0.052
8/1/2019 16:20	29.8	80	80	80	45	57	62	11	N	0.9	16	N	78	80	78	87	0	0	638	4.57	640	0	4	0.1	4	0	0.053
8/1/2019 16:25	29.8	80	80	80	45	57	62	11	NNE	0.9	15	N	78	79	77	87	0	0	630	4.52	635	0	4	0.1	4	0	0.052
8/1/2019 16:30	29.8	80	80	80	45	57	62	9	NNE	0.8	13	N	79	80	78	88	0	0	620	4.45	624	0	3	0.1	4	0	0.052
8/1/2019 16:35	29.8	80	80	80	46	57	63	9	NNE	0.8	16	NE	79	80	78	88	0	0	595	4.27	608	0	3	0.1	3	0	0.052
8/1/2019 16:40	29.8	80	80	80	45	57	62	11	N	0.9	15	NNE	78	80	78	87	0	0	603	4.32	606	0	3	0.1	3	0	0.053
8/1/2019 16:45	29.8	80	80	80	45	57	62	11	N	0.9	15	N	78	79	77	86	0	0	591	4.24	598	0	3	0.1	3	0	0.052
8/1/2019 16:50	29.8	80	80	80	44	56	62	11	NNE	0.9	16	NNE	78	79	77	86	0	0	577	4.14	584	0	3	0.1	3	0	0.052
8/1/2019 16:55	29.8	80	80	80	44	56	61	12	NNE	1	18	NNE	77	79	77	85	0	0	574	4.12	578	0	3	0.1	3	0	0.051
8/1/2019 17:00	29.8	80	80	80	44	56	61	11	NNE	0.9	17	N	78	79	77	86	0	0	560	4.02	566	0.02	3	0.1	3	0	0.051
8/1/2019 17:05	29.8	80	80	80	43	55	61	10	NNE	0.8	15	NE	78	79	77	86	0	0	543	3.89	552	0	3	0.1	3	0	0.051
8/1/2019 17:10	29.8	80	80	80	43	55	61	8	NE	0.7	15	NE	79	79	78	87	0	0	485	3.48	517	0	2	0.1	2	0	0.05

8/1/2019 17:15	29.8	80	80	80	42	54	60	12	NNE	1	18	NE	77	79	76	84	0	0	502	3.6	515	0	2	0.1	2	0	0.05
8/1/2019 17:20	29.8	79	80	79	42	54	60	11	NNE	0.9	15	N	77	78	76	85	0	0	483	3.46	490	0	2	0.1	2	0	0.05
8/1/2019 17:25	29.8	79	79	79	41	53	59	11	NNE	0.9	16	NNE	77	78	76	84	0	0	473	3.39	478	0	2	0.1	2	0	0.049
8/1/2019 17:30	29.8	79	79	79	40	52	59	11	NNE	0.9	15	N	77	78	76	83	0	0	419	3	466	0	2	0.1	2	0	0.048
8/1/2019 17:35	29.8	79	79	79	41	53	59	11	NNE	0.9	17	N	77	78	75	83	0	0	415	2.98	441	0	2	0.1	2	0	0.047
8/1/2019 17:40	29.8	79	79	79	41	53	59	10	NNE	0.8	15	NNE	77	78	76	84	0	0	416	2.98	427	0	2	0.1	2	0	0.048
8/1/2019 17:45	29.8	79	79	79	41	53	59	12	N	1	16	N	76	78	75	83	0	0	399	2.86	418	0	2	0.1	2	0	0.047
8/1/2019 17:50	29.8	78	79	78	41	53	59	10	NNE	0.8	15	NNE	77	77	76	84	0	0	395	2.83	399	0	2	0.1	2	0	0.047
8/1/2019 17:55	29.8	78	78	78	42	53	60	9	NE	0.8	14	NE	77	78	76	84	0	0	377	2.7	383	0	2	0.1	2	0	0.047
8/1/2019 18:00	29.8	78	79	78	40	52	59	9	NNE	0.8	15	NE	77	77	76	84	0	0	362	2.6	369	0.02	2	0.1	2	0	0.047
8/1/2019 18:05	29.8	78	78	78	40	52	58	10	NNE	0.8	14	N	77	77	75	83	0	0	349	2.5	355	0	2	0.1	2	0	0.046
8/1/2019 18:10	29.8	78	78	78	41	52	59	10	NNE	0.8	14	NNE	76	77	75	83	0	0	334	2.39	341	0	1	0.1	2	0	0.045
8/1/2019 18:15	29.8	78	78	78	42	53	59	9	N	0.8	14	N	77	77	76	83	0	0	318	2.28	325	0	1	0	1	0	0.046
8/1/2019 18:20	29.8	78	78	78	40	52	58	12	NNW	1	15	NNW	75	77	74	81	0	0	301	2.16	308	0	1	0	1	0	0.045
8/1/2019 18:25	29.8	78	78	78	41	52	58	13	N	1.1	16	N	75	77	74	80	0	0	286	2.05	292	0	1	0	1	0	0.044
8/1/2019 18:30	29.8	78	78	78	41	52	58	11	N	0.9	14	N	76	77	74	81	0	0	273	1.96	278	0	1	0	1	0	0.044
8/1/2019 18:35	29.8	78	78	78	42	53	59	9	NNE	0.8	12	NNE	76	77	75	82	0	0	259	1.86	265	0	1	0	1	0	0.044
8/1/2019 18:40	29.8	78	78	78	41	52	58	9	NNE	0.8	12	NE	76	77	75	82	0	0	244	1.75	250	0	1	0	1	0	0.044
8/1/2019 18:45	29.8	78	78	78	39	51	57	11	N	0.9	15	N	75	76	74	80	0	0	229	1.64	234	0	1	0	1	0	0.044
8/1/2019 18:50	29.8	78	78	78	40	51	58	11	N	0.9	16	NNW	75	76	74	79	0	0	214	1.53	220	0	1	0	1	0	0.044
8/1/2019 18:55	29.8	77	78	77	41	52	58	10	N	0.8	12	NNE	76	76	75	79	0	0	198	1.42	204	0	1	0	1	0	0.043
8/1/2019 19:00	29.8	77	77	77	42	52	59	9	N	0.8	12	N	76	76	75	80	0	0	181	1.3	186	0.01	1	0	1	0	0.043
8/1/2019 19:05	29.8	78	78	77	43	53	59	7	N	0.6	10	N	78	77	77	81	0	0	167	1.2	172	0	1	0	1	0	0.043
8/1/2019 19:10	29.8	77	78	77	43	53	59	8	NNE	0.7	11	NNE	76	76	76	79	0	0	153	1.1	160	0	1	0	1	0	0.043
8/1/2019 19:15	29.8	77	77	77	43	53	59	7	NNE	0.6	11	NNE	77	76	76	80	0	0	137	0.98	142	0	0	0	0	0	0.041
8/1/2019 19:20	29.8	77	77	77	43	53	59	7	N	0.6	10	N	77	76	76	79	0	0	121	0.87	127	0	0	0	0	0	0.041
8/1/2019 19:25	29.8	77	77	77	43	53	59	6	NNE	0.5	9	N	77	76	76	78	0	0	107	0.77	114	0	0	0	0	0	0.041
8/1/2019 19:30	29.8	77	77	77	44	53	59	5	N	0.4	7	N	77	76	76	78	0	0	94	0.67	98	0	0	0	0	0	0.04
8/1/2019 19:35	29.8	76	77	76	45	54	59	5	N	0.4	7	N	76	76	76	75	0	0	81	0.58	86	0	0	0	0	0	0.04
8/1/2019 19:40	29.8	76	76	76	46	54	60	6	NNE	0.5	9	NNE	76	76	76	74	0	0	70	0.5	74	0	0	0	0	0	0.039
8/1/2019 19:45	29.8	76	76	76	46	54	59	5	NNE	0.4	8	N	76	75	75	74	0	0	60	0.43	65	0	0	0	0	0	0.038
8/1/2019 19:50	29.8	76	76	76	47	54	60	5	NNE	0.4	8	N	76	75	75	73	0	0	50	0.36	54	0	0	0	0	0	0.037
8/1/2019 19:55	29.8	75	76	75	47	54	59	5	NNE	0.4	8	NNE	75	75	75	73	0	0	41	0.29	44	0	0	0	0	0	0.036
8/1/2019 20:00	29.8	75	75	75	48	54	59	5	NNE	0.4	8	N	75	75	75	73	0	0	32	0.23	35	0.01	0	0	0	0	0.035
8/1/2019 20:05	29.8	75	75	75	49	54	60	4	NNE	0.3	7	NNE	75	75	75	72	0	0	25	0.18	28	0	0	0	0	0	0.034
8/1/2019 20:10	29.8	75	75	75	50	55	60	3	N	0.2	7	NNE	75	75	75	72	0	0	20	0.14	21	0	0	0	0	0	0.034
8/1/2019 20:15	29.81	74	75	74	51	55	60	2	N	0.2	3	N	74	74	74	72	0	0	16	0.11	18	0	0	0	0	0	0.033
8/1/2019 20:20	29.81	74	74	74	51	55	60	3	N	0.2	4	N	74	74	74	71	0	0	13	0.09	14	0	0	0	0	0	0.032
8/1/2019 20:25	29.81	74	74	74	52	55	60	3	NNW	0.2	4	NW	74	74	74	71	0	0	9	0.06	11	0	0	0	0	0	0.031
8/1/2019 20:30	29.81	74	74	74	53	56	60	3	N	0.2	5	N	74	74	74	71	0	0	5	0.04	7	0	0	0	0	0	0.03

8/1/2019 20:35	29.81	73	74	73	54	56	60	3	N	0.2	5	N	73	73	73	70	0	0	0	0	0	0	0	0	0	0	0.029
8/1/2019 20:40	29.81	73	73	73	55	56	60	3	N	0.2	5	N	73	73	73	70	0	0	0	0	0	0	0	0	0	0	0.027
8/1/2019 20:45	29.81	72	73	72	56	56	60	3	NNE	0.2	5	NNE	72	72	72	69	0	0	0	0	0	0	0	0	0	0	0.025
8/1/2019 20:50	29.81	72	72	72	56	55	60	3	NNE	0.2	4	NNE	72	71	71	68	0	0	0	0	0	0	0	0	0	0	0.023
8/1/2019 20:55	29.81	71	72	71	57	55	60	3	NNE	0.2	4	NNE	71	71	71	68	0	0	0	0	0	0	0	0	0	0	0.022
8/1/2019 21:00	29.81	71	71	71	57	55	60	2	NNE	0.2	3	NNE	71	71	71	68	0	0	0	0	0	0	0	0	0	0	0.022
8/1/2019 21:05	29.81	71	71	71	58	56	60	2	NNE	0.2	3	NNE	71	71	71	68	0	0	0	0	0	0	0	0	0	0	0.021
8/1/2019 21:10	29.81	71	71	71	58	55	60	2	NNE	0.2	3	NNE	71	70	70	68	0	0	0	0	0	0	0	0	0	0	0.021
8/1/2019 21:15	29.81	71	71	71	60	56	60	2	NNE	0.2	3	NNE	71	70	70	68	0	0	0	0	0	0	0	0	0	0	0.02
8/1/2019 21:20	29.81	71	71	71	61	56	60	0		0	1	NNE	71	70	70	67	0	0	0	0	0	0	0	0	0	0	0.019
8/1/2019 21:25	29.82	70	71	70	63	57	61	0		0	1	NNE	70	70	70	67	0	0	0	0	0	0	0	0	0	0	0.019
8/1/2019 21:30	29.82	70	70	70	64	57	61	2	N	0.2	3	N	70	70	70	67	0	0	0	0	0	0	0	0	0	0	0.017
8/1/2019 21:35	29.82	70	70	70	65	58	61	0		0	2	NNW	70	70	70	67	0	0	0	0	0	0	0	0	0	0	0.017
8/1/2019 21:40	29.82	70	70	70	66	58	61	0		0	0		70	69	69	67	0	0	0	0	0	0	0	0	0	0	0.016
8/1/2019 21:45	29.82	69	70	69	66	57	61	0		0	0		69	69	69	67	0	0	0	0	0	0	0	0	0	0	0.015
8/1/2019 21:50	29.83	69	69	69	69	58	61	1	WNW	0.1	3	WNW	69	69	69	66	0	0	0	0	0	0	0	0	0	0	0.013
8/1/2019 21:55	29.83	68	69	68	70	58	61	2	WNW	0.2	3	WNW	68	69	69	66	0	0	0	0	0	0	0	0	0	0	0.011
8/1/2019 22:00	29.83	68	68	68	71	58	61	2	W	0.2	3	W	68	68	68	65	0	0	0	0	0	0	0	0	0	0	0.01
8/1/2019 22:05	29.83	67	68	67	71	58	61	1	W	0.1	2	W	67	68	68	65	0	0	0	0	0	0	0	0	0	0	0.008
8/1/2019 22:10	29.83	67	67	67	72	58	61	0		0	0		67	68	68	65	0	0	0	0	0	0	0	0	0	0	0.008
8/1/2019 22:15	29.83	67	67	67	73	58	61	0		0	0		67	67	67	65	0	0	0	0	0	0	0	0	0	0	0.007
8/1/2019 22:20	29.83	67	67	67	74	58	61	0		0	0		67	67	67	64	0	0	0	0	0	0	0	0	0	0	0.006
8/1/2019 22:25	29.83	66	67	66	74	58	60	0		0	2	WSW	66	67	67	64	0	0	0	0	0	0	0	0	0	0	0.005
8/1/2019 22:30	29.83	66	66	66	75	58	60	1	WSW	0.1	2	WSW	66	66	66	64	0	0	0	0	0	0	0	0	0	0	0.004
8/1/2019 22:35	29.83	66	66	66	76	58	60	0		0	1	WSW	66	66	66	63	0	0	0	0	0	0	0	0	0	0	0.002
8/1/2019 22:40	29.83	65	66	65	77	58	60	0		0	1	WSW	65	66	66	63	0	0	0	0	0	0	0	0	0	0	0.001
8/1/2019 22:45	29.83	65	65	65	78	58	60	3	NW	0.2	4	NNW	65	65	65	62	0	0	0	0	0	0	0	0	0	0	0
8/1/2019 22:50	29. 83	65	65	65	80	58	60	3	N	0.2	4	N	65	65	65	62	0	0	0	0	0	0	0	0	0	0. 001	0
8/1/2019 22:55	29. 83	64	65	64	80	58	60	1	N	0.1	3	N	64	65	65	62	0	0	0	0	0	0	0	0	0	0. 002	0
8/1/2019 23:00	29. 83	64	64	64	80	58	60	0		0	0		64	65	65	62	0	0	0	0	0	0	0	0	0	0. 002	0
8/1/2019 23:05	29. 83	64	64	64	80	58	60	0		0	1	NNW	64	65	65	62	0	0	0	0	0	0	0	0	0	0. 002	0
8/1/2019 23:10	29. 83	64	64	64	81	58	60	1	NNW	0.1	2	NNW	64	65	65	62	0	0	0	0	0	0	0	0	0	0. 003	0
8/1/2019 23:15	29. 83	64	64	64	82	58	60	0		0	1	NNW	64	64	64	62	0	0	0	0	0	0	0	0	0	0. 004	0
8/1/2019 23:20	29. 83	64	64	64	83	58	60	2	NNW	0.2	3	NNW	64	64	64	61	0	0	0	0	0	0	0	0	0	0. 005	0
8/1/2019 23:25	29. 83	63	64	63	84	58	60	3	N	0.2	4	NNW	63	64	64	61	0	0	0	0	0	0	0	0	0	0. 006	0
8/1/2019 23:30	29. 83	63	63	63	84	58	60	1	N	0.1	2	N	63	64	64	61	0	0	0	0	0	0	0	0	0	0. 006	0
8/1/2019 23:35	29. 83	63	63	63	84	58	60	1	N	0.1	2	N	63	63	63	61	0	0	0	0	0	0	0	0	0	0. 007	0
8/1/2019 23:40	29. 83	63	63	63	84	58	60	1	N	0.1	2	N	63	63	63	60	0	0	0	0	0	0	0	0	0	0. 007	0
8/1/2019 23:45	29. 83	63	63	63	84	58	59	1	NNW	0.1	2	NNW	63	63	63	60	0	0	0	0	0	0	0	0	0	0. 008	0
8/1/2019 23:50	29. 83	62	63	62	84	58	59	1	WNW	0.1	2	NW	62	63	63	60	0	0	0	0	0	0	0	0	0	0. 009	0

8/1/2019 23:55	29. 83	62	62	62	85	58	59	0		0	0		62	63	63	60	0	0	0	0	0	0	0	0	0	0. 009	0
8/2/2019 0:00	29.83	62	62	62	85	58	59	1	WNW	0.1	2	WNW	62	62	62	60	0	0	0	0	0	0	0	0	0	0.01	0
8/2/2019 0:05	29. 84	62	62	62	85	57	59	1	WNW	0.1	2	WNW	62	62	62	59	0	0	0	0	0	0	0	0	0	0. 011	0
8/2/2019 0:10	29. 84	62	62	62	85	57	59	1	WNW	0.1	3	WNW	62	62	62	59	0	0	0	0	0	0	0	0	0	0. 011	0
8/2/2019 0:15	29. 84	62	62	62	86	57	59	1	W	0.1	3	WNW	62	62	62	59	0	0	0	0	0	0	0	0	0	0. 012	0
8/2/2019 0:20	29. 84	61	62	61	86	57	59	1	W	0.1	2	W	61	62	62	59	0	0	0	0	0	0	0	0	0	0. 012	0
8/2/2019 0:25	29. 84	61	61	61	86	57	59	1	W	0.1	3	W	61	61	61	59	0	0	0	0	0	0	0	0	0	0. 013	0
8/2/2019 0:30	29. 84	61	61	61	86	57	58	0		0	2	W	61	61	61	59	0	0	0	0	0	0	0	0	0	0. 013	0
8/2/2019 0:35	29. 84	61	61	61	87	57	58	0		0	0		61	61	61	58	0	0	0	0	0	0	0	0	0	0. 014	0
8/2/2019 0:40	29. 84	61	61	61	87	57	58	0		0	0		61	61	61	58	0	0	0	0	0	0	0	0	0	0. 014	0
8/2/2019 0:45	29. 84	61	61	61	88	57	59	0		0	0		61	61	61	58	0	0	0	0	0	0	0	0	0	0. 014	0
8/2/2019 0:50	29. 84	61	61	61	88	57	59	0		0	0		61	61	61	58	0	0	0	0	0	0	0	0	0	0. 014	0
8/2/2019 0:55	29. 83	61	61	61	88	57	59	0		0	0		61	61	61	58	0	0	0	0	0	0	0	0	0	0. 014	0
8/2/2019 1:00	29. 83	61	61	61	88	57	58	0		0	1	W	61	61	61	58	0	0	0	0	0	0	0	0	0	0. 015	0
8/2/2019 1:05	29. 84	61	61	61	88	57	58	1	W	0.1	2	W	61	61	61	58	0	0	0	0	0	0	0	0	0	0. 015	0
8/2/2019 1:10	29. 84	61	61	61	88	57	58	0		0	1	W	61	61	61	58	0	0	0	0	0	0	0	0	0	0. 015	0
8/2/2019 1:15	29. 84	60	61	60	88	57	58	0		0	0		60	61	61	58	0	0	0	0	0	0	0	0	0	0. 016	0
8/2/2019 1:20	29. 84	60	60	60	88	57	58	0		0	0		60	60	60	58	0	0	0	0	0	0	0	0	0	0. 017	0
8/2/2019 1:25	29. 84	60	60	60	89	57	58	0		0	0		60	60	60	58	0	0	0	0	0	0	0	0	0	0. 017	0
8/2/2019 1:30	29. 84	60	60	60	89	57	58	0		0	0		60	60	60	58	0	0	0	0	0	0	0	0	0	0. 017	0
8/2/2019 1:35	29. 84	60	60	60	89	57	58	0		0	0		60	60	60	58	0	0	0	0	0	0	0	0	0	0. 017	0
8/2/2019 1:40	29. 84	60	60	60	89	57	58	0		0	1	W	60	60	60	58	0	0	0	0	0	0	0	0	0	0. 017	0
8/2/2019 1:45	29. 84	60	60	60	91	58	59	1	W	0.1	2	W	60	61	61	58	0	0	0	0	0	0	0	0	0	0. 016	0
8/2/2019 1:50	29. 84	61	61	60	90	58	59	0		0	2	W	61	61	61	58	0	0	0	0	0	0	0	0	0	0. 015	0
8/2/2019 1:55	29. 83	60	61	60	90	58	59	0		0	1	W	60	61	61	58	0	0	0	0	0	0	0	0	0	0. 016	0
8/2/2019 2:00	29. 84	60	60	60	90	58	59	0		0	0		60	61	61	58	0	0	0	0	0	0	0	0	0	0. 016	0
8/2/2019 2:05	29. 84	60	60	60	91	58	59	0		0	0		60	61	61	58	0	0	0	0	0	0	0	0	0	0. 016	0
8/2/2019 2:10	29. 84	60	60	60	90	57	58	0		0	1	W	60	61	61	58	0	0	0	0	0	0	0	0	0	0. 016	0
8/2/2019 2:15	29. 84	60	60	60	90	57	58	1	W	0.1	2	W	60	61	61	58	0	0	0	0	0	0	0	0	0	0. 017	0
8/2/2019 2:20	29. 84	60	60	60	91	58	58	2	W	0.2	3	W	60	61	61	58	0	0	0	0	0	0	0	0	0	0. 017	0
8/2/2019 2:25	29. 84	60	60	60	90	57	58	0		0	0		60	60	60	58	0	0	0	0	0	0	0	0	0	0. 017	0
8/2/2019 2:30	29. 84	60	60	60	90	57	58	0		0	0		60	60	60	57	0	0	0	0	0	0	0	0	0	0. 019	0
8/2/2019 2:35	29. 84	59	60	59	89	56	57	0		0	0		59	60	60	57	0	0	0	0	0	0	0	0	0	0. 019	0
8/2/2019 2:40	29.84	59	59	59	89	56	57	0		0	0		59	59	59	56	0	0	0	0	0	0	0	0	0	0.02	0
8/2/2019 2:45	29. 84	59	59	59	90	56	57	1	NW	0.1	3	NW	59	59	59	56	0	0	0	0	0	0	0	0	0	0. 021	0
8/2/2019 2:50	29. 84	59	59	59	90	56	57	2	NW	0.2	3	NW	59	59	59	56	0	0	0	0	0	0	0	0	0	0. 022	0
8/2/2019 2:55	29. 84	59	59	59	91	56	57	2	NW	0.2	3	NW	59	59	59	56	0	0	0	0	0	0	0	0	0	0. 022	0
8/2/2019 3:00	29. 84	59	59	59	91	56	57	1	NW	0.1	3	NW	59	59	59	56	0	0	0	0	0	0	0	0	0	0. 022	0
8/2/2019 3:05	29. 85	59	59	59	91	56	57	3	WSW	0.2	4	WSW	59	59	59	56	0	0	0	0	0	0	0	0	0	0. 022	0
8/2/2019 3:10	29. 85	58	59	58	91	56	57	1	WSW	0.1	3	WSW	58	59	59	56	0	0	0	0	0	0	0	0	0	0. 023	0

8/2/2019 3:15	29. 85	58	58	58	91	56	57	0		0	0		58	58	58	56	0	0	0	0	0	0	0	0	0	0. 024	0
8/2/2019 3:20	29. 85	58	58	58	91	55	56	0		0	0		58	58	58	55	0	0	0	0	0	0	0	0	0	0. 024	0
8/2/2019 3:25	29. 84	58	58	58	91	56	57	0		0	1	WSW	58	58	58	56	0	0	0	0	0	0	0	0	0	0. 024	0
8/2/2019 3:30	29. 84	58	58	58	92	56	57	0		0	0		58	59	59	56	0	0	0	0	0	0	0	0	0	0. 023	0
8/2/2019 3:35	29. 84	58	58	58	92	56	57	0		0	0		58	59	59	56	0	0	0	0	0	0	0	0	0	0. 023	0
8/2/2019 3:40	29. 84	58	58	58	92	56	57	1	WSW	0.1	2	WSW	58	59	59	56	0	0	0	0	0	0	0	0	0	0. 023	0
8/2/2019 3:45	29. 84	59	59	58	92	56	57	0		0	1	WSW	59	59	59	56	0	0	0	0	0	0	0	0	0	0. 022	0
8/2/2019 3:50	29. 84	58	59	58	92	56	57	1	WSW	0.1	2	WSW	58	59	59	56	0	0	0	0	0	0	0	0	0	0. 023	0
8/2/2019 3:55	29. 84	58	58	58	92	56	57	2	WSW	0.2	2	WSW	58	58	58	56	0	0	0	0	0	0	0	0	0	0. 024	0
8/2/2019 4:00	29. 85	58	58	58	92	56	57	1	WSW	0.1	2	WSW	58	58	58	55	0	0	0	0	0	0	0	0	0	0. 024	0
8/2/2019 4:05	29. 84	58	58	58	92	56	56	1	WSW	0.1	3	WSW	58	58	58	55	0	0	0	0	0	0	0	0	0	0. 025	0
8/2/2019 4:10	29. 84	58	58	58	92	55	56	0		0	0		58	58	58	55	0	0	0	0	0	0	0	0	0	0. 025	0
8/2/2019 4:15	29. 84	58	58	58	92	55	56	0		0	0		58	58	58	55	0	0	0	0	0	0	0	0	0	0. 025	0
8/2/2019 4:20	29. 84	58	58	58	92	55	56	0		0	0		58	58	58	55	0	0	0	0	0	0	0	0	0	0. 025	0
8/2/2019 4:25	29. 84	58	58	58	92	56	56	0		0	0		58	58	58	55	0	0	0	0	0	0	0	0	0	0. 025	0
8/2/2019 4:30	29. 84	58	58	58	92	56	57	0		0	0		58	58	58	55	0	0	0	0	0	0	0	0	0	0. 024	0
8/2/2019 4:35	29. 84	58	58	58	92	56	57	0		0	0		58	58	58	56	0	0	0	0	0	0	0	0	0	0. 024	0
8/2/2019 4:40	29. 84	58	58	58	92	56	57	0		0	0		58	58	58	56	0	0	0	0	0	0	0	0	0	0. 024	0
8/2/2019 4:45	29. 84	58	58	58	92	56	56	0		0	0		58	58	58	55	0	0	0	0	0	0	0	0	0	0. 025	0
8/2/2019 4:50	29. 85	58	58	58	92	55	56	0		0	0		58	58	58	55	0	0	0	0	0	0	0	0	0	0. 025	0
8/2/2019 4:55	29. 85	58	58	58	92	55	56	0		0	0		58	58	58	55	0	0	0	0	0	0	0	0	0	0. 025	0
8/2/2019 5:00	29. 84	58	58	58	92	55	56	0		0	0		58	58	58	55	0	0	0	0	0	0	0	0	0	0. 026	0
8/2/2019 5:05	29. 84	58	58	58	92	55	56	0		0	0		58	58	58	55	0	0	0	0	0	0	0	0	0	0. 026	0
8/2/2019 5:10	29. 84	58	58	58	92	55	56	0		0	0		58	58	58	55	0	0	0	0	0	0	0	0	0	0. 026	0
8/2/2019 5:15	29. 84	58	58	57	93	55	56	0		0	0		58	58	58	55	0	0	0	0	0	0	0	0	0	0. 026	0
8/2/2019 5:20	29. 84	58	58	58	93	56	56	0		0	0		58	58	58	55	0	0	0	0	0	0	0	0	0	0. 025	0
8/2/2019 5:25	29. 84	58	58	58	93	56	56	0		0	0		58	58	58	55	0	0	0	0	0	0	0	0	0	0. 025	0
8/2/2019 5:30	29. 84	58	58	58	93	56	56	0		0	0		58	58	58	55	0	0	0	0	0	0	0	0	0	0. 025	0
8/2/2019 5:35	29. 84	58	58	58	93	56	57	0		0	0		58	58	58	55	0	0	0	0	0	0	0	0	0	0. 025	0
8/2/2019 5:40	29. 84	58	58	58	93	56	57	0		0	0		58	58	58	55	0	0	0	0	0	0	0	0	0	0. 024	0
8/2/2019 5:45	29. 84	58	58	58	94	57	57	0		0	0		58	59	59	56	0	0	0	0	0	0	0	0	0	0. 023	0
8/2/2019 5:50	29. 84	58	58	58	93	56	57	0		0	0		58	59	59	56	0	0	0	0	0	0	0	0	0	0. 023	0
8/2/2019 5:55	29. 85	58	58	58	93	56	57	0		0	0		58	59	59	56	0	0	0	0	0	0	0	0	0	0. 023	0
8/2/2019 6:00	29. 85	58	58	58	93	56	57	0		0	0		58	59	59	56	0	0	0	0	0	0	0	0	0	0. 023	0
8/2/2019 6:05	29. 85	58	58	58	93	56	57	0		0	0		58	59	59	56	0	0	3	0.02	5	0	0	0	0	0. 024	0
8/2/2019 6:10	29. 84	58	58	58	93	56	57	0		0	0		58	58	58	56	0	0	7	0.05	9	0	0	0	0	0. 024	0
8/2/2019 6:15	29. 84	58	58	58	94	56	57	0		0	0		58	58	58	56	0	0	10	0.07	12	0	0	0	0	0. 024	0
8/2/2019 6:20	29. 84	58	58	58	94	56	57	0		0	0		58	58	58	56	0	0	14	0.1	16	0	0	0	0	0. 024	0
8/2/2019 6:25	29. 84	58	58	58	94	56	57	0		0	0		58	58	58	56	0	0	18	0.13	19	0	0	0	0	0. 024	0
8/2/2019 6:30	29. 84	58	58	58	94	56	57	0		0	0		58	58	58	56	0	0	20	0.14	21	0	0	0	0	0. 024	0

8/2/2019 6:35	29. 84	58	58	58	94	56	57	0		0	0		58	58	58	56	0	0	24	0.17	25	0	0	0	0	0. 024	0
8/2/2019 6:40	29. 84	58	58	58	94	57	57	0		0	0		58	59	59	59	0	0	32	0.23	39	0	0	0	0	0. 023	0
8/2/2019 6:45	29. 84	59	59	58	94	57	58	0		0	0		59	59	59	59	0	0	45	0.32	49	0	0	0	0	0. 022	0
8/2/2019 6:50	29. 84	59	59	59	94	57	58	0		0	0		59	59	59	60	0	0	53	0.38	56	0	0	0	0	0. 022	0
8/2/2019 6:55	29. 84	59	59	59	94	57	58	0		0	0		59	59	59	60	0	0	60	0.43	63	0	0	0	0	0. 022	0
8/2/2019 7:00	29.84	59	59	59	94	57	58	2	SSW	0.2	3	SSW	59	60	60	61	0	0	67	0.48	70	0	0	0	0	0.02	0
8/2/2019 7:05	29. 84	60	60	59	94	58	58	2	SSW	0.2	3	SSW	60	60	60	62	0	0	76	0.54	79	0	0	0	0	0. 019	0
8/2/2019 7:10	29. 84	60	60	60	94	58	59	1	SSW	0.1	3	SSW	60	60	60	62	0	0	88	0.63	95	0	0	0	0	0. 018	0
8/2/2019 7:15	29. 85	60	60	60	94	58	59	2	SSW	0.2	3	SSW	60	60	60	63	0	0	103	0.74	105	0	0	0	0	0. 018	0
8/2/2019 7:20	29. 84	60	60	60	94	58	59	0		0	3	SSW	60	61	61	64	0	0	112	0.8	118	0	0	0	0	0. 017	0
8/2/2019 7:25	29. 85	60	60	60	94	59	59	0		0	1	SSW	60	61	61	65	0	0	128	0.92	135	0	0	0	0	0. 016	0
8/2/2019 7:30	29. 85	61	61	60	95	59	60	1	SSW	0.1	3	SSW	61	62	62	66	0	0	140	1	142	0	1	0	1	0. 014	0
8/2/2019 7:35	29. 85	61	61	61	94	59	60	3	SSW	0.2	4	SSW	61	62	62	66	0	0	145	1.04	148	0	1	0	1	0. 013	0
8/2/2019 7:40	29. 85	62	62	61	94	60	60	2	SSW	0.2	4	SSW	62	62	62	66	0	0	151	1.08	155	0	1	0	1	0. 012	0
8/2/2019 7:45	29. 85	62	62	62	94	60	61	2	S	0.2	4	S	62	63	63	67	0	0	157	1.13	158	0	1	0	1	0. 011	0
8/2/2019 7:50	29.85	62	62	62	93	60	61	2	SSE	0.2	5	SSE	62	63	63	67	0	0	154	1.1	156	0	1	0	1	0.01	0
8/2/2019 7:55	29. 85	63	63	62	93	61	61	2	SSE	0.2	5	SE	63	64	64	68	0	0	150	1.08	153	0	1	0	1	0. 008	0
8/2/2019 8:00	29. 85	63	63	63	92	61	62	2	SSE	0.2	5	SSE	63	64	64	68	0	0	155	1.11	158	0	1	0	1	0. 006	0
8/2/2019 8:05	29. 86	64	64	63	91	61	62	2	SSE	0.2	5	SSE	64	65	65	69	0	0	177	1.27	188	0	1	0	1	0. 004	0
8/2/2019 8:10	29. 85	64	64	64	91	62	62	2	SSE	0.2	5	SSE	64	65	65	71	0	0	201	1.44	209	0	1	0	1	0. 002	0
8/2/2019 8:15	29.86	65	65	64	89	62	63	2	SSE	0.2	4	SSE	65	66	66	72	0	0	225	1.61	236	0	1	0	1	0	0
8/2/2019 8:20	29.85	65	65	65	88	62	63	2	SSE	0.2	4	SSE	65	66	66	73	0	0	251	1.8	262	0	1	0	1	0	0.001
8/2/2019 8:25	29.86	66	66	65	88	62	63	2	SSE	0.2	4	SSE	66	67	67	74	0	0	283	2.03	295	0	1	0	1	0	0.003
8/2/2019 8:30	29.86	66	66	66	86	62	63	2	SSE	0.2	4	SE	66	68	68	75	0	0	311	2.23	322	0	2	0.1	2	0	0.005
8/2/2019 8:35	29.86	67	67	66	85	62	64	3	SSE	0.2	5	SE	67	68	68	76	0	0	336	2.41	346	0	2	0.1	2	0	0.006
8/2/2019 8:40	29.86	67	67	67	81	61	63	3	S	0.2	6	SSE	67	68	68	77	0	0	356	2.55	364	0	2	0.1	2	0	0.007
8/2/2019 8:45	29.86	67	67	67	81	61	63	3	SSE	0.2	6	SSE	67	68	68	77	0	0	372	2.67	378	0	2	0.1	2	0	0.008
8/2/2019 8:50	29.85	68	68	67	80	62	64	2	SSE	0.2	4	SSE	68	69	69	78	0	0	388	2.78	396	0	2	0.1	2	0	0.011
8/2/2019 8:55	29.86	69	69	68	78	62	64	1	SSE	0.1	4	SSE	69	70	70	79	0	0	405	2.9	411	0	2	0.1	2	0	0.014
8/2/2019 9:00	29.85	70	70	69	78	62	64	1	SSE	0.1	4	SSE	70	71	71	80	0	0	421	3.02	425	0.01	2	0.1	2	0	0.016
8/2/2019 9:05	29.86	70	70	70	77	63	65	1	SSE	0.1	2	SSE	70	71	71	81	0	0	433	3.1	439	0	2	0.1	2	0	0.018
8/2/2019 9:10	29.86	71	71	70	75	62	65	1	SSE	0.1	3	SE	71	72	72	81	0	0	446	3.2	450	0	2	0.1	2	0	0.02
8/2/2019 9:15	29.86	72	72	71	73	62	65	2	SE	0.2	4	SE	72	72	72	82	0	0	460	3.3	468	0	2	0.1	2	0	0.023
8/2/2019 9:20	29.85	72	72	72	71	62	65	2	SE	0.2	4	SE	72	73	73	83	0	0	473	3.39	476	0	2	0.1	2	0	0.024
8/2/2019 9:25	29.85	73	73	72	69	62	65	2	SE	0.2	4	SE	73	73	73	83	0	0	487	3.49	492	0	3	0.1	3	0	0.027
8/2/2019 9:30	29.85	73	73	73	68	62	65	2	SSE	0.2	5	SSE	73	74	74	84	0	0	500	3.59	503	0	3	0.1	3	0	0.028
8/2/2019 9:35	29.85	73	73	73	68	62	65	3	SE	0.2	7	SSE	73	74	74	84	0	0	512	3.67	517	0	3	0.1	3	0	0.027
8/2/2019 9:40	29.85	73	73	73	66	61	64	3	SE	0.2	6	SSE	73	74	74	84	0	0	524	3.76	529	0	3	0.1	3	0	0.028
8/2/2019 9:45	29.85	73	73	73	64	60	63	4	SSE	0.3	6	SSE	73	73	73	83	0	0	539	3.86	545	0	3	0.1	3	0	0.026
8/2/2019 9:50	29.85	73	73	73	65	60	64	2	SE	0.2	5	SSE	73	73	73	84	0	0	553	3.97	557	0	3	0.1	3	0	0.027

8/2/2019 9:55	29.85	74	74	73	65	61	64	3	ESE	0.2	7	SE	74	74	74	85	0	0	564	4.04	568	0	3	0.1	3	0	0.03
8/2/2019 10:00	29.85	74	74	74	65	61	65	2	SSE	0.2	5	SSE	74	75	75	85	0	0	575	4.12	580	0.01	3	0.1	3	0	0.031
8/2/2019 10:05	29.84	74	74	74	62	61	64	3	SSE	0.2	5	SE	74	75	75	86	0	0	586	4.2	592	0	3	0.1	3	0	0.033
8/2/2019 10:10	29.84	75	75	74	64	62	65	3	SSE	0.2	5	SE	75	75	75	86	0	0	600	4.3	603	0	4	0.1	4	0	0.033
8/2/2019 10:15	29.84	75	75	75	64	62	65	2	S	0.2	5	S	75	76	76	86	0	0	609	4.37	612	0	4	0.1	4	0	0.034
8/2/2019 10:20	29.84	75	75	75	63	62	65	3	SSE	0.2	6	S	75	76	76	87	0	0	621	4.45	626	0	4	0.1	4	0	0.036
8/2/2019 10:25	29.84	75	75	75	63	62	65	3	S	0.2	4	S	75	76	76	87	0	0	633	4.54	636	0	4	0.1	4	0	0.036
8/2/2019 10:30	29.84	76	76	75	63	62	66	1	SSE	0.1	5	SSE	76	77	77	88	0	0	644	4.62	649	0	4	0.1	4	0	0.038
8/2/2019 10:35	29.84	77	77	76	60	62	66	1	SE	0.1	3	SE	77	77	77	88	0	0	652	4.68	656	0	4	0.1	4	0	0.041
8/2/2019 10:40	29.84	78	78	77	57	62	66	2	SSE	0.2	3	NE	78	79	79	90	0	0	659	4.73	675	0	4	0.1	4	0	0.047
8/2/2019 10:45	29.84	78	79	78	56	61	65	3	S	0.2	6	SW	78	79	79	90	0	0	681	4.88	686	0	4	0.2	4	0	0.047
8/2/2019 10:50	29.84	79	79	78	55	61	66	2	E	0.2	6	E	79	80	80	91	0	0	691	4.95	693	0	4	0.2	4	0	0.049
8/2/2019 10:55	29.84	80	80	79	55	62	66	1	E	0.1	4	E	80	80	80	92	0	0	694	4.98	698	0	4	0.2	4	0	0.051
8/2/2019 11:00	29.83	80	80	80	52	61	65	2	SSE	0.2	5	SSE	80	81	81	92	0	0	709	5.08	714	0.02	5	0.2	5	0	0.052
8/2/2019 11:05	29.83	80	80	80	54	62	66	4	ESE	0.3	8	SE	80	80	80	92	0	0	718	5.15	722	0	5	0.2	5	0	0.051
8/2/2019 11:10	29.83	80	80	80	52	61	65	3	E	0.2	8	ESE	80	80	80	92	0	0	725	5.2	728	0	5	0.2	5	0	0.052
8/2/2019 11:15	29.83	80	80	80	52	61	66	1	ESE	0.1	4	SSE	80	81	81	92	0	0	731	5.24	738	0	5	0.2	5	0	0.054
8/2/2019 11:20	29.84	80	80	80	51	61	65	3	SSW	0.2	8	SE	80	81	81	92	0	0	743	5.33	747	0	5	0.2	5	0	0.054
8/2/2019 11:25	29.83	80	80	80	48	58	63	5	SSE	0.4	10	SSE	80	79	79	91	0	0	753	5.4	756	0	5	0.2	5	0	0.051
8/2/2019 11:30	29.83	79	80	79	48	58	63	4	SE	0.3	8	SE	79	79	79	90	0	0	759	5.44	763	0	5	0.2	5	0	0.05
8/2/2019 11:35	29.83	80	80	79	47	58	63	5	ESE	0.4	10	ESE	80	80	80	91	0	0	765	5.49	768	0	5	0.2	5	0	0.051
8/2/2019 11:40	29.83	80	80	80	50	60	65	3	SSE	0.2	8	SSE	80	81	81	92	0	0	774	5.55	777	0	5	0.2	5	0	0.053
8/2/2019 11:45	29.83	80	80	80	46	58	63	3	S	0.2	7	S	80	80	80	91	0	0	781	5.6	786	0	5	0.2	6	0	0.054
8/2/2019 11:50	29.83	81	81	80	44	57	63	3	ENE	0.2	9	SE	81	81	81	92	0	0	789	5.66	791	0	6	0.2	6	0	0.057
8/2/2019 11:55	29.83	81	82	81	45	58	63	5	SSE	0.4	8	SE	81	80	80	92	0	0	797	5.71	800	0	6	0.2	6	0	0.055
8/2/2019 12:00	29.83	81	81	80	45	57	63	3	S	0.2	7	ESE	81	80	80	92	0	0	801	5.74	802	0.02	6	0.2	6	0	0.055
8/2/2019 12:05	29.83	81	81	81	43	56	62	5	ENE	0.4	9	E	81	80	80	92	0	0	805	5.77	807	0	6	0.2	6	0	0.056
8/2/2019 12:10	29.83	82	82	81	43	57	62	4	ENE	0.3	9	E	82	81	81	92	0	0	808	5.79	810	0	6	0.2	6	0	0.058
8/2/2019 12:15	29.82	83	83	82	43	58	63	3	ESE	0.2	8	E	83	82	82	93	0	0	811	5.82	814	0	6	0.2	6	0	0.061
8/2/2019 12:20	29.82	84	84	83	40	57	63	3	E	0.2	9	E	84	83	83	94	0	0	817	5.86	819	0	6	0.2	6	0	0.065
8/2/2019 12:25	29.82	83	84	83	39	55	61	6	NE	0.5	11	NE	83	81	81	93	0	0	823	5.9	826	0	6	0.2	6	0	0.061
8/2/2019 12:30	29.82	81	82	81	41	55	61	7	NE	0.6	11	ENE	81	80	80	91	0	0	826	5.92	828	0	6	0.2	6	0	0.055
8/2/2019 12:35	29.81	80	81	80	41	54	60	6	NNE	0.5	11	NE	80	79	79	91	0	0	827	5.93	828	0	6	0.2	6	0	0.053
8/2/2019 12:40	29.81	80	80	80	46	57	63	6	NE	0.5	11	NNE	80	79	79	91	0	0	830	5.95	833	0	6	0.2	6	0	0.052
8/2/2019 12:45	29.81	80	80	80	44	56	62	5	NNE	0.4	10	ENE	80	79	79	91	0	0	833	5.97	835	0	6	0.2	6	0	0.052
8/2/2019 12:50	29.81	80	80	80	47	58	64	4	NE	0.3	11	ENE	80	80	80	92	0	0	836	5.99	838	0	6	0.2	6	0	0.054
8/2/2019 12:55	29.81	80	80	80	47	58	63	5	NE	0.4	9	NE	80	80	80	92	0	0	838	6.01	840	0	6	0.2	6	0	0.053
8/2/2019 13:00	29.81	81	81	80	47	59	64	3	N	0.2	10	N	81	80	80	92	0	0	840	6.02	842	0.02	6	0.2	6	0	0.054
8/2/2019 13:05	29.81	82	82	81	47	60	65	2	NE	0.2	4	NNW	82	82	82	94	0	0	841	6.03	844	0	6	0.2	6	0	0.06
8/2/2019 13:10	29.81	83	83	82	46	60	65	5	ENE	0.4	9	ENE	83	83	83	94	0	0	838	6.01	840	0	6	0.2	6	0	0.062

8/2/2019 13:15	29.8	83	83	83	46	60	65	5	ENE	0.4	11	NE	83	83	83	95	0	0	837	6	840	0	6	0.2	6	0	0.062
8/2/2019 13:20	29.8	82	83	82	45	59	64	7	N	0.6	11	NE	82	82	82	93	0	0	842	6.04	844	0	6	0.2	6	0	0.059
8/2/2019 13:25	29.8	81	82	81	46	59	64	7	N	0.6	11	N	81	81	81	92	0	0	843	6.04	844	0	6	0.2	6	0	0.057
8/2/2019 13:30	29.8	81	81	81	46	58	63	8	N	0.7	13	N	80	80	80	90	0	0	844	6.05	846	0	6	0.2	6	0	0.055
8/2/2019 13:35	29.8	81	81	80	47	59	64	7	N	0.6	13	N	81	80	80	92	0	0	843	6.04	844	0	6	0.2	6	0	0.055
8/2/2019 13:40	29.8	81	81	81	46	58	63	6	NNE	0.5	11	NNE	81	80	80	92	0	0	840	6.02	842	0	6	0.2	6	0	0.054
8/2/2019 13:45	29.8	81	81	81	45	58	63	4	NNE	0.3	8	NNE	81	80	80	92	0	0	835	5.99	837	0	6	0.2	6	0	0.056
8/2/2019 13:50	29.8	82	82	81	46	59	64	3	WNW	0.2	6	WNW	82	82	82	93	0	0	835	5.99	837	0	6	0.2	6	0	0.059
8/2/2019 13:55	29.79	83	83	82	44	59	64	5	ESE	0.4	10	E	83	83	83	94	0	0	831	5.96	833	0	6	0.2	6	0	0.063
8/2/2019 14:00	29.79	84	84	83	43	59	64	4	NE	0.3	7	E	84	83	83	95	0	0	828	5.94	831	0.02	6	0.2	6	0	0.065
8/2/2019 14:05	29.79	84	84	84	42	59	64	4	NNE	0.3	9	NNW	84	84	84	96	0	0	826	5.92	830	0	6	0.2	6	0	0.068
8/2/2019 14:10	29.79	84	85	84	41	58	63	5	NNE	0.4	11	NE	84	83	83	95	0	0	823	5.9	824	0	6	0.2	6	0	0.066
8/2/2019 14:15	29.79	83	84	83	42	57	63	6	NE	0.5	10	NE	83	82	82	94	0	0	819	5.87	824	0	6	0.2	6	0	0.062
8/2/2019 14:20	29.79	83	83	83	42	57	63	5	NNW	0.4	10	N	83	82	82	94	0	0	812	5.82	814	0	6	0.2	6	0	0.062
8/2/2019 14:25	29.79	82	83	82	43	57	63	7	NNW	0.6	11	NNW	82	81	81	92	0	0	804	5.76	805	0	6	0.2	6	0	0.059
8/2/2019 14:30	29.79	82	82	82	44	58	63	5	NE	0.4	12	ENE	82	81	81	93	0	0	799	5.73	800	0	6	0.2	6	0	0.058
8/2/2019 14:35	29.78	83	83	82	43	58	64	4	NE	0.3	8	ENE	83	82	82	94	0	0	793	5.69	796	0	6	0.2	6	0	0.062
8/2/2019 14:40	29.78	83	83	83	43	58	64	4	NE	0.3	9	NE	83	83	83	94	0	0	790	5.66	793	0	5	0.2	6	0	0.063
8/2/2019 14:45	29.78	84	84	83	42	58	64	5	ESE	0.4	9	E	84	83	83	94	0	0	787	5.64	789	0	5	0.2	5	0	0.064
8/2/2019 14:50	29.78	84	84	84	42	59	64	4	ESE	0.3	9	ESE	84	84	84	95	0	0	783	5.61	786	0	5	0.2	5	0	0.066
8/2/2019 14:55	29.78	84	84	84	42	58	64	4	NE	0.3	10	NE	84	83	83	94	0	0	779	5.59	780	0	5	0.2	5	0	0.064
8/2/2019 15:00	29.77	83	83	83	43	58	63	4	NNE	0.3	8	NNE	83	82	82	93	0	0	773	5.54	777	0.02	5	0.2	5	0	0.061
8/2/2019 15:05	29.78	83	83	83	42	57	63	5	NE	0.4	9	NE	83	82	82	93	0	0	766	5.49	770	0	5	0.2	5	0	0.062
8/2/2019 15:10	29.78	84	84	83	42	58	64	4	ESE	0.3	8	NNE	84	83	83	94	0	0	758	5.44	761	0	5	0.2	5	0	0.065
8/2/2019 15:15	29.78	84	84	84	42	59	64	5	ENE	0.4	9	NE	84	84	84	95	0	0	751	5.38	756	0	5	0.2	5	0	0.068
8/2/2019 15:20	29.77	84	84	84	42	58	64	4	ENE	0.3	10	NE	84	84	84	95	0	0	743	5.33	745	0	5	0.2	5	0	0.066
8/2/2019 15:25	29.77	84	84	84	43	59	64	7	NE	0.6	12	NNE	84	83	83	94	0	0	734	5.26	738	0	5	0.2	5	0	0.065
8/2/2019 15:30	29.77	83	84	83	43	58	64	8	NNE	0.7	11	NNE	82	83	82	92	0	0	719	5.16	721	0	5	0.2	5	0	0.063
8/2/2019 15:35	29.77	82	83	82	43	58	63	8	N	0.7	11	N	82	82	81	91	0	0	712	5.11	717	0	4	0.2	5	0	0.06
8/2/2019 15:40	29.77	82	82	82	43	58	63	5	NNE	0.4	8	NNE	82	82	82	93	0	0	705	5.06	707	0	4	0.2	4	0	0.06
8/2/2019 15:45	29.77	83	83	82	43	58	63	4	NE	0.3	9	NE	83	82	82	93	0	0	697	5	701	0	4	0.2	4	0	0.062
8/2/2019 15:50	29.76	83	83	83	43	58	64	6	NE	0.5	13	NE	83	82	82	93	0	0	688	4.93	693	0	4	0.2	4	0	0.062
8/2/2019 15:55	29.76	83	83	83	45	59	64	7	NNE	0.6	10	NNE	83	83	83	93	0	0	680	4.88	684	0	4	0.1	4	0	0.062
8/2/2019 16:00	29.76	83	83	83	43	58	64	7	NNE	0.6	11	N	83	82	82	93	0	0	666	4.78	673	0.02	4	0.1	4	0	0.062
8/2/2019 16:05	29.76	83	83	83	44	59	64	6	NNE	0.5	12	N	83	83	83	94	0	0	651	4.67	656	0	4	0.1	4	0	0.063
8/2/2019 16:10	29.76	83	83	83	44	59	64	7	NE	0.6	12	NNE	83	83	83	93	0	0	648	4.65	650	0	4	0.1	4	0	0.062
8/2/2019 16:15	29.76	83	83	83	43	58	64	6	ENE	0.5	11	ENE	83	82	82	93	0	0	637	4.57	640	0	4	0.1	4	0	0.062
8/2/2019 16:20	29.76	83	83	83	43	58	64	7	ENE	0.6	12	ENE	83	82	82	93	0	0	625	4.48	631	0	4	0.1	4	0	0.062
8/2/2019 16:25	29.76	83	83	83	43	58	64	6	NNE	0.5	11	N	83	83	83	94	0	0	614	4.4	617	0	4	0.1	4	0	0.063
8/2/2019 16:30	29.75	83	83	83	44	59	64	7	NNE	0.6	11	NNE	83	83	83	93	0	0	604	4.33	608	0	3	0.1	3	0	0.062

8/2/2019 16:35	29.75	83	83	83	44	59	64	6	NNE	0.5	11	NNE	83	83	83	93	0	0	591	4.24	598	0	3	0.1	3	0	0.062
8/2/2019 16:40	29.75	83	83	83	43	58	64	7	NNE	0.6	10	N	83	83	83	93	0	0	576	4.13	582	0	3	0.1	3	0	0.064
8/2/2019 16:45	29.75	83	83	83	43	58	63	7	NE	0.6	10	NE	83	82	82	92	0	0	568	4.07	571	0	3	0.1	3	0	0.061
8/2/2019 16:50	29.75	82	82	82	44	58	64	5	NNE	0.4	11	NNE	82	82	82	93	0	0	555	3.98	563	0	3	0.1	3	0	0.06
8/2/2019 16:55	29.75	82	82	82	44	58	64	7	NE	0.6	12	N	82	82	82	92	0	0	542	3.89	547	0	3	0.1	3	0	0.06
8/2/2019 17:00	29.75	82	82	82	44	58	64	7	NE	0.6	11	NNE	82	82	82	92	0	0	530	3.8	536	0.02	3	0.1	3	0	0.06
8/2/2019 17:05	29.74	82	82	82	44	58	64	6	NE	0.5	9	NNE	82	82	82	92	0	0	511	3.66	519	0	2	0.1	3	0	0.06
8/2/2019 17:10	29.75	83	83	82	44	58	64	6	NE	0.5	11	NE	83	82	82	93	0	0	498	3.57	503	0	2	0.1	2	0	0.061
8/2/2019 17:15	29.75	83	83	83	44	59	64	7	ENE	0.6	12	ENE	83	83	83	93	0	0	487	3.49	490	0	2	0.1	2	0	0.062
8/2/2019 17:20	29.74	83	83	83	44	59	64	8	ENE	0.7	10	ENE	82	83	82	92	0	0	482	3.46	482	0	2	0.1	2	0	0.062
8/2/2019 17:25	29.74	82	83	82	45	59	64	7	NE	0.6	10	NE	82	82	82	92	0	0	461	3.31	464	0	2	0.1	2	0	0.06
8/2/2019 17:30	29.74	82	82	82	45	59	64	8	NE	0.7	12	NNE	81	82	81	91	0	0	450	3.23	455	0	2	0.1	2	0	0.059
8/2/2019 17:35	29.75	82	82	82	45	59	64	7	NE	0.6	12	ENE	82	82	82	91	0	0	431	3.09	443	0	2	0.1	2	0	0.059
8/2/2019 17:40	29.75	82	82	82	45	58	64	7	NE	0.6	11	NE	82	82	82	91	0	0	412	2.95	420	0	2	0.1	2	0	0.059
8/2/2019 17:45	29.75	82	82	82	45	58	64	6	NE	0.5	11	NNE	82	82	82	91	0	0	401	2.88	420	0	2	0.1	2	0	0.059
8/2/2019 17:50	29.74	82	82	82	45	59	64	7	NNE	0.6	11	NE	82	82	82	91	0	0	400	2.87	411	0	2	0.1	2	0	0.059
8/2/2019 17:55	29.75	82	82	82	44	58	63	6	NE	0.5	9	ENE	82	82	82	91	0	0	395	2.83	397	0	2	0.1	2	0	0.059
8/2/2019 18:00	29.74	82	82	82	45	59	64	4	NE	0.3	7	NE	82	82	82	91	0	0	379	2.72	387	0.01	2	0.1	2	0	0.06
8/2/2019 18:05	29.74	82	82	82	45	59	64	5	NE	0.4	12	NE	82	82	82	91	0	0	357	2.56	367	0	2	0.1	2	0	0.06
8/2/2019 18:10	29.75	82	82	82	45	59	64	6	NE	0.5	12	NE	82	82	82	90	0	0	321	2.3	339	0	1	0.1	2	0	0.059
8/2/2019 18:15	29.75	82	82	82	45	58	64	6	NE	0.5	9	NE	82	82	82	90	0	0	325	2.33	336	0	1	0	1	0	0.059
8/2/2019 18:20	29.74	82	82	82	45	58	64	7	NNE	0.6	10	NNE	82	82	82	90	0	0	301	2.16	311	0	1	0	1	0	0.059
8/2/2019 18:25	29.74	82	82	82	47	60	65	7	NE	0.6	11	NE	82	82	82	90	0	0	305	2.19	309	0	1	0	1	0	0.059
8/2/2019 18:30	29.74	82	82	82	46	59	64	6	NE	0.5	10	NE	82	82	82	90	0	0	299	2.14	306	0	1	0	1	0	0.059
8/2/2019 18:35	29.74	81	82	81	46	59	64	8	NE	0.7	11	NNE	81	81	80	88	0	0	286	2.05	295	0	1	0	1	0	0.057
8/2/2019 18:40	29.74	81	81	81	48	60	65	6	NE	0.5	10	NE	81	81	81	89	0	0	269	1.93	274	0	1	0	1	0	0.057
8/2/2019 18:45	29.74	81	81	81	47	59	64	6	NE	0.5	11	NE	81	81	81	88	0	0	259	1.86	262	0	1	0	1	0	0.056
8/2/2019 18:50	29.74	81	81	81	49	60	65	6	NE	0.5	9	ENE	81	81	81	88	0	0	246	1.76	253	0	1	0	1	0	0.056
8/2/2019 18:55	29.73	81	81	81	48	59	64	7	NE	0.6	11	NE	81	81	81	87	0	0	227	1.63	234	0	1	0	1	0	0.056
8/2/2019 19:00	29.73	81	81	81	48	59	64	8	NE	0.7	12	NE	80	81	80	85	0	0	209	1.5	216	0.01	1	0	1	0	0.055
8/2/2019 19:05	29.73	81	81	81	47	59	64	8	NE	0.7	12	NE	80	80	80	85	0	0	190	1.36	199	0	1	0	1	0	0.055
8/2/2019 19:10	29.73	80	81	80	48	59	64	8	NE	0.7	11	NE	80	80	80	84	0	0	171	1.23	179	0	1	0	1	0	0.054
8/2/2019 19:15	29.73	80	80	80	48	59	64	8	NE	0.7	12	ENE	79	80	79	83	0	0	152	1.09	160	0	0	0	1	0	0.053
8/2/2019 19:20	29.74	80	80	80	49	59	64	6	NE	0.5	9	NE	80	80	80	84	0	0	138	0.99	142	0	0	0	0	0	0.052
8/2/2019 19:25	29.74	80	80	80	49	59	64	5	NE	0.4	10	NE	80	80	80	83	0	0	126	0.9	130	0	0	0	0	0	0.052
8/2/2019 19:30	29.74	80	80	80	49	59	64	5	NE	0.4	9	NE	80	80	80	82	0	0	114	0.82	121	0	0	0	0	0	0.052
8/2/2019 19:35	29.73	80	80	80	50	59	64	5	NE	0.4	9	NE	80	80	80	79	0	0	103	0.74	105	0	0	0	0	0	0.051
8/2/2019 19:40	29.73	80	80	80	49	59	64	6	NE	0.5	9	ENE	80	79	79	79	0	0	92	0.66	98	0	0	0	0	0	0.05
8/2/2019 19:45	29.73	79	80	79	50	59	64	6	NE	0.5	9	NE	79	79	79	78	0	0	77	0.55	84	0	0	0	0	0	0.05
8/2/2019 19:50	29.73	79	79	79	50	59	64	7	NE	0.6	9	NNE	79	79	79	78	0	0	63	0.45	69	0	0	0	0	0	0.049

8/2/2019 19:55	29.73	79	79	79	51	59	64	6	NE	0.5	10	NE	79	79	79	77	0	0	52	0.37	56	0	0	0	0	0	0.048
8/2/2019 20:00	29.74	79	79	79	51	59	64	5	NE	0.4	8	NNE	79	79	79	77	0	0	43	0.31	47	0.01	0	0	0	0	0.048
8/2/2019 20:05	29.74	78	79	78	51	59	63	5	NE	0.4	9	NE	78	78	78	76	0	0	34	0.24	37	0	0	0	0	0	0.047
8/2/2019 20:10	29.73	78	78	78	52	59	64	4	NE	0.3	8	NNE	78	78	78	76	0	0	27	0.19	30	0	0	0	0	0	0.046
8/2/2019 20:15	29.74	78	78	78	52	59	64	5	NE	0.4	7	NE	78	78	78	76	0	0	21	0.15	25	0	0	0	0	0	0.045
8/2/2019 20:20	29.74	78	78	78	52	59	63	5	NE	0.4	9	NE	78	78	78	75	0	0	16	0.11	18	0	0	0	0	0	0.044
8/2/2019 20:25	29.74	78	78	78	53	59	64	5	NE	0.4	7	NE	78	78	78	75	0	0	11	0.08	12	0	0	0	0	0	0.044
8/2/2019 20:30	29.74	77	78	77	53	59	63	4	NE	0.3	6	NNE	77	78	78	75	0	0	7	0.05	9	0	0	0	0	0	0.043
8/2/2019 20:35	29.74	77	77	77	53	59	63	2	NE	0.2	4	NE	77	77	77	75	0	0	4	0.03	5	0	0	0	0	0	0.043
8/2/2019 20:40	29.74	77	77	77	54	59	64	1	NE	0.1	2	NE	77	77	77	75	0	0	0	0	0	0	0	0	0	0	0.042
8/2/2019 20:45	29.74	77	77	77	54	59	64	2	NE	0.2	5	NE	77	77	77	75	0	0	0	0	0	0	0	0	0	0	0.042
8/2/2019 20:50	29.74	77	77	77	54	59	64	3	NE	0.2	6	NNE	77	77	77	74	0	0	0	0	0	0	0	0	0	0	0.042
8/2/2019 20:55	29.74	77	77	77	54	59	63	1	NE	0.1	2	NE	77	77	77	74	0	0	0	0	0	0	0	0	0	0	0.041
8/2/2019 21:00	29.74	77	77	77	54	59	63	1	NE	0.1	4	NE	77	77	77	74	0	0	0	0	0	0	0	0	0	0	0.041
8/2/2019 21:05	29.74	77	77	77	54	59	63	2	NE	0.2	3	NE	77	77	77	74	0	0	0	0	0	0	0	0	0	0	0.041
8/2/2019 21:10	29.74	77	77	77	55	59	64	2	NE	0.2	3	NE	77	77	77	74	0	0	0	0	0	0	0	0	0	0	0.04
8/2/2019 21:15	29.74	76	77	76	55	59	63	2	NE	0.2	4	NE	76	77	77	74	0	0	0	0	0	0	0	0	0	0	0.04
8/2/2019 21:20	29.74	76	76	76	55	59	63	2	NE	0.2	4	NE	76	76	76	74	0	0	0	0	0	0	0	0	0	0	0.039
8/2/2019 21:25	29.74	76	76	76	54	58	63	3	NE	0.2	5	NNE	76	76	76	73	0	0	0	0	0	0	0	0	0	0	0.039
8/2/2019 21:30	29.75	76	76	76	53	58	62	3	NNE	0.2	5	NNE	76	76	76	73	0	0	0	0	0	0	0	0	0	0	0.039
8/2/2019 21:35	29.75	76	76	76	54	58	63	3	NNE	0.2	4	NNE	76	76	76	73	0	0	0	0	0	0	0	0	0	0	0.038
8/2/2019 21:40	29.75	76	76	76	55	58	63	2	NE	0.2	4	NE	76	76	76	73	0	0	0	0	0	0	0	0	0	0	0.038
8/2/2019 21:45	29.75	76	76	76	55	58	63	2	NE	0.2	4	NE	76	76	76	73	0	0	0	0	0	0	0	0	0	0	0.036
8/2/2019 21:50	29.75	75	76	75	55	58	62	2	NE	0.2	3	NE	75	76	76	73	0	0	0	0	0	0	0	0	0	0	0.036
8/2/2019 21:55	29.75	75	75	75	55	58	62	2	NE	0.2	3	NE	75	75	75	73	0	0	0	0	0	0	0	0	0	0	0.035
8/2/2019 22:00	29.75	75	75	75	55	58	62	2	NE	0.2	3	NE	75	75	75	73	0	0	0	0	0	0	0	0	0	0	0.035
8/2/2019 22:05	29.75	75	75	75	55	58	62	2	NE	0.2	3	NE	75	75	75	72	0	0	0	0	0	0	0	0	0	0	0.035
8/2/2019 22:10	29.75	75	75	75	56	58	63	2	NE	0.2	3	NE	75	75	75	72	0	0	0	0	0	0	0	0	0	0	0.035
8/2/2019 22:15	29.75	75	75	75	57	59	63	1	NE	0.1	3	NE	75	75	75	72	0	0	0	0	0	0	0	0	0	0	0.034
8/2/2019 22:20	29.75	75	75	75	61	60	64	0		0	1	NE	75	75	75	73	0	0	0	0	0	0	0	0	0	0	0.034
8/2/2019 22:25	29.75	75	75	75	64	62	65	0		0	0		75	75	75	73	0	0	0	0	0	0	0	0	0	0	0.033
8/2/2019 22:30	29.75	74	75	74	65	62	65	0		0	1	NE	74	75	75	72	0	0	0	0	0	0	0	0	0	0	0.032
8/2/2019 22:35	29.75	74	74	74	65	61	65	0		0	0		74	75	75	72	0	0	0	0	0	0	0	0	0	0	0.031
8/2/2019 22:40	29.75	73	74	73	62	59	63	1	NE	0.1	3	NE	73	74	74	71	0	0	0	0	0	0	0	0	0	0	0.028
8/2/2019 22:45	29.75	73	73	73	60	58	62	3	NE	0.2	4	NE	73	73	73	71	0	0	0	0	0	0	0	0	0	0	0.028
8/2/2019 22:50	29.75	73	73	73	59	58	62	2	NE	0.2	4	NE	73	74	74	71	0	0	0	0	0	0	0	0	0	0	0.029
8/2/2019 22:55	29.75	74	74	73	60	59	63	2	NE	0.2	4	NE	74	74	74	71	0	0	0	0	0	0	0	0	0	0	0.03
8/2/2019 23:00	29.74	74	74	74	61	59	63	1	NE	0.1	3	NE	74	74	74	71	0	0	0	0	0	0	0	0	0	0	0.03
8/2/2019 23:05	29.74	74	74	74	60	59	63	2	NE	0.2	3	NE	74	74	74	71	0	0	0	0	0	0	0	0	0	0	0.03
8/2/2019 23:10	29.74	74	74	74	64	61	64	0		0	2	NE	74	74	74	71	0	0	0	0	0	0	0	0	0	0	0.03

8/2/2019 23:15	29.74	73	74	73	66	61	65	0		0	2	NE	73	74	74	72	0	0	0	0	0	0	0	0	0	0	0.029
8/2/2019 23:20	29.74	73	73	73	69	62	65	2	W	0.2	3	W	73	74	74	71	0	0	0	0	0	0	0	0	0	0	0.028
8/2/2019 23:25	29.74	72	73	72	69	62	65	0		0	3	W	72	73	73	71	0	0	0	0	0	0	0	0	0	0	0.026
8/2/2019 23:30	29.74	72	72	72	70	62	65	0		0	1	W	72	73	73	70	0	0	0	0	0	0	0	0	0	0	0.025
8/2/2019 23:35	29.74	72	72	72	70	62	64	0		0	1	W	72	72	72	70	0	0	0	0	0	0	0	0	0	0	0.024
8/2/2019 23:40	29.74	72	72	72	72	62	65	1	W	0.1	4	W	72	72	72	70	0	0	0	0	0	0	0	0	0	0	0.023
8/2/2019 23:45	29.74	71	72	71	72	62	64	3	W	0.2	6	W	71	72	72	69	0	0	0	0	0	0	0	0	0	0	0.021
8/2/2019 23:50	29.74	71	71	71	73	62	64	1	W	0.1	3	W	71	71	71	69	0	0	0	0	0	0	0	0	0	0	0.019
8/2/2019 23:55	29.74	70	71	70	74	62	64	0		0	1	W	70	71	71	69	0	0	0	0	0	0	0	0	0	0	0.019
8/3/2019 0:00	29.74	70	70	70	75	62	64	0		0	2	W	70	71	71	68	0	0	0	0	0	0	0	0	0	0	0.018
8/3/2019 0:05	29.74	70	70	70	77	62	65	0		0	1	W	70	71	71	68	0	0	0	0	0	0	0	0	0	0	0.017
8/3/2019 0:10	29.74	70	70	70	78	63	65	1	WSW	0.1	3	WSW	70	71	71	68	0	0	0	0	0	0	0	0	0	0	0.017
8/3/2019 0:15	29.74	70	70	70	78	62	65	0		0	2	WSW	70	71	71	68	0	0	0	0	0	0	0	0	0	0	0.016
8/3/2019 0:20	29.74	70	70	70	76	62	64	0		0	2	SW	70	70	70	68	0	0	0	0	0	0	0	0	0	0	0.016
8/3/2019 0:25	29.73	70	70	70	76	62	64	1	SSW	0.1	2	SSW	70	71	71	68	0	0	0	0	0	0	0	0	0	0	0.016
8/3/2019 0:30	29.73	70	70	70	76	62	64	1	SSW	0.1	2	SSW	70	71	71	68	0	0	0	0	0	0	0	0	0	0	0.017
8/3/2019 0:35	29.74	70	70	70	76	62	64	2	SSW	0.2	3	SSW	70	71	71	68	0	0	0	0	0	0	0	0	0	0	0.017
8/3/2019 0:40	29.73	70	70	70	77	62	65	0		0	2	SSW	70	71	71	68	0	0	0	0	0	0	0	0	0	0	0.017
8/3/2019 0:45	29.73	70	70	70	77	62	65	0		0	1	SSW	70	71	71	68	0	0	0	0	0	0	0	0	0	0	0.017
8/3/2019 0:50	29.73	70	70	70	77	62	65	0		0	1	SSW	70	71	71	68	0	0	0	0	0	0	0	0	0	0	0.017
8/3/2019 0:55	29.73	70	70	70	78	63	65	0		0	0		70	71	71	68	0	0	0	0	0	0	0	0	0	0	0.017
8/3/2019 1:00	29.73	70	70	70	78	63	65	0		0	3	SSW	70	71	71	68	0	0	0	0	0	0	0	0	0	0	0.017
8/3/2019 1:05	29.73	70	70	70	79	63	65	3	SW	0.2	4	SW	70	71	71	68	0	0	0	0	0	0	0	0	0	0	0.016
8/3/2019 1:10	29.73	69	70	69	80	63	65	1	SW	0.1	3	S	69	71	71	68	0	0	0	0	0	0	0	0	0	0	0.015
8/3/2019 1:15	29.73	69	69	69	81	63	65	1	SSW	0.1	2	SSW	69	70	70	68	0	0	0	0	0	0	0	0	0	0	0.014
8/3/2019 1:20	29.73	69	69	69	81	63	65	1	SSW	0.1	2	SSW	69	70	70	68	0	0	0	0	0	0	0	0	0	0	0.014
8/3/2019 1:25	29.73	69	69	69	82	63	65	0		0	2	SSW	69	71	71	68	0	0	0	0	0	0	0	0	0	0	0.014
8/3/2019 1:30	29.73	69	69	69	83	64	65	1	S	0.1	3	SSW	69	71	71	68	0	0	0	0	0	0	0	0	0	0	0.015
8/3/2019 1:35	29.73	69	69	69	82	64	65	1	S	0.1	2	S	69	71	71	68	0	0	0	0	0	0	0	0	0	0	0.015
8/3/2019 1:40	29.73	69	69	69	82	64	65	1	S	0.1	2	S	69	71	71	68	0	0	0	0	0	0	0	0	0	0	0.015
8/3/2019 1:45	29.72	70	70	69	81	64	65	1	S	0.1	2	S	70	71	71	69	0	0	0	0	0	0	0	0	0	0	0.016
8/3/2019 1:50	29.73	70	70	70	80	63	65	1	S	0.1	3	S	70	71	71	69	0	0	0	0	0	0	0	0	0	0	0.017
8/3/2019 1:55	29.72	70	70	70	80	64	66	1	S	0.1	2	S	70	72	72	69	0	0	0	0	0	0	0	0	0	0	0.018
8/3/2019 2:00	29.72	70	70	70	81	64	66	0		0	2	S	70	72	72	69	0	0	0	0	0	0	0	0	0	0	0.018
8/3/2019 2:05	29.72	70	70	70	81	64	66	2	SSE	0.2	4	SSE	70	72	72	70	0	0	0	0	0	0	0	0	0	0	0.019
8/3/2019 2:10	29.72	70	70	70	81	64	66	2	SE	0.2	4	SE	70	72	72	70	0	0	0	0	0	0	0	0	0	0	0.019
8/3/2019 2:15	29.72	70	71	70	82	65	66	4	SE	0.3	7	SE	70	72	72	70	0	0	0	0	0	0	0	0	0	0	0.019
8/3/2019 2:20	29.72	70	70	70	82	64	66	2	SE	0.2	7	SE	70	72	72	69	0	0	0	0	0	0	0	0	0	0	0.018
8/3/2019 2:25	29.72	70	70	70	83	64	66	1	SSE	0.1	3	SSE	70	71	71	69	0	0	0	0	0	0	0	0	0	0	0.017
8/3/2019 2:30	29.72	70	70	70	84	65	66	2	SSE	0.2	4	SSE	70	71	71	69	0	0	0	0	0	0	0	0	0	0	0.016

8/3/2019 2:35	29.72	70	70	70	85	65	66	2	SSE	0.2	3	SSE	70	71	71	69	0	0	0	0	0	0	0	0	0	0.016
8/3/2019 2:40	29.72	70	70	70	85	65	66	3	SE	0.2	5	SSE	70	71	71	69	0	0	0	0	0	0	0	0	0	0.016
8/3/2019 2:45	29.71	70	70	70	86	65	66	3	SE	0.2	5	SE	70	71	71	69	0	0	0	0	0	0	0	0	0	0.016
8/3/2019 2:50	29.71	70	70	69	86	65	66	3	SSE	0.2	5	SSE	70	71	71	69	0	0	0	0	0	0	0	0	0	0.016
8/3/2019 2:55	29.71	69	70	69	87	65	66	3	SSE	0.2	5	SSE	69	71	71	69	0	0	0	0	0	0	0	0	0	0.015
8/3/2019 3:00	29.71	69	69	69	87	65	66	3	SSE	0.2	5	SSE	69	71	71	69	0	0	0	0	0	0	0	0	0	0.015
8/3/2019 3:05	29.71	69	69	69	88	66	67	3	SSE	0.2	4	SSE	69	71	71	69	0	0	0	0	0	0	0	0	0	0.015
8/3/2019 3:10	29.7	70	70	69	88	66	67	2	SSE	0.2	5	SSE	70	72	72	69	0	0	0	0	0	0	0	0	0	0.016
8/3/2019 3:15	29.7	70	70	70	88	66	67	1	SSE	0.1	4	SSE	70	72	72	69	0	0	0	0	0	0	0	0	0	0.016
8/3/2019 3:20	29.7	70	70	70	88	66	67	1	SSE	0.1	4	SSE	70	72	72	69	0	0	0	0	0	0	0	0	0	0.016
8/3/2019 3:25	29.7	70	70	70	88	66	67	0		0	0		70	72	72	69	0	0	0	0	0	0	0	0	0	0.016
8/3/2019 3:30	29.71	70	70	70	88	66	67	0		0	0		70	71	71	69	0	0	0	0	0	0	0	0	0	0.016
8/3/2019 3:35	29.71	69	70	69	88	66	67	0		0	2	SSE	69	71	71	69	0	0	0	0	0	0	0	0	0	0.015
8/3/2019 3:40	29.71	69	69	69	88	66	67	1	SSE	0.1	4	SSE	69	71	71	69	0	0	0	0	0	0	0	0	0	0.015
8/3/2019 3:45	29.71	69	69	69	88	66	67	1	SSE	0.1	2	SSE	69	71	71	69	0	0	0	0	0	0	0	0	0	0.015
8/3/2019 3:50	29.71	69	69	69	89	66	67	2	SSE	0.2	4	SSE	69	71	71	69	0	0	0	0	0	0	0	0	0	0.015
8/3/2019 3:55	29.71	69	69	69	89	66	67	2	SSE	0.2	5	SSE	69	71	71	69	0	0	0	0	0	0	0	0	0	0.015
8/3/2019 4:00	29.71	69	69	69	89	66	67	2	SSE	0.2	3	SSE	69	71	71	69	0	0	0	0	0	0	0	0	0	0.015
8/3/2019 4:05	29.7	69	69	69	90	66	67	3	SSE	0.2	6	SSE	69	71	71	69	0	0	0	0	0	0	0	0	0	0.015
8/3/2019 4:10	29.7	69	69	69	90	66	67	3	SSE	0.2	6	SE	69	71	71	69	0	0	0	0	0	0	0	0	0	0.014
8/3/2019 4:15	29.7	69	69	69	91	66	67	4	SSE	0.3	7	SE	69	71	71	69	0	0	0	0	0	0	0	0	0	0.014
8/3/2019 4:20	29.7	69	69	69	91	66	67	2	SSE	0.2	4	SSE	69	71	71	69	0	0	0	0	0	0	0	0	0	0.014
8/3/2019 4:25	29.7	69	69	69	91	66	67	2	SSE	0.2	4	SSE	69	71	71	69	0	0	0	0	0	0	0	0	0	0.014
8/3/2019 4:30	29.7	69	69	69	92	67	67	2	SSE	0.2	4	S	69	71	71	69	0	0	0	0	0	0	0	0	0	0.014
8/3/2019 4:35	29.7	69	69	69	92	67	67	3	SSE	0.2	6	SSE	69	71	71	69	0	0	0	0	0	0	0	0	0	0.015
8/3/2019 4:40	29.7	69	69	69	92	67	67	3	S	0.2	5	S	69	71	71	69	0	0	0	0	0	0	0	0	0	0.014
8/3/2019 4:45	29.7	69	69	69	92	67	67	3	SSE	0.2	6	SSE	69	71	71	69	0	0	0	0	0	0	0	0	0	0.014
8/3/2019 4:50	29.7	69	69	69	92	66	67	3	S	0.2	5	SSE	69	71	71	69	0	0	0	0	0	0	0	0	0	0.014
8/3/2019 4:55	29.7	69	69	69	93	67	67	3	S	0.2	6	S	69	71	71	69	0	0	0	0	0	0	0	0	0	0.014
8/3/2019 5:00	29.7	69	69	69	93	67	67	2	S	0.2	5	S	69	71	71	69	0	0	0	0	0	0	0	0	0	0.014
8/3/2019 5:05	29.7	69	69	69	93	67	67	2	S	0.2	4	S	69	71	71	69	0	0	0	0	0	0	0	0	0	0.014
8/3/2019 5:10	29.7	69	69	69	93	67	67	2	SSE	0.2	5	SSE	69	71	71	69	0	0	0	0	0	0	0	0	0	0.014
8/3/2019 5:15	29.7	69	69	69	93	67	68	2	SSE	0.2	4	SSE	69	71	71	69	0	0	0	0	0	0	0	0	0	0.014
8/3/2019 5:20	29.7	69	69	69	93	67	68	2	SSE	0.2	5	SSE	69	71	71	69	0	0	0	0	0	0	0	0	0	0.014
8/3/2019 5:25	29.7	69	69	69	93	67	67	2	S	0.2	5	S	69	71	71	69	0	0	0	0	0	0	0	0	0	0.013
8/3/2019 5:30	29.7	69	69	69	93	67	67	2	S	0.2	4	S	69	71	71	69	0	0	0	0	0	0	0	0	0	0.013
8/3/2019 5:35	29.7	69	69	69	93	67	67	2	S	0.2	5	S	69	71	71	69	0	0	0	0	0	0	0	0	0	0.013
8/3/2019 5:40	29.7	69	69	69	93	67	67	2	S	0.2	5	S	69	71	71	69	0	0	0	0	0	0	0	0	0	0.013
8/3/2019 5:45	29.7	69	69	69	93	67	67	2	SSE	0.2	4	S	69	71	71	69	0	0	0	0	0	0	0	0	0	0.014
8/3/2019 5:50	29.7	69	69	69	93	67	67	3	S	0.2	5	S	69	71	71	69	0	0	0	0	0	0	0	0	0	0.013

8/3/2019 5:55	29.71	69	69	69	93	67	67	3	NNW	0.2	9	NNW	69	71	71	69	0	0	0	0	0	0	0	0	0	0.013
8/3/2019 6:00	29.71	68	69	68	92	66	67	5	NNW	0.4	8	NW	68	71	71	68	0	0	0	0	0	0	0	0	0	0.012
8/3/2019 6:05	29.71	68	68	68	92	66	66	6	NNW	0.5	9	NNW	68	70	70	68	0	0	0	0	0	0	0	0	0	0.01
8/3/2019 6:10	29.71	68	68	68	92	65	66	4	NNW	0.3	6	NNW	68	70	70	67	0	0	5	0.04	7	0	0	0	0	0.009
8/3/2019 6:15	29.72	68	68	68	92	65	66	1	WNW	0.1	2	WNW	68	69	69	67	0	0	8	0.06	9	0	0	0	0	0.009
8/3/2019 6:20	29.72	67	68	67	92	65	66	3	NNW	0.2	4	WNW	67	69	69	67	0	0	11	0.08	12	0	0	0	0	0.008
8/3/2019 6:25	29.72	67	67	67	92	65	66	1	N	0.1	4	N	67	69	69	67	0	0	14	0.1	16	0	0	0	0	0.008
8/3/2019 6:30	29.72	67	67	67	92	65	66	1	N	0.1	3	N	67	69	69	67	0	0	18	0.13	19	0	0	0	0	0.008
8/3/2019 6:35	29.72	67	67	67	92	65	65	2	NNE	0.2	3	NNE	67	69	69	67	0	0	21	0.15	23	0	0	0	0	0.007
8/3/2019 6:40	29.72	67	67	67	92	65	65	1	N	0.1	3	N	67	69	69	68	0	0	26	0.19	28	0	0	0	0	0.007
8/3/2019 6:45	29.72	67	67	67	92	65	65	0		0	2	N	67	69	69	69	0	0	34	0.24	39	0	0	0	0	0.007
8/3/2019 6:50	29.72	67	67	67	92	65	65	0		0	2	N	67	69	69	69	0	0	41	0.29	51	0	0	0	0	0.007
8/3/2019 6:55	29.72	67	67	67	92	65	65	0		0	1	N	67	69	69	70	0	0	60	0.43	67	0	0	0	0	0.007
8/3/2019 7:00	29.72	67	67	67	92	65	66	0		0	2	N	67	69	69	71	0	0	70	0.5	72	0	0	0	0	0.008
8/3/2019 7:05	29.72	67	67	67	92	65	66	0		0	1	N	67	69	69	71	0	0	74	0.53	76	0	0	0	0	0.008
8/3/2019 7:10	29.72	68	68	67	92	65	66	1	W	0.1	3	NW	68	69	69	71	0	0	82	0.59	88	0	0	0	0	0.009
8/3/2019 7:15	29.72	67	68	67	91	65	66	3	W	0.2	4	W	67	69	69	72	0	0	99	0.71	105	0	0	0	0	0.008
8/3/2019 7:20	29.71	68	68	67	90	64	65	0		0	2	W	68	69	69	72	0	0	113	0.81	118	0	0	0	0	0.009
8/3/2019 7:25	29.71	68	68	68	90	65	66	1	W	0.1	2	W	68	69	69	73	0	0	125	0.9	130	0	0	0	1	0.009
8/3/2019 7:30	29.71	68	68	68	89	65	66	2	W	0.2	4	W	68	70	70	74	0	0	133	0.95	135	0	1	0	1	0.01
8/3/2019 7:35	29.71	68	68	68	88	65	66	3	W	0.2	4	W	68	70	70	74	0	0	140	1	142	0	1	0	1	0.011
8/3/2019 7:40	29.71	69	69	68	87	65	66	2	W	0.2	4	W	69	70	70	75	0	0	147	1.05	151	0	1	0	1	0.012
8/3/2019 7:45	29.71	69	69	69	87	65	66	0		0	2	WSW	69	71	71	75	0	0	154	1.1	155	0	1	0	1	0.014
8/3/2019 7:50	29.71	70	70	69	86	65	67	1	S	0.1	3	S	70	72	72	76	0	0	154	1.1	155	0	1	0	1	0.016
8/3/2019 7:55	29.71	70	70	70	84	65	67	2	SSW	0.2	3	SSW	70	72	72	76	0	0	153	1.1	153	0	1	0	1	0.018
8/3/2019 8:00	29.71	70	70	70	82	65	66	3	SSW	0.2	4	SSW	70	72	72	76	0	0	158	1.13	167	0	1	0	1	0.019
8/3/2019 8:05	29.71	71	71	70	81	65	66	3	SSW	0.2	5	SSW	71	72	72	77	0	0	179	1.28	188	0	1	0	1	0.02
8/3/2019 8:10	29.71	71	71	71	81	65	67	3	SSW	0.2	5	WSW	71	73	73	78	0	0	204	1.46	218	0	1	0	1	0.022
8/3/2019 8:15	29.71	71	71	71	80	65	67	4	WSW	0.3	7	W	71	73	73	79	0	0	234	1.68	244	0	1	0	1	0.022
8/3/2019 8:20	29.71	72	72	71	79	65	67	2	WSW	0.2	4	W	72	74	74	81	0	0	258	1.85	265	0	1	0	1	0.025
8/3/2019 8:25	29.71	73	73	72	78	65	67	3	WSW	0.2	5	WSW	73	74	74	82	0	0	282	2.02	290	0	1	0.1	1	0.026
8/3/2019 8:30	29.71	73	73	73	77	65	67	3	SW	0.2	4	SW	73	74	74	82	0	0	301	2.16	309	0	2	0.1	2	0.027
8/3/2019 8:35	29.72	73	73	73	76	65	67	3	WSW	0.2	7	WSW	73	74	74	83	0	0	321	2.3	329	0	2	0.1	2	0.028
8/3/2019 8:40	29.72	73	73	73	76	65	67	5	WSW	0.4	8	WSW	73	74	74	83	0	0	339	2.43	346	0	2	0.1	2	0.028
8/3/2019 8:45	29.72	73	73	73	76	65	67	3	WSW	0.2	7	W	73	75	75	84	0	0	357	2.56	367	0	2	0.1	2	0.029
8/3/2019 8:50	29.72	74	74	73	76	66	68	3	W	0.2	6	W	74	75	75	85	0	0	387	2.77	404	0	2	0.1	2	0.031
8/3/2019 8:55	29.72	74	74	74	75	66	68	3	W	0.2	6	W	74	76	76	86	0	0	429	3.08	438	0	2	0.1	2	0.033
8/3/2019 9:00	29.72	75	75	75	74	66	68	2	WSW	0.2	5	WSW	75	77	77	87	0	0	437	3.13	443	0.01	2	0.1	2	0.035
8/3/2019 9:05	29.72	75	75	75	74	66	69	4	WSW	0.3	7	W	75	77	77	87	0	0	425	3.05	441	0	2	0.1	2	0.036
8/3/2019 9:10	29.72	76	76	75	73	66	69	3	W	0.2	8	WSW	76	77	77	87	0	0	438	3.14	448	0	2	0.1	2	0.037

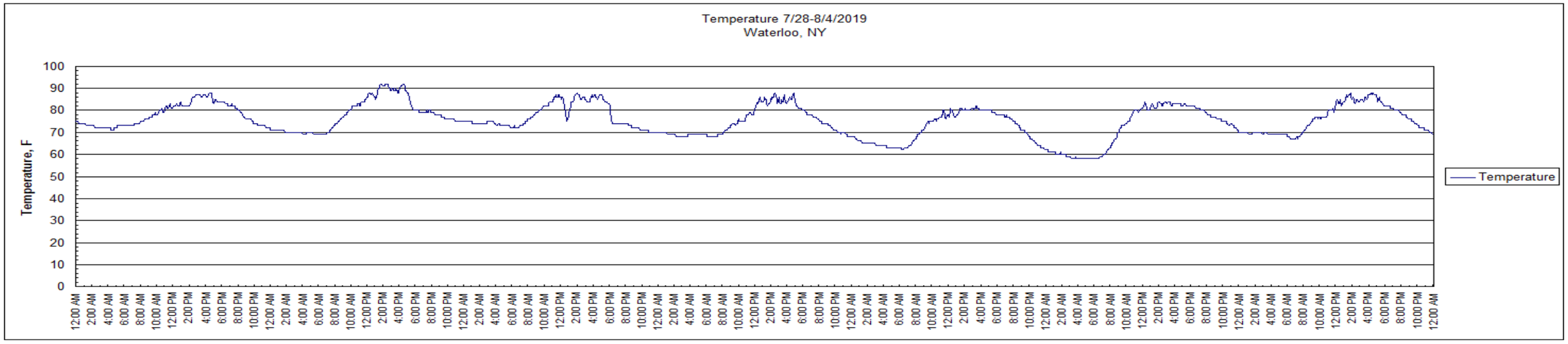
8/3/2019 9:15	29.72	76	76	76	73	67	69	2	WSW	0.2	6	W	76	78	78	88	0	0	452	3.24	476	0	2	0.1	2	0	0.038
8/3/2019 9:20	29.71	76	76	76	73	67	69	1	W	0.1	4	W	76	78	78	88	0	0	471	3.38	482	0	2	0.1	3	0	0.04
8/3/2019 9:25	29.71	77	77	76	71	67	69	3	WSW	0.2	6	WSW	77	79	79	89	0	0	489	3.51	494	0	3	0.1	3	0	0.041
8/3/2019 9:30	29.71	77	77	77	71	67	70	4	W	0.3	9	W	77	79	79	89	0	0	493	3.53	499	0	3	0.1	3	0	0.042
8/3/2019 9:35	29.71	77	77	77	69	66	69	4	NW	0.3	9	N	77	78	78	89	0	0	520	3.73	547	0	3	0.1	3	0	0.041
8/3/2019 9:40	29.71	77	77	77	71	67	69	3	W	0.2	9	W	77	78	78	88	0	0	494	3.54	494	0	3	0.1	3	0	0.041
8/3/2019 9:45	29.71	77	77	76	72	67	69	4	NW	0.3	10	NNW	77	78	78	88	0	0	472	3.38	501	0	3	0.1	3	0	0.04
8/3/2019 9:50	29.71	76	77	76	71	66	69	6	WNW	0.5	10	NNW	76	78	78	89	0	0	548	3.93	548	0	3	0.1	3	0	0.04
8/3/2019 9:55	29.71	77	77	77	70	66	69	5	NNW	0.4	10	NNW	77	78	78	89	0	0	554	3.97	563	0	3	0.1	3	0	0.041
8/3/2019 10:00	29.71	77	77	77	65	64	67	7	NNW	0.6	13	NNW	77	78	78	88	0	0	573	4.11	594	0.01	3	0.1	3	0	0.041
8/3/2019 10:05	29.71	76	77	76	66	64	67	6	N	0.5	12	NNW	76	77	77	88	0	0	589	4.22	603	0	3	0.1	3	0	0.039
8/3/2019 10:10	29.71	77	77	76	67	65	68	7	NNW	0.6	13	NW	77	78	78	88	0	0	528	3.79	628	0	3	0.1	4	0	0.042
8/3/2019 10:15	29.71	76	77	76	67	65	67	10	NNW	0.8	15	NNW	74	77	76	84	0	0	506	3.63	543	0	3	0.1	3	0	0.039
8/3/2019 10:20	29.71	77	77	76	68	65	68	8	NW	0.7	13	NW	76	78	77	87	0	0	562	4.03	668	0	3	0.1	4	0	0.04
8/3/2019 10:25	29.71	77	77	76	62	63	66	10	NNW	0.8	18	NNW	75	77	75	84	0	0	494	3.54	522	0	3	0.1	3	0	0.04
8/3/2019 10:30	29.71	77	77	77	63	63	66	9	N	0.8	18	NNW	75	77	76	84	0	0	435	3.12	476	0	3	0.1	4	0	0.04
8/3/2019 10:35	29.71	77	77	77	62	63	66	11	NNW	0.9	15	NNW	75	78	75	80	0	0	308	2.21	357	0	4	0.1	4	0	0.041
8/3/2019 10:40	29.71	77	77	77	58	61	65	9	NNE	0.8	13	N	76	78	76	86	0	0	651	4.67	656	0	4	0.1	4	0	0.042
8/3/2019 10:45	29.7	77	77	77	58	61	65	11	N	0.9	14	NNW	75	78	76	85	0	0	652	4.68	657	0	4	0.1	4	0	0.043
8/3/2019 10:50	29.7	77	77	77	60	62	66	9	N	0.8	14	NNW	76	78	77	87	0	0	665	4.77	673	0	4	0.2	4	0	0.043
8/3/2019 10:55	29.7	78	78	77	56	61	65	7	N	0.6	12	N	78	78	78	89	0	0	681	4.88	684	0	4	0.2	4	0	0.044
8/3/2019 11:00	29.71	79	79	78	55	61	65	6	N	0.5	12	N	79	79	79	90	0	0	688	4.93	693	0.02	5	0.2	5	0	0.048
8/3/2019 11:05	29.7	80	80	79	54	61	66	5	NE	0.4	9	NE	80	80	80	91	0	0	698	5	708	0	5	0.2	5	0	0.051
8/3/2019 11:10	29.7	80	80	80	55	62	66	5	NNE	0.4	10	NNE	80	81	81	92	0	0	709	5.08	712	0	5	0.2	5	0	0.052
8/3/2019 11:15	29.7	80	80	80	55	62	67	5	NE	0.4	10	NE	80	81	81	92	0	0	718	5.15	722	0	5	0.2	5	0	0.052
8/3/2019 11:20	29.7	80	80	80	55	63	67	6	NNW	0.5	13	NNW	80	81	81	93	0	0	728	5.22	733	0	5	0.2	5	0	0.053
8/3/2019 11:25	29.7	80	80	80	54	62	66	8	N	0.7	13	N	79	80	80	90	0	0	737	5.28	740	0	5	0.2	5	0	0.052
8/3/2019 11:30	29.69	80	80	80	56	63	67	6	NE	0.5	11	NNE	80	81	81	92	0	0	743	5.33	744	0	5	0.2	5	0	0.051
8/3/2019 11:35	29.69	80	80	80	56	63	67	3	NE	0.2	8	NNE	80	81	81	93	0	0	747	5.36	752	0	5	0.2	5	0	0.053
8/3/2019 11:40	29.69	81	81	80	55	63	67	8	NNW	0.7	13	NNW	80	82	81	92	0	0	750	5.38	754	0	5	0.2	5	0	0.056
8/3/2019 11:45	29.69	80	81	80	56	63	67	8	NNW	0.7	14	NNW	79	81	80	91	0	0	760	5.45	763	0	5	0.2	5	0	0.051
8/3/2019 11:50	29.69	79	80	79	58	63	67	5	N	0.4	11	N	79	80	80	92	0	0	768	5.51	773	0	6	0.2	6	0	0.05
8/3/2019 11:55	29.69	81	81	79	57	65	68	3	SW	0.2	8	W	81	83	83	94	0	0	772	5.54	775	0	6	0.2	6	0	0.056
8/3/2019 12:00	29.69	83	83	81	54	64	68	3	W	0.2	8	W	83	84	84	96	0	0	781	5.6	784	0.02	6	0.2	6	0	0.061
8/3/2019 12:05	29.69	84	84	83	51	64	68	4	WSW	0.3	10	NE	84	86	86	97	0	0	782	5.61	784	0	6	0.2	6	0	0.067
8/3/2019 12:10	29.69	85	85	84	50	64	69	3	W	0.2	11	WNW	85	87	87	98	0	0	790	5.66	793	0	6	0.2	6	0	0.069
8/3/2019 12:15	29.69	84	85	84	51	64	68	8	WNW	0.7	13	NNW	84	86	85	96	0	0	794	5.69	795	0	6	0.2	6	0	0.066
8/3/2019 12:20	29.69	83	84	83	54	64	68	6	NW	0.5	12	NW	83	84	84	96	0	0	797	5.71	802	0	6	0.2	6	0	0.061
8/3/2019 12:25	29.68	83	83	82	55	65	69	2	WSW	0.2	6	NNW	83	85	85	97	0	0	803	5.76	805	0	6	0.2	6	0	0.062
8/3/2019 12:30	29.68	85	85	83	52	65	69	3	WSW	0.2	10	N	85	87	87	98	0	0	807	5.79	816	0	6	0.2	6	0	0.068

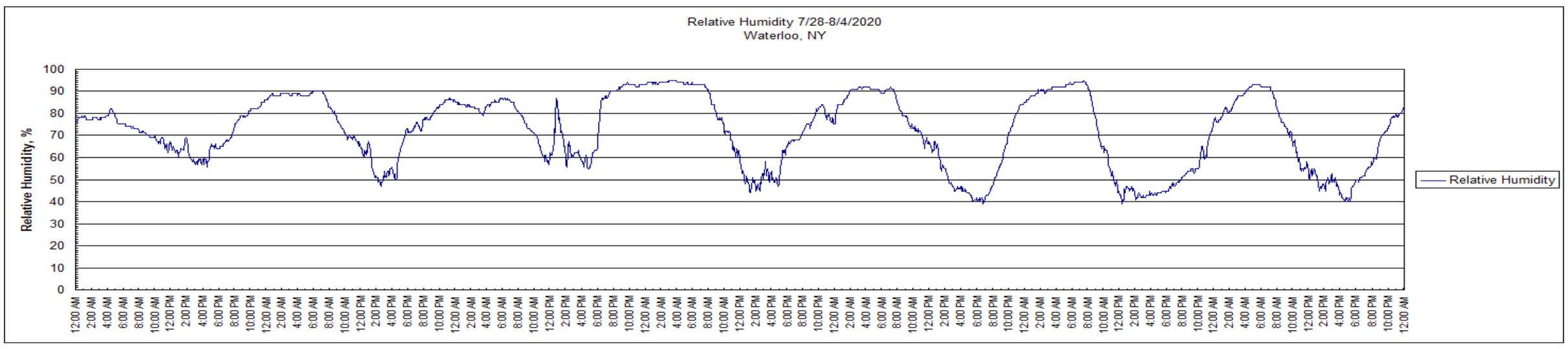
8/3/2019 12:35	29.68	83	84	83	53	64	69	5	NE	0.4	9	NNE	83	85	85	97	0	0	846	6.07	867	0	6	0.2	6	0	0.064
8/3/2019 12:40	29.68	83	83	83	55	65	69	6	NE	0.5	12	NE	83	84	84	95	0	0	614	4.4	870	0	5	0.2	6	0	0.061
8/3/2019 12:45	29.68	82	83	82	55	65	69	3	NNE	0.2	8	ENE	82	84	84	96	0	0	870	6.24	870	0	5	0.2	6	0	0.061
8/3/2019 12:50	29.67	83	83	83	54	65	69	1	E	0.1	2	E	83	85	85	97	0	0	856	6.14	856	0	6	0.2	6	0	0.064
8/3/2019 12:55	29.67	84	84	83	54	65	69	2	ENE	0.2	4	N	84	85	85	96	0	0	639	4.58	863	0	5	0.2	6	0	0.065
8/3/2019 13:00	29.67	84	84	84	52	64	69	3	WNW	0.2	7	W	84	85	85	97	0	0	909	6.52	909	0.02	5	0.2	6	0	0.066
8/3/2019 13:05	29.67	84	84	84	52	65	69	4	NNW	0.3	9	N	84	86	86	98	0	0	726	5.21	889	0	6	0.2	6	0	0.067
8/3/2019 13:10	29.67	85	85	84	51	65	69	4	W	0.3	8	WSW	85	87	87	99	0	0	884	6.34	889	0	6	0.2	6	0	0.07
8/3/2019 13:15	29.67	86	86	85	48	64	68	5	WSW	0.4	13	WNW	86	87	87	99	0	0	887	6.36	893	0	6	0.2	6	0	0.073
8/3/2019 13:20	29.67	86	86	86	48	64	68	6	W	0.5	12	NW	86	87	87	99	0	0	883	6.33	889	0	6	0.2	6	0	0.072
8/3/2019 13:25	29.67	87	87	86	45	63	68	4	NW	0.3	9	NNW	87	88	88	99	0	0	877	6.29	879	0	6	0.2	6	0	0.076
8/3/2019 13:30	29.67	86	87	86	47	64	68	4	NNW	0.3	10	NW	86	87	87	99	0	0	894	6.41	905	0	6	0.2	6	0	0.073
8/3/2019 13:35	29.67	87	87	86	47	64	69	4	N	0.3	10	WNW	87	88	88	99	0	0	921	6.6	946	0	6	0.2	6	0	0.075
8/3/2019 13:40	29.67	87	87	87	46	64	68	4	W	0.3	11	W	87	88	88	99	0	0	637	4.57	925	0	6	0.2	6	0	0.076
8/3/2019 13:45	29.66	87	87	87	48	65	69	5	NNE	0.4	12	WNW	87	89	89	99	0	0	956	6.85	962	0	6	0.2	6	0	0.076
8/3/2019 13:50	29.66	88	88	87	47	65	69	5	WNW	0.4	12	WNW	88	90	90	101	0	0	990	7.1	1014	0	5	0.2	6	0	0.079
8/3/2019 13:55	29.66	86	88	86	48	64	69	7	NNW	0.6	13	WNW	86	88	88	94	0	0	340	2.44	694	0	3	0.1	4	0	0.073
8/3/2019 14:00	29.66	85	86	85	48	63	68	5	W	0.4	8	NW	85	86	86	95	0	0	474	3.4	1009	0.02	5	0.2	6	0	0.07
8/3/2019 14:05	29.66	86	86	85	47	64	68	6	W	0.5	17	NW	86	88	88	99	0	0	993	7.12	1002	0	6	0.2	7	0	0.074
8/3/2019 14:10	29.66	86	86	86	45	62	67	8	WNW	0.7	13	WNW	85	86	86	96	0	0	947	6.79	962	0	6	0.2	6	0	0.072
8/3/2019 14:15	29.65	85	86	85	48	63	67	7	NNW	0.6	11	NW	85	86	86	96	0	0	945	6.78	967	0	6	0.2	6	0	0.068
8/3/2019 14:20	29.65	84	85	84	50	63	68	11	NNW	0.9	15	NNW	82	85	84	93	0	0	856	6.14	965	0	6	0.2	6	0	0.065
8/3/2019 14:25	29.65	83	84	83	50	63	67	10	N	0.8	14	N	82	84	83	93	0	0	826	5.92	826	0	4	0.2	6	0	0.064
8/3/2019 14:30	29.65	84	84	83	51	64	68	6	NNW	0.5	12	NNW	84	85	85	96	0	0	851	6.1	977	0	6	0.2	6	0	0.065
8/3/2019 14:35	29.65	85	85	84	49	63	68	5	NNW	0.4	13	NNW	85	86	86	96	0	0	891	6.39	895	0	6	0.2	6	0	0.068
8/3/2019 14:40	29.65	85	85	85	48	63	67	7	NNW	0.6	13	NNW	85	86	86	96	0	0	869	6.23	879	0	6	0.2	6	0	0.068
8/3/2019 14:45	29.65	84	85	84	49	63	67	7	NNW	0.6	11	WNW	84	85	85	95	0	0	859	6.16	874	0	6	0.2	6	0	0.066
8/3/2019 14:50	29.64	84	84	84	50	63	68	7	NE	0.6	13	NNW	84	85	85	95	0	0	860	6.17	893	0	6	0.2	6	0	0.066
8/3/2019 14:55	29.64	84	84	84	52	64	68	7	N	0.6	13	N	84	85	85	93	0	0	457	3.28	891	0	4	0.2	6	0	0.064
8/3/2019 15:00	29.64	84	84	83	53	65	69	4	NE	0.3	10	NE	84	85	85	96	0	0	839	6.02	872	0.03	6	0.2	6	0	0.064
8/3/2019 15:05	29.64	85	85	84	49	64	68	4	NNW	0.3	10	WNW	85	86	86	97	0	0	843	6.04	851	0	6	0.2	6	0	0.069
8/3/2019 15:10	29.64	85	85	85	50	64	69	4	N	0.3	8	N	85	87	87	97	0	0	830	5.95	853	0	5	0.2	5	0	0.069
8/3/2019 15:15	29.64	85	85	85	49	64	68	7	NNW	0.6	13	NNW	85	86	86	97	0	0	832	5.97	837	0	5	0.2	5	0	0.07
8/3/2019 15:20	29.64	84	85	84	50	64	68	10	N	0.8	16	N	83	85	84	93	0	0	808	5.79	831	0	5	0.2	5	0	0.067
8/3/2019 15:25	29.64	85	85	84	51	65	69	6	NNW	0.5	12	NW	85	86	86	98	0	0	782	5.61	809	0	5	0.2	5	0	0.068
8/3/2019 15:30	29.64	86	86	85	48	64	68	6	NW	0.5	10	NNW	86	87	87	98	0	0	802	5.75	809	0	5	0.2	5	0	0.072
8/3/2019 15:35	29.63	86	86	86	47	64	68	5	NW	0.4	11	NNE	86	88	88	98	0	0	789	5.66	802	0	5	0.2	5	0	0.074
8/3/2019 15:40	29.63	85	86	85	48	63	68	8	N	0.7	11	N	85	86	86	95	0	0	767	5.5	780	0	5	0.2	5	0	0.069
8/3/2019 15:45	29.63	85	85	85	47	63	67	5	W	0.4	8	NW	85	86	86	97	0	0	738	5.29	740	0	5	0.2	5	0	0.07
8/3/2019 15:50	29.62	86	86	86	47	64	68	3	SW	0.2	8	W	86	87	87	99	0	0	718	5.15	721	0	4	0.2	4	0	0.073

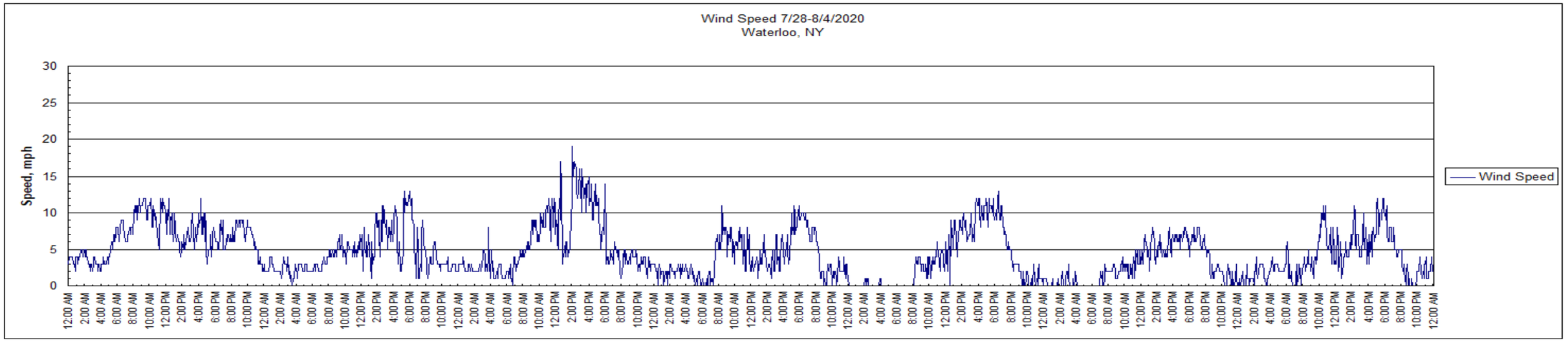
8/3/2019 15:55	29.62	87	87	86	44	63	68	5	S	0.4	14	W	87	88	88	99	0	0	724	5.19	726	0	4	0.2	4	0	0.077
8/3/2019 16:00	29.62	87	88	87	43	62	67	7	WNW	0.6	13	WNW	87	88	88	99	0	0	708	5.08	717	0.02	4	0.1	4	0	0.078
8/3/2019 16:05	29.61	87	87	87	44	62	67	3	NNE	0.2	8	NNE	87	87	87	99	0	0	688	4.93	694	0	4	0.1	4	0	0.075
8/3/2019 16:10	29.61	87	87	86	43	62	67	6	WNW	0.5	10	NW	87	87	87	99	0	0	670	4.8	682	0	4	0.1	4	0	0.076
8/3/2019 16:15	29.61	88	88	87	42	62	67	5	W	0.4	14	WNW	88	88	88	99	0	0	654	4.69	661	0	4	0.1	4	0	0.079
8/3/2019 16:20	29.61	87	88	87	42	61	67	7	WNW	0.6	13	N	87	88	88	99	0	0	641	4.6	643	0	4	0.1	4	0	0.077
8/3/2019 16:25	29.62	88	88	87	42	62	67	4	NW	0.3	9	NNW	88	89	89	100	0	0	624	4.47	631	0	4	0.1	4	0	0.08
8/3/2019 16:30	29.62	88	88	88	41	62	67	7	NW	0.6	12	NNW	88	89	89	100	0	0	611	4.38	622	0	3	0.1	4	0	0.081
8/3/2019 16:35	29.61	88	88	88	41	61	66	8	WNW	0.7	16	N	88	88	88	98	0	0	606	4.35	613	0	3	0.1	3	0	0.079
8/3/2019 16:40	29.62	87	88	87	40	60	66	6	WNW	0.5	12	NNW	87	87	87	98	0	0	597	4.28	599	0	3	0.1	3	0	0.078
8/3/2019 16:45	29.61	87	87	87	42	61	66	6	NNW	0.5	12	NNW	87	87	87	98	0	0	574	4.12	578	0	3	0.1	3	0	0.076
8/3/2019 16:50	29.61	87	87	87	41	61	66	7	WNW	0.6	14	WNW	87	87	87	98	0	0	562	4.03	585	0	3	0.1	3	0	0.077
8/3/2019 16:55	29.61	87	88	87	42	61	66	7	NNW	0.6	16	NW	87	87	87	98	0	0	537	3.85	570	0	3	0.1	3	0	0.076
8/3/2019 17:00	29.61	85	87	85	40	58	64	11	N	0.9	19	NNW	84	85	83	92	0	0	517	3.71	545	0.02	3	0.1	3	0	0.07
8/3/2019 17:05	29.61	84	85	84	40	58	63	12	N	1	16	N	83	84	82	90	0	0	472	3.38	506	0	2	0.1	2	0	0.068
8/3/2019 17:10	29.61	85	85	84	42	59	64	9	NNW	0.8	16	N	84	84	84	92	0	0	445	3.19	475	0	2	0.1	2	0	0.068
8/3/2019 17:15	29.61	86	86	85	40	59	64	7	WNW	0.6	13	NNW	86	85	85	94	0	0	422	3.03	469	0	2	0.1	2	0	0.072
8/3/2019 17:20	29.61	85	86	85	41	59	64	9	NNW	0.8	12	NNW	85	85	84	93	0	0	451	3.23	475	0	2	0.1	2	0	0.07
8/3/2019 17:25	29.61	84	85	84	42	59	64	10	N	0.8	14	N	83	84	83	92	0	0	461	3.31	469	0	2	0.1	2	0	0.068
8/3/2019 17:30	29.61	84	84	84	46	61	66	10	NNE	0.8	14	N	83	84	83	92	0	0	430	3.08	439	0	2	0.1	2	0	0.066
8/3/2019 17:35	29.61	84	84	84	47	61	66	10	NNE	0.8	15	NNE	82	84	83	92	0	0	424	3.04	427	0	2	0.1	2	0	0.065
8/3/2019 17:40	29.61	83	84	83	47	61	66	9	NE	0.8	14	NE	82	84	83	92	0	0	410	2.94	413	0	2	0.1	2	0	0.064
8/3/2019 17:45	29.61	83	83	83	47	61	65	12	NNE	1	18	NNE	81	83	81	89	0	0	390	2.8	406	0	2	0.1	2	0	0.062
8/3/2019 17:50	29.61	82	83	82	48	61	65	12	NNE	1	15	N	80	82	81	88	0	0	389	2.79	394	0	2	0.1	2	0	0.06
8/3/2019 17:55	29.61	82	82	82	49	61	66	10	NNE	0.8	14	NNE	81	82	81	89	0	0	369	2.65	380	0	2	0.1	2	0	0.059
8/3/2019 18:00	29.61	82	82	82	50	61	66	10	NNE	0.8	14	NNE	80	82	81	89	0	0	352	2.52	364	0.02	2	0.1	2	0	0.058
8/3/2019 18:05	29.61	82	82	82	50	62	66	9	N	0.8	11	NNE	81	83	82	90	0	0	335	2.4	343	0	2	0.1	2	0	0.059
8/3/2019 18:10	29.61	82	82	82	50	61	66	10	NNW	0.8	13	NNW	81	82	81	88	0	0	307	2.2	325	0	1	0	1	0	0.059
8/3/2019 18:15	29.61	82	82	82	50	61	66	11	NNW	0.9	14	NNW	80	82	80	87	0	0	286	2.05	295	0	1	0	1	0	0.058
8/3/2019 18:20	29.61	82	82	82	50	61	66	7	NNE	0.6	11	NNW	82	82	82	90	0	0	284	2.04	292	0	1	0	1	0	0.058
8/3/2019 18:25	29.61	82	82	82	49	61	65	6	NNE	0.5	10	NE	82	82	82	90	0	0	273	1.96	283	0	1	0	1	0	0.058
8/3/2019 18:30	29.61	82	82	82	51	62	66	6	NNE	0.5	10	NNE	82	82	82	90	0	0	256	1.84	269	0	1	0	1	0	0.058
8/3/2019 18:35	29.61	82	82	82	51	62	66	8	NNE	0.7	11	NNE	81	82	81	88	0	0	221	1.58	230	0	1	0	1	0	0.058
8/3/2019 18:40	29.61	81	82	81	51	61	66	8	N	0.7	11	NNW	81	82	81	86	0	0	183	1.31	218	0	1	0	1	0	0.057
8/3/2019 18:45	29.61	81	81	81	52	62	66	8	NNW	0.7	11	NNW	80	82	81	87	0	0	202	1.45	209	0	1	0	1	0	0.056
8/3/2019 18:50	29.61	81	81	81	52	62	66	6	N	0.5	9	N	81	82	82	87	0	0	164	1.18	193	0	1	0	1	0	0.057
8/3/2019 18:55	29.61	81	82	81	52	62	66	6	N	0.5	9	N	81	82	82	86	0	0	132	0.95	139	0	1	0	1	0	0.056
8/3/2019 19:00	29.61	81	81	81	52	62	66	6	N	0.5	10	N	81	82	82	86	0	0	150	1.08	156	0.01	1	0	1	0	0.056
8/3/2019 19:05	29.61	81	81	81	53	62	66	8	NNW	0.7	10	N	80	81	81	85	0	0	154	1.1	162	0	1	0	1	0	0.055
8/3/2019 19:10	29.61	80	81	80	54	62	66	6	NNW	0.5	10	NNW	80	81	81	86	0	0	142	1.02	149	0	0	0	1	0	0.054

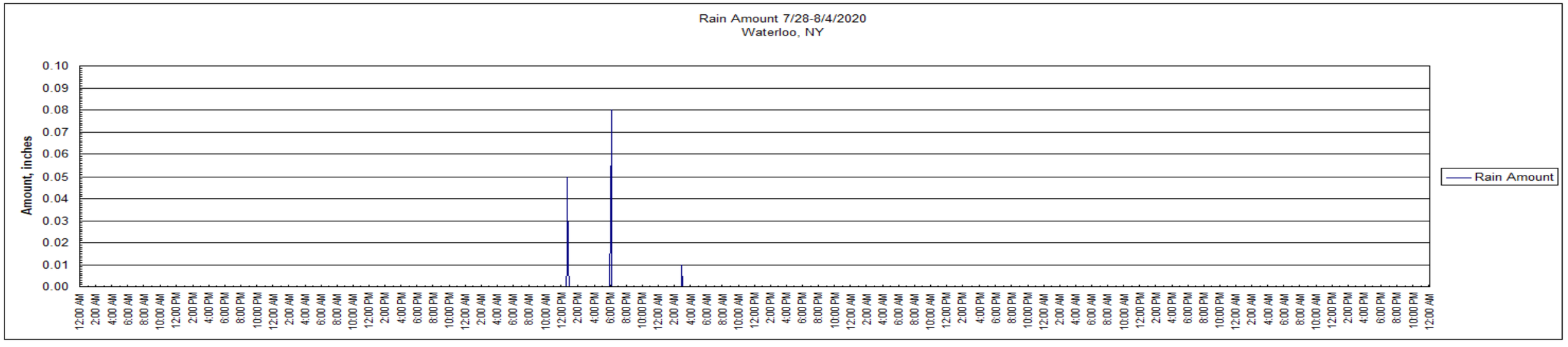
8/3/2019 19:15	29.61	80	80	80	54	62	66	5	N	0.4	9	NNW	80	81	81	85	0	0	130	0.93	137	0	0	0	0	0	0.054
8/3/2019 19:20	29.61	80	81	80	55	63	67	5	N	0.4	8	NNE	80	81	81	84	0	0	105	0.75	111	0	0	0	0	0	0.054
8/3/2019 19:25	29.61	80	80	80	55	63	67	5	NNE	0.4	8	NNE	80	81	81	83	0	0	89	0.64	102	0	0	0	0	0	0.053
8/3/2019 19:30	29.61	80	80	80	56	63	67	4	NNE	0.3	7	N	80	81	81	83	0	0	72	0.52	79	0	0	0	0	0	0.052
8/3/2019 19:35	29.61	80	80	80	56	63	67	4	NNE	0.3	8	NNE	80	81	81	80	0	0	61	0.44	69	0	0	0	0	0	0.051
8/3/2019 19:40	29.61	80	80	80	56	63	67	5	NNE	0.4	7	NNE	80	80	80	80	0	0	63	0.45	67	0	0	0	0	0	0.051
8/3/2019 19:45	29.61	80	80	80	56	62	66	5	NNE	0.4	8	NNW	80	80	80	79	0	0	50	0.36	56	0	0	0	0	0	0.05
8/3/2019 19:50	29.61	79	80	79	57	63	67	5	N	0.4	8	NNE	79	80	80	79	0	0	44	0.32	47	0	0	0	0	0	0.05
8/3/2019 19:55	29.61	79	79	79	58	63	67	5	N	0.4	7	N	79	80	80	78	0	0	37	0.27	39	0	0	0	0	0	0.048
8/3/2019 20:00	29.61	79	79	79	57	62	66	5	N	0.4	7	NNE	79	79	79	78	0	0	35	0.25	37	0	0	0	0	0	0.047
8/3/2019 20:05	29.61	78	79	78	58	62	66	5	N	0.4	7	NNE	78	79	79	77	0	0	30	0.22	32	0	0	0	0	0	0.046
8/3/2019 20:10	29.62	78	78	78	59	63	66	3	N	0.2	5	N	78	79	79	77	0	0	26	0.19	28	0	0	0	0	0	0.045
8/3/2019 20:15	29.62	78	78	78	60	63	67	2	N	0.2	4	N	78	79	79	77	0	0	20	0.14	23	0	0	0	0	0	0.045
8/3/2019 20:20	29.62	78	78	78	60	63	66	3	N	0.2	5	N	78	78	78	76	0	0	14	0.1	18	0	0	0	0	0	0.044
8/3/2019 20:25	29.62	78	78	78	59	62	66	2	NNE	0.2	4	NNE	78	78	78	76	0	0	9	0.06	11	0	0	0	0	0	0.044
8/3/2019 20:30	29.62	78	78	78	59	62	66	1	NNE	0.1	2	NNE	78	78	78	76	0	0	5	0.04	7	0	0	0	0	0	0.044
8/3/2019 20:35	29.62	78	78	78	60	63	66	0		0	2	NNE	78	78	78	76	0	0	3	0.02	5	0	0	0	0	0	0.044
8/3/2019 20:40	29.62	77	78	77	63	64	67	2	E	0.2	4	SE	77	78	78	76	0	0	0	0	0	0	0	0	0	0	0.043
8/3/2019 20:45	29.62	77	77	77	66	64	68	3	SE	0.2	4	SE	77	78	78	76	0	0	0	0	0	0	0	0	0	0	0.041
8/3/2019 20:50	29.63	76	77	76	66	64	67	1	SE	0.1	3	SE	76	77	77	75	0	0	0	0	0	0	0	0	0	0	0.04
8/3/2019 20:55	29.63	76	76	76	68	65	68	0		0	3	SE	76	77	77	75	0	0	0	0	0	0	0	0	0	0	0.039
8/3/2019 21:00	29.63	76	76	76	68	65	68	1	SE	0.1	2	SE	76	77	77	75	0	0	0	0	0	0	0	0	0	0	0.038
8/3/2019 21:05	29.63	76	76	76	69	65	68	0		0	2	SE	76	77	77	75	0	0	0	0	0	0	0	0	0	0	0.038
8/3/2019 21:10	29.63	76	76	76	70	65	68	0		0	1	SE	76	77	77	75	0	0	0	0	0	0	0	0	0	0	0.037
8/3/2019 21:15	29.64	76	76	76	70	65	68	0		0	1	SE	76	77	77	75	0	0	0	0	0	0	0	0	0	0	0.036
8/3/2019 21:20	29.63	75	76	75	70	65	68	1	SE	0.1	3	SE	75	77	77	74	0	0	0	0	0	0	0	0	0	0	0.036
8/3/2019 21:25	29.64	75	75	75	71	65	68	0		0	1	SE	75	76	76	74	0	0	0	0	0	0	0	0	0	0	0.035
8/3/2019 21:30	29.63	75	75	75	71	65	67	0		0	0		75	76	76	74	0	0	0	0	0	0	0	0	0	0	0.034
8/3/2019 21:35	29.63	75	75	75	71	65	67	0		0	0		75	76	76	74	0	0	0	0	0	0	0	0	0	0	0.033
8/3/2019 21:40	29.63	74	75	74	72	65	67	0		0	0		74	76	76	74	0	0	0	0	0	0	0	0	0	0	0.033
8/3/2019 21:45	29.64	74	74	74	72	65	67	0		0	0		74	76	76	73	0	0	0	0	0	0	0	0	0	0	0.032
8/3/2019 21:50	29.63	74	74	74	72	64	67	0		0	0		74	75	75	73	0	0	0	0	0	0	0	0	0	0	0.031
8/3/2019 21:55	29.63	74	74	74	73	65	67	1	S	0.1	4	SSE	74	75	75	73	0	0	0	0	0	0	0	0	0	0	0.031
8/3/2019 22:00	29.64	73	74	73	73	64	67	2	S	0.2	3	S	73	75	75	72	0	0	0	0	0	0	0	0	0	0	0.029
8/3/2019 22:05	29.63	73	73	73	74	64	67	2	S	0.2	3	S	73	74	74	72	0	0	0	0	0	0	0	0	0	0	0.028
8/3/2019 22:10	29.64	73	73	73	74	64	66	2	SSW	0.2	2	SSW	73	74	74	71	0	0	0	0	0	0	0	0	0	0	0.026
8/3/2019 22:15	29.64	72	73	72	76	64	67	2	SSW	0.2	4	N	72	74	74	71	0	0	0	0	0	0	0	0	0	0	0.026
8/3/2019 22:20	29.65	72	72	72	77	64	66	4	NNE	0.3	5	NNE	72	73	73	71	0	0	0	0	0	0	0	0	0	0	0.024
8/3/2019 22:25	29.64	72	72	72	78	64	66	2	NNE	0.2	4	N	72	73	73	71	0	0	0	0	0	0	0	0	0	0	0.023
8/3/2019 22:30	29.64	72	72	72	78	65	67	2	WSW	0.2	5	SW	72	73	73	71	0	0	0	0	0	0	0	0	0	0	0.024

8/3/2019 22:35	29.64	72	72	72	78	64	66	1	W	0.1	2	W	72	73	73	71	0	0	0	0	0	0	0	0	0	0	0.023
8/3/2019 22:40	29.64	72	72	72	79	65	67	2	NW	0.2	4	NW	72	73	73	71	0	0	0	0	0	0	0	0	0	0	0.023
8/3/2019 22:45	29.64	72	72	72	78	64	66	2	N	0.2	4	WNW	72	73	73	71	0	0	0	0	0	0	0	0	0	0	0.023
8/3/2019 22:50	29.64	72	72	72	78	64	66	1	N	0.1	3	N	72	73	73	71	0	0	0	0	0	0	0	0	0	0	0.023
8/3/2019 22:55	29.64	71	72	71	79	65	66	3	N	0.2	5	N	71	73	73	71	0	0	0	0	0	0	0	0	0	0	0.022
8/3/2019 23:00	29.64	71	71	71	80	65	67	3	NNW	0.2	4	NNW	71	73	73	70	0	0	0	0	0	0	0	0	0	0	0.022
8/3/2019 23:05	29.64	71	71	71	79	64	66	4	N	0.3	5	NNW	71	72	72	70	0	0	0	0	0	0	0	0	0	0	0.021
8/3/2019 23:10	29.64	71	71	71	78	64	66	1	N	0.1	4	N	71	72	72	70	0	0	0	0	0	0	0	0	0	0	0.022
8/3/2019 23:15	29.64	71	71	71	79	64	66	1	NW	0.1	3	NW	71	72	72	70	0	0	0	0	0	0	0	0	0	0	0.021
8/3/2019 23:20	29.64	71	71	71	79	64	66	1	WSW	0.1	4	W	71	72	72	70	0	0	0	0	0	0	0	0	0	0	0.02
8/3/2019 23:25	29.64	71	71	71	80	64	66	2	NNW	0.2	3	NNW	71	72	72	70	0	0	0	0	0	0	0	0	0	0	0.02
8/3/2019 23:30	29.64	70	71	70	80	64	66	2	NNE	0.2	4	NE	70	72	72	70	0	0	0	0	0	0	0	0	0	0	0.019
8/3/2019 23:35	29.64	70	70	70	80	64	66	2	NNE	0.2	4	NNE	70	72	72	69	0	0	0	0	0	0	0	0	0	0	0.019
8/3/2019 23:40	29.64	70	70	70	80	64	66	3	N	0.2	4	N	70	72	72	69	0	0	0	0	0	0	0	0	0	0	0.018
8/3/2019 23:45	29.64	70	70	70	81	64	66	3	W	0.2	6	W	70	71	71	69	0	0	0	0	0	0	0	0	0	0	0.018
8/3/2019 23:50	29.64	70	70	70	81	64	65	4	W	0.3	6	W	70	71	71	69	0	0	0	0	0	0	0	0	0	0	0.016
8/3/2019 23:55	29.64	69	70	69	82	63	65	2	W	0.2	4	W	69	71	71	68	0	0	0	0	0	0	0	0	0	0	0.015
8/4/2019 0:00	29.64	69	69	69	83	64	65	2	W	0.2	3	W	69	71	71	68	0	0	0	0	0	0	0	0	0	0	0.014


Temperature 7/28-8/4/2019
Waterloo, NY
Temperature, F
100
90
80
70
60
50
40
30
20
10
0
Temperature


Relative Humidity 7/28-8/4/2020
Waterloo, NY
Relative Humidity, %
100
90
80
70
60
50
40
30
20
10
0
Relative Humidity


Wind Speed 7/28-8/4/2020
Waterloo, NY
Speed, mph
30
25
20
15
10
5
0
Wind Speed
12:00 AM
2:00 AM
4:00 AM
6:00 AM
8:00 AM
10:00 AM
12:00 PM
2:00 PM
4:00 PM
6:00 PM
8:00 PM
10:00 PM


Rain Amount 7/28-8/4/2020
Waterloo, NY
Amount, inches
0.10
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
Rain Amount
12:00 AM
2:00 AM
4:00 AM
6:00 AM
8:00 AM
10:00 AM
12:00 PM
2:00 PM
4:00 PM
6:00 PM
8:00 PM
10:00 PM

13.0 CONSTRUCTION/DEMOLITION WASTE AND RECYCLING PROGRAM

The annual review of Construction/Demolition Waste and Recycling Program was prepared by SMI. SMI's report summarizes program activities for 2019 as required by SMI's 6 NYCRR Part 360-62(A.)(B.)(C.) Operating Permit and is included in this section of the Report.

SENECA MEADOWS, INC.

CONSTRUCTION/DEMOLITION WASTE AND RECYCLING PROGRAMS

IN ACCORDANCE WITH THE PERMIT CONDITION 6 NYCRR PART 360-62(A.) (B.) (C.)

March 2020

SECTION 1

INTRODUCTION

Seneca Meadows, Inc. (SMI) owns and operates a New York State permitted 6 NYCRR Part 360 Solid Waste facility in the Town of Seneca Falls, Seneca County, New York. The New York State Department of Environmental Conversation (NYSDEC) issued a Part 360 landfill permit (Permit ID 8-4532-00023/00001-0) for expansion of the Seneca Meadows landfill on August 7, 2007, modified November 26, 2008, and renewed October 31, 2017.

Condition 62.a(1) of the NYSDEC 6NYCRR Part 360 Permit requires that SMI construct a Community Education Center and staff it up to 20 hours per week for environmental and waste (reduction reuse, recycling, and composting techniques) related classes.

The Center opened in the Fall 2008 and includes a fully equipped science laboratory and an educational exhibit room; housed in a gold level LEED (Leadership in Energy & Environmental Design) certified building. Programming for the Center includes:

1. Adult and children's programs that educate the local community on environmental issues through entertaining events and activities;
2. High school science programs that satisfy State standards and enhance curriculums by giving students' hands-on field and laboratory experience in the study of a brook, pond and wetlands that surround the Center.

Condition 62.a(2) of the NYSDEC 6NYCRR Part 360 Permit (*Fund a staff position for environmental educational outreach*)

Staffing of the Seneca Meadows Environmental Education Center is provided through a partnership with the Montezuma Audubon Center and SMI's on staff, full-time Public Relations and Environmental Program Coordinator.

Condition 62.a(3) (*Provide technical assistance to the University of Buffalo's Center for integrated waste management with respect to the reuse of waste tire chips*)

The NYS Tire Derived Aggregate (TDA) Program was established at the UB Center for Integrated Waste Management through the support of the New York State Department of Economic Development, Empire State Development. The NYS TDA Program is designed to help the state fulfill its priorities for scrap tire management as set forth in the New York State Tire Management & Recycling Act of 2003. *(This mission of the New York State Tire Derived Aggregate Program is to expand the beneficial use of recycled tire products in civil engineering applications through Education, Research and Product Development Support.)*

As a member of the Technical Advisory Board (TAB), SMI has served as an important resource to help the NYS TDA Program carry out its mission along with a select group of representatives from the tire industry, state agencies, local government and academia members.

SMI has hosted numerous meetings for the Technical Advisory Board and has been a major sponsor for its annual conference as well as hosting a technical training course on the use of TDA in septic systems. This included hosting field construction demonstrations on using TDA in the installation of residential on-site waste water treatment systems and the adoption of NYS specifications/standards for their usage. This group has been disbanded with the completion of the identified scoped issues and priorities, which were previously established in its mission statement.

Condition 62.a(4) (*Identify additional opportunities to further beneficially utilize waste tire chips in civil engineering applications*)

Tire Chip Re-Use Practices

SMI's tire processing facility (TPF) aids in the management of waste tires in the state of New York, where waste tires have been identified by the NYSDEC as an area where additional program effort and resources are needed. The TPF is registered with the NYSDEC as a manufacturing facility which uses tires in the manufacture of a new product. The TPF includes a tire shredder and derimmer, interim storage areas for whole tires and tire chips, a contingency storage area, a roll-off or other appropriate container for recyclable tires, and a stormwater containment system. Tire chips/shreds

are a recognized product with multiple beneficial uses. SMI has received approval for the use of tire chips for various functions including:

- As a substitute for the top 12 inches of the primary soil drainage layer in the leachate collection system.
- As backfill for the landfill gas collection piping.
- As daily cover on the sloping portions of the working face of the landfill (but restricted from the outside slopes of the landfill).
- As an aggregate for road base materials or asphalt pavements.
- As use as a lightweight fill for embankments.
- Lightweight backfill for residential foundation.

As shown above, tire chips provide an effective substitute for natural materials and conserve valuable natural resources.

In addition to the Tire Processing Facility, SMI on occasion will rent a mobile tire shredder which can be used to process tires at the working face. All waste tires need to be derimmed before processing at the facility. The rims removed from the tires are collected and shipped offsite for metal recycling.

Recognized markets for the use of tire chips also exist in other areas. Shredded tires and tire chips have been used successfully in civil engineering for many years as an aggregate for road base materials and similar applications.

In 2009, SMI worked with the Board, initiated a live scale demonstration project, used tire chips as a foundation backfill on a new construction residential home in lieu of natural stone material. This demonstration was to assess the long-term settlement and insulation value of this product and determine its long-range benefits (refer to the overview that follows). The data collection has been completed; the analysis and their findings are being readied for future technical papers.

Condition 62.b of the NYSDEC 6NYCRR Part 360 Permit (*SMI to sponsor at least two Household Hazardous Waste (HHHW) collection days annually*)

SMI is involved in the HHHW Day for both the Seneca County Department of Health (SCDOH) and the joint Town of Seneca Falls and Waterloo events. SMI provides technical support and coordination, staffing, waste disposal services, safety equipment, advertising, tire collection/recycling, and financial assistance for these community events based on the event's needs.

The Towns of Seneca Falls and Waterloo have decided to postpone the annual events due to declining volumes of material received. They will schedule future events on an as-needed basis. SMI has set up drop-off locations to accept electronics, batteries, cell phones, tires, and source separate recyclables at the facility on Saturday's and Sunday's.

Condition 62.c of the NYSDEC 6NYCRR Part 360 Permit requires that:

SMI develop a "Construction and Demolition Waste Recycling Program" that would be designed to minimize the use of natural earth materials as daily cover, to the extent practicable. Specifically, this permit condition requires that a construction and demolition (C&D) debris management plan be developed to evaluate equipment and handling procedures to maximize the beneficial reuse of C&D debris for landfill construction and operation.

Minimization of the use of natural earthen materials for daily cover is not limited to the management of C&D material, as C&D material represents only a portion of the approved materials that are suitable for use as alternative daily cover (i.e., beneficial use determination (BUD) materials). Moreover, additional material handling practices are currently implemented at the SMI landfill which result in the minimization of natural resource use (i.e., use of tire chips as landfill leachate collection system drainage material and as a BUD daily cover). As such, while this plan addresses C&D debris management it also integrates other SMI practices which serve to minimize the use of natural resources.

The section that follows constitutes a plan for beneficial reuse material management for the goal of natural resource minimization.

SECTION 2

WASTE ACCEPTANCE PRACTICES

SMI, under its current operating permit, is permitted to accept an annualized average of 6,000 tons of solid waste per operating day, excluding BUD material. The incoming waste stream to the landfill is comprised of mixed municipal solid waste, construction and demolition debris, non-hazardous sludges, and various types of industrial wastes. In addition, other non-hazardous waste streams are accepted in accordance with the SMI waste approval process. The waste acceptance data from the 2019 annual report prepared in accordance with the facility's Part 360 permit indicates the following general breakdown of beneficial use materials used on site:

Table 2-1
BUDs Utilized by Category

Operational BUDs	Grand Total	Daily Average (tons)
Ash	-	-
Auto Fluff	4,902.5	13.7
Processed C&D	305,279.8	850.4
Contaminated Soil	61,084.9	170.2
Foundry Sand	856.2	2.4
Hard Fill	1,744.6	4.9
Paper Sludge	350	1.0
Industrial Waste-Other	260.7	0.7
Industrial Ash	19,820.6	55.2
B/R Tire Cover	7,302.3	20.3
Yard Debris	615.3	1.7
Z9500 (Tire Chips for Cover)	-	
TOTAL	**402,216.8**	**1,120.4**
Construction BUDs		
Tire Chips Processed for Construction Related Activities*	16,032	
GRAND TOTAL	**418,248.8**	

* Reported quarterly/annually for tire facility registration #50K03

Number of working days 359.0

SMI expects the distribution of incoming materials suitable for beneficial use for the continued operation of the landfill under the Part 360 permit issued for the expansion to be similar to what has previously been reported; however, the availability of tires to be processed is less certain.

The following sections describe SMI's acceptance practices for controlling the beneficial waste material and the various materials, not accounted for in the above list, which can be beneficially used in the construction and operation of the landfill. SMI maintains a complete Operations, Maintenance, and Monitoring Plan for the facility, in accordance with the terms of its Part 360 operating permit.

2.1 BENEFICIAL USE DETERMINATION MATERIAL

A Beneficial Use Determination (BUD) is a designation made by the NYSDEC as to whether a waste material which is to be beneficially used is governed by the Part 360 Solid Waste Management Facilities regulations. Materials that are granted BUD status are no longer considered solid waste and their associated volume is not counted towards the receiving facility's daily permitted waste acceptance rate. Sixteen pre-determined BUDs are listed in 6 NYCRR Part 360-1.15(b). The items listed in Part 360-1.15(b) are not self-implementing and may require a Part 360 permit or demonstration testing and approval from the NYSDEC before they can be used as BUDs. Pre-determined BUDs include the following types of materials:

- Unadulterated wood chips
- Uncontaminated newspaper and glass
- Uncontaminated, non-hazardous soils
- Fly ash
- Tire chips used as aggregate for road base materials or asphalt pavement

In addition to the pre-determined BUDs described above, generators and potential users can petition the NYSDEC for a case-specific BUD. The material must have a proposed use that constitutes a beneficial use based on the criteria outlined in Subpart 360-1.15(d). To be designated as a BUD, in general, the nature of the proposed use of the material must constitute reuse rather than disposal. In addition, the material must be intended to function or to serve as an effective substitute for an analogous raw material. SMI has received approval in their Part 360 permit in Condition 48(b) for the following waste streams to be beneficially used as daily cover material:

- Construction and Demolition (C&D) Debris
- Shredder Fluff
- Contaminated soil (which is not classified as hazardous waste)
- Coal Bottom Ash
- Resource Recovery Ash
- Paper Processing Sludge
- Chipped Tires
- Foundry Sand
- N-Viro Soil

The use of the above materials as daily cover and stone substitutes reduces the need for the use of natural earthen materials at the landfill. In addition, the use of these materials at the SMI landfill provides for safe and effective permanent re-use of these materials.

SECTION 3

BENEFICIAL REUSE PROGRAM

SMI uses and will continue to use various practices at the SMI landfill to minimize the use of natural resources, including the use of BUDs, waste tire chips, and yard waste. The sections below describe these practices.

3.1 BENEFICIAL USE DETERMINATION MATERIAL PRACTICES

3.1.1 General

To successfully implement a program for beneficial reuse of waste materials, first requires that a dependable supply of such materials be available at the landfill. Seneca Meadows marketing department actively pursues available beneficial use materials to provide such a supply. The BUD market is a competitive, "spot market" where different materials with beneficial uses are available during certain times of the year or based on projects that generate such materials. For example, waste such as contaminated soil and construction and demolition debris are generated on a project-by-project basis. As such, the Seneca Meadows marketing staff maintains customer relations and solicits landfill disposal and hauling services in order to be in the position to receive these materials, once they become available, to offset the use of natural resources for landfill construction and operations. SMI continuously maintains marketing efforts for alternative daily cover materials.

SMI currently obtains daily cover material from NYSDEC permitted local borrow pits in proximity to the landfill. BUD material is used on-site as an alternative to native soil for daily cover. At the end of each operating day, a minimum of 6 inches of BUD material or soil is placed over the exposed waste to control vectors, fires, odors, blowing litter and scavenging. In general, daily cover BUD materials consist of materials which can readily drain standing water. Placement of these BUD materials is confined to areas of the landfill that overlay a leachate collection system or as limited in the permit conditions for the approved material usage. Run-off and run-on controls, such as berms and swales, are placed around storage areas to control the potential for erosion of BUD materials into surrounding drainage features.

In the past, BUD materials used for daily cover were covered with additional waste or clean soil within 24 hours of placement, in accordance with the landfill's Part 360 permit requirements. Based on SMI's successful implementation of BUD materials as a daily cover, SMI requested and the NYSDEC approved an extension of this timing requirement for placement of additional waste or clean soil to 48 hours after BUD material placement. This results in a further reduction of use of clean soil, particularly for weekends. For example, formerly BUDs placed as daily cover on Saturday morning would have required the placement of additional clean soil before the receipt of waste on the following Monday. With the 48-hour time frame, the use of the clean soil cover can be eliminated and waste placement simply resume on Monday morning over the previously placed BUD daily cover.

Specific waste streams that have been approved for beneficial use as daily cover at the SMI landfill and usage practices are presented below.

3.1.2 Construction and Demolition (C&D) Debris

Construction and demolition debris practices will be optimized for use of this material as an alternative daily cover. These practices may be summarized as follows:

- Incoming material identified as construction and demolition debris is weighed and directed to a designated processing area on the landfill. BUD materials are used only on existing landfill areas that are lined and have an installed leachate collection system.
- Unacceptable materials and tires are sorted and placed into roll-offs, eventually being sent to outside vendors for proper handling and/or recycling (where practical).
- Larger C&D material is then crushed on site utilizing landfilling equipment. As is discussed in more detail subsequently, SMI maintains compaction equipment among the most effective available in the industry, which is equally effective in the processing of C&D debris so that it can be used as alternative daily cover with a minimum of residuals that must be disposed as waste.
- Processed C&D debris used for daily cover is limited to placement on sloping portions of the working face and is restricted from use on the outside slopes of the landfill, in accordance with the landfill's Part 360 permit. These restrictions limit the potential for erosion of materials outside of the landfill footprint. Processed C&D debris may also be

used for the flat portions of the working area by first blending it with sand or soil to achieve 50/50 mix of C&D debris and soil.

In addition to the use of processed C&D material as daily cover, SMI has received approval from the NYSDEC to use the six-inch minus processed material for landfill roadways and ramps within the footprint of the landfill, primarily on in-place waste to provide travel lanes for access to the working face. When used as sub-base for access roads and ramps, the C&D material is covered with a clean soil wearing surface (i.e., stone or aggregate material) to prevent rubber tire punctures and off-site tracking.

3.1.3 Other BUDs

In addition to processed construction and demolition debris, the following materials are approved at SMI for and beneficially re-used as daily cover, as available:

- Shredder Fluff. Shredder fluff may be used on sloping potions of the working face but is restricted from use on the outside slopes of the landfill. The shredder fluff is blended with equal amounts of soil or other approved daily cover material when applied.
- Contaminated Soil. Contaminated soil, which is not classified as a hazardous waste, can be used alone or blended with clean soil on sloping portions of the working face but is restricted from use on the outside slopes on the landfill. The SMI Environmental Engineering and Compliance Manager reviews the incoming contaminated soil data to determine if it qualifies to be beneficially re-used. In the process, the Environmental Engineering and Compliance Manager instructs the Operations Foreman to check the first few loads of a group of loads from the same generator to determine if the soil is suitable for daily cover. If the soil is not suitable, those loads are not used as daily cover and are landfilled.

- Coal Bottom Ash. Coal bottom ash, which is not classified as a hazardous waste, can be used alone or blended with clean soil as daily cover on the sloping portions of the working face but is restricted from use on the outside slopes of the landfill. Periodically, the SMI Waste Approval Manager will require analytical data on the ash to establish that it is non-hazardous.

- Resource Recovery Ash. The beneficial use of resource recovery ash as a daily cover has been approved in the recently issued Part 360 landfill expansion permit. Resource recovery ash material is defined as non-hazardous ash generated by permitted resource recovery facilities in New York State. The ash can be used alone as daily cover on the sloping portions of the working face but is restricted from use on the outside slopes of the landfill. Analytical sampling results of accepted ash are provided in SMI's annual report and made available to the NYSDEC upon request. Ash which contains unburned wastes, ash with a probability of becoming airborne or eroded into surface water drainage ways is not used as daily cover and is landfilled on the day it is accepted at the facility. Ash determined to be suitable for use as daily cover is placed adjacent to the working face, and is not placed on or near the outside perimeter slopes or near surface water drainage ways. Resource recovery ash is not stockpiled for reuse, but is used on the same day as it is received at the landfill.

- Paper Processing Sludge. Paper Processing Sludge can be used alone as daily cover on the sloping portions of the working face. When used on flat portions of the working face, paper processing sludge is blended with equal amounts of clean soils.

- Chipped Tires. Chipped or shredded tires may be used on sloping potions of the working face but are restricted from use on the outside slopes of the landfill. Other beneficial uses of chipped tires are discussed further subsequently.

- Foundry Sand. Foundry sand may be used on sloping potions of the working face but is restricted from use on the outside slopes of the landfill. Periodically, the SMI Waste Approval Manager will require analytical data on the ash to establish that it is non-hazardous

3.2 WASTE PLACEMENT AND COMPACTION PRACTICES

SMI uses a number of techniques to maximize waste compaction, which in turn reduces the amount of cover soil needed for a given quantity of waste (i.e., the higher the compaction, the less surface area occupied by a given waste quantity). In addition, optimal compaction rates in conjunction with leachate recirculation maximize air space usage, which again minimizes the quantity of soil required for operation and closure per a given quantity of waste. Increases in density have been shown to increase from the $\pm$ 0.75 tons per cubic yard range to approaching $\pm$ 1.0 cubic yard range. The actual average in-place density are highly dependent on various other factors such as initial select waste placement on liner systems, settlement, moisture, and waste type.

Leachate Recirculation

Leachate recirculation is the reintroduction of landfill leachate into the lined landfill cells. Leachate recirculation provides a means of optimizing environmental conditions within the landfill to provide enhanced stabilization of landfill waste, as well as treatment of moisture moving through the waste mass.

Proper leachate recirculation provides benefits to the landfill beyond the offset of disposal or treatment costs including: increased compaction and settlement, provides liquid necessary for a more uniform degradation of waste and nutrients for the anaerobic bacteria that generate methane.

The rationale for implementing moisture addition is primarily to take advantage of the storage attenuation capacity of the landfilled waste as an interim measure to manage leachate. Moisture addition will result in achieving a steady-state in moisture content, settlement and leachate quality, in a somewhat accelerated manner, but not to the extent of a rapid acceleration program. A steady-state condition for a large site that is landfilled relatively quickly is normally achieved subsequent to closure of a particular area or cell. The proposed approach will simply bring the site into a steady-state condition that would naturally be achieved over time, at an earlier date than would otherwise have taken place.

The continued use of leachate recirculation is being specifically proposed to provide the following benefits:

- Attenuation of leachate organic strength and quantity;
- Increased rate of landfill stabilization;
- Immobilization of metals from landfilled material;
- Improved landfill settling rate; and,
- Increased landfill compaction rates;
- Reduced discharges to off-site treatment facilities.

The introduction of additional moisture in the waste mass leads to the improved contact between the bacteria, the biodegradable component of the refuse, and the necessary nutrients. The additional loss of solids, quicker decomposition and resultant consolidation leads to a more rapid stabilization of the waste mass.

In terms of general practices for waste placement and compaction, solid waste is off-loaded from haul vehicles at the working face of the landfill. Upon being unloaded, the solid waste is spread out in layers approximately two feet thick to enhance compactive effort throughout the lift thickness. Field experience and in-cab GPS confirmation are used to establish the number of passes to achieve optimal compaction. Two factors directly contributing to the degree of solid waste compaction are monitored, which are the thickness of waste which has been spread out and the condition of the compactor wheel teeth.

Other Beneficial Re-Use Program Practices

Yard waste (i.e., leaves, grass, brush/branches and stumps/tree sections) are banned from disposal in the landfill, expect for yard waste which is contaminated by excessive pesticides, hazardous substances, or other items that would make the yard waste unsuitable for composting or chipping. Yard waste contained in plastic bags, however, is not banned from landfilling.

SMI manages a source separated yard waste area. Suitable yard waste, as previously described, is chipped and stored before its on-site or off-site use. The chipped material is used on site for erosion

and sedimentation control. In addition, the yard waste operation has the capability to use aerated static pile composting technology; however, currently composting is not practiced at the site.

SMI has set up facilities for electronic waste collection, batteries, mobile phones and various other source-separated materials suitable for recycling purposes (plastics, papers, card board, etc.)

E-Waste Collection

Seneca Meadows, Inc. (SMI) instituted a free, e-waste recycling drop-off service for residents and businesses in the Finger Lakes Region in collaboration with 2trg, an electronics recycling company in Geneva, New York, in 2011 and in 2015 a multi-year contract was signed with Sunnking in Brockport, NY for recycling the electronic materials. SMI is registered in accordance with the New York State Electronic Equipment Recycling and Reuse Act (Environmental Conservation Law, Article 27, Title 26 under Registration #00566.

Sunnking is a fully permitted, Brockport, NY based company specializing in computer and technology reuse and recycling, CRT de-manufacturing, secure data destruction, cabling, and technology deployments. It provides these services to small businesses, schools and governments, Fortune 500 companies, value-added resellers, electronics manufacturers, other recyclers, and local residents.

Sunnking's Brockport facility is one of a limited number of recyclers in the country to have qualified for the independently audited R2 (EPA Responsible Recycling Certification) and is also certified by RIOX (Recycling Industry Operating Standard). Sunnking is also registered with NYS Electronics Equipment Recycling & Reuse Act along with the U.S. EPA (Environmental Protection Agency). Sunnking follows NIST 800-88 guidelines to clear or destroy data on hard drives and to provide laws like HIPAA, FACTA, SBA, GLBA, and CERCLA. R2 and RIS requirement also assure that electronic waste is recycled, re-manufactured, or destroyed in a responsible manner and is not disposed of in MSW landfills or shipped to third world countries.

Currently, the e-waste service includes drive-through unloading of acceptable* electronics for secure processing. The collection of e-waste is available on Saturdays from 6:00 a.m. to 11:30 a.m. and Sundays from 8 a.m. to 11:00 a.m.

We reported 136,934 lbs. of items collected and sent off site, which includes computers, computer peripherals, small electronic equipment, and televisions to the New York State Department of Environmental Conservation in our 2019 Annual Report for NYS Electronic Waste Collection Sites.

*ACCEPTABLE E-WASTE ITEMS

AC/DC Adapters	I-Pods	Satellite Receivers
Audio Equipment	Keyboards	Scanners
Cables/Wires/Cords	Laptops/Laptop Accessories	Security/Surveillance Equipment
Calculators	Media (tapes, disks)	Servers
Cardboard	Medical Equipment (non-hazardous)	Shredders (Document)
Cell Phones	Metals	Slot Processors
Circuit Boards	Mice	Speakers (Plastic ONLY)
Computers – All-In-One	Microwaves	Stereo Equipment (Plastic ONLY)
Computers – Desktop	Modems/Cable Modems	Surge Protector
Computers – Laptops	Monitors (CRT and LCD)	Telephones (LAN Line, systems)
Computers – Main Frames	MP3 Players	Turntables
Computers – Tablets	Networking Equipment	TVs
Computer Components/Accessories	Optical Drives	TV Cable Boxes
Computer Fans	PC Cards (finger boards, etc.)	UPS – Battery Back-up
Copiers	PDAs	Video Equipment
Digital Memory Cards	Plastics (computer, medical)	
Docking Stations	Power Supplies	
Electric Motors	Power Tools	
Electronic Game Devices	Printers (desktop, laser)	
Electronic Office Equipment	Processor Chips	
e-Readers	Projectors	
Fax Machines	Radios	
GPS Units	RAM/Memory	
Hard Drives	Routers/Hubs	

COUNTY RECYCLING BOX

The Seneca County Recycling Department, WeCARE Waste & Recycling, LLC and Seneca Meadows, Inc. coordinate a free, household recycling drop-off service at the Seneca Meadows Landfill to encourage collection rates in the County. The program, which has become popular with residents, is geared toward households producing more than the allowable quantity of recyclables, or that miss a recycling pick-up.

RECHARGEABLE BATTERIES RECYCLING DROP-OFF

On December 5, 2011, it became illegal for residents of New York State to dispose of rechargeable batteries with their waste. To provide for the convenient recycling of these products in our community, SMI has partnered with Call2Recycle, a free, North American rechargeable battery program to offer an on-site drop-off. Approximately 130 lbs. of rechargeable dry cell batteries were collected and shipped to Call2Recycle in 2019.

CELL PHONE RECYCLING DROP-OFF

Cell Phones for Soldiers is a national, non-profit organization that recycles cell phones to benefit United States veterans. Funds collected for the recycled cell phones are used by the group to purchase calling cards for soldiers to help them keep in contact with their families. SMI provides a full-time collection site at our landfill facility to collect the phones. Approximately 54 lbs. of cell phones and cell phone accessories were collected and shipped to Cell Phones for Soldiers in 2019.