

MEMORANDUM



TO: Dr. Ranjit Perera
President Humanics Institute

FROM: Noah Chauvin, EIT. and
Ahmed Elsayed, P.Eng.

PROJECT No.: 210647100

Subject: Humanics Sanctuary & Sculpture Park- Ottawa
Site Plan Development
Stormwater Management Design Brief

DATE: December 3, 2021

REVISION: 1

X:\Proj\2021\210647100-Humanics Sanctuary Civil\12. Deliverables\2- SWM Report (Dec 3 2021)

Introduction

This memorandum is part of the Site Plan application amendment for D07-12-16-0081, the memo gives an overview of the new stormwater management/drainage approach and measures for the development of 3400 Old Montreal Road, East of Ottawa. The proposed site development includes the 3 buildings, a pavilion and a lodge as well as an access route and parking areas. A site plan agreement based on an old Site Plan has been previously submitted and signed by the City of Ottawa.

Figure 2 shows the proposed development and access roads/parking area locations and layout. Proposed stormwater management/drainage measures for the new development consists of a Low Impact Development (LID) Treatment Train Approach which includes a series of grass swales, vegetated filter strips, and a bioretention feature.

To provide a complete overview of the servicing of the new development, other new components include water servicing from an existing privately operated water well and a septic system, in addition to the enhanced grass swales.

Site Description

Existing Conditions

The site is located on the south side of Old Montreal Road, approximately 440 m west of Beckett's Creek Road as shown on **Figure 1**. The site is zoned Rural Residential 1. The municipal address of the proposed site is 3468 Old Montreal Road (PIN 145340141) and a portion of 3400 Old Montreal Road (PIN 145340140) in the City of Ottawa.

The site is primarily undeveloped with stone dust covered pathways and a number of stone sculptures. There are no permanent buildings on the site, however the owner is using a metal storage container for some landscaping equipment. The proposed site is bisected by a hydro corridor with overhead transmission lines mounted on wooden hydro poles which are found at two locations on the subject site. Surrounding properties consist of Old Montreal Road to the north of the property, vacant land to the south (which will become Cumberland Estates Phase 2), a residential property to the east, and vacant woodlots to the west.

Proposed Stormwater Management (SWM)

The overarching stormwater management strategy for the development of this site will maintain the existing drainage patterns to minimize the impacts to the Ravines which the site drains to today. To

mitigate impact on these Ravines, Low Impact Development (LID) solutions such as enhanced grass swales and bioretention facilities for stormwater quality and quantity control are proposed.

The principles and methodologies of the Ministry of the Environment, Conservation and Parks (MECP) Stormwater Management Planning and Design Guidelines (2003) and Toronto Region Conservation Authority/Credit Valley Conservation Authority (TRCA/CVC) Low Impact Development Stormwater Management Planning and Design Guide (2010) were applied for the analysis and design of the drainage and SWM system.

Stormwater Approach and Criteria

Quantity Control

For quantity control, the proposed stormwater management system will reduce the post-development peak flow to the pre-development runoff during storm events up to and including the 100-year event. This approach is consistent with the previous Stormwater Management study completed by EXP and was approved by the City of Ottawa. The required quantity control will be achieved by means of stormwater detention within the Bioretention Pond.

Pre-Development Flows

A review of the topographic contours based on 2015 City of Ottawa LIDAR data was performed. LIDAR, or Light Detection and Ranging, is a remote sensing method of measuring distances (or ground surface elevation in this case) using lasers. The vertical accuracy of the LIDAR data provided by the City is reported as 8.6 centimetres. The topography of the site reveals that the natural ground slopes northerly towards a ravine located through the middle of the property with a watercourse running west to east. The southern section of the property is divided in two. The southernmost portion slopes towards the south boundary of the property to a smaller ravine located immediately to the south of the hydro corridor. The middle section flows towards the ravine running through the property. The larger deeper ravine has an approximate depth of 13.5m (49m - 62.5m), whereas the smaller shallower ravine is only 7.5m in depth (55m - 62.5m).

In its current condition, the site plan consists of both open fields and wooded areas. Stormwater runoff from the northern portion of the property currently drains in a southerly direction to the deeper ravine which flows from west to east and ultimately flows north to the Ottawa River. The flow path for the southern portion of the property is divided in two. The southernmost section flows down towards the shallower ravine which ultimately flows to Beckett's Creek. The mid-section flows to the north towards the deeper ravine. Both ravines are deeply incised in the landscape, with runoff from the development area being conveyed to two possible outlets denoted as North Outlet and South Outlet. The site is fairly self-contained and does not receive flows from the surrounding properties. Pre-development and post-development drainage conditions are illustrated in **Figures 1 and 2**.

As control of runoff to pre-development conditions is required, an estimation of peak flows prior to development was necessary. Although the Sanctuary Lands area is 7.52 hectares, only approximately 1.59 hectares is being developed. In order to compare the same pre-development and post-development drainage areas, the northern limit of drainage area was taken as the centre of the ravine, making the total area under consideration to be **3.85 hectares**. In accordance with the City of Ottawa's Sewer Design Guidelines, the Rational Method was utilized for calculations of the pre-development runoff rates from drainage catchments. **Figure 2** illustrates the pre-development boundaries.



Catchment area OUT1 flow to the north ravine designated as the North Outlet. Catchment areas OUT2.1 and OUT2.2 flow to the south ravine designated as South Outlet.

Using rational method analysis of the existing catchment areas, the pre-development runoff coefficients as well as the pre-development flows during the 5-year and 100-year storm events were determined. Catchment area plans, which illustrate the existing drainage patterns, are included on **Figure 1**.

Total allowable release rate for the site will be **207.16 L/s for 5-year** and **442.91 L/s for 100-year**, this allowable rate is divided between the northern (OUT1) and southern (OUT2.1 & 2.2) outlets as per the below table.

Pre-development catchment parameters and peak flows are summarized in the table below with additional details in **Appendix A.2**.

Drainage Area	Existing Conditions			Post-Development Peak Flows (L/s)	
	Area, A (ha)	Imp.	Runoff Coefficient, R	5-year	100-year
OUT1	3.17	8%	0.23	164.06	350.58
OUT2.1	0.32	7%	0.23	21.46	45.97
OUT2.2	0.36	2%	0.21	21.64	46.36
Total	3.85	7%	0.23	207.16	442.91

Proposed Stormwater System

The proposed stormwater system consists of roadside swales, and culverts as a means to conveying stormwater to the bioretention pond, the flows to the ravines will be controlled to meet pre-development rates. The overall drainage patterns have remained wholly the same as shown on the proposed catchment area plan.

Post-Development Flows

The post-development catchment areas are illustrated in **Figure 2**.

Most of North catchment area (A1.1 and A1.2) will stay draining uncontrolled to the existing north ravine, no significant changes in the northern area pervious will happen as most of the development will be within the southern catchment area.

The South Catchment will include the proposed development (A2.1-A2.5) and the Hydro One easement (A2.6) which will be undisturbed. Runoff from the undisturbed area (A2.6) will be released uncontrolled to the southern existing ravine following the existing draining pattern. As for the development (A2.1-A2.5), it will be controlled through proposed swales adjacent to the access route conveying the captured storm water to the proposed Bioretention Pond.

The following table shows the post-development catchments areas, imperviousness and peak flows:

Drainage Area	Sub Area	Proposed Conditions	5-year		100-year	
		Area, A (ha)	Runoff Coefficient, R	Q (L/s)	Runoff Coefficient, R	Q (L/s)
	A1.1	2.15	0.20	121.5	0.25	260.2
	A1.2	0.23	0.45	30.4	0.56	65.0
North Outfall 1 Sub-Total		2.38		151.9		325.2
	A2.1	0.36	0.36	24.5	0.45	52.3
	A2.2	0.14	0.45	18.5	0.57	39.6
	A2.3	0.26	0.37	26.5	0.47	56.8
	A2.4	0.13	0.39	10.3	0.49	21.9
	A2.5	0.07	0.20	2.1	0.25	4.4
	A2.6	0.51	0.22	30.0	0.28	64.1
South Outfall 2 Sub-Total		1.47		111.8		239.2
Total		3.85		263.7		564.4

Complete post-development calculations are provided in **Appendix A.3**.

Post-Development Peak Flow Reduction and Storage

Considering the existing topography conditions, the site will be discharging to 2 outlets. The north of the site including most of the pre-development north catchment will drain to the same outlet as pre-development conditions. The south of site will include the development area and the rest of the south areas of the site.

According to the above table, the north outlet post-development calculated flows are **151.90 L/s for 5-year** and **325.20 L/s for 100-year**. These flows are reduced when compared to pre-development conditions, accordingly no stormwater management solution is needed.

As for the south outfall, calculated post-development flows are **263.70 L/s for 5-year** and **564.40 L/s for 100-year**. The south outlet will have an increase in stormwater runoff as a result of the site development. As such, the peak flows within this catchment area will be reduced by means of retaining storm water in the proposed Bioretention Pond. The South catchment will include an area of **0.51 hectares** that will be left **uncontrolled** resulting in an uncontrolled flow of **30.0 L/s for 5-year** and **64.1 L/s for 100-yr**. As such, the allowable release rate that will be used to control the south part of the site will be **13.1 L/s for 5-year** and **28.2 l/s for 100-year**.

Analysis of the pre- and post-development flows shows that the different in flows for different return periods (5year & 100year) requires a storage of **89.1 cubic meters for 5 years** and **128.0 cubic meters for 100 years**. The full storage analysis can be found in **Appendix A.4**.

Stormwater Quality Control

Stormwater quality protection has been designed to meet the MECP's "Enhanced" standard of 80% Total Suspended Solids (TSS) removal rate prior to discharge to the Ravines.

Infiltration



A Low Impact Development approach will be taken for this development due to the nature of the site and soil conditions. The SWM design will rely on infiltration to achieve the required quality criteria for this design. To have the information to proceed with this approach an infiltration test was done in site and report was prepared, this report includes design infiltration rates to be used specifically for this site. Refer to the Memo in Appendix for Infiltration Testing. The report used the 2800K1 Guelph Permeameter to provide the design infiltration rate that varies from 52 to 29 mm/hr can be used. Complete results of the infiltration testing are provided in **Appendix B**.

The design of the Bio-retention Pond is to be as per MECP requirements and the bottom of pond will be minimum 1m above the high groundwater. The bottom of Pond is **62.00**. Based on the geotechnical report prepared by EXP, the current **groundwater** in the area is approximately **58.0 m** which meets the requirements for MECP.

In accordance with TRCA SWM Criteria (2010), Section 7.4: "As a minimum, to achieve the enhance level of water quality control, the LID practice must be sized to provide storage for a minimum 5mm of rainfall."

As mentioned previously the site presented very suitable conditions for LID approach, this was done through proposing side swales that conveys water to a proposed Bioretention pond, this pond will provide the enhanced treatment required for this site. The proposed Bioretention pond will be designed to retain the first **10mm** of stormwater, this is equivalent to **35.5** cubic meters of water that will need to be infiltrated to the soil.

The proposed Bioretention cross section has a **0.75m** wide flat bottom with **5:1** side slopes, the elevation of the bottom is at **62.00** and the spill elevation is at **62.55**. The proposed Bioretention swale can capture a volume up to **170 cubic meters**, at an elevation of **62.55**. To provide the required retention, a **200 mm** outlet pipe equipped with a **152 mm** plug-style orifice ICD is proposed at an invert elevation of **62.15**. A volume of **34.7cubic meters** will be retained with in the Bioretention pond, and an expected time of infiltration will be **6.9 hr** with a rate of **39 mm/hr**. For more detailed calculation refer to **Appendix A.5 and A.6**. A detailed cross section of the proposed bioretention pond is presented in **Figure 3**.

Analysis for the Bio-retention Pond sizing was done based on the drainage area and daily precipitation data (excluding winter months) to establish overflow volume based on measured historical data. The maximum potential infiltration of the pond was analyzed using pond size and precipitation norms for the area and the overflow was then subtracted. Below table shows a summary for each year, more than 80% of rainwater will infiltrate into soil through Bio-retention Pond. Refer to **Appendix A** for Analysis.

<i>Analysis excludes winter months (Jan - Apr)</i>					
Year	Total rain (mm)	Runoff (m³)	Infiltrated runoff (m³)	Released Volume (m³)	Infiltration %
2016	614	2171	1890	281	87%
2017	925	3271	2991	280	91%
2018	659	2330	2048	282	88%
2019	627	2219	2102	117	95%
2020	586	2074	1946	128	94%



Erosion and Sediment Control during Construction

The contractor shall implement best management practices to provide for protection of the area drainage system and the receiving watercourses during construction activities, as per the Erosion and Sediment Control Plans included on the design drawings. These best management practices shall include the installation of a straw-bale check dam as appropriate.

Conclusions

In conclusion the stormwater management design meets all required servicing constraints and associated design criteria/requirements.

Sincerely,

Morrison Hershfield Limited



A handwritten signature in blue ink that reads "Ahmed Elsayed".

Ahmed Elsayed, P.Eng.

Civil Engineer

A handwritten signature in blue ink that reads "Noah Chauvin".

Noah Chauvin, EIT

Municipal Designer

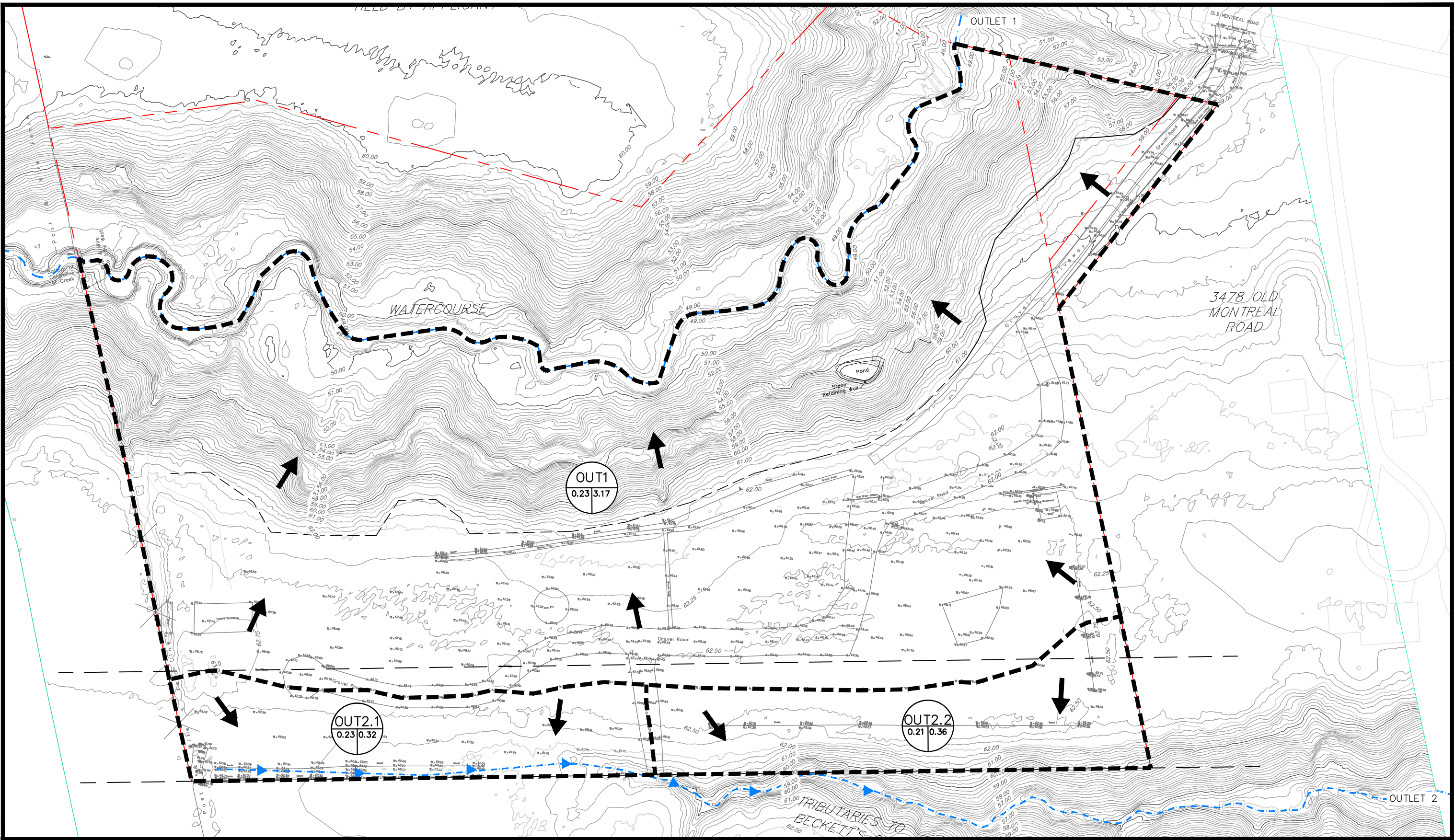
Figures

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|----------|-------------------------------|
| Figure 1 | Existing Catchments |
| Figure 2 | Proposed Catchments |
| Figure 3 | Stormwater Management Details |

Attachments

- | | |
|------------|------------------------------------|
| Appendix A | Stormwater Management Calculations |
| Appendix B | Infiltration Testing Memorandum |

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HUMANICS SANCTUARY EXISTING STORM DRAINAGE AREA PLAN

LEGEND

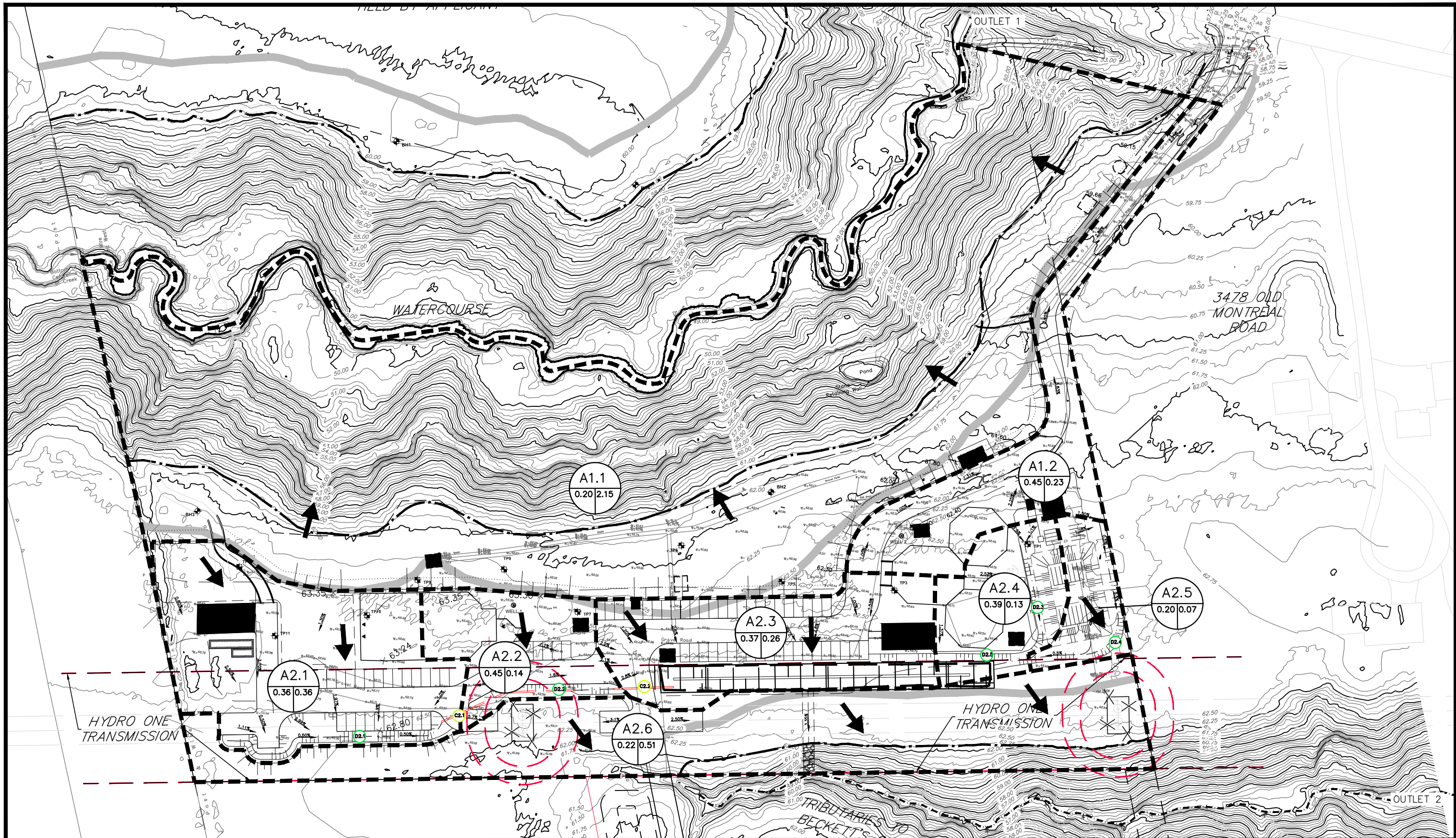
AREA ID		DRAINAGE AREA CHARACTERISTICS
RUNOFF COEFFICIENT %		AREA ha

FIGURE 1

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SCALE: N.T.S.

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HUMANICS SANCTUARY PROPOSED STORM DRAINAGE AREA PLAN

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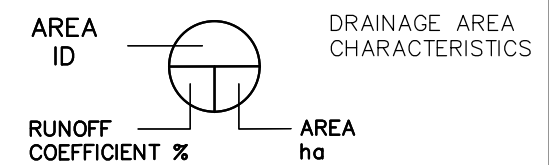
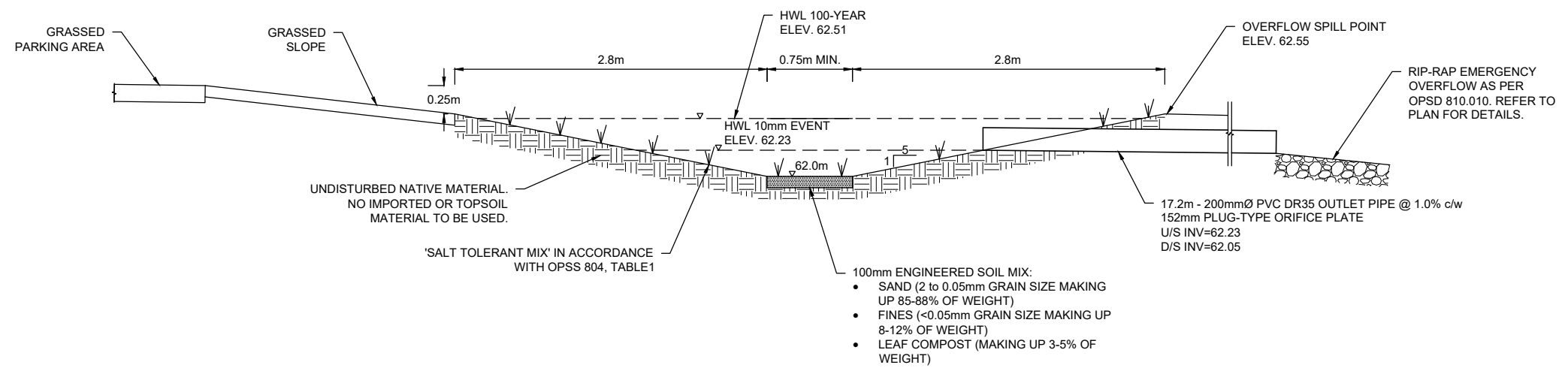


FIGURE 2

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① BIORETENTION POND CROSS SECTION
NTS

Appendix A

Stormwater Management Calculations

A.1. Stormwater Management Summary

Humanics Centre, Ottawa, Ontario

Project No.	210647100
Date:	Nov-19-2021
Prepared By:	N Chauvin
Check By:	A Elsayed

Impact of Development on Drainage Areas

Drainage Area	Pre-development				Post-development			
	Area (ha)	Imp.	Imp Area (ha)	Runoff Coefficient, R	Area (ha)	Imp.	Imp. Area (ha)	Runoff Coefficient, R
North Outlet	3.17	8%	0.25	0.23	2.38	6%	0.15	0.22
South Outlet	0.68	4%	0.03	0.22	1.47	34%	0.50	0.32
Total	3.85	7%	0.28	0.23	3.85	17%	0.65	0.26

Impact on Peak Flows

Drainage Area	5-year Pre-Development Flow	5-year Post-Development Flow	Difference	Percent Change	100-year Pre-Development Flow	100-year Post-Development Flow	Difference	Percent Change
	(L/s)	(L/s)	(L/s)	(%)	(L/s)	(L/s)	(L/s)	(%)
North Outlet	164.1	151.9	-12.2	-7.4%	350.6	325.2	-25.3	-7.2%
South Outlet	43.1	111.8	68.7	159.5%	92.3	239.2	146.8	159.0%
Total	207.2	263.7	56.5	27.3%	442.9	564.4	121.5	27.4%

A.2. Pre Development Peak Flows

Humanics Centre, Ottawa, Ontario

Project No.	210647100
Date:	Nov-19-2021
Prepared By:	N Chauvin
Check By:	A Elsayed

Rational Method

Q = RAIN, where

Q = Peak runoff flow (L/s)	Woodland Area:	R = 0.30
R = Runoff coefficient	Lawn Area:	R = 0.20
A = Area (ha)	Building Area:	R = 0.90
I = Rainfall intensity (mm/hr)	Gravel Area:	R = 0.60
N = 2.78	Water Area:	R = 1.00

Existing Drainage Area Characteristics

Drainage Area	Existing Conditions				
	Area, A (ha)	Pervious Area (ha)	Impervious Area (ha)	Imp.	Runoff Coefficient, R
OUT1	3.17	2.92	0.25	8%	0.23
OUT2.1	0.32	0.30	0.02	7%	0.23
OUT2.2	0.36	0.35	0.01	2%	0.21
Total	3.85	3.57	0.28	7%	0.23

Existing Peak Flows

Where
$$i = \frac{A}{(T_c + C)^B}$$

Calculation of Time of Concentration, using the Airport Method (MTO Drainage Manual)

$$T_c = 3.26 \times (1.1 - R) \times L^{0.5} / S_w^{0.3} \quad \text{Federal Aviation Formula (Airport Method)}$$

Where:

T_c	=	Time of Concentration (min)
R	=	Runoff Coefficient
S_w	=	Catchment Area Slope (%)
L	=	Catchment Area Length (m)

Drainage Area	Runoff Coefficient, R	Length, L (m)	Average Slope, S_w (%)	Time of Concentration, T_c
OUT1	0.23	143	9.5	16.09
OUT2.1	0.23	22.6	3.00	9.40
OUT2.2	0.21	24.8	7.2	7.55

Drainage Area	Existing Conditions		5-year			100-year		
	Area, A (ha)	Time of Concentration (Note 1)	I (mm/hr)	Runoff Coefficient, R	Q (L/s)	I (mm/hr)	Runoff Coefficient, R (Note 2)	Q (L/s)
OUT1	3.17	16.09	80.2	0.23	164.06	137.1	0.29	350.58
Outlet 1 Sub-Total	3.17				164.06	137.1		350.58
OUT2.1	0.3248	10.00	104.2	0.23	21.46	178.6	0.29	45.97
OUT2.2	0.3594	10.00	104.2	0.21	21.64	178.6	0.26	46.36
Outlet 2 Sub-Total	0.68				43.1			92.3
Total	3.85				207.16			442.91

Note 1: A minimum time of concentration of 10 mins was taken

Note 2: For 100-year event, Runoff Coefficient is increased by 25% to a maximum of 1.0.

A.3. Post Development Peak Flows

Humanics Centre, Ottawa, Ontario

Project No.	210647100
Date:	Nov-19-2021
Prepared By:	N Chauvin
Check By:	A Elsayed

Rational Method			
Q = RAIN, where			
Q =	Peak runoff flow (L/s)	Woodland Area:	R = 0.30
R =	Runoff coefficient	Lawn Area:	R = 0.20
A =	Area (ha)	Building Area:	R = 0.90
I =	Rainfall intensity (mm/hr)	Gravel Area:	R = 0.60
N =	2.78	Water Area:	R = 1.00

Proposed Drainage Area Characteristics

Drainage Area	Sub Area	Proposed Conditions						
		Area, A (ha)	Pervious Area (ha)	Gravel	Building	Impervious Area (ha)	Imp.	Runoff Coefficient, R
OUT1		2.38	2.24			0.15	6%	0.22
	A1.1	2.15	2.15			0.00	0%	0.20
	A1.2	0.23	0.09			0.15	63%	0.45
OUT2		1.47	1.13			0.50	34%	0.32
	A2.1	0.36	0.25	0.07	0.04	0.11	31%	0.36
	A2.2	0.14	0.08	0.03	0.03	0.06	46%	0.45
	A2.3	0.26	0.16	0.08	0.02	0.10	38%	0.37
	A2.4	0.13	0.09		0.03	0.03	27%	0.39
	A2.5	0.07	0.07			0.00	0%	0.20
	A2.6	0.51	0.49	0.03		0.03	5%	0.22
Total		3.85	3.37			0.65	17%	0.26

Proposed Peak Flows

Where
$$i = \frac{A}{(T_d + C)^B}$$

Calculation of Time of Concentration:

if $R < 0.4$, use Federal Aviation Formula (Airport Method)

$$T_c = 3.26 \times (1.1 - R) \times L^{0.5} / S_w^{0.3}$$

if $R > 0.4$, use Bransby William Formula

$$T_c = 0.057L / S_w^{0.2} A^{0.1}$$

Drainage Area	Runoff Coefficient, R	Length, L (m)	Average Slope, S_w (%)	Area, A	Time of Concentration, T_c
A1.1	0.20	83.00	17.00	2.15	10.49
A1.2	0.45	175.00	2.70	0.23	9.46
A2.1	0.36	93.00	1.30	0.36	21.28
A2.2	0.45	32.00	2.00	0.14	1.93
A2.3	0.37	30.00	1.50	0.26	11.34
A2.4	0.39	60.00	1.00	0.13	17.94
A2.5	0.20	60.00	0.50	0.07	28.57
A2.6	0.22	23.00	1.60	0.51	11.78

Drainage Area	Sub Area	Proposed Conditions		5-year			100-year		
		Area, A (ha)	Time of Concentration (Note 1)	I (mm/hr)	Runoff Coefficient, R	Q (L/s)	I (mm/hr)	Runoff Coefficient, R (Note 2)	Q (L/s)
	A1.1	2.15	10.49	101.65	0.20	121.5	174.16	0.25	260.2
	A1.2	0.23	10.00	104.19	0.45	30.4	178.6	0.56	65.0
Outlet 1 Sub-Total		2.38				151.9			325.2
	A2.1	0.36	21.28	67.55	0.36	24.5	115.3	0.45	52.3
	A2.2	0.14	10.00	104.19	0.45	18.5	178.6	0.57	39.6
	A2.3	0.26	11.34	97.59	0.37	26.5	167.1	0.47	56.8
	A2.4	0.13	17.94	75.13	0.39	10.3	128.4	0.49	21.9
	A2.5	0.07	28.57	55.74	0.20	2.1	95.0	0.25	4.4
	A2.6	0.51	11.78	95.66	0.22	30.0	163.8	0.28	64.1
Outlet 2 Sub-Total		1.47				111.8			239.2
Total		3.85				263.7			564.4

Note 1: A minimum time of concentration of 10 mins was taken

Note 2: For 100-year event, Runoff Coefficient is increased by 25% to a maximum of 1.0.



A.4. Proposed Storage
Humanics Centre, Ottawa, Ontario

Project No.	210647100
Date:	Dec-03-2021
Prepared By:	N Chauvin
Check By:	A Elsayed

4a. Outlet 1 Storage

Summary of all Drainage Areas:

Drainage Area	Sub Area	Proposed Conditions				
		Area, A (ha)	Pervious Area (ha)	Impervious Area (ha)	Imp.	Runoff Coefficient, R
OUT1		2.38	2.24	0.15	6%	0.22
	A1.1	2.15	2.15	0.00	0%	0.20
	A1.2	0.23	0.09	0.15	63%	0.45

Summary of Uncontrolled Drainage Areas:

Drainage Area	Sub Area	Proposed Conditions					Runoff Rate	
		Area, A (ha)	Pervious Area (ha)	Impervious Area (ha)	Imp.	Runoff Coefficient, R	5-year (L/s)	100-year (L/s)
OUT1	A1.1	2.15	2.15	0.00	0%	0.20	121.50	260.22

100-year Pre-Development Flow (L/s)= 350.6
 100-year Uncontrolled Runoff (L/s)= 260.2
100-year Allowable Release Rate (L/s)= 90.4

5-year Pre-Development Flow (L/s)= 164.1
 5-year Uncontrolled Runoff (L/s)= 121.5
5-year Allowable Release Rate (L/s)= 42.6

As the post-development peak flow in the remaining areas A1.2 (30.4 L/s and 65 for 5-year and 100-year, respectively) is less than the allowable release rate, no storage is required for this area

4b. Outlet 2 Storage

Summary of all Drainage Areas:

Drainage Area	Sub Area	Proposed Conditions				
		Area, A (ha)	Pervious Area (ha)	Impervious Area (ha)	Imp.	Runoff Coefficient, R
OUT2		1.47	1.13	0.50	34%	0.32
	A2.1	0.36	0.25	0.11	31%	0.36
	A2.2	0.14	0.08	0.06	46%	0.45
	A2.3	0.26	0.16	0.10	38%	0.37
	A2.4	0.13	0.09	0.03	27%	0.39
	A2.5	0.07	0.07	0.00	0%	0.20
	A2.6	0.51	0.49	0.03	5%	0.22

Summary of Uncontrolled Drainage Areas:

Drainage Area	Sub Area	Proposed Conditions					Runoff Rate	
		Area, A (ha)	Pervious Area (ha)	Impervious Area (ha)	Imp.	Runoff Coefficient, R	5-year (L/s)	100-year (L/s)
OUT2	A2.6	0.51	0.49	0.03	5%	0.22	29.95	64.11

100-year Pre-Development Flow (L/s)= 92.3
 100-year Uncontrolled Runoff (L/s)= 64.1
100-year Allowable Release Rate (L/s)= 28.2

5-year Pre-Development Flow (L/s)= 43.1
 5-year Uncontrolled Runoff (L/s)= 30.0
5-year Allowable Release Rate (L/s)= 13.1

Orifice Sizing

$Q = CA(2gH)^{0.5}$
 C = 0.61
 Design Flow Rate = 28.2 (L/s)
 Proposed 100-year pond depth = 0.51 (m)
 Proposed 100-year head above centreline of orifice = 0.18 (m)
 Orifice Area = 24633 (mm²)
 Orifice diameter = 177 (mm) (if <75mm then vortex ICD required)
 Standard orifice diameter = 152 (mm)
 Standard orifice area = 18146 (mm²)
 Maximum release rate during 100-year event = 20.78 (L/s)

Release Rates during 5-year event

Water depth during 5-year event = 0.36 (m) (based on result of Req. Storage Vol. calc below)
 Proposed 5-year head above centreline of orifice = 0.02 (m)
 Maximum release rate during 5-year event = 7.75 (L/s)



MORRISON HERSHFIELD

Summary of Controlled Areas:

Drainage Area	Sub Area	Proposed Conditions				
		Area, A (ha)	Pervious Area (ha)	Impervious Area (ha)	Imp.	Runoff Coefficient, R
	A2.1	0.36	0.25	0.11	31%	0.36
	A2.2	0.14	0.08	0.06	46%	0.45
	A2.3	0.26	0.16	0.10	38%	0.37
	A2.4	0.13	0.09	0.03	27%	0.39
	A2.5	0.07	0.07	0.00	0%	0.20
Total		0.96	0.64	0.31		0.37

Required Storage Volume (using Modified Rational Method)

Q = RAIN

Q = runoff rate (L/s)

R = runoff coefficient

i = rainfall intensity (mm/hr)

A = drainage area (ha)

N = 2.78

$$i = \frac{A}{(T_d + C)^B}$$

where i = Rainfall Intensity (mm/hr)

T_d = Time of Concentration (min)

Time, T _d (min)	5-Year Event				100-Year Event			
	Intensity (mm/hr)	Peak Flow (L/s)	Release Rate (L/s)	Storage Volume (m ³)	Intensity (mm/hr)	Peak Flow (L/s)	Release Rate (L/s)	Storage Volume (m ³)
10	104.19	102.7	7.74	57.0	178.56	176.1	20.78	93.2
20	70.25	69.3	7.74	73.8	119.95	118.3	20.78	117.0
30	53.93	53.2	7.74	81.8	91.87	90.6	20.78	125.7
40	44.18	43.6	7.74	86.0	75.15	74.1	20.78	128.0
50	37.65	37.1	7.74	88.2	63.95	63.1	20.78	126.8
60	32.94	32.5	7.74	89.1	55.89	55.1	20.78	123.6
70	29.37	29.0	7.74	89.1	49.79	49.1	20.78	118.9
80	26.56	26.2	7.74	88.6	44.99	44.4	20.78	113.2
90	24.29	24.0	7.74	87.5	41.11	40.5	20.78	106.7

minimum time = time of concentration

Storage volume used	89.1 m ³	Storage volume used	128.0 m ³
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A.5. Bioretention Pond Sizing

Humanics Centre, Ottawa, Ontario

Project No.	210647100
Date:	Dec-03-2021
Prepared By:	N Chauvin
Check By:	A Elsayed

The bioretention pond was sized in accordance with the LID Stormwater Management Planning and Design Guide. TRCA, 2010

In accordance with TRCA SWM Criteria (2021), Section 7.4:

"As a minimum, to achieve the enhance level of water quality control, the LID practice must be sized to provide storage for a minimum 5mm of rainfall."

Bioretention Sizing Characteristics

Contributing Drainage Area, A_c =	9559.00 m ²	(Catchments A1.1-A1.5)
Catchment Runoff Coefficient, C =	0.37	
Catchment Impervious Area, A_i =	3111.00 m ²	
Infiltration Volume Target, V_i =	35.471 m ³	(10mm rainfall retention was used for this design)
Field Measured Infiltration Rate, f =	97 mm/hr	(Median of field measured infiltration rates)
Safety Factor, z =	2.5	
Design Infiltration Rate, f' =	39 mm/hr	(Median of field measured infiltration rates, f divided by z)
Filter Media Depth, d_f =	100 mm	(To support shrubs, flowering perennial and deeply rooting decorative grasses)
Filter Media Porosity, n_f =	0.35	(for more loamy Blend B, water quality treatment priority)
Side Slopes, m:1 =	5 max	
Bottom Width, B =	0.75 m (min)	
Height, h =	0.55 m	
Length, L =	81 m	
Base of Pond =	62 m	

1. Decide if an underdrain will be included:

If the median field measured or estimated infiltration rate of the underlying native soil (f) is less than 15 mm/h, include an underdrain.

Field Measured Infiltration Rate, f =	97 mm/hr
Include underdrain =	No

2. Select a surface ponding depth to begin sizing with

For practices without underdrain: $d_{p,max} = f' \times 48$

Where: f' = Design infiltration rate (mm/h), and
48 = Maximum permissible drainage time for surface ponded water (h)

$$d_{p,max} = 1.87 \text{ m}$$

3. Select a design surface ponding depth

For practices with soft (i.e. landscaped) edges and bowl-shaped ponding areas calculate the mean surface ponding depth:

$$d'_p = d_{p,max} \times 0.5$$

$$d'_p = 0.94 \text{ m}$$

4. Determine Water Quality Volume requirements

Infiltration Volume Target, V_i =	35.47 m ³	(10mm rainfall retention was used for this design)
Water Depth, y =	0.23 m	
Cross Sectional Area, A =	0.44 m ²	
Volume Provided, $V_{i,actual}$ =	35.47 m ³	
Invert Elevation of Overflow =	62.23 m	

Volumes analysis vs Daily Precipitation Data

Retention volume	35.47	m ³
Design infiltration rate	39	mm/hr
Infiltration area size	367.3	m ²
Max hourly infiltrated volume	14.3	m ³
catchment area	0.9559	ha
Runoff coefficient	0.37	

(Average Area between base and spill elevatic

<i>Analysis excludes winter months (Jan - Apr)</i>					
Year	Total rain (mm)	Runoff (m³)	Infiltrated runoff (m³)	Spill (m³)	% Infiltration
2016	614	2171	1890	281	87%
2017	925	3271	2991	280	91%
2018	659	2330	2048	282	88%
2019	627	2219	2102	117	95%
2020	586	2074	1946	128	94%
Total	3411	12064	10977	1088	91%

Date/Time (LST)	Year	Total Precip (mm)	Runoff Vol (m ³)	Retained Volume(m ³)	Infiltrated Vol (m ³)	Released Vol (m ³)
1/1/2016 3:00	2016	0.5	0.0	0.0	0.0	0.0
1/1/2016 5:00	2016	0.5	0.0	0.0	0.0	0.0
1/1/2016 7:00	2016	0.2	0.0	0.0	0.0	0.0
1/1/2016 13:00	2016	0.3	0.0	0.0	0.0	0.0
1/3/2016 6:00	2016	0.7	0.0	0.0	0.0	0.0
1/3/2016 7:00	2016	1.1	0.0	0.0	0.0	0.0
1/3/2016 8:00	2016	0.3	0.0	0.0	0.0	0.0
1/3/2016 9:00	2016	0.2	0.0	0.0	0.0	0.0
1/3/2016 10:00	2016	0.2	0.0	0.0	0.0	0.0
1/3/2016 12:00	2016	0.7	0.0	0.0	0.0	0.0
1/4/2016 0:00	2016	0.2	0.0	0.0	0.0	0.0
1/9/2016 3:00	2016	0.3	0.0	0.0	0.0	0.0
1/9/2016 4:00	2016	0.5	0.0	0.0	0.0	0.0
1/9/2016 5:00	2016	1	0.0	0.0	0.0	0.0
1/9/2016 7:00	2016	0.7	0.0	0.0	0.0	0.0
1/9/2016 10:00	2016	0.2	0.0	0.0	0.0	0.0
1/9/2016 11:00	2016	0.5	0.0	0.0	0.0	0.0
1/9/2016 12:00	2016	0.2	0.0	0.0	0.0	0.0
1/9/2016 13:00	2016	0.3	0.0	0.0	0.0	0.0
1/9/2016 14:00	2016	0.3	0.0	0.0	0.0	0.0
1/9/2016 21:00	2016	0.3	0.0	0.0	0.0	0.0
1/9/2016 23:00	2016	0.2	0.0	0.0	0.0	0.0
1/10/2016 9:00	2016	0.3	0.0	0.0	0.0	0.0
1/10/2016 10:00	2016	0.9	0.0	0.0	0.0	0.0
1/10/2016 11:00	2016	5	0.0	0.0	0.0	0.0
1/10/2016 12:00	2016	4.3	0.0	0.0	0.0	0.0
1/10/2016 13:00	2016	0.8	0.0	0.0	0.0	0.0
1/10/2016 14:00	2016	3.7	0.0	0.0	0.0	0.0
1/10/2016 15:00	2016	1.4	0.0	0.0	0.0	0.0
1/10/2016 16:00	2016	0.8	0.0	0.0	0.0	0.0
1/10/2016 17:00	2016	0.9	0.0	0.0	0.0	0.0
1/10/2016 18:00	2016	0.5	0.0	0.0	0.0	0.0
1/10/2016 22:00	2016	0.2	0.0	0.0	0.0	0.0
1/11/2016 1:00	2016	0.2	0.0	0.0	0.0	0.0
1/11/2016 13:00	2016	0.2	0.0	0.0	0.0	0.0
1/12/2016 11:00	2016	0.4	0.0	0.0	0.0	0.0
1/12/2016 12:00	2016	0.6	0.0	0.0	0.0	0.0
1/12/2016 13:00	2016	0.7	0.0	0.0	0.0	0.0
1/12/2016 15:00	2016	0.2	0.0	0.0	0.0	0.0
1/12/2016 18:00	2016	0.3	0.0	0.0	0.0	0.0
1/12/2016 22:00	2016	0.7	0.0	0.0	0.0	0.0
1/12/2016 23:00	2016	0.9	0.0	0.0	0.0	0.0
1/13/2016 23:00	2016	0.2	0.0	0.0	0.0	0.0
1/14/2016 5:00	2016	0.2	0.0	0.0	0.0	0.0
1/14/2016 6:00	2016	0.5	0.0	0.0	0.0	0.0
1/14/2016 7:00	2016	0.2	0.0	0.0	0.0	0.0
1/14/2016 8:00	2016	0.2	0.0	0.0	0.0	0.0
1/14/2016 9:00	2016	0.2	0.0	0.0	0.0	0.0
1/14/2016 11:00	2016	0.2	0.0	0.0	0.0	0.0
1/16/2016 9:00	2016	0.5	0.0	0.0	0.0	0.0
1/16/2016 10:00	2016	0.6	0.0	0.0	0.0	0.0
1/16/2016 11:00	2016	0.3	0.0	0.0	0.0	0.0
1/16/2016 12:00	2016	0.8	0.0	0.0	0.0	0.0
1/16/2016 15:00	2016	0.2	0.0	0.0	0.0	0.0
1/17/2016 17:00	2016	0.2	0.0	0.0	0.0	0.0
1/17/2016 20:00	2016	0.2	0.0	0.0	0.0	0.0
1/17/2016 21:00	2016	0.7	0.0	0.0	0.0	0.0
1/17/2016 22:00	2016	0.5	0.0	0.0	0.0	0.0
1/17/2016 23:00	2016	0.6	0.0	0.0	0.0	0.0
1/18/2016 0:00	2016	0.2	0.0	0.0	0.0	0.0
1/18/2016 1:00	2016	0.5	0.0	0.0	0.0	0.0
1/18/2016 2:00	2016	0.2	0.0	0.0	0.0	0.0
1/18/2016 3:00	2016	0.6	0.0	0.0	0.0	0.0
1/18/2016 4:00	2016	0.2	0.0	0.0	0.0	0.0

1/18/2016 14:00	2016	0.2	0.0	0.0	0.0	0.0
1/24/2016 19:00	2016	0.2	0.0	0.0	0.0	0.0
1/26/2016 11:00	2016	0.3	0.0	0.0	0.0	0.0
1/26/2016 15:00	2016	0.2	0.0	0.0	0.0	0.0
1/26/2016 23:00	2016	0.2	0.0	0.0	0.0	0.0
1/27/2016 0:00	2016	0.2	0.0	0.0	0.0	0.0
1/27/2016 1:00	2016	0.3	0.0	0.0	0.0	0.0
1/27/2016 2:00	2016	0.2	0.0	0.0	0.0	0.0
1/28/2016 10:00	2016	0.2	0.0	0.0	0.0	0.0
1/28/2016 11:00	2016	0.2	0.0	0.0	0.0	0.0
1/28/2016 22:00	2016	0.4	0.0	0.0	0.0	0.0
1/28/2016 23:00	2016	0.3	0.0	0.0	0.0	0.0
1/29/2016 2:00	2016	0.2	0.0	0.0	0.0	0.0
1/29/2016 3:00	2016	0.3	0.0	0.0	0.0	0.0
1/29/2016 4:00	2016	0.2	0.0	0.0	0.0	0.0
1/29/2016 7:00	2016	0.3	0.0	0.0	0.0	0.0
1/29/2016 8:00	2016	0.2	0.0	0.0	0.0	0.0
1/29/2016 9:00	2016	0.2	0.0	0.0	0.0	0.0
1/29/2016 11:00	2016	0.4	0.0	0.0	0.0	0.0
1/29/2016 20:00	2016	0.2	0.0	0.0	0.0	0.0
1/31/2016 20:00	2016	1	0.0	0.0	0.0	0.0
1/31/2016 21:00	2016	1.8	0.0	0.0	0.0	0.0
1/31/2016 22:00	2016	1.1	0.0	0.0	0.0	0.0
1/31/2016 23:00	2016	0.5	0.0	0.0	0.0	0.0
2/1/2016 5:00	2016	0.2	0.0	0.0	0.0	0.0
2/2/2016 5:00	2016	0.2	0.0	0.0	0.0	0.0
2/3/2016 4:00	2016	2.6	0.0	0.0	0.0	0.0
2/3/2016 5:00	2016	0.5	0.0	0.0	0.0	0.0
2/3/2016 7:00	2016	0.2	0.0	0.0	0.0	0.0
2/3/2016 8:00	2016	0.2	0.0	0.0	0.0	0.0
2/3/2016 9:00	2016	0.4	0.0	0.0	0.0	0.0
2/3/2016 13:00	2016	0.8	0.0	0.0	0.0	0.0
2/3/2016 14:00	2016	1.4	0.0	0.0	0.0	0.0
2/3/2016 15:00	2016	3.8	0.0	0.0	0.0	0.0
2/6/2016 10:00	2016	0.2	0.0	0.0	0.0	0.0
2/8/2016 2:00	2016	0.2	0.0	0.0	0.0	0.0
2/9/2016 2:00	2016	0.4	0.0	0.0	0.0	0.0
2/9/2016 4:00	2016	0.2	0.0	0.0	0.0	0.0
2/9/2016 6:00	2016	0.2	0.0	0.0	0.0	0.0
2/9/2016 10:00	2016	0.2	0.0	0.0	0.0	0.0
2/9/2016 16:00	2016	0.2	0.0	0.0	0.0	0.0
2/10/2016 0:00	2016	0.2	0.0	0.0	0.0	0.0
2/10/2016 3:00	2016	0.2	0.0	0.0	0.0	0.0
2/10/2016 6:00	2016	0.2	0.0	0.0	0.0	0.0
2/10/2016 9:00	2016	0.2	0.0	0.0	0.0	0.0
2/10/2016 10:00	2016	0.2	0.0	0.0	0.0	0.0
2/10/2016 14:00	2016	0.2	0.0	0.0	0.0	0.0
2/11/2016 0:00	2016	0.2	0.0	0.0	0.0	0.0
2/11/2016 5:00	2016	0.2	0.0	0.0	0.0	0.0
2/11/2016 8:00	2016	0.2	0.0	0.0	0.0	0.0
2/12/2016 18:00	2016	0.6	0.0	0.0	0.0	0.0
2/13/2016 5:00	2016	0.2	0.0	0.0	0.0	0.0
2/16/2016 6:00	2016	0.5	0.0	0.0	0.0	0.0
2/16/2016 7:00	2016	1	0.0	0.0	0.0	0.0
2/16/2016 8:00	2016	1.7	0.0	0.0	0.0	0.0
2/16/2016 9:00	2016	2.1	0.0	0.0	0.0	0.0
2/16/2016 10:00	2016	3.6	0.0	0.0	0.0	0.0
2/16/2016 11:00	2016	4.1	0.0	0.0	0.0	0.0
2/16/2016 12:00	2016	4	0.0	0.0	0.0	0.0
2/16/2016 13:00	2016	3.9	0.0	0.0	0.0	0.0
2/16/2016 14:00	2016	3.1	0.0	0.0	0.0	0.0
2/16/2016 15:00	2016	2.4	0.0	0.0	0.0	0.0
2/16/2016 16:00	2016	2.5	0.0	0.0	0.0	0.0
2/16/2016 17:00	2016	2.6	0.0	0.0	0.0	0.0
2/16/2016 18:00	2016	1.8	0.0	0.0	0.0	0.0
2/16/2016 19:00	2016	0.8	0.0	0.0	0.0	0.0

2/16/2016 21:00	2016	0.2	0.0	0.0	0.0	0.0
2/17/2016 17:00	2016	0.4	0.0	0.0	0.0	0.0
2/18/2016 2:00	2016	0.2	0.0	0.0	0.0	0.0
2/19/2016 16:00	2016	0.2	0.0	0.0	0.0	0.0
2/19/2016 17:00	2016	0.2	0.0	0.0	0.0	0.0
2/19/2016 19:00	2016	0.6	0.0	0.0	0.0	0.0
2/19/2016 20:00	2016	1.1	0.0	0.0	0.0	0.0
2/19/2016 23:00	2016	0.2	0.0	0.0	0.0	0.0
2/20/2016 1:00	2016	0.4	0.0	0.0	0.0	0.0
2/20/2016 2:00	2016	0.2	0.0	0.0	0.0	0.0
2/20/2016 3:00	2016	0.5	0.0	0.0	0.0	0.0
2/20/2016 5:00	2016	0.2	0.0	0.0	0.0	0.0
2/20/2016 6:00	2016	1.6	0.0	0.0	0.0	0.0
2/20/2016 7:00	2016	0.2	0.0	0.0	0.0	0.0
2/20/2016 8:00	2016	0.2	0.0	0.0	0.0	0.0
2/20/2016 9:00	2016	0.3	0.0	0.0	0.0	0.0
2/20/2016 10:00	2016	0.2	0.0	0.0	0.0	0.0
2/20/2016 12:00	2016	0.3	0.0	0.0	0.0	0.0
2/20/2016 13:00	2016	0.5	0.0	0.0	0.0	0.0
2/20/2016 14:00	2016	0.2	0.0	0.0	0.0	0.0
2/20/2016 15:00	2016	0.2	0.0	0.0	0.0	0.0
2/20/2016 21:00	2016	0.5	0.0	0.0	0.0	0.0
2/20/2016 22:00	2016	0.2	0.0	0.0	0.0	0.0
2/21/2016 0:00	2016	0.5	0.0	0.0	0.0	0.0
2/21/2016 8:00	2016	0.2	0.0	0.0	0.0	0.0
2/21/2016 9:00	2016	0.2	0.0	0.0	0.0	0.0
2/22/2016 2:00	2016	0.2	0.0	0.0	0.0	0.0
2/23/2016 4:00	2016	0.2	0.0	0.0	0.0	0.0
2/24/2016 8:00	2016	0.2	0.0	0.0	0.0	0.0
2/24/2016 9:00	2016	0.2	0.0	0.0	0.0	0.0
2/24/2016 10:00	2016	0.9	0.0	0.0	0.0	0.0
2/24/2016 11:00	2016	0.7	0.0	0.0	0.0	0.0
2/24/2016 12:00	2016	0.2	0.0	0.0	0.0	0.0
2/24/2016 13:00	2016	0.8	0.0	0.0	0.0	0.0
2/24/2016 14:00	2016	0.3	0.0	0.0	0.0	0.0
2/24/2016 15:00	2016	0.6	0.0	0.0	0.0	0.0
2/24/2016 16:00	2016	1.5	0.0	0.0	0.0	0.0
2/24/2016 17:00	2016	4.5	0.0	0.0	0.0	0.0
2/24/2016 18:00	2016	2.4	0.0	0.0	0.0	0.0
2/24/2016 19:00	2016	2.8	0.0	0.0	0.0	0.0
2/24/2016 20:00	2016	3.4	0.0	0.0	0.0	0.0
2/24/2016 21:00	2016	0.6	0.0	0.0	0.0	0.0
2/24/2016 22:00	2016	3.1	0.0	0.0	0.0	0.0
2/24/2016 23:00	2016	4.3	0.0	0.0	0.0	0.0
2/25/2016 0:00	2016	0.8	0.0	0.0	0.0	0.0
2/25/2016 3:00	2016	0.4	0.0	0.0	0.0	0.0
2/25/2016 4:00	2016	0.3	0.0	0.0	0.0	0.0
2/25/2016 7:00	2016	0.2	0.0	0.0	0.0	0.0
2/25/2016 8:00	2016	0.7	0.0	0.0	0.0	0.0
2/25/2016 9:00	2016	0.3	0.0	0.0	0.0	0.0
2/25/2016 13:00	2016	0.2	0.0	0.0	0.0	0.0
2/25/2016 14:00	2016	0.4	0.0	0.0	0.0	0.0
2/25/2016 15:00	2016	0.2	0.0	0.0	0.0	0.0
2/25/2016 16:00	2016	0.2	0.0	0.0	0.0	0.0
2/25/2016 18:00	2016	0.2	0.0	0.0	0.0	0.0
2/25/2016 20:00	2016	0.2	0.0	0.0	0.0	0.0
2/26/2016 15:00	2016	0.2	0.0	0.0	0.0	0.0
2/28/2016 9:00	2016	0.6	0.0	0.0	0.0	0.0
2/28/2016 10:00	2016	0.2	0.0	0.0	0.0	0.0
2/28/2016 21:00	2016	0.4	0.0	0.0	0.0	0.0
2/29/2016 2:00	2016	0.2	0.0	0.0	0.0	0.0
2/29/2016 3:00	2016	0.8	0.0	0.0	0.0	0.0
2/29/2016 6:00	2016	0.2	0.0	0.0	0.0	0.0
2/29/2016 14:00	2016	0.5	0.0	0.0	0.0	0.0
2/29/2016 15:00	2016	0.2	0.0	0.0	0.0	0.0
3/1/2016 5:00	2016	0.2	0.0	0.0	0.0	0.0

3/1/2016 19:00	2016	0.5	0.0	0.0	0.0	0.0
3/1/2016 22:00	2016	0.2	0.0	0.0	0.0	0.0
3/2/2016 0:00	2016	0.6	0.0	0.0	0.0	0.0
3/2/2016 1:00	2016	0.6	0.0	0.0	0.0	0.0
3/2/2016 2:00	2016	1.6	0.0	0.0	0.0	0.0
3/2/2016 3:00	2016	1.6	0.0	0.0	0.0	0.0
3/2/2016 4:00	2016	1.8	0.0	0.0	0.0	0.0
3/2/2016 5:00	2016	1.4	0.0	0.0	0.0	0.0
3/2/2016 6:00	2016	0.2	0.0	0.0	0.0	0.0
3/2/2016 9:00	2016	0.2	0.0	0.0	0.0	0.0
3/3/2016 6:00	2016	0.2	0.0	0.0	0.0	0.0
3/7/2016 4:00	2016	0.3	0.0	0.0	0.0	0.0
3/7/2016 5:00	2016	0.3	0.0	0.0	0.0	0.0
3/7/2016 9:00	2016	1	0.0	0.0	0.0	0.0
3/9/2016 13:00	2016	0.9	0.0	0.0	0.0	0.0
3/9/2016 14:00	2016	1.6	0.0	0.0	0.0	0.0
3/9/2016 15:00	2016	1.3	0.0	0.0	0.0	0.0
3/10/2016 21:00	2016	0.2	0.0	0.0	0.0	0.0
3/14/2016 11:00	2016	0.8	0.0	0.0	0.0	0.0
3/14/2016 12:00	2016	0.2	0.0	0.0	0.0	0.0
3/14/2016 13:00	2016	0.5	0.0	0.0	0.0	0.0
3/14/2016 14:00	2016	0.8	0.0	0.0	0.0	0.0
3/14/2016 15:00	2016	1.3	0.0	0.0	0.0	0.0
3/14/2016 16:00	2016	0.2	0.0	0.0	0.0	0.0
3/15/2016 13:00	2016	0.2	0.0	0.0	0.0	0.0
3/15/2016 14:00	2016	2.1	0.0	0.0	0.0	0.0
3/15/2016 15:00	2016	3.6	0.0	0.0	0.0	0.0
3/15/2016 16:00	2016	1.4	0.0	0.0	0.0	0.0
3/15/2016 22:00	2016	0.2	0.0	0.0	0.0	0.0
3/16/2016 17:00	2016	2.8	0.0	0.0	0.0	0.0
3/16/2016 18:00	2016	2.1	0.0	0.0	0.0	0.0
3/16/2016 19:00	2016	2	0.0	0.0	0.0	0.0
3/16/2016 20:00	2016	0.2	0.0	0.0	0.0	0.0
3/17/2016 1:00	2016	1.3	0.0	0.0	0.0	0.0
3/17/2016 2:00	2016	1.2	0.0	0.0	0.0	0.0
3/17/2016 12:00	2016	0.3	0.0	0.0	0.0	0.0
3/17/2016 13:00	2016	0.4	0.0	0.0	0.0	0.0
3/17/2016 15:00	2016	1.6	0.0	0.0	0.0	0.0
3/18/2016 0:00	2016	0.3	0.0	0.0	0.0	0.0
3/18/2016 1:00	2016	0.2	0.0	0.0	0.0	0.0
3/22/2016 19:00	2016	0.3	0.0	0.0	0.0	0.0
3/22/2016 20:00	2016	0.9	0.0	0.0	0.0	0.0
3/22/2016 21:00	2016	0.8	0.0	0.0	0.0	0.0
3/22/2016 22:00	2016	0.4	0.0	0.0	0.0	0.0
3/22/2016 23:00	2016	0.2	0.0	0.0	0.0	0.0
3/23/2016 0:00	2016	0.2	0.0	0.0	0.0	0.0
3/23/2016 2:00	2016	0.2	0.0	0.0	0.0	0.0
3/23/2016 3:00	2016	0.3	0.0	0.0	0.0	0.0
3/24/2016 9:00	2016	0.2	0.0	0.0	0.0	0.0
3/24/2016 10:00	2016	0.2	0.0	0.0	0.0	0.0
3/24/2016 11:00	2016	0.7	0.0	0.0	0.0	0.0
3/24/2016 12:00	2016	0.5	0.0	0.0	0.0	0.0
3/24/2016 13:00	2016	0.6	0.0	0.0	0.0	0.0
3/24/2016 14:00	2016	2.2	0.0	0.0	0.0	0.0
3/24/2016 15:00	2016	1.6	0.0	0.0	0.0	0.0
3/24/2016 16:00	2016	1	0.0	0.0	0.0	0.0
3/24/2016 17:00	2016	2.7	0.0	0.0	0.0	0.0
3/24/2016 18:00	2016	0.4	0.0	0.0	0.0	0.0
3/24/2016 19:00	2016	0.3	0.0	0.0	0.0	0.0
3/24/2016 22:00	2016	0.2	0.0	0.0	0.0	0.0
3/25/2016 18:00	2016	0.3	0.0	0.0	0.0	0.0
3/26/2016 9:00	2016	0.3	0.0	0.0	0.0	0.0
3/26/2016 10:00	2016	0.8	0.0	0.0	0.0	0.0
3/28/2016 7:00	2016	4.5	0.0	0.0	0.0	0.0
3/28/2016 8:00	2016	3.3	0.0	0.0	0.0	0.0
3/28/2016 9:00	2016	1	0.0	0.0	0.0	0.0

3/28/2016 10:00	2016	2.2	0.0	0.0	0.0	0.0
3/28/2016 11:00	2016	1.5	0.0	0.0	0.0	0.0
3/28/2016 12:00	2016	1.4	0.0	0.0	0.0	0.0
3/28/2016 13:00	2016	0.8	0.0	0.0	0.0	0.0
3/28/2016 14:00	2016	1.1	0.0	0.0	0.0	0.0
3/28/2016 15:00	2016	0.7	0.0	0.0	0.0	0.0
3/28/2016 16:00	2016	1.1	0.0	0.0	0.0	0.0
3/28/2016 17:00	2016	2.4	0.0	0.0	0.0	0.0
3/28/2016 18:00	2016	0.3	0.0	0.0	0.0	0.0
3/28/2016 22:00	2016	0.2	0.0	0.0	0.0	0.0
3/31/2016 0:00	2016	0.4	0.0	0.0	0.0	0.0
3/31/2016 1:00	2016	1	0.0	0.0	0.0	0.0
3/31/2016 2:00	2016	0.5	0.0	0.0	0.0	0.0
3/31/2016 3:00	2016	0.3	0.0	0.0	0.0	0.0
3/31/2016 4:00	2016	0.8	0.0	0.0	0.0	0.0
3/31/2016 5:00	2016	1.3	0.0	0.0	0.0	0.0
3/31/2016 6:00	2016	3.4	0.0	0.0	0.0	0.0
3/31/2016 7:00	2016	3.7	0.0	0.0	0.0	0.0
3/31/2016 8:00	2016	3	0.0	0.0	0.0	0.0
3/31/2016 9:00	2016	1.6	0.0	0.0	0.0	0.0
3/31/2016 10:00	2016	2.3	0.0	0.0	0.0	0.0
3/31/2016 11:00	2016	0.3	0.0	0.0	0.0	0.0
3/31/2016 15:00	2016	0.9	0.0	0.0	0.0	0.0
3/31/2016 16:00	2016	0.2	0.0	0.0	0.0	0.0
3/31/2016 17:00	2016	0.9	0.0	0.0	0.0	0.0
3/31/2016 18:00	2016	0.6	0.0	0.0	0.0	0.0
4/1/2016 0:00	2016	2.1	0.0	0.0	0.0	0.0
4/2/2016 11:00	2016	1.1	0.0	0.0	0.0	0.0
4/3/2016 2:00	2016	0.2	0.0	0.0	0.0	0.0
4/6/2016 14:00	2016	1.3	0.0	0.0	0.0	0.0
4/6/2016 15:00	2016	1.3	0.0	0.0	0.0	0.0
4/6/2016 16:00	2016	1.6	0.0	0.0	0.0	0.0
4/6/2016 17:00	2016	1.9	0.0	0.0	0.0	0.0
4/6/2016 18:00	2016	2.2	0.0	0.0	0.0	0.0
4/6/2016 19:00	2016	1.6	0.0	0.0	0.0	0.0
4/6/2016 20:00	2016	1.8	0.0	0.0	0.0	0.0
4/6/2016 21:00	2016	1.7	0.0	0.0	0.0	0.0
4/6/2016 22:00	2016	1.5	0.0	0.0	0.0	0.0
4/7/2016 0:00	2016	0.6	0.0	0.0	0.0	0.0
4/7/2016 1:00	2016	0.5	0.0	0.0	0.0	0.0
4/7/2016 2:00	2016	0.2	0.0	0.0	0.0	0.0
4/7/2016 3:00	2016	0.6	0.0	0.0	0.0	0.0
4/7/2016 4:00	2016	0.2	0.0	0.0	0.0	0.0
4/7/2016 5:00	2016	0.3	0.0	0.0	0.0	0.0
4/7/2016 6:00	2016	0.6	0.0	0.0	0.0	0.0
4/7/2016 7:00	2016	1.2	0.0	0.0	0.0	0.0
4/7/2016 8:00	2016	1	0.0	0.0	0.0	0.0
4/7/2016 9:00	2016	0.5	0.0	0.0	0.0	0.0
4/7/2016 10:00	2016	0.6	0.0	0.0	0.0	0.0
4/7/2016 11:00	2016	0.2	0.0	0.0	0.0	0.0
4/8/2016 5:00	2016	0.2	0.0	0.0	0.0	0.0
4/8/2016 20:00	2016	0.2	0.0	0.0	0.0	0.0
4/11/2016 2:00	2016	1.3	0.0	0.0	0.0	0.0
4/11/2016 3:00	2016	1.2	0.0	0.0	0.0	0.0
4/11/2016 4:00	2016	1.5	0.0	0.0	0.0	0.0
4/11/2016 5:00	2016	0.6	0.0	0.0	0.0	0.0
4/11/2016 6:00	2016	0.3	0.0	0.0	0.0	0.0
4/11/2016 8:00	2016	0.2	0.0	0.0	0.0	0.0
4/11/2016 9:00	2016	0.7	0.0	0.0	0.0	0.0
4/11/2016 10:00	2016	2.6	0.0	0.0	0.0	0.0
4/11/2016 11:00	2016	2.5	0.0	0.0	0.0	0.0
4/11/2016 12:00	2016	0.4	0.0	0.0	0.0	0.0
4/11/2016 13:00	2016	0.3	0.0	0.0	0.0	0.0
4/12/2016 0:00	2016	0.9	0.0	0.0	0.0	0.0
4/18/2016 20:00	2016	0.4	0.0	0.0	0.0	0.0
4/18/2016 21:00	2016	0.9	0.0	0.0	0.0	0.0

4/18/2016 22:00	2016	1.1	0.0	0.0	0.0	0.0
4/18/2016 23:00	2016	0.6	0.0	0.0	0.0	0.0
4/19/2016 5:00	2016	0.2	0.0	0.0	0.0	0.0
4/22/2016 3:00	2016	1.1	0.0	0.0	0.0	0.0
4/22/2016 5:00	2016	2	0.0	0.0	0.0	0.0
4/22/2016 6:00	2016	0.6	0.0	0.0	0.0	0.0
4/22/2016 8:00	2016	0.8	0.0	0.0	0.0	0.0
4/22/2016 9:00	2016	1.3	0.0	0.0	0.0	0.0
4/22/2016 10:00	2016	0.2	0.0	0.0	0.0	0.0
4/22/2016 22:00	2016	0.2	0.0	0.0	0.0	0.0
5/1/2016 12:00	2016	0.2	0.7	0.7	0.7	0.0
5/1/2016 14:00	2016	0.7	2.5	2.5	2.5	0.0
5/1/2016 15:00	2016	0.2	0.7	0.7	0.7	0.0
5/1/2016 16:00	2016	0.2	0.7	0.7	0.7	0.0
5/1/2016 17:00	2016	0.6	2.1	2.1	2.1	0.0
5/1/2016 18:00	2016	1.1	3.9	3.9	3.9	0.0
5/1/2016 19:00	2016	0.3	1.1	1.1	1.1	0.0
5/1/2016 21:00	2016	0.2	0.7	0.7	0.7	0.0
5/8/2016 0:00	2016	1.3	4.6	4.6	4.6	0.0
5/8/2016 2:00	2016	2.2	7.8	7.8	7.8	0.0
5/8/2016 3:00	2016	2.5	8.8	8.8	8.8	0.0
5/8/2016 4:00	2016	2	7.1	7.1	7.1	0.0
5/8/2016 5:00	2016	1.7	6.0	6.0	6.0	0.0
5/8/2016 6:00	2016	0.5	1.8	1.8	1.8	0.0
5/13/2016 9:00	2016	1.6	5.7	5.7	5.7	0.0
5/13/2016 10:00	2016	3.6	12.7	12.7	12.7	0.0
5/13/2016 11:00	2016	0.2	0.7	0.7	0.7	0.0
5/13/2016 12:00	2016	0.2	0.7	0.7	0.7	0.0
5/15/2016 6:00	2016	0.2	0.7	0.7	0.7	0.0
5/21/2016 5:00	2016	0.2	0.7	0.7	0.7	0.0
5/27/2016 17:00	2016	0.2	0.7	0.7	0.7	0.0
5/28/2016 19:00	2016	4.8	17.0	17.0	14.3	0.0
5/31/2016 23:00	2016	0.2	0.7	0.7	0.7	0.0
6/2/2016 8:00	2016	1.3	4.6	4.6	4.6	0.0
6/2/2016 12:00	2016	0.3	1.1	1.1	1.1	0.0
6/5/2016 7:00	2016	3.5	12.4	12.4	12.4	0.0
6/5/2016 8:00	2016	3.2	11.3	11.3	11.3	0.0
6/5/2016 9:00	2016	1.8	6.4	6.4	6.4	0.0
6/5/2016 10:00	2016	10.4	36.8	35.5	14.3	1.3
6/5/2016 11:00	2016	10.3	36.4	35.5	14.3	22.1
6/5/2016 12:00	2016	4.5	15.9	35.5	14.3	1.6
6/5/2016 15:00	2016	0.9	3.2	3.2	3.2	0.0
6/7/2016 16:00	2016	2.1	7.4	7.4	7.4	0.0
6/7/2016 18:00	2016	0.2	0.7	0.7	0.7	0.0
6/11/2016 7:00	2016	0.3	1.1	1.1	1.1	0.0
6/11/2016 8:00	2016	2.9	10.3	10.3	10.3	0.0
6/11/2016 9:00	2016	2	7.1	7.1	7.1	0.0
6/11/2016 11:00	2016	0.4	1.4	1.4	1.4	0.0
6/12/2016 10:00	2016	0.2	0.7	0.7	0.7	0.0
6/27/2016 2:00	2016	1.5	5.3	5.3	5.3	0.0
6/27/2016 3:00	2016	3.1	11.0	11.0	11.0	0.0
6/27/2016 4:00	2016	1.9	6.7	6.7	6.7	0.0
6/27/2016 5:00	2016	5	17.7	17.7	14.3	0.0
6/28/2016 20:00	2016	0.4	1.4	1.4	1.4	0.0
6/28/2016 21:00	2016	1.8	6.4	6.4	6.4	0.0
6/28/2016 22:00	2016	0.2	0.7	0.7	0.7	0.0
7/1/2016 15:00	2016	3.7	13.1	13.1	13.1	0.0
7/1/2016 16:00	2016	0.3	1.1	1.1	1.1	0.0
7/1/2016 19:00	2016	5.5	19.5	19.5	14.3	0.0
7/1/2016 21:00	2016	1.4	5.0	5.0	5.0	0.0
7/1/2016 23:00	2016	0.8	2.8	2.8	2.8	0.0
7/2/2016 1:00	2016	0.3	1.1	1.1	1.1	0.0
7/2/2016 2:00	2016	0.2	0.7	0.7	0.7	0.0
7/8/2016 23:00	2016	0.4	1.4	1.4	1.4	0.0
7/9/2016 2:00	2016	5.6	19.8	19.8	14.3	0.0
7/9/2016 3:00	2016	2	7.1	12.6	12.6	0.0

7/9/2016 4:00	2016	0.2	0.7	0.7	0.7	0.0
7/9/2016 8:00	2016	0.7	2.5	2.5	2.5	0.0
7/9/2016 9:00	2016	2.1	7.4	7.4	7.4	0.0
7/9/2016 10:00	2016	26.2	92.7	35.5	14.3	57.2
7/9/2016 11:00	2016	7	24.8	35.5	14.3	10.4
7/9/2016 12:00	2016	0.9	3.2	24.3	14.3	0.0
7/9/2016 14:00	2016	0.4	1.4	1.4	1.4	0.0
7/9/2016 19:00	2016	5.1	18.0	18.0	14.3	0.0
7/9/2016 20:00	2016	0.5	1.8	5.5	5.5	0.0
7/9/2016 21:00	2016	0.2	0.7	0.7	0.7	0.0
7/9/2016 22:00	2016	0.6	2.1	2.1	2.1	0.0
7/9/2016 23:00	2016	0.7	2.5	2.5	2.5	0.0
7/10/2016 0:00	2016	1.1	3.9	3.9	3.9	0.0
7/10/2016 1:00	2016	0.2	0.7	0.7	0.7	0.0
7/10/2016 2:00	2016	0.3	1.1	1.1	1.1	0.0
7/10/2016 3:00	2016	0.2	0.7	0.7	0.7	0.0
7/13/2016 14:00	2016	0.5	1.8	1.8	1.8	0.0
7/13/2016 15:00	2016	4	14.1	14.1	14.1	0.0
7/13/2016 16:00	2016	0.7	2.5	2.5	2.5	0.0
7/14/2016 11:00	2016	0.8	2.8	2.8	2.8	0.0
7/14/2016 12:00	2016	1.3	4.6	4.6	4.6	0.0
7/14/2016 21:00	2016	1.7	6.0	6.0	6.0	0.0
7/14/2016 22:00	2016	1.3	4.6	4.6	4.6	0.0
7/15/2016 15:00	2016	0.9	3.2	3.2	3.2	0.0
7/15/2016 16:00	2016	3	10.6	10.6	10.6	0.0
7/15/2016 17:00	2016	0.2	0.7	0.7	0.7	0.0
7/15/2016 20:00	2016	0.2	0.7	0.7	0.7	0.0
7/18/2016 1:00	2016	3.6	12.7	12.7	12.7	0.0
7/25/2016 7:00	2016	2.8	9.9	9.9	9.9	0.0
7/25/2016 8:00	2016	0.2	0.7	0.7	0.7	0.0
7/25/2016 10:00	2016	0.2	0.7	0.7	0.7	0.0
7/27/2016 20:00	2016	8.1	28.6	28.6	14.3	0.0
8/12/2016 15:00	2016	2.8	9.9	9.9	9.9	0.0
8/12/2016 19:00	2016	0.6	2.1	2.1	2.1	0.0
8/13/2016 1:00	2016	3.3	11.7	11.7	11.7	0.0
8/13/2016 3:00	2016	0.2	0.7	0.7	0.7	0.0
8/13/2016 4:00	2016	0.5	1.8	1.8	1.8	0.0
8/13/2016 8:00	2016	1.2	4.2	4.2	4.2	0.0
8/13/2016 9:00	2016	2.1	7.4	7.4	7.4	0.0
8/13/2016 10:00	2016	4	14.1	14.1	14.1	0.0
8/13/2016 11:00	2016	0.7	2.5	2.5	2.5	0.0
8/13/2016 12:00	2016	8.3	29.4	29.4	14.3	0.0
8/13/2016 13:00	2016	0.2	0.7	15.7	14.3	0.0
8/13/2016 16:00	2016	20.1	71.1	35.5	14.3	35.6
8/13/2016 17:00	2016	16.2	57.3	35.5	14.3	43.0
8/13/2016 18:00	2016	16.4	58.0	35.5	14.3	43.7
8/13/2016 19:00	2016	0.7	2.5	23.6	14.3	0.0
8/13/2016 20:00	2016	0.5	1.8	11.1	11.1	0.0
8/13/2016 21:00	2016	0.3	1.1	1.1	1.1	0.0
8/13/2016 22:00	2016	0.3	1.1	1.1	1.1	0.0
8/14/2016 1:00	2016	1.7	6.0	6.0	6.0	0.0
8/14/2016 6:00	2016	0.5	1.8	1.8	1.8	0.0
8/16/2016 13:00	2016	0.5	1.8	1.8	1.8	0.0
8/16/2016 14:00	2016	4.6	16.3	16.3	14.3	0.0
8/16/2016 15:00	2016	6.9	24.4	26.3	14.3	0.0
8/16/2016 16:00	2016	9.8	34.7	35.5	14.3	11.2
8/16/2016 17:00	2016	4.7	16.6	35.5	14.3	2.3
8/16/2016 18:00	2016	1.8	6.4	27.5	14.3	0.0
8/16/2016 19:00	2016	0.8	2.8	16.0	14.3	0.0
8/16/2016 20:00	2016	1.2	4.2	5.9	5.9	0.0
8/16/2016 21:00	2016	0.5	1.8	1.8	1.8	0.0
8/16/2016 23:00	2016	0.5	1.8	1.8	1.8	0.0
8/17/2016 0:00	2016	1.2	4.2	4.2	4.2	0.0
8/17/2016 2:00	2016	0.5	1.8	1.8	1.8	0.0
8/18/2016 15:00	2016	0.3	1.1	1.1	1.1	0.0
8/19/2016 2:00	2016	0.2	0.7	0.7	0.7	0.0

8/21/2016 8:00	2016	4.2	14.9	14.9	14.3	0.0
8/21/2016 9:00	2016	6.6	23.3	23.9	14.3	0.0
8/21/2016 10:00	2016	4.1	14.5	24.0	14.3	0.0
8/21/2016 11:00	2016	0.3	1.1	10.8	10.8	0.0
8/21/2016 13:00	2016	1.3	4.6	4.6	4.6	0.0
8/21/2016 14:00	2016	0.2	0.7	0.7	0.7	0.0
8/25/2016 15:00	2016	2	7.1	7.1	7.1	0.0
8/28/2016 10:00	2016	0.3	1.1	1.1	1.1	0.0
8/28/2016 15:00	2016	2	7.1	7.1	7.1	0.0
9/7/2016 20:00	2016	2.5	8.8	8.8	8.8	0.0
9/7/2016 21:00	2016	11.3	40.0	35.5	14.3	4.5
9/8/2016 12:00	2016	0.3	1.1	1.1	1.1	0.0
9/8/2016 13:00	2016	2.9	10.3	10.3	10.3	0.0
9/10/2016 21:00	2016	0.7	2.5	2.5	2.5	0.0
9/10/2016 22:00	2016	1.3	4.6	4.6	4.6	0.0
9/11/2016 2:00	2016	0.5	1.8	1.8	1.8	0.0
9/11/2016 3:00	2016	0.7	2.5	2.5	2.5	0.0
9/11/2016 5:00	2016	0.2	0.7	0.7	0.7	0.0
9/17/2016 13:00	2016	2.1	7.4	7.4	7.4	0.0
9/17/2016 14:00	2016	3.9	13.8	13.8	13.8	0.0
9/17/2016 15:00	2016	0.8	2.8	2.8	2.8	0.0
9/17/2016 16:00	2016	0.6	2.1	2.1	2.1	0.0
9/17/2016 17:00	2016	0.5	1.8	1.8	1.8	0.0
9/17/2016 18:00	2016	1.5	5.3	5.3	5.3	0.0
9/17/2016 19:00	2016	0.6	2.1	2.1	2.1	0.0
9/17/2016 20:00	2016	7.4	26.2	26.2	14.3	0.0
9/17/2016 21:00	2016	0.2	0.7	12.6	12.6	0.0
9/17/2016 22:00	2016	5.1	18.0	18.0	14.3	0.0
9/17/2016 23:00	2016	21.7	76.7	35.5	14.3	45.0
9/22/2016 19:00	2016	3.1	11.0	11.0	11.0	0.0
9/22/2016 20:00	2016	3.3	11.7	11.7	11.7	0.0
9/22/2016 21:00	2016	0.2	0.7	0.7	0.7	0.0
9/22/2016 23:00	2016	0.2	0.7	0.7	0.7	0.0
9/23/2016 7:00	2016	1.2	4.2	4.2	4.2	0.0
9/24/2016 5:00	2016	0.2	0.7	0.7	0.7	0.0
9/26/2016 22:00	2016	0.2	0.7	0.7	0.7	0.0
9/27/2016 0:00	2016	0.2	0.7	0.7	0.7	0.0
10/2/2016 5:00	2016	0.2	0.7	0.7	0.7	0.0
10/2/2016 7:00	2016	0.2	0.7	0.7	0.7	0.0
10/2/2016 9:00	2016	0.7	2.5	2.5	2.5	0.0
10/2/2016 11:00	2016	0.2	0.7	0.7	0.7	0.0
10/2/2016 16:00	2016	0.2	0.7	0.7	0.7	0.0
10/2/2016 18:00	2016	0.3	1.1	1.1	1.1	0.0
10/2/2016 22:00	2016	0.5	1.8	1.8	1.8	0.0
10/8/2016 9:00	2016	1.2	4.2	4.2	4.2	0.0
10/8/2016 10:00	2016	0.5	1.8	1.8	1.8	0.0
10/8/2016 11:00	2016	1.2	4.2	4.2	4.2	0.0
10/8/2016 12:00	2016	0.6	2.1	2.1	2.1	0.0
10/8/2016 13:00	2016	0.2	0.7	0.7	0.7	0.0
10/10/2016 1:00	2016	0.2	0.7	0.7	0.7	0.0
10/13/2016 7:00	2016	1.2	4.2	4.2	4.2	0.0
10/13/2016 11:00	2016	0.2	0.7	0.7	0.7	0.0
10/16/2016 10:00	2016	1.4	5.0	5.0	5.0	0.0
10/16/2016 11:00	2016	0.7	2.5	2.5	2.5	0.0
10/16/2016 13:00	2016	4	14.1	14.1	14.1	0.0
10/16/2016 17:00	2016	0.5	1.8	1.8	1.8	0.0
10/17/2016 4:00	2016	0.2	0.7	0.7	0.7	0.0
10/17/2016 17:00	2016	0.3	1.1	1.1	1.1	0.0
10/18/2016 1:00	2016	7.1	25.1	25.1	14.3	0.0
10/18/2016 6:00	2016	0.3	1.1	1.1	1.1	0.0
10/20/2016 10:00	2016	0.2	0.7	0.7	0.7	0.0
10/20/2016 11:00	2016	0.9	3.2	3.2	3.2	0.0
10/20/2016 12:00	2016	0.4	1.4	1.4	1.4	0.0
10/20/2016 13:00	2016	0.2	0.7	0.7	0.7	0.0
10/20/2016 15:00	2016	0.8	2.8	2.8	2.8	0.0
10/20/2016 16:00	2016	0.9	3.2	3.2	3.2	0.0

10/20/2016 17:00	2016	0.7	2.5	2.5	2.5	0.0
10/20/2016 18:00	2016	1.1	3.9	3.9	3.9	0.0
10/20/2016 19:00	2016	3.1	11.0	11.0	11.0	0.0
10/20/2016 20:00	2016	2.6	9.2	9.2	9.2	0.0
10/20/2016 21:00	2016	1.7	6.0	6.0	6.0	0.0
10/20/2016 22:00	2016	1.4	5.0	5.0	5.0	0.0
10/20/2016 23:00	2016	0.7	2.5	2.5	2.5	0.0
10/21/2016 0:00	2016	1.6	5.7	5.7	5.7	0.0
10/21/2016 1:00	2016	0.9	3.2	3.2	3.2	0.0
10/21/2016 2:00	2016	0.2	0.7	0.7	0.7	0.0
10/21/2016 3:00	2016	0.3	1.1	1.1	1.1	0.0
10/21/2016 4:00	2016	0.2	0.7	0.7	0.7	0.0
10/21/2016 5:00	2016	1.5	5.3	5.3	5.3	0.0
10/21/2016 6:00	2016	1	3.5	3.5	3.5	0.0
10/21/2016 7:00	2016	0.6	2.1	2.1	2.1	0.0
10/21/2016 8:00	2016	1	3.5	3.5	3.5	0.0
10/21/2016 9:00	2016	2.1	7.4	7.4	7.4	0.0
10/21/2016 10:00	2016	1.4	5.0	5.0	5.0	0.0
10/21/2016 11:00	2016	2.8	9.9	9.9	9.9	0.0
10/21/2016 12:00	2016	2	7.1	7.1	7.1	0.0
10/21/2016 13:00	2016	1.2	4.2	4.2	4.2	0.0
10/21/2016 14:00	2016	0.5	1.8	1.8	1.8	0.0
10/21/2016 15:00	2016	1.2	4.2	4.2	4.2	0.0
10/21/2016 16:00	2016	1.9	6.7	6.7	6.7	0.0
10/21/2016 17:00	2016	0.2	0.7	0.7	0.7	0.0
10/21/2016 18:00	2016	0.5	1.8	1.8	1.8	0.0
10/21/2016 19:00	2016	1.3	4.6	4.6	4.6	0.0
10/21/2016 20:00	2016	1	3.5	3.5	3.5	0.0
10/21/2016 22:00	2016	1.3	4.6	4.6	4.6	0.0
10/21/2016 23:00	2016	0.3	1.1	1.1	1.1	0.0
10/22/2016 0:00	2016	0.2	0.7	0.7	0.7	0.0
10/22/2016 3:00	2016	0.6	2.1	2.1	2.1	0.0
10/22/2016 7:00	2016	0.7	2.5	2.5	2.5	0.0
10/22/2016 8:00	2016	0.5	1.8	1.8	1.8	0.0
10/22/2016 9:00	2016	0.2	0.7	0.7	0.7	0.0
10/22/2016 10:00	2016	0.3	1.1	1.1	1.1	0.0
10/22/2016 11:00	2016	0.3	1.1	1.1	1.1	0.0
10/22/2016 13:00	2016	0.7	2.5	2.5	2.5	0.0
10/22/2016 14:00	2016	1.4	5.0	5.0	5.0	0.0
10/22/2016 15:00	2016	1.3	4.6	4.6	4.6	0.0
10/22/2016 16:00	2016	0.3	1.1	1.1	1.1	0.0
10/22/2016 17:00	2016	0.6	2.1	2.1	2.1	0.0
10/22/2016 19:00	2016	0.2	0.7	0.7	0.7	0.0
10/22/2016 21:00	2016	0.2	0.7	0.7	0.7	0.0
10/27/2016 16:00	2016	0.3	1.1	1.1	1.1	0.0
10/27/2016 17:00	2016	0.6	2.1	2.1	2.1	0.0
10/27/2016 18:00	2016	0.6	2.1	2.1	2.1	0.0
10/27/2016 19:00	2016	1	3.5	3.5	3.5	0.0
10/27/2016 20:00	2016	2.5	8.8	8.8	8.8	0.0
10/27/2016 21:00	2016	0.5	1.8	1.8	1.8	0.0
10/27/2016 22:00	2016	0.7	2.5	2.5	2.5	0.0
10/27/2016 23:00	2016	1.1	3.9	3.9	3.9	0.0
10/28/2016 0:00	2016	1	3.5	3.5	3.5	0.0
10/28/2016 1:00	2016	1.2	4.2	4.2	4.2	0.0
10/28/2016 2:00	2016	1.7	6.0	6.0	6.0	0.0
10/28/2016 3:00	2016	0.7	2.5	2.5	2.5	0.0
10/28/2016 4:00	2016	0.8	2.8	2.8	2.8	0.0
10/28/2016 5:00	2016	0.8	2.8	2.8	2.8	0.0
10/28/2016 9:00	2016	0.2	0.7	0.7	0.7	0.0
10/29/2016 1:00	2016	0.7	2.5	2.5	2.5	0.0
10/29/2016 2:00	2016	0.2	0.7	0.7	0.7	0.0
10/29/2016 5:00	2016	0.5	1.8	1.8	1.8	0.0
10/29/2016 6:00	2016	6.1	21.6	21.6	14.3	0.0
10/29/2016 7:00	2016	0.7	2.5	9.7	9.7	0.0
10/29/2016 12:00	2016	0.2	0.7	0.7	0.7	0.0
10/29/2016 13:00	2016	0.6	2.1	2.1	2.1	0.0

10/29/2016 14:00	2016	0.2	0.7	0.7	0.7	0.0
11/3/2016 7:00	2016	0.8	2.8	2.8	2.8	0.0
11/3/2016 8:00	2016	1.9	6.7	6.7	6.7	0.0
11/3/2016 9:00	2016	1.5	5.3	5.3	5.3	0.0
11/3/2016 10:00	2016	0.2	0.7	0.7	0.7	0.0
11/3/2016 11:00	2016	0.4	1.4	1.4	1.4	0.0
11/3/2016 21:00	2016	0.7	2.5	2.5	2.5	0.0
11/3/2016 22:00	2016	0.2	0.7	0.7	0.7	0.0
11/16/2016 3:00	2016	0.6	2.1	2.1	2.1	0.0
11/16/2016 4:00	2016	0.5	1.8	1.8	1.8	0.0
11/16/2016 6:00	2016	0.7	2.5	2.5	2.5	0.0
11/16/2016 7:00	2016	0.4	1.4	1.4	1.4	0.0
11/16/2016 8:00	2016	0.2	0.7	0.7	0.7	0.0
11/16/2016 9:00	2016	0.2	0.7	0.7	0.7	0.0
11/20/2016 2:00	2016	0.3	1.1	1.1	1.1	0.0
11/20/2016 3:00	2016	0.4	1.4	1.4	1.4	0.0
11/20/2016 4:00	2016	0.8	2.8	2.8	2.8	0.0
11/20/2016 5:00	2016	0.7	2.5	2.5	2.5	0.0
11/20/2016 6:00	2016	1.3	4.6	4.6	4.6	0.0
11/20/2016 7:00	2016	1.1	3.9	3.9	3.9	0.0
11/20/2016 8:00	2016	1.1	3.9	3.9	3.9	0.0
11/20/2016 9:00	2016	0.9	3.2	3.2	3.2	0.0
11/20/2016 10:00	2016	0.7	2.5	2.5	2.5	0.0
11/20/2016 11:00	2016	0.3	1.1	1.1	1.1	0.0
11/20/2016 12:00	2016	0.2	0.7	0.7	0.7	0.0
11/20/2016 13:00	2016	0.5	1.8	1.8	1.8	0.0
11/20/2016 14:00	2016	0.5	1.8	1.8	1.8	0.0
11/20/2016 15:00	2016	0.6	2.1	2.1	2.1	0.0
11/20/2016 16:00	2016	0.3	1.1	1.1	1.1	0.0
11/20/2016 20:00	2016	0.2	0.7	0.7	0.7	0.0
11/20/2016 21:00	2016	0.3	1.1	1.1	1.1	0.0
11/20/2016 22:00	2016	0.2	0.7	0.7	0.7	0.0
11/20/2016 23:00	2016	0.2	0.7	0.7	0.7	0.0
11/21/2016 10:00	2016	0.2	0.7	0.7	0.7	0.0
11/21/2016 20:00	2016	0.5	1.8	1.8	1.8	0.0
11/21/2016 21:00	2016	0.2	0.7	0.7	0.7	0.0
11/21/2016 22:00	2016	0.4	1.4	1.4	1.4	0.0
11/21/2016 23:00	2016	0.6	2.1	2.1	2.1	0.0
11/24/2016 6:00	2016	0.2	0.7	0.7	0.7	0.0
11/24/2016 7:00	2016	1.1	3.9	3.9	3.9	0.0
11/24/2016 8:00	2016	0.7	2.5	2.5	2.5	0.0
11/24/2016 9:00	2016	0.6	2.1	2.1	2.1	0.0
11/24/2016 10:00	2016	0.6	2.1	2.1	2.1	0.0
11/24/2016 11:00	2016	0.8	2.8	2.8	2.8	0.0
11/24/2016 12:00	2016	0.7	2.5	2.5	2.5	0.0
11/24/2016 13:00	2016	0.6	2.1	2.1	2.1	0.0
11/24/2016 14:00	2016	0.2	0.7	0.7	0.7	0.0
11/24/2016 15:00	2016	0.2	0.7	0.7	0.7	0.0
11/24/2016 16:00	2016	0.2	0.7	0.7	0.7	0.0
11/25/2016 9:00	2016	0.2	0.7	0.7	0.7	0.0
11/25/2016 10:00	2016	0.2	0.7	0.7	0.7	0.0
11/25/2016 15:00	2016	0.2	0.7	0.7	0.7	0.0
11/25/2016 23:00	2016	0.2	0.7	0.7	0.7	0.0
11/26/2016 6:00	2016	0.2	0.7	0.7	0.7	0.0
11/29/2016 12:00	2016	0.3	1.1	1.1	1.1	0.0
11/29/2016 13:00	2016	0.8	2.8	2.8	2.8	0.0
11/29/2016 14:00	2016	0.4	1.4	1.4	1.4	0.0
11/30/2016 17:00	2016	0.4	1.4	1.4	1.4	0.0
11/30/2016 18:00	2016	0.5	1.8	1.8	1.8	0.0
11/30/2016 19:00	2016	0.3	1.1	1.1	1.1	0.0
11/30/2016 22:00	2016	0.2	0.7	0.7	0.7	0.0
11/30/2016 23:00	2016	0.5	1.8	1.8	1.8	0.0
12/1/2016 0:00	2016	6	21.2	21.2	14.3	0.0
12/1/2016 1:00	2016	7	24.8	31.7	14.3	0.0
12/1/2016 2:00	2016	6	21.2	35.5	14.3	3.1
12/1/2016 3:00	2016	2.7	9.5	30.7	14.3	0.0

12/1/2016 4:00	2016	0.6	2.1	18.5	14.3	0.0
12/1/2016 5:00	2016	0.9	3.2	7.4	7.4	0.0
12/1/2016 6:00	2016	0.3	1.1	1.1	1.1	0.0
12/1/2016 15:00	2016	0.3	1.1	1.1	1.1	0.0
12/1/2016 16:00	2016	0.6	2.1	2.1	2.1	0.0
12/1/2016 17:00	2016	0.2	0.7	0.7	0.7	0.0
12/5/2016 5:00	2016	1.7	6.0	6.0	6.0	0.0
12/5/2016 6:00	2016	1.1	3.9	3.9	3.9	0.0
12/5/2016 7:00	2016	1.4	5.0	5.0	5.0	0.0
12/5/2016 8:00	2016	0.3	1.1	1.1	1.1	0.0
12/5/2016 9:00	2016	0.6	2.1	2.1	2.1	0.0
12/5/2016 10:00	2016	0.2	0.7	0.7	0.7	0.0
12/5/2016 11:00	2016	0.3	1.1	1.1	1.1	0.0
12/5/2016 13:00	2016	0.2	0.7	0.7	0.7	0.0
12/5/2016 14:00	2016	0.3	1.1	1.1	1.1	0.0
12/6/2016 10:00	2016	0.2	0.7	0.7	0.7	0.0
12/7/2016 2:00	2016	0.2	0.7	0.7	0.7	0.0
12/7/2016 4:00	2016	0.2	0.7	0.7	0.7	0.0
12/7/2016 5:00	2016	0.6	2.1	2.1	2.1	0.0
12/7/2016 7:00	2016	0.2	0.7	0.7	0.7	0.0
12/7/2016 8:00	2016	0.3	1.1	1.1	1.1	0.0
12/7/2016 9:00	2016	0.2	0.7	0.7	0.7	0.0
12/8/2016 15:00	2016	0.2	0.7	0.7	0.7	0.0
12/8/2016 18:00	2016	0.2	0.7	0.7	0.7	0.0
12/8/2016 19:00	2016	0.4	1.4	1.4	1.4	0.0
12/8/2016 20:00	2016	0.7	2.5	2.5	2.5	0.0
12/9/2016 9:00	2016	0.2	0.7	0.7	0.7	0.0
12/11/2016 19:00	2016	0.3	1.1	1.1	1.1	0.0
12/11/2016 20:00	2016	0.2	0.7	0.7	0.7	0.0
12/11/2016 21:00	2016	0.2	0.7	0.7	0.7	0.0
12/11/2016 22:00	2016	0.5	1.8	1.8	1.8	0.0
12/11/2016 23:00	2016	0.5	1.8	1.8	1.8	0.0
12/12/2016 0:00	2016	0.6	2.1	2.1	2.1	0.0
12/12/2016 1:00	2016	0.8	2.8	2.8	2.8	0.0
12/12/2016 2:00	2016	0.9	3.2	3.2	3.2	0.0
12/12/2016 3:00	2016	1.3	4.6	4.6	4.6	0.0
12/12/2016 4:00	2016	1.1	3.9	3.9	3.9	0.0
12/12/2016 5:00	2016	0.5	1.8	1.8	1.8	0.0
12/12/2016 6:00	2016	0.5	1.8	1.8	1.8	0.0
12/12/2016 7:00	2016	0.2	0.7	0.7	0.7	0.0
12/12/2016 8:00	2016	0.6	2.1	2.1	2.1	0.0
12/12/2016 9:00	2016	0.3	1.1	1.1	1.1	0.0
12/12/2016 10:00	2016	0.2	0.7	0.7	0.7	0.0
12/12/2016 11:00	2016	0.2	0.7	0.7	0.7	0.0
12/12/2016 12:00	2016	0.3	1.1	1.1	1.1	0.0
12/12/2016 14:00	2016	0.2	0.7	0.7	0.7	0.0
12/12/2016 15:00	2016	0.4	1.4	1.4	1.4	0.0
12/12/2016 16:00	2016	0.7	2.5	2.5	2.5	0.0
12/12/2016 17:00	2016	0.2	0.7	0.7	0.7	0.0
12/14/2016 21:00	2016	1.5	5.3	5.3	5.3	0.0
12/14/2016 22:00	2016	0.5	1.8	1.8	1.8	0.0
12/14/2016 23:00	2016	0.2	0.7	0.7	0.7	0.0
12/15/2016 10:00	2016	0.2	0.7	0.7	0.7	0.0
12/17/2016 2:00	2016	0.2	0.7	0.7	0.7	0.0
12/17/2016 4:00	2016	0.2	0.7	0.7	0.7	0.0
12/17/2016 5:00	2016	0.6	2.1	2.1	2.1	0.0
12/17/2016 6:00	2016	0.5	1.8	1.8	1.8	0.0
12/17/2016 7:00	2016	0.6	2.1	2.1	2.1	0.0
12/17/2016 8:00	2016	0.8	2.8	2.8	2.8	0.0
12/17/2016 9:00	2016	1.1	3.9	3.9	3.9	0.0
12/17/2016 10:00	2016	0.8	2.8	2.8	2.8	0.0
12/17/2016 11:00	2016	0.6	2.1	2.1	2.1	0.0
12/17/2016 12:00	2016	0.2	0.7	0.7	0.7	0.0
12/17/2016 21:00	2016	0.2	0.7	0.7	0.7	0.0
12/17/2016 22:00	2016	0.3	1.1	1.1	1.1	0.0
12/17/2016 23:00	2016	0.2	0.7	0.7	0.7	0.0

12/18/2016 0:00	2016	0.2	0.7	0.7	0.7	0.0
12/18/2016 1:00	2016	0.8	2.8	2.8	2.8	0.0
12/18/2016 2:00	2016	0.9	3.2	3.2	3.2	0.0
12/18/2016 3:00	2016	0.9	3.2	3.2	3.2	0.0
12/18/2016 4:00	2016	1.3	4.6	4.6	4.6	0.0
12/18/2016 5:00	2016	2.1	7.4	7.4	7.4	0.0
12/18/2016 6:00	2016	0.4	1.4	1.4	1.4	0.0
12/18/2016 7:00	2016	1.2	4.2	4.2	4.2	0.0
12/18/2016 8:00	2016	0.2	0.7	0.7	0.7	0.0
12/18/2016 10:00	2016	0.5	1.8	1.8	1.8	0.0
12/18/2016 11:00	2016	0.2	0.7	0.7	0.7	0.0
12/19/2016 2:00	2016	0.2	0.7	0.7	0.7	0.0
12/22/2016 5:00	2016	0.3	1.1	1.1	1.1	0.0
12/22/2016 6:00	2016	1.2	4.2	4.2	4.2	0.0
12/22/2016 7:00	2016	0.7	2.5	2.5	2.5	0.0
12/22/2016 8:00	2016	1	3.5	3.5	3.5	0.0
12/22/2016 9:00	2016	1.2	4.2	4.2	4.2	0.0
12/22/2016 10:00	2016	0.2	0.7	0.7	0.7	0.0
12/22/2016 11:00	2016	0.2	0.7	0.7	0.7	0.0
12/24/2016 7:00	2016	0.2	0.7	0.7	0.7	0.0
12/24/2016 8:00	2016	1.1	3.9	3.9	3.9	0.0
12/24/2016 9:00	2016	0.6	2.1	2.1	2.1	0.0
12/24/2016 10:00	2016	0.8	2.8	2.8	2.8	0.0
12/24/2016 11:00	2016	0.3	1.1	1.1	1.1	0.0
12/26/2016 0:00	2016	0.2	0.7	0.7	0.7	0.0
12/26/2016 11:00	2016	0.3	1.1	1.1	1.1	0.0
12/26/2016 15:00	2016	2.2	7.8	7.8	7.8	0.0
12/26/2016 16:00	2016	1.8	6.4	6.4	6.4	0.0
12/26/2016 17:00	2016	1.4	5.0	5.0	5.0	0.0
12/26/2016 18:00	2016	0.3	1.1	1.1	1.1	0.0
12/26/2016 20:00	2016	1	3.5	3.5	3.5	0.0
12/26/2016 21:00	2016	3.3	11.7	11.7	11.7	0.0
12/26/2016 22:00	2016	2.6	9.2	9.2	9.2	0.0
12/26/2016 23:00	2016	3.8	13.4	13.4	13.4	0.0
12/27/2016 0:00	2016	0.2	0.7	0.7	0.7	0.0
12/27/2016 4:00	2016	0.3	1.1	1.1	1.1	0.0
12/27/2016 19:00	2016	0.2	0.7	0.7	0.7	0.0
12/28/2016 1:00	2016	0.2	0.7	0.7	0.7	0.0
12/29/2016 8:00	2016	0.3	1.1	1.1	1.1	0.0
12/29/2016 9:00	2016	0.7	2.5	2.5	2.5	0.0
12/29/2016 10:00	2016	0.5	1.8	1.8	1.8	0.0
12/29/2016 11:00	2016	0.6	2.1	2.1	2.1	0.0
12/29/2016 12:00	2016	0.6	2.1	2.1	2.1	0.0
12/29/2016 13:00	2016	1	3.5	3.5	3.5	0.0
12/29/2016 14:00	2016	0.7	2.5	2.5	2.5	0.0
12/29/2016 15:00	2016	0.8	2.8	2.8	2.8	0.0
12/29/2016 16:00	2016	0.7	2.5	2.5	2.5	0.0
12/29/2016 17:00	2016	0.7	2.5	2.5	2.5	0.0
12/29/2016 18:00	2016	0.3	1.1	1.1	1.1	0.0
12/29/2016 19:00	2016	0.4	1.4	1.4	1.4	0.0
12/30/2016 2:00	2016	0.2	0.7	0.7	0.7	0.0
12/31/2016 2:00	2016	0.2	0.7	0.7	0.7	0.0
12/31/2016 11:00	2016	0.4	1.4	1.4	1.4	0.0
12/31/2016 12:00	2016	0.5	1.8	1.8	1.8	0.0
12/31/2016 13:00	2016	1.1	3.9	3.9	3.9	0.0
12/31/2016 14:00	2016	0.2	0.7	0.7	0.7	0.0
12/31/2016 15:00	2016	0.2	0.7	0.7	0.7	0.0
12/31/2016 17:00	2016	0.3	1.1	1.1	1.1	0.0
12/31/2016 18:00	2016	0.5	1.8	1.8	1.8	0.0
12/31/2016 19:00	2016	0.5	1.8	1.8	1.8	0.0
12/31/2016 20:00	2016	0.8	2.8	2.8	2.8	0.0
12/31/2016 21:00	2016	0.8	2.8	2.8	2.8	0.0
12/31/2016 22:00	2016	0.9	3.2	3.2	3.2	0.0
12/31/2016 23:00	2016	0.6	2.1	2.1	2.1	0.0
1/1/2017 4:00	2017	0.3	0.0	0.0	0.0	0.0
1/3/2017 7:00	2017	0.8	0.0	0.0	0.0	0.0

1/3/2017 8:00	2017	0.7	0.0	0.0	0.0	0.0
1/3/2017 9:00	2017	0.2	0.0	0.0	0.0	0.0
1/3/2017 11:00	2017	1.1	0.0	0.0	0.0	0.0
1/3/2017 12:00	2017	0.3	0.0	0.0	0.0	0.0
1/3/2017 13:00	2017	0.5	0.0	0.0	0.0	0.0
1/3/2017 14:00	2017	1.1	0.0	0.0	0.0	0.0
1/3/2017 15:00	2017	0.6	0.0	0.0	0.0	0.0
1/3/2017 16:00	2017	0.3	0.0	0.0	0.0	0.0
1/3/2017 17:00	2017	0.6	0.0	0.0	0.0	0.0
1/3/2017 18:00	2017	0.6	0.0	0.0	0.0	0.0
1/3/2017 19:00	2017	0.5	0.0	0.0	0.0	0.0
1/3/2017 20:00	2017	0.7	0.0	0.0	0.0	0.0
1/3/2017 21:00	2017	0.7	0.0	0.0	0.0	0.0
1/3/2017 22:00	2017	1	0.0	0.0	0.0	0.0
1/3/2017 23:00	2017	1	0.0	0.0	0.0	0.0
1/4/2017 0:00	2017	1.9	0.0	0.0	0.0	0.0
1/4/2017 1:00	2017	2.4	0.0	0.0	0.0	0.0
1/4/2017 2:00	2017	1	0.0	0.0	0.0	0.0
1/4/2017 3:00	2017	0.3	0.0	0.0	0.0	0.0
1/4/2017 4:00	2017	0.3	0.0	0.0	0.0	0.0
1/4/2017 6:00	2017	0.2	0.0	0.0	0.0	0.0
1/4/2017 7:00	2017	0.3	0.0	0.0	0.0	0.0
1/4/2017 8:00	2017	0.4	0.0	0.0	0.0	0.0
1/4/2017 9:00	2017	0.7	0.0	0.0	0.0	0.0
1/4/2017 10:00	2017	0.7	0.0	0.0	0.0	0.0
1/4/2017 11:00	2017	1.6	0.0	0.0	0.0	0.0
1/4/2017 12:00	2017	8.8	0.0	0.0	0.0	0.0
1/4/2017 15:00	2017	0.4	0.0	0.0	0.0	0.0
1/4/2017 16:00	2017	0.2	0.0	0.0	0.0	0.0
1/4/2017 17:00	2017	0.5	0.0	0.0	0.0	0.0
1/5/2017 4:00	2017	0.2	0.0	0.0	0.0	0.0
1/7/2017 7:00	2017	0.2	0.0	0.0	0.0	0.0
1/8/2017 11:00	2017	0.3	0.0	0.0	0.0	0.0
1/10/2017 15:00	2017	0.2	0.0	0.0	0.0	0.0
1/10/2017 16:00	2017	1.1	0.0	0.0	0.0	0.0
1/10/2017 17:00	2017	1.6	0.0	0.0	0.0	0.0
1/10/2017 18:00	2017	2.1	0.0	0.0	0.0	0.0
1/10/2017 19:00	2017	0.7	0.0	0.0	0.0	0.0
1/10/2017 20:00	2017	0.5	0.0	0.0	0.0	0.0
1/10/2017 21:00	2017	0.9	0.0	0.0	0.0	0.0
1/10/2017 22:00	2017	0.6	0.0	0.0	0.0	0.0
1/11/2017 0:00	2017	0.3	0.0	0.0	0.0	0.0
1/11/2017 1:00	2017	0.3	0.0	0.0	0.0	0.0
1/11/2017 2:00	2017	0.4	0.0	0.0	0.0	0.0
1/11/2017 3:00	2017	0.6	0.0	0.0	0.0	0.0
1/12/2017 4:00	2017	0.8	0.0	0.0	0.0	0.0
1/12/2017 5:00	2017	1	0.0	0.0	0.0	0.0
1/12/2017 6:00	2017	0.2	0.0	0.0	0.0	0.0
1/12/2017 7:00	2017	1.6	0.0	0.0	0.0	0.0
1/12/2017 8:00	2017	0.2	0.0	0.0	0.0	0.0
1/12/2017 10:00	2017	0.2	0.0	0.0	0.0	0.0
1/12/2017 16:00	2017	0.2	0.0	0.0	0.0	0.0
1/12/2017 21:00	2017	0.2	0.0	0.0	0.0	0.0
1/13/2017 13:00	2017	0.2	0.0	0.0	0.0	0.0
1/17/2017 20:00	2017	0.2	0.0	0.0	0.0	0.0
1/17/2017 21:00	2017	0.2	0.0	0.0	0.0	0.0
1/17/2017 22:00	2017	0.6	0.0	0.0	0.0	0.0
1/17/2017 23:00	2017	0.8	0.0	0.0	0.0	0.0
1/18/2017 0:00	2017	0.6	0.0	0.0	0.0	0.0
1/18/2017 1:00	2017	0.9	0.0	0.0	0.0	0.0
1/18/2017 2:00	2017	0.4	0.0	0.0	0.0	0.0
1/18/2017 3:00	2017	1.2	0.0	0.0	0.0	0.0
1/18/2017 4:00	2017	0.4	0.0	0.0	0.0	0.0
1/18/2017 14:00	2017	0.3	0.0	0.0	0.0	0.0
1/18/2017 16:00	2017	0.2	0.0	0.0	0.0	0.0
1/20/2017 4:00	2017	0.2	0.0	0.0	0.0	0.0

1/21/2017 6:00	2017	0.2	0.0	0.0	0.0	0.0
1/22/2017 5:00	2017	0.2	0.0	0.0	0.0	0.0
1/22/2017 6:00	2017	0.2	0.0	0.0	0.0	0.0
1/22/2017 7:00	2017	0.3	0.0	0.0	0.0	0.0
1/24/2017 8:00	2017	0.2	0.0	0.0	0.0	0.0
1/24/2017 9:00	2017	0.3	0.0	0.0	0.0	0.0
1/24/2017 10:00	2017	0.8	0.0	0.0	0.0	0.0
1/24/2017 11:00	2017	0.7	0.0	0.0	0.0	0.0
1/24/2017 12:00	2017	1	0.0	0.0	0.0	0.0
1/24/2017 13:00	2017	0.5	0.0	0.0	0.0	0.0
1/24/2017 14:00	2017	0.2	0.0	0.0	0.0	0.0
1/24/2017 15:00	2017	0.5	0.0	0.0	0.0	0.0
1/24/2017 16:00	2017	0.2	0.0	0.0	0.0	0.0
1/24/2017 19:00	2017	0.2	0.0	0.0	0.0	0.0
1/24/2017 20:00	2017	0.2	0.0	0.0	0.0	0.0
1/24/2017 21:00	2017	0.2	0.0	0.0	0.0	0.0
1/24/2017 23:00	2017	0.2	0.0	0.0	0.0	0.0
1/25/2017 1:00	2017	0.2	0.0	0.0	0.0	0.0
1/25/2017 22:00	2017	0.3	0.0	0.0	0.0	0.0
1/26/2017 0:00	2017	0.6	0.0	0.0	0.0	0.0
1/26/2017 3:00	2017	0.5	0.0	0.0	0.0	0.0
1/26/2017 4:00	2017	0.2	0.0	0.0	0.0	0.0
1/26/2017 7:00	2017	0.2	0.0	0.0	0.0	0.0
1/26/2017 11:00	2017	0.2	0.0	0.0	0.0	0.0
1/26/2017 12:00	2017	0.3	0.0	0.0	0.0	0.0
1/27/2017 15:00	2017	0.2	0.0	0.0	0.0	0.0
1/27/2017 17:00	2017	0.2	0.0	0.0	0.0	0.0
1/27/2017 23:00	2017	0.2	0.0	0.0	0.0	0.0
1/28/2017 12:00	2017	0.2	0.0	0.0	0.0	0.0
1/28/2017 13:00	2017	0.3	0.0	0.0	0.0	0.0
1/29/2017 0:00	2017	0.3	0.0	0.0	0.0	0.0
1/29/2017 2:00	2017	0.2	0.0	0.0	0.0	0.0
1/29/2017 3:00	2017	0.2	0.0	0.0	0.0	0.0
1/29/2017 4:00	2017	0.2	0.0	0.0	0.0	0.0
1/29/2017 12:00	2017	0.4	0.0	0.0	0.0	0.0
1/29/2017 17:00	2017	0.2	0.0	0.0	0.0	0.0
1/30/2017 3:00	2017	0.2	0.0	0.0	0.0	0.0
2/1/2017 3:00	2017	0.2	0.0	0.0	0.0	0.0
2/1/2017 4:00	2017	0.5	0.0	0.0	0.0	0.0
2/1/2017 6:00	2017	0.2	0.0	0.0	0.0	0.0
2/1/2017 7:00	2017	0.2	0.0	0.0	0.0	0.0
2/2/2017 17:00	2017	0.2	0.0	0.0	0.0	0.0
2/5/2017 7:00	2017	0.6	0.0	0.0	0.0	0.0
2/5/2017 8:00	2017	0.3	0.0	0.0	0.0	0.0
2/5/2017 10:00	2017	0.3	0.0	0.0	0.0	0.0
2/5/2017 12:00	2017	0.2	0.0	0.0	0.0	0.0
2/5/2017 14:00	2017	0.2	0.0	0.0	0.0	0.0
2/6/2017 16:00	2017	0.5	0.0	0.0	0.0	0.0
2/6/2017 18:00	2017	0.2	0.0	0.0	0.0	0.0
2/6/2017 19:00	2017	0.5	0.0	0.0	0.0	0.0
2/6/2017 20:00	2017	0.2	0.0	0.0	0.0	0.0
2/6/2017 22:00	2017	0.2	0.0	0.0	0.0	0.0
2/6/2017 23:00	2017	0.3	0.0	0.0	0.0	0.0
2/7/2017 0:00	2017	0.2	0.0	0.0	0.0	0.0
2/7/2017 1:00	2017	0.2	0.0	0.0	0.0	0.0
2/7/2017 2:00	2017	0.5	0.0	0.0	0.0	0.0
2/7/2017 3:00	2017	0.2	0.0	0.0	0.0	0.0
2/7/2017 4:00	2017	0.2	0.0	0.0	0.0	0.0
2/7/2017 17:00	2017	0.5	0.0	0.0	0.0	0.0
2/7/2017 18:00	2017	1.3	0.0	0.0	0.0	0.0
2/7/2017 19:00	2017	2.4	0.0	0.0	0.0	0.0
2/7/2017 20:00	2017	2.2	0.0	0.0	0.0	0.0
2/7/2017 21:00	2017	2.3	0.0	0.0	0.0	0.0
2/7/2017 22:00	2017	2.1	0.0	0.0	0.0	0.0
2/7/2017 23:00	2017	1.7	0.0	0.0	0.0	0.0
2/8/2017 0:00	2017	0.6	0.0	0.0	0.0	0.0

2/8/2017 1:00	2017	0.2	0.0	0.0	0.0	0.0
2/8/2017 6:00	2017	0.3	0.0	0.0	0.0	0.0
2/8/2017 7:00	2017	1.4	0.0	0.0	0.0	0.0
2/10/2017 22:00	2017	0.6	0.0	0.0	0.0	0.0
2/10/2017 23:00	2017	0.2	0.0	0.0	0.0	0.0
2/11/2017 0:00	2017	0.3	0.0	0.0	0.0	0.0
2/11/2017 1:00	2017	0.3	0.0	0.0	0.0	0.0
2/11/2017 3:00	2017	0.2	0.0	0.0	0.0	0.0
2/12/2017 11:00	2017	0.2	0.0	0.0	0.0	0.0
2/12/2017 12:00	2017	0.6	0.0	0.0	0.0	0.0
2/12/2017 13:00	2017	1	0.0	0.0	0.0	0.0
2/12/2017 14:00	2017	1.5	0.0	0.0	0.0	0.0
2/12/2017 15:00	2017	1.9	0.0	0.0	0.0	0.0
2/12/2017 16:00	2017	1.5	0.0	0.0	0.0	0.0
2/12/2017 17:00	2017	1.2	0.0	0.0	0.0	0.0
2/12/2017 18:00	2017	1.6	0.0	0.0	0.0	0.0
2/12/2017 19:00	2017	1.6	0.0	0.0	0.0	0.0
2/12/2017 20:00	2017	1.7	0.0	0.0	0.0	0.0
2/12/2017 21:00	2017	1.3	0.0	0.0	0.0	0.0
2/12/2017 22:00	2017	1.1	0.0	0.0	0.0	0.0
2/12/2017 23:00	2017	0.5	0.0	0.0	0.0	0.0
2/13/2017 0:00	2017	0.2	0.0	0.0	0.0	0.0
2/13/2017 2:00	2017	0.2	0.0	0.0	0.0	0.0
2/14/2017 0:00	2017	0.2	0.0	0.0	0.0	0.0
2/14/2017 13:00	2017	0.2	0.0	0.0	0.0	0.0
2/14/2017 18:00	2017	0.2	0.0	0.0	0.0	0.0
2/14/2017 20:00	2017	0.3	0.0	0.0	0.0	0.0
2/14/2017 21:00	2017	0.6	0.0	0.0	0.0	0.0
2/14/2017 22:00	2017	0.8	0.0	0.0	0.0	0.0
2/14/2017 23:00	2017	0.9	0.0	0.0	0.0	0.0
2/15/2017 0:00	2017	0.6	0.0	0.0	0.0	0.0
2/15/2017 1:00	2017	0.2	0.0	0.0	0.0	0.0
2/15/2017 3:00	2017	0.4	0.0	0.0	0.0	0.0
2/15/2017 4:00	2017	0.2	0.0	0.0	0.0	0.0
2/15/2017 5:00	2017	0.6	0.0	0.0	0.0	0.0
2/15/2017 6:00	2017	1	0.0	0.0	0.0	0.0
2/15/2017 7:00	2017	1.5	0.0	0.0	0.0	0.0
2/15/2017 8:00	2017	0.9	0.0	0.0	0.0	0.0
2/15/2017 9:00	2017	2	0.0	0.0	0.0	0.0
2/15/2017 10:00	2017	0.5	0.0	0.0	0.0	0.0
2/15/2017 11:00	2017	0.2	0.0	0.0	0.0	0.0
2/15/2017 18:00	2017	1	0.0	0.0	0.0	0.0
2/15/2017 19:00	2017	0.5	0.0	0.0	0.0	0.0
2/15/2017 20:00	2017	0.3	0.0	0.0	0.0	0.0
2/15/2017 22:00	2017	0.2	0.0	0.0	0.0	0.0
2/21/2017 20:00	2017	0.2	0.0	0.0	0.0	0.0
2/22/2017 8:00	2017	0.7	0.0	0.0	0.0	0.0
2/22/2017 9:00	2017	0.3	0.0	0.0	0.0	0.0
2/23/2017 10:00	2017	1.7	0.0	0.0	0.0	0.0
2/24/2017 13:00	2017	0.8	0.0	0.0	0.0	0.0
2/24/2017 14:00	2017	0.6	0.0	0.0	0.0	0.0
2/24/2017 15:00	2017	1.2	0.0	0.0	0.0	0.0
2/24/2017 16:00	2017	0.6	0.0	0.0	0.0	0.0
2/24/2017 17:00	2017	0.3	0.0	0.0	0.0	0.0
2/25/2017 0:00	2017	0.3	0.0	0.0	0.0	0.0
2/25/2017 13:00	2017	1.8	0.0	0.0	0.0	0.0
2/25/2017 14:00	2017	6.7	0.0	0.0	0.0	0.0
2/25/2017 15:00	2017	0.5	0.0	0.0	0.0	0.0
2/25/2017 16:00	2017	0.9	0.0	0.0	0.0	0.0
2/25/2017 17:00	2017	1.9	0.0	0.0	0.0	0.0
2/25/2017 19:00	2017	0.4	0.0	0.0	0.0	0.0
2/25/2017 20:00	2017	0.2	0.0	0.0	0.0	0.0
2/26/2017 3:00	2017	0.2	0.0	0.0	0.0	0.0
3/1/2017 1:00	2017	0.4	0.0	0.0	0.0	0.0
3/1/2017 2:00	2017	0.3	0.0	0.0	0.0	0.0
3/1/2017 3:00	2017	0.4	0.0	0.0	0.0	0.0

3/1/2017 4:00	2017	1.6	0.0	0.0	0.0	0.0
3/1/2017 5:00	2017	2.4	0.0	0.0	0.0	0.0
3/1/2017 6:00	2017	3.2	0.0	0.0	0.0	0.0
3/1/2017 7:00	2017	3.8	0.0	0.0	0.0	0.0
3/1/2017 8:00	2017	3.1	0.0	0.0	0.0	0.0
3/1/2017 9:00	2017	0.2	0.0	0.0	0.0	0.0
3/1/2017 10:00	2017	0.2	0.0	0.0	0.0	0.0
3/1/2017 11:00	2017	0.3	0.0	0.0	0.0	0.0
3/1/2017 12:00	2017	1.9	0.0	0.0	0.0	0.0
3/1/2017 13:00	2017	0.3	0.0	0.0	0.0	0.0
3/1/2017 16:00	2017	0.3	0.0	0.0	0.0	0.0
3/1/2017 19:00	2017	0.2	0.0	0.0	0.0	0.0
3/1/2017 20:00	2017	0.5	0.0	0.0	0.0	0.0
3/1/2017 21:00	2017	1	0.0	0.0	0.0	0.0
3/1/2017 22:00	2017	0.3	0.0	0.0	0.0	0.0
3/2/2017 3:00	2017	0.2	0.0	0.0	0.0	0.0
3/2/2017 5:00	2017	0.2	0.0	0.0	0.0	0.0
3/2/2017 7:00	2017	0.2	0.0	0.0	0.0	0.0
3/3/2017 16:00	2017	0.2	0.0	0.0	0.0	0.0
3/6/2017 20:00	2017	0.6	0.0	0.0	0.0	0.0
3/6/2017 21:00	2017	0.2	0.0	0.0	0.0	0.0
3/7/2017 11:00	2017	1	0.0	0.0	0.0	0.0
3/7/2017 12:00	2017	2.8	0.0	0.0	0.0	0.0
3/7/2017 13:00	2017	1.9	0.0	0.0	0.0	0.0
3/7/2017 14:00	2017	2.7	0.0	0.0	0.0	0.0
3/7/2017 16:00	2017	0.3	0.0	0.0	0.0	0.0
3/7/2017 17:00	2017	0.8	0.0	0.0	0.0	0.0
3/7/2017 18:00	2017	1.3	0.0	0.0	0.0	0.0
3/7/2017 19:00	2017	0.3	0.0	0.0	0.0	0.0
3/7/2017 20:00	2017	0.2	0.0	0.0	0.0	0.0
3/7/2017 21:00	2017	0.2	0.0	0.0	0.0	0.0
3/7/2017 22:00	2017	0.9	0.0	0.0	0.0	0.0
3/7/2017 23:00	2017	0.4	0.0	0.0	0.0	0.0
3/8/2017 0:00	2017	0.4	0.0	0.0	0.0	0.0
3/8/2017 1:00	2017	0.8	0.0	0.0	0.0	0.0
3/8/2017 2:00	2017	0.3	0.0	0.0	0.0	0.0
3/8/2017 3:00	2017	0.2	0.0	0.0	0.0	0.0
3/8/2017 4:00	2017	0.6	0.0	0.0	0.0	0.0
3/9/2017 0:00	2017	0.2	0.0	0.0	0.0	0.0
3/14/2017 13:00	2017	0.3	0.0	0.0	0.0	0.0
3/14/2017 14:00	2017	0.3	0.0	0.0	0.0	0.0
3/14/2017 15:00	2017	0.5	0.0	0.0	0.0	0.0
3/14/2017 16:00	2017	0.2	0.0	0.0	0.0	0.0
3/14/2017 17:00	2017	0.2	0.0	0.0	0.0	0.0
3/14/2017 18:00	2017	0.3	0.0	0.0	0.0	0.0
3/14/2017 19:00	2017	0.3	0.0	0.0	0.0	0.0
3/14/2017 20:00	2017	0.6	0.0	0.0	0.0	0.0
3/14/2017 21:00	2017	0.5	0.0	0.0	0.0	0.0
3/14/2017 22:00	2017	0.8	0.0	0.0	0.0	0.0
3/14/2017 23:00	2017	0.7	0.0	0.0	0.0	0.0
3/15/2017 0:00	2017	0.7	0.0	0.0	0.0	0.0
3/15/2017 1:00	2017	1	0.0	0.0	0.0	0.0
3/15/2017 2:00	2017	0.5	0.0	0.0	0.0	0.0
3/15/2017 4:00	2017	0.3	0.0	0.0	0.0	0.0
3/15/2017 5:00	2017	0.2	0.0	0.0	0.0	0.0
3/15/2017 6:00	2017	0.2	0.0	0.0	0.0	0.0
3/15/2017 7:00	2017	0.2	0.0	0.0	0.0	0.0
3/15/2017 8:00	2017	0.2	0.0	0.0	0.0	0.0
3/15/2017 9:00	2017	0.2	0.0	0.0	0.0	0.0
3/15/2017 10:00	2017	0.2	0.0	0.0	0.0	0.0
3/15/2017 15:00	2017	0.2	0.0	0.0	0.0	0.0
3/15/2017 16:00	2017	0.2	0.0	0.0	0.0	0.0
3/15/2017 22:00	2017	0.2	0.0	0.0	0.0	0.0
3/21/2017 5:00	2017	0.6	0.0	0.0	0.0	0.0
3/21/2017 6:00	2017	0.5	0.0	0.0	0.0	0.0
3/21/2017 7:00	2017	0.2	0.0	0.0	0.0	0.0

3/24/2017 6:00	2017	3.7	0.0	0.0	0.0	0.0
3/24/2017 8:00	2017	0.8	0.0	0.0	0.0	0.0
3/24/2017 9:00	2017	1	0.0	0.0	0.0	0.0
3/24/2017 10:00	2017	0.3	0.0	0.0	0.0	0.0
3/24/2017 11:00	2017	0.9	0.0	0.0	0.0	0.0
3/24/2017 12:00	2017	1	0.0	0.0	0.0	0.0
3/24/2017 13:00	2017	1.4	0.0	0.0	0.0	0.0
3/24/2017 14:00	2017	0.7	0.0	0.0	0.0	0.0
3/24/2017 15:00	2017	0.6	0.0	0.0	0.0	0.0
3/24/2017 16:00	2017	1.9	0.0	0.0	0.0	0.0
3/24/2017 17:00	2017	0.9	0.0	0.0	0.0	0.0
3/24/2017 18:00	2017	1.6	0.0	0.0	0.0	0.0
3/24/2017 19:00	2017	0.5	0.0	0.0	0.0	0.0
3/24/2017 20:00	2017	0.7	0.0	0.0	0.0	0.0
3/24/2017 21:00	2017	0.2	0.0	0.0	0.0	0.0
3/25/2017 8:00	2017	0.3	0.0	0.0	0.0	0.0
3/25/2017 9:00	2017	0.3	0.0	0.0	0.0	0.0
3/27/2017 5:00	2017	0.3	0.0	0.0	0.0	0.0
3/27/2017 7:00	2017	0.2	0.0	0.0	0.0	0.0
3/27/2017 8:00	2017	1.5	0.0	0.0	0.0	0.0
3/27/2017 9:00	2017	1.8	0.0	0.0	0.0	0.0
3/27/2017 10:00	2017	0.3	0.0	0.0	0.0	0.0
3/27/2017 12:00	2017	0.2	0.0	0.0	0.0	0.0
3/27/2017 13:00	2017	1	0.0	0.0	0.0	0.0
3/27/2017 14:00	2017	1.2	0.0	0.0	0.0	0.0
3/27/2017 15:00	2017	0.6	0.0	0.0	0.0	0.0
3/27/2017 16:00	2017	0.3	0.0	0.0	0.0	0.0
3/27/2017 23:00	2017	0.7	0.0	0.0	0.0	0.0
3/28/2017 0:00	2017	0.2	0.0	0.0	0.0	0.0
3/28/2017 1:00	2017	0.4	0.0	0.0	0.0	0.0
3/28/2017 4:00	2017	0.2	0.0	0.0	0.0	0.0
3/28/2017 5:00	2017	0.3	0.0	0.0	0.0	0.0
3/28/2017 6:00	2017	0.2	0.0	0.0	0.0	0.0
3/28/2017 7:00	2017	0.3	0.0	0.0	0.0	0.0
3/28/2017 8:00	2017	0.7	0.0	0.0	0.0	0.0
3/28/2017 9:00	2017	0.2	0.0	0.0	0.0	0.0
3/31/2017 15:00	2017	0.2	0.0	0.0	0.0	0.0
3/31/2017 16:00	2017	0.5	0.0	0.0	0.0	0.0
3/31/2017 17:00	2017	0.2	0.0	0.0	0.0	0.0
3/31/2017 18:00	2017	0.2	0.0	0.0	0.0	0.0
3/31/2017 19:00	2017	0.8	0.0	0.0	0.0	0.0
3/31/2017 20:00	2017	0.7	0.0	0.0	0.0	0.0
3/31/2017 21:00	2017	0.7	0.0	0.0	0.0	0.0
3/31/2017 22:00	2017	0.6	0.0	0.0	0.0	0.0
3/31/2017 23:00	2017	0.5	0.0	0.0	0.0	0.0
4/1/2017 0:00	2017	0.8	0.0	0.0	0.0	0.0
4/1/2017 1:00	2017	0.2	0.0	0.0	0.0	0.0
4/1/2017 3:00	2017	0.2	0.0	0.0	0.0	0.0
4/1/2017 4:00	2017	0.2	0.0	0.0	0.0	0.0
4/1/2017 6:00	2017	0.2	0.0	0.0	0.0	0.0
4/1/2017 9:00	2017	0.2	0.0	0.0	0.0	0.0
4/4/2017 1:00	2017	0.2	0.0	0.0	0.0	0.0
4/4/2017 3:00	2017	0.5	0.0	0.0	0.0	0.0
4/4/2017 4:00	2017	1.8	0.0	0.0	0.0	0.0
4/4/2017 5:00	2017	2.4	0.0	0.0	0.0	0.0
4/4/2017 6:00	2017	2.6	0.0	0.0	0.0	0.0
4/4/2017 8:00	2017	0.9	0.0	0.0	0.0	0.0
4/4/2017 9:00	2017	1.6	0.0	0.0	0.0	0.0
4/4/2017 10:00	2017	1.3	0.0	0.0	0.0	0.0
4/4/2017 11:00	2017	1.4	0.0	0.0	0.0	0.0
4/4/2017 12:00	2017	1.4	0.0	0.0	0.0	0.0
4/4/2017 13:00	2017	1.6	0.0	0.0	0.0	0.0
4/4/2017 14:00	2017	1.4	0.0	0.0	0.0	0.0
4/4/2017 15:00	2017	2.8	0.0	0.0	0.0	0.0
4/4/2017 16:00	2017	1.6	0.0	0.0	0.0	0.0
4/4/2017 17:00	2017	1.1	0.0	0.0	0.0	0.0

4/4/2017 18:00	2017	0.7	0.0	0.0	0.0	0.0
4/4/2017 19:00	2017	0.6	0.0	0.0	0.0	0.0
4/4/2017 20:00	2017	0.3	0.0	0.0	0.0	0.0
4/4/2017 21:00	2017	0.6	0.0	0.0	0.0	0.0
4/4/2017 22:00	2017	0.3	0.0	0.0	0.0	0.0
4/4/2017 23:00	2017	0.5	0.0	0.0	0.0	0.0
4/5/2017 0:00	2017	1.2	0.0	0.0	0.0	0.0
4/5/2017 1:00	2017	0.8	0.0	0.0	0.0	0.0
4/5/2017 2:00	2017	0.3	0.0	0.0	0.0	0.0
4/5/2017 3:00	2017	0.5	0.0	0.0	0.0	0.0
4/5/2017 4:00	2017	0.4	0.0	0.0	0.0	0.0
4/6/2017 7:00	2017	2	0.0	0.0	0.0	0.0
4/6/2017 8:00	2017	0.3	0.0	0.0	0.0	0.0
4/6/2017 9:00	2017	0.4	0.0	0.0	0.0	0.0
4/6/2017 10:00	2017	1.9	0.0	0.0	0.0	0.0
4/6/2017 11:00	2017	4.3	0.0	0.0	0.0	0.0
4/6/2017 12:00	2017	3.6	0.0	0.0	0.0	0.0
4/6/2017 13:00	2017	2	0.0	0.0	0.0	0.0
4/6/2017 14:00	2017	0.9	0.0	0.0	0.0	0.0
4/6/2017 15:00	2017	0.5	0.0	0.0	0.0	0.0
4/6/2017 17:00	2017	0.3	0.0	0.0	0.0	0.0
4/6/2017 18:00	2017	1.1	0.0	0.0	0.0	0.0
4/6/2017 19:00	2017	1.9	0.0	0.0	0.0	0.0
4/6/2017 20:00	2017	0.6	0.0	0.0	0.0	0.0
4/6/2017 21:00	2017	2.6	0.0	0.0	0.0	0.0
4/6/2017 22:00	2017	2.8	0.0	0.0	0.0	0.0
4/6/2017 23:00	2017	2.6	0.0	0.0	0.0	0.0
4/7/2017 0:00	2017	1	0.0	0.0	0.0	0.0
4/7/2017 1:00	2017	0.7	0.0	0.0	0.0	0.0
4/7/2017 2:00	2017	0.5	0.0	0.0	0.0	0.0
4/7/2017 3:00	2017	0.3	0.0	0.0	0.0	0.0
4/7/2017 4:00	2017	0.2	0.0	0.0	0.0	0.0
4/7/2017 16:00	2017	0.2	0.0	0.0	0.0	0.0
4/10/2017 18:00	2017	1.1	0.0	0.0	0.0	0.0
4/10/2017 19:00	2017	0.8	0.0	0.0	0.0	0.0
4/11/2017 9:00	2017	0.2	0.0	0.0	0.0	0.0
4/12/2017 0:00	2017	0.7	0.0	0.0	0.0	0.0
4/12/2017 6:00	2017	0.2	0.0	0.0	0.0	0.0
4/12/2017 15:00	2017	0.2	0.0	0.0	0.0	0.0
4/15/2017 15:00	2017	1.1	0.0	0.0	0.0	0.0
4/15/2017 16:00	2017	1.4	0.0	0.0	0.0	0.0
4/15/2017 17:00	2017	3.7	0.0	0.0	0.0	0.0
4/15/2017 18:00	2017	5.2	0.0	0.0	0.0	0.0
4/15/2017 19:00	2017	1	0.0	0.0	0.0	0.0
4/15/2017 21:00	2017	0.4	0.0	0.0	0.0	0.0
4/16/2017 1:00	2017	2.2	0.0	0.0	0.0	0.0
4/16/2017 2:00	2017	0.2	0.0	0.0	0.0	0.0
4/16/2017 10:00	2017	0.3	0.0	0.0	0.0	0.0
4/16/2017 12:00	2017	1.3	0.0	0.0	0.0	0.0
4/16/2017 13:00	2017	0.7	0.0	0.0	0.0	0.0
4/16/2017 14:00	2017	2	0.0	0.0	0.0	0.0
4/16/2017 15:00	2017	2	0.0	0.0	0.0	0.0
4/16/2017 16:00	2017	1.9	0.0	0.0	0.0	0.0
4/19/2017 10:00	2017	0.5	0.0	0.0	0.0	0.0
4/19/2017 11:00	2017	1.4	0.0	0.0	0.0	0.0
4/19/2017 12:00	2017	2.3	0.0	0.0	0.0	0.0
4/19/2017 13:00	2017	4.1	0.0	0.0	0.0	0.0
4/19/2017 14:00	2017	3.4	0.0	0.0	0.0	0.0
4/19/2017 15:00	2017	3	0.0	0.0	0.0	0.0
4/19/2017 16:00	2017	1.7	0.0	0.0	0.0	0.0
4/19/2017 21:00	2017	0.3	0.0	0.0	0.0	0.0
4/21/2017 0:00	2017	0.5	0.0	0.0	0.0	0.0
4/21/2017 1:00	2017	0.2	0.0	0.0	0.0	0.0
4/21/2017 2:00	2017	0.2	0.0	0.0	0.0	0.0
4/21/2017 4:00	2017	1.5	0.0	0.0	0.0	0.0
4/21/2017 5:00	2017	1.7	0.0	0.0	0.0	0.0

4/21/2017 6:00	2017	0.6	0.0	0.0	0.0	0.0
4/21/2017 7:00	2017	0.2	0.0	0.0	0.0	0.0
4/21/2017 8:00	2017	4	0.0	0.0	0.0	0.0
4/21/2017 9:00	2017	0.7	0.0	0.0	0.0	0.0
4/21/2017 10:00	2017	0.3	0.0	0.0	0.0	0.0
4/21/2017 19:00	2017	0.3	0.0	0.0	0.0	0.0
4/22/2017 7:00	2017	0.3	0.0	0.0	0.0	0.0
4/22/2017 8:00	2017	0.3	0.0	0.0	0.0	0.0
4/25/2017 17:00	2017	0.3	0.0	0.0	0.0	0.0
4/25/2017 18:00	2017	0.5	0.0	0.0	0.0	0.0
4/25/2017 19:00	2017	0.9	0.0	0.0	0.0	0.0
4/25/2017 21:00	2017	0.2	0.0	0.0	0.0	0.0
4/26/2017 3:00	2017	0.5	0.0	0.0	0.0	0.0
4/28/2017 0:00	2017	1.3	0.0	0.0	0.0	0.0
4/28/2017 1:00	2017	4.2	0.0	0.0	0.0	0.0
4/28/2017 2:00	2017	0.3	0.0	0.0	0.0	0.0
4/30/2017 12:00	2017	0.6	0.0	0.0	0.0	0.0
4/30/2017 14:00	2017	1.2	0.0	0.0	0.0	0.0
4/30/2017 15:00	2017	1.3	0.0	0.0	0.0	0.0
4/30/2017 20:00	2017	2.5	0.0	0.0	0.0	0.0
4/30/2017 22:00	2017	0.3	0.0	0.0	0.0	0.0
4/30/2017 23:00	2017	1.5	0.0	0.0	0.0	0.0
5/1/2017 0:00	2017	1.6	5.7	5.7	5.7	0.0
5/1/2017 1:00	2017	1.2	4.2	4.2	4.2	0.0
5/1/2017 2:00	2017	0.7	2.5	2.5	2.5	0.0
5/1/2017 3:00	2017	0.7	2.5	2.5	2.5	0.0
5/1/2017 4:00	2017	0.8	2.8	2.8	2.8	0.0
5/1/2017 5:00	2017	2	7.1	7.1	7.1	0.0
5/1/2017 6:00	2017	4.7	16.6	16.6	14.3	0.0
5/1/2017 7:00	2017	4	14.1	16.4	14.3	0.0
5/1/2017 8:00	2017	4.5	15.9	18.0	14.3	0.0
5/1/2017 9:00	2017	6.1	21.6	25.3	14.3	0.0
5/1/2017 12:00	2017	0.8	2.8	2.8	2.8	0.0
5/1/2017 13:00	2017	1.3	4.6	4.6	4.6	0.0
5/1/2017 14:00	2017	1.9	6.7	6.7	6.7	0.0
5/1/2017 15:00	2017	6	21.2	21.2	14.3	0.0
5/1/2017 16:00	2017	1.6	5.7	12.6	12.6	0.0
5/1/2017 17:00	2017	1.6	5.7	5.7	5.7	0.0
5/1/2017 18:00	2017	8.8	31.1	31.1	14.3	0.0
5/1/2017 19:00	2017	5.4	19.1	35.5	14.3	0.4
5/1/2017 20:00	2017	4.4	15.6	35.5	14.3	1.2
5/2/2017 2:00	2017	0.2	0.7	0.7	0.7	0.0
5/2/2017 13:00	2017	0.2	0.7	0.7	0.7	0.0
5/2/2017 14:00	2017	0.2	0.7	0.7	0.7	0.0
5/2/2017 16:00	2017	1	3.5	3.5	3.5	0.0
5/2/2017 20:00	2017	0.2	0.7	0.7	0.7	0.0
5/4/2017 21:00	2017	0.5	1.8	1.8	1.8	0.0
5/4/2017 22:00	2017	0.6	2.1	2.1	2.1	0.0
5/4/2017 23:00	2017	0.5	1.8	1.8	1.8	0.0
5/5/2017 0:00	2017	0.9	3.2	3.2	3.2	0.0
5/5/2017 1:00	2017	0.6	2.1	2.1	2.1	0.0
5/5/2017 2:00	2017	0.2	0.7	0.7	0.7	0.0
5/5/2017 3:00	2017	0.7	2.5	2.5	2.5	0.0
5/5/2017 4:00	2017	0.7	2.5	2.5	2.5	0.0
5/5/2017 5:00	2017	1.2	4.2	4.2	4.2	0.0
5/5/2017 6:00	2017	1.7	6.0	6.0	6.0	0.0
5/5/2017 7:00	2017	1.4	5.0	5.0	5.0	0.0
5/5/2017 8:00	2017	1.8	6.4	6.4	6.4	0.0
5/5/2017 9:00	2017	2	7.1	7.1	7.1	0.0
5/5/2017 10:00	2017	1.3	4.6	4.6	4.6	0.0
5/5/2017 11:00	2017	1.1	3.9	3.9	3.9	0.0
5/5/2017 12:00	2017	2.1	7.4	7.4	7.4	0.0
5/5/2017 13:00	2017	2.9	10.3	10.3	10.3	0.0
5/5/2017 14:00	2017	2.6	9.2	9.2	9.2	0.0
5/5/2017 15:00	2017	2.5	8.8	8.8	8.8	0.0
5/5/2017 16:00	2017	2.3	8.1	8.1	8.1	0.0

5/5/2017 17:00	2017	1.9	6.7	6.7	6.7	0.0
5/5/2017 18:00	2017	4.9	17.3	17.3	14.3	0.0
5/5/2017 19:00	2017	2.7	9.5	12.6	12.6	0.0
5/5/2017 20:00	2017	3.5	12.4	12.4	12.4	0.0
5/5/2017 21:00	2017	1.6	5.7	5.7	5.7	0.0
5/5/2017 22:00	2017	0.4	1.4	1.4	1.4	0.0
5/5/2017 23:00	2017	0.3	1.1	1.1	1.1	0.0
5/6/2017 0:00	2017	0.4	1.4	1.4	1.4	0.0
5/6/2017 1:00	2017	0.8	2.8	2.8	2.8	0.0
5/6/2017 2:00	2017	0.5	1.8	1.8	1.8	0.0
5/6/2017 4:00	2017	2.1	7.4	7.4	7.4	0.0
5/6/2017 5:00	2017	2.6	9.2	9.2	9.2	0.0
5/6/2017 6:00	2017	0.6	2.1	2.1	2.1	0.0
5/6/2017 7:00	2017	0.2	0.7	0.7	0.7	0.0
5/6/2017 10:00	2017	0.2	0.7	0.7	0.7	0.0
5/6/2017 11:00	2017	0.9	3.2	3.2	3.2	0.0
5/6/2017 13:00	2017	2.2	7.8	7.8	7.8	0.0
5/6/2017 14:00	2017	1.3	4.6	4.6	4.6	0.0
5/6/2017 15:00	2017	1.5	5.3	5.3	5.3	0.0
5/6/2017 16:00	2017	1.4	5.0	5.0	5.0	0.0
5/6/2017 17:00	2017	0.7	2.5	2.5	2.5	0.0
5/6/2017 18:00	2017	1.1	3.9	3.9	3.9	0.0
5/6/2017 19:00	2017	0.2	0.7	0.7	0.7	0.0
5/6/2017 23:00	2017	0.2	0.7	0.7	0.7	0.0
5/7/2017 0:00	2017	0.2	0.7	0.7	0.7	0.0
5/7/2017 2:00	2017	0.5	1.8	1.8	1.8	0.0
5/7/2017 3:00	2017	0.2	0.7	0.7	0.7	0.0
5/7/2017 4:00	2017	0.5	1.8	1.8	1.8	0.0
5/7/2017 5:00	2017	0.3	1.1	1.1	1.1	0.0
5/7/2017 6:00	2017	0.2	0.7	0.7	0.7	0.0
5/7/2017 7:00	2017	0.3	1.1	1.1	1.1	0.0
5/7/2017 8:00	2017	0.7	2.5	2.5	2.5	0.0
5/7/2017 9:00	2017	0.2	0.7	0.7	0.7	0.0
5/7/2017 15:00	2017	0.2	0.7	0.7	0.7	0.0
5/8/2017 12:00	2017	0.3	1.1	1.1	1.1	0.0
5/8/2017 15:00	2017	0.3	1.1	1.1	1.1	0.0
5/13/2017 12:00	2017	0.2	0.7	0.7	0.7	0.0
5/14/2017 10:00	2017	1.8	6.4	6.4	6.4	0.0
5/14/2017 11:00	2017	0.6	2.1	2.1	2.1	0.0
5/18/2017 20:00	2017	1	3.5	3.5	3.5	0.0
5/21/2017 22:00	2017	0.8	2.8	2.8	2.8	0.0
5/21/2017 23:00	2017	0.3	1.1	1.1	1.1	0.0
5/22/2017 0:00	2017	2.2	7.8	7.8	7.8	0.0
5/22/2017 1:00	2017	2.6	9.2	9.2	9.2	0.0
5/22/2017 2:00	2017	1.7	6.0	6.0	6.0	0.0
5/22/2017 3:00	2017	0.5	1.8	1.8	1.8	0.0
5/22/2017 4:00	2017	4.3	15.2	15.2	14.3	0.0
5/22/2017 5:00	2017	0.3	1.1	1.9	1.9	0.0
5/22/2017 6:00	2017	0.2	0.7	0.7	0.7	0.0
5/22/2017 14:00	2017	1	3.5	3.5	3.5	0.0
5/25/2017 16:00	2017	0.8	2.8	2.8	2.8	0.0
5/25/2017 17:00	2017	2.1	7.4	7.4	7.4	0.0
5/25/2017 18:00	2017	4.9	17.3	17.3	14.3	0.0
5/25/2017 19:00	2017	1.8	6.4	9.4	9.4	0.0
5/25/2017 20:00	2017	0.6	2.1	2.1	2.1	0.0
5/25/2017 21:00	2017	0.2	0.7	0.7	0.7	0.0
5/26/2017 0:00	2017	0.2	0.7	0.7	0.7	0.0
5/26/2017 2:00	2017	0.3	1.1	1.1	1.1	0.0
5/26/2017 3:00	2017	0.2	0.7	0.7	0.7	0.0
5/26/2017 7:00	2017	0.2	0.7	0.7	0.7	0.0
5/26/2017 9:00	2017	0.2	0.7	0.7	0.7	0.0
5/26/2017 14:00	2017	0.5	1.8	1.8	1.8	0.0
5/26/2017 16:00	2017	0.2	0.7	0.7	0.7	0.0
5/29/2017 8:00	2017	1.9	6.7	6.7	6.7	0.0
5/29/2017 9:00	2017	4.9	17.3	17.3	14.3	0.0
5/29/2017 10:00	2017	3.4	12.0	15.0	14.3	0.0

5/29/2017 11:00	2017	6.4	22.6	23.3	14.3	0.0
5/29/2017 12:00	2017	6.2	21.9	30.9	14.3	0.0
5/29/2017 13:00	2017	3.3	11.7	28.3	14.3	0.0
5/29/2017 14:00	2017	0.3	1.1	15.0	14.3	0.0
5/29/2017 15:00	2017	0.6	2.1	2.8	2.8	0.0
5/30/2017 18:00	2017	3.9	13.8	13.8	13.8	0.0
5/30/2017 22:00	2017	0.2	0.7	0.7	0.7	0.0
5/31/2017 3:00	2017	0.7	2.5	2.5	2.5	0.0
5/31/2017 20:00	2017	0.5	1.8	1.8	1.8	0.0
6/1/2017 17:00	2017	0.3	1.1	1.1	1.1	0.0
6/4/2017 15:00	2017	0.4	1.4	1.4	1.4	0.0
6/5/2017 19:00	2017	0.2	0.7	0.7	0.7	0.0
6/5/2017 20:00	2017	0.3	1.1	1.1	1.1	0.0
6/5/2017 22:00	2017	1.2	4.2	4.2	4.2	0.0
6/5/2017 23:00	2017	1.8	6.4	6.4	6.4	0.0
6/6/2017 0:00	2017	1.3	4.6	4.6	4.6	0.0
6/6/2017 1:00	2017	2.9	10.3	10.3	10.3	0.0
6/6/2017 2:00	2017	1.7	6.0	6.0	6.0	0.0
6/6/2017 3:00	2017	5	17.7	17.7	14.3	0.0
6/6/2017 4:00	2017	0.2	0.7	4.1	4.1	0.0
6/6/2017 5:00	2017	0.6	2.1	2.1	2.1	0.0
6/6/2017 6:00	2017	0.3	1.1	1.1	1.1	0.0
6/6/2017 9:00	2017	0.2	0.7	0.7	0.7	0.0
6/6/2017 10:00	2017	2.1	7.4	7.4	7.4	0.0
6/6/2017 11:00	2017	1.8	6.4	6.4	6.4	0.0
6/6/2017 12:00	2017	1.5	5.3	5.3	5.3	0.0
6/6/2017 13:00	2017	1	3.5	3.5	3.5	0.0
6/6/2017 14:00	2017	0.3	1.1	1.1	1.1	0.0
6/6/2017 15:00	2017	1.7	6.0	6.0	6.0	0.0
6/6/2017 16:00	2017	1.7	6.0	6.0	6.0	0.0
6/6/2017 17:00	2017	0.2	0.7	0.7	0.7	0.0
6/15/2017 22:00	2017	0.8	2.8	2.8	2.8	0.0
6/15/2017 23:00	2017	3.8	13.4	13.4	13.4	0.0
6/16/2017 0:00	2017	5.6	19.8	19.8	14.3	0.0
6/16/2017 1:00	2017	3.1	11.0	16.4	14.3	0.0
6/16/2017 2:00	2017	0.8	2.8	5.0	5.0	0.0
6/16/2017 3:00	2017	1.1	3.9	3.9	3.9	0.0
6/16/2017 4:00	2017	1.2	4.2	4.2	4.2	0.0
6/16/2017 5:00	2017	0.2	0.7	0.7	0.7	0.0
6/20/2017 5:00	2017	2.4	8.5	8.5	8.5	0.0
6/20/2017 6:00	2017	0.2	0.7	0.7	0.7	0.0
6/21/2017 1:00	2017	0.6	2.1	2.1	2.1	0.0
6/21/2017 2:00	2017	0.6	2.1	2.1	2.1	0.0
6/21/2017 3:00	2017	0.3	1.1	1.1	1.1	0.0
6/21/2017 4:00	2017	0.5	1.8	1.8	1.8	0.0
6/22/2017 23:00	2017	7	24.8	24.8	14.3	0.0
6/23/2017 0:00	2017	0.3	1.1	11.5	11.5	0.0
6/23/2017 1:00	2017	2	7.1	7.1	7.1	0.0
6/23/2017 2:00	2017	1.4	5.0	5.0	5.0	0.0
6/23/2017 3:00	2017	1.5	5.3	5.3	5.3	0.0
6/23/2017 7:00	2017	0.3	1.1	1.1	1.1	0.0
6/23/2017 8:00	2017	1.1	3.9	3.9	3.9	0.0
6/23/2017 9:00	2017	0.5	1.8	1.8	1.8	0.0
6/25/2017 11:00	2017	3.6	12.7	12.7	12.7	0.0
6/25/2017 12:00	2017	4.4	15.6	15.6	14.3	0.0
6/25/2017 14:00	2017	2.8	9.9	9.9	9.9	0.0
6/25/2017 15:00	2017	21.9	77.5	35.5	14.3	42.0
6/25/2017 16:00	2017	1.4	5.0	26.1	14.3	0.0
6/25/2017 17:00	2017	8.7	30.8	35.5	14.3	7.1
6/25/2017 23:00	2017	0.2	0.7	0.7	0.7	0.0
6/26/2017 22:00	2017	0.8	2.8	2.8	2.8	0.0
6/27/2017 13:00	2017	1.2	4.2	4.2	4.2	0.0
6/28/2017 5:00	2017	0.2	0.7	0.7	0.7	0.0
6/28/2017 18:00	2017	2.5	8.8	8.8	8.8	0.0
6/29/2017 10:00	2017	2.3	8.1	8.1	8.1	0.0
6/29/2017 11:00	2017	1.4	5.0	5.0	5.0	0.0

6/29/2017 12:00	2017	0.8	2.8	2.8	2.8	0.0
6/29/2017 13:00	2017	1.5	5.3	5.3	5.3	0.0
6/29/2017 14:00	2017	0.4	1.4	1.4	1.4	0.0
6/29/2017 15:00	2017	1.7	6.0	6.0	6.0	0.0
6/29/2017 16:00	2017	2.3	8.1	8.1	8.1	0.0
6/29/2017 17:00	2017	1.4	5.0	5.0	5.0	0.0
6/29/2017 18:00	2017	1.2	4.2	4.2	4.2	0.0
6/29/2017 19:00	2017	4.4	15.6	15.6	14.3	0.0
6/29/2017 20:00	2017	2.5	8.8	10.1	10.1	0.0
6/29/2017 21:00	2017	0.5	1.8	1.8	1.8	0.0
6/30/2017 1:00	2017	3.5	12.4	12.4	12.4	0.0
6/30/2017 12:00	2017	0.6	2.1	2.1	2.1	0.0
6/30/2017 13:00	2017	1.4	5.0	5.0	5.0	0.0
6/30/2017 14:00	2017	0.8	2.8	2.8	2.8	0.0
6/30/2017 16:00	2017	0.3	1.1	1.1	1.1	0.0
7/1/2017 5:00	2017	0.2	0.7	0.7	0.7	0.0
7/1/2017 6:00	2017	0.5	1.8	1.8	1.8	0.0
7/1/2017 7:00	2017	2	7.1	7.1	7.1	0.0
7/1/2017 8:00	2017	16.9	59.8	35.5	14.3	24.3
7/1/2017 9:00	2017	4.8	17.0	35.5	14.3	2.7
7/1/2017 10:00	2017	1.4	5.0	26.1	14.3	0.0
7/1/2017 20:00	2017	7.2	25.5	25.5	14.3	0.0
7/1/2017 21:00	2017	0.3	1.1	12.2	12.2	0.0
7/2/2017 15:00	2017	9.7	34.3	34.3	14.3	0.0
7/2/2017 16:00	2017	0.2	0.7	20.7	14.3	0.0
7/2/2017 21:00	2017	16.7	59.1	35.5	14.3	23.6
7/2/2017 22:00	2017	0.4	1.4	22.6	14.3	0.0
7/7/2017 16:00	2017	0.8	2.8	2.8	2.8	0.0
7/7/2017 17:00	2017	1.9	6.7	6.7	6.7	0.0
7/8/2017 3:00	2017	10.6	37.5	35.5	14.3	2.0
7/8/2017 4:00	2017	6.6	23.3	35.5	14.3	9.0
7/8/2017 6:00	2017	0.8	2.8	9.7	9.7	0.0
7/9/2017 14:00	2017	0.6	2.1	2.1	2.1	0.0
7/9/2017 19:00	2017	5	17.7	17.7	14.3	0.0
7/9/2017 22:00	2017	1	3.5	3.5	3.5	0.0
7/10/2017 2:00	2017	0.3	1.1	1.1	1.1	0.0
7/10/2017 3:00	2017	1.1	3.9	3.9	3.9	0.0
7/10/2017 4:00	2017	0.3	1.1	1.1	1.1	0.0
7/10/2017 12:00	2017	0.3	1.1	1.1	1.1	0.0
7/10/2017 16:00	2017	0.2	0.7	0.7	0.7	0.0
7/11/2017 14:00	2017	0.3	1.1	1.1	1.1	0.0
7/11/2017 15:00	2017	13.3	47.0	35.5	14.3	11.6
7/11/2017 18:00	2017	0.2	0.7	0.7	0.7	0.0
7/12/2017 21:00	2017	0.2	0.7	0.7	0.7	0.0
7/12/2017 23:00	2017	0.2	0.7	0.7	0.7	0.0
7/13/2017 2:00	2017	0.3	1.1	1.1	1.1	0.0
7/13/2017 3:00	2017	2.4	8.5	8.5	8.5	0.0
7/13/2017 4:00	2017	3	10.6	10.6	10.6	0.0
7/13/2017 5:00	2017	1.5	5.3	5.3	5.3	0.0
7/13/2017 6:00	2017	0.2	0.7	0.7	0.7	0.0
7/14/2017 21:00	2017	3.9	13.8	13.8	13.8	0.0
7/14/2017 22:00	2017	7.3	25.8	25.8	14.3	0.0
7/14/2017 23:00	2017	0.8	2.8	14.3	14.3	0.0
7/15/2017 0:00	2017	0.5	1.8	1.8	1.8	0.0
7/15/2017 1:00	2017	1.3	4.6	4.6	4.6	0.0
7/15/2017 3:00	2017	0.2	0.7	0.7	0.7	0.0
7/15/2017 4:00	2017	0.2	0.7	0.7	0.7	0.0
7/15/2017 5:00	2017	0.5	1.8	1.8	1.8	0.0
7/16/2017 22:00	2017	0.2	0.7	0.7	0.7	0.0
7/17/2017 5:00	2017	0.4	1.4	1.4	1.4	0.0
7/24/2017 5:00	2017	4.3	15.2	15.2	14.3	0.0
7/24/2017 6:00	2017	5	17.7	18.6	14.3	0.0
7/24/2017 7:00	2017	5	17.7	21.9	14.3	0.0
7/24/2017 8:00	2017	2.6	9.2	16.8	14.3	0.0
7/24/2017 9:00	2017	2.7	9.5	12.0	12.0	0.0
7/24/2017 10:00	2017	3.9	13.8	13.8	13.8	0.0

7/24/2017 11:00	2017	4.7	16.6	16.6	14.3	0.0
7/24/2017 12:00	2017	5.7	20.2	22.5	14.3	0.0
7/24/2017 13:00	2017	1.3	4.6	12.7	12.7	0.0
7/24/2017 14:00	2017	0.9	3.2	3.2	3.2	0.0
7/24/2017 15:00	2017	0.3	1.1	1.1	1.1	0.0
7/24/2017 17:00	2017	2.8	9.9	9.9	9.9	0.0
7/24/2017 18:00	2017	3.7	13.1	13.1	13.1	0.0
7/24/2017 19:00	2017	6.5	23.0	23.0	14.3	0.0
7/24/2017 20:00	2017	3.9	13.8	22.5	14.3	0.0
7/24/2017 21:00	2017	2.3	8.1	16.3	14.3	0.0
7/24/2017 22:00	2017	1.3	4.6	6.5	6.5	0.0
7/24/2017 23:00	2017	0.3	1.1	1.1	1.1	0.0
7/25/2017 2:00	2017	0.8	2.8	2.8	2.8	0.0
7/25/2017 3:00	2017	0.8	2.8	2.8	2.8	0.0
8/4/2017 4:00	2017	1.1	3.9	3.9	3.9	0.0
8/4/2017 5:00	2017	1.3	4.6	4.6	4.6	0.0
8/4/2017 7:00	2017	0.5	1.8	1.8	1.8	0.0
8/4/2017 8:00	2017	1.8	6.4	6.4	6.4	0.0
8/4/2017 22:00	2017	1	3.5	3.5	3.5	0.0
8/5/2017 4:00	2017	0.3	1.1	1.1	1.1	0.0
8/5/2017 16:00	2017	1	3.5	3.5	3.5	0.0
8/12/2017 1:00	2017	1.2	4.2	4.2	4.2	0.0
8/12/2017 2:00	2017	0.3	1.1	1.1	1.1	0.0
8/12/2017 4:00	2017	0.8	2.8	2.8	2.8	0.0
8/12/2017 13:00	2017	1.4	5.0	5.0	5.0	0.0
8/12/2017 15:00	2017	15.2	53.8	35.5	14.3	18.3
8/13/2017 1:00	2017	0.2	0.7	0.7	0.7	0.0
8/17/2017 15:00	2017	0.2	0.7	0.7	0.7	0.0
8/18/2017 0:00	2017	1.5	5.3	5.3	5.3	0.0
8/18/2017 1:00	2017	0.3	1.1	1.1	1.1	0.0
8/18/2017 2:00	2017	3	10.6	10.6	10.6	0.0
8/18/2017 3:00	2017	6.3	22.3	22.3	14.3	0.0
8/18/2017 4:00	2017	4.9	17.3	25.3	14.3	0.0
8/18/2017 5:00	2017	2.5	8.8	19.8	14.3	0.0
8/18/2017 6:00	2017	5.1	18.0	23.5	14.3	0.0
8/18/2017 9:00	2017	0.2	0.7	0.7	0.7	0.0
8/18/2017 15:00	2017	2.7	9.5	9.5	9.5	0.0
8/19/2017 0:00	2017	0.2	0.7	0.7	0.7	0.0
8/22/2017 9:00	2017	10.5	37.1	35.5	14.3	1.7
8/22/2017 13:00	2017	5.5	19.5	19.5	14.3	0.0
8/22/2017 16:00	2017	16.7	59.1	35.5	14.3	23.6
8/22/2017 17:00	2017	0.6	2.1	23.3	14.3	0.0
8/31/2017 0:00	2017	0.3	1.1	1.1	1.1	0.0
9/2/2017 15:00	2017	0.2	0.7	0.7	0.7	0.0
9/3/2017 4:00	2017	0.6	2.1	2.1	2.1	0.0
9/3/2017 5:00	2017	1	3.5	3.5	3.5	0.0
9/3/2017 6:00	2017	1.6	5.7	5.7	5.7	0.0
9/3/2017 7:00	2017	0.3	1.1	1.1	1.1	0.0
9/3/2017 10:00	2017	1.1	3.9	3.9	3.9	0.0
9/3/2017 11:00	2017	0.6	2.1	2.1	2.1	0.0
9/3/2017 12:00	2017	0.5	1.8	1.8	1.8	0.0
9/3/2017 13:00	2017	0.2	0.7	0.7	0.7	0.0
9/3/2017 15:00	2017	0.2	0.7	0.7	0.7	0.0
9/3/2017 16:00	2017	1.2	4.2	4.2	4.2	0.0
9/3/2017 17:00	2017	0.2	0.7	0.7	0.7	0.0
9/3/2017 18:00	2017	0.3	1.1	1.1	1.1	0.0
9/3/2017 20:00	2017	0.2	0.7	0.7	0.7	0.0
9/4/2017 10:00	2017	0.7	2.5	2.5	2.5	0.0
9/4/2017 15:00	2017	0.4	1.4	1.4	1.4	0.0
9/4/2017 16:00	2017	2.6	9.2	9.2	9.2	0.0
9/4/2017 17:00	2017	0.3	1.1	1.1	1.1	0.0
9/4/2017 18:00	2017	2.4	8.5	8.5	8.5	0.0
9/4/2017 19:00	2017	6.7	23.7	23.7	14.3	0.0
9/4/2017 20:00	2017	0.6	2.1	11.5	11.5	0.0
9/4/2017 22:00	2017	1.8	6.4	6.4	6.4	0.0
9/4/2017 23:00	2017	1.4	5.0	5.0	5.0	0.0

9/5/2017 1:00	2017	5	17.7	17.7	14.3	0.0
9/5/2017 2:00	2017	1.4	5.0	8.3	8.3	0.0
9/7/2017 13:00	2017	2.4	8.5	8.5	8.5	0.0
9/7/2017 14:00	2017	1	3.5	3.5	3.5	0.0
9/7/2017 15:00	2017	0.6	2.1	2.1	2.1	0.0
9/7/2017 16:00	2017	0.6	2.1	2.1	2.1	0.0
9/7/2017 18:00	2017	0.6	2.1	2.1	2.1	0.0
9/7/2017 19:00	2017	2	7.1	7.1	7.1	0.0
9/7/2017 20:00	2017	0.6	2.1	2.1	2.1	0.0
9/7/2017 21:00	2017	0.5	1.8	1.8	1.8	0.0
9/8/2017 12:00	2017	0.3	1.1	1.1	1.1	0.0
9/8/2017 14:00	2017	0.3	1.1	1.1	1.1	0.0
9/8/2017 17:00	2017	0.3	1.1	1.1	1.1	0.0
9/27/2017 15:00	2017	10.5	37.1	35.5	14.3	1.7
10/4/2017 16:00	2017	2.8	9.9	9.9	9.9	0.0
10/4/2017 17:00	2017	1	3.5	3.5	3.5	0.0
10/4/2017 18:00	2017	2.1	7.4	7.4	7.4	0.0
10/4/2017 19:00	2017	2	7.1	7.1	7.1	0.0
10/7/2017 10:00	2017	1.3	4.6	4.6	4.6	0.0
10/7/2017 11:00	2017	0.8	2.8	2.8	2.8	0.0
10/7/2017 12:00	2017	0.7	2.5	2.5	2.5	0.0
10/8/2017 5:00	2017	1.3	4.6	4.6	4.6	0.0
10/8/2017 6:00	2017	1.1	3.9	3.9	3.9	0.0
10/8/2017 7:00	2017	2.5	8.8	8.8	8.8	0.0
10/8/2017 8:00	2017	1.3	4.6	4.6	4.6	0.0
10/9/2017 8:00	2017	0.2	0.7	0.7	0.7	0.0
10/9/2017 9:00	2017	0.8	2.8	2.8	2.8	0.0
10/9/2017 10:00	2017	0.5	1.8	1.8	1.8	0.0
10/9/2017 11:00	2017	2	7.1	7.1	7.1	0.0
10/9/2017 12:00	2017	1.6	5.7	5.7	5.7	0.0
10/9/2017 13:00	2017	1.6	5.7	5.7	5.7	0.0
10/10/2017 3:00	2017	0.2	0.7	0.7	0.7	0.0
10/14/2017 1:00	2017	0.2	0.7	0.7	0.7	0.0
10/15/2017 1:00	2017	1.5	5.3	5.3	5.3	0.0
10/15/2017 2:00	2017	3	10.6	10.6	10.6	0.0
10/15/2017 3:00	2017	1.8	6.4	6.4	6.4	0.0
10/15/2017 4:00	2017	0.8	2.8	2.8	2.8	0.0
10/15/2017 5:00	2017	0.3	1.1	1.1	1.1	0.0
10/15/2017 6:00	2017	0.4	1.4	1.4	1.4	0.0
10/15/2017 7:00	2017	1.2	4.2	4.2	4.2	0.0
10/15/2017 8:00	2017	3.6	12.7	12.7	12.7	0.0
10/15/2017 9:00	2017	0.4	1.4	1.4	1.4	0.0
10/15/2017 14:00	2017	1.6	5.7	5.7	5.7	0.0
10/15/2017 18:00	2017	4.5	15.9	15.9	14.3	0.0
10/24/2017 5:00	2017	0.4	1.4	1.4	1.4	0.0
10/24/2017 6:00	2017	0.4	1.4	1.4	1.4	0.0
10/24/2017 7:00	2017	2.2	7.8	7.8	7.8	0.0
10/24/2017 8:00	2017	4.5	15.9	15.9	14.3	0.0
10/24/2017 9:00	2017	2.7	9.5	11.1	11.1	0.0
10/24/2017 10:00	2017	1.4	5.0	5.0	5.0	0.0
10/24/2017 11:00	2017	0.5	1.8	1.8	1.8	0.0
10/24/2017 21:00	2017	0.6	2.1	2.1	2.1	0.0
10/28/2017 16:00	2017	0.2	0.7	0.7	0.7	0.0
10/28/2017 17:00	2017	0.7	2.5	2.5	2.5	0.0
10/28/2017 18:00	2017	0.5	1.8	1.8	1.8	0.0
10/28/2017 19:00	2017	0.5	1.8	1.8	1.8	0.0
10/28/2017 20:00	2017	0.8	2.8	2.8	2.8	0.0
10/28/2017 21:00	2017	1.1	3.9	3.9	3.9	0.0
10/28/2017 23:00	2017	1.7	6.0	6.0	6.0	0.0
10/29/2017 0:00	2017	1.9	6.7	6.7	6.7	0.0
10/29/2017 1:00	2017	1.5	5.3	5.3	5.3	0.0
10/29/2017 2:00	2017	0.8	2.8	2.8	2.8	0.0
10/29/2017 4:00	2017	0.5	1.8	1.8	1.8	0.0
10/29/2017 6:00	2017	0.2	0.7	0.7	0.7	0.0
10/29/2017 7:00	2017	0.2	0.7	0.7	0.7	0.0
10/29/2017 8:00	2017	0.3	1.1	1.1	1.1	0.0

10/29/2017 9:00	2017	0.8	2.8	2.8	2.8	0.0
10/29/2017 10:00	2017	2.3	8.1	8.1	8.1	0.0
10/29/2017 11:00	2017	2.5	8.8	8.8	8.8	0.0
10/29/2017 12:00	2017	2.9	10.3	10.3	10.3	0.0
10/29/2017 13:00	2017	1	3.5	3.5	3.5	0.0
10/29/2017 14:00	2017	1.7	6.0	6.0	6.0	0.0
10/29/2017 15:00	2017	1	3.5	3.5	3.5	0.0
10/29/2017 16:00	2017	1.4	5.0	5.0	5.0	0.0
10/29/2017 17:00	2017	1.1	3.9	3.9	3.9	0.0
10/29/2017 18:00	2017	0.6	2.1	2.1	2.1	0.0
10/29/2017 19:00	2017	0.5	1.8	1.8	1.8	0.0
10/29/2017 20:00	2017	1.4	5.0	5.0	5.0	0.0
10/29/2017 21:00	2017	2.5	8.8	8.8	8.8	0.0
10/29/2017 22:00	2017	3.3	11.7	11.7	11.7	0.0
10/29/2017 23:00	2017	2.9	10.3	10.3	10.3	0.0
10/30/2017 0:00	2017	7	24.8	24.8	14.3	0.0
10/30/2017 1:00	2017	6	21.2	31.7	14.3	0.0
10/30/2017 2:00	2017	5.8	20.5	35.5	14.3	2.4
10/30/2017 3:00	2017	8.8	31.1	35.5	14.3	16.8
10/30/2017 4:00	2017	12	42.4	35.5	14.3	28.1
10/30/2017 5:00	2017	17.6	62.2	35.5	14.3	47.9
10/30/2017 6:00	2017	8.5	30.1	35.5	14.3	15.7
10/30/2017 7:00	2017	3.6	12.7	33.9	14.3	0.0
10/30/2017 8:00	2017	2	7.1	26.6	14.3	0.0
10/30/2017 9:00	2017	2	7.1	19.4	14.3	0.0
10/30/2017 10:00	2017	1.8	6.4	11.4	11.4	0.0
10/30/2017 11:00	2017	0.3	1.1	1.1	1.1	0.0
10/30/2017 12:00	2017	0.2	0.7	0.7	0.7	0.0
11/1/2017 10:00	2017	0.3	1.1	1.1	1.1	0.0
11/1/2017 11:00	2017	0.2	0.7	0.7	0.7	0.0
11/1/2017 13:00	2017	0.3	1.1	1.1	1.1	0.0
11/1/2017 14:00	2017	0.2	0.7	0.7	0.7	0.0
11/1/2017 17:00	2017	0.6	2.1	2.1	2.1	0.0
11/1/2017 18:00	2017	0.9	3.2	3.2	3.2	0.0
11/1/2017 19:00	2017	1.5	5.3	5.3	5.3	0.0
11/1/2017 20:00	2017	0.6	2.1	2.1	2.1	0.0
11/1/2017 21:00	2017	0.5	1.8	1.8	1.8	0.0
11/1/2017 22:00	2017	0.5	1.8	1.8	1.8	0.0
11/1/2017 23:00	2017	0.6	2.1	2.1	2.1	0.0
11/2/2017 0:00	2017	0.4	1.4	1.4	1.4	0.0
11/2/2017 3:00	2017	0.2	0.7	0.7	0.7	0.0
11/2/2017 4:00	2017	1.4	5.0	5.0	5.0	0.0
11/2/2017 5:00	2017	1.4	5.0	5.0	5.0	0.0
11/2/2017 6:00	2017	2	7.1	7.1	7.1	0.0
11/2/2017 7:00	2017	2.3	8.1	8.1	8.1	0.0
11/2/2017 8:00	2017	1.6	5.7	5.7	5.7	0.0
11/2/2017 9:00	2017	0.5	1.8	1.8	1.8	0.0
11/2/2017 10:00	2017	0.6	2.1	2.1	2.1	0.0
11/2/2017 11:00	2017	0.2	0.7	0.7	0.7	0.0
11/2/2017 12:00	2017	0.3	1.1	1.1	1.1	0.0
11/2/2017 14:00	2017	0.4	1.4	1.4	1.4	0.0
11/2/2017 15:00	2017	0.7	2.5	2.5	2.5	0.0
11/2/2017 16:00	2017	1.8	6.4	6.4	6.4	0.0
11/2/2017 17:00	2017	0.7	2.5	2.5	2.5	0.0
11/2/2017 18:00	2017	0.4	1.4	1.4	1.4	0.0
11/2/2017 19:00	2017	0.8	2.8	2.8	2.8	0.0
11/2/2017 20:00	2017	0.4	1.4	1.4	1.4	0.0
11/2/2017 22:00	2017	0.2	0.7	0.7	0.7	0.0
11/2/2017 23:00	2017	8.3	29.4	29.4	14.3	0.0
11/3/2017 0:00	2017	3.6	12.7	27.8	14.3	0.0
11/3/2017 1:00	2017	2.2	7.8	21.2	14.3	0.0
11/3/2017 2:00	2017	2.1	7.4	14.3	14.3	0.0
11/3/2017 3:00	2017	1.8	6.4	6.4	6.4	0.0
11/3/2017 4:00	2017	1.9	6.7	6.7	6.7	0.0
11/5/2017 4:00	2017	0.2	0.7	0.7	0.7	0.0
11/5/2017 5:00	2017	0.2	0.7	0.7	0.7	0.0

11/5/2017 6:00	2017	0.2	0.7	0.7	0.7	0.0
11/5/2017 8:00	2017	0.3	1.1	1.1	1.1	0.0
11/5/2017 9:00	2017	0.9	3.2	3.2	3.2	0.0
11/5/2017 10:00	2017	0.4	1.4	1.4	1.4	0.0
11/5/2017 11:00	2017	0.2	0.7	0.7	0.7	0.0
11/5/2017 12:00	2017	0.6	2.1	2.1	2.1	0.0
11/5/2017 13:00	2017	0.9	3.2	3.2	3.2	0.0
11/5/2017 14:00	2017	1.2	4.2	4.2	4.2	0.0
11/5/2017 15:00	2017	3.6	12.7	12.7	12.7	0.0
11/5/2017 16:00	2017	1.2	4.2	4.2	4.2	0.0
11/5/2017 17:00	2017	0.2	0.7	0.7	0.7	0.0
11/5/2017 18:00	2017	0.2	0.7	0.7	0.7	0.0
11/5/2017 20:00	2017	0.2	0.7	0.7	0.7	0.0
11/5/2017 21:00	2017	0.2	0.7	0.7	0.7	0.0
11/5/2017 22:00	2017	1	3.5	3.5	3.5	0.0
11/5/2017 23:00	2017	1.9	6.7	6.7	6.7	0.0
11/6/2017 0:00	2017	0.3	1.1	1.1	1.1	0.0
11/6/2017 1:00	2017	1.1	3.9	3.9	3.9	0.0
11/6/2017 3:00	2017	0.3	1.1	1.1	1.1	0.0
11/6/2017 5:00	2017	0.3	1.1	1.1	1.1	0.0
11/9/2017 20:00	2017	1.7	6.0	6.0	6.0	0.0
11/9/2017 21:00	2017	0.6	2.1	2.1	2.1	0.0
11/9/2017 22:00	2017	0.7	2.5	2.5	2.5	0.0
11/16/2017 3:00	2017	0.3	1.1	1.1	1.1	0.0
11/16/2017 10:00	2017	0.2	0.7	0.7	0.7	0.0
11/16/2017 13:00	2017	0.5	1.8	1.8	1.8	0.0
11/16/2017 14:00	2017	0.2	0.7	0.7	0.7	0.0
11/16/2017 15:00	2017	0.2	0.7	0.7	0.7	0.0
11/16/2017 16:00	2017	0.3	1.1	1.1	1.1	0.0
11/16/2017 17:00	2017	0.3	1.1	1.1	1.1	0.0
11/18/2017 12:00	2017	0.3	1.1	1.1	1.1	0.0
11/18/2017 23:00	2017	0.2	0.7	0.7	0.7	0.0
11/19/2017 0:00	2017	0.2	0.7	0.7	0.7	0.0
11/19/2017 1:00	2017	0.3	1.1	1.1	1.1	0.0
11/19/2017 2:00	2017	0.6	2.1	2.1	2.1	0.0
11/19/2017 3:00	2017	0.7	2.5	2.5	2.5	0.0
11/19/2017 5:00	2017	0.2	0.7	0.7	0.7	0.0
11/19/2017 6:00	2017	0.2	0.7	0.7	0.7	0.0
11/19/2017 7:00	2017	0.3	1.1	1.1	1.1	0.0
11/19/2017 8:00	2017	0.7	2.5	2.5	2.5	0.0
11/19/2017 9:00	2017	0.3	1.1	1.1	1.1	0.0
11/19/2017 14:00	2017	0.6	2.1	2.1	2.1	0.0
11/21/2017 10:00	2017	0.5	1.8	1.8	1.8	0.0
11/21/2017 11:00	2017	0.9	3.2	3.2	3.2	0.0
11/22/2017 0:00	2017	0.7	2.5	2.5	2.5	0.0
11/22/2017 1:00	2017	1.1	3.9	3.9	3.9	0.0
11/22/2017 2:00	2017	0.3	1.1	1.1	1.1	0.0
11/22/2017 3:00	2017	0.2	0.7	0.7	0.7	0.0
11/22/2017 4:00	2017	0.2	0.7	0.7	0.7	0.0
11/22/2017 5:00	2017	0.2	0.7	0.7	0.7	0.0
11/25/2017 8:00	2017	0.7	2.5	2.5	2.5	0.0
11/25/2017 9:00	2017	0.6	2.1	2.1	2.1	0.0
11/25/2017 10:00	2017	1.6	5.7	5.7	5.7	0.0
11/25/2017 11:00	2017	1.2	4.2	4.2	4.2	0.0
11/25/2017 12:00	2017	0.6	2.1	2.1	2.1	0.0
11/25/2017 13:00	2017	0.3	1.1	1.1	1.1	0.0
11/25/2017 20:00	2017	0.4	1.4	1.4	1.4	0.0
11/25/2017 23:00	2017	0.2	0.7	0.7	0.7	0.0
11/26/2017 4:00	2017	0.2	0.7	0.7	0.7	0.0
11/26/2017 18:00	2017	0.5	1.8	1.8	1.8	0.0
11/26/2017 19:00	2017	1.1	3.9	3.9	3.9	0.0
11/26/2017 20:00	2017	0.6	2.1	2.1	2.1	0.0
11/26/2017 21:00	2017	0.2	0.7	0.7	0.7	0.0
11/29/2017 2:00	2017	0.3	1.1	1.1	1.1	0.0
11/29/2017 4:00	2017	0.2	0.7	0.7	0.7	0.0
11/30/2017 17:00	2017	0.7	2.5	2.5	2.5	0.0

11/30/2017 18:00	2017	0.9	3.2	3.2	3.2	0.0
11/30/2017 19:00	2017	1.2	4.2	4.2	4.2	0.0
11/30/2017 20:00	2017	1.6	5.7	5.7	5.7	0.0
11/30/2017 21:00	2017	0.2	0.7	0.7	0.7	0.0
12/5/2017 7:00	2017	0.6	2.1	2.1	2.1	0.0
12/5/2017 8:00	2017	0.2	0.7	0.7	0.7	0.0
12/5/2017 9:00	2017	0.3	1.1	1.1	1.1	0.0
12/5/2017 10:00	2017	1.3	4.6	4.6	4.6	0.0
12/5/2017 11:00	2017	1	3.5	3.5	3.5	0.0
12/5/2017 12:00	2017	0.6	2.1	2.1	2.1	0.0
12/5/2017 17:00	2017	0.2	0.7	0.7	0.7	0.0
12/5/2017 21:00	2017	0.3	1.1	1.1	1.1	0.0
12/9/2017 21:00	2017	0.2	0.7	0.7	0.7	0.0
12/9/2017 22:00	2017	0.5	1.8	1.8	1.8	0.0
12/9/2017 23:00	2017	0.2	0.7	0.7	0.7	0.0
12/10/2017 0:00	2017	0.6	2.1	2.1	2.1	0.0
12/10/2017 1:00	2017	0.6	2.1	2.1	2.1	0.0
12/10/2017 2:00	2017	0.3	1.1	1.1	1.1	0.0
12/10/2017 4:00	2017	0.2	0.7	0.7	0.7	0.0
12/18/2017 18:00	2017	0.3	1.1	1.1	1.1	0.0
12/18/2017 19:00	2017	0.5	1.8	1.8	1.8	0.0
12/18/2017 20:00	2017	0.5	1.8	1.8	1.8	0.0
12/18/2017 21:00	2017	0.3	1.1	1.1	1.1	0.0
12/19/2017 3:00	2017	0.3	1.1	1.1	1.1	0.0
12/19/2017 4:00	2017	0.7	2.5	2.5	2.5	0.0
12/19/2017 5:00	2017	1.3	4.6	4.6	4.6	0.0
12/19/2017 6:00	2017	2.2	7.8	7.8	7.8	0.0
12/19/2017 7:00	2017	1.2	4.2	4.2	4.2	0.0
12/19/2017 8:00	2017	0.3	1.1	1.1	1.1	0.0
12/19/2017 15:00	2017	0.2	0.7	0.7	0.7	0.0
12/19/2017 16:00	2017	0.5	1.8	1.8	1.8	0.0
12/20/2017 6:00	2017	0.3	1.1	1.1	1.1	0.0
12/22/2017 12:00	2017	0.2	0.7	0.7	0.7	0.0
12/22/2017 14:00	2017	0.2	0.7	0.7	0.7	0.0
12/22/2017 20:00	2017	0.2	0.7	0.7	0.7	0.0
12/23/2017 12:00	2017	0.6	2.1	2.1	2.1	0.0
12/23/2017 13:00	2017	0.7	2.5	2.5	2.5	0.0
12/23/2017 14:00	2017	1.3	4.6	4.6	4.6	0.0
12/23/2017 15:00	2017	1.6	5.7	5.7	5.7	0.0
12/23/2017 16:00	2017	1	3.5	3.5	3.5	0.0
12/23/2017 17:00	2017	0.8	2.8	2.8	2.8	0.0
12/24/2017 11:00	2017	0.2	0.7	0.7	0.7	0.0
12/25/2017 3:00	2017	0.2	0.7	0.7	0.7	0.0
12/25/2017 4:00	2017	0.8	2.8	2.8	2.8	0.0
12/25/2017 5:00	2017	0.7	2.5	2.5	2.5	0.0
12/25/2017 6:00	2017	0.5	1.8	1.8	1.8	0.0
12/25/2017 7:00	2017	0.5	1.8	1.8	1.8	0.0
12/25/2017 8:00	2017	0.3	1.1	1.1	1.1	0.0
12/25/2017 9:00	2017	0.2	0.7	0.7	0.7	0.0
12/25/2017 10:00	2017	0.2	0.7	0.7	0.7	0.0
12/30/2017 12:00	2017	0.2	0.7	0.7	0.7	0.0
1/2/2018 10:00	2018	0.2	0.0	0.0	0.0	0.0
1/2/2018 11:00	2018	0.7	0.0	0.0	0.0	0.0
1/2/2018 12:00	2018	0.7	0.0	0.0	0.0	0.0
1/2/2018 14:00	2018	0.2	0.0	0.0	0.0	0.0
1/4/2018 15:00	2018	0.2	0.0	0.0	0.0	0.0
1/4/2018 16:00	2018	0.3	0.0	0.0	0.0	0.0
1/7/2018 18:00	2018	0.5	0.0	0.0	0.0	0.0
1/7/2018 19:00	2018	1.3	0.0	0.0	0.0	0.0
1/7/2018 20:00	2018	0.9	0.0	0.0	0.0	0.0
1/7/2018 21:00	2018	0.2	0.0	0.0	0.0	0.0
1/7/2018 22:00	2018	0.3	0.0	0.0	0.0	0.0
1/7/2018 23:00	2018	0.8	0.0	0.0	0.0	0.0
1/8/2018 0:00	2018	0.2	0.0	0.0	0.0	0.0
1/8/2018 1:00	2018	0.5	0.0	0.0	0.0	0.0
1/8/2018 2:00	2018	0.7	0.0	0.0	0.0	0.0

1/8/2018 3:00	2018	0.5	0.0	0.0	0.0	0.0
1/8/2018 4:00	2018	0.8	0.0	0.0	0.0	0.0
1/8/2018 5:00	2018	0.6	0.0	0.0	0.0	0.0
1/8/2018 6:00	2018	1	0.0	0.0	0.0	0.0
1/8/2018 7:00	2018	0.6	0.0	0.0	0.0	0.0
1/8/2018 8:00	2018	0.8	0.0	0.0	0.0	0.0
1/8/2018 9:00	2018	0.4	0.0	0.0	0.0	0.0
1/8/2018 10:00	2018	0.3	0.0	0.0	0.0	0.0
1/8/2018 11:00	2018	0.7	0.0	0.0	0.0	0.0
1/8/2018 12:00	2018	1.4	0.0	0.0	0.0	0.0
1/8/2018 13:00	2018	0.3	0.0	0.0	0.0	0.0
1/8/2018 14:00	2018	0.2	0.0	0.0	0.0	0.0
1/8/2018 15:00	2018	0.6	0.0	0.0	0.0	0.0
1/8/2018 16:00	2018	0.2	0.0	0.0	0.0	0.0
1/11/2018 6:00	2018	0.7	0.0	0.0	0.0	0.0
1/11/2018 7:00	2018	0.4	0.0	0.0	0.0	0.0
1/11/2018 8:00	2018	0.7	0.0	0.0	0.0	0.0
1/11/2018 19:00	2018	0.3	0.0	0.0	0.0	0.0
1/11/2018 20:00	2018	0.2	0.0	0.0	0.0	0.0
1/11/2018 21:00	2018	1.1	0.0	0.0	0.0	0.0
1/11/2018 22:00	2018	1.5	0.0	0.0	0.0	0.0
1/11/2018 23:00	2018	2.6	0.0	0.0	0.0	0.0
1/12/2018 0:00	2018	0.6	0.0	0.0	0.0	0.0
1/12/2018 2:00	2018	0.2	0.0	0.0	0.0	0.0
1/12/2018 7:00	2018	0.3	0.0	0.0	0.0	0.0
1/12/2018 8:00	2018	0.7	0.0	0.0	0.0	0.0
1/12/2018 9:00	2018	0.3	0.0	0.0	0.0	0.0
1/12/2018 10:00	2018	2.4	0.0	0.0	0.0	0.0
1/12/2018 11:00	2018	0.9	0.0	0.0	0.0	0.0
1/12/2018 12:00	2018	2.3	0.0	0.0	0.0	0.0
1/12/2018 13:00	2018	2	0.0	0.0	0.0	0.0
1/12/2018 14:00	2018	0.4	0.0	0.0	0.0	0.0
1/12/2018 15:00	2018	0.8	0.0	0.0	0.0	0.0
1/12/2018 16:00	2018	0.2	0.0	0.0	0.0	0.0
1/12/2018 17:00	2018	1.3	0.0	0.0	0.0	0.0
1/12/2018 18:00	2018	1	0.0	0.0	0.0	0.0
1/12/2018 19:00	2018	1.9	0.0	0.0	0.0	0.0
1/12/2018 20:00	2018	1.3	0.0	0.0	0.0	0.0
1/12/2018 21:00	2018	0.6	0.0	0.0	0.0	0.0
1/12/2018 23:00	2018	0.2	0.0	0.0	0.0	0.0
1/13/2018 0:00	2018	0.2	0.0	0.0	0.0	0.0
1/13/2018 1:00	2018	0.5	0.0	0.0	0.0	0.0
1/13/2018 3:00	2018	0.3	0.0	0.0	0.0	0.0
1/13/2018 4:00	2018	0.2	0.0	0.0	0.0	0.0
1/13/2018 5:00	2018	0.2	0.0	0.0	0.0	0.0
1/16/2018 3:00	2018	0.2	0.0	0.0	0.0	0.0
1/16/2018 5:00	2018	0.2	0.0	0.0	0.0	0.0
1/16/2018 7:00	2018	0.2	0.0	0.0	0.0	0.0
1/16/2018 11:00	2018	0.2	0.0	0.0	0.0	0.0
1/17/2018 11:00	2018	0.2	0.0	0.0	0.0	0.0
1/21/2018 22:00	2018	0.5	0.0	0.0	0.0	0.0
1/22/2018 0:00	2018	0.2	0.0	0.0	0.0	0.0
1/22/2018 1:00	2018	0.2	0.0	0.0	0.0	0.0
1/22/2018 3:00	2018	0.2	0.0	0.0	0.0	0.0
1/22/2018 16:00	2018	0.3	0.0	0.0	0.0	0.0
1/22/2018 17:00	2018	0.8	0.0	0.0	0.0	0.0
1/22/2018 18:00	2018	1.9	0.0	0.0	0.0	0.0
1/22/2018 19:00	2018	1.8	0.0	0.0	0.0	0.0
1/22/2018 20:00	2018	1.1	0.0	0.0	0.0	0.0
1/22/2018 21:00	2018	0.3	0.0	0.0	0.0	0.0
1/22/2018 23:00	2018	1.5	0.0	0.0	0.0	0.0
1/23/2018 0:00	2018	0.9	0.0	0.0	0.0	0.0
1/23/2018 1:00	2018	0.8	0.0	0.0	0.0	0.0
1/23/2018 2:00	2018	0.4	0.0	0.0	0.0	0.0
1/23/2018 4:00	2018	0.2	0.0	0.0	0.0	0.0
1/23/2018 7:00	2018	1	0.0	0.0	0.0	0.0

1/23/2018 8:00	2018	0.3	0.0	0.0	0.0	0.0
1/23/2018 13:00	2018	0.8	0.0	0.0	0.0	0.0
1/23/2018 14:00	2018	1.8	0.0	0.0	0.0	0.0
1/23/2018 15:00	2018	1.5	0.0	0.0	0.0	0.0
1/23/2018 16:00	2018	2.1	0.0	0.0	0.0	0.0
1/23/2018 22:00	2018	0.2	0.0	0.0	0.0	0.0
1/23/2018 23:00	2018	0.6	0.0	0.0	0.0	0.0
1/27/2018 18:00	2018	0.2	0.0	0.0	0.0	0.0
1/31/2018 15:00	2018	0.5	0.0	0.0	0.0	0.0
1/31/2018 16:00	2018	1.8	0.0	0.0	0.0	0.0
1/31/2018 17:00	2018	0.6	0.0	0.0	0.0	0.0
1/31/2018 18:00	2018	0.8	0.0	0.0	0.0	0.0
1/31/2018 19:00	2018	0.2	0.0	0.0	0.0	0.0
1/31/2018 20:00	2018	0.3	0.0	0.0	0.0	0.0
1/31/2018 21:00	2018	0.2	0.0	0.0	0.0	0.0
2/1/2018 17:00	2018	0.3	0.0	0.0	0.0	0.0
2/3/2018 12:00	2018	0.2	0.0	0.0	0.0	0.0
2/3/2018 20:00	2018	0.2	0.0	0.0	0.0	0.0
2/3/2018 21:00	2018	0.5	0.0	0.0	0.0	0.0
2/3/2018 22:00	2018	0.3	0.0	0.0	0.0	0.0
2/3/2018 23:00	2018	0.5	0.0	0.0	0.0	0.0
2/4/2018 0:00	2018	0.5	0.0	0.0	0.0	0.0
2/4/2018 1:00	2018	0.6	0.0	0.0	0.0	0.0
2/4/2018 2:00	2018	0.4	0.0	0.0	0.0	0.0
2/4/2018 3:00	2018	0.3	0.0	0.0	0.0	0.0
2/4/2018 4:00	2018	0.6	0.0	0.0	0.0	0.0
2/4/2018 7:00	2018	0.2	0.0	0.0	0.0	0.0
2/4/2018 8:00	2018	0.2	0.0	0.0	0.0	0.0
2/4/2018 9:00	2018	0.4	0.0	0.0	0.0	0.0
2/4/2018 10:00	2018	0.2	0.0	0.0	0.0	0.0
2/4/2018 11:00	2018	0.3	0.0	0.0	0.0	0.0
2/4/2018 12:00	2018	0.7	0.0	0.0	0.0	0.0
2/4/2018 13:00	2018	0.5	0.0	0.0	0.0	0.0
2/4/2018 14:00	2018	0.4	0.0	0.0	0.0	0.0
2/4/2018 15:00	2018	0.3	0.0	0.0	0.0	0.0
2/4/2018 16:00	2018	0.2	0.0	0.0	0.0	0.0
2/4/2018 18:00	2018	0.3	0.0	0.0	0.0	0.0
2/4/2018 21:00	2018	0.2	0.0	0.0	0.0	0.0
2/4/2018 22:00	2018	0.2	0.0	0.0	0.0	0.0
2/5/2018 0:00	2018	0.2	0.0	0.0	0.0	0.0
2/5/2018 1:00	2018	0.3	0.0	0.0	0.0	0.0
2/5/2018 2:00	2018	0.2	0.0	0.0	0.0	0.0
2/6/2018 6:00	2018	0.2	0.0	0.0	0.0	0.0
2/6/2018 7:00	2018	0.3	0.0	0.0	0.0	0.0
2/6/2018 8:00	2018	0.2	0.0	0.0	0.0	0.0
2/6/2018 12:00	2018	0.2	0.0	0.0	0.0	0.0
2/7/2018 10:00	2018	0.3	0.0	0.0	0.0	0.0
2/7/2018 11:00	2018	0.7	0.0	0.0	0.0	0.0
2/7/2018 12:00	2018	0.8	0.0	0.0	0.0	0.0
2/7/2018 13:00	2018	1.1	0.0	0.0	0.0	0.0
2/7/2018 14:00	2018	0.5	0.0	0.0	0.0	0.0
2/7/2018 15:00	2018	0.9	0.0	0.0	0.0	0.0
2/7/2018 16:00	2018	0.6	0.0	0.0	0.0	0.0
2/7/2018 17:00	2018	0.3	0.0	0.0	0.0	0.0
2/7/2018 18:00	2018	0.2	0.0	0.0	0.0	0.0
2/7/2018 19:00	2018	0.2	0.0	0.0	0.0	0.0
2/9/2018 16:00	2018	0.2	0.0	0.0	0.0	0.0
2/9/2018 20:00	2018	0.2	0.0	0.0	0.0	0.0
2/9/2018 23:00	2018	0.2	0.0	0.0	0.0	0.0
2/10/2018 0:00	2018	0.3	0.0	0.0	0.0	0.0
2/10/2018 1:00	2018	0.2	0.0	0.0	0.0	0.0
2/10/2018 3:00	2018	0.2	0.0	0.0	0.0	0.0
2/10/2018 6:00	2018	0.2	0.0	0.0	0.0	0.0
2/10/2018 15:00	2018	0.6	0.0	0.0	0.0	0.0
2/10/2018 16:00	2018	0.4	0.0	0.0	0.0	0.0
2/10/2018 17:00	2018	0.6	0.0	0.0	0.0	0.0

2/10/2018 18:00	2018	0.8	0.0	0.0	0.0	0.0
2/10/2018 19:00	2018	0.2	0.0	0.0	0.0	0.0
2/10/2018 20:00	2018	0.3	0.0	0.0	0.0	0.0
2/10/2018 22:00	2018	0.2	0.0	0.0	0.0	0.0
2/11/2018 17:00	2018	2.7	0.0	0.0	0.0	0.0
2/11/2018 18:00	2018	0.7	0.0	0.0	0.0	0.0
2/11/2018 20:00	2018	0.2	0.0	0.0	0.0	0.0
2/11/2018 21:00	2018	0.2	0.0	0.0	0.0	0.0
2/15/2018 11:00	2018	0.4	0.0	0.0	0.0	0.0
2/15/2018 12:00	2018	0.3	0.0	0.0	0.0	0.0
2/15/2018 14:00	2018	0.2	0.0	0.0	0.0	0.0
2/19/2018 16:00	2018	0.7	0.0	0.0	0.0	0.0
2/19/2018 19:00	2018	0.3	0.0	0.0	0.0	0.0
2/19/2018 20:00	2018	0.2	0.0	0.0	0.0	0.0
2/19/2018 21:00	2018	0.2	0.0	0.0	0.0	0.0
2/19/2018 22:00	2018	0.8	0.0	0.0	0.0	0.0
2/19/2018 23:00	2018	0.6	0.0	0.0	0.0	0.0
2/20/2018 0:00	2018	0.8	0.0	0.0	0.0	0.0
2/20/2018 1:00	2018	0.9	0.0	0.0	0.0	0.0
2/20/2018 5:00	2018	1	0.0	0.0	0.0	0.0
2/20/2018 6:00	2018	1.4	0.0	0.0	0.0	0.0
2/20/2018 7:00	2018	1.4	0.0	0.0	0.0	0.0
2/20/2018 8:00	2018	2.4	0.0	0.0	0.0	0.0
2/20/2018 9:00	2018	2.2	0.0	0.0	0.0	0.0
2/20/2018 10:00	2018	0.9	0.0	0.0	0.0	0.0
2/20/2018 11:00	2018	0.7	0.0	0.0	0.0	0.0
2/20/2018 12:00	2018	1.1	0.0	0.0	0.0	0.0
2/20/2018 13:00	2018	0.8	0.0	0.0	0.0	0.0
2/20/2018 14:00	2018	1.1	0.0	0.0	0.0	0.0
2/20/2018 15:00	2018	0.2	0.0	0.0	0.0	0.0
2/20/2018 16:00	2018	0.2	0.0	0.0	0.0	0.0
2/20/2018 17:00	2018	0.9	0.0	0.0	0.0	0.0
2/20/2018 18:00	2018	0.4	0.0	0.0	0.0	0.0
2/20/2018 19:00	2018	0.2	0.0	0.0	0.0	0.0
2/20/2018 22:00	2018	0.7	0.0	0.0	0.0	0.0
2/21/2018 0:00	2018	1.1	0.0	0.0	0.0	0.0
2/21/2018 2:00	2018	0.3	0.0	0.0	0.0	0.0
2/21/2018 9:00	2018	1.8	0.0	0.0	0.0	0.0
2/21/2018 10:00	2018	1.5	0.0	0.0	0.0	0.0
2/21/2018 11:00	2018	0.6	0.0	0.0	0.0	0.0
2/21/2018 12:00	2018	0.2	0.0	0.0	0.0	0.0
2/24/2018 4:00	2018	1.4	0.0	0.0	0.0	0.0
2/24/2018 5:00	2018	1.6	0.0	0.0	0.0	0.0
2/24/2018 6:00	2018	0.9	0.0	0.0	0.0	0.0
2/24/2018 7:00	2018	0.5	0.0	0.0	0.0	0.0
2/25/2018 8:00	2018	0.4	0.0	0.0	0.0	0.0
2/25/2018 12:00	2018	1	0.0	0.0	0.0	0.0
2/25/2018 13:00	2018	1.3	0.0	0.0	0.0	0.0
2/25/2018 14:00	2018	1.4	0.0	0.0	0.0	0.0
3/3/2018 2:00	2018	0.3	0.0	0.0	0.0	0.0
3/3/2018 3:00	2018	0.2	0.0	0.0	0.0	0.0
3/3/2018 4:00	2018	0.3	0.0	0.0	0.0	0.0
3/4/2018 3:00	2018	0.2	0.0	0.0	0.0	0.0
3/4/2018 5:00	2018	0.3	0.0	0.0	0.0	0.0
3/7/2018 5:00	2018	0.3	0.0	0.0	0.0	0.0
3/7/2018 6:00	2018	0.8	0.0	0.0	0.0	0.0
3/7/2018 7:00	2018	0.5	0.0	0.0	0.0	0.0
3/7/2018 8:00	2018	0.2	0.0	0.0	0.0	0.0
3/7/2018 9:00	2018	0.2	0.0	0.0	0.0	0.0
3/7/2018 10:00	2018	0.3	0.0	0.0	0.0	0.0
3/7/2018 13:00	2018	0.4	0.0	0.0	0.0	0.0
3/7/2018 23:00	2018	0.2	0.0	0.0	0.0	0.0
3/8/2018 0:00	2018	0.2	0.0	0.0	0.0	0.0
3/8/2018 1:00	2018	0.2	0.0	0.0	0.0	0.0
3/8/2018 2:00	2018	0.2	0.0	0.0	0.0	0.0
3/8/2018 4:00	2018	0.2	0.0	0.0	0.0	0.0

3/8/2018 6:00	2018	0.2	0.0	0.0	0.0	0.0
3/8/2018 8:00	2018	0.2	0.0	0.0	0.0	0.0
3/8/2018 10:00	2018	0.2	0.0	0.0	0.0	0.0
3/8/2018 12:00	2018	0.2	0.0	0.0	0.0	0.0
3/8/2018 14:00	2018	0.3	0.0	0.0	0.0	0.0
3/8/2018 15:00	2018	0.5	0.0	0.0	0.0	0.0
3/8/2018 16:00	2018	0.3	0.0	0.0	0.0	0.0
3/8/2018 17:00	2018	0.5	0.0	0.0	0.0	0.0
3/8/2018 18:00	2018	0.4	0.0	0.0	0.0	0.0
3/8/2018 19:00	2018	0.2	0.0	0.0	0.0	0.0
3/8/2018 21:00	2018	0.5	0.0	0.0	0.0	0.0
3/8/2018 22:00	2018	0.6	0.0	0.0	0.0	0.0
3/8/2018 23:00	2018	0.4	0.0	0.0	0.0	0.0
3/9/2018 0:00	2018	0.2	0.0	0.0	0.0	0.0
3/9/2018 2:00	2018	0.2	0.0	0.0	0.0	0.0
3/9/2018 3:00	2018	0.2	0.0	0.0	0.0	0.0
3/9/2018 4:00	2018	0.2	0.0	0.0	0.0	0.0
3/9/2018 6:00	2018	0.2	0.0	0.0	0.0	0.0
3/9/2018 8:00	2018	0.5	0.0	0.0	0.0	0.0
3/9/2018 10:00	2018	0.3	0.0	0.0	0.0	0.0
3/9/2018 12:00	2018	0.2	0.0	0.0	0.0	0.0
3/9/2018 19:00	2018	0.2	0.0	0.0	0.0	0.0
3/10/2018 1:00	2018	0.2	0.0	0.0	0.0	0.0
3/13/2018 0:00	2018	0.2	0.0	0.0	0.0	0.0
3/13/2018 1:00	2018	0.4	0.0	0.0	0.0	0.0
3/13/2018 2:00	2018	0.3	0.0	0.0	0.0	0.0
3/13/2018 3:00	2018	1	0.0	0.0	0.0	0.0
3/13/2018 4:00	2018	0.3	0.0	0.0	0.0	0.0
3/13/2018 5:00	2018	0.6	0.0	0.0	0.0	0.0
3/13/2018 6:00	2018	0.5	0.0	0.0	0.0	0.0
3/13/2018 7:00	2018	0.6	0.0	0.0	0.0	0.0
3/13/2018 8:00	2018	0.3	0.0	0.0	0.0	0.0
3/13/2018 9:00	2018	0.5	0.0	0.0	0.0	0.0
3/13/2018 10:00	2018	0.3	0.0	0.0	0.0	0.0
3/13/2018 11:00	2018	0.3	0.0	0.0	0.0	0.0
3/13/2018 13:00	2018	0.2	0.0	0.0	0.0	0.0
3/13/2018 15:00	2018	0.6	0.0	0.0	0.0	0.0
3/13/2018 16:00	2018	0.2	0.0	0.0	0.0	0.0
3/13/2018 18:00	2018	0.2	0.0	0.0	0.0	0.0
3/13/2018 19:00	2018	0.2	0.0	0.0	0.0	0.0
3/13/2018 20:00	2018	0.5	0.0	0.0	0.0	0.0
3/13/2018 21:00	2018	0.2	0.0	0.0	0.0	0.0
3/13/2018 22:00	2018	0.2	0.0	0.0	0.0	0.0
3/13/2018 23:00	2018	0.3	0.0	0.0	0.0	0.0
3/14/2018 0:00	2018	0.4	0.0	0.0	0.0	0.0
3/14/2018 1:00	2018	0.4	0.0	0.0	0.0	0.0
3/14/2018 2:00	2018	0.2	0.0	0.0	0.0	0.0
3/14/2018 3:00	2018	0.5	0.0	0.0	0.0	0.0
3/14/2018 4:00	2018	1	0.0	0.0	0.0	0.0
3/14/2018 5:00	2018	0.6	0.0	0.0	0.0	0.0
3/14/2018 6:00	2018	0.2	0.0	0.0	0.0	0.0
3/14/2018 7:00	2018	0.5	0.0	0.0	0.0	0.0
3/14/2018 8:00	2018	0.6	0.0	0.0	0.0	0.0
3/14/2018 9:00	2018	0.4	0.0	0.0	0.0	0.0
3/14/2018 10:00	2018	0.3	0.0	0.0	0.0	0.0
3/14/2018 11:00	2018	0.2	0.0	0.0	0.0	0.0
3/14/2018 12:00	2018	0.2	0.0	0.0	0.0	0.0
3/14/2018 13:00	2018	0.2	0.0	0.0	0.0	0.0
3/14/2018 16:00	2018	0.2	0.0	0.0	0.0	0.0
3/27/2018 19:00	2018	0.7	0.0	0.0	0.0	0.0
3/27/2018 20:00	2018	1.3	0.0	0.0	0.0	0.0
3/27/2018 21:00	2018	0.3	0.0	0.0	0.0	0.0
3/27/2018 22:00	2018	0.9	0.0	0.0	0.0	0.0
3/28/2018 1:00	2018	0.6	0.0	0.0	0.0	0.0
3/28/2018 2:00	2018	0.5	0.0	0.0	0.0	0.0
3/28/2018 3:00	2018	0.2	0.0	0.0	0.0	0.0

3/29/2018 16:00	2018	0.6	0.0	0.0	0.0	0.0
3/29/2018 17:00	2018	0.9	0.0	0.0	0.0	0.0
3/29/2018 18:00	2018	0.2	0.0	0.0	0.0	0.0
3/29/2018 19:00	2018	0.6	0.0	0.0	0.0	0.0
3/29/2018 20:00	2018	0.7	0.0	0.0	0.0	0.0
3/29/2018 21:00	2018	1.8	0.0	0.0	0.0	0.0
3/29/2018 22:00	2018	1.6	0.0	0.0	0.0	0.0
3/29/2018 23:00	2018	1.7	0.0	0.0	0.0	0.0
3/30/2018 0:00	2018	1.2	0.0	0.0	0.0	0.0
3/30/2018 1:00	2018	1.6	0.0	0.0	0.0	0.0
3/30/2018 2:00	2018	1.2	0.0	0.0	0.0	0.0
3/30/2018 3:00	2018	0.5	0.0	0.0	0.0	0.0
3/30/2018 4:00	2018	0.2	0.0	0.0	0.0	0.0
3/30/2018 7:00	2018	0.2	0.0	0.0	0.0	0.0
3/31/2018 23:00	2018	0.5	0.0	0.0	0.0	0.0
4/1/2018 1:00	2018	0.2	0.0	0.0	0.0	0.0
4/1/2018 6:00	2018	0.2	0.0	0.0	0.0	0.0
4/3/2018 22:00	2018	0.3	0.0	0.0	0.0	0.0
4/3/2018 23:00	2018	0.9	0.0	0.0	0.0	0.0
4/4/2018 0:00	2018	0.8	0.0	0.0	0.0	0.0
4/4/2018 1:00	2018	2.3	0.0	0.0	0.0	0.0
4/4/2018 2:00	2018	0.4	0.0	0.0	0.0	0.0
4/4/2018 4:00	2018	1	0.0	0.0	0.0	0.0
4/4/2018 5:00	2018	1.7	0.0	0.0	0.0	0.0
4/4/2018 6:00	2018	2.2	0.0	0.0	0.0	0.0
4/4/2018 7:00	2018	1.6	0.0	0.0	0.0	0.0
4/4/2018 8:00	2018	1.6	0.0	0.0	0.0	0.0
4/4/2018 9:00	2018	0.7	0.0	0.0	0.0	0.0
4/4/2018 10:00	2018	0.5	0.0	0.0	0.0	0.0
4/4/2018 11:00	2018	0.2	0.0	0.0	0.0	0.0
4/4/2018 12:00	2018	0.2	0.0	0.0	0.0	0.0
4/4/2018 16:00	2018	0.4	0.0	0.0	0.0	0.0
4/6/2018 21:00	2018	0.2	0.0	0.0	0.0	0.0
4/11/2018 18:00	2018	0.3	0.0	0.0	0.0	0.0
4/12/2018 14:00	2018	0.5	0.0	0.0	0.0	0.0
4/12/2018 15:00	2018	1.2	0.0	0.0	0.0	0.0
4/12/2018 16:00	2018	2.2	0.0	0.0	0.0	0.0
4/12/2018 17:00	2018	2.4	0.0	0.0	0.0	0.0
4/12/2018 18:00	2018	1.8	0.0	0.0	0.0	0.0
4/12/2018 19:00	2018	1.1	0.0	0.0	0.0	0.0
4/12/2018 20:00	2018	1.2	0.0	0.0	0.0	0.0
4/12/2018 21:00	2018	0.2	0.0	0.0	0.0	0.0
4/13/2018 23:00	2018	0.2	0.0	0.0	0.0	0.0
4/15/2018 3:00	2018	0.2	0.0	0.0	0.0	0.0
4/15/2018 15:00	2018	0.2	0.0	0.0	0.0	0.0
4/15/2018 16:00	2018	1.3	0.0	0.0	0.0	0.0
4/15/2018 17:00	2018	0.6	0.0	0.0	0.0	0.0
4/15/2018 22:00	2018	0.2	0.0	0.0	0.0	0.0
4/15/2018 23:00	2018	0.2	0.0	0.0	0.0	0.0
4/16/2018 3:00	2018	0.2	0.0	0.0	0.0	0.0
4/16/2018 4:00	2018	0.2	0.0	0.0	0.0	0.0
4/16/2018 9:00	2018	2	0.0	0.0	0.0	0.0
4/16/2018 10:00	2018	1.2	0.0	0.0	0.0	0.0
4/16/2018 11:00	2018	2.6	0.0	0.0	0.0	0.0
4/16/2018 12:00	2018	2	0.0	0.0	0.0	0.0
4/16/2018 14:00	2018	3.8	0.0	0.0	0.0	0.0
4/16/2018 15:00	2018	2.9	0.0	0.0	0.0	0.0
4/16/2018 16:00	2018	1.5	0.0	0.0	0.0	0.0
4/16/2018 17:00	2018	0.3	0.0	0.0	0.0	0.0
4/16/2018 18:00	2018	1.1	0.0	0.0	0.0	0.0
4/16/2018 20:00	2018	0.8	0.0	0.0	0.0	0.0
4/16/2018 23:00	2018	0.5	0.0	0.0	0.0	0.0
4/17/2018 0:00	2018	0.4	0.0	0.0	0.0	0.0
4/17/2018 1:00	2018	0.9	0.0	0.0	0.0	0.0
4/17/2018 2:00	2018	0.4	0.0	0.0	0.0	0.0
4/17/2018 4:00	2018	0.2	0.0	0.0	0.0	0.0

4/17/2018 7:00	2018	0.3	0.0	0.0	0.0	0.0
4/17/2018 13:00	2018	0.2	0.0	0.0	0.0	0.0
4/17/2018 15:00	2018	0.2	0.0	0.0	0.0	0.0
4/17/2018 17:00	2018	0.6	0.0	0.0	0.0	0.0
4/17/2018 18:00	2018	0.2	0.0	0.0	0.0	0.0
4/17/2018 19:00	2018	0.3	0.0	0.0	0.0	0.0
4/17/2018 20:00	2018	0.2	0.0	0.0	0.0	0.0
4/18/2018 3:00	2018	0.2	0.0	0.0	0.0	0.0
4/18/2018 5:00	2018	0.2	0.0	0.0	0.0	0.0
4/19/2018 9:00	2018	0.2	0.0	0.0	0.0	0.0
4/25/2018 12:00	2018	1.1	0.0	0.0	0.0	0.0
4/25/2018 13:00	2018	1.8	0.0	0.0	0.0	0.0
4/25/2018 14:00	2018	1.3	0.0	0.0	0.0	0.0
4/25/2018 15:00	2018	1.5	0.0	0.0	0.0	0.0
4/25/2018 16:00	2018	0.4	0.0	0.0	0.0	0.0
4/25/2018 17:00	2018	0.5	0.0	0.0	0.0	0.0
4/25/2018 18:00	2018	1.1	0.0	0.0	0.0	0.0
4/25/2018 19:00	2018	2	0.0	0.0	0.0	0.0
4/25/2018 20:00	2018	0.9	0.0	0.0	0.0	0.0
4/25/2018 21:00	2018	0.9	0.0	0.0	0.0	0.0
4/25/2018 23:00	2018	0.2	0.0	0.0	0.0	0.0
4/26/2018 0:00	2018	0.2	0.0	0.0	0.0	0.0
4/26/2018 1:00	2018	0.2	0.0	0.0	0.0	0.0
4/26/2018 2:00	2018	0.3	0.0	0.0	0.0	0.0
4/26/2018 3:00	2018	0.2	0.0	0.0	0.0	0.0
4/26/2018 4:00	2018	0.5	0.0	0.0	0.0	0.0
4/26/2018 5:00	2018	0.8	0.0	0.0	0.0	0.0
4/26/2018 6:00	2018	0.7	0.0	0.0	0.0	0.0
4/26/2018 7:00	2018	0.3	0.0	0.0	0.0	0.0
4/26/2018 8:00	2018	0.5	0.0	0.0	0.0	0.0
4/26/2018 9:00	2018	0.3	0.0	0.0	0.0	0.0
4/26/2018 10:00	2018	0.4	0.0	0.0	0.0	0.0
4/26/2018 11:00	2018	0.2	0.0	0.0	0.0	0.0
4/26/2018 12:00	2018	0.3	0.0	0.0	0.0	0.0
4/28/2018 5:00	2018	7.1	0.0	0.0	0.0	0.0
4/28/2018 6:00	2018	3	0.0	0.0	0.0	0.0
4/28/2018 7:00	2018	1.3	0.0	0.0	0.0	0.0
4/28/2018 8:00	2018	3.5	0.0	0.0	0.0	0.0
4/28/2018 9:00	2018	1.5	0.0	0.0	0.0	0.0
4/30/2018 16:00	2018	0.2	0.0	0.0	0.0	0.0
5/3/2018 7:00	2018	1.2	4.2	4.2	4.2	0.0
5/3/2018 8:00	2018	1	3.5	3.5	3.5	0.0
5/3/2018 11:00	2018	0.6	2.1	2.1	2.1	0.0
5/3/2018 13:00	2018	1.8	6.4	6.4	6.4	0.0
5/3/2018 15:00	2018	0.3	1.1	1.1	1.1	0.0
5/3/2018 16:00	2018	0.3	1.1	1.1	1.1	0.0
5/3/2018 17:00	2018	0.3	1.1	1.1	1.1	0.0
5/4/2018 12:00	2018	0.4	1.4	1.4	1.4	0.0
5/4/2018 13:00	2018	0.5	1.8	1.8	1.8	0.0
5/4/2018 14:00	2018	1.1	3.9	3.9	3.9	0.0
5/4/2018 15:00	2018	1.7	6.0	6.0	6.0	0.0
5/10/2018 8:00	2018	1.8	6.4	6.4	6.4	0.0
5/10/2018 9:00	2018	0.3	1.1	1.1	1.1	0.0
5/10/2018 11:00	2018	1.6	5.7	5.7	5.7	0.0
5/10/2018 15:00	2018	0.2	0.7	0.7	0.7	0.0
5/19/2018 13:00	2018	1	3.5	3.5	3.5	0.0
5/19/2018 14:00	2018	3.8	13.4	13.4	13.4	0.0
5/19/2018 15:00	2018	1.4	5.0	5.0	5.0	0.0
5/19/2018 16:00	2018	0.2	0.7	0.7	0.7	0.0
5/19/2018 18:00	2018	0.5	1.8	1.8	1.8	0.0
5/19/2018 19:00	2018	0.5	1.8	1.8	1.8	0.0
5/20/2018 0:00	2018	0.3	1.1	1.1	1.1	0.0
5/20/2018 1:00	2018	1	3.5	3.5	3.5	0.0
5/20/2018 2:00	2018	7	24.8	24.8	14.3	0.0
5/20/2018 3:00	2018	3.5	12.4	22.8	14.3	0.0
5/20/2018 4:00	2018	1.5	5.3	13.8	13.8	0.0

5/20/2018 5:00	2018	0.5	1.8	1.8	1.8	0.0
5/22/2018 11:00	2018	0.2	0.7	0.7	0.7	0.0
5/22/2018 12:00	2018	1.6	5.7	5.7	5.7	0.0
5/22/2018 17:00	2018	0.5	1.8	1.8	1.8	0.0
5/22/2018 18:00	2018	0.2	0.7	0.7	0.7	0.0
5/25/2018 17:00	2018	1.5	5.3	5.3	5.3	0.0
5/25/2018 18:00	2018	2.4	8.5	8.5	8.5	0.0
5/26/2018 6:00	2018	0.2	0.7	0.7	0.7	0.0
5/26/2018 9:00	2018	0.5	1.8	1.8	1.8	0.0
5/26/2018 10:00	2018	0.5	1.8	1.8	1.8	0.0
5/28/2018 4:00	2018	0.7	2.5	2.5	2.5	0.0
5/31/2018 13:00	2018	0.3	1.1	1.1	1.1	0.0
5/31/2018 14:00	2018	1	3.5	3.5	3.5	0.0
5/31/2018 16:00	2018	0.2	0.7	0.7	0.7	0.0
6/3/2018 20:00	2018	2.5	8.8	8.8	8.8	0.0
6/3/2018 21:00	2018	5.1	18.0	18.0	14.3	0.0
6/3/2018 22:00	2018	5.2	18.4	22.1	14.3	0.0
6/3/2018 23:00	2018	1.7	6.0	13.8	13.8	0.0
6/4/2018 0:00	2018	2.7	9.5	9.5	9.5	0.0
6/4/2018 1:00	2018	4.3	15.2	15.2	14.3	0.0
6/4/2018 2:00	2018	5	17.7	18.6	14.3	0.0
6/4/2018 3:00	2018	2.1	7.4	11.7	11.7	0.0
6/4/2018 4:00	2018	2.7	9.5	9.5	9.5	0.0
6/4/2018 5:00	2018	0.7	2.5	2.5	2.5	0.0
6/4/2018 6:00	2018	0.3	1.1	1.1	1.1	0.0
6/4/2018 7:00	2018	0.5	1.8	1.8	1.8	0.0
6/4/2018 8:00	2018	0.5	1.8	1.8	1.8	0.0
6/4/2018 9:00	2018	3.9	13.8	13.8	13.8	0.0
6/4/2018 10:00	2018	1.3	4.6	4.6	4.6	0.0
6/4/2018 11:00	2018	0.2	0.7	0.7	0.7	0.0
6/4/2018 13:00	2018	1	3.5	3.5	3.5	0.0
6/4/2018 14:00	2018	12.5	44.2	35.5	14.3	8.7
6/4/2018 15:00	2018	0.3	1.1	22.2	14.3	0.0
6/5/2018 0:00	2018	0.5	1.8	1.8	1.8	0.0
6/5/2018 11:00	2018	0.2	0.7	0.7	0.7	0.0
6/5/2018 13:00	2018	0.6	2.1	2.1	2.1	0.0
6/5/2018 14:00	2018	0.2	0.7	0.7	0.7	0.0
6/5/2018 16:00	2018	0.3	1.1	1.1	1.1	0.0
6/6/2018 7:00	2018	0.4	1.4	1.4	1.4	0.0
6/6/2018 11:00	2018	0.5	1.8	1.8	1.8	0.0
6/6/2018 12:00	2018	1.5	5.3	5.3	5.3	0.0
6/13/2018 9:00	2018	0.6	2.1	2.1	2.1	0.0
6/13/2018 10:00	2018	8.1	28.6	28.6	14.3	0.0
6/13/2018 17:00	2018	0.5	1.8	1.8	1.8	0.0
6/13/2018 18:00	2018	1.9	6.7	6.7	6.7	0.0
6/14/2018 2:00	2018	0.3	1.1	1.1	1.1	0.0
6/14/2018 18:00	2018	1.3	4.6	4.6	4.6	0.0
6/14/2018 19:00	2018	0.5	1.8	1.8	1.8	0.0
6/14/2018 20:00	2018	0.3	1.1	1.1	1.1	0.0
6/14/2018 21:00	2018	0.3	1.1	1.1	1.1	0.0
6/18/2018 9:00	2018	1.3	4.6	4.6	4.6	0.0
6/18/2018 18:00	2018	0.5	1.8	1.8	1.8	0.0
6/19/2018 5:00	2018	0.2	0.7	0.7	0.7	0.0
6/23/2018 17:00	2018	0.3	1.1	1.1	1.1	0.0
6/23/2018 18:00	2018	1.1	3.9	3.9	3.9	0.0
6/23/2018 19:00	2018	0.5	1.8	1.8	1.8	0.0
6/24/2018 0:00	2018	0.3	1.1	1.1	1.1	0.0
6/27/2018 23:00	2018	0.3	1.1	1.1	1.1	0.0
6/28/2018 0:00	2018	0.3	1.1	1.1	1.1	0.0
6/28/2018 1:00	2018	0.2	0.7	0.7	0.7	0.0
6/28/2018 2:00	2018	0.5	1.8	1.8	1.8	0.0
6/28/2018 9:00	2018	0.2	0.7	0.7	0.7	0.0
7/14/2018 2:00	2018	0.8	2.8	2.8	2.8	0.0
7/14/2018 3:00	2018	0.2	0.7	0.7	0.7	0.0
7/14/2018 4:00	2018	1.6	5.7	5.7	5.7	0.0
7/14/2018 5:00	2018	1.7	6.0	6.0	6.0	0.0

7/14/2018 6:00	2018	0.3	1.1	1.1	1.1	0.0
7/17/2018 1:00	2018	0.9	3.2	3.2	3.2	0.0
7/17/2018 4:00	2018	0.5	1.8	1.8	1.8	0.0
7/22/2018 10:00	2018	1.4	5.0	5.0	5.0	0.0
7/22/2018 11:00	2018	0.3	1.1	1.1	1.1	0.0
7/22/2018 12:00	2018	1.6	5.7	5.7	5.7	0.0
7/22/2018 21:00	2018	7.8	27.6	27.6	14.3	0.0
7/22/2018 22:00	2018	1.2	4.2	17.5	14.3	0.0
7/23/2018 16:00	2018	0.3	1.1	1.1	1.1	0.0
7/23/2018 17:00	2018	12.5	44.2	35.5	14.3	8.7
7/23/2018 18:00	2018	4.2	14.9	35.5	14.3	0.5
7/23/2018 19:00	2018	2.7	9.5	30.7	14.3	0.0
7/23/2018 20:00	2018	3	10.6	27.0	14.3	0.0
7/23/2018 21:00	2018	8.5	30.1	35.5	14.3	7.2
7/24/2018 0:00	2018	1.2	4.2	4.2	4.2	0.0
7/24/2018 7:00	2018	0.5	1.8	1.8	1.8	0.0
7/24/2018 8:00	2018	0.4	1.4	1.4	1.4	0.0
7/24/2018 15:00	2018	0.5	1.8	1.8	1.8	0.0
7/24/2018 16:00	2018	1.4	5.0	5.0	5.0	0.0
7/24/2018 17:00	2018	0.9	3.2	3.2	3.2	0.0
7/24/2018 18:00	2018	1.1	3.9	3.9	3.9	0.0
7/24/2018 19:00	2018	0.5	1.8	1.8	1.8	0.0
7/24/2018 20:00	2018	0.3	1.1	1.1	1.1	0.0
7/24/2018 21:00	2018	0.3	1.1	1.1	1.1	0.0
7/24/2018 22:00	2018	1.1	3.9	3.9	3.9	0.0
7/24/2018 23:00	2018	0.2	0.7	0.7	0.7	0.0
7/25/2018 0:00	2018	2.3	8.1	8.1	8.1	0.0
7/25/2018 1:00	2018	0.2	0.7	0.7	0.7	0.0
7/25/2018 3:00	2018	3.1	11.0	11.0	11.0	0.0
7/25/2018 4:00	2018	7.8	27.6	27.6	14.3	0.0
7/25/2018 5:00	2018	24.4	86.3	35.5	14.3	64.1
7/25/2018 6:00	2018	27.8	98.3	35.5	14.3	84.0
7/25/2018 7:00	2018	8.7	30.8	35.5	14.3	16.4
7/25/2018 8:00	2018	0.8	2.8	24.0	14.3	0.0
7/25/2018 9:00	2018	1.3	4.6	14.2	14.2	0.0
7/25/2018 10:00	2018	0.8	2.8	2.8	2.8	0.0
7/25/2018 11:00	2018	1.3	4.6	4.6	4.6	0.0
7/25/2018 12:00	2018	4.5	15.9	15.9	14.3	0.0
7/25/2018 13:00	2018	1.7	6.0	7.6	7.6	0.0
7/25/2018 14:00	2018	0.8	2.8	2.8	2.8	0.0
7/26/2018 20:00	2018	1.7	6.0	6.0	6.0	0.0
7/26/2018 22:00	2018	0.3	1.1	1.1	1.1	0.0
7/27/2018 15:00	2018	4.8	17.0	17.0	14.3	0.0
7/28/2018 20:00	2018	0.6	2.1	2.1	2.1	0.0
7/28/2018 23:00	2018	0.2	0.7	0.7	0.7	0.0
7/29/2018 18:00	2018	1.8	6.4	6.4	6.4	0.0
8/1/2018 17:00	2018	0.6	2.1	2.1	2.1	0.0
8/6/2018 4:00	2018	0.4	1.4	1.4	1.4	0.0
8/6/2018 5:00	2018	1.5	5.3	5.3	5.3	0.0
8/6/2018 20:00	2018	20.9	73.9	35.5	14.3	38.4
8/6/2018 21:00	2018	0.5	1.8	22.9	14.3	0.0
8/7/2018 5:00	2018	0.3	1.1	1.1	1.1	0.0
8/7/2018 6:00	2018	7.6	26.9	26.9	14.3	0.0
8/7/2018 7:00	2018	0.3	1.1	13.6	13.6	0.0
8/8/2018 16:00	2018	0.2	0.7	0.7	0.7	0.0
8/8/2018 17:00	2018	0.2	0.7	0.7	0.7	0.0
8/9/2018 4:00	2018	0.5	1.8	1.8	1.8	0.0
8/15/2018 10:00	2018	0.9	3.2	3.2	3.2	0.0
8/17/2018 15:00	2018	0.3	1.1	1.1	1.1	0.0
8/21/2018 16:00	2018	2.7	9.5	9.5	9.5	0.0
8/21/2018 17:00	2018	2.8	9.9	9.9	9.9	0.0
8/21/2018 21:00	2018	1.3	4.6	4.6	4.6	0.0
8/21/2018 22:00	2018	7.5	26.5	26.5	14.3	0.0
8/22/2018 2:00	2018	0.3	1.1	1.1	1.1	0.0
8/22/2018 5:00	2018	4.9	17.3	17.3	14.3	0.0
8/22/2018 6:00	2018	13.9	49.2	35.5	14.3	16.7

8/26/2018 6:00	2018	0.2	0.7	0.7	0.7	0.0
8/26/2018 11:00	2018	0.4	1.4	1.4	1.4	0.0
8/26/2018 15:00	2018	0.7	2.5	2.5	2.5	0.0
9/2/2018 13:00	2018	3.5	12.4	12.4	12.4	0.0
9/2/2018 16:00	2018	0.5	1.8	1.8	1.8	0.0
9/3/2018 8:00	2018	0.2	0.7	0.7	0.7	0.0
9/5/2018 16:00	2018	1.1	3.9	3.9	3.9	0.0
9/5/2018 18:00	2018	1	3.5	3.5	3.5	0.0
9/6/2018 7:00	2018	0.2	0.7	0.7	0.7	0.0
9/7/2018 1:00	2018	0.2	0.7	0.7	0.7	0.0
9/10/2018 16:00	2018	0.5	1.8	1.8	1.8	0.0
9/10/2018 17:00	2018	0.7	2.5	2.5	2.5	0.0
9/10/2018 18:00	2018	0.5	1.8	1.8	1.8	0.0
9/10/2018 19:00	2018	0.5	1.8	1.8	1.8	0.0
9/10/2018 20:00	2018	0.3	1.1	1.1	1.1	0.0
9/10/2018 21:00	2018	0.3	1.1	1.1	1.1	0.0
9/10/2018 23:00	2018	0.5	1.8	1.8	1.8	0.0
9/11/2018 1:00	2018	0.2	0.7	0.7	0.7	0.0
9/11/2018 2:00	2018	0.3	1.1	1.1	1.1	0.0
9/11/2018 3:00	2018	0.2	0.7	0.7	0.7	0.0
9/11/2018 4:00	2018	0.3	1.1	1.1	1.1	0.0
9/11/2018 5:00	2018	0.6	2.1	2.1	2.1	0.0
9/11/2018 6:00	2018	0.5	1.8	1.8	1.8	0.0
9/11/2018 7:00	2018	0.2	0.7	0.7	0.7	0.0
9/20/2018 8:00	2018	0.5	1.8	1.8	1.8	0.0
9/21/2018 4:00	2018	2.7	9.5	9.5	9.5	0.0
9/21/2018 5:00	2018	10	35.4	35.4	14.3	0.0
9/21/2018 6:00	2018	0.5	1.8	22.8	14.3	0.0
9/21/2018 8:00	2018	1.9	6.7	6.7	6.7	0.0
9/21/2018 9:00	2018	2.5	8.8	8.8	8.8	0.0
9/21/2018 17:00	2018	8.7	30.8	30.8	14.3	0.0
9/21/2018 18:00	2018	15.8	55.9	35.5	14.3	36.9
9/23/2018 0:00	2018	0.2	0.7	0.7	0.7	0.0
9/25/2018 5:00	2018	1.9	6.7	6.7	6.7	0.0
9/25/2018 6:00	2018	2.1	7.4	7.4	7.4	0.0
9/25/2018 7:00	2018	1.7	6.0	6.0	6.0	0.0
9/25/2018 8:00	2018	0.7	2.5	2.5	2.5	0.0
9/25/2018 9:00	2018	0.8	2.8	2.8	2.8	0.0
9/25/2018 11:00	2018	0.3	1.1	1.1	1.1	0.0
9/25/2018 12:00	2018	0.6	2.1	2.1	2.1	0.0
9/25/2018 13:00	2018	0.8	2.8	2.8	2.8	0.0
9/25/2018 14:00	2018	0.2	0.7	0.7	0.7	0.0
9/25/2018 15:00	2018	0.2	0.7	0.7	0.7	0.0
9/25/2018 19:00	2018	0.2	0.7	0.7	0.7	0.0
9/26/2018 3:00	2018	0.9	3.2	3.2	3.2	0.0
9/26/2018 4:00	2018	0.3	1.1	1.1	1.1	0.0
9/26/2018 9:00	2018	0.3	1.1	1.1	1.1	0.0
9/26/2018 13:00	2018	7.1	25.1	25.1	14.3	0.0
9/28/2018 20:00	2018	0.2	0.7	0.7	0.7	0.0
9/28/2018 21:00	2018	0.4	1.4	1.4	1.4	0.0
9/28/2018 22:00	2018	0.4	1.4	1.4	1.4	0.0
9/29/2018 0:00	2018	0.8	2.8	2.8	2.8	0.0
9/29/2018 1:00	2018	0.3	1.1	1.1	1.1	0.0
9/29/2018 2:00	2018	0.2	0.7	0.7	0.7	0.0
9/29/2018 12:00	2018	0.3	1.1	1.1	1.1	0.0
9/29/2018 17:00	2018	0.2	0.7	0.7	0.7	0.0
9/30/2018 23:00	2018	0.2	0.7	0.7	0.7	0.0
10/2/2018 0:00	2018	0.8	2.8	2.8	2.8	0.0
10/2/2018 1:00	2018	1	3.5	3.5	3.5	0.0
10/2/2018 2:00	2018	0.5	1.8	1.8	1.8	0.0
10/2/2018 3:00	2018	0.7	2.5	2.5	2.5	0.0
10/2/2018 4:00	2018	1	3.5	3.5	3.5	0.0
10/2/2018 5:00	2018	0.6	2.1	2.1	2.1	0.0
10/2/2018 6:00	2018	0.9	3.2	3.2	3.2	0.0
10/2/2018 7:00	2018	1.3	4.6	4.6	4.6	0.0
10/2/2018 17:00	2018	0.2	0.7	0.7	0.7	0.0

10/2/2018 18:00	2018	0.7	2.5	2.5	2.5	0.0
10/2/2018 19:00	2018	0.2	0.7	0.7	0.7	0.0
10/2/2018 20:00	2018	0.4	1.4	1.4	1.4	0.0
10/2/2018 23:00	2018	0.2	0.7	0.7	0.7	0.0
10/4/2018 7:00	2018	5.9	20.9	20.9	14.3	0.0
10/4/2018 8:00	2018	0.2	0.7	7.2	7.2	0.0
10/8/2018 16:00	2018	0.6	2.1	2.1	2.1	0.0
10/8/2018 19:00	2018	0.5	1.8	1.8	1.8	0.0
10/8/2018 22:00	2018	1.3	4.6	4.6	4.6	0.0
10/9/2018 14:00	2018	0.2	0.7	0.7	0.7	0.0
10/11/2018 2:00	2018	0.5	1.8	1.8	1.8	0.0
10/11/2018 4:00	2018	1.7	6.0	6.0	6.0	0.0
10/11/2018 5:00	2018	0.7	2.5	2.5	2.5	0.0
10/11/2018 6:00	2018	0.2	0.7	0.7	0.7	0.0
10/11/2018 7:00	2018	0.4	1.4	1.4	1.4	0.0
10/11/2018 9:00	2018	0.3	1.1	1.1	1.1	0.0
10/13/2018 3:00	2018	0.2	0.7	0.7	0.7	0.0
10/15/2018 11:00	2018	0.8	2.8	2.8	2.8	0.0
10/15/2018 12:00	2018	1.5	5.3	5.3	5.3	0.0
10/15/2018 13:00	2018	0.5	1.8	1.8	1.8	0.0
10/15/2018 15:00	2018	0.4	1.4	1.4	1.4	0.0
10/16/2018 1:00	2018	0.2	0.7	0.7	0.7	0.0
10/17/2018 16:00	2018	0.2	0.7	0.7	0.7	0.0
10/17/2018 22:00	2018	0.2	0.7	0.7	0.7	0.0
10/20/2018 4:00	2018	0.9	3.2	3.2	3.2	0.0
10/21/2018 1:00	2018	0.2	0.7	0.7	0.7	0.0
10/27/2018 19:00	2018	0.2	0.7	0.7	0.7	0.0
10/27/2018 20:00	2018	0.6	2.1	2.1	2.1	0.0
10/27/2018 21:00	2018	1.2	4.2	4.2	4.2	0.0
10/27/2018 22:00	2018	4	14.1	14.1	14.1	0.0
10/27/2018 23:00	2018	1.1	3.9	3.9	3.9	0.0
10/28/2018 0:00	2018	0.9	3.2	3.2	3.2	0.0
10/28/2018 1:00	2018	0.6	2.1	2.1	2.1	0.0
10/28/2018 2:00	2018	0.2	0.7	0.7	0.7	0.0
10/28/2018 3:00	2018	0.2	0.7	0.7	0.7	0.0
10/28/2018 4:00	2018	0.5	1.8	1.8	1.8	0.0
10/28/2018 5:00	2018	0.4	1.4	1.4	1.4	0.0
10/28/2018 6:00	2018	0.2	0.7	0.7	0.7	0.0
10/28/2018 7:00	2018	0.5	1.8	1.8	1.8	0.0
10/28/2018 8:00	2018	0.3	1.1	1.1	1.1	0.0
10/28/2018 9:00	2018	0.8	2.8	2.8	2.8	0.0
10/28/2018 10:00	2018	1.4	5.0	5.0	5.0	0.0
10/28/2018 11:00	2018	0.6	2.1	2.1	2.1	0.0
10/28/2018 12:00	2018	0.3	1.1	1.1	1.1	0.0
10/29/2018 7:00	2018	0.2	0.7	0.7	0.7	0.0
10/29/2018 15:00	2018	0.2	0.7	0.7	0.7	0.0
10/31/2018 6:00	2018	0.6	2.1	2.1	2.1	0.0
10/31/2018 7:00	2018	0.5	1.8	1.8	1.8	0.0
10/31/2018 8:00	2018	1	3.5	3.5	3.5	0.0
10/31/2018 9:00	2018	1.7	6.0	6.0	6.0	0.0
10/31/2018 10:00	2018	2.4	8.5	8.5	8.5	0.0
10/31/2018 11:00	2018	1.2	4.2	4.2	4.2	0.0
10/31/2018 12:00	2018	0.2	0.7	0.7	0.7	0.0
10/31/2018 13:00	2018	1.7	6.0	6.0	6.0	0.0
10/31/2018 14:00	2018	1.1	3.9	3.9	3.9	0.0
10/31/2018 15:00	2018	1.2	4.2	4.2	4.2	0.0
10/31/2018 16:00	2018	0.2	0.7	0.7	0.7	0.0
10/31/2018 17:00	2018	0.5	1.8	1.8	1.8	0.0
11/1/2018 20:00	2018	0.3	1.1	1.1	1.1	0.0
11/1/2018 21:00	2018	0.3	1.1	1.1	1.1	0.0
11/1/2018 22:00	2018	0.7	2.5	2.5	2.5	0.0
11/1/2018 23:00	2018	1.6	5.7	5.7	5.7	0.0
11/2/2018 0:00	2018	3.1	11.0	11.0	11.0	0.0
11/2/2018 1:00	2018	2.9	10.3	10.3	10.3	0.0
11/2/2018 2:00	2018	2.2	7.8	7.8	7.8	0.0
11/2/2018 3:00	2018	0.7	2.5	2.5	2.5	0.0

11/2/2018 4:00	2018	1.2	4.2	4.2	4.2	0.0
11/2/2018 5:00	2018	1.9	6.7	6.7	6.7	0.0
11/2/2018 11:00	2018	0.2	0.7	0.7	0.7	0.0
11/2/2018 12:00	2018	0.2	0.7	0.7	0.7	0.0
11/2/2018 14:00	2018	0.3	1.1	1.1	1.1	0.0
11/2/2018 16:00	2018	0.3	1.1	1.1	1.1	0.0
11/2/2018 19:00	2018	0.2	0.7	0.7	0.7	0.0
11/3/2018 0:00	2018	0.2	0.7	0.7	0.7	0.0
11/3/2018 2:00	2018	0.2	0.7	0.7	0.7	0.0
11/3/2018 10:00	2018	0.2	0.7	0.7	0.7	0.0
11/3/2018 11:00	2018	1.2	4.2	4.2	4.2	0.0
11/3/2018 12:00	2018	0.5	1.8	1.8	1.8	0.0
11/3/2018 13:00	2018	0.2	0.7	0.7	0.7	0.0
11/5/2018 13:00	2018	0.2	0.7	0.7	0.7	0.0
11/5/2018 14:00	2018	0.4	1.4	1.4	1.4	0.0
11/6/2018 8:00	2018	0.5	1.8	1.8	1.8	0.0
11/6/2018 9:00	2018	2.8	9.9	9.9	9.9	0.0
11/6/2018 10:00	2018	2	7.1	7.1	7.1	0.0
11/6/2018 11:00	2018	1.1	3.9	3.9	3.9	0.0
11/6/2018 12:00	2018	0.2	0.7	0.7	0.7	0.0
11/6/2018 13:00	2018	0.8	2.8	2.8	2.8	0.0
11/6/2018 14:00	2018	0.4	1.4	1.4	1.4	0.0
11/6/2018 15:00	2018	0.2	0.7	0.7	0.7	0.0
11/9/2018 15:00	2018	0.6	2.1	2.1	2.1	0.0
11/9/2018 16:00	2018	0.2	0.7	0.7	0.7	0.0
11/9/2018 17:00	2018	0.3	1.1	1.1	1.1	0.0
11/9/2018 18:00	2018	0.7	2.5	2.5	2.5	0.0
11/9/2018 20:00	2018	2	7.1	7.1	7.1	0.0
11/9/2018 21:00	2018	0.6	2.1	2.1	2.1	0.0
11/9/2018 22:00	2018	0.9	3.2	3.2	3.2	0.0
11/9/2018 23:00	2018	3.1	11.0	11.0	11.0	0.0
11/10/2018 0:00	2018	0.9	3.2	3.2	3.2	0.0
11/10/2018 2:00	2018	0.2	0.7	0.7	0.7	0.0
11/12/2018 5:00	2018	0.2	0.7	0.7	0.7	0.0
11/12/2018 6:00	2018	0.2	0.7	0.7	0.7	0.0
11/13/2018 1:00	2018	1.5	5.3	5.3	5.3	0.0
11/13/2018 2:00	2018	1.4	5.0	5.0	5.0	0.0
11/13/2018 3:00	2018	0.9	3.2	3.2	3.2	0.0
11/13/2018 4:00	2018	0.9	3.2	3.2	3.2	0.0
11/13/2018 5:00	2018	0.5	1.8	1.8	1.8	0.0
11/13/2018 6:00	2018	0.8	2.8	2.8	2.8	0.0
11/13/2018 7:00	2018	0.7	2.5	2.5	2.5	0.0
11/13/2018 8:00	2018	0.4	1.4	1.4	1.4	0.0
11/13/2018 9:00	2018	0.9	3.2	3.2	3.2	0.0
11/13/2018 11:00	2018	0.2	0.7	0.7	0.7	0.0
11/13/2018 12:00	2018	0.2	0.7	0.7	0.7	0.0
11/13/2018 13:00	2018	0.3	1.1	1.1	1.1	0.0
11/13/2018 15:00	2018	0.2	0.7	0.7	0.7	0.0
11/14/2018 7:00	2018	0.2	0.7	0.7	0.7	0.0
11/16/2018 0:00	2018	0.5	1.8	1.8	1.8	0.0
11/16/2018 1:00	2018	1.2	4.2	4.2	4.2	0.0
11/16/2018 2:00	2018	1.1	3.9	3.9	3.9	0.0
11/16/2018 3:00	2018	0.7	2.5	2.5	2.5	0.0
11/16/2018 4:00	2018	1	3.5	3.5	3.5	0.0
11/16/2018 5:00	2018	1.2	4.2	4.2	4.2	0.0
11/16/2018 6:00	2018	0.9	3.2	3.2	3.2	0.0
11/16/2018 7:00	2018	0.3	1.1	1.1	1.1	0.0
11/16/2018 8:00	2018	0.5	1.8	1.8	1.8	0.0
11/16/2018 9:00	2018	0.3	1.1	1.1	1.1	0.0
11/16/2018 10:00	2018	0.5	1.8	1.8	1.8	0.0
11/16/2018 11:00	2018	0.2	0.7	0.7	0.7	0.0
11/16/2018 13:00	2018	0.2	0.7	0.7	0.7	0.0
11/16/2018 14:00	2018	0.3	1.1	1.1	1.1	0.0
11/16/2018 15:00	2018	0.5	1.8	1.8	1.8	0.0
11/16/2018 16:00	2018	0.7	2.5	2.5	2.5	0.0
11/16/2018 17:00	2018	0.5	1.8	1.8	1.8	0.0

11/16/2018 19:00	2018	0.2	0.7	0.7	0.7	0.0
11/17/2018 2:00	2018	0.2	0.7	0.7	0.7	0.0
11/17/2018 6:00	2018	0.3	1.1	1.1	1.1	0.0
11/17/2018 10:00	2018	0.6	2.1	2.1	2.1	0.0
11/17/2018 11:00	2018	0.2	0.7	0.7	0.7	0.0
11/18/2018 10:00	2018	0.2	0.7	0.7	0.7	0.0
11/19/2018 4:00	2018	0.7	2.5	2.5	2.5	0.0
11/19/2018 20:00	2018	0.2	0.7	0.7	0.7	0.0
11/19/2018 21:00	2018	0.2	0.7	0.7	0.7	0.0
11/19/2018 22:00	2018	0.2	0.7	0.7	0.7	0.0
11/20/2018 4:00	2018	0.2	0.7	0.7	0.7	0.0
11/20/2018 6:00	2018	0.2	0.7	0.7	0.7	0.0
11/20/2018 7:00	2018	0.3	1.1	1.1	1.1	0.0
11/20/2018 8:00	2018	0.3	1.1	1.1	1.1	0.0
11/20/2018 9:00	2018	0.5	1.8	1.8	1.8	0.0
11/20/2018 10:00	2018	0.2	0.7	0.7	0.7	0.0
11/20/2018 11:00	2018	0.5	1.8	1.8	1.8	0.0
11/20/2018 12:00	2018	0.5	1.8	1.8	1.8	0.0
11/21/2018 4:00	2018	0.2	0.7	0.7	0.7	0.0
11/21/2018 5:00	2018	0.2	0.7	0.7	0.7	0.0
11/21/2018 6:00	2018	0.2	0.7	0.7	0.7	0.0
11/21/2018 7:00	2018	0.2	0.7	0.7	0.7	0.0
11/23/2018 10:00	2018	0.2	0.7	0.7	0.7	0.0
11/25/2018 2:00	2018	1.5	5.3	5.3	5.3	0.0
11/25/2018 3:00	2018	2.4	8.5	8.5	8.5	0.0
11/25/2018 4:00	2018	1.5	5.3	5.3	5.3	0.0
11/25/2018 5:00	2018	0.9	3.2	3.2	3.2	0.0
11/25/2018 6:00	2018	0.8	2.8	2.8	2.8	0.0
11/25/2018 7:00	2018	1.7	6.0	6.0	6.0	0.0
11/25/2018 11:00	2018	0.2	0.7	0.7	0.7	0.0
11/26/2018 11:00	2018	0.6	2.1	2.1	2.1	0.0
11/26/2018 12:00	2018	0.6	2.1	2.1	2.1	0.0
11/26/2018 15:00	2018	0.6	2.1	2.1	2.1	0.0
11/26/2018 16:00	2018	1.3	4.6	4.6	4.6	0.0
11/26/2018 17:00	2018	2.4	8.5	8.5	8.5	0.0
11/26/2018 18:00	2018	2	7.1	7.1	7.1	0.0
11/26/2018 19:00	2018	2	7.1	7.1	7.1	0.0
11/26/2018 20:00	2018	1.1	3.9	3.9	3.9	0.0
11/26/2018 21:00	2018	0.2	0.7	0.7	0.7	0.0
11/26/2018 22:00	2018	0.2	0.7	0.7	0.7	0.0
11/26/2018 23:00	2018	0.4	1.4	1.4	1.4	0.0
11/27/2018 0:00	2018	0.7	2.5	2.5	2.5	0.0
11/27/2018 1:00	2018	0.8	2.8	2.8	2.8	0.0
11/27/2018 2:00	2018	0.5	1.8	1.8	1.8	0.0
11/27/2018 3:00	2018	0.6	2.1	2.1	2.1	0.0
11/27/2018 4:00	2018	0.2	0.7	0.7	0.7	0.0
11/27/2018 5:00	2018	0.2	0.7	0.7	0.7	0.0
11/27/2018 6:00	2018	0.2	0.7	0.7	0.7	0.0
11/27/2018 7:00	2018	0.3	1.1	1.1	1.1	0.0
11/27/2018 8:00	2018	0.5	1.8	1.8	1.8	0.0
11/27/2018 9:00	2018	0.2	0.7	0.7	0.7	0.0
11/27/2018 10:00	2018	0.5	1.8	1.8	1.8	0.0
11/27/2018 11:00	2018	0.7	2.5	2.5	2.5	0.0
11/27/2018 12:00	2018	0.9	3.2	3.2	3.2	0.0
11/27/2018 13:00	2018	0.3	1.1	1.1	1.1	0.0
11/27/2018 14:00	2018	0.2	0.7	0.7	0.7	0.0
11/27/2018 17:00	2018	0.2	0.7	0.7	0.7	0.0
11/27/2018 18:00	2018	0.6	2.1	2.1	2.1	0.0
11/27/2018 19:00	2018	0.2	0.7	0.7	0.7	0.0
11/27/2018 20:00	2018	0.3	1.1	1.1	1.1	0.0
11/27/2018 21:00	2018	0.2	0.7	0.7	0.7	0.0
11/27/2018 23:00	2018	0.2	0.7	0.7	0.7	0.0
11/28/2018 1:00	2018	0.4	1.4	1.4	1.4	0.0
11/28/2018 2:00	2018	0.3	1.1	1.1	1.1	0.0
11/28/2018 3:00	2018	0.2	0.7	0.7	0.7	0.0
11/28/2018 4:00	2018	0.6	2.1	2.1	2.1	0.0

11/28/2018 5:00	2018	0.4	1.4	1.4	1.4	0.0
11/28/2018 22:00	2018	0.3	1.1	1.1	1.1	0.0
11/29/2018 3:00	2018	0.2	0.7	0.7	0.7	0.0
12/2/2018 2:00	2018	0.4	1.4	1.4	1.4	0.0
12/2/2018 3:00	2018	0.5	1.8	1.8	1.8	0.0
12/2/2018 4:00	2018	0.8	2.8	2.8	2.8	0.0
12/2/2018 10:00	2018	0.2	0.7	0.7	0.7	0.0
12/2/2018 11:00	2018	0.6	2.1	2.1	2.1	0.0
12/2/2018 12:00	2018	4.7	16.6	16.6	14.3	0.0
12/2/2018 13:00	2018	1.7	6.0	8.3	8.3	0.0
12/2/2018 14:00	2018	0.7	2.5	2.5	2.5	0.0
12/2/2018 16:00	2018	0.2	0.7	0.7	0.7	0.0
12/2/2018 18:00	2018	0.2	0.7	0.7	0.7	0.0
12/2/2018 19:00	2018	0.2	0.7	0.7	0.7	0.0
12/3/2018 1:00	2018	1.7	6.0	6.0	6.0	0.0
12/3/2018 5:00	2018	0.2	0.7	0.7	0.7	0.0
12/3/2018 7:00	2018	0.9	3.2	3.2	3.2	0.0
12/3/2018 8:00	2018	0.9	3.2	3.2	3.2	0.0
12/3/2018 9:00	2018	0.6	2.1	2.1	2.1	0.0
12/3/2018 10:00	2018	0.3	1.1	1.1	1.1	0.0
12/3/2018 11:00	2018	0.3	1.1	1.1	1.1	0.0
12/4/2018 1:00	2018	0.2	0.7	0.7	0.7	0.0
12/5/2018 13:00	2018	0.2	0.7	0.7	0.7	0.0
12/5/2018 14:00	2018	0.3	1.1	1.1	1.1	0.0
12/5/2018 15:00	2018	0.3	1.1	1.1	1.1	0.0
12/5/2018 16:00	2018	0.2	0.7	0.7	0.7	0.0
12/5/2018 17:00	2018	0.2	0.7	0.7	0.7	0.0
12/6/2018 7:00	2018	0.2	0.7	0.7	0.7	0.0
12/6/2018 9:00	2018	0.2	0.7	0.7	0.7	0.0
12/8/2018 4:00	2018	0.2	0.7	0.7	0.7	0.0
12/8/2018 20:00	2018	0.2	0.7	0.7	0.7	0.0
12/8/2018 21:00	2018	0.2	0.7	0.7	0.7	0.0
12/11/2018 9:00	2018	0.2	0.7	0.7	0.7	0.0
12/11/2018 10:00	2018	0.6	2.1	2.1	2.1	0.0
12/11/2018 11:00	2018	0.2	0.7	0.7	0.7	0.0
12/11/2018 13:00	2018	0.2	0.7	0.7	0.7	0.0
12/11/2018 18:00	2018	0.2	0.7	0.7	0.7	0.0
12/11/2018 21:00	2018	0.2	0.7	0.7	0.7	0.0
12/14/2018 12:00	2018	0.3	1.1	1.1	1.1	0.0
12/14/2018 13:00	2018	1.5	5.3	5.3	5.3	0.0
12/14/2018 14:00	2018	1.4	5.0	5.0	5.0	0.0
12/14/2018 15:00	2018	1	3.5	3.5	3.5	0.0
12/14/2018 16:00	2018	1.6	5.7	5.7	5.7	0.0
12/14/2018 17:00	2018	0.3	1.1	1.1	1.1	0.0
12/14/2018 18:00	2018	0.9	3.2	3.2	3.2	0.0
12/14/2018 19:00	2018	0.9	3.2	3.2	3.2	0.0
12/14/2018 20:00	2018	0.9	3.2	3.2	3.2	0.0
12/14/2018 21:00	2018	0.2	0.7	0.7	0.7	0.0
12/14/2018 23:00	2018	0.3	1.1	1.1	1.1	0.0
12/15/2018 0:00	2018	0.5	1.8	1.8	1.8	0.0
12/15/2018 1:00	2018	0.3	1.1	1.1	1.1	0.0
12/17/2018 18:00	2018	0.2	0.7	0.7	0.7	0.0
12/21/2018 1:00	2018	1	3.5	3.5	3.5	0.0
12/21/2018 2:00	2018	0.9	3.2	3.2	3.2	0.0
12/21/2018 3:00	2018	1.5	5.3	5.3	5.3	0.0
12/21/2018 4:00	2018	4	14.1	14.1	14.1	0.0
12/21/2018 5:00	2018	5.1	18.0	18.0	14.3	0.0
12/21/2018 6:00	2018	5.1	18.0	21.8	14.3	0.0
12/21/2018 7:00	2018	2.2	7.8	15.2	14.3	0.0
12/21/2018 8:00	2018	1.2	4.2	5.1	5.1	0.0
12/21/2018 9:00	2018	0.3	1.1	1.1	1.1	0.0
12/21/2018 13:00	2018	0.2	0.7	0.7	0.7	0.0
12/21/2018 15:00	2018	0.3	1.1	1.1	1.1	0.0
12/21/2018 16:00	2018	0.2	0.7	0.7	0.7	0.0
12/21/2018 18:00	2018	1.9	6.7	6.7	6.7	0.0
12/21/2018 19:00	2018	7.3	25.8	25.8	14.3	0.0

12/21/2018 20:00	2018	3.7	13.1	24.6	14.3	0.0
12/21/2018 21:00	2018	4	14.1	24.4	14.3	0.0
12/21/2018 23:00	2018	0.3	1.1	1.1	1.1	0.0
12/22/2018 0:00	2018	1.4	5.0	5.0	5.0	0.0
12/22/2018 1:00	2018	2.7	9.5	9.5	9.5	0.0
12/22/2018 2:00	2018	0.6	2.1	2.1	2.1	0.0
12/22/2018 3:00	2018	1.9	6.7	6.7	6.7	0.0
12/22/2018 4:00	2018	1.1	3.9	3.9	3.9	0.0
12/22/2018 5:00	2018	1.2	4.2	4.2	4.2	0.0
12/22/2018 6:00	2018	0.5	1.8	1.8	1.8	0.0
12/22/2018 7:00	2018	0.6	2.1	2.1	2.1	0.0
12/22/2018 19:00	2018	0.2	0.7	0.7	0.7	0.0
12/24/2018 10:00	2018	0.2	0.7	0.7	0.7	0.0
12/24/2018 11:00	2018	0.2	0.7	0.7	0.7	0.0
12/24/2018 16:00	2018	0.2	0.7	0.7	0.7	0.0
12/26/2018 14:00	2018	0.2	0.7	0.7	0.7	0.0
12/26/2018 15:00	2018	0.2	0.7	0.7	0.7	0.0
12/26/2018 17:00	2018	0.2	0.7	0.7	0.7	0.0
12/28/2018 2:00	2018	0.3	1.1	1.1	1.1	0.0
12/28/2018 3:00	2018	1.6	5.7	5.7	5.7	0.0
12/28/2018 4:00	2018	1.2	4.2	4.2	4.2	0.0
12/28/2018 14:00	2018	0.2	0.7	0.7	0.7	0.0
12/28/2018 18:00	2018	0.2	0.7	0.7	0.7	0.0
12/28/2018 19:00	2018	0.2	0.7	0.7	0.7	0.0
12/28/2018 20:00	2018	0.2	0.7	0.7	0.7	0.0
12/28/2018 21:00	2018	0.2	0.7	0.7	0.7	0.0
12/28/2018 22:00	2018	0.9	3.2	3.2	3.2	0.0
12/28/2018 23:00	2018	0.3	1.1	1.1	1.1	0.0
12/29/2018 2:00	2018	0.6	2.1	2.1	2.1	0.0
12/29/2018 3:00	2018	2.9	10.3	10.3	10.3	0.0
12/29/2018 4:00	2018	1.2	4.2	4.2	4.2	0.0
12/30/2018 12:00	2018	0.2	0.7	0.7	0.7	0.0
12/31/2018 21:00	2018	0.6	2.1	2.1	2.1	0.0
12/31/2018 22:00	2018	1.8	6.4	6.4	6.4	0.0
12/31/2018 23:00	2018	0.3	1.1	1.1	1.1	0.0
1/1/2019 1:00	2019	1.2	0.0	0.0	0.0	0.0
1/1/2019 2:00	2019	2	0.0	0.0	0.0	0.0
1/1/2019 3:00	2019	3.5	0.0	0.0	0.0	0.0
1/1/2019 4:00	2019	1.1	0.0	0.0	0.0	0.0
1/1/2019 5:00	2019	0.6	0.0	0.0	0.0	0.0
1/1/2019 6:00	2019	0.5	0.0	0.0	0.0	0.0
1/2/2019 22:00	2019	0.2	0.0	0.0	0.0	0.0
1/2/2019 23:00	2019	0.3	0.0	0.0	0.0	0.0
1/3/2019 0:00	2019	0.2	0.0	0.0	0.0	0.0
1/3/2019 1:00	2019	0.3	0.0	0.0	0.0	0.0
1/3/2019 3:00	2019	0.5	0.0	0.0	0.0	0.0
1/3/2019 4:00	2019	0.2	0.0	0.0	0.0	0.0
1/3/2019 5:00	2019	0.2	0.0	0.0	0.0	0.0
1/3/2019 6:00	2019	0.2	0.0	0.0	0.0	0.0
1/3/2019 17:00	2019	0.2	0.0	0.0	0.0	0.0
1/4/2019 0:00	2019	0.2	0.0	0.0	0.0	0.0
1/4/2019 1:00	2019	0.7	0.0	0.0	0.0	0.0
1/4/2019 2:00	2019	0.8	0.0	0.0	0.0	0.0
1/4/2019 3:00	2019	0.2	0.0	0.0	0.0	0.0
1/4/2019 7:00	2019	0.2	0.0	0.0	0.0	0.0
1/4/2019 8:00	2019	0.6	0.0	0.0	0.0	0.0
1/7/2019 21:00	2019	0.3	0.0	0.0	0.0	0.0
1/7/2019 22:00	2019	1.4	0.0	0.0	0.0	0.0
1/7/2019 23:00	2019	0.7	0.0	0.0	0.0	0.0
1/8/2019 1:00	2019	1.6	0.0	0.0	0.0	0.0
1/8/2019 2:00	2019	1.3	0.0	0.0	0.0	0.0
1/8/2019 3:00	2019	0.3	0.0	0.0	0.0	0.0
1/9/2019 0:00	2019	0.2	0.0	0.0	0.0	0.0
1/9/2019 2:00	2019	0.2	0.0	0.0	0.0	0.0
1/9/2019 16:00	2019	0.2	0.0	0.0	0.0	0.0
1/10/2019 1:00	2019	1.5	0.0	0.0	0.0	0.0

1/10/2019 6:00	2019	0.2	0.0	0.0	0.0	0.0
1/10/2019 20:00	2019	0.2	0.0	0.0	0.0	0.0
1/11/2019 4:00	2019	0.3	0.0	0.0	0.0	0.0
1/16/2019 4:00	2019	0.2	0.0	0.0	0.0	0.0
1/16/2019 11:00	2019	0.3	0.0	0.0	0.0	0.0
1/16/2019 15:00	2019	0.2	0.0	0.0	0.0	0.0
1/18/2019 6:00	2019	0.2	0.0	0.0	0.0	0.0
1/18/2019 9:00	2019	0.2	0.0	0.0	0.0	0.0
1/18/2019 10:00	2019	0.2	0.0	0.0	0.0	0.0
1/18/2019 11:00	2019	0.2	0.0	0.0	0.0	0.0
1/18/2019 12:00	2019	0.3	0.0	0.0	0.0	0.0
1/18/2019 22:00	2019	0.2	0.0	0.0	0.0	0.0
1/19/2019 18:00	2019	0.2	0.0	0.0	0.0	0.0
1/19/2019 20:00	2019	0.2	0.0	0.0	0.0	0.0
1/19/2019 23:00	2019	0.3	0.0	0.0	0.0	0.0
1/20/2019 0:00	2019	0.2	0.0	0.0	0.0	0.0
1/20/2019 1:00	2019	0.4	0.0	0.0	0.0	0.0
1/20/2019 2:00	2019	0.5	0.0	0.0	0.0	0.0
1/20/2019 3:00	2019	0.5	0.0	0.0	0.0	0.0
1/20/2019 4:00	2019	0.8	0.0	0.0	0.0	0.0
1/20/2019 5:00	2019	0.7	0.0	0.0	0.0	0.0
1/20/2019 6:00	2019	0.5	0.0	0.0	0.0	0.0
1/20/2019 7:00	2019	0.9	0.0	0.0	0.0	0.0
1/20/2019 8:00	2019	0.9	0.0	0.0	0.0	0.0
1/20/2019 9:00	2019	1.1	0.0	0.0	0.0	0.0
1/20/2019 10:00	2019	0.6	0.0	0.0	0.0	0.0
1/20/2019 11:00	2019	0.2	0.0	0.0	0.0	0.0
1/20/2019 13:00	2019	0.3	0.0	0.0	0.0	0.0
1/20/2019 15:00	2019	0.2	0.0	0.0	0.0	0.0
1/20/2019 21:00	2019	0.2	0.0	0.0	0.0	0.0
1/21/2019 3:00	2019	0.2	0.0	0.0	0.0	0.0
1/23/2019 2:00	2019	0.7	0.0	0.0	0.0	0.0
1/23/2019 3:00	2019	1.9	0.0	0.0	0.0	0.0
1/23/2019 4:00	2019	1.2	0.0	0.0	0.0	0.0
1/23/2019 5:00	2019	1.5	0.0	0.0	0.0	0.0
1/23/2019 6:00	2019	1.2	0.0	0.0	0.0	0.0
1/23/2019 7:00	2019	1.8	0.0	0.0	0.0	0.0
1/23/2019 8:00	2019	1.7	0.0	0.0	0.0	0.0
1/23/2019 9:00	2019	1	0.0	0.0	0.0	0.0
1/23/2019 10:00	2019	0.5	0.0	0.0	0.0	0.0
1/23/2019 11:00	2019	0.2	0.0	0.0	0.0	0.0
1/23/2019 12:00	2019	0.5	0.0	0.0	0.0	0.0
1/23/2019 13:00	2019	0.8	0.0	0.0	0.0	0.0
1/23/2019 14:00	2019	2	0.0	0.0	0.0	0.0
1/23/2019 15:00	2019	2.3	0.0	0.0	0.0	0.0
1/23/2019 16:00	2019	1.6	0.0	0.0	0.0	0.0
1/23/2019 17:00	2019	1.5	0.0	0.0	0.0	0.0
1/23/2019 20:00	2019	0.2	0.0	0.0	0.0	0.0
1/24/2019 2:00	2019	0.2	0.0	0.0	0.0	0.0
1/24/2019 5:00	2019	0.5	0.0	0.0	0.0	0.0
1/24/2019 6:00	2019	1.1	0.0	0.0	0.0	0.0
1/24/2019 7:00	2019	1.6	0.0	0.0	0.0	0.0
1/24/2019 8:00	2019	0.7	0.0	0.0	0.0	0.0
1/24/2019 9:00	2019	1.3	0.0	0.0	0.0	0.0
1/24/2019 10:00	2019	2.3	0.0	0.0	0.0	0.0
1/24/2019 11:00	2019	0.2	0.0	0.0	0.0	0.0
1/25/2019 8:00	2019	0.2	0.0	0.0	0.0	0.0
1/27/2019 8:00	2019	0.8	0.0	0.0	0.0	0.0
1/27/2019 9:00	2019	0.6	0.0	0.0	0.0	0.0
1/27/2019 10:00	2019	0.6	0.0	0.0	0.0	0.0
1/27/2019 11:00	2019	0.4	0.0	0.0	0.0	0.0
1/29/2019 2:00	2019	0.3	0.0	0.0	0.0	0.0
1/29/2019 3:00	2019	0.6	0.0	0.0	0.0	0.0
1/29/2019 4:00	2019	0.9	0.0	0.0	0.0	0.0
1/29/2019 5:00	2019	0.9	0.0	0.0	0.0	0.0
1/29/2019 6:00	2019	0.7	0.0	0.0	0.0	0.0

1/29/2019 7:00	2019	0.9	0.0	0.0	0.0	0.0
1/29/2019 14:00	2019	0.2	0.0	0.0	0.0	0.0
1/29/2019 22:00	2019	0.2	0.0	0.0	0.0	0.0
1/29/2019 23:00	2019	0.4	0.0	0.0	0.0	0.0
1/30/2019 17:00	2019	0.2	0.0	0.0	0.0	0.0
2/2/2019 8:00	2019	0.4	0.0	0.0	0.0	0.0
2/2/2019 9:00	2019	0.6	0.0	0.0	0.0	0.0
2/2/2019 10:00	2019	1.2	0.0	0.0	0.0	0.0
2/2/2019 11:00	2019	1.4	0.0	0.0	0.0	0.0
2/2/2019 12:00	2019	1.9	0.0	0.0	0.0	0.0
2/2/2019 13:00	2019	1.2	0.0	0.0	0.0	0.0
2/2/2019 14:00	2019	0.7	0.0	0.0	0.0	0.0
2/2/2019 15:00	2019	0.5	0.0	0.0	0.0	0.0
2/2/2019 16:00	2019	0.2	0.0	0.0	0.0	0.0
2/3/2019 11:00	2019	0.3	0.0	0.0	0.0	0.0
2/3/2019 12:00	2019	0.2	0.0	0.0	0.0	0.0
2/3/2019 13:00	2019	0.5	0.0	0.0	0.0	0.0
2/3/2019 14:00	2019	1.4	0.0	0.0	0.0	0.0
2/3/2019 15:00	2019	0.9	0.0	0.0	0.0	0.0
2/3/2019 16:00	2019	0.3	0.0	0.0	0.0	0.0
2/3/2019 17:00	2019	1.2	0.0	0.0	0.0	0.0
2/3/2019 18:00	2019	1	0.0	0.0	0.0	0.0
2/4/2019 13:00	2019	0.2	0.0	0.0	0.0	0.0
2/4/2019 23:00	2019	0.2	0.0	0.0	0.0	0.0
2/5/2019 0:00	2019	0.6	0.0	0.0	0.0	0.0
2/5/2019 1:00	2019	2	0.0	0.0	0.0	0.0
2/5/2019 2:00	2019	2.4	0.0	0.0	0.0	0.0
2/5/2019 3:00	2019	0.7	0.0	0.0	0.0	0.0
2/5/2019 4:00	2019	3.6	0.0	0.0	0.0	0.0
2/5/2019 5:00	2019	0.2	0.0	0.0	0.0	0.0
2/5/2019 8:00	2019	0.2	0.0	0.0	0.0	0.0
2/6/2019 11:00	2019	0.2	0.0	0.0	0.0	0.0
2/6/2019 14:00	2019	0.3	0.0	0.0	0.0	0.0
2/6/2019 17:00	2019	0.2	0.0	0.0	0.0	0.0
2/6/2019 18:00	2019	0.3	0.0	0.0	0.0	0.0
2/6/2019 19:00	2019	1	0.0	0.0	0.0	0.0
2/6/2019 20:00	2019	0.5	0.0	0.0	0.0	0.0
2/6/2019 21:00	2019	0.3	0.0	0.0	0.0	0.0
2/8/2019 4:00	2019	0.2	0.0	0.0	0.0	0.0
2/12/2019 17:00	2019	0.6	0.0	0.0	0.0	0.0
2/12/2019 18:00	2019	1.7	0.0	0.0	0.0	0.0
2/12/2019 19:00	2019	0.7	0.0	0.0	0.0	0.0
2/12/2019 20:00	2019	0.6	0.0	0.0	0.0	0.0
2/12/2019 21:00	2019	1.2	0.0	0.0	0.0	0.0
2/12/2019 22:00	2019	1.6	0.0	0.0	0.0	0.0
2/12/2019 23:00	2019	1.7	0.0	0.0	0.0	0.0
2/13/2019 0:00	2019	1.9	0.0	0.0	0.0	0.0
2/13/2019 1:00	2019	1.6	0.0	0.0	0.0	0.0
2/13/2019 2:00	2019	1.1	0.0	0.0	0.0	0.0
2/13/2019 3:00	2019	1.1	0.0	0.0	0.0	0.0
2/13/2019 4:00	2019	0.5	0.0	0.0	0.0	0.0
2/13/2019 5:00	2019	1.4	0.0	0.0	0.0	0.0
2/13/2019 6:00	2019	1.4	0.0	0.0	0.0	0.0
2/13/2019 7:00	2019	0.6	0.0	0.0	0.0	0.0
2/13/2019 10:00	2019	0.3	0.0	0.0	0.0	0.0
2/13/2019 12:00	2019	0.2	0.0	0.0	0.0	0.0
2/13/2019 16:00	2019	0.2	0.0	0.0	0.0	0.0
2/15/2019 5:00	2019	0.8	0.0	0.0	0.0	0.0
2/15/2019 6:00	2019	0.3	0.0	0.0	0.0	0.0
2/15/2019 8:00	2019	0.2	0.0	0.0	0.0	0.0
2/15/2019 10:00	2019	0.4	0.0	0.0	0.0	0.0
2/15/2019 11:00	2019	0.3	0.0	0.0	0.0	0.0
2/15/2019 12:00	2019	0.2	0.0	0.0	0.0	0.0
2/15/2019 15:00	2019	0.6	0.0	0.0	0.0	0.0
2/21/2019 0:00	2019	1.7	0.0	0.0	0.0	0.0
2/21/2019 1:00	2019	1.7	0.0	0.0	0.0	0.0

2/21/2019 2:00	2019	0.6	0.0	0.0	0.0	0.0
2/21/2019 3:00	2019	0.8	0.0	0.0	0.0	0.0
2/21/2019 4:00	2019	0.7	0.0	0.0	0.0	0.0
2/21/2019 12:00	2019	0.2	0.0	0.0	0.0	0.0
2/24/2019 11:00	2019	0.4	0.0	0.0	0.0	0.0
2/24/2019 12:00	2019	6.9	0.0	0.0	0.0	0.0
2/24/2019 13:00	2019	3.2	0.0	0.0	0.0	0.0
2/24/2019 14:00	2019	2.3	0.0	0.0	0.0	0.0
2/24/2019 15:00	2019	0.3	0.0	0.0	0.0	0.0
2/24/2019 16:00	2019	0.7	0.0	0.0	0.0	0.0
2/24/2019 17:00	2019	0.3	0.0	0.0	0.0	0.0
2/26/2019 2:00	2019	0.2	0.0	0.0	0.0	0.0
2/27/2019 8:00	2019	0.2	0.0	0.0	0.0	0.0
3/3/2019 23:00	2019	0.2	0.0	0.0	0.0	0.0
3/4/2019 2:00	2019	0.2	0.0	0.0	0.0	0.0
3/5/2019 11:00	2019	0.2	0.0	0.0	0.0	0.0
3/5/2019 18:00	2019	0.3	0.0	0.0	0.0	0.0
3/5/2019 23:00	2019	0.2	0.0	0.0	0.0	0.0
3/10/2019 7:00	2019	0.2	0.0	0.0	0.0	0.0
3/10/2019 8:00	2019	0.9	0.0	0.0	0.0	0.0
3/10/2019 9:00	2019	0.7	0.0	0.0	0.0	0.0
3/10/2019 10:00	2019	1.3	0.0	0.0	0.0	0.0
3/10/2019 11:00	2019	0.8	0.0	0.0	0.0	0.0
3/10/2019 12:00	2019	1	0.0	0.0	0.0	0.0
3/10/2019 13:00	2019	0.5	0.0	0.0	0.0	0.0
3/10/2019 14:00	2019	0.5	0.0	0.0	0.0	0.0
3/10/2019 16:00	2019	0.5	0.0	0.0	0.0	0.0
3/10/2019 17:00	2019	0.3	0.0	0.0	0.0	0.0
3/10/2019 18:00	2019	0.2	0.0	0.0	0.0	0.0
3/10/2019 19:00	2019	0.5	0.0	0.0	0.0	0.0
3/10/2019 20:00	2019	1	0.0	0.0	0.0	0.0
3/10/2019 21:00	2019	0.9	0.0	0.0	0.0	0.0
3/10/2019 22:00	2019	0.2	0.0	0.0	0.0	0.0
3/10/2019 23:00	2019	0.8	0.0	0.0	0.0	0.0
3/13/2019 16:00	2019	1	0.0	0.0	0.0	0.0
3/13/2019 17:00	2019	4	0.0	0.0	0.0	0.0
3/13/2019 18:00	2019	1.3	0.0	0.0	0.0	0.0
3/13/2019 19:00	2019	0.2	0.0	0.0	0.0	0.0
3/14/2019 9:00	2019	0.8	0.0	0.0	0.0	0.0
3/15/2019 0:00	2019	0.7	0.0	0.0	0.0	0.0
3/15/2019 2:00	2019	0.2	0.0	0.0	0.0	0.0
3/15/2019 18:00	2019	0.7	0.0	0.0	0.0	0.0
3/15/2019 19:00	2019	1	0.0	0.0	0.0	0.0
3/15/2019 20:00	2019	0.3	0.0	0.0	0.0	0.0
3/15/2019 21:00	2019	0.9	0.0	0.0	0.0	0.0
3/15/2019 22:00	2019	0.5	0.0	0.0	0.0	0.0
3/15/2019 23:00	2019	0.3	0.0	0.0	0.0	0.0
3/16/2019 0:00	2019	0.4	0.0	0.0	0.0	0.0
3/21/2019 21:00	2019	1.2	0.0	0.0	0.0	0.0
3/21/2019 22:00	2019	1.7	0.0	0.0	0.0	0.0
3/21/2019 23:00	2019	1.3	0.0	0.0	0.0	0.0
3/22/2019 0:00	2019	1.6	0.0	0.0	0.0	0.0
3/22/2019 1:00	2019	1.2	0.0	0.0	0.0	0.0
3/22/2019 2:00	2019	0.6	0.0	0.0	0.0	0.0
3/22/2019 3:00	2019	0.5	0.0	0.0	0.0	0.0
3/22/2019 4:00	2019	0.7	0.0	0.0	0.0	0.0
3/22/2019 5:00	2019	0.7	0.0	0.0	0.0	0.0
3/22/2019 6:00	2019	0.5	0.0	0.0	0.0	0.0
3/22/2019 7:00	2019	0.5	0.0	0.0	0.0	0.0
3/22/2019 8:00	2019	0.7	0.0	0.0	0.0	0.0
3/22/2019 9:00	2019	1	0.0	0.0	0.0	0.0
3/22/2019 10:00	2019	0.9	0.0	0.0	0.0	0.0
3/22/2019 11:00	2019	1.2	0.0	0.0	0.0	0.0
3/22/2019 12:00	2019	0.6	0.0	0.0	0.0	0.0
3/22/2019 13:00	2019	0.6	0.0	0.0	0.0	0.0
3/22/2019 14:00	2019	0.5	0.0	0.0	0.0	0.0

3/22/2019 15:00	2019	0.2	0.0	0.0	0.0	0.0
3/23/2019 10:00	2019	0.2	0.0	0.0	0.0	0.0
3/30/2019 9:00	2019	0.2	0.0	0.0	0.0	0.0
3/30/2019 10:00	2019	1.8	0.0	0.0	0.0	0.0
3/30/2019 11:00	2019	2.2	0.0	0.0	0.0	0.0
3/30/2019 12:00	2019	2.2	0.0	0.0	0.0	0.0
3/30/2019 13:00	2019	0.9	0.0	0.0	0.0	0.0
3/30/2019 14:00	2019	0.6	0.0	0.0	0.0	0.0
3/30/2019 15:00	2019	0.8	0.0	0.0	0.0	0.0
3/30/2019 16:00	2019	1.3	0.0	0.0	0.0	0.0
3/30/2019 17:00	2019	1.7	0.0	0.0	0.0	0.0
3/30/2019 18:00	2019	0.6	0.0	0.0	0.0	0.0
3/30/2019 19:00	2019	0.3	0.0	0.0	0.0	0.0
3/30/2019 20:00	2019	0.2	0.0	0.0	0.0	0.0
3/30/2019 21:00	2019	0.6	0.0	0.0	0.0	0.0
3/30/2019 22:00	2019	0.2	0.0	0.0	0.0	0.0
3/30/2019 23:00	2019	1.8	0.0	0.0	0.0	0.0
3/31/2019 0:00	2019	1.6	0.0	0.0	0.0	0.0
3/31/2019 1:00	2019	1.5	0.0	0.0	0.0	0.0
3/31/2019 2:00	2019	1.5	0.0	0.0	0.0	0.0
3/31/2019 3:00	2019	3	0.0	0.0	0.0	0.0
3/31/2019 4:00	2019	2.8	0.0	0.0	0.0	0.0
3/31/2019 5:00	2019	2.3	0.0	0.0	0.0	0.0
3/31/2019 6:00	2019	0.5	0.0	0.0	0.0	0.0
3/31/2019 7:00	2019	0.9	0.0	0.0	0.0	0.0
3/31/2019 8:00	2019	0.2	0.0	0.0	0.0	0.0
3/31/2019 11:00	2019	0.6	0.0	0.0	0.0	0.0
4/5/2019 19:00	2019	0.3	0.0	0.0	0.0	0.0
4/5/2019 20:00	2019	0.5	0.0	0.0	0.0	0.0
4/5/2019 21:00	2019	1.3	0.0	0.0	0.0	0.0
4/5/2019 22:00	2019	1.6	0.0	0.0	0.0	0.0
4/5/2019 23:00	2019	0.2	0.0	0.0	0.0	0.0
4/6/2019 2:00	2019	0.2	0.0	0.0	0.0	0.0
4/6/2019 5:00	2019	0.2	0.0	0.0	0.0	0.0
4/6/2019 6:00	2019	0.4	0.0	0.0	0.0	0.0
4/6/2019 7:00	2019	0.5	0.0	0.0	0.0	0.0
4/7/2019 21:00	2019	0.2	0.0	0.0	0.0	0.0
4/7/2019 22:00	2019	1.1	0.0	0.0	0.0	0.0
4/7/2019 23:00	2019	1	0.0	0.0	0.0	0.0
4/8/2019 0:00	2019	0.2	0.0	0.0	0.0	0.0
4/8/2019 1:00	2019	0.6	0.0	0.0	0.0	0.0
4/8/2019 3:00	2019	0.7	0.0	0.0	0.0	0.0
4/8/2019 4:00	2019	1	0.0	0.0	0.0	0.0
4/8/2019 5:00	2019	0.2	0.0	0.0	0.0	0.0
4/8/2019 7:00	2019	0.8	0.0	0.0	0.0	0.0
4/8/2019 8:00	2019	0.9	0.0	0.0	0.0	0.0
4/8/2019 11:00	2019	0.8	0.0	0.0	0.0	0.0
4/8/2019 12:00	2019	0.2	0.0	0.0	0.0	0.0
4/8/2019 13:00	2019	0.5	0.0	0.0	0.0	0.0
4/8/2019 14:00	2019	0.6	0.0	0.0	0.0	0.0
4/8/2019 15:00	2019	0.7	0.0	0.0	0.0	0.0
4/8/2019 16:00	2019	0.7	0.0	0.0	0.0	0.0
4/9/2019 5:00	2019	0.3	0.0	0.0	0.0	0.0
4/9/2019 8:00	2019	0.3	0.0	0.0	0.0	0.0
4/9/2019 9:00	2019	0.8	0.0	0.0	0.0	0.0
4/9/2019 10:00	2019	0.8	0.0	0.0	0.0	0.0
4/9/2019 11:00	2019	1.2	0.0	0.0	0.0	0.0
4/9/2019 12:00	2019	0.5	0.0	0.0	0.0	0.0
4/9/2019 13:00	2019	3.2	0.0	0.0	0.0	0.0
4/9/2019 14:00	2019	0.7	0.0	0.0	0.0	0.0
4/9/2019 15:00	2019	0.4	0.0	0.0	0.0	0.0
4/9/2019 16:00	2019	0.6	0.0	0.0	0.0	0.0
4/9/2019 18:00	2019	0.5	0.0	0.0	0.0	0.0
4/12/2019 17:00	2019	0.2	0.0	0.0	0.0	0.0
4/12/2019 21:00	2019	0.3	0.0	0.0	0.0	0.0
4/14/2019 15:00	2019	1	0.0	0.0	0.0	0.0

4/14/2019 16:00	2019	1.5	0.0	0.0	0.0	0.0
4/14/2019 17:00	2019	0.5	0.0	0.0	0.0	0.0
4/14/2019 18:00	2019	0.2	0.0	0.0	0.0	0.0
4/14/2019 19:00	2019	1.1	0.0	0.0	0.0	0.0
4/14/2019 20:00	2019	1.1	0.0	0.0	0.0	0.0
4/14/2019 21:00	2019	1.9	0.0	0.0	0.0	0.0
4/14/2019 22:00	2019	3.7	0.0	0.0	0.0	0.0
4/14/2019 23:00	2019	7.2	0.0	0.0	0.0	0.0
4/15/2019 0:00	2019	7.9	0.0	0.0	0.0	0.0
4/15/2019 2:00	2019	6.4	0.0	0.0	0.0	0.0
4/15/2019 3:00	2019	0.3	0.0	0.0	0.0	0.0
4/15/2019 7:00	2019	0.7	0.0	0.0	0.0	0.0
4/15/2019 8:00	2019	1.5	0.0	0.0	0.0	0.0
4/15/2019 9:00	2019	0.2	0.0	0.0	0.0	0.0
4/15/2019 10:00	2019	0.2	0.0	0.0	0.0	0.0
4/15/2019 11:00	2019	0.2	0.0	0.0	0.0	0.0
4/15/2019 12:00	2019	0.3	0.0	0.0	0.0	0.0
4/15/2019 18:00	2019	0.2	0.0	0.0	0.0	0.0
4/18/2019 5:00	2019	2.5	0.0	0.0	0.0	0.0
4/18/2019 6:00	2019	0.9	0.0	0.0	0.0	0.0
4/19/2019 1:00	2019	0.9	0.0	0.0	0.0	0.0
4/19/2019 2:00	2019	1.4	0.0	0.0	0.0	0.0
4/19/2019 3:00	2019	2.4	0.0	0.0	0.0	0.0
4/19/2019 4:00	2019	1.7	0.0	0.0	0.0	0.0
4/19/2019 5:00	2019	3.9	0.0	0.0	0.0	0.0
4/19/2019 6:00	2019	1.8	0.0	0.0	0.0	0.0
4/19/2019 9:00	2019	4.7	0.0	0.0	0.0	0.0
4/19/2019 10:00	2019	0.9	0.0	0.0	0.0	0.0
4/19/2019 11:00	2019	0.6	0.0	0.0	0.0	0.0
4/19/2019 12:00	2019	1.8	0.0	0.0	0.0	0.0
4/19/2019 13:00	2019	3.2	0.0	0.0	0.0	0.0
4/19/2019 14:00	2019	3	0.0	0.0	0.0	0.0
4/19/2019 15:00	2019	2.2	0.0	0.0	0.0	0.0
4/19/2019 16:00	2019	2.4	0.0	0.0	0.0	0.0
4/19/2019 17:00	2019	1	0.0	0.0	0.0	0.0
4/19/2019 18:00	2019	0.8	0.0	0.0	0.0	0.0
4/19/2019 19:00	2019	0.2	0.0	0.0	0.0	0.0
4/19/2019 20:00	2019	0.2	0.0	0.0	0.0	0.0
4/19/2019 21:00	2019	1	0.0	0.0	0.0	0.0
4/19/2019 22:00	2019	1.1	0.0	0.0	0.0	0.0
4/19/2019 23:00	2019	1.6	0.0	0.0	0.0	0.0
4/20/2019 0:00	2019	2.4	0.0	0.0	0.0	0.0
4/20/2019 1:00	2019	1.8	0.0	0.0	0.0	0.0
4/20/2019 2:00	2019	1.7	0.0	0.0	0.0	0.0
4/20/2019 3:00	2019	0.6	0.0	0.0	0.0	0.0
4/20/2019 4:00	2019	0.2	0.0	0.0	0.0	0.0
4/20/2019 5:00	2019	0.4	0.0	0.0	0.0	0.0
4/20/2019 14:00	2019	0.9	0.0	0.0	0.0	0.0
4/20/2019 16:00	2019	0.2	0.0	0.0	0.0	0.0
4/21/2019 5:00	2019	0.2	0.0	0.0	0.0	0.0
4/23/2019 19:00	2019	1.9	0.0	0.0	0.0	0.0
4/23/2019 20:00	2019	3.3	0.0	0.0	0.0	0.0
4/23/2019 21:00	2019	4.7	0.0	0.0	0.0	0.0
4/23/2019 22:00	2019	1.8	0.0	0.0	0.0	0.0
4/23/2019 23:00	2019	1.6	0.0	0.0	0.0	0.0
4/24/2019 0:00	2019	1.3	0.0	0.0	0.0	0.0
4/24/2019 1:00	2019	0.5	0.0	0.0	0.0	0.0
4/24/2019 2:00	2019	1.8	0.0	0.0	0.0	0.0
4/24/2019 3:00	2019	1	0.0	0.0	0.0	0.0
4/24/2019 5:00	2019	1	0.0	0.0	0.0	0.0
4/24/2019 6:00	2019	0.2	0.0	0.0	0.0	0.0
4/26/2019 10:00	2019	1.1	0.0	0.0	0.0	0.0
4/26/2019 11:00	2019	1.9	0.0	0.0	0.0	0.0
4/26/2019 12:00	2019	1.9	0.0	0.0	0.0	0.0
4/26/2019 13:00	2019	1.6	0.0	0.0	0.0	0.0
4/26/2019 14:00	2019	2.1	0.0	0.0	0.0	0.0

4/26/2019 15:00	2019	2.4	0.0	0.0	0.0	0.0
4/26/2019 16:00	2019	1	0.0	0.0	0.0	0.0
4/26/2019 17:00	2019	0.3	0.0	0.0	0.0	0.0
4/26/2019 18:00	2019	0.2	0.0	0.0	0.0	0.0
4/26/2019 20:00	2019	1.1	0.0	0.0	0.0	0.0
4/26/2019 21:00	2019	0.3	0.0	0.0	0.0	0.0
4/27/2019 0:00	2019	0.4	0.0	0.0	0.0	0.0
5/1/2019 12:00	2019	0.4	1.4	1.4	1.4	0.0
5/1/2019 13:00	2019	0.7	2.5	2.5	2.5	0.0
5/1/2019 18:00	2019	1.2	4.2	4.2	4.2	0.0
5/1/2019 19:00	2019	2.2	7.8	7.8	7.8	0.0
5/1/2019 21:00	2019	0.2	0.7	0.7	0.7	0.0
5/1/2019 22:00	2019	0.2	0.7	0.7	0.7	0.0
5/1/2019 23:00	2019	0.8	2.8	2.8	2.8	0.0
5/2/2019 0:00	2019	0.5	1.8	1.8	1.8	0.0
5/2/2019 1:00	2019	1	3.5	3.5	3.5	0.0
5/2/2019 2:00	2019	0.8	2.8	2.8	2.8	0.0
5/2/2019 3:00	2019	0.6	2.1	2.1	2.1	0.0
5/2/2019 4:00	2019	0.2	0.7	0.7	0.7	0.0
5/3/2019 5:00	2019	0.3	1.1	1.1	1.1	0.0
5/3/2019 6:00	2019	0.3	1.1	1.1	1.1	0.0
5/3/2019 7:00	2019	1.1	3.9	3.9	3.9	0.0
5/3/2019 8:00	2019	1.4	5.0	5.0	5.0	0.0
5/3/2019 9:00	2019	0.7	2.5	2.5	2.5	0.0
5/9/2019 20:00	2019	0.6	2.1	2.1	2.1	0.0
5/9/2019 21:00	2019	0.5	1.8	1.8	1.8	0.0
5/9/2019 22:00	2019	3.9	13.8	13.8	13.8	0.0
5/9/2019 23:00	2019	0.5	1.8	1.8	1.8	0.0
5/10/2019 0:00	2019	0.3	1.1	1.1	1.1	0.0
5/10/2019 2:00	2019	2.2	7.8	7.8	7.8	0.0
5/10/2019 3:00	2019	7.1	25.1	25.1	14.3	0.0
5/10/2019 4:00	2019	5.3	18.7	29.5	14.3	0.0
5/10/2019 5:00	2019	1	3.5	18.7	14.3	0.0
5/10/2019 8:00	2019	0.3	1.1	1.1	1.1	0.0
5/10/2019 9:00	2019	4.2	14.9	14.9	14.3	0.0
5/10/2019 10:00	2019	4.3	15.2	15.7	14.3	0.0
5/10/2019 11:00	2019	0.4	1.4	2.8	2.8	0.0
5/10/2019 13:00	2019	0.3	1.1	1.1	1.1	0.0
5/10/2019 14:00	2019	0.4	1.4	1.4	1.4	0.0
5/13/2019 21:00	2019	1.1	3.9	3.9	3.9	0.0
5/13/2019 22:00	2019	1.1	3.9	3.9	3.9	0.0
5/13/2019 23:00	2019	2.1	7.4	7.4	7.4	0.0
5/14/2019 0:00	2019	1.9	6.7	6.7	6.7	0.0
5/14/2019 1:00	2019	1.1	3.9	3.9	3.9	0.0
5/14/2019 2:00	2019	1	3.5	3.5	3.5	0.0
5/14/2019 3:00	2019	1.5	5.3	5.3	5.3	0.0
5/14/2019 4:00	2019	1	3.5	3.5	3.5	0.0
5/14/2019 6:00	2019	0.5	1.8	1.8	1.8	0.0
5/14/2019 7:00	2019	0.5	1.8	1.8	1.8	0.0
5/14/2019 8:00	2019	0.5	1.8	1.8	1.8	0.0
5/14/2019 11:00	2019	0.2	0.7	0.7	0.7	0.0
5/15/2019 17:00	2019	0.2	0.7	0.7	0.7	0.0
5/16/2019 23:00	2019	0.5	1.8	1.8	1.8	0.0
5/17/2019 0:00	2019	0.7	2.5	2.5	2.5	0.0
5/17/2019 1:00	2019	1.3	4.6	4.6	4.6	0.0
5/17/2019 2:00	2019	0.7	2.5	2.5	2.5	0.0
5/17/2019 4:00	2019	0.3	1.1	1.1	1.1	0.0
5/19/2019 5:00	2019	2.6	9.2	9.2	9.2	0.0
5/19/2019 6:00	2019	1.8	6.4	6.4	6.4	0.0
5/19/2019 16:00	2019	4.1	14.5	14.5	14.3	0.0
5/19/2019 17:00	2019	3.7	13.1	13.3	13.3	0.0
5/19/2019 22:00	2019	1.4	5.0	5.0	5.0	0.0
5/19/2019 23:00	2019	1.4	5.0	5.0	5.0	0.0
5/23/2019 16:00	2019	4	14.1	14.1	14.1	0.0
5/23/2019 17:00	2019	5.8	20.5	20.5	14.3	0.0
5/23/2019 21:00	2019	0.2	0.7	0.7	0.7	0.0

5/25/2019 12:00	2019	0.8	2.8	2.8	2.8	0.0
5/25/2019 13:00	2019	1.4	5.0	5.0	5.0	0.0
5/25/2019 18:00	2019	0.5	1.8	1.8	1.8	0.0
5/25/2019 19:00	2019	1	3.5	3.5	3.5	0.0
5/26/2019 3:00	2019	0.2	0.7	0.7	0.7	0.0
5/28/2019 9:00	2019	1.3	4.6	4.6	4.6	0.0
5/28/2019 10:00	2019	1.4	5.0	5.0	5.0	0.0
5/28/2019 11:00	2019	0.3	1.1	1.1	1.1	0.0
5/28/2019 12:00	2019	0.3	1.1	1.1	1.1	0.0
5/28/2019 13:00	2019	0.3	1.1	1.1	1.1	0.0
5/30/2019 21:00	2019	2	7.1	7.1	7.1	0.0
5/31/2019 5:00	2019	0.2	0.7	0.7	0.7	0.0
6/2/2019 8:00	2019	0.3	1.1	1.1	1.1	0.0
6/2/2019 9:00	2019	1.6	5.7	5.7	5.7	0.0
6/2/2019 10:00	2019	0.4	1.4	1.4	1.4	0.0
6/2/2019 11:00	2019	0.2	0.7	0.7	0.7	0.0
6/2/2019 12:00	2019	0.2	0.7	0.7	0.7	0.0
6/3/2019 9:00	2019	0.4	1.4	1.4	1.4	0.0
6/3/2019 10:00	2019	0.3	1.1	1.1	1.1	0.0
6/3/2019 15:00	2019	0.2	0.7	0.7	0.7	0.0
6/6/2019 1:00	2019	0.2	0.7	0.7	0.7	0.0
6/9/2019 1:00	2019	0.2	0.7	0.7	0.7	0.0
6/10/2019 19:00	2019	8.2	29.0	29.0	14.3	0.0
6/10/2019 20:00	2019	1.9	6.7	21.4	14.3	0.0
6/10/2019 21:00	2019	1	3.5	10.6	10.6	0.0
6/10/2019 22:00	2019	0.6	2.1	2.1	2.1	0.0
6/10/2019 23:00	2019	1.6	5.7	5.7	5.7	0.0
6/11/2019 0:00	2019	1.3	4.6	4.6	4.6	0.0
6/11/2019 1:00	2019	4.8	17.0	17.0	14.3	0.0
6/11/2019 2:00	2019	1.3	4.6	7.2	7.2	0.0
6/11/2019 3:00	2019	1.9	6.7	6.7	6.7	0.0
6/11/2019 4:00	2019	1.1	3.9	3.9	3.9	0.0
6/11/2019 5:00	2019	0.3	1.1	1.1	1.1	0.0
6/13/2019 17:00	2019	0.8	2.8	2.8	2.8	0.0
6/13/2019 18:00	2019	4.5	15.9	15.9	14.3	0.0
6/13/2019 19:00	2019	1.9	6.7	8.3	8.3	0.0
6/13/2019 20:00	2019	1.2	4.2	4.2	4.2	0.0
6/13/2019 21:00	2019	2.5	8.8	8.8	8.8	0.0
6/13/2019 22:00	2019	1.3	4.6	4.6	4.6	0.0
6/13/2019 23:00	2019	0.7	2.5	2.5	2.5	0.0
6/14/2019 3:00	2019	0.2	0.7	0.7	0.7	0.0
6/14/2019 4:00	2019	0.6	2.1	2.1	2.1	0.0
6/14/2019 8:00	2019	0.2	0.7	0.7	0.7	0.0
6/14/2019 12:00	2019	0.6	2.1	2.1	2.1	0.0
6/14/2019 13:00	2019	0.2	0.7	0.7	0.7	0.0
6/14/2019 14:00	2019	0.7	2.5	2.5	2.5	0.0
6/14/2019 16:00	2019	0.3	1.1	1.1	1.1	0.0
6/15/2019 3:00	2019	0.3	1.1	1.1	1.1	0.0
6/15/2019 4:00	2019	0.2	0.7	0.7	0.7	0.0
6/15/2019 8:00	2019	0.2	0.7	0.7	0.7	0.0
6/15/2019 9:00	2019	1.2	4.2	4.2	4.2	0.0
6/15/2019 10:00	2019	0.7	2.5	2.5	2.5	0.0
6/15/2019 11:00	2019	0.7	2.5	2.5	2.5	0.0
6/15/2019 12:00	2019	0.2	0.7	0.7	0.7	0.0
6/15/2019 15:00	2019	2.1	7.4	7.4	7.4	0.0
6/15/2019 16:00	2019	1.4	5.0	5.0	5.0	0.0
6/15/2019 17:00	2019	1.4	5.0	5.0	5.0	0.0
6/15/2019 18:00	2019	3.4	12.0	12.0	12.0	0.0
6/15/2019 19:00	2019	0.6	2.1	2.1	2.1	0.0
6/19/2019 16:00	2019	5.5	19.5	19.5	14.3	0.0
6/20/2019 12:00	2019	1	3.5	3.5	3.5	0.0
6/20/2019 13:00	2019	0.9	3.2	3.2	3.2	0.0
6/20/2019 14:00	2019	0.2	0.7	0.7	0.7	0.0
6/25/2019 5:00	2019	0.9	3.2	3.2	3.2	0.0
6/25/2019 6:00	2019	4.6	16.3	16.3	14.3	0.0
6/25/2019 8:00	2019	0.3	1.1	1.1	1.1	0.0

6/26/2019 9:00	2019	1.1	3.9	3.9	3.9	0.0
6/27/2019 21:00	2019	3.1	11.0	11.0	11.0	0.0
6/27/2019 22:00	2019	0.5	1.8	1.8	1.8	0.0
6/28/2019 14:00	2019	4.4	15.6	15.6	14.3	0.0
6/28/2019 15:00	2019	19.6	69.3	35.5	14.3	35.1
6/28/2019 16:00	2019	3.2	11.3	32.5	14.3	0.0
6/29/2019 18:00	2019	0.7	2.5	2.5	2.5	0.0
6/29/2019 19:00	2019	2.6	9.2	9.2	9.2	0.0
6/30/2019 5:00	2019	0.5	1.8	1.8	1.8	0.0
7/5/2019 18:00	2019	14.9	52.7	35.5	14.3	17.2
7/11/2019 4:00	2019	0.7	2.5	2.5	2.5	0.0
7/11/2019 16:00	2019	11.4	40.3	35.5	14.3	4.8
7/11/2019 17:00	2019	1.9	6.7	27.9	14.3	0.0
7/11/2019 18:00	2019	0.6	2.1	15.7	14.3	0.0
7/20/2019 17:00	2019	1.3	4.6	4.6	4.6	0.0
7/30/2019 12:00	2019	0.7	2.5	2.5	2.5	0.0
7/30/2019 13:00	2019	1.1	3.9	3.9	3.9	0.0
7/30/2019 22:00	2019	11.1	39.3	35.5	14.3	3.8
7/30/2019 23:00	2019	0.8	2.8	24.0	14.3	0.0
8/3/2019 12:00	2019	0.2	0.7	0.7	0.7	0.0
8/6/2019 13:00	2019	2.4	8.5	8.5	8.5	0.0
8/6/2019 14:00	2019	2.9	10.3	10.3	10.3	0.0
8/6/2019 15:00	2019	0.8	2.8	2.8	2.8	0.0
8/7/2019 17:00	2019	0.7	2.5	2.5	2.5	0.0
8/7/2019 18:00	2019	0.9	3.2	3.2	3.2	0.0
8/8/2019 15:00	2019	1.3	4.6	4.6	4.6	0.0
8/8/2019 16:00	2019	2.5	8.8	8.8	8.8	0.0
8/9/2019 3:00	2019	0.2	0.7	0.7	0.7	0.0
8/10/2019 15:00	2019	0.4	1.4	1.4	1.4	0.0
8/12/2019 16:00	2019	4.4	15.6	15.6	14.3	0.0
8/12/2019 17:00	2019	0.3	1.1	2.3	2.3	0.0
8/17/2019 5:00	2019	2.1	7.4	7.4	7.4	0.0
8/17/2019 13:00	2019	2.2	7.8	7.8	7.8	0.0
8/17/2019 14:00	2019	0.6	2.1	2.1	2.1	0.0
8/17/2019 16:00	2019	0.2	0.7	0.7	0.7	0.0
8/18/2019 15:00	2019	1.1	3.9	3.9	3.9	0.0
8/18/2019 16:00	2019	1.9	6.7	6.7	6.7	0.0
8/19/2019 7:00	2019	0.2	0.7	0.7	0.7	0.0
8/21/2019 7:00	2019	0.4	1.4	1.4	1.4	0.0
8/28/2019 3:00	2019	0.5	1.8	1.8	1.8	0.0
8/28/2019 4:00	2019	3	10.6	10.6	10.6	0.0
8/28/2019 5:00	2019	3.4	12.0	12.0	12.0	0.0
8/28/2019 6:00	2019	1.9	6.7	6.7	6.7	0.0
8/28/2019 8:00	2019	9.7	34.3	34.3	14.3	0.0
8/28/2019 9:00	2019	10.6	37.5	35.5	14.3	22.0
8/28/2019 10:00	2019	0.4	1.4	22.6	14.3	0.0
8/28/2019 11:00	2019	0.4	1.4	9.7	9.7	0.0
8/30/2019 4:00	2019	6.6	23.3	23.3	14.3	0.0
8/30/2019 5:00	2019	0.9	3.2	12.2	12.2	0.0
8/30/2019 6:00	2019	0.7	2.5	2.5	2.5	0.0
9/2/2019 0:00	2019	0.6	2.1	2.1	2.1	0.0
9/2/2019 1:00	2019	0.9	3.2	3.2	3.2	0.0
9/2/2019 2:00	2019	0.8	2.8	2.8	2.8	0.0
9/2/2019 3:00	2019	0.2	0.7	0.7	0.7	0.0
9/2/2019 20:00	2019	0.3	1.1	1.1	1.1	0.0
9/2/2019 22:00	2019	0.2	0.7	0.7	0.7	0.0
9/3/2019 23:00	2019	0.8	2.8	2.8	2.8	0.0
9/4/2019 0:00	2019	1.5	5.3	5.3	5.3	0.0
9/4/2019 2:00	2019	9.5	33.6	33.6	14.3	0.0
9/4/2019 3:00	2019	1.2	4.2	23.5	14.3	0.0
9/6/2019 15:00	2019	0.3	1.1	1.1	1.1	0.0
9/6/2019 16:00	2019	0.2	0.7	0.7	0.7	0.0
9/6/2019 22:00	2019	3.5	12.4	12.4	12.4	0.0
9/6/2019 23:00	2019	4.6	16.3	16.3	14.3	0.0
9/7/2019 0:00	2019	0.8	2.8	4.8	4.8	0.0
9/7/2019 1:00	2019	0.2	0.7	0.7	0.7	0.0

9/7/2019 2:00	2019	0.2	0.7	0.7	0.7	0.0
9/7/2019 10:00	2019	0.2	0.7	0.7	0.7	0.0
9/10/2019 16:00	2019	0.3	1.1	1.1	1.1	0.0
9/10/2019 17:00	2019	0.5	1.8	1.8	1.8	0.0
9/10/2019 18:00	2019	0.8	2.8	2.8	2.8	0.0
9/10/2019 19:00	2019	0.6	2.1	2.1	2.1	0.0
9/11/2019 0:00	2019	0.7	2.5	2.5	2.5	0.0
9/11/2019 1:00	2019	1.2	4.2	4.2	4.2	0.0
9/11/2019 2:00	2019	0.2	0.7	0.7	0.7	0.0
9/14/2019 1:00	2019	5.1	18.0	18.0	14.3	0.0
9/14/2019 2:00	2019	3.4	12.0	15.7	14.3	0.0
9/23/2019 4:00	2019	0.3	1.1	1.1	1.1	0.0
9/23/2019 5:00	2019	1.6	5.7	5.7	5.7	0.0
9/23/2019 6:00	2019	2.4	8.5	8.5	8.5	0.0
9/23/2019 7:00	2019	3.3	11.7	11.7	11.7	0.0
9/23/2019 8:00	2019	0.7	2.5	2.5	2.5	0.0
9/24/2019 2:00	2019	0.2	0.7	0.7	0.7	0.0
9/24/2019 3:00	2019	0.7	2.5	2.5	2.5	0.0
9/25/2019 7:00	2019	0.2	0.7	0.7	0.7	0.0
9/26/2019 7:00	2019	0.6	2.1	2.1	2.1	0.0
9/26/2019 8:00	2019	0.8	2.8	2.8	2.8	0.0
9/26/2019 9:00	2019	0.6	2.1	2.1	2.1	0.0
9/26/2019 10:00	2019	1.8	6.4	6.4	6.4	0.0
9/26/2019 11:00	2019	0.5	1.8	1.8	1.8	0.0
9/26/2019 12:00	2019	0.2	0.7	0.7	0.7	0.0
9/26/2019 17:00	2019	0.2	0.7	0.7	0.7	0.0
9/27/2019 23:00	2019	1.7	6.0	6.0	6.0	0.0
9/28/2019 0:00	2019	0.3	1.1	1.1	1.1	0.0
9/28/2019 6:00	2019	0.2	0.7	0.7	0.7	0.0
9/28/2019 7:00	2019	1.3	4.6	4.6	4.6	0.0
9/28/2019 8:00	2019	2.9	10.3	10.3	10.3	0.0
9/28/2019 9:00	2019	1	3.5	3.5	3.5	0.0
9/28/2019 10:00	2019	0.8	2.8	2.8	2.8	0.0
9/28/2019 13:00	2019	0.4	1.4	1.4	1.4	0.0
9/28/2019 14:00	2019	0.3	1.1	1.1	1.1	0.0
9/29/2019 4:00	2019	0.2	0.7	0.7	0.7	0.0
9/30/2019 22:00	2019	0.3	1.1	1.1	1.1	0.0
9/30/2019 23:00	2019	2.5	8.8	8.8	8.8	0.0
10/1/2019 0:00	2019	0.4	1.4	1.4	1.4	0.0
10/1/2019 3:00	2019	0.5	1.8	1.8	1.8	0.0
10/1/2019 5:00	2019	0.7	2.5	2.5	2.5	0.0
10/1/2019 6:00	2019	1.4	5.0	5.0	5.0	0.0
10/1/2019 12:00	2019	17.8	63.0	35.5	14.3	27.5
10/1/2019 21:00	2019	0.3	1.1	1.1	1.1	0.0
10/2/2019 0:00	2019	0.2	0.7	0.7	0.7	0.0
10/3/2019 20:00	2019	0.2	0.7	0.7	0.7	0.0
10/3/2019 21:00	2019	1.5	5.3	5.3	5.3	0.0
10/3/2019 22:00	2019	0.6	2.1	2.1	2.1	0.0
10/3/2019 23:00	2019	0.3	1.1	1.1	1.1	0.0
10/4/2019 0:00	2019	0.2	0.7	0.7	0.7	0.0
10/4/2019 1:00	2019	0.3	1.1	1.1	1.1	0.0
10/4/2019 2:00	2019	0.2	0.7	0.7	0.7	0.0
10/6/2019 8:00	2019	0.3	1.1	1.1	1.1	0.0
10/6/2019 9:00	2019	0.2	0.7	0.7	0.7	0.0
10/12/2019 14:00	2019	0.3	1.1	1.1	1.1	0.0
10/12/2019 17:00	2019	0.5	1.8	1.8	1.8	0.0
10/12/2019 18:00	2019	0.9	3.2	3.2	3.2	0.0
10/12/2019 21:00	2019	0.3	1.1	1.1	1.1	0.0
10/14/2019 10:00	2019	0.3	1.1	1.1	1.1	0.0
10/16/2019 16:00	2019	1.2	4.2	4.2	4.2	0.0
10/16/2019 17:00	2019	2	7.1	7.1	7.1	0.0
10/16/2019 18:00	2019	1.6	5.7	5.7	5.7	0.0
10/16/2019 19:00	2019	1.9	6.7	6.7	6.7	0.0
10/16/2019 20:00	2019	4.1	14.5	14.5	14.3	0.0
10/16/2019 21:00	2019	4	14.1	14.3	14.3	0.0
10/16/2019 22:00	2019	1.1	3.9	3.9	3.9	0.0

10/16/2019 23:00	2019	0.9	3.2	3.2	3.2	0.0
10/17/2019 0:00	2019	0.6	2.1	2.1	2.1	0.0
10/17/2019 1:00	2019	1.5	5.3	5.3	5.3	0.0
10/17/2019 2:00	2019	1.8	6.4	6.4	6.4	0.0
10/17/2019 3:00	2019	0.8	2.8	2.8	2.8	0.0
10/17/2019 4:00	2019	1.5	5.3	5.3	5.3	0.0
10/17/2019 5:00	2019	2	7.1	7.1	7.1	0.0
10/17/2019 6:00	2019	1.6	5.7	5.7	5.7	0.0
10/17/2019 7:00	2019	0.5	1.8	1.8	1.8	0.0
10/17/2019 8:00	2019	0.2	0.7	0.7	0.7	0.0
10/17/2019 10:00	2019	0.3	1.1	1.1	1.1	0.0
10/17/2019 12:00	2019	0.3	1.1	1.1	1.1	0.0
10/17/2019 13:00	2019	0.7	2.5	2.5	2.5	0.0
10/17/2019 14:00	2019	1.2	4.2	4.2	4.2	0.0
10/17/2019 19:00	2019	0.2	0.7	0.7	0.7	0.0
10/22/2019 12:00	2019	1.1	3.9	3.9	3.9	0.0
10/22/2019 14:00	2019	0.4	1.4	1.4	1.4	0.0
10/22/2019 15:00	2019	0.3	1.1	1.1	1.1	0.0
10/22/2019 16:00	2019	3.4	12.0	12.0	12.0	0.0
10/22/2019 17:00	2019	6.8	24.1	24.1	14.3	0.0
10/22/2019 18:00	2019	5.8	20.5	30.2	14.3	0.0
10/22/2019 19:00	2019	2.9	10.3	26.2	14.3	0.0
10/22/2019 20:00	2019	2.4	8.5	20.3	14.3	0.0
10/22/2019 21:00	2019	0.5	1.8	7.8	7.8	0.0
10/22/2019 22:00	2019	0.6	2.1	2.1	2.1	0.0
10/27/2019 4:00	2019	1.7	6.0	6.0	6.0	0.0
10/27/2019 5:00	2019	1	3.5	3.5	3.5	0.0
10/27/2019 6:00	2019	3	10.6	10.6	10.6	0.0
10/27/2019 7:00	2019	8.6	30.4	30.4	14.3	0.0
10/27/2019 8:00	2019	6.5	23.0	35.5	14.3	3.6
10/27/2019 9:00	2019	3	10.6	31.8	14.3	0.0
10/27/2019 10:00	2019	2.6	9.2	26.6	14.3	0.0
10/27/2019 11:00	2019	1	3.5	15.8	14.3	0.0
10/27/2019 12:00	2019	0.3	1.1	2.6	2.6	0.0
10/27/2019 13:00	2019	0.7	2.5	2.5	2.5	0.0
10/27/2019 14:00	2019	1.5	5.3	5.3	5.3	0.0
10/27/2019 15:00	2019	0.6	2.1	2.1	2.1	0.0
10/27/2019 16:00	2019	0.8	2.8	2.8	2.8	0.0
10/27/2019 17:00	2019	0.7	2.5	2.5	2.5	0.0
10/27/2019 18:00	2019	0.2	0.7	0.7	0.7	0.0
10/30/2019 12:00	2019	0.5	1.8	1.8	1.8	0.0
10/30/2019 16:00	2019	0.2	0.7	0.7	0.7	0.0
10/30/2019 17:00	2019	0.3	1.1	1.1	1.1	0.0
10/30/2019 18:00	2019	0.5	1.8	1.8	1.8	0.0
10/30/2019 19:00	2019	0.3	1.1	1.1	1.1	0.0
10/30/2019 20:00	2019	0.3	1.1	1.1	1.1	0.0
10/30/2019 21:00	2019	1	3.5	3.5	3.5	0.0
10/30/2019 22:00	2019	0.2	0.7	0.7	0.7	0.0
10/30/2019 23:00	2019	0.3	1.1	1.1	1.1	0.0
10/31/2019 0:00	2019	1.1	3.9	3.9	3.9	0.0
10/31/2019 1:00	2019	0.5	1.8	1.8	1.8	0.0
10/31/2019 2:00	2019	0.5	1.8	1.8	1.8	0.0
10/31/2019 3:00	2019	0.5	1.8	1.8	1.8	0.0
10/31/2019 5:00	2019	0.2	0.7	0.7	0.7	0.0
10/31/2019 6:00	2019	1.1	3.9	3.9	3.9	0.0
10/31/2019 7:00	2019	0.5	1.8	1.8	1.8	0.0
10/31/2019 8:00	2019	0.3	1.1	1.1	1.1	0.0
10/31/2019 12:00	2019	0.3	1.1	1.1	1.1	0.0
10/31/2019 13:00	2019	2.3	8.1	8.1	8.1	0.0
10/31/2019 14:00	2019	2.2	7.8	7.8	7.8	0.0
10/31/2019 15:00	2019	2.1	7.4	7.4	7.4	0.0
10/31/2019 16:00	2019	2.7	9.5	9.5	9.5	0.0
10/31/2019 17:00	2019	1.6	5.7	5.7	5.7	0.0
10/31/2019 18:00	2019	3.8	13.4	13.4	13.4	0.0
10/31/2019 19:00	2019	1.1	3.9	3.9	3.9	0.0
10/31/2019 20:00	2019	1.2	4.2	4.2	4.2	0.0

10/31/2019 21:00	2019	0.3	1.1	1.1	1.1	0.0
10/31/2019 22:00	2019	2	7.1	7.1	7.1	0.0
10/31/2019 23:00	2019	8.7	30.8	30.8	14.3	0.0
11/1/2019 0:00	2019	6.1	21.6	35.5	14.3	2.6
11/1/2019 1:00	2019	0.7	2.5	23.6	14.3	0.0
11/1/2019 2:00	2019	0.2	0.7	10.0	10.0	0.0
11/1/2019 5:00	2019	0.3	1.1	1.1	1.1	0.0
11/2/2019 13:00	2019	0.3	1.1	1.1	1.1	0.0
11/2/2019 14:00	2019	0.5	1.8	1.8	1.8	0.0
11/2/2019 15:00	2019	1	3.5	3.5	3.5	0.0
11/2/2019 16:00	2019	0.5	1.8	1.8	1.8	0.0
11/2/2019 17:00	2019	0.6	2.1	2.1	2.1	0.0
11/2/2019 18:00	2019	0.5	1.8	1.8	1.8	0.0
11/2/2019 19:00	2019	1.3	4.6	4.6	4.6	0.0
11/2/2019 20:00	2019	0.7	2.5	2.5	2.5	0.0
11/2/2019 21:00	2019	0.2	0.7	0.7	0.7	0.0
11/3/2019 10:00	2019	0.3	1.1	1.1	1.1	0.0
11/3/2019 16:00	2019	0.2	0.7	0.7	0.7	0.0
11/3/2019 18:00	2019	0.3	1.1	1.1	1.1	0.0
11/4/2019 12:00	2019	0.2	0.7	0.7	0.7	0.0
11/7/2019 4:00	2019	0.3	1.1	1.1	1.1	0.0
11/7/2019 5:00	2019	0.6	2.1	2.1	2.1	0.0
11/7/2019 6:00	2019	0.3	1.1	1.1	1.1	0.0
11/7/2019 7:00	2019	0.3	1.1	1.1	1.1	0.0
11/7/2019 8:00	2019	0.8	2.8	2.8	2.8	0.0
11/7/2019 9:00	2019	0.3	1.1	1.1	1.1	0.0
11/7/2019 11:00	2019	0.3	1.1	1.1	1.1	0.0
11/7/2019 12:00	2019	0.2	0.7	0.7	0.7	0.0
11/7/2019 13:00	2019	0.2	0.7	0.7	0.7	0.0
11/7/2019 23:00	2019	0.2	0.7	0.7	0.7	0.0
11/9/2019 18:00	2019	0.3	1.1	1.1	1.1	0.0
11/11/2019 4:00	2019	0.2	0.7	0.7	0.7	0.0
11/11/2019 17:00	2019	0.7	2.5	2.5	2.5	0.0
11/11/2019 18:00	2019	0.3	1.1	1.1	1.1	0.0
11/11/2019 19:00	2019	0.6	2.1	2.1	2.1	0.0
11/11/2019 20:00	2019	0.8	2.8	2.8	2.8	0.0
11/11/2019 21:00	2019	0.8	2.8	2.8	2.8	0.0
11/11/2019 22:00	2019	0.7	2.5	2.5	2.5	0.0
11/11/2019 23:00	2019	0.9	3.2	3.2	3.2	0.0
11/12/2019 0:00	2019	0.6	2.1	2.1	2.1	0.0
11/12/2019 1:00	2019	0.6	2.1	2.1	2.1	0.0
11/12/2019 2:00	2019	0.3	1.1	1.1	1.1	0.0
11/12/2019 3:00	2019	0.2	0.7	0.7	0.7	0.0
11/12/2019 4:00	2019	0.5	1.8	1.8	1.8	0.0
11/12/2019 5:00	2019	0.3	1.1	1.1	1.1	0.0
11/12/2019 6:00	2019	0.2	0.7	0.7	0.7	0.0
11/13/2019 2:00	2019	0.2	0.7	0.7	0.7	0.0
11/15/2019 14:00	2019	0.3	1.1	1.1	1.1	0.0
11/21/2019 21:00	2019	1.8	6.4	6.4	6.4	0.0
11/22/2019 0:00	2019	0.2	0.7	0.7	0.7	0.0
11/22/2019 3:00	2019	0.6	2.1	2.1	2.1	0.0
11/22/2019 10:00	2019	0.3	1.1	1.1	1.1	0.0
11/27/2019 10:00	2019	0.2	0.7	0.7	0.7	0.0
11/27/2019 11:00	2019	0.8	2.8	2.8	2.8	0.0
11/27/2019 12:00	2019	1	3.5	3.5	3.5	0.0
11/27/2019 13:00	2019	0.3	1.1	1.1	1.1	0.0
11/27/2019 15:00	2019	0.6	2.1	2.1	2.1	0.0
11/27/2019 16:00	2019	2.9	10.3	10.3	10.3	0.0
11/27/2019 17:00	2019	3.9	13.8	13.8	13.8	0.0
11/27/2019 18:00	2019	0.3	1.1	1.1	1.1	0.0
11/27/2019 20:00	2019	0.2	0.7	0.7	0.7	0.0
11/27/2019 21:00	2019	2.1	7.4	7.4	7.4	0.0
11/27/2019 22:00	2019	2.4	8.5	8.5	8.5	0.0
11/27/2019 23:00	2019	1.7	6.0	6.0	6.0	0.0
11/28/2019 0:00	2019	1.4	5.0	5.0	5.0	0.0
11/28/2019 1:00	2019	0.4	1.4	1.4	1.4	0.0

11/28/2019 2:00	2019	0.3	1.1	1.1	1.1	0.0
12/4/2019 12:00	2019	0.2	0.7	0.7	0.7	0.0
12/4/2019 13:00	2019	0.2	0.7	0.7	0.7	0.0
12/4/2019 16:00	2019	0.2	0.7	0.7	0.7	0.0
12/4/2019 18:00	2019	0.2	0.7	0.7	0.7	0.0
12/4/2019 19:00	2019	0.2	0.7	0.7	0.7	0.0
12/4/2019 20:00	2019	0.8	2.8	2.8	2.8	0.0
12/4/2019 23:00	2019	0.2	0.7	0.7	0.7	0.0
12/5/2019 6:00	2019	0.2	0.7	0.7	0.7	0.0
12/6/2019 7:00	2019	0.2	0.7	0.7	0.7	0.0
12/6/2019 8:00	2019	0.2	0.7	0.7	0.7	0.0
12/6/2019 9:00	2019	0.2	0.7	0.7	0.7	0.0
12/6/2019 10:00	2019	0.2	0.7	0.7	0.7	0.0
12/9/2019 9:00	2019	1.2	4.2	4.2	4.2	0.0
12/9/2019 10:00	2019	0.2	0.7	0.7	0.7	0.0
12/9/2019 15:00	2019	0.5	1.8	1.8	1.8	0.0
12/9/2019 16:00	2019	1.7	6.0	6.0	6.0	0.0
12/9/2019 17:00	2019	1.3	4.6	4.6	4.6	0.0
12/9/2019 18:00	2019	1.5	5.3	5.3	5.3	0.0
12/9/2019 19:00	2019	0.7	2.5	2.5	2.5	0.0
12/9/2019 21:00	2019	0.2	0.7	0.7	0.7	0.0
12/10/2019 3:00	2019	0.3	1.1	1.1	1.1	0.0
12/10/2019 6:00	2019	0.3	1.1	1.1	1.1	0.0
12/14/2019 6:00	2019	0.2	0.7	0.7	0.7	0.0
12/14/2019 8:00	2019	0.6	2.1	2.1	2.1	0.0
12/14/2019 9:00	2019	2.1	7.4	7.4	7.4	0.0
12/14/2019 10:00	2019	0.6	2.1	2.1	2.1	0.0
12/14/2019 11:00	2019	0.5	1.8	1.8	1.8	0.0
12/14/2019 12:00	2019	0.4	1.4	1.4	1.4	0.0
12/14/2019 13:00	2019	0.2	0.7	0.7	0.7	0.0
12/14/2019 14:00	2019	0.2	0.7	0.7	0.7	0.0
12/14/2019 15:00	2019	0.3	1.1	1.1	1.1	0.0
12/14/2019 16:00	2019	0.5	1.8	1.8	1.8	0.0
12/14/2019 17:00	2019	1.4	5.0	5.0	5.0	0.0
12/14/2019 18:00	2019	3.3	11.7	11.7	11.7	0.0
12/14/2019 19:00	2019	1.8	6.4	6.4	6.4	0.0
12/14/2019 20:00	2019	1.7	6.0	6.0	6.0	0.0
12/14/2019 21:00	2019	1.9	6.7	6.7	6.7	0.0
12/14/2019 22:00	2019	0.2	0.7	0.7	0.7	0.0
12/14/2019 23:00	2019	0.4	1.4	1.4	1.4	0.0
12/15/2019 0:00	2019	1.9	6.7	6.7	6.7	0.0
12/15/2019 1:00	2019	1.9	6.7	6.7	6.7	0.0
12/15/2019 2:00	2019	0.2	0.7	0.7	0.7	0.0
12/17/2019 17:00	2019	0.3	1.1	1.1	1.1	0.0
12/17/2019 18:00	2019	0.3	1.1	1.1	1.1	0.0
12/17/2019 23:00	2019	0.4	1.4	1.4	1.4	0.0
12/18/2019 5:00	2019	0.2	0.7	0.7	0.7	0.0
12/26/2019 21:00	2019	0.2	0.7	0.7	0.7	0.0
12/27/2019 13:00	2019	0.3	1.1	1.1	1.1	0.0
12/27/2019 15:00	2019	0.8	2.8	2.8	2.8	0.0
12/27/2019 16:00	2019	0.4	1.4	1.4	1.4	0.0
12/28/2019 8:00	2019	0.2	0.7	0.7	0.7	0.0
12/29/2019 20:00	2019	0.6	2.1	2.1	2.1	0.0
12/30/2019 8:00	2019	0.2	0.7	0.7	0.7	0.0
12/30/2019 9:00	2019	1	3.5	3.5	3.5	0.0
12/30/2019 10:00	2019	1.4	5.0	5.0	5.0	0.0
12/30/2019 11:00	2019	1	3.5	3.5	3.5	0.0
12/30/2019 12:00	2019	1.5	5.3	5.3	5.3	0.0
12/30/2019 13:00	2019	1.6	5.7	5.7	5.7	0.0
12/30/2019 14:00	2019	0.6	2.1	2.1	2.1	0.0
12/30/2019 15:00	2019	0.6	2.1	2.1	2.1	0.0
12/30/2019 16:00	2019	0.6	2.1	2.1	2.1	0.0
12/30/2019 17:00	2019	0.2	0.7	0.7	0.7	0.0
12/30/2019 18:00	2019	0.5	1.8	1.8	1.8	0.0
12/30/2019 19:00	2019	0.5	1.8	1.8	1.8	0.0
12/30/2019 20:00	2019	0.4	1.4	1.4	1.4	0.0

12/30/2019 21:00	2019	0.9	3.2	3.2	3.2	0.0
12/30/2019 22:00	2019	0.8	2.8	2.8	2.8	0.0
12/30/2019 23:00	2019	0.4	1.4	1.4	1.4	0.0
12/31/2019 0:00	2019	0.8	2.8	2.8	2.8	0.0
12/31/2019 1:00	2019	0.6	2.1	2.1	2.1	0.0
12/31/2019 2:00	2019	0.3	1.1	1.1	1.1	0.0
12/31/2019 3:00	2019	0.5	1.8	1.8	1.8	0.0
12/31/2019 4:00	2019	0.3	1.1	1.1	1.1	0.0
12/31/2019 5:00	2019	0.5	1.8	1.8	1.8	0.0
12/31/2019 6:00	2019	0.4	1.4	1.4	1.4	0.0
12/31/2019 7:00	2019	0.6	2.1	2.1	2.1	0.0
12/31/2019 8:00	2019	0.3	1.1	1.1	1.1	0.0
12/31/2019 9:00	2019	0.2	0.7	0.7	0.7	0.0
12/31/2019 11:00	2019	0.9	3.2	3.2	3.2	0.0
12/31/2019 12:00	2019	1.2	4.2	4.2	4.2	0.0
12/31/2019 13:00	2019	0.7	2.5	2.5	2.5	0.0
12/31/2019 14:00	2019	0.3	1.1	1.1	1.1	0.0
12/31/2019 15:00	2019	0.2	0.7	0.7	0.7	0.0
12/31/2019 16:00	2019	0.2	0.7	0.7	0.7	0.0
12/31/2019 17:00	2019	0.7	2.5	2.5	2.5	0.0
12/31/2019 18:00	2019	0.6	2.1	2.1	2.1	0.0
12/31/2019 21:00	2019	0.2	0.7	0.7	0.7	0.0
1/1/2020 12:00	2020	0.3	0.0	0.0	0.0	0.0
1/4/2020 11:00	2020	0.5	0.0	0.0	0.0	0.0
1/4/2020 12:00	2020	0.6	0.0	0.0	0.0	0.0
1/4/2020 13:00	2020	0.2	0.0	0.0	0.0	0.0
1/4/2020 14:00	2020	0.2	0.0	0.0	0.0	0.0
1/4/2020 15:00	2020	0.2	0.0	0.0	0.0	0.0
1/4/2020 16:00	2020	0.3	0.0	0.0	0.0	0.0
1/4/2020 17:00	2020	0.2	0.0	0.0	0.0	0.0
1/6/2020 6:00	2020	0.2	0.0	0.0	0.0	0.0
1/6/2020 7:00	2020	0.2	0.0	0.0	0.0	0.0
1/6/2020 9:00	2020	0.3	0.0	0.0	0.0	0.0
1/6/2020 10:00	2020	0.2	0.0	0.0	0.0	0.0
1/6/2020 11:00	2020	0.5	0.0	0.0	0.0	0.0
1/6/2020 12:00	2020	0.6	0.0	0.0	0.0	0.0
1/6/2020 13:00	2020	0.3	0.0	0.0	0.0	0.0
1/6/2020 14:00	2020	0.2	0.0	0.0	0.0	0.0
1/6/2020 15:00	2020	0.2	0.0	0.0	0.0	0.0
1/6/2020 19:00	2020	0.2	0.0	0.0	0.0	0.0
1/8/2020 4:00	2020	0.2	0.0	0.0	0.0	0.0
1/8/2020 5:00	2020	0.2	0.0	0.0	0.0	0.0
1/8/2020 16:00	2020	0.2	0.0	0.0	0.0	0.0
1/11/2020 3:00	2020	0.2	0.0	0.0	0.0	0.0
1/11/2020 4:00	2020	0.8	0.0	0.0	0.0	0.0
1/11/2020 5:00	2020	1.6	0.0	0.0	0.0	0.0
1/11/2020 6:00	2020	2.1	0.0	0.0	0.0	0.0
1/11/2020 7:00	2020	1.1	0.0	0.0	0.0	0.0
1/11/2020 8:00	2020	1.1	0.0	0.0	0.0	0.0
1/11/2020 9:00	2020	1.9	0.0	0.0	0.0	0.0
1/11/2020 10:00	2020	2.7	0.0	0.0	0.0	0.0
1/11/2020 11:00	2020	2.6	0.0	0.0	0.0	0.0
1/11/2020 12:00	2020	2.3	0.0	0.0	0.0	0.0
1/11/2020 13:00	2020	3.4	0.0	0.0	0.0	0.0
1/11/2020 14:00	2020	1	0.0	0.0	0.0	0.0
1/11/2020 15:00	2020	0.9	0.0	0.0	0.0	0.0
1/11/2020 16:00	2020	2.4	0.0	0.0	0.0	0.0
1/11/2020 17:00	2020	1.2	0.0	0.0	0.0	0.0
1/11/2020 18:00	2020	2.2	0.0	0.0	0.0	0.0
1/11/2020 19:00	2020	3.6	0.0	0.0	0.0	0.0
1/11/2020 20:00	2020	3.1	0.0	0.0	0.0	0.0
1/11/2020 21:00	2020	1.5	0.0	0.0	0.0	0.0
1/11/2020 22:00	2020	0.2	0.0	0.0	0.0	0.0
1/11/2020 23:00	2020	0.6	0.0	0.0	0.0	0.0
1/12/2020 0:00	2020	1.6	0.0	0.0	0.0	0.0
1/12/2020 1:00	2020	1.3	0.0	0.0	0.0	0.0

1/12/2020 2:00	2020	1.8	0.0	0.0	0.0	0.0
1/12/2020 3:00	2020	0.9	0.0	0.0	0.0	0.0
1/12/2020 4:00	2020	0.5	0.0	0.0	0.0	0.0
1/12/2020 5:00	2020	3.2	0.0	0.0	0.0	0.0
1/12/2020 6:00	2020	1.6	0.0	0.0	0.0	0.0
1/12/2020 7:00	2020	0.3	0.0	0.0	0.0	0.0
1/12/2020 8:00	2020	0.5	0.0	0.0	0.0	0.0
1/12/2020 9:00	2020	0.6	0.0	0.0	0.0	0.0
1/12/2020 10:00	2020	0.2	0.0	0.0	0.0	0.0
1/12/2020 11:00	2020	0.2	0.0	0.0	0.0	0.0
1/13/2020 10:00	2020	0.2	0.0	0.0	0.0	0.0
1/14/2020 0:00	2020	0.2	0.0	0.0	0.0	0.0
1/15/2020 3:00	2020	0.2	0.0	0.0	0.0	0.0
1/15/2020 13:00	2020	0.3	0.0	0.0	0.0	0.0
1/15/2020 20:00	2020	0.2	0.0	0.0	0.0	0.0
1/16/2020 2:00	2020	0.3	0.0	0.0	0.0	0.0
1/16/2020 3:00	2020	0.2	0.0	0.0	0.0	0.0
1/16/2020 4:00	2020	0.9	0.0	0.0	0.0	0.0
1/16/2020 5:00	2020	0.6	0.0	0.0	0.0	0.0
1/16/2020 6:00	2020	0.8	0.0	0.0	0.0	0.0
1/16/2020 7:00	2020	0.6	0.0	0.0	0.0	0.0
1/16/2020 10:00	2020	0.2	0.0	0.0	0.0	0.0
1/18/2020 17:00	2020	0.4	0.0	0.0	0.0	0.0
1/18/2020 18:00	2020	0.7	0.0	0.0	0.0	0.0
1/18/2020 19:00	2020	0.5	0.0	0.0	0.0	0.0
1/18/2020 20:00	2020	1.4	0.0	0.0	0.0	0.0
1/18/2020 21:00	2020	0.7	0.0	0.0	0.0	0.0
1/18/2020 22:00	2020	0.5	0.0	0.0	0.0	0.0
1/18/2020 23:00	2020	0.7	0.0	0.0	0.0	0.0
1/19/2020 0:00	2020	0.8	0.0	0.0	0.0	0.0
1/19/2020 1:00	2020	0.4	0.0	0.0	0.0	0.0
1/19/2020 2:00	2020	0.3	0.0	0.0	0.0	0.0
1/19/2020 3:00	2020	0.6	0.0	0.0	0.0	0.0
1/19/2020 4:00	2020	0.6	0.0	0.0	0.0	0.0
1/19/2020 5:00	2020	0.5	0.0	0.0	0.0	0.0
1/19/2020 7:00	2020	0.2	0.0	0.0	0.0	0.0
1/19/2020 10:00	2020	0.2	0.0	0.0	0.0	0.0
1/25/2020 14:00	2020	1.3	0.0	0.0	0.0	0.0
1/25/2020 15:00	2020	1.5	0.0	0.0	0.0	0.0
1/25/2020 16:00	2020	2.8	0.0	0.0	0.0	0.0
1/25/2020 17:00	2020	2.6	0.0	0.0	0.0	0.0
1/25/2020 18:00	2020	1.7	0.0	0.0	0.0	0.0
1/25/2020 19:00	2020	0.8	0.0	0.0	0.0	0.0
1/25/2020 20:00	2020	0.3	0.0	0.0	0.0	0.0
1/25/2020 21:00	2020	0.2	0.0	0.0	0.0	0.0
1/25/2020 22:00	2020	1.1	0.0	0.0	0.0	0.0
1/25/2020 23:00	2020	0.2	0.0	0.0	0.0	0.0
1/26/2020 0:00	2020	1.5	0.0	0.0	0.0	0.0
1/26/2020 1:00	2020	0.4	0.0	0.0	0.0	0.0
1/26/2020 2:00	2020	0.2	0.0	0.0	0.0	0.0
1/26/2020 3:00	2020	0.2	0.0	0.0	0.0	0.0
1/26/2020 5:00	2020	0.2	0.0	0.0	0.0	0.0
1/26/2020 7:00	2020	0.3	0.0	0.0	0.0	0.0
1/26/2020 8:00	2020	0.2	0.0	0.0	0.0	0.0
1/26/2020 9:00	2020	2.1	0.0	0.0	0.0	0.0
1/26/2020 10:00	2020	1.2	0.0	0.0	0.0	0.0
1/26/2020 11:00	2020	1.5	0.0	0.0	0.0	0.0
1/26/2020 12:00	2020	0.7	0.0	0.0	0.0	0.0
1/26/2020 13:00	2020	0.6	0.0	0.0	0.0	0.0
1/26/2020 14:00	2020	1	0.0	0.0	0.0	0.0
1/26/2020 15:00	2020	0.5	0.0	0.0	0.0	0.0
1/26/2020 16:00	2020	0.3	0.0	0.0	0.0	0.0
1/26/2020 17:00	2020	0.2	0.0	0.0	0.0	0.0
1/26/2020 18:00	2020	0.5	0.0	0.0	0.0	0.0
1/26/2020 19:00	2020	0.2	0.0	0.0	0.0	0.0
1/26/2020 20:00	2020	0.6	0.0	0.0	0.0	0.0

1/26/2020 21:00	2020	0.7	0.0	0.0	0.0	0.0
1/26/2020 22:00	2020	0.3	0.0	0.0	0.0	0.0
1/26/2020 23:00	2020	0.2	0.0	0.0	0.0	0.0
1/27/2020 2:00	2020	0.2	0.0	0.0	0.0	0.0
1/28/2020 6:00	2020	0.4	0.0	0.0	0.0	0.0
1/28/2020 7:00	2020	1.2	0.0	0.0	0.0	0.0
1/28/2020 8:00	2020	0.3	0.0	0.0	0.0	0.0
2/1/2020 3:00	2020	0.2	0.0	0.0	0.0	0.0
2/2/2020 3:00	2020	0.2	0.0	0.0	0.0	0.0
2/2/2020 4:00	2020	0.5	0.0	0.0	0.0	0.0
2/2/2020 9:00	2020	0.2	0.0	0.0	0.0	0.0
2/2/2020 10:00	2020	0.4	0.0	0.0	0.0	0.0
2/2/2020 11:00	2020	0.2	0.0	0.0	0.0	0.0
2/2/2020 12:00	2020	0.6	0.0	0.0	0.0	0.0
2/6/2020 6:00	2020	0.2	0.0	0.0	0.0	0.0
2/6/2020 8:00	2020	0.2	0.0	0.0	0.0	0.0
2/6/2020 9:00	2020	0.2	0.0	0.0	0.0	0.0
2/6/2020 11:00	2020	0.4	0.0	0.0	0.0	0.0
2/6/2020 14:00	2020	0.5	0.0	0.0	0.0	0.0
2/6/2020 19:00	2020	0.2	0.0	0.0	0.0	0.0
2/6/2020 22:00	2020	0.2	0.0	0.0	0.0	0.0
2/6/2020 23:00	2020	0.2	0.0	0.0	0.0	0.0
2/7/2020 0:00	2020	1.2	0.0	0.0	0.0	0.0
2/7/2020 1:00	2020	1.4	0.0	0.0	0.0	0.0
2/7/2020 2:00	2020	2	0.0	0.0	0.0	0.0
2/7/2020 3:00	2020	0.9	0.0	0.0	0.0	0.0
2/7/2020 4:00	2020	0.9	0.0	0.0	0.0	0.0
2/7/2020 5:00	2020	0.9	0.0	0.0	0.0	0.0
2/7/2020 6:00	2020	0.8	0.0	0.0	0.0	0.0
2/7/2020 7:00	2020	0.3	0.0	0.0	0.0	0.0
2/7/2020 12:00	2020	0.3	0.0	0.0	0.0	0.0
2/7/2020 13:00	2020	0.5	0.0	0.0	0.0	0.0
2/7/2020 14:00	2020	0.6	0.0	0.0	0.0	0.0
2/7/2020 15:00	2020	0.3	0.0	0.0	0.0	0.0
2/7/2020 16:00	2020	0.2	0.0	0.0	0.0	0.0
2/9/2020 23:00	2020	0.2	0.0	0.0	0.0	0.0
2/10/2020 0:00	2020	0.7	0.0	0.0	0.0	0.0
2/10/2020 1:00	2020	1.3	0.0	0.0	0.0	0.0
2/10/2020 2:00	2020	0.6	0.0	0.0	0.0	0.0
2/10/2020 3:00	2020	0.5	0.0	0.0	0.0	0.0
2/10/2020 4:00	2020	0.7	0.0	0.0	0.0	0.0
2/10/2020 5:00	2020	0.6	0.0	0.0	0.0	0.0
2/10/2020 6:00	2020	0.8	0.0	0.0	0.0	0.0
2/10/2020 7:00	2020	0.2	0.0	0.0	0.0	0.0
2/10/2020 8:00	2020	0.2	0.0	0.0	0.0	0.0
2/10/2020 9:00	2020	0.3	0.0	0.0	0.0	0.0
2/10/2020 13:00	2020	0.2	0.0	0.0	0.0	0.0
2/13/2020 7:00	2020	0.2	0.0	0.0	0.0	0.0
2/13/2020 8:00	2020	0.3	0.0	0.0	0.0	0.0
2/13/2020 10:00	2020	0.2	0.0	0.0	0.0	0.0
2/13/2020 12:00	2020	0.2	0.0	0.0	0.0	0.0
2/13/2020 13:00	2020	0.2	0.0	0.0	0.0	0.0
2/13/2020 16:00	2020	0.2	0.0	0.0	0.0	0.0
2/18/2020 8:00	2020	0.9	0.0	0.0	0.0	0.0
2/18/2020 9:00	2020	0.9	0.0	0.0	0.0	0.0
2/18/2020 10:00	2020	0.3	0.0	0.0	0.0	0.0
2/18/2020 11:00	2020	0.4	0.0	0.0	0.0	0.0
2/18/2020 13:00	2020	0.2	0.0	0.0	0.0	0.0
2/18/2020 14:00	2020	0.3	0.0	0.0	0.0	0.0
2/18/2020 17:00	2020	0.2	0.0	0.0	0.0	0.0
2/18/2020 18:00	2020	0.2	0.0	0.0	0.0	0.0
2/26/2020 17:00	2020	0.2	0.0	0.0	0.0	0.0
2/26/2020 18:00	2020	0.2	0.0	0.0	0.0	0.0
2/26/2020 19:00	2020	0.8	0.0	0.0	0.0	0.0
2/26/2020 20:00	2020	0.6	0.0	0.0	0.0	0.0
2/26/2020 21:00	2020	1	0.0	0.0	0.0	0.0

2/26/2020 22:00	2020	0.5	0.0	0.0	0.0	0.0
2/26/2020 23:00	2020	0.4	0.0	0.0	0.0	0.0
2/27/2020 0:00	2020	0.7	0.0	0.0	0.0	0.0
2/27/2020 1:00	2020	0.5	0.0	0.0	0.0	0.0
2/27/2020 2:00	2020	3.1	0.0	0.0	0.0	0.0
2/27/2020 3:00	2020	1.6	0.0	0.0	0.0	0.0
2/27/2020 4:00	2020	0.2	0.0	0.0	0.0	0.0
2/27/2020 5:00	2020	0.5	0.0	0.0	0.0	0.0
2/27/2020 6:00	2020	0.8	0.0	0.0	0.0	0.0
2/27/2020 7:00	2020	0.5	0.0	0.0	0.0	0.0
2/27/2020 8:00	2020	0.5	0.0	0.0	0.0	0.0
2/27/2020 9:00	2020	9	0.0	0.0	0.0	0.0
2/27/2020 10:00	2020	1.5	0.0	0.0	0.0	0.0
2/27/2020 11:00	2020	2.3	0.0	0.0	0.0	0.0
2/27/2020 12:00	2020	0.3	0.0	0.0	0.0	0.0
2/27/2020 13:00	2020	0.3	0.0	0.0	0.0	0.0
2/27/2020 14:00	2020	0.2	0.0	0.0	0.0	0.0
2/27/2020 16:00	2020	0.2	0.0	0.0	0.0	0.0
2/27/2020 20:00	2020	0.2	0.0	0.0	0.0	0.0
3/2/2020 0:00	2020	0.6	0.0	0.0	0.0	0.0
3/2/2020 1:00	2020	1.1	0.0	0.0	0.0	0.0
3/2/2020 2:00	2020	0.2	0.0	0.0	0.0	0.0
3/2/2020 15:00	2020	1.3	0.0	0.0	0.0	0.0
3/2/2020 16:00	2020	1	0.0	0.0	0.0	0.0
3/2/2020 17:00	2020	0.2	0.0	0.0	0.0	0.0
3/3/2020 11:00	2020	0.2	0.0	0.0	0.0	0.0
3/3/2020 16:00	2020	0.3	0.0	0.0	0.0	0.0
3/3/2020 17:00	2020	2	0.0	0.0	0.0	0.0
3/3/2020 18:00	2020	2	0.0	0.0	0.0	0.0
3/3/2020 19:00	2020	0.8	0.0	0.0	0.0	0.0
3/3/2020 20:00	2020	2.9	0.0	0.0	0.0	0.0
3/3/2020 21:00	2020	3.1	0.0	0.0	0.0	0.0
3/3/2020 22:00	2020	1.6	0.0	0.0	0.0	0.0
3/3/2020 23:00	2020	0.2	0.0	0.0	0.0	0.0
3/4/2020 1:00	2020	0.2	0.0	0.0	0.0	0.0
3/6/2020 1:00	2020	0.2	0.0	0.0	0.0	0.0
3/6/2020 3:00	2020	0.5	0.0	0.0	0.0	0.0
3/6/2020 4:00	2020	0.5	0.0	0.0	0.0	0.0
3/6/2020 5:00	2020	0.5	0.0	0.0	0.0	0.0
3/6/2020 6:00	2020	0.6	0.0	0.0	0.0	0.0
3/6/2020 7:00	2020	0.9	0.0	0.0	0.0	0.0
3/6/2020 8:00	2020	0.3	0.0	0.0	0.0	0.0
3/6/2020 9:00	2020	0.6	0.0	0.0	0.0	0.0
3/6/2020 11:00	2020	0.5	0.0	0.0	0.0	0.0
3/6/2020 14:00	2020	0.5	0.0	0.0	0.0	0.0
3/6/2020 17:00	2020	0.2	0.0	0.0	0.0	0.0
3/9/2020 21:00	2020	0.6	0.0	0.0	0.0	0.0
3/9/2020 22:00	2020	0.6	0.0	0.0	0.0	0.0
3/10/2020 0:00	2020	0.5	0.0	0.0	0.0	0.0
3/10/2020 1:00	2020	0.3	0.0	0.0	0.0	0.0
3/10/2020 2:00	2020	0.5	0.0	0.0	0.0	0.0
3/10/2020 3:00	2020	1.2	0.0	0.0	0.0	0.0
3/10/2020 4:00	2020	0.8	0.0	0.0	0.0	0.0
3/10/2020 5:00	2020	0.5	0.0	0.0	0.0	0.0
3/10/2020 7:00	2020	0.4	0.0	0.0	0.0	0.0
3/10/2020 8:00	2020	0.3	0.0	0.0	0.0	0.0
3/10/2020 11:00	2020	0.3	0.0	0.0	0.0	0.0
3/10/2020 12:00	2020	0.3	0.0	0.0	0.0	0.0
3/10/2020 13:00	2020	1.1	0.0	0.0	0.0	0.0
3/10/2020 14:00	2020	0.2	0.0	0.0	0.0	0.0
3/10/2020 15:00	2020	0.2	0.0	0.0	0.0	0.0
3/13/2020 5:00	2020	0.7	0.0	0.0	0.0	0.0
3/13/2020 6:00	2020	0.5	0.0	0.0	0.0	0.0
3/13/2020 7:00	2020	3	0.0	0.0	0.0	0.0
3/13/2020 8:00	2020	3.7	0.0	0.0	0.0	0.0
3/13/2020 9:00	2020	1.5	0.0	0.0	0.0	0.0

3/13/2020 10:00	2020	0.3	0.0	0.0	0.0	0.0
3/17/2020 4:00	2020	0.2	0.0	0.0	0.0	0.0
3/17/2020 5:00	2020	0.6	0.0	0.0	0.0	0.0
3/17/2020 6:00	2020	0.7	0.0	0.0	0.0	0.0
3/17/2020 7:00	2020	0.9	0.0	0.0	0.0	0.0
3/17/2020 8:00	2020	1.6	0.0	0.0	0.0	0.0
3/17/2020 9:00	2020	2	0.0	0.0	0.0	0.0
3/17/2020 10:00	2020	0.9	0.0	0.0	0.0	0.0
3/20/2020 1:00	2020	0.4	0.0	0.0	0.0	0.0
3/20/2020 2:00	2020	1.3	0.0	0.0	0.0	0.0
3/20/2020 3:00	2020	1	0.0	0.0	0.0	0.0
3/20/2020 4:00	2020	0.8	0.0	0.0	0.0	0.0
3/20/2020 5:00	2020	0.5	0.0	0.0	0.0	0.0
3/20/2020 6:00	2020	0.3	0.0	0.0	0.0	0.0
3/20/2020 11:00	2020	0.2	0.0	0.0	0.0	0.0
3/20/2020 12:00	2020	0.2	0.0	0.0	0.0	0.0
3/20/2020 13:00	2020	2.4	0.0	0.0	0.0	0.0
3/23/2020 10:00	2020	0.3	0.0	0.0	0.0	0.0
3/23/2020 11:00	2020	0.3	0.0	0.0	0.0	0.0
3/23/2020 12:00	2020	0.3	0.0	0.0	0.0	0.0
3/23/2020 13:00	2020	0.6	0.0	0.0	0.0	0.0
3/23/2020 14:00	2020	0.7	0.0	0.0	0.0	0.0
3/23/2020 15:00	2020	1.2	0.0	0.0	0.0	0.0
3/23/2020 16:00	2020	0.9	0.0	0.0	0.0	0.0
3/23/2020 20:00	2020	0.2	0.0	0.0	0.0	0.0
3/26/2020 7:00	2020	0.3	0.0	0.0	0.0	0.0
3/26/2020 8:00	2020	0.8	0.0	0.0	0.0	0.0
3/26/2020 9:00	2020	0.7	0.0	0.0	0.0	0.0
3/26/2020 15:00	2020	1.9	0.0	0.0	0.0	0.0
3/26/2020 16:00	2020	0.2	0.0	0.0	0.0	0.0
3/26/2020 18:00	2020	0.2	0.0	0.0	0.0	0.0
3/29/2020 8:00	2020	0.4	0.0	0.0	0.0	0.0
3/29/2020 9:00	2020	0.5	0.0	0.0	0.0	0.0
3/29/2020 10:00	2020	1	0.0	0.0	0.0	0.0
3/29/2020 11:00	2020	4.6	0.0	0.0	0.0	0.0
3/29/2020 12:00	2020	3.4	0.0	0.0	0.0	0.0
3/29/2020 13:00	2020	2.2	0.0	0.0	0.0	0.0
3/29/2020 14:00	2020	2.9	0.0	0.0	0.0	0.0
3/29/2020 15:00	2020	0.5	0.0	0.0	0.0	0.0
3/29/2020 16:00	2020	0.4	0.0	0.0	0.0	0.0
3/29/2020 18:00	2020	0.4	0.0	0.0	0.0	0.0
3/29/2020 20:00	2020	1.1	0.0	0.0	0.0	0.0
3/29/2020 21:00	2020	3	0.0	0.0	0.0	0.0
3/29/2020 22:00	2020	0.4	0.0	0.0	0.0	0.0
3/30/2020 2:00	2020	0.3	0.0	0.0	0.0	0.0
3/30/2020 7:00	2020	0.5	0.0	0.0	0.0	0.0
3/30/2020 8:00	2020	0.3	0.0	0.0	0.0	0.0
3/30/2020 9:00	2020	0.4	0.0	0.0	0.0	0.0
3/30/2020 10:00	2020	0.2	0.0	0.0	0.0	0.0
3/30/2020 11:00	2020	0.2	0.0	0.0	0.0	0.0
3/30/2020 12:00	2020	0.2	0.0	0.0	0.0	0.0
3/30/2020 13:00	2020	0.2	0.0	0.0	0.0	0.0
3/30/2020 14:00	2020	0.3	0.0	0.0	0.0	0.0
3/30/2020 15:00	2020	0.5	0.0	0.0	0.0	0.0
3/30/2020 16:00	2020	0.5	0.0	0.0	0.0	0.0
3/30/2020 18:00	2020	0.2	0.0	0.0	0.0	0.0
3/30/2020 19:00	2020	0.4	0.0	0.0	0.0	0.0
3/30/2020 23:00	2020	0.2	0.0	0.0	0.0	0.0
3/31/2020 2:00	2020	0.2	0.0	0.0	0.0	0.0
3/31/2020 15:00	2020	0.2	0.0	0.0	0.0	0.0
4/3/2020 4:00	2020	0.2	0.0	0.0	0.0	0.0
4/3/2020 5:00	2020	0.2	0.0	0.0	0.0	0.0
4/3/2020 7:00	2020	0.2	0.0	0.0	0.0	0.0
4/3/2020 8:00	2020	0.2	0.0	0.0	0.0	0.0
4/4/2020 16:00	2020	0.2	0.0	0.0	0.0	0.0
4/5/2020 10:00	2020	0.2	0.0	0.0	0.0	0.0

4/9/2020 7:00	2020	0.6	0.0	0.0	0.0	0.0
4/9/2020 8:00	2020	2	0.0	0.0	0.0	0.0
4/9/2020 9:00	2020	2.2	0.0	0.0	0.0	0.0
4/9/2020 10:00	2020	3.2	0.0	0.0	0.0	0.0
4/9/2020 11:00	2020	1.8	0.0	0.0	0.0	0.0
4/9/2020 12:00	2020	1	0.0	0.0	0.0	0.0
4/9/2020 13:00	2020	0.3	0.0	0.0	0.0	0.0
4/9/2020 21:00	2020	0.2	0.0	0.0	0.0	0.0
4/10/2020 5:00	2020	0.3	0.0	0.0	0.0	0.0
4/13/2020 4:00	2020	0.2	0.0	0.0	0.0	0.0
4/13/2020 5:00	2020	1.7	0.0	0.0	0.0	0.0
4/13/2020 6:00	2020	2.5	0.0	0.0	0.0	0.0
4/13/2020 7:00	2020	1.6	0.0	0.0	0.0	0.0
4/13/2020 8:00	2020	0.8	0.0	0.0	0.0	0.0
4/13/2020 9:00	2020	1.6	0.0	0.0	0.0	0.0
4/13/2020 10:00	2020	2.6	0.0	0.0	0.0	0.0
4/13/2020 11:00	2020	1	0.0	0.0	0.0	0.0
4/13/2020 12:00	2020	0.7	0.0	0.0	0.0	0.0
4/13/2020 13:00	2020	1.5	0.0	0.0	0.0	0.0
4/13/2020 14:00	2020	2	0.0	0.0	0.0	0.0
4/13/2020 15:00	2020	2	0.0	0.0	0.0	0.0
4/13/2020 16:00	2020	1.7	0.0	0.0	0.0	0.0
4/13/2020 18:00	2020	0.2	0.0	0.0	0.0	0.0
4/19/2020 9:00	2020	0.3	0.0	0.0	0.0	0.0
4/19/2020 10:00	2020	1.6	0.0	0.0	0.0	0.0
4/19/2020 11:00	2020	3	0.0	0.0	0.0	0.0
4/19/2020 12:00	2020	1.4	0.0	0.0	0.0	0.0
4/19/2020 14:00	2020	0.2	0.0	0.0	0.0	0.0
4/19/2020 18:00	2020	0.6	0.0	0.0	0.0	0.0
4/21/2020 8:00	2020	0.7	0.0	0.0	0.0	0.0
4/21/2020 9:00	2020	2.8	0.0	0.0	0.0	0.0
4/21/2020 10:00	2020	0.6	0.0	0.0	0.0	0.0
4/21/2020 20:00	2020	0.3	0.0	0.0	0.0	0.0
4/30/2020 9:00	2020	0.7	0.0	0.0	0.0	0.0
4/30/2020 10:00	2020	0.8	0.0	0.0	0.0	0.0
4/30/2020 11:00	2020	1.7	0.0	0.0	0.0	0.0
4/30/2020 12:00	2020	0.8	0.0	0.0	0.0	0.0
4/30/2020 13:00	2020	0.6	0.0	0.0	0.0	0.0
4/30/2020 14:00	2020	1.1	0.0	0.0	0.0	0.0
4/30/2020 15:00	2020	0.4	0.0	0.0	0.0	0.0
4/30/2020 16:00	2020	0.3	0.0	0.0	0.0	0.0
4/30/2020 17:00	2020	2.6	0.0	0.0	0.0	0.0
4/30/2020 18:00	2020	3.2	0.0	0.0	0.0	0.0
4/30/2020 19:00	2020	4.4	0.0	0.0	0.0	0.0
4/30/2020 20:00	2020	1.6	0.0	0.0	0.0	0.0
4/30/2020 21:00	2020	0.3	0.0	0.0	0.0	0.0
4/30/2020 22:00	2020	1.6	0.0	0.0	0.0	0.0
4/30/2020 23:00	2020	1.6	0.0	0.0	0.0	0.0
5/1/2020 0:00	2020	1.1	3.9	3.9	3.9	0.0
5/1/2020 1:00	2020	2	7.1	7.1	7.1	0.0
5/1/2020 2:00	2020	1.4	5.0	5.0	5.0	0.0
5/1/2020 3:00	2020	1.3	4.6	4.6	4.6	0.0
5/1/2020 4:00	2020	0.2	0.7	0.7	0.7	0.0
5/1/2020 7:00	2020	0.2	0.7	0.7	0.7	0.0
5/1/2020 8:00	2020	0.2	0.7	0.7	0.7	0.0
5/3/2020 1:00	2020	0.4	1.4	1.4	1.4	0.0
5/15/2020 12:00	2020	0.6	2.1	2.1	2.1	0.0
5/15/2020 13:00	2020	3.2	11.3	11.3	11.3	0.0
5/15/2020 14:00	2020	9.1	32.2	32.2	14.3	0.0
5/15/2020 15:00	2020	5.1	18.0	35.5	14.3	0.4
5/15/2020 16:00	2020	0.3	1.1	22.2	14.3	0.0
5/25/2020 3:00	2020	0.7	2.5	2.5	2.5	0.0
5/25/2020 4:00	2020	1.1	3.9	3.9	3.9	0.0
5/25/2020 5:00	2020	1	3.5	3.5	3.5	0.0
5/29/2020 22:00	2020	0.8	2.8	2.8	2.8	0.0
5/29/2020 23:00	2020	17.4	61.5	35.5	14.3	26.1

5/30/2020 1:00	2020	0.3	1.1	7.9	7.9	0.0
5/30/2020 16:00	2020	0.2	0.7	0.7	0.7	0.0
5/30/2020 17:00	2020	2.8	9.9	9.9	9.9	0.0
5/30/2020 18:00	2020	5.3	18.7	18.7	14.3	0.0
6/9/2020 7:00	2020	0.4	1.4	1.4	1.4	0.0
6/10/2020 12:00	2020	0.2	0.7	0.7	0.7	0.0
6/11/2020 1:00	2020	0.7	2.5	2.5	2.5	0.0
6/11/2020 2:00	2020	0.5	1.8	1.8	1.8	0.0
6/11/2020 3:00	2020	0.4	1.4	1.4	1.4	0.0
6/11/2020 4:00	2020	0.2	0.7	0.7	0.7	0.0
6/13/2020 1:00	2020	0.3	1.1	1.1	1.1	0.0
6/13/2020 2:00	2020	0.7	2.5	2.5	2.5	0.0
6/13/2020 3:00	2020	0.2	0.7	0.7	0.7	0.0
6/22/2020 15:00	2020	4	14.1	14.1	14.1	0.0
6/22/2020 17:00	2020	0.8	2.8	2.8	2.8	0.0
6/22/2020 18:00	2020	0.2	0.7	0.7	0.7	0.0
6/23/2020 22:00	2020	2.1	7.4	7.4	7.4	0.0
6/24/2020 1:00	2020	0.7	2.5	2.5	2.5	0.0
6/24/2020 2:00	2020	0.2	0.7	0.7	0.7	0.0
6/28/2020 15:00	2020	2.7	9.5	9.5	9.5	0.0
6/28/2020 19:00	2020	1	3.5	3.5	3.5	0.0
7/8/2020 0:00	2020	0.8	2.8	2.8	2.8	0.0
7/8/2020 3:00	2020	0.4	1.4	1.4	1.4	0.0
7/9/2020 19:00	2020	0.8	2.8	2.8	2.8	0.0
7/9/2020 20:00	2020	0.2	0.7	0.7	0.7	0.0
7/11/2020 3:00	2020	0.4	1.4	1.4	1.4	0.0
7/11/2020 4:00	2020	0.8	2.8	2.8	2.8	0.0
7/11/2020 5:00	2020	1.1	3.9	3.9	3.9	0.0
7/11/2020 8:00	2020	1.2	4.2	4.2	4.2	0.0
7/11/2020 11:00	2020	0.6	2.1	2.1	2.1	0.0
7/11/2020 12:00	2020	0.8	2.8	2.8	2.8	0.0
7/11/2020 13:00	2020	0.6	2.1	2.1	2.1	0.0
7/11/2020 20:00	2020	0.5	1.8	1.8	1.8	0.0
7/11/2020 21:00	2020	0.3	1.1	1.1	1.1	0.0
7/12/2020 6:00	2020	0.3	1.1	1.1	1.1	0.0
7/17/2020 4:00	2020	3.3	11.7	11.7	11.7	0.0
7/17/2020 5:00	2020	0.6	2.1	2.1	2.1	0.0
7/17/2020 7:00	2020	0.3	1.1	1.1	1.1	0.0
7/19/2020 5:00	2020	10.8	38.2	35.5	14.3	2.7
7/19/2020 6:00	2020	9.7	34.3	35.5	14.3	20.0
7/19/2020 15:00	2020	1.3	4.6	4.6	4.6	0.0
7/19/2020 16:00	2020	0.2	0.7	0.7	0.7	0.0
7/19/2020 23:00	2020	0.6	2.1	2.1	2.1	0.0
7/20/2020 0:00	2020	4.2	14.9	14.9	14.3	0.0
7/22/2020 18:00	2020	0.3	1.1	1.1	1.1	0.0
7/22/2020 19:00	2020	0.2	0.7	0.7	0.7	0.0
7/22/2020 20:00	2020	2.1	7.4	7.4	7.4	0.0
7/22/2020 21:00	2020	0.9	3.2	3.2	3.2	0.0
7/27/2020 8:00	2020	0.7	2.5	2.5	2.5	0.0
7/27/2020 12:00	2020	0.2	0.7	0.7	0.7	0.0
7/29/2020 6:00	2020	3.1	11.0	11.0	11.0	0.0
7/29/2020 7:00	2020	0.7	2.5	2.5	2.5	0.0
7/29/2020 9:00	2020	1.8	6.4	6.4	6.4	0.0
7/29/2020 17:00	2020	3.2	11.3	11.3	11.3	0.0
7/29/2020 19:00	2020	0.2	0.7	0.7	0.7	0.0
7/30/2020 3:00	2020	0.2	0.7	0.7	0.7	0.0
7/30/2020 12:00	2020	0.6	2.1	2.1	2.1	0.0
7/30/2020 14:00	2020	1.8	6.4	6.4	6.4	0.0
7/30/2020 15:00	2020	10.9	38.6	35.5	14.3	3.1
7/30/2020 16:00	2020	0.4	1.4	22.6	14.3	0.0
8/2/2020 9:00	2020	2.4	8.5	8.5	8.5	0.0
8/2/2020 10:00	2020	1.4	5.0	5.0	5.0	0.0
8/2/2020 11:00	2020	0.2	0.7	0.7	0.7	0.0
8/2/2020 12:00	2020	4	14.1	14.1	14.1	0.0
8/2/2020 13:00	2020	7.9	27.9	27.9	14.3	0.0
8/2/2020 16:00	2020	11.6	41.0	35.5	14.3	5.6

8/2/2020 17:00	2020	8.2	29.0	35.5	14.3	14.7
8/2/2020 20:00	2020	0.3	1.1	1.1	1.1	0.0
8/3/2020 3:00	2020	0.6	2.1	2.1	2.1	0.0
8/4/2020 2:00	2020	0.2	0.7	0.7	0.7	0.0
8/4/2020 4:00	2020	0.2	0.7	0.7	0.7	0.0
8/4/2020 5:00	2020	0.9	3.2	3.2	3.2	0.0
8/4/2020 10:00	2020	0.3	1.1	1.1	1.1	0.0
8/4/2020 14:00	2020	0.7	2.5	2.5	2.5	0.0
8/4/2020 15:00	2020	2.7	9.5	9.5	9.5	0.0
8/4/2020 16:00	2020	3	10.6	10.6	10.6	0.0
8/4/2020 17:00	2020	14.2	50.2	35.5	14.3	14.8
8/4/2020 18:00	2020	0.7	2.5	23.6	14.3	0.0
8/4/2020 22:00	2020	0.3	1.1	1.1	1.1	0.0
8/4/2020 23:00	2020	0.2	0.7	0.7	0.7	0.0
8/5/2020 1:00	2020	0.2	0.7	0.7	0.7	0.0
8/5/2020 8:00	2020	0.2	0.7	0.7	0.7	0.0
8/5/2020 10:00	2020	0.8	2.8	2.8	2.8	0.0
8/9/2020 13:00	2020	0.4	1.4	1.4	1.4	0.0
8/9/2020 18:00	2020	0.4	1.4	1.4	1.4	0.0
8/9/2020 19:00	2020	0.3	1.1	1.1	1.1	0.0
8/10/2020 15:00	2020	0.9	3.2	3.2	3.2	0.0
8/11/2020 15:00	2020	6.8	24.1	24.1	14.3	0.0
8/11/2020 17:00	2020	0.5	1.8	1.8	1.8	0.0
8/11/2020 18:00	2020	0.3	1.1	1.1	1.1	0.0
8/16/2020 15:00	2020	9	31.8	31.8	14.3	0.0
8/16/2020 16:00	2020	3	10.6	28.1	14.3	0.0
8/16/2020 17:00	2020	0.9	3.2	17.0	14.3	0.0
8/16/2020 18:00	2020	9.1	32.2	34.8	14.3	0.0
8/16/2020 19:00	2020	0.4	1.4	21.9	14.3	0.0
8/16/2020 21:00	2020	0.2	0.7	0.7	0.7	0.0
8/17/2020 0:00	2020	3.4	12.0	12.0	12.0	0.0
8/17/2020 1:00	2020	0.5	1.8	1.8	1.8	0.0
8/17/2020 3:00	2020	0.8	2.8	2.8	2.8	0.0
8/17/2020 4:00	2020	1	3.5	3.5	3.5	0.0
8/17/2020 5:00	2020	17.7	62.6	35.5	14.3	27.1
8/17/2020 18:00	2020	8.2	29.0	29.0	14.3	0.0
8/18/2020 3:00	2020	0.2	0.7	0.7	0.7	0.0
8/18/2020 14:00	2020	2.5	8.8	8.8	8.8	0.0
8/20/2020 14:00	2020	0.2	0.7	0.7	0.7	0.0
8/21/2020 0:00	2020	0.2	0.7	0.7	0.7	0.0
8/21/2020 2:00	2020	0.8	2.8	2.8	2.8	0.0
8/23/2020 4:00	2020	0.3	1.1	1.1	1.1	0.0
8/23/2020 5:00	2020	0.4	1.4	1.4	1.4	0.0
8/23/2020 20:00	2020	7.5	26.5	26.5	14.3	0.0
8/23/2020 21:00	2020	3.1	11.0	23.2	14.3	0.0
8/24/2020 1:00	2020	8.1	28.6	28.6	14.3	0.0
8/24/2020 2:00	2020	5.5	19.5	33.8	14.3	0.0
8/24/2020 3:00	2020	0.4	1.4	20.9	14.3	0.0
8/24/2020 5:00	2020	0.5	1.8	1.8	1.8	0.0
8/24/2020 6:00	2020	0.3	1.1	1.1	1.1	0.0
8/24/2020 7:00	2020	0.2	0.7	0.7	0.7	0.0
8/25/2020 2:00	2020	0.7	2.5	2.5	2.5	0.0
8/26/2020 4:00	2020	0.2	0.7	0.7	0.7	0.0
8/27/2020 8:00	2020	1.3	4.6	4.6	4.6	0.0
8/27/2020 9:00	2020	1.6	5.7	5.7	5.7	0.0
8/27/2020 10:00	2020	0.9	3.2	3.2	3.2	0.0
8/27/2020 11:00	2020	0.2	0.7	0.7	0.7	0.0
8/29/2020 3:00	2020	0.7	2.5	2.5	2.5	0.0
8/29/2020 4:00	2020	1.7	6.0	6.0	6.0	0.0
8/29/2020 5:00	2020	5.4	19.1	19.1	14.3	0.0
8/29/2020 6:00	2020	4.5	15.9	20.7	14.3	0.0
8/29/2020 7:00	2020	3.5	12.4	18.7	14.3	0.0
8/29/2020 8:00	2020	7.2	25.5	29.9	14.3	0.0
8/29/2020 11:00	2020	1.3	4.6	4.6	4.6	0.0
8/29/2020 12:00	2020	0.4	1.4	1.4	1.4	0.0
8/29/2020 13:00	2020	0.7	2.5	2.5	2.5	0.0

8/29/2020 16:00	2020	0.2	0.7	0.7	0.7	0.0
8/29/2020 17:00	2020	2.5	8.8	8.8	8.8	0.0
8/29/2020 18:00	2020	0.3	1.1	1.1	1.1	0.0
8/30/2020 18:00	2020	1.5	5.3	5.3	5.3	0.0
9/2/2020 17:00	2020	7.2	25.5	25.5	14.3	0.0
9/2/2020 18:00	2020	0.6	2.1	13.3	13.3	0.0
9/3/2020 22:00	2020	1.5	5.3	5.3	5.3	0.0
9/3/2020 23:00	2020	0.2	0.7	0.7	0.7	0.0
9/4/2020 15:00	2020	0.2	0.7	0.7	0.7	0.0
9/4/2020 17:00	2020	0.6	2.1	2.1	2.1	0.0
9/5/2020 15:00	2020	0.7	2.5	2.5	2.5	0.0
9/5/2020 17:00	2020	0.9	3.2	3.2	3.2	0.0
9/5/2020 22:00	2020	0.5	1.8	1.8	1.8	0.0
9/7/2020 11:00	2020	0.2	0.7	0.7	0.7	0.0
9/7/2020 18:00	2020	0.3	1.1	1.1	1.1	0.0
9/8/2020 16:00	2020	0.3	1.1	1.1	1.1	0.0
9/8/2020 17:00	2020	0.2	0.7	0.7	0.7	0.0
9/9/2020 4:00	2020	0.8	2.8	2.8	2.8	0.0
9/9/2020 5:00	2020	1.1	3.9	3.9	3.9	0.0
9/9/2020 7:00	2020	0.8	2.8	2.8	2.8	0.0
9/9/2020 16:00	2020	0.6	2.1	2.1	2.1	0.0
9/9/2020 17:00	2020	2.7	9.5	9.5	9.5	0.0
9/12/2020 5:00	2020	0.2	0.7	0.7	0.7	0.0
9/13/2020 7:00	2020	1.2	4.2	4.2	4.2	0.0
9/13/2020 9:00	2020	0.2	0.7	0.7	0.7	0.0
9/13/2020 10:00	2020	0.3	1.1	1.1	1.1	0.0
9/13/2020 11:00	2020	0.5	1.8	1.8	1.8	0.0
9/13/2020 12:00	2020	3	10.6	10.6	10.6	0.0
9/13/2020 13:00	2020	1.1	3.9	3.9	3.9	0.0
9/15/2020 2:00	2020	0.2	0.7	0.7	0.7	0.0
9/29/2020 5:00	2020	0.6	2.1	2.1	2.1	0.0
9/29/2020 6:00	2020	6.8	24.1	24.1	14.3	0.0
9/29/2020 7:00	2020	0.9	3.2	12.9	12.9	0.0
9/29/2020 8:00	2020	0.3	1.1	1.1	1.1	0.0
9/29/2020 21:00	2020	0.2	0.7	0.7	0.7	0.0
9/29/2020 22:00	2020	0.5	1.8	1.8	1.8	0.0
9/30/2020 1:00	2020	0.4	1.4	1.4	1.4	0.0
9/30/2020 2:00	2020	1.4	5.0	5.0	5.0	0.0
9/30/2020 3:00	2020	2.5	8.8	8.8	8.8	0.0
9/30/2020 4:00	2020	1.3	4.6	4.6	4.6	0.0
9/30/2020 5:00	2020	2.1	7.4	7.4	7.4	0.0
9/30/2020 6:00	2020	2.6	9.2	9.2	9.2	0.0
9/30/2020 7:00	2020	1.2	4.2	4.2	4.2	0.0
9/30/2020 10:00	2020	0.9	3.2	3.2	3.2	0.0
9/30/2020 11:00	2020	0.3	1.1	1.1	1.1	0.0
9/30/2020 15:00	2020	1.6	5.7	5.7	5.7	0.0
10/1/2020 15:00	2020	0.2	0.7	0.7	0.7	0.0
10/1/2020 16:00	2020	0.2	0.7	0.7	0.7	0.0
10/2/2020 10:00	2020	2.2	7.8	7.8	7.8	0.0
10/2/2020 11:00	2020	4.8	17.0	17.0	14.3	0.0
10/2/2020 12:00	2020	1.1	3.9	6.5	6.5	0.0
10/2/2020 13:00	2020	0.5	1.8	1.8	1.8	0.0
10/4/2020 16:00	2020	0.6	2.1	2.1	2.1	0.0
10/4/2020 18:00	2020	0.3	1.1	1.1	1.1	0.0
10/5/2020 4:00	2020	0.2	0.7	0.7	0.7	0.0
10/5/2020 7:00	2020	1.8	6.4	6.4	6.4	0.0
10/5/2020 8:00	2020	0.2	0.7	0.7	0.7	0.0
10/7/2020 7:00	2020	2.6	9.2	9.2	9.2	0.0
10/7/2020 8:00	2020	0.6	2.1	2.1	2.1	0.0
10/7/2020 9:00	2020	0.7	2.5	2.5	2.5	0.0
10/7/2020 10:00	2020	13.9	49.2	35.5	14.3	13.7
10/7/2020 13:00	2020	1.5	5.3	5.3	5.3	0.0
10/7/2020 17:00	2020	0.2	0.7	0.7	0.7	0.0
10/9/2020 4:00	2020	0.2	0.7	0.7	0.7	0.0
10/13/2020 2:00	2020	0.3	1.1	1.1	1.1	0.0
10/13/2020 3:00	2020	3.9	13.8	13.8	13.8	0.0

10/13/2020 4:00	2020	1.7	6.0	6.0	6.0	0.0
10/13/2020 5:00	2020	0.4	1.4	1.4	1.4	0.0
10/13/2020 6:00	2020	1.1	3.9	3.9	3.9	0.0
10/13/2020 7:00	2020	0.6	2.1	2.1	2.1	0.0
10/13/2020 8:00	2020	0.6	2.1	2.1	2.1	0.0
10/13/2020 9:00	2020	0.8	2.8	2.8	2.8	0.0
10/13/2020 10:00	2020	0.3	1.1	1.1	1.1	0.0
10/13/2020 11:00	2020	1.1	3.9	3.9	3.9	0.0
10/13/2020 12:00	2020	1.1	3.9	3.9	3.9	0.0
10/13/2020 14:00	2020	0.3	1.1	1.1	1.1	0.0
10/13/2020 15:00	2020	1.2	4.2	4.2	4.2	0.0
10/13/2020 17:00	2020	0.2	0.7	0.7	0.7	0.0
10/15/2020 14:00	2020	0.8	2.8	2.8	2.8	0.0
10/15/2020 15:00	2020	0.6	2.1	2.1	2.1	0.0
10/15/2020 16:00	2020	1	3.5	3.5	3.5	0.0
10/15/2020 17:00	2020	0.8	2.8	2.8	2.8	0.0
10/15/2020 18:00	2020	0.5	1.8	1.8	1.8	0.0
10/15/2020 21:00	2020	0.3	1.1	1.1	1.1	0.0
10/15/2020 22:00	2020	0.3	1.1	1.1	1.1	0.0
10/16/2020 1:00	2020	0.3	1.1	1.1	1.1	0.0
10/16/2020 2:00	2020	0.2	0.7	0.7	0.7	0.0
10/16/2020 3:00	2020	0.5	1.8	1.8	1.8	0.0
10/16/2020 4:00	2020	0.9	3.2	3.2	3.2	0.0
10/16/2020 5:00	2020	1.5	5.3	5.3	5.3	0.0
10/16/2020 6:00	2020	0.8	2.8	2.8	2.8	0.0
10/17/2020 6:00	2020	0.2	0.7	0.7	0.7	0.0
10/19/2020 7:00	2020	0.2	0.7	0.7	0.7	0.0
10/19/2020 12:00	2020	0.2	0.7	0.7	0.7	0.0
10/19/2020 13:00	2020	0.3	1.1	1.1	1.1	0.0
10/19/2020 14:00	2020	0.2	0.7	0.7	0.7	0.0
10/19/2020 17:00	2020	0.2	0.7	0.7	0.7	0.0
10/19/2020 21:00	2020	0.5	1.8	1.8	1.8	0.0
10/19/2020 22:00	2020	0.9	3.2	3.2	3.2	0.0
10/19/2020 23:00	2020	1.7	6.0	6.0	6.0	0.0
10/20/2020 0:00	2020	1.5	5.3	5.3	5.3	0.0
10/20/2020 1:00	2020	2.8	9.9	9.9	9.9	0.0
10/20/2020 2:00	2020	0.2	0.7	0.7	0.7	0.0
10/20/2020 3:00	2020	1.4	5.0	5.0	5.0	0.0
10/20/2020 4:00	2020	1.2	4.2	4.2	4.2	0.0
10/20/2020 5:00	2020	0.9	3.2	3.2	3.2	0.0
10/20/2020 6:00	2020	0.6	2.1	2.1	2.1	0.0
10/20/2020 8:00	2020	0.3	1.1	1.1	1.1	0.0
10/21/2020 5:00	2020	0.3	1.1	1.1	1.1	0.0
10/21/2020 6:00	2020	2.1	7.4	7.4	7.4	0.0
10/21/2020 7:00	2020	2.2	7.8	7.8	7.8	0.0
10/21/2020 8:00	2020	2.1	7.4	7.4	7.4	0.0
10/21/2020 18:00	2020	0.3	1.1	1.1	1.1	0.0
10/23/2020 23:00	2020	1	3.5	3.5	3.5	0.0
10/24/2020 3:00	2020	1.6	5.7	5.7	5.7	0.0
10/24/2020 4:00	2020	0.4	1.4	1.4	1.4	0.0
10/26/2020 8:00	2020	0.4	1.4	1.4	1.4	0.0
10/26/2020 9:00	2020	1.7	6.0	6.0	6.0	0.0
10/26/2020 10:00	2020	1	3.5	3.5	3.5	0.0
10/26/2020 11:00	2020	1.2	4.2	4.2	4.2	0.0
10/26/2020 12:00	2020	1.2	4.2	4.2	4.2	0.0
10/26/2020 13:00	2020	0.2	0.7	0.7	0.7	0.0
10/26/2020 17:00	2020	0.2	0.7	0.7	0.7	0.0
10/28/2020 6:00	2020	0.2	0.7	0.7	0.7	0.0
11/1/2020 14:00	2020	0.3	1.1	1.1	1.1	0.0
11/1/2020 15:00	2020	0.9	3.2	3.2	3.2	0.0
11/1/2020 16:00	2020	0.7	2.5	2.5	2.5	0.0
11/2/2020 18:00	2020	0.2	0.7	0.7	0.7	0.0
11/2/2020 19:00	2020	0.5	1.8	1.8	1.8	0.0
11/2/2020 21:00	2020	0.9	3.2	3.2	3.2	0.0
11/2/2020 22:00	2020	1	3.5	3.5	3.5	0.0
11/2/2020 23:00	2020	0.2	0.7	0.7	0.7	0.0

11/3/2020 6:00	2020	0.2	0.7	0.7	0.7	0.0
11/6/2020 8:00	2020	0.2	0.7	0.7	0.7	0.0
11/9/2020 9:00	2020	0.3	1.1	1.1	1.1	0.0
11/11/2020 7:00	2020	0.3	1.1	1.1	1.1	0.0
11/15/2020 15:00	2020	0.7	2.5	2.5	2.5	0.0
11/15/2020 16:00	2020	0.5	1.8	1.8	1.8	0.0
11/15/2020 18:00	2020	0.3	1.1	1.1	1.1	0.0
11/15/2020 19:00	2020	1	3.5	3.5	3.5	0.0
11/17/2020 0:00	2020	0.3	1.1	1.1	1.1	0.0
11/22/2020 17:00	2020	0.5	1.8	1.8	1.8	0.0
11/22/2020 18:00	2020	1.1	3.9	3.9	3.9	0.0
11/22/2020 19:00	2020	0.7	2.5	2.5	2.5	0.0
11/22/2020 20:00	2020	1.7	6.0	6.0	6.0	0.0
11/22/2020 21:00	2020	1.3	4.6	4.6	4.6	0.0
11/22/2020 22:00	2020	1.9	6.7	6.7	6.7	0.0
11/22/2020 23:00	2020	2.2	7.8	7.8	7.8	0.0
11/23/2020 0:00	2020	1.6	5.7	5.7	5.7	0.0
11/23/2020 1:00	2020	1.5	5.3	5.3	5.3	0.0
11/23/2020 2:00	2020	1	3.5	3.5	3.5	0.0
11/23/2020 3:00	2020	0.2	0.7	0.7	0.7	0.0
11/23/2020 4:00	2020	1	3.5	3.5	3.5	0.0
11/23/2020 5:00	2020	1	3.5	3.5	3.5	0.0
11/23/2020 6:00	2020	0.5	1.8	1.8	1.8	0.0
11/23/2020 11:00	2020	1.5	5.3	5.3	5.3	0.0
11/25/2020 5:00	2020	0.6	2.1	2.1	2.1	0.0
11/25/2020 6:00	2020	1.1	3.9	3.9	3.9	0.0
11/25/2020 7:00	2020	1.3	4.6	4.6	4.6	0.0
11/25/2020 8:00	2020	1.3	4.6	4.6	4.6	0.0
11/25/2020 9:00	2020	1.3	4.6	4.6	4.6	0.0
11/25/2020 10:00	2020	1.9	6.7	6.7	6.7	0.0
11/25/2020 11:00	2020	0.6	2.1	2.1	2.1	0.0
11/25/2020 12:00	2020	0.2	0.7	0.7	0.7	0.0
11/25/2020 13:00	2020	0.2	0.7	0.7	0.7	0.0
11/26/2020 1:00	2020	0.3	1.1	1.1	1.1	0.0
11/26/2020 2:00	2020	0.4	1.4	1.4	1.4	0.0
11/26/2020 3:00	2020	0.3	1.1	1.1	1.1	0.0
11/26/2020 4:00	2020	0.2	0.7	0.7	0.7	0.0
11/26/2020 5:00	2020	0.2	0.7	0.7	0.7	0.0
11/26/2020 6:00	2020	0.5	1.8	1.8	1.8	0.0
11/26/2020 7:00	2020	0.7	2.5	2.5	2.5	0.0
11/26/2020 8:00	2020	0.2	0.7	0.7	0.7	0.0
11/26/2020 10:00	2020	0.2	0.7	0.7	0.7	0.0
11/26/2020 12:00	2020	0.2	0.7	0.7	0.7	0.0
11/26/2020 20:00	2020	0.3	1.1	1.1	1.1	0.0
11/30/2020 14:00	2020	1.1	3.9	3.9	3.9	0.0
11/30/2020 15:00	2020	2.1	7.4	7.4	7.4	0.0
11/30/2020 16:00	2020	3.2	11.3	11.3	11.3	0.0
11/30/2020 17:00	2020	2.2	7.8	7.8	7.8	0.0
11/30/2020 18:00	2020	1.5	5.3	5.3	5.3	0.0
11/30/2020 19:00	2020	1.1	3.9	3.9	3.9	0.0
11/30/2020 20:00	2020	0.5	1.8	1.8	1.8	0.0
11/30/2020 21:00	2020	0.5	1.8	1.8	1.8	0.0
11/30/2020 23:00	2020	0.6	2.1	2.1	2.1	0.0
12/1/2020 10:00	2020	0.5	1.8	1.8	1.8	0.0
12/1/2020 11:00	2020	1.1	3.9	3.9	3.9	0.0
12/1/2020 12:00	2020	0.6	2.1	2.1	2.1	0.0
12/1/2020 15:00	2020	0.6	2.1	2.1	2.1	0.0
12/1/2020 16:00	2020	0.2	0.7	0.7	0.7	0.0
12/2/2020 2:00	2020	0.8	2.8	2.8	2.8	0.0
12/2/2020 3:00	2020	0.2	0.7	0.7	0.7	0.0
12/2/2020 8:00	2020	0.2	0.7	0.7	0.7	0.0
12/2/2020 12:00	2020	0.2	0.7	0.7	0.7	0.0
12/2/2020 16:00	2020	0.2	0.7	0.7	0.7	0.0
12/3/2020 9:00	2020	0.2	0.7	0.7	0.7	0.0
12/4/2020 4:00	2020	0.9	3.2	3.2	3.2	0.0
12/4/2020 5:00	2020	0.2	0.7	0.7	0.7	0.0

12/4/2020 6:00	2020	0.2	0.7	0.7	0.7	0.0
12/4/2020 7:00	2020	0.2	0.7	0.7	0.7	0.0
12/4/2020 13:00	2020	0.5	1.8	1.8	1.8	0.0
12/4/2020 14:00	2020	1	3.5	3.5	3.5	0.0
12/4/2020 15:00	2020	0.6	2.1	2.1	2.1	0.0
12/4/2020 16:00	2020	1	3.5	3.5	3.5	0.0
12/4/2020 17:00	2020	0.5	1.8	1.8	1.8	0.0
12/9/2020 4:00	2020	0.3	1.1	1.1	1.1	0.0
12/9/2020 5:00	2020	0.4	1.4	1.4	1.4	0.0
12/9/2020 6:00	2020	0.5	1.8	1.8	1.8	0.0
12/9/2020 7:00	2020	0.3	1.1	1.1	1.1	0.0
12/9/2020 8:00	2020	0.7	2.5	2.5	2.5	0.0
12/9/2020 9:00	2020	1	3.5	3.5	3.5	0.0
12/9/2020 10:00	2020	0.3	1.1	1.1	1.1	0.0
12/9/2020 12:00	2020	0.2	0.7	0.7	0.7	0.0
12/12/2020 12:00	2020	0.6	2.1	2.1	2.1	0.0
12/12/2020 14:00	2020	0.3	1.1	1.1	1.1	0.0
12/12/2020 15:00	2020	0.9	3.2	3.2	3.2	0.0
12/12/2020 16:00	2020	0.5	1.8	1.8	1.8	0.0
12/12/2020 19:00	2020	0.2	0.7	0.7	0.7	0.0
12/12/2020 20:00	2020	1.1	3.9	3.9	3.9	0.0
12/12/2020 21:00	2020	0.2	0.7	0.7	0.7	0.0
12/12/2020 23:00	2020	0.3	1.1	1.1	1.1	0.0
12/13/2020 6:00	2020	0.2	0.7	0.7	0.7	0.0
12/14/2020 14:00	2020	0.2	0.7	0.7	0.7	0.0
12/14/2020 16:00	2020	0.2	0.7	0.7	0.7	0.0
12/15/2020 11:00	2020	0.2	0.7	0.7	0.7	0.0
12/20/2020 10:00	2020	0.6	2.1	2.1	2.1	0.0
12/20/2020 11:00	2020	0.6	2.1	2.1	2.1	0.0
12/20/2020 12:00	2020	0.3	1.1	1.1	1.1	0.0
12/20/2020 13:00	2020	0.2	0.7	0.7	0.7	0.0
12/20/2020 14:00	2020	0.3	1.1	1.1	1.1	0.0
12/20/2020 15:00	2020	0.3	1.1	1.1	1.1	0.0
12/20/2020 16:00	2020	0.3	1.1	1.1	1.1	0.0
12/21/2020 1:00	2020	0.2	0.7	0.7	0.7	0.0
12/21/2020 3:00	2020	0.3	1.1	1.1	1.1	0.0
12/22/2020 1:00	2020	0.3	1.1	1.1	1.1	0.0
12/22/2020 18:00	2020	0.2	0.7	0.7	0.7	0.0
12/23/2020 12:00	2020	0.3	1.1	1.1	1.1	0.0
12/24/2020 13:00	2020	0.3	1.1	1.1	1.1	0.0
12/24/2020 14:00	2020	0.8	2.8	2.8	2.8	0.0
12/24/2020 16:00	2020	0.7	2.5	2.5	2.5	0.0
12/24/2020 18:00	2020	0.5	1.8	1.8	1.8	0.0
12/24/2020 19:00	2020	1.8	6.4	6.4	6.4	0.0
12/24/2020 20:00	2020	2.4	8.5	8.5	8.5	0.0
12/24/2020 21:00	2020	1.4	5.0	5.0	5.0	0.0
12/24/2020 22:00	2020	3.1	11.0	11.0	11.0	0.0
12/24/2020 23:00	2020	3.5	12.4	12.4	12.4	0.0
12/25/2020 0:00	2020	2.9	10.3	10.3	10.3	0.0
12/25/2020 1:00	2020	4.1	14.5	14.5	14.3	0.0
12/25/2020 2:00	2020	3.1	11.0	11.1	11.1	0.0
12/25/2020 3:00	2020	3.9	13.8	13.8	13.8	0.0
12/25/2020 4:00	2020	6.8	24.1	24.1	14.3	0.0
12/25/2020 5:00	2020	4.1	14.5	24.2	14.3	0.0
12/25/2020 6:00	2020	2.9	10.3	20.2	14.3	0.0
12/25/2020 7:00	2020	1.5	5.3	11.1	11.1	0.0
12/25/2020 8:00	2020	1.1	3.9	3.9	3.9	0.0
12/25/2020 14:00	2020	0.5	1.8	1.8	1.8	0.0
12/25/2020 15:00	2020	1	3.5	3.5	3.5	0.0
12/25/2020 16:00	2020	0.2	0.7	0.7	0.7	0.0
12/26/2020 6:00	2020	0.3	1.1	1.1	1.1	0.0
12/26/2020 7:00	2020	0.3	1.1	1.1	1.1	0.0
12/26/2020 22:00	2020	0.2	0.7	0.7	0.7	0.0
12/28/2020 7:00	2020	0.7	2.5	2.5	2.5	0.0
12/28/2020 8:00	2020	0.4	1.4	1.4	1.4	0.0
12/28/2020 9:00	2020	0.3	1.1	1.1	1.1	0.0

12/28/2020 11:00 2020	0.2	0.7	0.7	0.7	0.0
12/28/2020 16:00 2020	0.3	1.1	1.1	1.1	0.0
12/30/2020 12:00 2020	0.9	3.2	3.2	3.2	0.0
12/30/2020 15:00 2020	1.1	3.9	3.9	3.9	0.0
12/30/2020 17:00 2020	0.3	1.1	1.1	1.1	0.0
12/30/2020 19:00 2020	0.2	0.7	0.7	0.7	0.0
12/30/2020 21:00 2020	0.4	1.4	1.4	1.4	0.0
12/30/2020 22:00 2020	0.3	1.1	1.1	1.1	0.0
12/30/2020 23:00 2020	0.3	1.1	1.1	1.1	0.0

A.6. Pond Draindown Time

Humanics Centre, Ottawa, Ontario

Release Rate from Pond

Equation 4.10 from MOE Stormwater Design Guidelines:

$$t = \frac{2A_p}{CA_o(2g)^{0.5}} (h_1^{0.5} - h_2^{0.5})$$

&[Picture]

where:

Pond Volume	128.0 cu.m	Side Slopes, m:1 =	5
Water depth when full, h1	0.5 m	Bottom Width, B =	0.75
Water depth when empty, h2	0.0 m	Length, L =	81
Orifice coefficient, C	0.61		
Acceleration due to gravity, g	9.81 m/s ²		

Incremental draindown calculation (100-year event), based on equivalent orifice to proposed ICD:

The drawdown when the water level is above the overflow will be governed by the orifice:

Water Depth at start of step, h1 (m)	Water depth at end of step, h2 (m)	Pond Surface Area, Ap (m ²)	Duration of Step, t (s)	Realease Rate (L/s)
0.51	0.46	473.85	694.11	34.13
0.46	0.41	433.35	670.33	32.32
0.41	0.36	392.85	646.01	30.41
0.36	0.31	352.35	621.25	28.36
0.31	0.26	311.85	596.29	26.15
0.26	0.23	271.35	332.19	40.84
Total draindown duration			3560.18 seconds	
			1.0 hours	

Draindown Calculation (100-year event), based of infiltration rate of native soil:

The drawdown when the water level is below the overflow will be governed by the infiltration rate of the soil:

Depth of ponding, h (m)	Infiltration Rate of Soil, f (mm/hr)	Duration, t (hr)
0.23	39	5.9

Total draindown duration = 6.9 hours

Appendix B

Infiltration Testing Memorandum

MEMORANDUM



TO: Ahmed Elsayed, P.Eng
Project Manager / Engineer (Municipal)

FROM: Mitchell Dawley and Ant West

PROJECT No.: 210647100

RE: Infiltration Testing for Stormwater Management
Design at the Humanics Sanctuary

DATE: 10/25/2021

\\EGNYTEDRIVE\MH CLOUD\PROJ\2021\210647100-HUMANICS SANCTUARY CIVIL\08. WORKING\1. INFILTRATION TESTING\210647100 INFILTRATION TEST MEMO_REV0.DOCX

1. Introduction

Morrison Hershfield Ltd. (MH) was retained by Humanics Universal Inc. (the Client) to perform civil engineering design services associated with proposed improvements to the Humanics Sanctuary at 3400/3468 Old Montreal Road, Ottawa.

Specifically, MH is completing the Stormwater Management and Drainage Design as part of future development of the site. The Stormwater Management design will make use of Low Impact Development (LID) solutions that encourage infiltration.

Prior to design, MH's scope of services included infiltration testing to assist in selecting the LID solutions. The infiltration testing consisted of Guelph Permeameter testing at five (5) locations. This memorandum presents the methods findings and results of this testing.

2. Methodology

Infiltration testing was performed at five (5) locations using a 2800K1 Guelph Permeameter (GP) in accordance with ASTM D5126. The GP is an in-hole constant-head Permeameter that measures the steady-state rate of water recharge into unsaturated soil from a cylindrical borehole.

The locations of the infiltration testing are shown on **Figure 1** in **Attachment A**.

The field procedures used with the GP were as follows:

- A 6 cm diameter borehole was hand augered to depths between 0.24 to 0.36 m. Basic soil characteristics were observed and recorded during augering.
- The GP reservoir was filled with water and the instrument was lowered into the borehole.
- A well head height (H) was established in the open borehole by adjusting the Air Tube.
- The water level in the instrument reservoir was recorded at regular time intervals and the rate of fall (of water) was determined for each interval.
- Operation of the GP continued until the "Steady-State Rate of Fall" was attained. This occurred when the rate of fall did not significantly change over three (3) consecutive time intervals.
- For each borehole, the above procedure was repeated by establishing a different well head height (H).

3. Results

Soil Conditions

The soil conditions observed in each borehole augured for the GP testing was noted and the results are summarized in Table 1 below.

Table 1: Observed Soil Conditions

Borehole ID	Depth of Borehole (mbgs)	Observed Soil Conditions
IN-1	0.24	Med to Fine Sand (SP) (0 – 0.17 m); Clayey Sand (SC) (0.17 – 0.24 m)
IN-2	0.27	Silty Sand (SM) (0.09 – 0.22 m); Med to Fine Sand (SP) (0.22 – 0.27 m)
IN-3	0.36	Silty Sand to Sand (SM-SP) (0.08 – 0.20); Med to Fine Sand (SP) (0.20 – 0.36 m)
IN-4	0.30	Silty Sand (SM) (0.08 – 0.14 m); Med to Fine Sand (SP) (0.14 – 0.30 m)
IN-5	0.26	Silty Sand (SM) (0.08 – 0.16 m); Med to Fine Sand (SP) (0.16 – 0.26 m)

Infiltration Testing

Hydraulic properties of the subgrade soils in the unsaturated zone were determined using a Guelph Permeameter (GP), by applying the single head method and averaging results of two (2) tests.

The GP instrument maintains a constant head of water in a borehole, causing water to infiltrate into the surrounding unsaturated soil. As water infiltrates, a “bulb” of saturated soil of specific dimensions develops around the borehole. Once the bulb develops, the steady-state flow rate of water out of the borehole is established and combined saturated-unsaturated flow occurs in the soil (Soilmoisture Corp., 2012).

For conditions of saturated-unsaturated flow, hydrostatic pressure, gravity and capillarity all contribute to the steady-state flow rate. Matric flux potential (ϕ_m) is a measure of the capillarity/capillary pull that the unsaturated soil exerts on infiltrating water while the field-saturated hydraulic conductivity (K_{fs}) represents the hydrostatic pressure and gravity contributions to flow (Elrick & Reynolds, 1992).

Hydraulic conductivity is a function of water content in the soil and the maximum hydraulic conductivity value for a given soil unit occurs under conditions of saturation. With that said, the measured K_{fs} from infiltration testing is always slightly less than the saturated hydraulic conductivity (K_{sat}) for the same soil type due to the fact that the infiltration process often does not expel all air from the voids in the unsaturated soil, leaving some air entrapped. This entrapped air results in a smaller available surface area for water to flow through resulting in K_{fs} being less than K_{sat} .

The calculations of these hydraulic parameters from the GP field results are provided in **Attachment B**.



For the design of LID stormwater infiltration systems, the measured K_{fs} values must be converted to an infiltration rate (f) using the approximate relationship provided below (Ontario Ministry of Municipal Affairs and Housing, 1997):

$$f = \left(\frac{K_{fs}}{6 \times 10^{-11}} \right)^{\frac{1}{3.7363}}$$

A factor of safety of 2.5 was applied to this calculated infiltration rate to account for soil variability, potential reductions in soil permeability due to compaction or smearing during construction and gradual accumulation of fine sediments over the lifespan of the facility (Credit Valley and the Toronto and Region Conservation Authority, 2010)

Table 2: Infiltration Rates and Hydraulic Properties of Soils in Unsaturated Zone

Infiltration Location ID	Soil Type	Φ_m (cm ² /min)	K_{fs} (cm/s)	Infiltration Rate, f , (mm/hr)	Design Infiltration Rate (mm/hr)
IN-1	Sand (SP) and Clayey Sand (SC)	4.29x10 ⁻³	5.15x10 ⁻⁴	72	29
IN-2	Silty Sand (SM) and Sand (SP)	5.60x10 ⁻³	6.72x10 ⁻⁴	77	31
IN-3	Silty Sand (SM) and Sand (SP)	3.82x10 ⁻²	4.58x10 ⁻³	129	52
IN-4	Silty Sand (SM) and Sand (SP)	2.76x10 ⁻²	3.32x10 ⁻³	118	47
IN-5	Silty Sand (SM) and Sand (SP)	1.34x10 ⁻²	1.61x10 ⁻³	97	39

4. References

- Credit Valley and the Toronto and Region Conservation Authority. (2010). *Low Impact Development Stormwater Management Planning and Design Guide. Appendix C.*
- Elrick, D. E., & Reynolds, W. D. (1992). Methods for Analyzing Constant Head Well Permeameter Data. *Soil Science*, 320-323.
- Ontario Ministry of Municipal Affairs and Housing. (1997). *Supplementary Guidelines to the Ontario Building Code 1997. SG-6 Percolation Time and Soil Descriptions.* Toronto.
- Soilmoisture Corp. (2012). *Guelph Permeameter 2800 Operating Instructions.* Santa Barbara: Soilmoisture Corp.

Attachments:

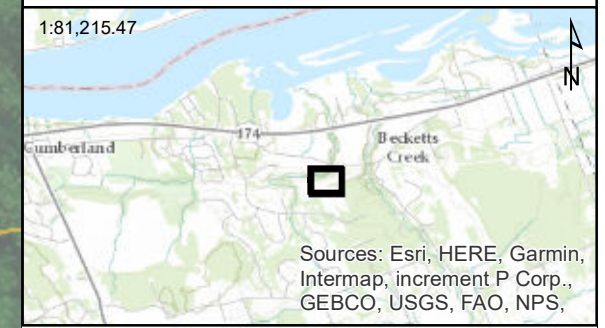
- Attachment A: Site Plan
- Appendix B: GP Results



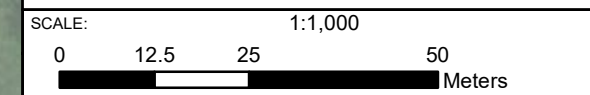
LEGEND

- Infiltration Test Locations
- Topographic Contour (mASL)

ID	Easting	Northing
IN1	471533.9	5040209.08
IN2	471486.27	5040170.11
IN3	471403.14	5040155.07
IN4	471346.51	5040134.53
IN5	471510.42	5040142.8



Coordinate System: NAD 1983 UTM Zone 18N



TITLE: **Infiltration Test Locations**

PROJECT NO.: 210647100
**Infiltration Testing for Stormwater Management
 Design at the Humanics Sanctuary**

DATE: October 2021 **Figure 1**





Input
Result

Single Head Method (1)

Reservoir Cross-sectional area in cm²
(enter "35.22" for Combined and "2.16" for Inner reservoir): **35.22**
Enter water Head Height ("H" in cm): **7**
Enter the Borehole Radius ("a" in cm): **3**

Enter the soil texture-structure category (enter one of the below numbers): **3**

1. Compacted, Structure-less, clayey or silty materials such as landfill caps and liners, lacustrine or marine sediments, etc.
2. Soils which are both fine textured (clayey or silty) and unstructured; may also include some fine sands.
3. Most structured soils from clays through loams; also includes unstructured medium and fine sands. The category most frequently applicable for agricultural soils.
4. Coarse and gravelly sands; may also include some highly structured soils with large and/or numerous cracks, macropores, etc

Steady State Rate of Water Level Change ("R" in cm/min): **0.6000**

Res Type: 35.22
H: 7
a: 3
H/a: 2.333
a*: 0.12
CO.01: 0.991
CO.04: 1.04
CO.12: 1.014
CO.36: 1.014
C: 1.014
R: 0.600
Q: 0.352
pi: 3.142

$\alpha^* = 0.12 \text{ cm}^{-1}$
C = 1.0139
Q = 0.3522
 $K_{fs} = 5.08E-04 \text{ cm/sec}$
 $3.05E-02 \text{ cm/min}$
 $5.08E-06 \text{ m/sec}$
 $1.20E-02 \text{ inch/min}$
 $2.00E-04 \text{ inch/sec}$
 $\Phi_m = 4.23E-03 \text{ cm}^2/\text{min}$

Single Head Method (2)

Reservoir Cross-sectional area in cm²
(enter "35.22" for Combined and "2.16" for Inner reservoir): **35.22**
Enter water Head Height ("H" in cm): **15**
Enter the Borehole Radius ("a" in cm): **3**

Enter the soil texture-structure category (enter one of the below numbers): **3**

1. Compacted, Structure-less, clayey or silty materials such as landfill caps and liners, lacustrine or marine sediments, etc.
2. Soils which are both fine textured (clayey or silty) and unstructured; may also include some fine sands.
3. Most structured soils from clays through loams; also includes unstructured medium and fine sands. The category most frequently applicable for agricultural soils.
4. Coarse and gravelly sands; may also include some highly structured soils with large and/or numerous cracks, macropores, etc

Steady State Rate of Water Level Change ("R" in cm/min): **1.2000**

Res Type: 35.22
H: 15
a: 3
H/a: 5
a*: 0.12
CO.01: 1.51827
CO.04: 1.62914
CO.12: 1.66689
CO.36: 1.66689
C: 1.66689
R: 1.200
Q: 0.7044
pi: 3.1415

$\alpha^* = 0.12 \text{ cm}^{-1}$
C = 1.66689
Q = 0.7044
 $K_{fs} = 5.23E-04 \text{ cm/sec}$
 $3.14E-02 \text{ cm/min}$
 $5.23E-06 \text{ m/sec}$
 $1.23E-02 \text{ inch/min}$
 $2.06E-04 \text{ inch/sec}$
 $\Phi_m = 4.36E-03 \text{ cm}^2/\text{min}$

Average

$K_{fs} = 5.15E-04 \text{ cm/sec}$
 $3.09E-02 \text{ cm/min}$
 $5.15E-06 \text{ m/s}$
 $1.22E-02 \text{ inch/min}$
 $2.03E-04 \text{ inch/sec}$
 $\Phi_m = 4.29E-03 \text{ cm}^2/\text{min}$

Calculation formulas related to shape factor (C). Where H₁ is the first water head height (cm), H₂ is the second water head height (cm), a is borehole radius (cm) and a* is microscopic capillary length factor which is decided according to the soil texture-structure category. For one-head method, only C₁ needs to be calculated while for two-head method, C₁ and C₂ are calculated (Zaig et al., 1998).

Soil Texture-Structure Category	$\alpha^*(\text{cm}^{-1})$	Shape Factor
Compacted, Structure-less, clayey or silty materials such as landfill caps and liners, lacustrine or marine sediments, etc.	0.01	$C_1 = \left(\frac{H_2/a}{2.081 + 0.121(H_2/a)} \right)^{0.672}$
Soils which are both fine textured (clayey or silty) and unstructured; may also include some fine sands.	0.04	$C_1 = \left(\frac{H_1/a}{1.992 + 0.091(H_1/a)} \right)^{0.683}$ $C_2 = \left(\frac{H_2/a}{1.992 + 0.091(H_2/a)} \right)^{0.683}$
Most structured soils from clays through loams; also includes unstructured medium and fine sands. The category most frequently applicable for agricultural soils.	0.12	$C_1 = \left(\frac{H_1/a}{2.074 + 0.093(H_1/a)} \right)^{0.754}$ $C_2 = \left(\frac{H_2/a}{2.074 + 0.093(H_2/a)} \right)^{0.754}$
Coarse and gravelly sands; may also include some highly structured soils with large and/or numerous cracks, macro pores, etc.	0.36	$C_1 = \left(\frac{H_1/a}{2.074 + 0.093(H_1/a)} \right)^{0.754}$ $C_2 = \left(\frac{H_2/a}{2.074 + 0.093(H_2/a)} \right)^{0.754}$

Calculation formulas related to one-head and two-head methods. Where R is steady-state rate of fall of water in reservoir (cm/s), K_{fs} is Soil saturated hydraulic conductivity (cm/s), Φ_m is Soil matric flux potential (cm²/s), a* is Macroscopic capillary length parameter (from Table 2), a is Borehole radius (cm), H₁ is the first head of water established in borehole (cm), H₂ is the second head of water established in borehole (cm) and C is Shape Factor (from Table 2).

One Head, Combined Reservoir	$Q_1 = \bar{R}_1 \times 35.22$	$K_{fs} = \frac{C_1 \times Q_1}{2\pi H_1^2 + \pi a^2 C_1 + 2\pi \left(\frac{H_1^2}{a^2} \right)}$ $\Phi_m = \frac{C_1 \times Q_1}{(2\pi H_1^2 + \pi a^2 C_1) a^* + 2\pi H_1}$
One Head, Inner Reservoir	$Q_1 = \bar{R}_1 \times 2.16$	
Two Head, Combined Reservoir	$Q_1 = \bar{R}_1 \times 35.22$ $Q_2 = \bar{R}_2 \times 35.22$	$G_1 = \frac{H_2 C_1}{\pi(2H_1 H_2 (H_2 - H_1) + a^2 (H_1 C_2 - H_2 C_1))}$ $G_2 = \frac{H_1 C_2}{\pi(2H_1 H_2 (H_2 - H_1) + a^2 (H_1 C_2 - H_2 C_1))}$ $K_{fs} = G_2 Q_2 - G_1 Q_1$ $G_3 = \frac{(2H_1^2 + a^2 C_1) C_1}{2\pi(2H_1 H_2 (H_2 - H_1) + a^2 (H_1 C_2 - H_2 C_1))}$
Two Head, Inner Reservoir	$Q_1 = \bar{R}_1 \times 2.16$ $Q_2 = \bar{R}_2 \times 2.16$	$G_4 = \frac{(2H_2^2 + a^2 C_2) C_2}{2\pi(2H_1 H_2 (H_2 - H_1) + a^2 (H_1 C_2 - H_2 C_1))}$ $\Phi_m = G_3 Q_1 - G_4 Q_2$



Input
Result

Single Head Method (1)

Reservoir Cross-sectional area in cm²
(enter "35.22" for Combined and "2.16" for Inner reservoir): **35.22**
Enter water Head Height ("H" in cm): **5**
Enter the Borehole Radius ("a" in cm): **3**

Enter the soil texture-structure category (enter one of the below numbers): **3**

1. Compacted, Structure-less, clayey or silty materials such as landfill caps and liners, lacustrine or marine sediments, etc.
2. Soils which are both fine textured (clayey or silty) and unstructured; may also include some fine sands.
3. Most structured soils from clays through loams; also includes unstructured medium and fine sands. The category most frequently applicable for agricultural soils.
4. Coarse and gravelly sands; may also include some highly structured soils with large and/or numerous cracks, macropores, etc

Steady State Rate of Water Level Change ("R" in cm/min): **0.5000**

Res Type: 35.22
H: 5
a: 3
H/a: 1.667
a*: 0.12
CO.01: 0.809
CO.04: 0.842
CO.12: 0.803
CO.36: 0.803
C: 0.803
R: 0.500
Q: 0.294
pi: 3.142

$\alpha^* = 0.12 \text{ cm}^{-1}$
 $C = 0.80315$
 $Q = 0.2935$
 $K_{fs} = 5.34E-04 \text{ cm/sec}$
 $3.20E-02 \text{ cm/min}$
 $5.34E-06 \text{ m/sec}$
 $1.26E-02 \text{ inch/min}$
 $2.10E-04 \text{ inch/sec}$
 $\Phi_m = 4.45E-03 \text{ cm}^2/\text{min}$

Single Head Method (2)

Reservoir Cross-sectional area in cm²
(enter "35.22" for Combined and "2.16" for Inner reservoir): **35.22**
Enter water Head Height ("H" in cm): **12**
Enter the Borehole Radius ("a" in cm): **3**

Enter the soil texture-structure category (enter one of the below numbers): **3**

1. Compacted, Structure-less, clayey or silty materials such as landfill caps and liners, lacustrine or marine sediments, etc.
2. Soils which are both fine textured (clayey or silty) and unstructured; may also include some fine sands.
3. Most structured soils from clays through loams; also includes unstructured medium and fine sands. The category most frequently applicable for agricultural soils.
4. Coarse and gravelly sands; may also include some highly structured soils with large and/or numerous cracks, macropores, etc

Steady State Rate of Water Level Change ("R" in cm/min): **1.5000**

Res Type: 35.22
H: 12
a: 3
H/a: 4
a*: 0.12
CO.01: 1.34796
CO.04: 1.43553
CO.12: 1.44896
CO.36: 1.44896
C: 1.44896
R: 1.500
Q: 0.8805
pi: 3.1415

$\alpha^* = 0.12 \text{ cm}^{-1}$
 $C = 1.44896$
 $Q = 0.8805$
 $K_{fs} = 8.11E-04 \text{ cm/sec}$
 $4.86E-02 \text{ cm/min}$
 $8.11E-06 \text{ m/sec}$
 $1.91E-02 \text{ inch/min}$
 $3.19E-04 \text{ inch/sec}$
 $\Phi_m = 6.75E-03 \text{ cm}^2/\text{min}$

Average

$K_{fs} = 6.72E-04 \text{ cm/sec}$
 $4.03E-02 \text{ cm/min}$
 $6.72E-06 \text{ m/s}$
 $1.59E-02 \text{ inch/min}$
 $2.65E-04 \text{ inch/sec}$
 $\Phi_m = 5.60E-03 \text{ cm}^2/\text{min}$

Calculation formulas related to shape factor (C). Where H₁ is the first water head height (cm), H₂ is the second water head height (cm), a is borehole radius (cm) and a* is microscopic capillary length factor which is decided according to the soil texture-structure category. For one-head method, only C₁ needs to be calculated while for two-head method, C₁ and C₂ are calculated (Zaig et al., 1998).

Soil Texture-Structure Category	$\alpha^*(\text{cm}^{-1})$	Shape Factor
Compacted, Structure-less, clayey or silty materials such as landfill caps and liners, lacustrine or marine sediments, etc.	0.01	$C_1 = \left(\frac{H_2/a}{2.081 + 0.121(H_2/a)} \right)^{0.672}$
Soils which are both fine textured (clayey or silty) and unstructured; may also include some fine sands.	0.04	$C_1 = \left(\frac{H_1/a}{1.992 + 0.091(H_1/a)} \right)^{0.683}$ $C_2 = \left(\frac{H_2/a}{1.992 + 0.091(H_2/a)} \right)^{0.683}$
Most structured soils from clays through loams; also includes unstructured medium and fine sands. The category most frequently applicable for agricultural soils.	0.12	$C_1 = \left(\frac{H_1/a}{2.074 + 0.093(H_1/a)} \right)^{0.754}$ $C_2 = \left(\frac{H_2/a}{2.074 + 0.093(H_2/a)} \right)^{0.754}$
Coarse and gravelly sands; may also include some highly structured soils with large and/or numerous cracks, macro pores, etc.	0.36	$C_1 = \left(\frac{H_1/a}{2.074 + 0.093(H_1/a)} \right)^{0.754}$ $C_2 = \left(\frac{H_2/a}{2.074 + 0.093(H_2/a)} \right)^{0.754}$

Calculation formulas related to one-head and two-head methods. Where R is steady-state rate of fall of water in reservoir (cm/s), K_{fs} is Soil saturated hydraulic conductivity (cm/s), Φ_m is Soil matric flux potential (cm²/s), a* is Macroscopic capillary length parameter (from Table 2), a is Borehole radius (cm), H₁ is the first head of water established in borehole (cm), H₂ is the second head of water established in borehole (cm) and C is Shape Factor (from Table 2).

One Head, Combined Reservoir	$Q_1 = \bar{R}_1 \times 35.22$	$K_{fs} = \frac{C_1 \times Q_1}{2\pi H_1^2 + \pi a^2 C_1 + 2\pi \left(\frac{H_1}{a} \right)}$ $\Phi_m = \frac{C_1 \times Q_1}{(2\pi H_1^2 + \pi a^2 C_1) a^* + 2\pi H_1}$
One Head, Inner Reservoir	$Q_1 = \bar{R}_1 \times 2.16$	
Two Head, Combined Reservoir	$Q_1 = \bar{R}_1 \times 35.22$ $Q_2 = \bar{R}_2 \times 35.22$	$G_1 = \frac{H_2 C_1}{\pi(2H_1 H_2 (H_2 - H_1) + a^2 (H_1 C_2 - H_2 C_1))}$ $G_2 = \frac{H_1 C_2}{\pi(2H_1 H_2 (H_2 - H_1) + a^2 (H_1 C_2 - H_2 C_1))}$ $K_{fs} = G_2 Q_2 - G_1 Q_1$ $G_3 = \frac{(2H_1^2 + a^2 C_1) C_1}{2\pi(2H_1 H_2 (H_2 - H_1) + a^2 (H_1 C_2 - H_2 C_1))}$
Two Head, Inner Reservoir	$Q_1 = \bar{R}_1 \times 2.16$ $Q_2 = \bar{R}_2 \times 2.16$	$G_4 = \frac{(2H_2^2 + a^2 C_2) C_2}{2\pi(2H_1 H_2 (H_2 - H_1) + a^2 (H_1 C_2 - H_2 C_1))}$ $\Phi_m = G_3 Q_1 - G_4 Q_2$



Guelph Permeameter

 Input
 Result

Single Head Method (1)

Reservoir Cross-sectional area in cm²
 (enter "35.22" for Combined and "2.16" for Inner reservoir): 35.22
 Enter water Head Height ("H" in cm): 5
 Enter the Borehole Radius ("a" in cm): 3

Enter the soil texture-structure category (enter one of the below numbers): 3

1. Compacted, Structure-less, clayey or silty materials such as landfill caps and liners, lacustrine or marine sediments, etc.
2. Soils which are both fine textured (clayey or silty) and unstructured; may also include some fine sands.
3. Most structured soils from clays through loams; also includes unstructured medium and fine sands. The category most frequently applicable for agricultural soils.
4. Coarse and gravelly sands; may also include some highly structured soils with large and/or numerous cracks, macropores, etc

Steady State Rate of Water Level Change ("R" in cm/min): 5.0000

Res Type: 35.22
 H: 5
 a: 3
 H/a: 1.6667
 a*: 0.12
 CO.01: 0.809
 CO.04: 0.842
 CO.12: 0.803
 CO.36: 0.803
 C: 0.803
 R: 5.000
 Q: 2.935
 pi: 3.142

$\alpha^* = 0.12 \text{ cm}^{-1}$
C = 0.80315
Q = 2.935
K_{fs} = 5.34E-03 cm/sec
3.20E-01 cm/min
5.34E-05 m/sec
1.26E-01 inch/min
2.10E-03 inch/sec
Φ_m = 4.45E-02 cm²/min

Single Head Method (2)

Reservoir Cross-sectional area in cm²
 (enter "35.22" for Combined and "2.16" for Inner reservoir): 35.22
 Enter water Head Height ("H" in cm): 17
 Enter the Borehole Radius ("a" in cm): 3

Enter the soil texture-structure category (enter one of the below numbers): 3

1. Compacted, Structure-less, clayey or silty materials such as landfill caps and liners, lacustrine or marine sediments, etc.
2. Soils which are both fine textured (clayey or silty) and unstructured; may also include some fine sands.
3. Most structured soils from clays through loams; also includes unstructured medium and fine sands. The category most frequently applicable for agricultural soils.
4. Coarse and gravelly sands; may also include some highly structured soils with large and/or numerous cracks, macropores, etc

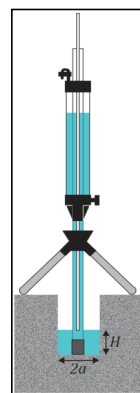
Steady State Rate of Water Level Change ("R" in cm/min): 10.0000

Res Type: 35.22
 H: 17
 a: 3
 H/a: 5.66667
 a*: 0.12
 CO.01: 1.61898
 CO.04: 1.7451
 CO.12: 1.79884
 CO.36: 1.79884
 C: 1.79884
 R: 10.000
 Q: 5.87
 pi: 3.1415

$\alpha^* = 0.12 \text{ cm}^{-1}$
C = 1.79884
Q = 5.87
K_{fs} = 3.83E-03 cm/sec
2.30E-01 cm/min
3.83E-05 m/sec
9.05E-02 inch/min
1.51E-03 inch/sec
Φ_m = 3.19E-02 cm²/min

Average

K_{fs} = 4.58E-03 cm/sec
2.75E-01 cm/min
4.58E-05 m/s
1.08E-01 inch/min
1.80E-03 inch/sec
Φ_m = 3.82E-02 cm²/min



Calculation formulas related to shape factor (C). Where H₁ is the first water head height (cm), H₂ is the second water head height (cm), a is borehole radius (cm) and a* is microscopic capillary length factor which is decided according to the soil texture-structure category. For one-head method, only C needs to be calculated while for two-head method, C₁ and C₂ are calculated (Zaig et al., 1998).

Soil Texture-Structure Category	α*(cm ⁻¹)	Shape Factor
Compacted, Structure-less, clayey or silty materials such as landfill caps and liners, lacustrine or marine sediments, etc.	0.01	$C_1 = \left(\frac{H_2/a}{2.081 + 0.121(H_2/a)} \right)^{0.672}$
Soils which are both fine textured (clayey or silty) and unstructured; may also include some fine sands.	0.04	$C_1 = \left(\frac{H_1/a}{1.992 + 0.091(H_1/a)} \right)^{0.683}$ $C_2 = \left(\frac{H_2/a}{1.992 + 0.091(H_2/a)} \right)^{0.683}$
Most structured soils from clays through loams; also includes unstructured medium and fine sands. The category most frequently applicable for agricultural soils.	0.12	$C_1 = \left(\frac{H_1/a}{2.074 + 0.093(H_1/a)} \right)^{0.754}$ $C_2 = \left(\frac{H_2/a}{2.074 + 0.093(H_2/a)} \right)^{0.754}$
Coarse and gravelly sands; may also include some highly structured soils with large and/or numerous cracks, macro pores, etc.	0.36	$C_1 = \left(\frac{H_1/a}{2.074 + 0.093(H_1/a)} \right)^{0.754}$ $C_2 = \left(\frac{H_2/a}{2.074 + 0.093(H_2/a)} \right)^{0.754}$

Calculation formulas related to one-head and two-head methods. Where R is steady-state rate of fall of water in reservoir (cm/s), K_{fs} is Soil saturated hydraulic conductivity (cm/s), Φ_m is Soil matric flux potential (cm²/s), a* is Macroscopic capillary length parameter (from Table 2), a is Borehole radius (cm), H₁ is the first head of water established in borehole (cm), H₂ is the second head of water established in borehole (cm) and C is Shape Factor (from Table 2).

One Head, Combined Reservoir	Q ₁ = R̄ ₁ × 35.22	$K_{fs} = \frac{C_1 \times Q_1}{2\pi H_1^2 + \pi a^2 C_1 + 2\pi \left(\frac{H_1}{a}\right)}$ $\Phi_m = \frac{C_1 \times Q_1}{(2\pi H_1^2 + \pi a^2 C_1) a^* + 2\pi H_1}$
One Head, Inner Reservoir	Q ₁ = R̄ ₁ × 2.16	
Two Head, Combined Reservoir	Q ₁ = R̄ ₁ × 35.22 Q ₂ = R̄ ₂ × 35.22	$G_1 = \frac{H_2 C_1}{\pi(2H_1 H_2 (H_2 - H_1) + a^2 (H_1 C_2 - H_2 C_1))}$ $G_2 = \frac{H_1 C_2}{\pi(2H_1 H_2 (H_2 - H_1) + a^2 (H_1 C_2 - H_2 C_1))}$ $K_{fs} = G_2 Q_2 - G_1 Q_1$ $G_3 = \frac{(2H_1^2 + a^2 C_1) C_1}{2\pi(2H_1 H_2 (H_2 - H_1) + a^2 (H_1 C_2 - H_2 C_1))}$
Two Head, Inner Reservoir	Q ₁ = R̄ ₁ × 2.16 Q ₂ = R̄ ₂ × 2.16	$G_4 = \frac{(2H_2^2 + a^2 C_2) C_2}{2\pi(2H_1 H_2 (H_2 - H_1) + a^2 (H_1 C_2 - H_2 C_1))}$ $\Phi_m = G_3 Q_1 - G_4 Q_2$



Input
Result

Single Head Method (1)

Reservoir Cross-sectional area in cm²
(enter "35.22" for Combined and "2.16" for Inner reservoir): **35.22**
Enter water Head Height ("H" in cm): **6**
Enter the Borehole Radius ("a" in cm): **3**

Enter the soil texture-structure category (enter one of the below numbers): **3**

1. Compacted, Structure-less, clayey or silty materials such as landfill caps and liners, lacustrine or marine sediments, etc.
2. Soils which are both fine textured (clayey or silty) and unstructured; may also include some fine sands.
3. Most structured soils from clays through loams; also includes unstructured medium and fine sands. The category most frequently applicable for agricultural soils.
4. Coarse and gravelly sands; may also include some highly structured soils with large and/or numerous cracks, macropores, etc

Steady State Rate of Water Level Change ("R" in cm/min): **4.2000**

Res Type: 35.22
H: 6
a: 3
H/a: 2
a*: 0.12
CO.01: 0.904
CO.04: 0.945
CO.12: 0.912
CO.36: 0.912
C: 0.912
R: 4.200
Q: 2.465
pi: 3.142

$\alpha^* = 0.12 \text{ cm}^{-1}$
 $C = 0.91197$
 $Q = 2.4654$
 $K_{fs} = 3.97E-03 \text{ cm/sec}$
 $2.38E-01 \text{ cm/min}$
 $3.97E-05 \text{ m/sec}$
 $9.38E-02 \text{ inch/min}$
 $1.56E-03 \text{ inch/sec}$
 $\Phi_m = 3.31E-02 \text{ cm}^2/\text{min}$

Single Head Method (2)

Reservoir Cross-sectional area in cm²
(enter "35.22" for Combined and "2.16" for Inner reservoir): **35.22**
Enter water Head Height ("H" in cm): **14**
Enter the Borehole Radius ("a" in cm): **3**

Enter the soil texture-structure category (enter one of the below numbers): **3**

1. Compacted, Structure-less, clayey or silty materials such as landfill caps and liners, lacustrine or marine sediments, etc.
2. Soils which are both fine textured (clayey or silty) and unstructured; may also include some fine sands.
3. Most structured soils from clays through loams; also includes unstructured medium and fine sands. The category most frequently applicable for agricultural soils.
4. Coarse and gravelly sands; may also include some highly structured soils with large and/or numerous cracks, macropores, etc

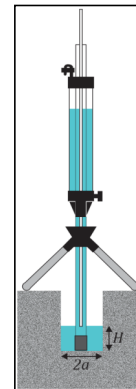
Steady State Rate of Water Level Change ("R" in cm/min): **5.7000**

Res Type: 35.22
H: 14
a: 3
H/a: 4.66667
a*: 0.12
CO.01: 1.4643
CO.04: 1.56745
CO.12: 1.59712
CO.36: 1.59712
C: 1.59712
R: 5.700
Q: 3.3459
pi: 3.1415

$\alpha^* = 0.12 \text{ cm}^{-1}$
 $C = 1.59712$
 $Q = 3.3459$
 $K_{fs} = 2.66E-03 \text{ cm/sec}$
 $1.60E-01 \text{ cm/min}$
 $2.66E-05 \text{ m/sec}$
 $6.28E-02 \text{ inch/min}$
 $1.05E-03 \text{ inch/sec}$
 $\Phi_m = 2.22E-02 \text{ cm}^2/\text{min}$

Average

$K_{fs} = 3.32E-03 \text{ cm/sec}$
 $1.99E-01 \text{ cm/min}$
 $3.32E-05 \text{ m/s}$
 $7.83E-02 \text{ inch/min}$
 $1.31E-03 \text{ inch/sec}$
 $\Phi_m = 2.76E-02 \text{ cm}^2/\text{min}$



Calculation formulas related to shape factor (C). Where H₁ is the first water head height (cm), H₂ is the second water head height (cm), a is borehole radius (cm) and a* is microscopic capillary length factor which is decided according to the soil texture-structure category. For one-head method, only C₁ needs to be calculated while for two-head method, C₁ and C₂ are calculated (Zaig et al., 1998).

Soil Texture-Structure Category	$\alpha^*(\text{cm}^{-1})$	Shape Factor
Compacted, Structure-less, clayey or silty materials such as landfill caps and liners, lacustrine or marine sediments, etc.	0.01	$C_1 = \left(\frac{H_2/a}{2.081 + 0.121(H_2/a)} \right)^{0.672}$
Soils which are both fine textured (clayey or silty) and unstructured; may also include some fine sands.	0.04	$C_1 = \left(\frac{H_1/a}{1.992 + 0.091(H_1/a)} \right)^{0.683}$ $C_2 = \left(\frac{H_2/a}{1.992 + 0.091(H_2/a)} \right)^{0.683}$
Most structured soils from clays through loams; also includes unstructured medium and fine sands. The category most frequently applicable for agricultural soils.	0.12	$C_1 = \left(\frac{H_1/a}{2.074 + 0.093(H_1/a)} \right)^{0.754}$ $C_2 = \left(\frac{H_2/a}{2.074 + 0.093(H_2/a)} \right)^{0.754}$
Coarse and gravelly sands; may also include some highly structured soils with large and/or numerous cracks, macro pores, etc.	0.36	$C_1 = \left(\frac{H_1/a}{2.074 + 0.093(H_1/a)} \right)^{0.754}$ $C_2 = \left(\frac{H_2/a}{2.074 + 0.093(H_2/a)} \right)^{0.754}$

Calculation formulas related to one-head and two-head methods. Where R is steady-state rate of fall of water in reservoir (cm/s), K_{fs} is Soil saturated hydraulic conductivity (cm/s), Φ_m is Soil matric flux potential (cm²/s), a* is Macroscopic capillary length parameter (from Table 2), a is Borehole radius (cm), H₁ is the first head of water established in borehole (cm), H₂ is the second head of water established in borehole (cm) and C is Shape Factor (from Table 2).

One Head, Combined Reservoir	$Q_1 = \bar{R}_1 \times 35.22$	$K_{fs} = \frac{C_1 \times Q_1}{2\pi H_1^2 + \pi a^2 C_1 + 2\pi \left(\frac{H_1}{a} \right)}$ $\Phi_m = \frac{C_1 \times Q_1}{(2\pi H_1^2 + \pi a^2 C_1) a^* + 2\pi H_1}$
One Head, Inner Reservoir	$Q_1 = \bar{R}_1 \times 2.16$	
Two Head, Combined Reservoir	$Q_1 = \bar{R}_1 \times 35.22$ $Q_2 = \bar{R}_2 \times 35.22$	$G_1 = \frac{H_2 C_1}{\pi(2H_1 H_2 (H_2 - H_1) + a^2 (H_1 C_2 - H_2 C_1))}$ $G_2 = \frac{H_1 C_2}{\pi(2H_1 H_2 (H_2 - H_1) + a^2 (H_1 C_2 - H_2 C_1))}$ $K_{fs} = G_2 Q_2 - G_1 Q_1$ $G_3 = \frac{(2H_1^2 + a^2 C_1) C_1}{2\pi(2H_1 H_2 (H_2 - H_1) + a^2 (H_1 C_2 - H_2 C_1))}$
Two Head, Inner Reservoir	$Q_1 = \bar{R}_1 \times 2.16$ $Q_2 = \bar{R}_2 \times 2.16$	$G_4 = \frac{(2H_2^2 + a^2 C_1) C_2}{2\pi(2H_1 H_2 (H_2 - H_1) + a^2 (H_1 C_2 - H_2 C_1))}$ $\Phi_m = G_3 Q_1 - G_4 Q_2$



Input
Result

Single Head Method (1)

Reservoir Cross-sectional area in cm²
(enter "35.22" for Combined and "2.16" for Inner reservoir): **35.22**
Enter water Head Height ("H" in cm): **5**
Enter the Borehole Radius ("a" in cm): **3**

Enter the soil texture-structure category (enter one of the below numbers): **3**

1. Compacted, Structure-less, clayey or silty materials such as landfill caps and liners, lacustrine or marine sediments, etc.
2. Soils which are both fine textured (clayey or silty) and unstructured; may also include some fine sands.
3. Most structured soils from clays through loams; also includes unstructured medium and fine sands. The category most frequently applicable for agricultural soils.
4. Coarse and gravelly sands; may also include some highly structured soils with large and/or numerous cracks, macropores, etc

Steady State Rate of Water Level Change ("R" in cm/min): **1.5000**

Res Type: 35.22
H: 5
a: 3
H/a: 1.667
a*: 0.12
CO.01: 0.809
CO.04: 0.842
CO.12: 0.803
CO.36: 0.803
C: 0.803
R: 1.500
Q: 0.881
pi: 3.142

$\alpha^* = 0.12 \text{ cm}^{-1}$
C = 0.80315
Q = 0.8805
 $K_{fs} = 1.60E-03 \text{ cm/sec}$
9.61E-02 cm/min
1.60E-05 m/sec
3.78E-02 inch/min
6.31E-04 inch/sec
 $\Phi_m = 1.33E-02 \text{ cm}^2/\text{min}$

Single Head Method (2)

Reservoir Cross-sectional area in cm²
(enter "35.22" for Combined and "2.16" for Inner reservoir): **35.22**
Enter water Head Height ("H" in cm): **12**
Enter the Borehole Radius ("a" in cm): **3**

Enter the soil texture-structure category (enter one of the below numbers): **3**

1. Compacted, Structure-less, clayey or silty materials such as landfill caps and liners, lacustrine or marine sediments, etc.
2. Soils which are both fine textured (clayey or silty) and unstructured; may also include some fine sands.
3. Most structured soils from clays through loams; also includes unstructured medium and fine sands. The category most frequently applicable for agricultural soils.
4. Coarse and gravelly sands; may also include some highly structured soils with large and/or numerous cracks, macropores, etc

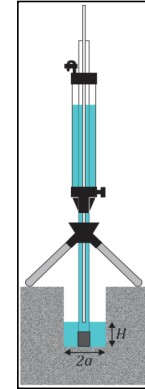
Steady State Rate of Water Level Change ("R" in cm/min): **3.0000**

Res Type: 35.22
H: 12
a: 3
H/a: 4
a*: 0.12
CO.01: 1.34796
CO.04: 1.43553
CO.12: 1.44896
CO.36: 1.44896
C: 1.44896
R: 3.000
Q: 1.761
pi: 3.1415

$\alpha^* = 0.12 \text{ cm}^{-1}$
C = 1.44896
Q = 1.761
 $K_{fs} = 1.62E-03 \text{ cm/sec}$
9.73E-02 cm/min
1.62E-05 m/sec
3.83E-02 inch/min
6.38E-04 inch/sec
 $\Phi_m = 1.35E-02 \text{ cm}^2/\text{min}$

Average

$K_{fs} = 1.61E-03 \text{ cm/sec}$
9.67E-02 cm/min
1.61E-05 m/s
3.81E-02 inch/min
6.34E-04 inch/sec
 $\Phi_m = 1.34E-02 \text{ cm}^2/\text{min}$



Calculation formulas related to shape factor (C). Where H₁ is the first water head height (cm), H₂ is the second water head height (cm), a is borehole radius (cm) and a* is microscopic capillary length factor which is decided according to the soil texture-structure category. For one-head method, only C needs to be calculated while for two-head method, C₁ and C₂ are calculated (Zaig et al., 1998).

Soil Texture-Structure Category	$\alpha^*(\text{cm}^{-1})$	Shape Factor
Compacted, Structure-less, clayey or silty materials such as landfill caps and liners, lacustrine or marine sediments, etc.	0.01	$C_1 = \left(\frac{H_2/a}{2.081 + 0.121(H_2/a)} \right)^{0.672}$
Soils which are both fine textured (clayey or silty) and unstructured; may also include some fine sands.	0.04	$C_1 = \left(\frac{H_1/a}{1.992 + 0.091(H_1/a)} \right)^{0.683}$ $C_2 = \left(\frac{H_2/a}{1.992 + 0.091(H_2/a)} \right)^{0.683}$
Most structured soils from clays through loams; also includes unstructured medium and fine sands. The category most frequently applicable for agricultural soils.	0.12	$C_1 = \left(\frac{H_1/a}{2.074 + 0.093(H_1/a)} \right)^{0.754}$ $C_2 = \left(\frac{H_2/a}{2.074 + 0.093(H_2/a)} \right)^{0.754}$
Coarse and gravelly sands; may also include some highly structured soils with large and/or numerous cracks, macro pores, etc.	0.36	$C_1 = \left(\frac{H_1/a}{2.074 + 0.093(H_1/a)} \right)^{0.754}$ $C_2 = \left(\frac{H_2/a}{2.074 + 0.093(H_2/a)} \right)^{0.754}$

Calculation formulas related to one-head and two-head methods. Where R is steady-state rate of fall of water in reservoir (cm/s), K_{fs} is Soil saturated hydraulic conductivity (cm/s), Φ_m is Soil matric flux potential (cm²/s), a* is Macroscopic capillary length parameter (from Table 2), a is Borehole radius (cm), H₁ is the first head of water established in borehole (cm), H₂ is the second head of water established in borehole (cm) and C is Shape Factor (from Table 2).

One Head, Combined Reservoir	$Q_1 = \bar{R}_1 \times 35.22$	$K_{fs} = \frac{C_1 \times Q_1}{2\pi H_1^2 + \pi a^2 C_1 + 2\pi \left(\frac{H_1}{a} \right)}$
One Head, Inner Reservoir	$Q_1 = \bar{R}_1 \times 2.16$	$\Phi_m = \frac{C_1 \times Q_1}{(2\pi H_1^2 + \pi a^2 C_1) a^* + 2\pi H_1}$
Two Head, Combined Reservoir	$Q_1 = \bar{R}_1 \times 35.22$ $Q_2 = \bar{R}_2 \times 35.22$	$G_1 = \frac{H_2 C_1}{\pi(2H_1 H_2 (H_2 - H_1) + a^2 (H_1 C_2 - H_2 C_1))}$ $G_2 = \frac{H_1 C_2}{\pi(2H_1 H_2 (H_2 - H_1) + a^2 (H_1 C_2 - H_2 C_1))}$ $K_{fs} = G_2 Q_2 - G_1 Q_1$ $G_3 = \frac{(2H_1^2 + a^2 C_1) C_1}{2\pi(2H_1 H_2 (H_2 - H_1) + a^2 (H_1 C_2 - H_2 C_1))}$
Two Head, Inner Reservoir	$Q_1 = \bar{R}_1 \times 2.16$ $Q_2 = \bar{R}_2 \times 2.16$	$G_4 = \frac{(2H_2^2 + a^2 C_2) C_2}{2\pi(2H_1 H_2 (H_2 - H_1) + a^2 (H_1 C_2 - H_2 C_1))}$ $\Phi_m = G_3 Q_1 - G_4 Q_2$