CEDAR HILLS REGIONAL LANDFILL QUARTERLY ENVIRONMENTAL MONITORING REPORT

Fourth Quarter 2018

King County
Department of
Natural Resources and Parks
Solid Waste Division

Serving Community | Protecting Environment | Operating Excellence

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March 2019

WASHINGTON STATE DEPARTMENT OF ECOLOGY

CHECKLIST FOR GROUNDWATER REPORTING
Municipal Solid Waste Landfills
WAC 173-351-415

Include a signed, completed copy of this checklist with each quarterly and annual report.

Quarterly groundwater reports shall be submitted to the jurisdictional health department and Ecology within 60 days of receipt of analytical data. Annual groundwater reports shall be submitted to the jurisdictional health department and Ecology by April 1 of each year.

1st ——— 2nd ——— 3rd ——— 4th ✓ ——— YEAR 2018	Reference (section, subsection)	Included in this report	Location – page # or appendix #
Quarterly Groundwater Reports: *173-351-415 (2) plus the referenced section*			
Statistical calculations and summaries			
Descriptive statistics	420, (1)	☐	
Statistical tests	420, (2)	☐	3
Notification of statistical increase (if applicable)	420, (4)	☐	3
Notification of concentrations above Chapter 173-200 WAC criteria (if any)	430, (4)	☐	25, 26
Static water level readings	415, (2)	☐	App B
Potentiometric surface elevation maps depicting flow direction	415, (2)	☐	App A
Flow rate – calculated	415, (2)	☐	App A
Cation-anion balances	430, (5a)	☐	27-32, 39
Explanation of greater than 5% (or 10%) difference if needed	430, (5a)	☐	
Trilinear diagrams	430, (5b)	☐	33, 34, 41, 42
Leachate analyses (if sampled and tested)	415, (2)	☐	App B
Data entered into EIM database (date entered:)	415, (3)	☐	
Complete copy of the lab report with chain of custody record.		☐	
Annual Groundwater Reports: *173-351-415 (1)* **YEAR**			
Summary of statistical results and trends	415, (1)	☐	
Summary of groundwater flow rate and direction for the year	415, (1)	☐	
Copy of all potentiometric maps for the year	415, (1)	☐	
Summary geochemical evaluation	415, (1)	☐	
For Quarterly and Annual Reports			
Stamped by a licensed professional	RCW 18.220	☑	v

James Bell for Kris McArthur — March 1, 2019 — Cedar Hills Regional Landfill

Signature of Report Author — Date — Landfill

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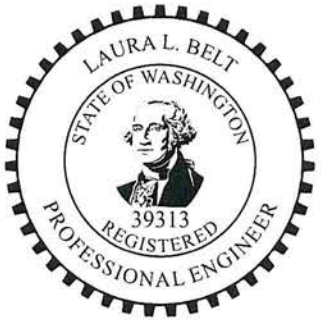
CERTIFICATION

Quarterly Report Groundwater Evaluation Report Certification

I certify in accordance with the requirements of WAC 173-351-400(c) (3), that the contents of this **Cedar Hills Landfill Quarterly Environmental Monitoring Report** were prepared under my direction or supervision under a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Where applicable, some specific and related hydrogeologic portions have been duly certified by the responsible groundwater scientist. Based on my inquiry of the person(s) directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

Name: Laura Belt, P.E.	**Title:** Supervising Engineer, Facility Engineering and Science Unit	**Date:** March 1, 2019
Mailing Address: Solid Waste Division King County Department of Natural Resources & Parks 201 South Jackson Street, Suite 701 Seattle, WA 98104-3855		**Telephone Number:** 206-477-5215
Signature:		



EXPIRES 9-10-2019

KING COUNTY SOLID WASTE DIVISION
CEDAR HILLS REGIONAL LANDFILL
QUARTERLY ENVIRONMENTAL MONITORING REPORT

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Cedar Hills Regional Landfill Summary of Quarterly Environmental Monitoring
Fourth Quarter of 2018

This summary discusses quarterly environmental monitoring results for groundwater, stormwater, and landfill gas migration monitoring for Cedar Hills Regional Landfill (CHRLF).

Environmental samples were collected and analyzed in accordance with the Environmental Monitoring Sampling and Analysis Plan for Cedar Hills Regional Landfill (Dec., 2013), (SAP), and the Quality Assurance Project Plan for Environmental Monitoring at King County Solid Waste Facilities (QAPP). These plans describe procedures and activities to obtain sufficient and representative quality data to adequately conduct environmental monitoring at the CHRLF and provide documentation.

1.0 Quarterly Results and Analysis

This Section discusses the current monitoring results and how they compare to previous results from samples collected at CHRLF.

1.1 Groundwater

Groundwater monitoring well details, locations, and monitoring status are presented in Table 1 and Figure 1. Monitoring activities for the Fourth quarter are listed in Table 2.

1.1.1 Regional Aquifer

A refined conceptual model was developed in the *Cedar Hills Regional Landfill Site Wide Hydrogeologic Report Addendum (Dec., 2013).* The model fits the site into its regional context of recharge and discharge, provides a detailed look at flow paths within the Regional Aquifer, and defines specific detection zones for each monitoring well. The model provides a thorough evaluation of the monitoring well coverage from the facility waste placement areas and indicates that CHRLF has a sufficient and effective monitoring well network in place. In addition, an alternate groundwater sampling frequency has been implemented for detection groundwater monitoring consistent with WAC 173-351-450 (see SAP, Table 1 and Figure 1).

Regional Aquifer analysis results for downgradient and crossgradient wells for this quarter are generally consistent with past results. Several upgradient wells continue to show elevated concentrations of several parameters indicating changing water quality upgradient of CHRLF.

Groundwater elevations and potentiometric surfaces are within historical ranges and reflect seasonal responses to precipitation. The Potentiometric Surface Map and Groundwater Flow Analysis Report can be found in Appendix A. Elevations measured this quarter conform to the current hydrogeologic model.

Groundwater samples were analyzed for both dissolved and total metal fractions per WAC 173-351-430(2)(b)(ii) as revised; however, only total metals results were compared to the water quality standards listed in WAC 173-351-990 Appendix I.

Implementation of the most recent SAP resulted in a reduction in the total number of wells that are monitored, and designating the remaining wells to be monitored as either quarterly (all quarters of the year), or as semi-annual (second and fourth quarters of the year). This quarter, wells designated for quarterly and semi-annual monitoring were sampled, and are listed in Table 1.

During the second quarter of 2017, a transition to the Lower Limit of Quantitation (LLOQ) methodology for analytical testing occurred and resulted in revised reporting limits and new detections for a number of analytes. Further information on the transition to the LLOQ is available in Section 2.4.1: Laboratory Data Quality - LLOQ.

Analytical Results

Analytical results can be viewed in Appendix B: Field and Analytical Test Results, and a discussion of groundwater criteria exceedances is below.

Exceedances of the Primary Ground Water Quality Criteria were observed for total arsenic as listed below:

	Upgradient and Crossgradient	Downgradient
Quarterly Sampled Wells	MW-59, MW-66, MW-81, MW-83, MW-84, MW-93, MW-94-	MW-74, MW-75, MW-80, MW-85
Semi Annual Sampled Wells	MW-21, MW-24, MW-56, MW-64, MW-65, MW-73, MW-76, MW-82, MW-95	MW-67, MW-86, MW-88, MW-89, MW-100

Exceedances of the Secondary Ground Water Quality Criteria were observed for dissolved iron as listed below:

	Upgradient and Crossgradient	Downgradient
Quarterly Sampled Wells	MW-59	MW-68, MW-69, MW-75, MW-80,
Semi-Annual Sampled Wells	MW-21, MW-24, MW-65, MW-73	MW-86, MW-89, MW-100

Exceedances of the Secondary Ground Water Quality Criteria were observed for dissolved manganese as listed below:

	Upgradient and Crossgradient	Downgradient
Quarterly Sampled Wells	MW-59, MW-93	MW-68, MW-69, MW-72, MW-75, MW-80
Semi-Annual Sampled Wells	MW-21, MW-24, MW-56, MW-64, MW-65, MW-73, MW-95	MW-86, MW-89, MW-100

Exceedances of Primary Ground Water Quality Criteria were observed for Vinyl Chloride as listed below:

	Upgradient and Crossgradient	Downgradient
Quarterly Sampled Wells	---	---
Semi Annual Sampled Wells	MW-65	---

Exceedances of Secondary Ground Water Quality Criteria were observed for Trichloroethene as listed below:

	Upgradient and Crossgradient	Downgradient
Quarterly Sampled Wells	---	---
Semi Annual Sampled Wells	MW-82; MW-76*	---

*Also exceeded Primary Federal Ground Water Quality Criteria

Primary and secondary exceedances of regulatory standards are tabulated and presented in Table 3. This result set contains an increased number of exceedances (both primary and secondary criteria) due to the switch to LLOQ methodology (as explained in Section 2.4.1) versus previous years' analyses.

Trilinear Diagrams and Ion Balance

Trilinear Diagrams (Figures 5 and 6) indicate water quality type (hydrochemical facie) based on the dissolved ion distribution. The diagrams are useful to recognize spatial and temporal variability, potential analytical error, or change in hydrochemical facie. All regional samples are within the calcium-magnesium-bicarbonate hydrochemical facie. Data are consistent with previous quarters. Ion balance calculations (Table 4) indicate no analytical error (> 10%) in any regional wells.

Prediction Limits

Intra-well upper prediction limits (UPLs) are calculated annually and have been updated with data collected through the end of 2017. Calculated prediction limits and analytical results for Appendix I parameters are presented in Table 5 and summarized below.

	Upgradient and Crossgradient	Downgradient
Quarterly Sampled Wells	MW-94 (Nitrate as N) MW-84 (Total Barium)	MW-67 (Total Arsenic & Total Barium)
Semi-Annually Sampled Wells	MW-64 (Total Barium) MW-95 (Total Arsenic)	MW-67 (Total Arsenic & Total Barium) MW-86 (Total Arsenic, Total Barium & Total Vanadium) MW-88 (Total Vanadium)

Nitrate for MW-94 has passed the re-testing protocol it entered into second quarter of 2018, as described in the SAP.

Volatile Detections

Volatile Organic Compound (VOC) detections in regional aquifer wells this quarter are presented in Table 6. There continue to be regularly occurring detections of chlorinated solvents and their breakdown products within the monitoring network at CHRLF, all of which are associated with the upgradient Queen City Farms (QCF) Superfund site. These detections include the following:

Trichloroethene (TCE) was detected in quarterly monitored wells MW-82 and MW-76; Vinyl Chloride was detected in semi-annually monitored well MW-65. These upgradient well detections are consistent with past data and continuing migration from QCF.

1.1.2 Perched Zones

The East Perched Zone (EPZ) is a series of localized areas east of the Main Hill exhibiting shallow subsurface saturation that appears laterally and vertically discontinuous, predominantly within till and lacustrine silts.

The South Solid Waste Area (SSWA) Perched Zone contains perched groundwater that occurs both within pockets of variable surficial deposits comprised of local alluvium, recessional outwash, and/or weathered till (shallow perched zone), and within melt-out deposits in an overall predominately lodgment till sequence (deeper perched zone).

Groundwater elevations measured during the quarter in the Perched Zones are within historical ranges. Samples were collected from two EPZ monitoring wells (MW-30A, MW-47, and MW-62). MW-101 near the former SSWA was also sampled. Groundwater quality data from Perched Zones wells collected during the Fourth quarter of 2018 are consistent with previous samples.

EW-25

EW-25 was decommissioned during the second quarter of 2018 (as described in the Cedar Hills Regional Landfill – EPZ Extraction Well Decommissioning Technical Memorandum) as a part of ongoing interim actions per the East Perched Zones Remedial Investigation and Feasibility Study Report (EPZ RI/FS), and therefore will no longer be a part of the monitoring network. Six (6) additional replacement monitoring wells have been installed in the EPZ (MW-107 to MW-112) as described in the EPZ Phase I Interim Actions - Infrastructure Upgrades Technical Memorandum – Agency Draft. These wells will be incorporated into the monitoring program and the SAP updated accordingly.

MW-105

MW-105 was installed on the south side of the east leachate lagoon to have a monitoring well in the shallowest perched groundwater zone to provide early leak detection. If specific conductance shows a statistically significant increasing trend, or exceeds 500 μmhos/cm specific conductance (whichever condition is triggered first), then additional sampling (per the SAP) will be conducted and results assessed with respect to potential leakage from the lagoon. This quarter, MW-105 area was not accessible due to on-going work for the leachate lagoons and was not tested for conductivity.

Analytical Results

Exceedances of regulatory standards for the perched zone wells are tabulated and presented in Table 7. All are consistent with past analyses and known impacts.

Trilinear Diagrams and Ion Balance

Trilinear plots for Perched Zone samples are all within the calcium-magnesium-bicarbonate hydrochemical facie, consistent with past samples (Figures 7 and 8). Ion balance calculations (Table 8) indicate no analytical error (> 10%) in any perched wells.

Prediction Limits

As with the regional data, perched zone prediction limits are derived from cumulative data through the end of 2017. Calculated prediction limits for Appendix I parameters along with analytical results are presented in Table 9.

MW-30A had a Total Copper and Total Vanadium UPL exceedances this quarter. MW-62 exceeded the UPL for Total Barium and Total Vanadium. No retesting protocols were performed since these wells are already being evaluated under a Remediation Investigation and Feasibility Study of the East Perched Zone (EPZ RI/FS). Future results will continue to be evaluated per the SAP and EPZ RI/FS.

Volatile Detections

VOC detections in the perched zones are presented in Table 10. Multiple detections listed in the table are due to switching to LLOQ methodology, which lowered the detection limit for a variety of VOCs. These data points are qualified 'JT' in Table 10.

All other analytes are consistent with past analyses and known impacts.

1.2 Stormwater

1.2.1 CHRLF ISGP

CHRLF stormwater discharge is authorized by an Industrial Stormwater General Permit (ISGP) issued by the Washington State Department of Ecology (Ecology). The permit defines discharge benchmarks, applicable to all facilities, and effluent limits, applicable specifically to landfills. These values are listed in Table 15. Sampling stations SW-N4, SW-SL3 and SW-GS1 (see Figure 2) are the designated points for comparison to permit benchmarks and effluent limits.

As per the ISGP for CHRLF, turbidity was not measured during the Fourth quarter of 2018 at stations SW-SL3 and SW-N4 as eight (8) quarters of measurements below the benchmark had previously occurred, allowing for measurement of the parameter to be suspended (i.e. Consistent Attainment).

ISGP required monitoring activities for the fourth quarter of 2018 are listed in Table 11. There were no recorded exceedances this quarter. ISGP Discharge Monitoring Reports (DMRs) are included in Appendix B.

1.2.2 CHRLF CSWGP

Starting in 2017, a Construction Stormwater General Permit (CSWGP) was issued for CHRLF (permit number WAR305034 with Ecology) for the Area 8 construction activities. A separate Stormwater Pollution Prevention Plan (SWPPP) was created for this CSWGP permit. This permit is still active and will be in effect through the duration of the construction project.

Four (4) discharge locations are monitored weekly for compliance with the CSWGP in accordance with the SWPPP by the contractor. The construction contractor also inspects the required construction site Best Management Practices (BMPs) and the CSWGP monitoring locations daily during construction activities. The four locations monitored are listed as follows:

1. C-1 (NW end of the site, downstream of the NW siltation pond);
2. C-2 (NE end of the site, downstream of the N stormwater pond);
3. C-3 (SE portion of the site, downstream of the S stormwater lagoon and upstream of the bioswale); and,
4. C-4/CHL (SW part of the site, downstream from the SW siltation pond).

There were several turbidity exceedances during the fourth quarter of 2018 (see Table 12). Copies of required stormwater reports submitted to Ecology are included in Appendix B.

1.3 Landfill Gas

Compliance probes, interior probes, on-site buildings, and supplemental monitoring probe results and location maps are included in Appendix B.

1.3.1 Compliance Probe Network

A network of compliance probes are monitored for landfill gas (LFG) migration around the perimeter of the landfill. Probes are monitored by the LFG crew monthly to monitor system performance and quarterly for compliance. The location map for the compliance probes can be viewed in Figure 4 and in Appendix B. The monitoring results for the compliance probes during the fourth quarter of 2018 are located in Appendix B.

No compliance probe methane detections occurred during the fourth quarter of 2018.

1.3.2 Interior Probe Network

Additional probes on the landfill site, located interior to the compliance probes but outside of the waste footprint, are monitored monthly. These probes provide valuable information for optimizing the performance of the LFG collection system and help to prevent LFG migration. The location map and monitoring results for the interior probes during the fourth quarter of 2018 can be viewed in Appendix B.

1.3.3 On-Site Building Monitoring

As required by WAC 173-351-200, gas concentrations are monitored inside facility structures. Structures are monitored quarterly for methane. No detections of methane occurred this quarter. The location map and monitoring results for facility gas monitoring during the fourth quarter of 2018 are presented in Appendix B.

1.3.4 Supplemental Migration Monitoring

Detections above the regulatory limit in LFG probe GP-33C in September of 2011 prompted actions including: monitoring frequency increases; operational adjustments to increase LFG recovery rates; off-site structure monitoring; and, preparation of a response plan. Operational review resulted in modifications to enhance extraction from unlined areas and under liner spaces that could potentially act as gas conveyance pathways. The plan resulted in installation of thirteen (13) borings targeting the potential zone of LFG migration in the native sediments. Eight (8) borings serve as LFG extraction wells and five (5) borings as monitoring probes. The extraction wells and migration probes are monitored twice a month. This quarter, no methane was detected at levels above the detection limit. The location map and supplemental monitoring results are included in Appendix B.

Review of historical data indicates the system has been effective in controlling LFG migration to the perimeter probes.

2.0 Analytical Methods

Groundwater quality is evaluated by comparison of analysis results to regulatory standards, geochemical analysis, and statistical evaluation. Water quality analytical results for stormwater runoff discharged from the landfill site are compared to the limits set in the ISGP and CSWGP. The following is a brief description of the standards and analytical tools used to review each matrix.

2.1 Regulatory Standards

Groundwater monitoring results are compared to the groundwater quality criteria set forth in WAC 173-200 (Table 14). Stormwater monitoring results are compared to the ISGP Benchmark and Effluent Limits Criteria and CSWGP Benchmarks (Table 15).

2.2 Trilinear Diagrams and Major Ion Balance

Geochemical data are presented on trilinear diagrams. Major cations and anions are plotted on individual triangles as percentages of total milliequivalents per liter (meq/L). These diagrams illustrate differences in major ion chemistry between groundwater samples and can be used to categorize water composition into identifiable groups or hydrochemical facies. Hydrochemical facies reflect distinct compositions of cation and anion concentrations. The value of the diagram lies in pointing out relationships that exist among individual samples. Trilinear diagrams are included with ionic balance calculations in this report. Ion balance calculations are useful for determining analytical correctness and can be of value in detecting laboratory error or variation in field sampling procedures.

2.3 Prediction Limits

A prediction limit is a statistical test that compares an analytical result to a computed limit value. The limit value is derived from past analytical results, which are considered representative historical data. A value outside of this limiting value is considered evidence that the result is not drawn from the same sample population distribution.

To evaluate the groundwater data for CHRLF, one-sided UPLs are calculated based on intra-well comparisons. Intra-well comparisons present a more conservative approach to determining if a statistically significant release has occurred and is recommended for evaluation of detection monitoring data. In the intra-well approach, a threshold background value is set by determining an UPL. Prediction limits set a comparison threshold for background data with compliance well data and are used to determine if a sample is statistically elevated above background conditions. UPLs for the subsequent year's detection monitoring are calculated at the end of each year and incorporate the previous year's analytical results. UPLs are based on a 0.05 significance level, as approved by Ecology to be protective of human health and the environment. A 0.05 significance level indicates that at most there is a five (5) percent chance that a Type I error (false positive) will occur in the results.

The method for calculating the UPLs depends on both the type of distribution and the number of non-detects present in the background data set. UPLs for background data sets with 100 percent non-detects (NDs) are equal to the highest laboratory method detection limit (MDL). UPLs for background data sets with greater than 50 percent, but less than 100 percent non-detects are calculated based on the highest detected concentration for the respective data set.

Note: Although there are alternative methods for calculating UPLs for background data sets with greater than 90 percent, but less than 100 percent non-detects (e.g., Poisson's Method), the use of the highest detected concentration is generally considered the most conservative.
UPLs for background data sets with less than 50 percent non-detects are evaluated for normality. UPLs with non-parametric data sets are based on the highest detected concentration for the respective data set. UPLs for either normally distributed or transformed-normal data sets are calculated based on the following equations for calculating parametric prediction limits with retesting (*EPA Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities – Unified Guidance, 2009*):

Normal Distribution

$$UPL = x + \kappa s$$

or

Transformed Distribution:

$$UPL = y + \kappa s_y$$

where: x = mean of the baseline data
y = mean of the transformed data
κ = multiplier for intra-well prediction limits
s = standard deviation of baseline data
s_y = standard deviation of transformed data

For UPLs of constituents that had only ever had non-detects prior to implementing the LLOQ and are now detected, the MDL is being used until sufficient data is available to calculate at UPL.

Analytical results are compared to the respective UPLs on a quarterly/semi-annual basis, depending on the monitoring program, for Appendix I parameters. If there is an exceedance of the UPL, retesting of that analytical parameter at the respective location is required to determine if the exceedance represents a statistically significant increase over background.

A 1-of-3 retesting plan will be used for any exceedances of the intra-well UPLs at the

CHRLF. This retesting plan provides adequate statistical power and minimizes Type II (False Negative) errors, while providing retesting that accommodates lab turnaround time, data review, and scheduling. This test is performed on parameters listed in WAC 173-351-990 Appendix I and is used to detect a change in the population distribution of the individual well.

2.4 Laboratory Data Quality

Laboratory analytical data is reviewed to verify meeting data quality objectives (DQOs) as defined in the QAPP. Occasionally, results identified during this process are deemed unsuitable for evaluation purposes. A summary of suspect results can be found in Table 16.

2.4.1 Lower Limit of Quantification (LLOQ)

Changes made in accordance with federal regulations for the guidance of analytical testing methodologies covered by SW-846 (Test Methods for Evaluating Solid Waste) were implemented in 2017 by the contract laboratory. One specific effect of these changes was to replace the MDL methodology with the LLOQ methodology as the basis for determining the lowest quantitative value of an analyte that can be reported. This affected all methods covered within SW-846.

The LLOQ is a performance based methodology that tests known standards repeatedly to create a calibration curve for a specific method. Commonly, the lowest concentration of the (linear) calibration curve is set as the LLOQ. However, in some cases the LLOQ may be greater than the baseline curve concentration due to lab specific factors such as instrument sensitivity and method analytical uncertainty.

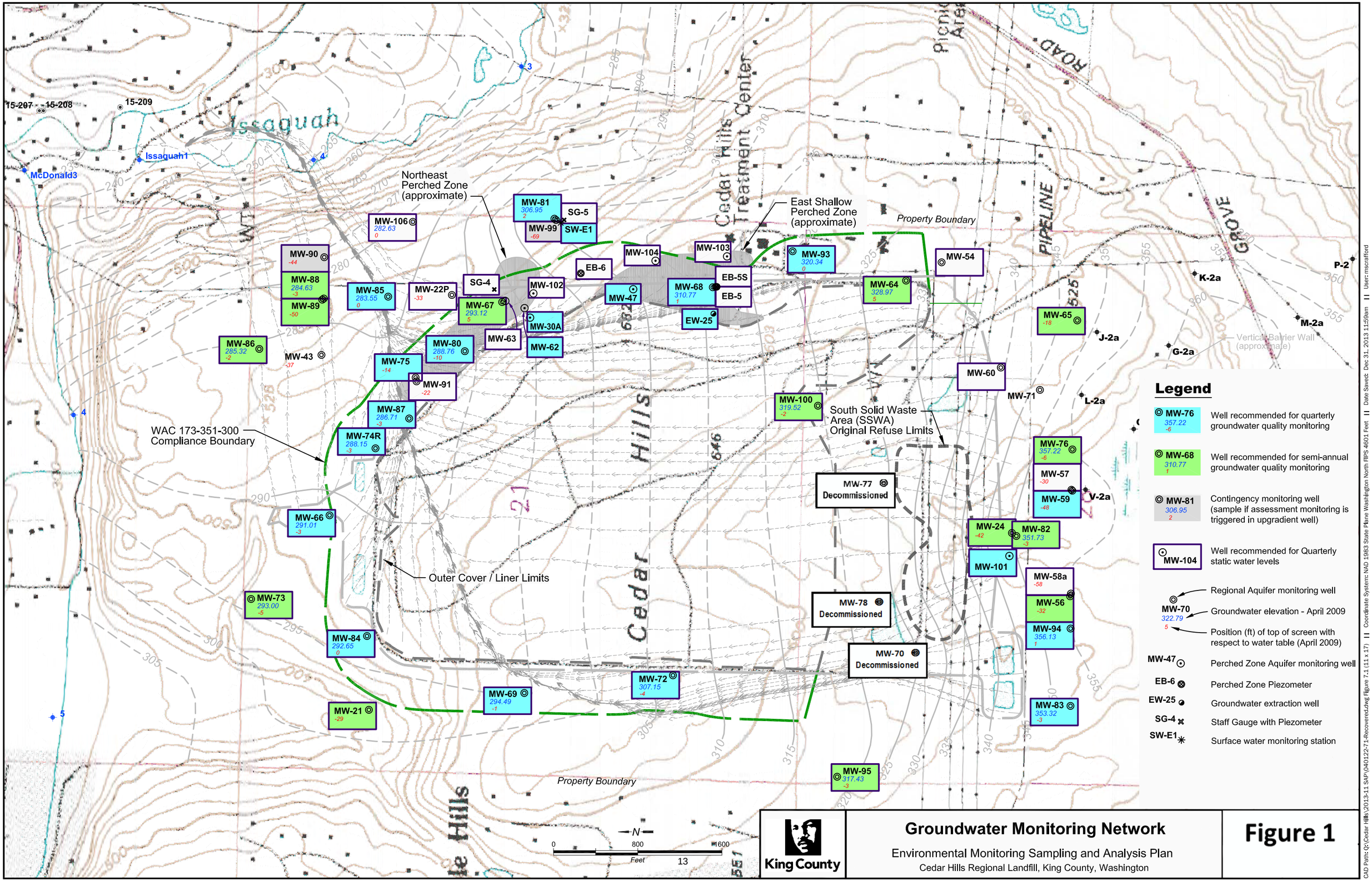
During the second quarter of 2017, the transition to using the LLOQ methodology resulted in revised reporting limits for multiple analytes. Quantitation limits for all trace metals (i.e. non-major cationic species metals), and a subset of the Appendix I VOCs regularly analyzed for were lowered versus past analyses MDLs, while other VOCs had higher limits or remained unchanged. As a result of these changes, trace metals and VOCs in various wells previously reported as non-detects are now reported as detections. This does not invalidate past analytical data reported at the MDL as non-detects, but confirms that some analytes can be present below detection limits due to instrumentation and/or analytical methodology limitations. On-going efforts will focus on continually assessing and evaluating whether newly detected analytes are due to a confirmed presence in the native sample, or result from either field sampling or laboratory contamination.

Due to the change to LLOQ methodology, it may be necessary to re-establish background data sets for any parameters with modified reporting limits in order to maintain statistical integrity and support hypothesis testing conclusions. Transition to new background data sets will occur when sufficient data has been acquired based on minimum statistical requirements.

2.4.2 Analytical Uncertainty and Data Review

An important consideration when reviewing and evaluating analytical data is to examine the uncertainty associated with the measurement of each analyte. When a UPL or groundwater quality criteria exceedance, and the detection limit are similar in magnitude, uncertainty inherent in low level concentration results can call into question the actuality of both presence and/or exceedance of the limit or criteria. This uncertainty is partly due to the ‘noise’ that is intrinsic in analytical testing methods and laboratory protocol. Arsenic exceedances in groundwater provide an example of this scenario, as the UPL and detection limits for arsenic are both typically quite low (parts per billion), as is the groundwater quality criteria. This results in the analytical measurement being evaluated to be subject to both the uncertainty within the calculation of a UPL, and the ‘noise’ of the analytical testing method, which includes both method and laboratory specific elements. These factors must be considered when

performing a review or statistical evaluation of analytical data before confirmation on a UPL or groundwater quality exceedance can be determined.



Legend

- MW-76 357.22 -6 — Well recommended for quarterly groundwater quality monitoring
- MW-68 310.77 1 — Well recommended for semi-annual groundwater quality monitoring
- MW-81 306.95 2 — Contingency monitoring well (sample if assessment monitoring is triggered in upgradient well)
- MW-104 — Well recommended for Quarterly static water levels
- MW-70 322.79 5 — Regional Aquifer monitoring well; Groundwater elevation - April 2009; Position (ft) of top of screen with respect to water table (April 2009)
- MW-47 — Perched Zone Aquifer monitoring well
- EB-6 — Perched Zone Piezometer
- EW-25 — Groundwater extraction well
- SG-4 — Staff Gauge with Piezometer
- SW-E1 — Surface water monitoring station

King County

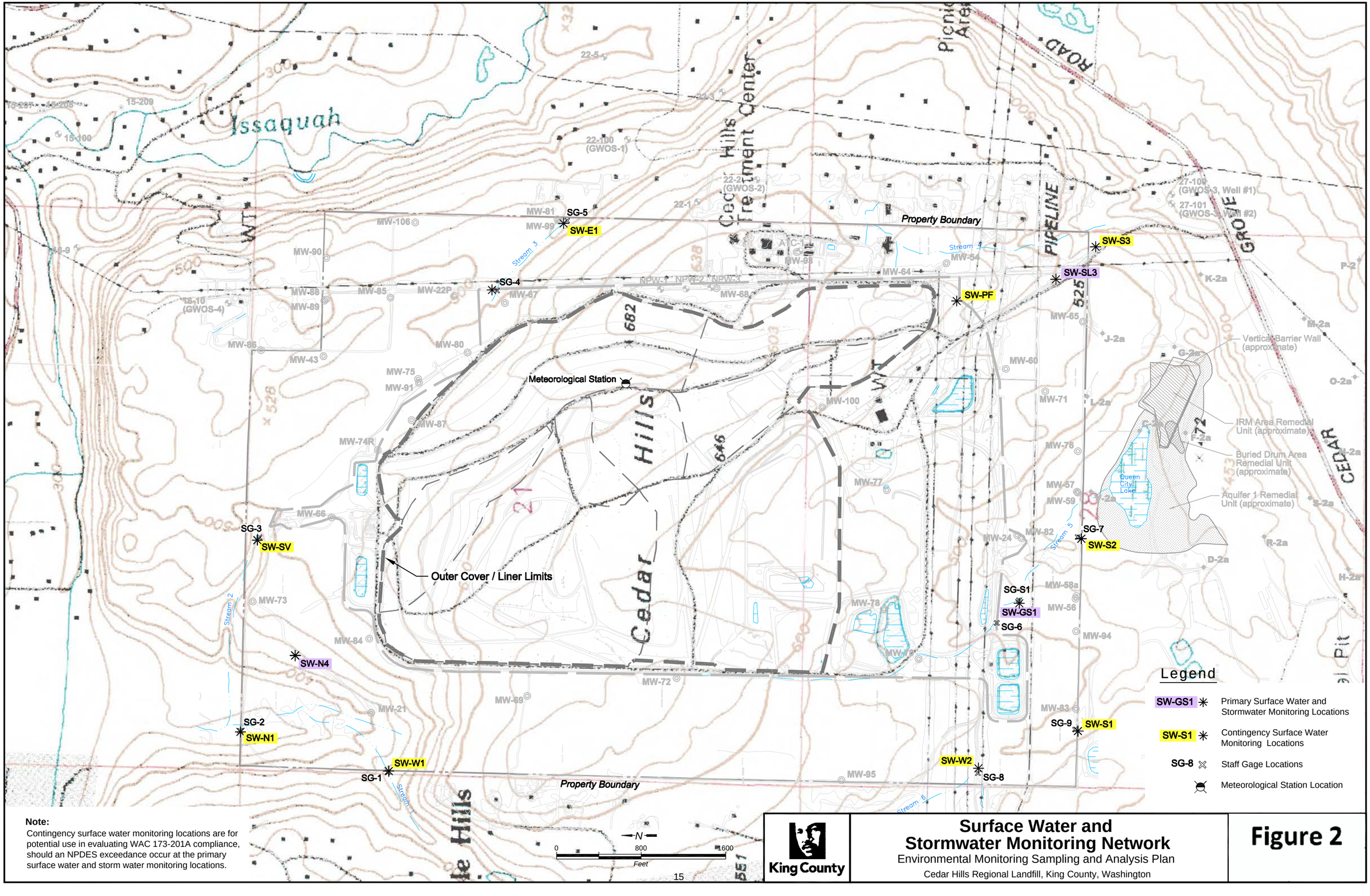
Groundwater Monitoring Network

Environmental Monitoring Sampling and Analysis Plan

Cedar Hills Regional Landfill, King County, Washington

Figure 1

CAD Path: Q:\Cedar Hills\2013-11 SAP\040122-71-Recovered.dwg Figure 7.1 (11 x 17) || Coordinate System: NAD 1983 State Plane Washington North FIPS 4601 Feet || Date Saved: Dec 31, 2013 11:59am || User: mscrafford



Legend

- SW-GS1 — Primary Surface Water and Stormwater Monitoring Locations
- SW-S1 — Contingency Surface Water Monitoring Locations
- SG-8 — Staff Gage Locations
- Meteorological Station Location

Note:
Contingency surface water monitoring locations are for potential use in evaluating WAC 173-201A compliance, should an NPDES exceedance occur at the primary surface water and storm water monitoring locations.

King County

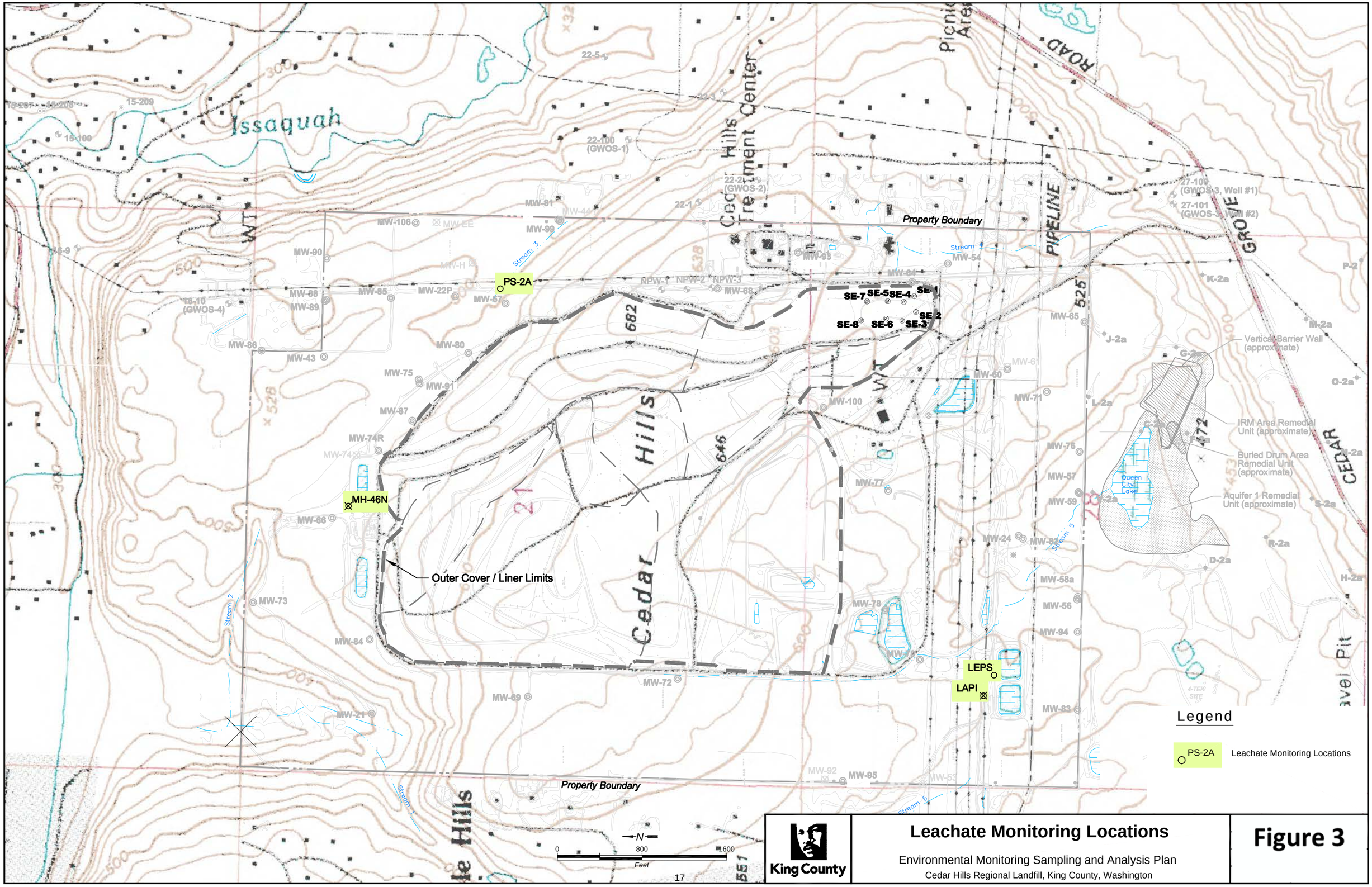
Surface Water and Stormwater Monitoring Network

Environmental Monitoring Sampling and Analysis Plan

Cedar Hills Regional Landfill, King County, Washington

Figure 2

CAD Path: Q:\Cedar Hills\2012-01 Environmental Analysis Plan\0401228 1_2012.dwg Figure 8.1 (11 x 17) || Coordinate System: NAD 1927 State Plane Washington North FIPS 4601 Feet || Date Saved: Jan 25, 2012 11:47am || User: pbaker



King County

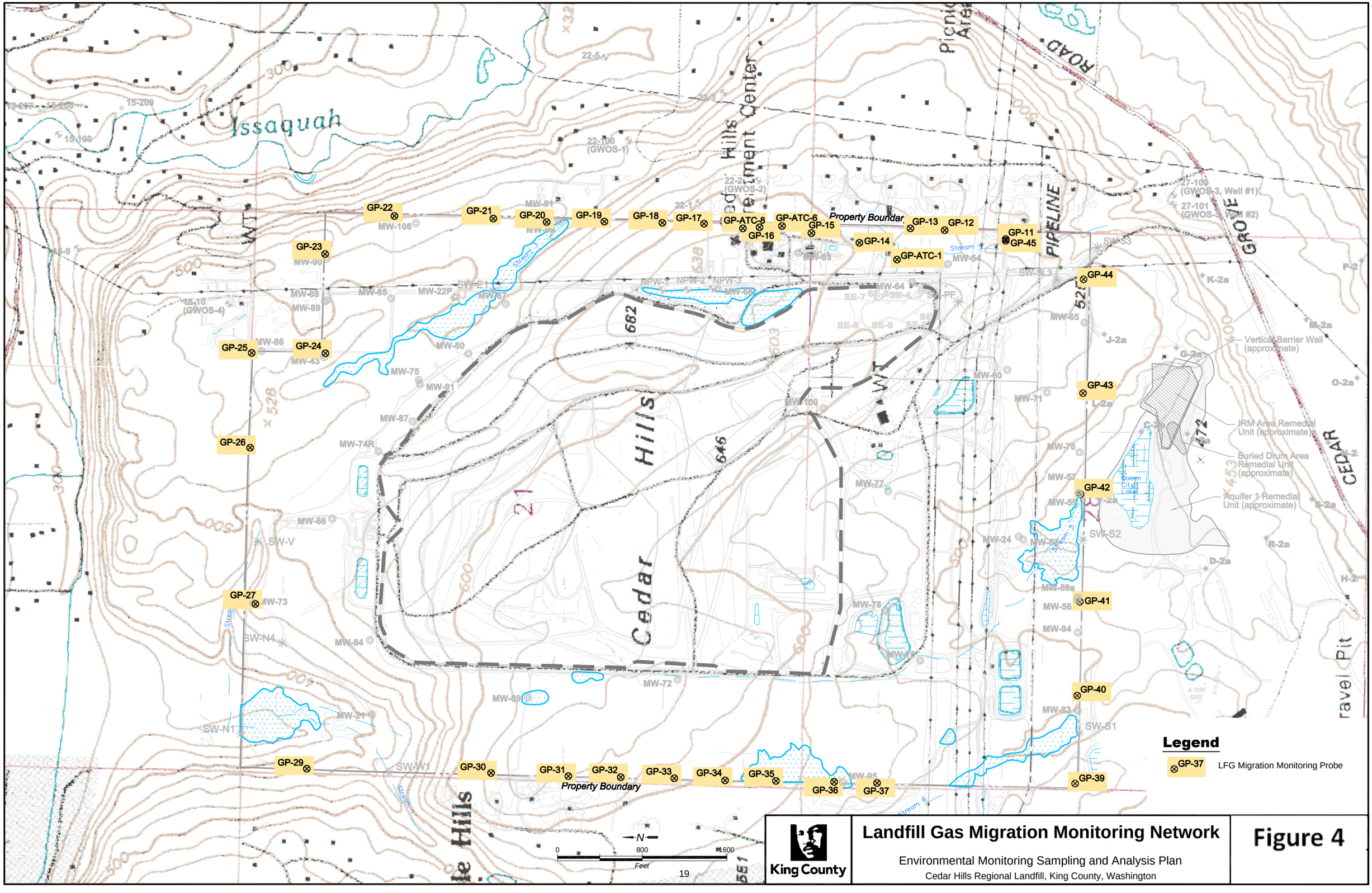
Leachate Monitoring Locations

Environmental Monitoring Sampling and Analysis Plan

Cedar Hills Regional Landfill, King County, Washington

Figure 3

CAD Path: Q:\Cedar Hills\2012-01 Environmental Analysis Plan\040122-91.dwg Figure 10.1 (11 x 17) || Coordinate System: NAD 1927 State Plane Washington North FIPS 4601 Feet || Date Saved: Jan 27, 2012 12:21pm || User: pbaker



King County

Landfill Gas Migration Monitoring Network

Environmental Monitoring Sampling and Analysis Plan

Cedar Hills Regional Landfill, King County, Washington

Figure 4

CAD Path: Q:\Cedar Hills\2012-01 Environmental Analysis Plan\040122-111.dwg Site Gas Probes (11 x 17) || Coordinate System: NAD 1927 State Plane Washington North FIPS 4601 Feet || Date Saved: Nov 26, 2013 3:17pm || User: scudd

Table 1
CEDAR HILLS REGIONAL LANDFILL GROUNDWATER MONITORING WELLS

Well Name	General Condition				Recommendations				
	Casing Diameter (inches)	Well Depth (feet)	Installation Date	Water Table or Deep Zone	Well Monitoring Classification	Comments on Well Use	Static Water Level Monitoring Frequency	Water Quality Monitoring Frequency	Rationale
MW-21 (Upgradient)	6	163	5/17/83	Deep	Detection	Background	Quarterly	Semi-annual	Monitors background conditions of deep aquifer.
MW-22P (Downgradient)	2	284	5/25/83	Deep	Detection	WL only	Quarterly	None	Not effectively located for facilities or background monitoring.
MW-24 (Upgradient)	6	192	6/2/83	Deep	Detection	Background	Quarterly	Semi-annual	Twice-annual monitoring of QCF impacts in deep upgradient well. Monitor SWLs to define deeper Regional Aquifer flow paths.
MW-54 (Upgradient)	2	351	9/26/86	Deep	Detection	WL only	Quarterly	None	Not effectively located for facilities monitoring as it lies up gradient of the CHRLF facilities. Upgradient water quality monitored in other wells.
MW-56 (Upgradient)	2	166	10/12/88	Deep	Detection	Background	Quarterly	Semi-annual	Twice-annual monitoring of QCF impacts in upgradient well. Low groundwater velocities (0.014 ft/day) indicate slow movement of QCF contaminants through this area. Travel distance for 180 days
MW-57 (Upgradient)	2	144	8/22/88	Deep	Detection	WL only	Quarterly	None	Monitoring redundant with MW-59. Strong downward vertical gradients indicate impacts at MW-57 would also be detected at MW-59.
MW-58A (Upgradient)	2	219	9/26/88	Deep	Detection	WL only	Quarterly	None	Monitoring redundant with MW-56. Strong downward vertical gradients indicate impacts at MW-58A would also be detected at MW-56.
MW-59 (Upgradient)	2	180.5	8/16/88	Deep	Detection	Background	Quarterly	Quarterly	Quarterly monitoring of QCF impacts in upgradient well.
MW-60 (Upgradient)	2.5	240	9/13/91	Water Table	Detection	WL only	Quarterly	None	Upgradient flow from QCF in shallow Regional Aquifer characterized by MW-65 and MW-76. Downgradient area monitored by MW-100.
MW-64 (Upgradient)	2.5	274	3/22/93	Water Table	Detection		Quarterly	Semi-annual	Adjacent to SE Pit. Conversion from quarterly to semiannual sampling does not have significant effect on intrawell statistics.
MW-65 (Upgradient)	2.5	234	3/29/93	Deep	Detection	Background	Quarterly	Semi-annual	Twice-annual monitoring of QCF impacts in upgradient well. Monitor SWLs to define deeper Regional Aquifer flow paths.
MW-66 (Upgradient)	2.5	248	4/5/93	Water Table	Detection		Quarterly	Quarterly	Monitor north end leachate detention facilities.
MW-67 (Downgradient)	2.5	230	4/28/93	Water Table	Detection		Quarterly	Semi-annual	Monitors potential EPZ contaminants infiltrating into Regional Aquifer.
MW-68 (Cross-Gradient/	2.5	353	4/15/93	Water Table	Detection		Quarterly	Quarterly	Well is completed adjacent to unlined Main Hill where downward flow from Main Hill and impacted EPZ would be captured. Monitors Main Hill gas effected area.
MW-69 (Downgradient)	2.5	371	4/23/93	Water Table	Detection		Quarterly	Quarterly	West side flow converges in this area and well is upgradient of key downgradient wells.
MW-72 (Downgradient)	2.5	376	8/7/98	Water Table	Detection		Quarterly	Quarterly	Key water quality monitoring well for southwest landfill area.
MW-73 (Upgradient)	4	206	9/3/99	Water Table	Detection	Background	Quarterly	Semi-annual	Background water quality monitoring for northwest facility area. Downgradient flow paths from well largely by-pass facility so provides only general indication of background conditions.
MW-74R (Downgradient)	4	249	11/1/00	Water Table	Detection		Quarterly	Quarterly	Detection zone monitors north end facilities. Quarterly monitoring recommended due to elevated chloride.
MW-75 (Downgradient)	4	269	9/24/99	Deep	Detection		Quarterly	Quarterly	Key downgradient monitoring well.
MW-76 (Upgradient)	4	148	10/25/99	Water Table	Detection	Background	Quarterly	Semi-annual	Monitor QCF impacts effecting upgradient water quality in shallow portion of Regional Aquifer. Low groundwater velocities (0.014 ft/day) indicate slow movement of QCF contaminants through
MW-80 (Downgradient)	4	259	2/27/01	Water Table	Detection		Quarterly	Quarterly	Key downgradient monitoring well for monitoring impacts from unlined Main Hill and EPZ.
MW-81 (Upgradient)	4	192	10/3/02	Water Table	Detection		Quarterly	Quarterly	Monitors ground water quality from off-site area east of facility. Retain as monitoring point to monitor for potential LFG impacts to groundwater. Key well for defining potentiometric divide on
MW-82 (Upgradient)	4	133	11/2/00	Water Table	Detection	Background	Quarterly	Semi-annual	Twice-annual monitoring of QCF impacts in shallow Regional upgradient well. Low groundwater velocities (0.014 ft/day) indicate slow movement of QCF contaminants through this
MW-83 (Upgradient)	4	154	10/27/00	Water Table	Detection	Background	Quarterly	Quarterly	Quarterly monitoring of QCF impacts in shallow Regional upgradient well.
MW-84 (Upgradient)	4	246	10/20/00	Water Table	Detection	Background	Quarterly	Quarterly	Monitor background conditions in shallow regional aquifer
MW-85 (Downgradient)	4	257	12/1/00	Water Table	Detection		Quarterly	Quarterly	Key downgradient monitoring well with large detection zone underlying waste placement areas. Located in area of convergent groundwater flow and near center of high transmissivity
MW-86 (Downgradient)	4	259	12/12/00	Water Table	Detection		Quarterly	Semi-annual	Provides monitoring of north end facilities. Conversion from quarterly to semiannual sampling does not have significant effect on intrawell statistics.
MW-87 (Downgradient)	4	261	11/21/00	Water Table	Detection		Quarterly	Quarterly	Key downgradient monitoring well.
MW-88 (Downgradient)	4	239	9/13/01	Water Table	Detection		Quarterly	Semi-annual	Provides limited monitoring of north end facilities. Conversion from quarterly to semiannual sampling does not have significant effect on intrawell statistics.

Table 1
CEDAR HILLS REGIONAL LANDFILL GROUNDWATER MONITORING WELLS

Well Name	General Condition				Recommendations				
	Casing Diameter (inches)	Well Depth (feet)	Installation Date	Water Table or Deep Zone	Well Monitoring Classification	Comments on Well Use	Static Water Level Monitoring Frequency	Water Quality Monitoring Frequency	Rationale
MW-89 (Downgradient)	4	291	11/12/01	Deep	Detection		Quarterly	Semi-annual	Provides limited monitoring of north end facilities in deep Regional Aquifer. Continue monitoring in place of MW-43. Conversion from quarterly to semiannual sampling does not have
MW-90 (Downgradient)	4	274	8/14/02	Deep	Assessment		Quarterly	Contingent	Water quality monitoring redundant with MW-89. Reserve as contingency well in event assessment monitoring is triggered in MW-88,89 or 85.
MW-91 (Downgradient)	6	289	10/26/01	Deep	Detection	WL only	Quarterly	None	Large diameter well used for testing. Redundant with well MW-75. Additional demonstration for reduction in water quality sampling frequency is presented in Appendix F.
MW-93 (Cross Gradient)	4	320	6/24/02	Water Table	Detection		Quarterly	Quarterly	Well monitors the Main Hill gas affected area
MW-94 (Upgradient)	4	145	7/2/02	Water Table	Detection	Background	Quarterly	Quarterly	Quarterly monitoring of QCF impacts in shallow Regional upgradient well.
MW-95 (Cross Gradient)	4	263	7/22/02	Water Table	Detection		Quarterly	Semi-annual	Monitor off-site water quality at south end of facility. Downgradient flow paths poorly defined and may by-pass facility. Additional demonstration for reduction in water quality sampling frequency
MW-99 (Upgradient)	4	279	8/30/02	Deep	Assessment		Quarterly	Contingent	Monitors easterly upgradient water quality from offsite. Reserve as contingency well in event assessment monitoring is triggered in MW-81. Additional demonstration for reduction in water
MW-100 (Downgradient)	4	300	8/26/02	Water Table	Detection		Quarterly	Semi-annual	Well useful for flowpath and geochemical modeling. Assists in tracking QCF contaminant migration through facility. Additional demonstration for reduction in water quality sampling
MW-106 (Cross gradient)	4	203	2/19/09	Water Table	Detection	WL only	Quarterly	None	Defines east side flow paths.
East Main Hill Perched Zones									
EB-5	2	60	5/06/90	EPZ	Assessment	WL only	Quarterly	None	Monitor water levels to evaluate affect of extraction system shut down.
EB-5S	2	20	6/06/90	EPZ	Assessment	WL only	Quarterly	None	Monitor water levels to evaluate affect of extraction system shut down.
EB-6	2	30	11/28/90	EPZ	Assessment	WL only	Quarterly	None	Monitor water levels to evaluate affect of extraction system shut down. Well has limited water yield limiting ability to collect samples.
EW-25	6	36	6/10/92	EPZ	Assessment		Quarterly	Quarterly	Key EPZ compliance well. Temporary monitoring point sampled with passive diffusion sampler.
MW-30A	3	35	6/09/89	EPZ	Assessment		Quarterly	Quarterly	Monitor attenuating VOCs
MW-47	2	44	5/31/85	EPZ	Assessment		Quarterly	Quarterly	Key EPZ compliance well
MW-62	2	54	1/02/90	EPZ	Assessment		Quarterly	Quarterly	Monitor attenuating VOCs
MW-63	2	17	12/02/90	EPZ	Assessment	WL only	Quarterly	None	Monitor water levels to evaluate affect of extraction system shut down.
MW-102	2	50	1/27/09	EPZ	Assessment	WL only	Quarterly	None	Monitor water levels to evaluate affect of extraction system shut down.
MW-103	2	35	1/28/09	EPZ	Assessment	WL only	Quarterly	None	Monitor water levels to evaluate affect of extraction system shut down.
MW-104	2	32	1/29/09	EPZ	Assessment	WL only	Quarterly	None	Monitor water levels to evaluate affect of extraction system shut down.
South Solid Waste Area Perched Zone									
MW-101	2	54	6/2/06	SSWA	Assessment		Quarterly	Quarterly	Key SSWA perched zone compliance well

Notes:
(1) The following wells were decommissioned: MW-70, MW-77, MW-78, MW-96 and MW-97 as of 2016.
(2) Shallow wells are wells completed in the Regional Aquifer with the top screen slot within 10 ft of the water table. Deep wells are completed in the Regional Aquifer with the top screen slot greater than 10 ft below the water table.
(3) Water quality monitoring shading relates to Figure 2.

Abbreviations:
WL = Water Level
NA = Not Applicable
DZ = Detection Zone EPZ = East Perched Zone
SSWA = South Solid Waste Area QCF = Queen City Farms

TABLE 2

CEDAR HILLS REGIONAL LANDFILL

GROUNDWATER MONITORING ACTIVITIES 4th QUARTER 2018

Well ID	Zone	Date	Planned Activity	Sample ID	Comment
Static Water Levels	NA	10/3/18	Groundwater Elevation Measurement	--	North half of landfill.
Static Water Levels	NA	10/3/18	Groundwater Elevation Measurement	--	South half of landfill.
Static Water Levels	NA	10/3/18	Groundwater Elevation Measurement	--	East perched zone.
EW-25	Perched	10/3/18	Groundwater Elevation Measurement	NA	
MW-21	Regional	10/22/18	Quarterly Groundwater Sampling	W21-181022-	
MW-21	Regional	10/3/18	Groundwater Elevation Measurement	NA	
MW-22	Regional	10/3/18	Groundwater Elevation Measurement	NA	
MW-24	Regional	10/3/18	Groundwater Elevation Measurement	NA	
MW-24	Regional	10/10/18	Quarterly Groundwater Sampling	W24-181010-	
MW-25	Perched	10/3/18	Groundwater Elevation Measurement	NA	
MW-27A	Regional	10/3/18	Groundwater Elevation Measurement	NA	
MW-28	Perched	10/3/18	Groundwater Elevation Measurement	NA	
MW-29	Perched	10/3/18	Groundwater Elevation Measurement	NA	
MW-30A	Perched	10/3/18	Groundwater Elevation Measurement	NA	
MW-30A	Perched	10/16/18	Quarterly Groundwater Sampling	W30A181015-2	Appendix 3 analytes
MW-41D	Perched	10/3/18	Groundwater Elevation Measurement	NA	
MW-41S	Perched	10/3/18	Groundwater Elevation Measurement	NA	
MW-43	Regional	10/3/18	Groundwater Elevation Measurement	NA	
MW-45	Perched	10/3/18	Groundwater Elevation Measurement	NA	
MW-47	Perched	10/3/18	Groundwater Elevation Measurement	NA	
MW-47	Perched	10/17/18	Quarterly Groundwater Sampling	W47-181017-	Appendix 3 analytes
MW-48	Perched	10/3/18	Groundwater Elevation Measurement	NA	
MW-50	Perched	10/3/18	Groundwater Elevation Measurement	NA	
MW-54	Perched	10/3/18	Groundwater Elevation Measurement	NA	
MW-55	Perched	10/3/18	Groundwater Elevation Measurement	NA	
MW-56	Regional	10/3/18	Groundwater Elevation Measurement	NA	
MW-57	Perched	10/3/18	Groundwater Elevation Measurement	NA	
MW-58A	Regional	10/3/18	Groundwater Elevation Measurement	NA	
MW-59	Regional	10/3/18	Groundwater Elevation Measurement	NA	
MW-59	Regional	10/12/18	Quarterly Groundwater Sampling	W59-181012-	
MW-60	Regional	10/3/18	Groundwater Elevation Measurement	NA	
MW-62	Perched	10/3/18	Groundwater Elevation Measurement	NA	
MW-63	Perched	10/3/18	Groundwater Elevation Measurement	NA	
MW-64	Regional	10/3/18	Groundwater Elevation Measurement	NA	
MW-64	Regional	11/2/18	Quarterly Groundwater Sampling	W64-181102-	
MW-65	Regional	10/3/18	Groundwater Elevation Measurement	NA	
MW-66	Regional	10/3/18	Groundwater Elevation Measurement	NA	
MW-66	Regional	10/12/18	Quarterly Groundwater Sampling	W66-181016-	
MW-67	Regional	10/3/18	Groundwater Elevation Measurement	NA	
MW-67	Regional	10/3/18	Quarterly Groundwater Sampling	W67-181029-	
MW-67	Regional	10/3/18	Quarterly Groundwater Sampling	W67-181029D	Field Duplicate
MW-68	Regional	10/3/18	Groundwater Elevation Measurement	NA	
MW-68	Regional	10/22/18	Quarterly Groundwater Sampling	W68-181022-	
MW-69	Regional	10/24/18	Quarterly Groundwater Sampling	W69-181024-	
MW-69	Regional	10/3/18	Groundwater Elevation Measurement	NA	
MW-72	Regional	10/3/18	Groundwater Elevation Measurement	NA	
MW-72	Regional	10/29/18	Quarterly Groundwater Sampling	W72-181029-	
MW-73	Regional	10/3/18	Groundwater Elevation Measurement	NA	
MW-73	Regional	10/22/18	Quarterly Groundwater Sampling	W73-181022-	
MW-74	Regional	10/3/18	Groundwater Elevation Measurement	NA	
MW-74	Regional	10/18/18	Quarterly Groundwater Sampling	W74R181018-	
MW-75	Regional	10/3/18	Groundwater Elevation Measurement	NA	
MW-75	Regional	10/19/18	Quarterly Groundwater Sampling	W75-181019-	
MW-76	Regional	10/3/18	Groundwater Elevation Measurement	NA	
MW-79	Regional	10/3/18	Groundwater Elevation Measurement	NA	
MW-80	Regional	10/3/18	Groundwater Elevation Measurement	NA	
MW-80	Regional	10/19/18	Quarterly Groundwater Sampling	W80-181019-	

TABLE 2

CEDAR HILLS REGIONAL LANDFILL

GROUNDWATER MONITORING ACTIVITIES 4th QUARTER 2018

Well ID	Zone	Date	Planned Activity	Sample ID	Comment
MW-81	Regional	10/3/18	Groundwater Elevation Measurement	NA	
MW-81	Regional	10/3/18	Quarterly Groundwater Sampling	W81-181102-	
MW-82	Regional	10/3/18	Groundwater Elevation Measurement	NA	
MW-82	Regional	10/3/18	Groundwater Elevation Measurement	NA	
MW-83	Regional	10/3/18	Groundwater Elevation Measurement	NA	
MW-83	Regional	10/22/18	Quarterly Groundwater Sampling	W83-181022-	
MW-84	Regional	10/3/18	Groundwater Elevation Measurement	NA	
MW-84	Regional	10/26/18	Quarterly Groundwater Sampling	W84-181026-	
MW-85	Regional	10/3/18	Groundwater Elevation Measurement	NA	
MW-85	Regional	10/26/18	Quarterly Groundwater Sampling	W85-181026-	
MW-86	Regional	10/3/18	Groundwater Elevation Measurement	NA	
MW-87	Regional	10/3/18	Groundwater Elevation Measurement	NA	
MW-87	Regional	10/24/18	Quarterly Groundwater Sampling	W87-181024-	
MW-88	Regional	10/3/18	Groundwater Elevation Measurement	NA	
MW-88	Regional	10/23/18	Quarterly Groundwater Sampling	W88-181023-	
MW-89	Regional	10/3/18	Groundwater Elevation Measurement	NA	
MW-89	Regional	10/24/18	Quarterly Groundwater Sampling	W89-181024-	
MW-90	Regional	10/3/18	Groundwater Elevation Measurement	NA	
MW-91	Regional	10/3/18	Groundwater Elevation Measurement	NA	
MW-93	Regional	10/3/18	Groundwater Elevation Measurement	NA	
MW-93	Regional	11/5/18	Quarterly Groundwater Sampling	W93-181105-	
MW-93	Regional	11/5/18	Quarterly Groundwater Sampling	NA	
MW-94	Regional	10/3/18	Groundwater Elevation Measurement	NA	
MW-94	Regional	10/19/18	Quarterly Groundwater Sampling	NA	Field Duplicate
MW-95	Regional	10/3/18	Groundwater Elevation Measurement	NA	
MW-98	Regional	10/3/18	Groundwater Elevation Measurement	NA	
MW-99	Regional	10/3/18	Groundwater Elevation Measurement	NA	
MW-100	Regional	10/3/18	Groundwater Elevation Measurement	NA	
MW-101	Perched	10/3/18	Groundwater Elevation Measurement	NA	
MW-101	Perched	10/4/18	Quarterly Groundwater Sampling	W101181004-	Appendix 3 analytes

Table 3
CEDAR HILLS REGIONAL LANDFILL
REGIONAL AQUIFER GROUNDWATER QUALITY STANDARD EXCEEDANCES
(Data Collected from October 1, 2018 - December 31, 2018)

Parameter	Units	Well ID	Sample Date	Sample ID	Sample Value
Upgradient and Crossgradient Wells					
Arsenic, Total	mg/L	MW-21	10/22/2018	W21-181022-	0.000979
		MW-24	10/10/2018	W24-181010-	0.00058
		MW-56	11/1/2018	W56-181101-	0.0000878
		MW-59	10/12/2018	W59-181012-	0.000431
		MW-64	11/2/2018	W64-181102-	0.00178
		MW-65	10/12/2018	W65-181012-	0.000838
		MW-66	10/16/2018	W66-181016-	0.000667
		MW-73	10/22/2018	W73-181022-	0.000679
		MW-87	10/24/2018	W87-181024-	0.0011
		MW-76	10/12/2018	W76-181012-	0.000203
		MW-81	11/2/2018	W81-181102-	0.000545
		MW-82	10/10/2018	W82-181010-	0.00026
		MW-83	10/22/2018	W83-181022-	0.00042
		MW-84	10/26/2018	W84-181026-	0.00032
		MW-93	11/5/2018	W93-181105-	0.00132
		MW-94	10/19/2018	W94-181019-	0.000156
		MW-95	10/29/2018	W95-181029-	0.00111
Iron, Dissolved	mg/L	MW-21	10/22/2018	W21-181022-	1.97
		MW-24	10/10/2018	W24-181010-	3.37
		MW-59	10/12/2018	W59-181012-	4
		MW-65	10/12/2018	W65-181012-	3.12
		MW-73	10/24/2018	W87-181024-	4.48
Manganese, Dissolved	mg/L	MW-21	11/1/2018	W21-181022-	0.102
		MW-24	10/18/2018	W24-181010-	0.11
		MW-56	11/7/2018	W56-181101-	0.344
		MW-59	10/18/2018	W59-181012-	0.125
		MW-64	11/7/2018	W64-181102-	0.0824
		MW-65	10/18/2018	W65-181012-	0.137
		MW-73	11/2/2018	W87-181024-	0.542 D
		MW-93	11/15/2018	W93-181105-	0.176
		MW-95	11/7/2018	W95-181029-	0.174
Trichloroethene	ug/l	MW-82	10/11/2018	W82-181010-	4.88
		MW-76	10/19/2018	W76-181012-	9.12
Vinyl Chloride	ug/l	MW-65	10/12/2018	W65-181012-	0.0295

Table 3
CEDAR HILLS REGIONAL LANDFILL
REGIONAL AQUIFER GROUNDWATER QUALITY STANDARD EXCEEDANCES
(Data Collected from October 1, 2018 - December 31, 2018)

Parameter	Units	Well ID	Sample Date	Sample ID	Sample Value
Wells Downgradient to Waste Cells and North end Facilities					
Arsenic, Total	mg/L	MW-100	10/4/2018	W100181004-	0.00178
		MW-67	10/29/2018	W67-181029-	0.00202
		MW-68	10/22/2018	W68-181022-	0.0125
		MW-69	10/24/2018	W69-181024-	0.00222
		MW-72	10/29/2018	W72-181029-	0.000105
		MW-74	10/18/2018	W74R181018-	0.000459
		MW-75	10/19/2018	W75-181019-	0.000375
		MW-80	10/19/2018	W80-181019-	0.00409
		MW-85	10/26/2018	W85-181026-	0.000708
		MW-86	10/29/2018	W86-181029-	0.0194
		MW-88	10/23/2018	W88-181023-	0.00101
		MW-89	10/24/2018	W89-181024-	0.00638
Iron, Dissolved	mg/L	MW-100	10/4/2018	W100181004-	0.65
		MW-68	10/22/2018	W68-181022-	0.515
		MW-69	10/24/2018	W69-181024-	1.01
		MW-72	10/29/2018	W72-181029-	2.62
		MW-75	10/19/2018	W75-181019-	1.23
		MW-80	10/19/2018	W80-181019-	2.08
		MW-86	10/29/2018	W86-181029-	0.669
		MW-89	10/24/2018	W89-181024-	0.993
Manganese, Dissolved	mg/L	MW-100	10/4/2018	W100181004-	0.186
		MW-67	10/29/2018	W67-181029-	0.202
		MW-68	10/22/2018	W68-181022-	0.319
		MW-69	10/24/2018	W69-181024-	0.278
		MW-72	10/29/2018	W72-181029-	0.37
		MW-75	10/19/2018	W75-181019-	0.139
		MW-80	10/19/2018	W80-181019-	0.345
		MW-89	10/24/2018	W89-181024-	0.25

See Data Qualifier List for Qualifier Information.

Exceedance Criteria: WAC 173-200-040 - Water Quality Standards for Groundwaters of the State of Washington

Table 4
Ion Balance Calculations
Cedar Hills Regional Landfill Quarterly and Semi-annual Regional Aquifer
Groundwater Monitoring

Data Collected from October 1, 2018 to December 31, 2018

			Upgradient and Crossgradient															
Site ID			**MW-21**			**MW-24**			**MW-56**			**MW-59**			**MW-64**			**MW-65**	
			10/22/18			10/10/18			11/1/18			10/12/18			11/2/18			10/12/18	
Cations	MW	n	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)
pH			7.3			6.6			7.0			7.2			7.1			7.1		
Conductance			136			181			210			203			261			145		
TDSobs			85			107			136			120			155			87		
Calcium	40.1	2	11.7	0.58383	40.0	14.3	0.71357	37.9	19.5	0.97305	43.1	16.5	0.82335	39.2	20.9	1.04291	37.4	11.3	0.56387	37.5
Magnesium	24.3	2	6.4	0.52417	35.9	9.4	0.76939	40.9	11.7	0.96276	42.6	10.1	0.8311	39.6	16.3	1.34129	48.1	7.0	0.5719	38.0
Potassium	39.1	1	1.1	0.02711	1.9	0.9	0.02371	1.3	1.3	0.03351	1.5	1.1	0.02916	1.4	1.8	0.04604	1.6	0.9	0.02297	1.5
Sodium	23.0	1	5.7	0.24794	17.0	5.7	0.24707	13.1	6.3	0.27273	12.1	6.1	0.26577	12.7	8.1	0.3532	12.7	5.3	0.22836	15.2
Iron	55.8	2	1.97	0.07055	4.8	3.37	0.12069	6.4	0.09	0.00338	0.1	4.00	0.14325	6.8	0.06	0.00203	0.1	3.12	0.11173	7.4
Manganese	54.9	2	0.10	0.00371	0.3	0.11	0.004	0.2	0.34	0.01252	0.6	0.13	0.00455	0.2	0.08	0.003	0.1	0.14	0.00499	0.3
Ammonia-N	14.0	1	0.03	0.00193	0.1	0.04	0.00258	0.1	0.00	0.00021	0.0	0.01	0.00058	0.0	0.03	0.0019	0.1	0.00	0.00033	0.0
Total Cations (meq/L)				**1.5**			**1.9**			**2.3**			**2.1**			**2.8**			**1.5**	
Anions																				
Alkalinity, Total			57			66			74			69			102			52		
Carbonate	60.0	2	0.06648	0.00222	0.2	0.01449	0.00048	0.0	0.04894	0.00163	0.1	0.06085	0.00203	0.1	0.07893	0.00263	0.1	0.03512	0.00117	0.1
Bicarbonate	61.0	1	69.16	1.13361	87.1	80.98	1.32732	76.9	90.55	1.48414	68.1	83.45	1.36777	72.1	124.28	2.03706	75.1	63.49	1.04067	77.3
Chloride	35.5	1	2.3	0.06544	5.0	5.9	0.16755	9.7	18.6	0.52464	24.1	7.4	0.20732	10.9	2.8	0.07813	2.9	3.6	0.10239	7.6
Nitrate-N	14.0	1	0.01	0.00036	0.0	0.01	0.00036	0.0	0.07	0.0053	0.2	0.01	0.00071	0.0	0.01	0.00036	0.0	0.01	0.00036	0.0
Sulfate	96.1	2	4.8	0.09994	7.7	11.1	0.23111	13.4	7.9	0.16469	7.6	15.3	0.31856	16.8	28.6	0.59548	21.9	9.7	0.20113	14.9
Total Anions (meq/L)				**1.3**			**1.7**			**2.2**			**1.9**			**2.7**			**1.3**	
Total Ions (meq/L)				**2.8**			**3.6**			**4.4**			**4.0**			**5.5**			**2.8**	
Cation/Anion Ratio				**1.12**			**1.09**			**1.04**			**1.11**			**1.03**			**1.12**	
Percent Difference				**5.7**			**4.3**			**1.8**			**5.0**			**1.4**			**5.6**	
Trilinear Diagram Data																				
sum (Ca, Mg, Na+K)			1.38			1.75			2.24			1.95			2.78			1.39		
Calcium				42.21			40.69			43.40			42.24			37.47			40.65	
Magnesium				37.90			43.87			42.94			42.63			48.19			41.23	
Sodium + Potassium				19.89			15.44			13.66			15.13			14.34			18.12	
													100.0							
sum (SO_4, Cl, HCO_3+CO_3)			1.30			1.73			2.18			1.90			2.71			1.35		
Sulfate				7.681			13.386			7.572			16.805			21.947			14.950	
Chloride				5.029			9.705			24.120			10.936			2.880			7.611	
Bicarbonate + Carbonate				87.290			76.909			68.308			72.259			75.174			77.440	
													100.0							

Table 4
Ion Balance Calculations
Cedar Hills Regional Landfill Quarterly and Semi-annual Regional Aquifer
Groundwater Monitoring

Data Collected from October 1, 2018 to December 31, 2018

			Upgradient and Crossgradient																
Site ID			**MW-76**			**MW-82**			**MW-83**			**MW-94**			**MW-73**			**MW-81**		
			10/12/18			10/10/18			10/22/18			10/19/18			10/22/18			11/2/18		
Cations	MW	n	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)
pH			6.6			6.7			6.9			7.0			6.8			7.4		
Conductance			234			308			619			327			138			161		
TDSobs			148			192			382			202			97			105		
Calcium	40.1	2	20.5	1.02295	45.2	30.2	1.506986028	43.6	66.4	3.31337	53.1	31.9	1.59182	49.8	12.4	0.61876	43.7	13.3	0.66367	42.6
Magnesium	24.3	2	9.6	0.78667	34.7	18.5	1.52232051	44.1	26.9	2.21354	35.5	14.5	1.19317	37.3	6.4	0.52335	37.0	7.3	0.59741	38.3
Potassium	39.1	1	1.4	0.03555	1.6	2.0	0.050385822	1.5	3.7	0.09387	1.5	2.3	0.05857	1.8	0.8	0.02118	1.5	0.8	0.02159	1.4
Sodium	23.0	1	9.7	0.42019	18.5	8.6	0.373644451	10.8	14.3	0.62202	10.0	8.2	0.35581	11.1	5.8	0.25142	17.8	6.4	0.27621	17.7
Iron	55.8	2	0.01	0.00018	0.0	0.01	0.000179061	0.0	0.01	0.00018	0.0	0.01	0.00018	0.0	0.01	0.00018	0.0	0.01	0.00018	0.0
Manganese	54.9	2	0.00	1.8E-06	0.0	0.00	1.82023E-06	0.0	0.00	6.3E-05	0.0	0.00	1.8E-06	0.0	0.00	1.8E-06	0.0	0.00	1.8E-06	0.0
Ammonia-N	14.0	1	0.00	7.1E-05	0.0	0.00	7.13929E-05	0.0	0.00	0.00021	0.0	0.00	7.1E-05	0.0	0.00	7.1E-05	0.0	0.00	7.1E-05	0.0
Total Cations (meq/L)				**2.3**			**3.5**			**6.2**	**100.0**		**3.2**			**1.4**			**1.6**	
Anions																				
Alkalinity, Total			61			125			191			109			51			54		
Carbonate	60.0	2	0.0136	0.00045	0.0	0.04129	0.001376375	0.0	0.08509	0.00284	0.0	0.06701	0.00223	0.1	0.02033	0.00068	0.1	0.07478	0.00249	0.2
Bicarbonate	61.0	1	74.27	1.21736	56.3	152.42	2.498246859	78.8	232.85	3.81659	62.1	132.84	2.17744	71.1	62.42	1.02317	77.9	66.22	1.08534	71.1
Chloride	35.5	1	16.4	0.46258	21.4	9.9	0.278678814	8.8	67.2	1.89547	30.9	20.4	0.57541	18.8	2.1	0.06008	4.6	5.0	0.1416	9.3
Nitrate-N	14.0	1	1.53	0.10923	5.1	0.87	0.062254587	2.0	3.02	0.21561	3.5	2.14	0.15278	5.0	1.05	0.07496	5.7	1.41	0.10066	6.6
Sulfate	96.1	2	17.9	0.37269	17.2	15.8	0.328969285	10.4	10.2	0.21237	3.5	7.4	0.15303	5.0	7.5	0.15512	11.8	9.5	0.19738	12.9
Total Anions (meq/L)				**2.2**			**3.2**			**6.1**	**100.0**		**3.1**			**1.3**			**1.5**	
Total Ions (meq/L)				**4.4**			**6.6**			**12.4**			**6.3**			**2.7**			**3.1**	
Cation/Anion Ratio				**1.05**			**1.09**			**1.02**			**1.05**			**1.08**			**1.02**	
Percent Difference				**2.3**			**4.3**			**0.8**			**2.2**			**3.7**			**1.0**	
Trilinear Diagram Data																				
sum (Ca, Mg, Na+K)			2.27			3.45			6.24			3.20			1.41			1.56		
Calcium				45.16			43.64			53.08			49.75			43.74			42.57	
Magnesium				34.73			44.08			35.46			37.29			36.99			38.32	
Sodium + Potassium				20.12			12.28			11.47			12.95			19.27			19.10	
										100.0									100.0	
sum (SO_4, Cl, HCO_3+CO_3)			2.05			3.11			5.93			2.91			1.24			1.43		
Sulfate				18.153			10.587			3.583			5.262			12.519			13.834	
Chloride				22.531			8.969			31.979			19.786			4.849			9.924	
Bicarbonate + Carbonate				59.316			80.444			64.438			74.951			82.632			76.242	
										100.0										

Table 4
Ion Balance Calculations
Cedar Hills Regional Landfill Quarterly and Semi-annual Regional Aquifer
Groundwater Monitoring

Data Collected from October 1, 2018 to December 31, 2018

			Upgradient and Crossgradient											
Site ID			**MW-84**			**MW-66**			**MW-93**			**MW-95**		
			10/26/18			10/16/18			11/5/18			10/19/18		
Cations	MW	n	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)
pH			7.0			7.2			7.4			7.0		
Conductance			188			219			321			327		
TDSobs			118			130			199			202		
Calcium	40.1	2	14.7	0.73353	37.2	16.8	0.83832	37.1	31.2	1.55689	46.1	31.9	1.59181637	49.8
Magnesium	24.3	2	11.1	0.91339	46.3	13.0	1.06974	47.3	16.6	1.36597	40.4	14.5	1.19317013	37.3
Potassium	39.1	1	1.1	0.02865	1.5	1.1	0.02813	1.2	1.5	0.03939	1.2	2.3	0.05857032	1.8
Sodium	23.0	1	6.8	0.29622	15.0	7.4	0.32319	14.3	9.3	0.40583	12.0	8.2	0.35581043	11.1
Iron	55.8	2	0.01	0.00018	0.0	0.01	0.00018	0.0	0.01	0.00018	0.0	0.01	0.00017906	0.0
Manganese	54.9	2	0.00	2.9E-05	0.0	0.00	1.8E-06	0.0	0.18	0.00641	0.2	0.00	1.8202E-06	0.0
Ammonia-N	14.0	1	0.00	7.1E-05	0.0	0.00	7.1E-05	0.0	0.06	0.00426	0.1	0.00	7.1393E-05	0.0
Total Cations (meq/L)				**2.0**			**2.3**			**3.4**			**3.2**	
Anions														
Alkalinity, Total			72			89			121			109		
Carbonate	60.0	2	0.04137	0.00138	0.1	0.0808	0.00269	0.1	0.18234	0.00608	0.2	0.06701353	0.00223381	0.1
Bicarbonate	61.0	1	87.88	1.4404	76.8	108.29	1.77504	80.7	147.25	2.41356	74.3	132.84	2.17743782	71.1
Chloride	35.5	1	4.0	0.11283	6.0	4.4	0.12411	5.6	2.9	0.08264	2.5	20.4	0.5754097	18.8
Nitrate-N	14.0	1	0.15	0.01035	0.6	0.51	0.03662	1.7	0.01	0.00036	0.0	2.14	0.15278075	5.0
Sulfate	96.1	2	14.9	0.31023	16.5	12.5	0.26026	11.8	35.9	0.74747	23.0	7.4	0.15303318	5.0
Total Anions (meq/L)				**1.9**			**2.2**			**3.3**			**3.1**	
Total Ions (meq/L)				**3.8**			**4.5**			**6.6**			**6.3**	
Cation/Anion Ratio				**1.05**			**1.03**			**1.04**			**1.05**	
Percent Difference				**2.5**			**1.4**			**1.9**			**2.2**	
Trilinear Diagram Data														
sum (Ca, Mg, Na+K)			1.97			2.26			3.37			3.20		
Calcium				37.20			37.10			46.22			49.75	
Magnesium				46.32			47.35			40.56			37.29	
Sodium + Potassium				16.48			15.55			13.22			12.95	
				100.0			100.0							
sum (SO_4, Cl, HCO_3+CO_3)			1.86			2.16			3.25			2.91		
Sulfate				16.636			12.037			23.001			5.262	
Chloride				6.050			5.740			2.543			19.786	
Bicarbonate + Carbonate				77.314			82.222			74.456			74.951	

Table 4
Ion Balance Calculations
Cedar Hills Regional Landfill Quarterly and Semi-annual Regional Aquifer
Groundwater Monitoring

Data Collected from October 1, 2018 to December 31, 2018

			Downgradient to Waste Cells and North End Facilities								
Site ID			**MW-68**			**MW-67**			**MW-69**		
			10/22/18			10/29/18			10/24/18		
Cations	MW	n	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)
pH			7.3			6.7			7.6		
Conductance			283			350			330		
TDSobs			167			225			193		
Calcium	40.1	2	27.7	1.38224	44.7	35.8	1.78643	44.3	34.4	1.71657	48.5
Magnesium	24.3	2	15.1	1.24254	40.2	21.5	1.76918	43.9	16.4	1.34952	38.1
Potassium	39.1	1	1.7	0.04399	1.4	1.8	0.04527	1.1	1.8	0.04604	1.3
Sodium	23.0	1	9.0	0.39148	12.7	9.6	0.41627	10.3	8.8	0.38147	10.8
Iron	55.8	2	0.52	0.01844	0.6	0.20	0.00713	0.2	1.01	0.03617	1.0
Manganese	54.9	2	0.32	0.01161	0.4	0.20	0.00735	0.2	0.28	0.01012	0.3
Ammonia-N	14.0	1	0.02	0.00134	0.0	0.01	0.00045	0.0	0.02	0.00122	0.0
Total Cations (meq/L)				**3.1**			**4.0**			**3.5**	
Anions											
Alkalinity, Total			128			159			137		
Carbonate	60.0	2	0.14981	0.00499	0.2	0.05252	0.00175	0.0	0.3343	0.01114	0.3
Bicarbonate	61.0	1	155.86	2.55462	87.0	193.87	3.17777	79.4	166.46	2.72845	81.4
Chloride	35.5	1	2.7	0.07531	2.6	5.2	0.14752	3.7	3.9	0.10916	3.3
Nitrate-N	14.0	1	0.01	0.00036	0.0	0.09	0.0065	0.2	0.01	0.00036	0.0
Sulfate	96.1	2	14.4	0.29982	10.2	32.1	0.66835	16.7	24.2	0.50386	15.0
Total Anions (meq/L)				**2.9**			**4.0**			**3.4**	
Total Ions (meq/L)				**6.0**			**8.0**			**6.9**	
Cation/Anion Ratio				**1.05**			**1.01**			**1.06**	
Percent Difference				**2.6**			**0.4**			**2.7**	
Trilinear Diagram Data											
sum (Ca, Mg, Na+K)			3.06			4.02			3.49		
Calcium				45.17			44.47			49.13	
Magnesium				40.60			44.04			38.63	
Sodium + Potassium				14.23			11.49			12.24	
sum (SO_4, Cl, HCO_3+CO_3)			2.93			4.00			3.35		
Sulfate				10.216			16.728			15.029	
Chloride				2.566			3.692			3.256	
Bicarbonate + Carbonate				87.218			79.580			81.715	

Table 4
Ion Balance Calculations
Cedar Hills Regional Landfill Quarterly and Semi-annual Regional Aquifer
Groundwater Monitoring

Data Collected from October 1, 2018 to December 31, 2018

			Downgradient to Waste Cells and North End Facilities															
Site ID			**MW-72**			**MW-74**			**MW-75**			**MW-80**			**MW-85**			**MW-86**	
			10/29/18			10/18/18			10/19/18			10/19/18			10/26/18			10/29/18	
Cations	MW	n	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)
pH			6.8			7.1			7.1			7.3			7.1			7.1		
Conductance			375			547			370			315			355			195		
TDSobs			211			313			233			193			220			116		
Calcium	40.1	2	31.6	1.57685	42.3	46.8	2.33533	39.4	30.0	1.49701	39.0	30.1	1.502	45.4	33.0	1.64671	43.6	15.3	0.76347	38.1
Magnesium	24.3	2	19.9	1.63752	43.9	36.0	2.96235	50.0	22.4	1.84324	48.0	16.1	1.32483	40.1	20.4	1.67867	44.4	10.7	0.88048	43.9
Potassium	39.1	1	2.0	0.0509	1.4	2.1	0.05473	0.9	1.9	0.04783	1.2	1.7	0.0422	1.3	1.7	0.04271	1.1	1.3	0.03351	1.7
Sodium	23.0	1	8.2	0.35451	9.5	13.2	0.57417	9.7	9.3	0.40279	10.5	8.0	0.34929	10.6	9.5	0.41279	10.9	7.0	0.30361	15.1
Iron	55.8	2	2.62	0.09383	2.5	0.01	0.00018	0.0	1.23	0.04405	1.1	2.08	0.07449	2.3	0.01	0.00018	0.0	0.67	0.02396	1.2
Manganese	54.9	2	0.37	0.01347	0.4	0.00	1.8E-06	0.0	0.14	0.00506	0.1	0.35	0.01256	0.4	0.00	1.8E-06	0.0	0.03	0.00124	0.1
Ammonia-N	14.0	1	0.02	0.00118	0.0	0.00	7.1E-05	0.0	0.01	0.00057	0.0	0.01	0.00091	0.0	0.00	7.1E-05	0.0	0.00	0.00021	0.0
Total Cations (meq/L)				**3.7**			**5.9**			**3.8**			**3.3**	**100.0**		**3.8**			**2.0**	
Anions																				
Alkalinity, Total			128			216			107			112			130			68		
Carbonate	60.0	2	0.04636	0.00155	0.0	0.16334	0.00544	0.1	0.0828	0.00276	0.1	0.13413	0.00447	0.1	0.10059	0.00335	0.1	0.04704	0.00157	0.1
Bicarbonate	61.0	1	156.07	2.55807	71.8	263.19	4.3139	76.2	130.37	2.13692	60.5	136.37	2.23519	71.8	158.40	2.59626	71.9	83.11	1.36223	71.0
Chloride	35.5	1	6.6	0.18475	5.2	23.7	0.66849	11.8	9.5	0.26852	7.6	4.6	0.1289	4.1	10.8	0.30463	8.4	4.8	0.13398	7.0
Nitrate-N	14.0	1	0.01	0.00036	0.0	0.31	0.02242	0.4	0.01	0.00036	0.0	0.01	0.00036	0.0	0.11	0.00814	0.2	0.02	0.0015	0.1
Sulfate	96.1	2	39.4	0.82034	23.0	31.4	0.65377	11.5	54.1	1.12641	31.9	35.7	0.7433	23.9	33.5	0.6975	19.3	20.1	0.4185	21.8
Total Anions (meq/L)				**3.6**			**5.7**			**3.5**			**3.1**	**100.0**		**3.6**			**1.9**	
Total Ions (meq/L)				**7.3**			**11.6**			**7.4**			**6.4**			**7.4**			**3.9**	
Cation/Anion Ratio				**1.05**			**1.05**			**1.09**			**1.06**			**1.05**			**1.05**	
Percent Difference				**2.2**			**2.3**			**4.1**			**3.0**			**2.3**			**2.3**	
Trilinear Diagram Data																				
sum (Ca, Mg, Na+K)			3.62			5.93			3.79			3.22			3.78			1.98		
Calcium				43.56			39.40			39.49			46.67			43.55			38.54	
Magnesium				45.24			49.98			48.62			41.17			44.40			44.44	
Sodium + Potassium				11.20			10.61			11.89			12.16			12.05			17.02	
													100.0							
sum (SO_4, Cl, HCO_3+CO_3)			3.56			5.64			3.53			3.11			3.60			1.92		
Sulfate				23.013			11.588			31.868			23.886			19.366			21.839	
Chloride				5.183			11.849			7.597			4.142			8.458			6.992	
Bicarbonate + Carbonate				71.804			76.562			60.535			71.972			72.177			71.169	
													100.0							

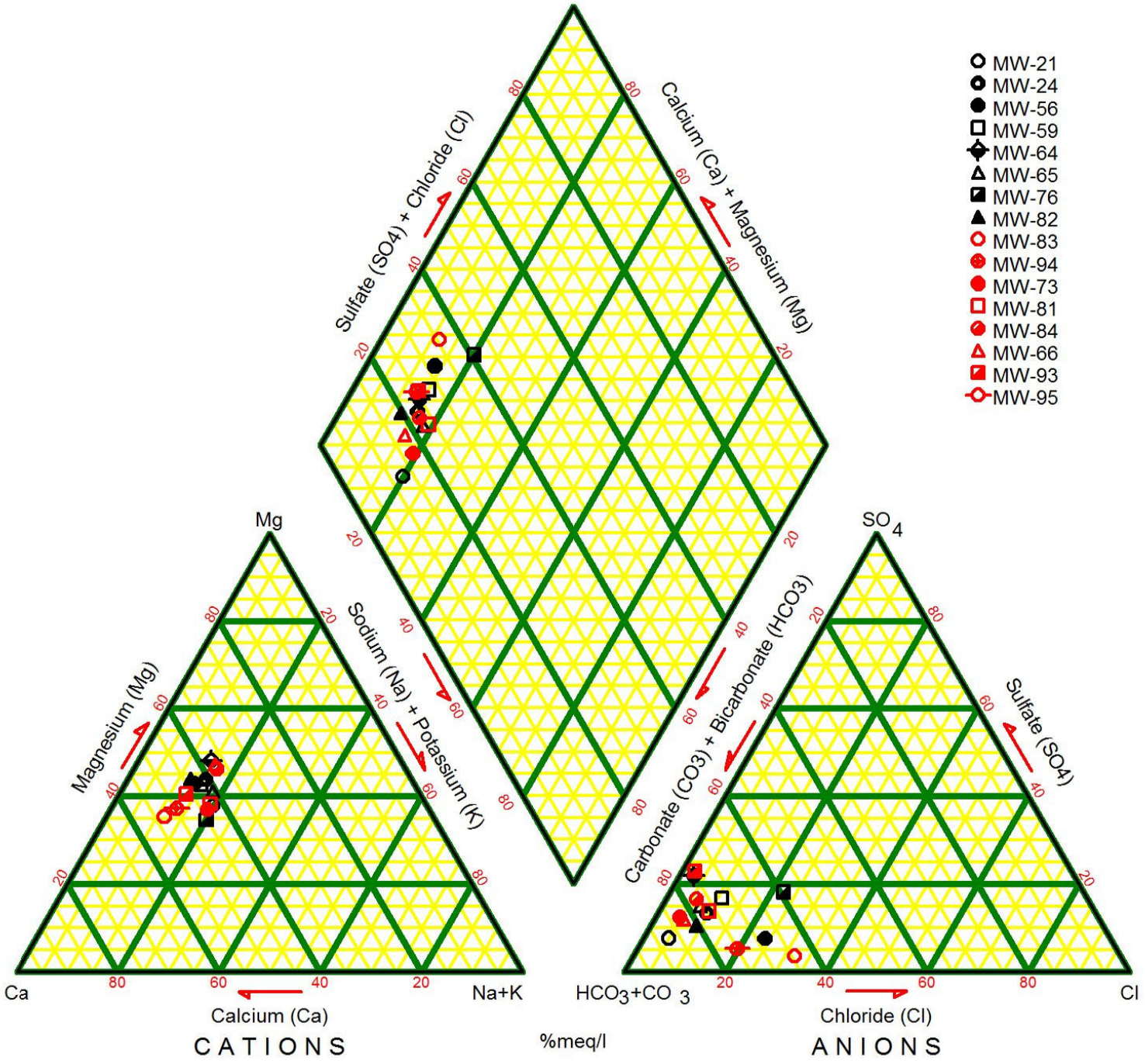
Table 4
Ion Balance Calculations
Cedar Hills Regional Landfill Quarterly and Semi-annual Regional Aquifer
Groundwater Monitoring

Data Collected from October 1, 2018 to December 31, 2018

			Downgradient to Waste Cells and North End Facilities											
Site ID			**MW-87**			**MW-88**			**MW-89**			**MW-100**		
				10/24/18			10/23/18			10/24/18			10/4/18	
Cations	MW	n	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)
pH			7.0			7.1			7.2			6.9		
Conductance			536			126			225			325		
TDSobs			376			87			137			182		
Calcium	40.1	2	47.2	2.35529	41.7	9.5	0.47405	36.1	16.3	0.81337	35.2	30.7	1.53194	44.5
Magnesium	24.3	2	31.4	2.58383	45.7	6.9	0.56532	43.0	11.9	0.97922	42.4	17.2	1.41535	41.1
Potassium	39.1	1	2.4	0.0619	1.1	0.8	0.02143	1.6	1.6	0.04118	1.8	1.8	0.04578	1.3
Sodium	23.0	1	10.8	0.46977	8.3	5.8	0.25229	19.2	9.9	0.43063	18.6	9.6	0.41801	12.1
Iron	55.8	2	4.48	0.16044	2.8	0.01	0.00018	0.0	0.99	0.03556	1.5	0.65	0.02328	0.7
Manganese	54.9	2	0.54	0.01973	0.3	0.00	9E-06	0.0	0.25	0.0091	0.4	0.19	0.00677	0.2
Ammonia-N	14.0	1	0.02	0.0014	0.0	0.00	7.1E-05	0.0	0.02	0.00127	0.1	0.01	0.00089	0.0
Total Cations (meq/L)				**5.7**			**1.3**			**2.3**			**3.4**	
Anions														
Alkalinity, Total			102			51			77			142		
Carbonate	60.0	2	0.0572	0.00191	0.0	0.03857	0.00129	0.1	0.07872	0.00262	0.1	0.07263	0.00242	0.1
Bicarbonate	61.0	1	124.32	2.03779	37.6	62.14	1.01856	82.1	94.02	1.54114	69.8	173.09	2.83715	85.0
Chloride	35.5	1	13.0	0.36668	6.8	1.8	0.04964	4.0	11.6	0.32719	14.8	3.0	0.0849	2.5
Nitrate-N	14.0	1	0.01	0.00036	0.0	0.77	0.05504	4.4	0.01	0.00036	0.0	0.01	0.00036	0.0
Sulfate	96.1	2	145.0	3.01902	55.6	5.6	0.11576	9.3	16.2	0.3373	15.3	19.9	0.41433	12.4
Total Anions (meq/L)				**5.4**			**1.2**			**2.2**			**3.3**	
Total Ions (meq/L)				**11.1**			**2.6**			**4.5**			**6.8**	
Cation/Anion Ratio				**1.04**			**1.06**			**1.05**			**1.03**	
Percent Difference				**2.0**			**2.9**			**2.3**			**1.5**	
Trilinear Diagram Data														
sum (Ca, Mg, Na+K)			5.47			1.31			2.26			3.41		
Calcium				43.05			36.10			35.92			44.91	
Magnesium				47.23			43.05			43.24			41.49	
Sodium + Potassium				9.72			20.85			20.84			13.60	
sum (SO_4, Cl, HCO_3+CO_3)			5.43			1.19			2.21			3.34		
Sulfate				55.646			9.767			15.274			12.410	
Chloride				6.759			4.188			14.817			2.543	
Bicarbonate + Carbonate				37.595			86.045			69.909			85.047	

Cedar Hills Regional Landfill

Figure 5. Trilinear Diagram Up & Crossgradient Regional Wells



Cedar Hills Regional Landfill

Figure 6. Trilinear Diagram Downgradient Regional Wells

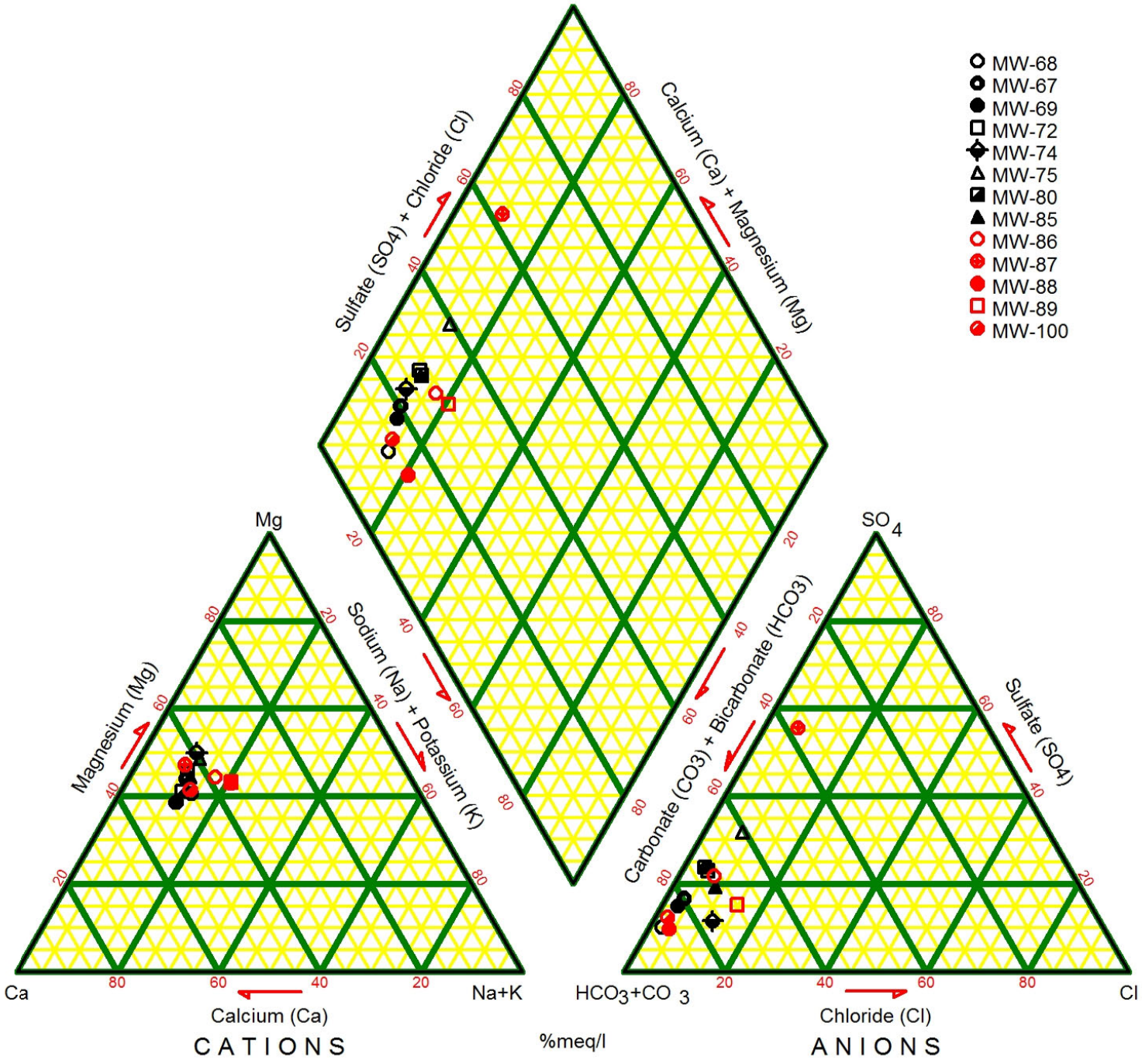


TABLE 5
CEDAR HILLS REGIONAL LANDFILL REGIONAL AQUIFER QUARTERLY MONITORING WELLS
SUMMARY OF WAC 173-351 APPENDIX I INTRAWELL PREDICTION LIMIT VALUES
(Data Collected from October 1, 2018 - December 31, 2018)

Parameter		Total Antimony	Total Arsenic	Total Barium	Total Beryllium	Total Cadmium	Total Chromium	Total Cobalt	Total Copper	Total Lead	Total Nickel	Total Selenium	Total Silver	Total Thallium	Total Vanadium	Total Zinc	Nitrate as N	*cis*-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride
Well	Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	*ug/L*	ug/L	ug/L
Upgradient and Crossgradient Wells																					
MW-21	Limit	0.001	0.00111	0.005323	0.001	0.002	0.005	0.003	0.002	0.001	0.01	0.001	0.003	0.001	0.002	0.004	1.9	0.2	0.2	0.2	0.02
	Result	< 0.0003	0.000979	0.00461	< 0.0001	< 0.00005	< 0.0002	< 0.00005	< 0.0002	< 0.0001	0.000136	< 0.0005	< 0.00004	< 0.0001	< 0.000075	< 0.0005	< 0.01	< 0.1	< 0.1	< 0.1	< 0.01
	PL Exceeds?	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
MW-24	Limit	0.001	0.001	0.002127	0.001	0.002	0.005	0.003	0.002	0.001	0.01	0.001	0.003	0.001	0.002	0.004	1	0.39	0.2	0.2	0.02
	Result	< 0.0003	0.00058	0.0019	< 0.0001	< 0.00005	< 0.0002	< 0.00005	< 0.0002	< 0.0001	< 0.0001	< 0.0005	< 0.00004	< 0.0001	< 0.000075	< 0.0005	< 0.01	0.10	< 0.1	< 0.1	0.02
MW-56	Limit	0.001	0.0025	0.0478	0.001	0.002	0.00755	0.00389	0.0154	0.0033	0.01	0.001	0.00694	0.001	0.0178	0.0478	2.78	1.857244	0.2	0.2	0.02
	Result	< 0.0003	8.78E-05	0.00395	< 0.0001	< 0.00005	< 0.0002	0.000205	0.000204	< 0.0001	0.000762	< 0.0005	< 0.00004	< 0.0001	0.000249	0.00101	0.0742	1.53	< 0.1	< 0.1	< 0.01
MW-59	Limit	0.001	0.001	0.00548	0.001	0.002	0.005	0.003	0.002	0.001	0.01	0.001	0.003	0.001	0.002	0.00748	0.29	1.37	0.2	0.45	0.02
	Result	< 0.0003	0.000431	0.00394	< 0.0001	< 0.00005	< 0.0002	< 0.00005	< 0.0002	< 0.0001	0.000168	< 0.0005	< 0.00004	< 0.0001	< 0.000075	0.00115	0.01	1.17	< 0.1	< 0.1	< 0.01
MW-64	Limit	0.001	0.01	0.018047	0.001	0.002	0.005	0.00347	0.00512	0.001	0.0153	0.001	0.003	0.001	0.00606	0.0385	0.121	0.2	0.2	0.2	0.2
	Result	< 0.0003	0.00178	**0.0185**	< 0.0001	0.000269	< 0.0002	0.00211	0.000765	< 0.0001	0.00797	< 0.0005	< 0.00004	< 0.0001	0.000682	0.00219	< 0.01	< 0.1	< 0.1	< 0.1	< 0.01
MW-65	Limit	0.001	0.00242	0.00829	0.001	0.002	0.005	0.003	0.002	0.001	0.01	0.001	0.003	0.001	0.002	0.004	0.055	0.2	0.2	0.2	0.125823
	Result	< 0.0003	0.000838	0.0062	< 0.0001	< 0.00005	< 0.0002	< 0.00005	< 0.0002	< 0.0001	0.000123	< 0.0005	< 0.00004	< 0.0001	< 0.000075	< 0.0005	< 0.01	< 0.1	< 0.1	< 0.1	0.03
MW-66	Limit	0.001	0.001	0.00649	0.001	0.002	0.005	0.003	0.002	0.001	0.01	0.00104	0.003	0.001	0.002	0.004	0.881329	0.2	0.2	0.2	0.02
	Result	< 0.0003	0.000667	0.00483	< 0.0001	< 0.00005	0.000212	< 0.00005	< 0.0002	< 0.0001	0.000192	0.001	< 0.00004	< 0.0001	0.000716	0.00147	0.513	< 0.1	< 0.1	< 0.1	< 0.01
MW-68	Limit	0.001	0.495195	0.0197	0.001	0.002	0.005	0.003	0.00737	0.001	0.01	0.001	0.003	0.001	0.0037	0.004	0.13	0.2	0.2	0.2	0.02
	Result	< 0.0003	0.0125	0.0115	< 0.0001	< 0.00005	< 0.0002	0.000235	0.000213	< 0.0001	0.000533	< 0.0005	< 0.00004	< 0.0001	0.00024	0.000574	< 0.01	< 0.1	< 0.1	< 0.1	< 0.01
MW-73	Limit	0.001	0.001	0.0225	0.001	0.002	0.005	0.003	0.00363	0.001	0.01	0.001	0.003	0.001	0.002	0.004	2.01	0.2	0.2	0.2	0.02
	Result	< 0.0003	0.000679	0.00273	< 0.0001	< 0.00005	0.000257	< 0.00005	0.000221	< 0.0001	0.00024	< 0.0005	< 0.00004	< 0.0001	0.00119	< 0.0005	1.05	< 0.1	< 0.1	< 0.1	< 0.01
MW-76	Limit	0.001	0.001	0.004549	0.001	0.002	0.005	0.003	0.002	0.001	0.01	0.001	0.003	0.001	0.002	0.004	4.06875	2.568972	0.670269	14.63846	0.02
	Result	< 0.0003	0.000203	0.00413	< 0.0001	< 0.00005	0.000406	< 0.00005	0.00069	< 0.0001	0.000334	< 0.0005	< 0.00004	< 0.0001	0.000564	0.000678	1.53	0.22	0.44	9.12	< 0.01
MW-81	Limit	0.001	0.001	0.00487	0.001	0.002	0.005	0.003	0.002	0.001	0.01	0.00104	0.003	0.001	0.00253	0.00895	1.77	0.2	0.2	0.2	0.02
	Result	< 0.0003	0.000545	0.00338	< 0.0001	< 0.00005	< 0.0002	< 0.00005	< 0.0002	< 0.0001	0.000158	0.000903	< 0.00004	< 0.0001	0.00177	0.000939	1.41	< 0.1	< 0.1	< 0.1	< 0.01
MW-82	Limit	0.001	0.001	0.004789	0.001	0.002	0.005	0.003	0.002	0.001	0.01	0.001	0.003	0.001	0.002	0.004	1.40957	0.2	0.2	8.9	0.02
	Result	< 0.0003	0.00026	0.00151	< 0.0001	< 0.00005	0.00162	< 0.00005	0.000242	< 0.0001	0.00259	< 0.0005	< 0.00004	< 0.0001	0.00132	0.000776	0.872	< 0.1	< 0.1	4.88	< 0.01
MW-83	Limit	0.001	0.001	0.011036	0.001	0.002	0.005	0.003	0.00549	0.001	0.01	0.001	0.003	0.001	0.002	0.004	4.107705	0.2	0.2	3.033524	0.02
	Result	< 0.0003	0.00042	0.0101	< 0.0001	< 0.00005	0.000249	0.000336	0.00482	< 0.0001	0.00239	< 0.0005	< 0.00004	< 0.0001	0.000921	0.000549	3.02	< 0.1	< 0.1	2.05	< 0.01
MW-84	Limit	0.001	0.001	0.00408	0.001	0.002	0.005	0.003	0.002	0.001	0.01	0.001	0.003	0.001	0.002	0.004	0.739614	0.2	0.2	0.2	0.02
	Result	< 0.0003	0.00032	**0.00435**	< 0.0001	< 0.00005	< 0.0002	< 0.00005	< 0.0002	< 0.0001	0.000298	0.000829	< 0.00004	< 0.0001	0.000495	< 0.0005	0.145	< 0.1	< 0.1	< 0.1	< 0.01
MW-93	Limit	0.001	0.001435	0.009592	0.001	0.002	0.005	0.003	0.002	0.001	0.01	0.001	0.003	0.001	0.00231	0.0112	0.21	0.2	0.2	0.2	0.02
	Result	< 0.0003	0.00132	0.00761	< 0.0001	< 0.00005	< 0.0002	9.23E-05	< 0.0002	< 0.0001	0.000203	< 0.0005	< 0.00004	< 0.0001	0.00218	0.000781	< 0.01	< 0.1	< 0.1	< 0.1	< 0.01
MW-94	Limit	0.001	0.001	0.005034	0.001	0.002	0.005	0.003	0.0051	0.001	0.01	0.001	0.003	0.001	0.002	0.004	2.295128	0.2	0.2	4.706212	0.02
	Result	< 0.0003	0.000156	0.0027	< 0.0001	< 0.00005	0.000233	6.11E-05	0.000887	< 0.0001	0.000434	< 0.0005	< 0.00004	< 0.0001	0.00132	0.000904	2.14	< 0.1	< 0.1	2.54	< 0.01
MW-95	Limit	0.001	0.00109	0.004505	0.001	0.002	0.005	0.003	0.002	0.001	0.01	0.001	0.003	0.001	0.002	0.004	0.01	0.2	0.2	0.2	0.02
	Result	< 0.0003	**0.00111**	0.00427	< 0.0001	< 0.00005	< 0.0002	7.21E-05	< 0.0002	< 0.0001	0.000198	< 0.0005	< 0.00004	< 0.0001	0.000353	< 0.0005	< 0.01	< 0.1	< 0.1	< 0.1	< 0.01

Results greater than Limit Value in **Bold Red**

TABLE 5
CEDAR HILLS REGIONAL LANDFILL REGIONAL AQUIFER QUARTERLY MONITORING WELLS
SUMMARY OF WAC 173-351 APPENDIX I INTRAWELL PREDICTION LIMIT VALUES
(Data Collected from October 1, 2018 - December 31, 2018)

	Parameter	Total Antimony	Total Arsenic	Total Barium	Total Beryllium	Total Cadmium	Total Chromium	Total Cobalt	Total Copper	Total Lead	Total Nickel	Total Selenium	Total Silver	Total Thallium	Total Vanadium	Total Zinc	Nitrate as N	*cis*-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride
Downgradient																					
MW-67	Limit	0.001	0.00168	0.016008	0.001	0.002	0.005	0.003	0.002	0.001	0.01	0.001	0.003	0.001	0.002	0.004	3.4	0.2	0.2	0.2	0.02
	Result	< 0.0003	**0.00202**	**0.0167**	< 0.0001	< 0.00005	< 0.0002	0.000417	0.000457	< 0.0001	0.00086	< 0.0005	< 0.00004	< 0.0001	0.0011	0.00108	0.091	< 0.1	< 0.1	< 0.1	< 0.01
MW-69	Limit	0.001	0.00386	0.014394	0.001	0.002	0.005	0.003	0.002	0.001	0.01	0.001	0.003	0.001	0.002	0.0112	0.076	0.2	0.2	0.2	0.02
	Result	< 0.0003	0.00222	0.0124	< 0.0001	< 0.00005	< 0.0002	< 0.00005	< 0.0002	< 0.0001	0.000143	< 0.0005	< 0.00004	< 0.0001	0.000115	< 0.0005	< 0.01	< 0.1	< 0.1	< 0.1	< 0.01
MW-72	Limit	0.001	0.001	0.0156	0.001	0.002	0.005	0.003	0.00331	0.00104	0.01	0.001	0.003	0.001	0.002	0.0201	0.15	0.2	0.2	0.2	0.02
	Result	< 0.0003	0.000105	0.0132	< 0.0001	< 0.00005	< 0.0002	< 0.00005	0.000218	< 0.0001	0.000235	< 0.0005	< 0.00004	< 0.0001	8.15E-05	0.00237	< 0.01	< 0.1	< 0.1	< 0.1	< 0.01
MW-74	Limit	0.001	0.001	0.0171	0.001	0.002	0.005	0.003	0.002	0.001	0.01	0.00104	0.003	0.001	0.002	0.004	0.487	0.2	0.2	0.2	0.02
	Result	< 0.0003	0.000459	0.0134	< 0.0001	< 0.00005	< 0.0002	< 0.00005	0.000249	< 0.0001	0.000962	0.000752	< 0.00004	< 0.0001	0.000649	0.000557	0.314	< 0.1	< 0.1	< 0.1	< 0.01
MW-75	Limit	0.001	0.001	0.013432	0.001	0.002	0.005	0.003	0.002	0.001	0.01	0.001	0.003	0.001	0.002	0.004	0.11	0.2	0.2	0.2	0.02
	Result	< 0.0003	0.000375	0.0113	< 0.0001	< 0.00005	< 0.0002	< 0.00005	< 0.0002	< 0.0001	< 0.0001	< 0.0005	< 0.00004	< 0.0001	< 0.000075	< 0.0005	< 0.01	< 0.1	< 0.1	< 0.1	< 0.01
MW-80	Limit	0.001	0.0392	0.023	0.001	0.002	0.005	0.003	0.002	0.001	0.01	0.001	0.003	0.001	0.002	0.0117	0.028	0.2	0.2	0.2	0.02
	Result	< 0.0003	0.00409	0.0145	< 0.0001	< 0.00005	< 0.0002	< 0.00005	< 0.0002	< 0.0001	0.000107	< 0.0005	< 0.00004	< 0.0001	< 0.000075	< 0.0005	< 0.01	< 0.1	< 0.1	< 0.1	< 0.01
MW-85	Limit	0.001	0.001	0.00708	0.001	0.002	0.005	0.003	0.002	0.001	0.01	0.00132	0.003	0.001	0.002	0.004	1.63	0.2	0.2	0.2	0.02
	Result	< 0.0003	0.000708	0.00667	< 0.0001	< 0.00005	< 0.0002	< 0.00005	< 0.0002	< 0.0001	0.000179	0.000796	< 0.00004	< 0.0001	0.000932	0.000644	0.114	< 0.1	< 0.1	< 0.1	< 0.01
MW-86	Limit	0.001	0.00969	0.00668	0.001	0.002	0.005	0.003	0.002	0.001	0.01	0.0017	0.003	0.001	0.002	0.004	1.705935	0.2	0.2	0.2	0.02
	Result	< 0.0003	**0.0194**	**0.0088**	< 0.0001	< 0.00005	0.000244	0.00067	0.000344	< 0.0001	0.000479	< 0.0005	< 0.00004	< 0.0001	**0.00336**	0.00151	0.021	< 0.1	< 0.1	< 0.1	< 0.01
MW-87	Limit	0.001	0.02732	0.04094	0.001	0.002	0.005	0.003	0.00347	0.001	0.01	0.001	0.003	0.001	0.00468	0.004	0.24	0.2	0.2	0.2	0.02
	Result	< 0.0003	0.0011	0.0255	< 0.0001	< 0.00005	< 0.0002	0.000128	< 0.0002	< 0.0001	0.000124	< 0.0005	< 0.00004	< 0.0001	0.000172	0.000639	< 0.01	< 0.1	< 0.1	< 0.1	< 0.01
MW-88	Limit	0.001	0.00104	0.002467	0.001	0.002	0.005	0.003	0.002	0.001	0.01	0.001	0.003	0.001	0.00277	0.004	1.7	0.2	0.2	0.2	0.02
	Result	< 0.0003	0.00101	0.00224	< 0.0001	< 0.00005	0.00104	< 0.00005	< 0.0002	< 0.0001	0.000185	0.000691	< 0.00004	< 0.0001	**0.00285**	0.000511	0.771	< 0.1	< 0.1	< 0.1	< 0.01
MW-89	Limit	0.001	0.0266	0.0256	0.001	0.002	0.005	0.003	0.002	0.001	0.01	0.001	0.003	0.001	0.002	0.0303	0.095	0.2	0.2	0.2	0.04
	Result	< 0.0003	0.00638	0.0101	< 0.0001	< 0.00005	< 0.0002	< 0.00005	< 0.0002	< 0.0001	< 0.0001	< 0.0005	< 0.00004	< 0.0001	0.000211	0.00226	< 0.01	< 0.1	< 0.1	< 0.1	< 0.01
MW-100	Limit	0.001	0.022665	0.0121	0.001	0.002	0.005	0.003	0.00226	0.001	0.01	0.001	0.003	0.001	0.002	0.00922	0.26	0.2	0.2	0.2	0.02
	Result	< 0.0003	0.00178	0.0074	< 0.0001	< 0.00005	< 0.0002	0.000409	< 0.0002	< 0.0001	0.000872	< 0.0005	< 0.00004	< 0.0001	< 0.000075	0.00183	< 0.01	< 0.1	< 0.1	< 0.1	< 0.01

Results greater than Limit Value in **Bold Red**

TABLE 6
CEDAR HILLS REGIONAL LANDFILL
REGIONAL AQUIFER VOLATILE ORGANIC COMPOUND DETECTIONS
(Data Collected from October 1, 2018 - December 31, 2018)

Analyte	Site ID	Date	Sample ID	Sample Value (µg/L)
Upgradient and Crossgradient Wells				
Carbon Disulfide	MW-24	10/10/2018	W24-181010-	0.135 JT
	MW-73	10/24/2018	W87-181024-	0.178 JT
	MW-95	10/29/2018	W95-181029-	0.151 JT
cis-1,2,-Dichloroethene	MW-24	10/10/2018	W24-181010-	0.104 JT
	MW-59	10/12/2018	W59-181012-	1.17
	MW-76	10/12/2018	W76-181012-	0.221
	MW-56	11/1/2018	W56-181101-	1.53
Tetrachloroethene	MW-76	10/12/2018	W76-181012-	0.44
Trichloroethene	MW-82	10/10/2018	W82-181010-	4.88
	MW-76	10/12/2018	W76-181012-	9.12
	MW-94	10/19/2018	W94-181019-	2.54
	MW-83	10/22/2018	W83-181022-	2.05
Vinyl Chloride	MW-24	10/10/2018	W24-181010-	0.0154 JT
	MW-65	10/12/2018	W65-181012-	0.0295
Wells Downgradient to Waste Cells and North end Facilities				
Carbon Disulfide	MW-100	10/4/2018	W100181004-	0.19 JT
	MW-72	10/29/2018	W72-181029-	0.124 JT

TABLE 7
CEDAR HILLS REGIONAL LANDFILL
PERCHED ZONES GROUNDWATER QUALITY STANDARD EXCEEDANCES
(Data Collected from October 1, 2018 - December 31, 2018)

Parameter	Units	Well ID	Sample Date	Sample ID	Sample Value
East Perched Zone Wells					
pH (Field)	pH Units	None.			
1,1-Dichloroethane	µg/L	MW-30A	10/15/2018	W30A181015-1	1.57
Arsenic, Total	mg/L	MW-30A	10/15/2018	W30A181015-1	0.000862
		MW-47	10/17/2018	W47-181017-	0.000547
Manganese, Dissolved	mg/L	MW-47	10/17/2018	W47-181017-	1.55
Vinyl Chloride	µg/L	MW-47	10/17/2018	W47-181017-	2.95
South Solid Waste Area Perched Wells					
pH (Field)	pH Units	None.			
Arsenic, Total	mg/L	MW-101	10/4/2018	W101181004-	0.0106
Iron, Dissolved	mg/L	MW-101	10/4/2018	W101181004-	0.859
Manganese, Dissolved	mg/L	MW-101	10/4/2018	W101181004-	1.31
Vinyl Chloride	µg/L	MW-101	10/4/2018	W101181004-	0.404

See Data Qualifier List for Qualifier Information.
Exceedance Criteria: WAC 173-200-040 - Water Quality Standards for Groundwaters of the State of Washington

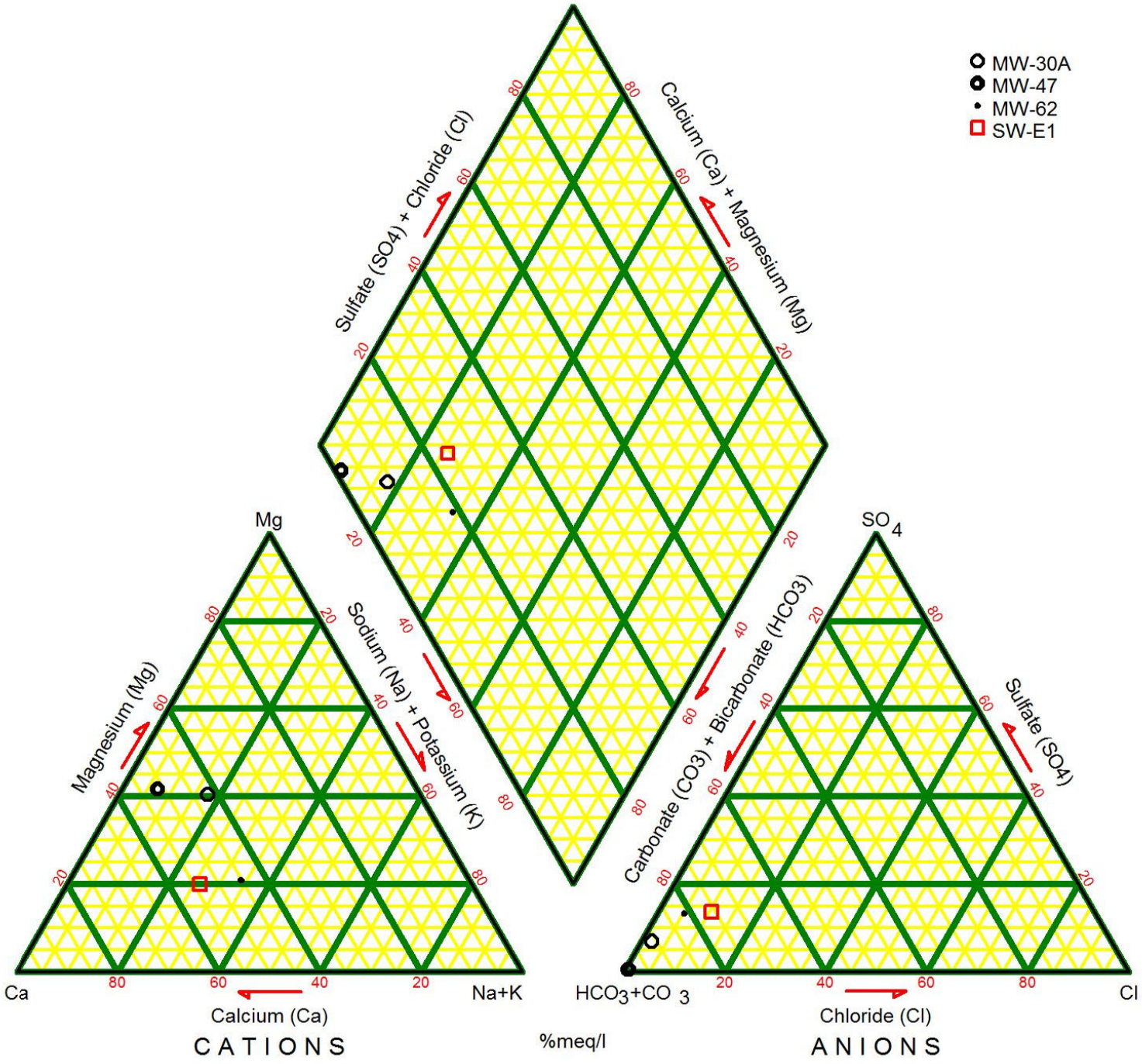
Table 8
Ion Balance Calculations
Cedar Hills Landfill Perched Zones GW Monitoring Wells

Data Collected from October 1, 2018 to December 31, 2018

		East Perched Zone												SSWA		
	Site ID	**MW-30A**			**MW-47**			**MW-62**			**SW-E1**			**MW-101**		
	Date	10/15/18			10/17/18			12/3/18			10/19/18			10/4/18		
Cations	Molecular Weight	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)
pH		6.8			6.9			6.0			5.9			6.9		
Conductance		265			880			130			46			510		
TDSobs		213			705			114			53			286		
Calcium	40.1	26.3	1.31238	41.9	142.0	7.08583	51.0	12.7	0.63373	45.1	4.7	0.2325	53.5	55.0	2.74451	43.4
Magnesium	24.3	15.4	1.26723	40.5	70.1	5.76836	41.5	3.6	0.29377	20.9	1.1	0.0864	19.9	32.8	2.69903	42.7
Potassium	39.1	1.5	0.03888	1.2	5.7	0.14476	1.0	0.7	0.01898	1.4	0.5	0.0137	3.2	2.7	0.06931	1.1
Sodium	23.0	11.7	0.50892	16.3	19.1	0.8308	6.0	10.5	0.45672	32.5	2.3	0.0996	22.9	16.9	0.73511	11.6
Iron	55.8	0.0	0.00118	0.0	0.1	0.00201	0.0	0.0	0.00036	0.0	0.0	0.0018	0.4	0.9	0.03076	0.5
Manganese	54.9	0.0	1.6E-05	0.0	1.6	0.05643	0.4	0.0	1.8E-05	0.0	0.0	0.0004	0.1	1.3	0.04769	0.8
Ammonia-N	14.0	0.0	0.00014	0.0	0.1	0.00495	0.0	0.0	0.00014	0.0	0.0	0.0005	0.1	0.0	0.00108	0.0
Total Cations (meq/L)			**3.1**			**13.9**			**1.4**			**0.4**			**6.3**	
Anions																
Alkalinity, Total		93.1			653			42			12.3			274		
Carbonate	60.0	0.03697	0.00123	0.0	0.33398	0.01113	0.1	0.00277	9.2E-05	0.0	0.0005742	2E-05	0.0	0.14014	0.00467	0.1
Bicarbonate	61.0	113.51	1.86049	68.2	795.98	13.0469	97.8	51.23	0.83978	61.3	15.00	0.2459	62.5	334.00	5.4745	97.0
Chloride	35.5	2.6	0.07362	2.7	5.6	0.15796	1.2	3.2	0.09139	6.7	2.0	0.0573	14.5	2.8	0.07757	1.4
Nitrate-N	14.0	7.8	0.55472	20.3	0.0	0.00071	0.0	2.9	0.2099	15.3	0.2	0.0165	4.2	0.0	0.00207	0.0
Sulfate	96.1	11.4	0.23736	8.7	5.8	0.12139	0.9	11.0	0.22903	16.7	3.6	0.0739	18.8	4.1	0.08474	1.5
Total Anions (meq/L)			**2.7**			**13.3**			**1.4**			**0.4**			**5.6**	
Total Ions (meq/L)			**5.9**			**27.2**			**2.8**			**0.8**			**12.0**	
Cation/Anion Ratio			**1.15**			**1.04**			**1.02**			**1.10**			**1.12**	
Percent Difference			**6.9**			**2.0**			**1.2**			**5.0**			**6**	
TRILINEAR DIAGRAM DATA																
sum (Ca, Mg, Na+K)			3.13			13.83			1.40			0.43			6.25	
Calcium				42.0			51.2			45.16			53.80			43.93
Magnesium				40.5			41.7			20.94			19.99			43.20
Sodium + Potassium				17.5			7.1			33.90			26.22			12.87
										100.0			100.0			
sum (SO_4, Cl, HCO_3+CO_3)			2.17			13.34			1.16			0.38			5.64	
Sulfate				10.9			0.9			19.7			19.6			1.5
Chloride				3.4			1.2			7.9			15.2			1.4
Bicarbonate + Carbonate				85.7			97.9			72.4			65.2			97.1
										100.0			100.0			

Cedar Hills Regional Landfill

Figure 7. Trilinear Diagram East Area Perched Wells



Cedar Hills Regional Landfill

Figure 8. Trilinear Diagram SSW Perched Area Wells

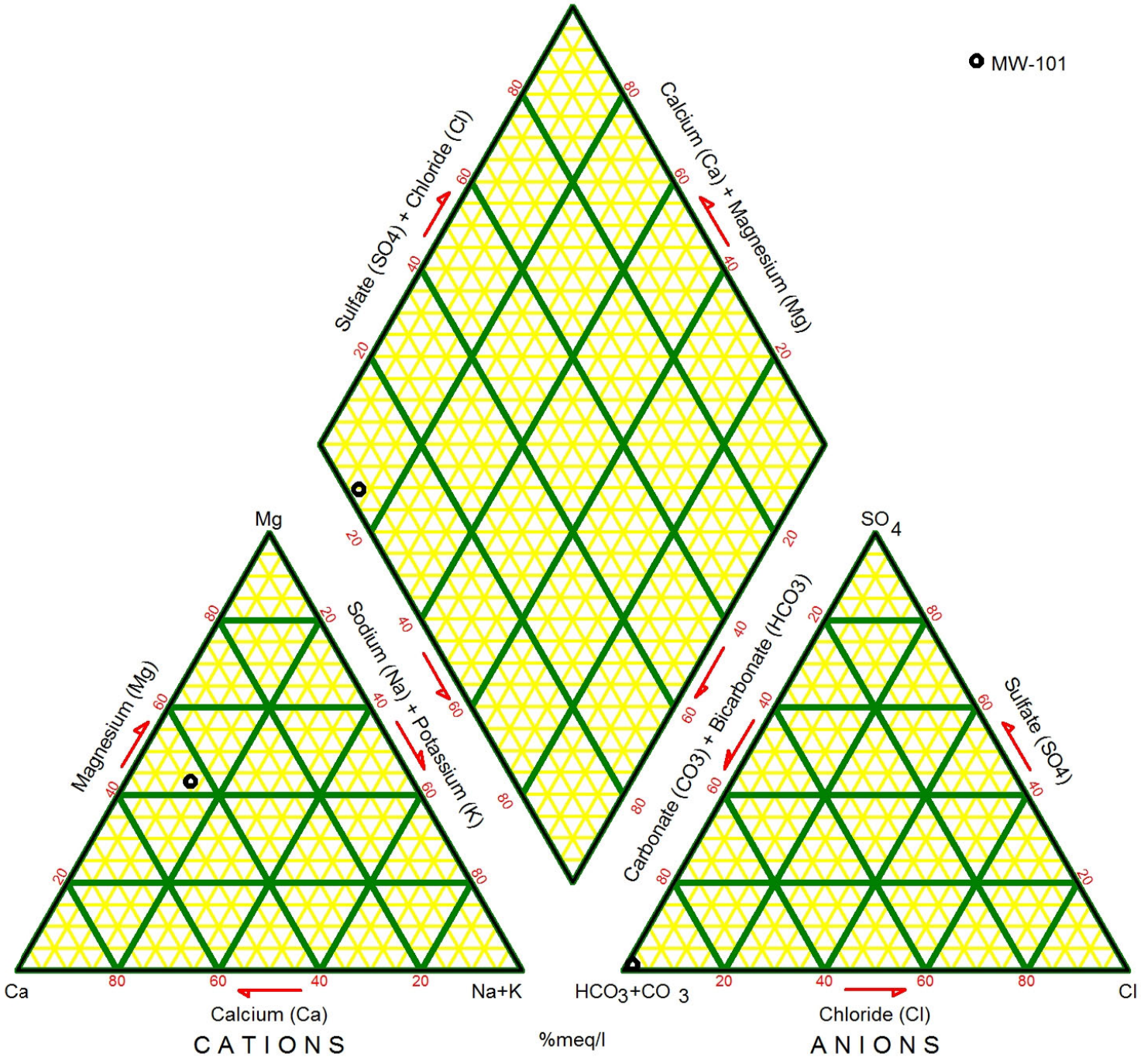


TABLE 9
CEDAR HILLS REGIONAL LANDFILL PERCHED ZONES MONITORING WELLS
SUMMARY OF WAC 173-351 APPENDIX I INTRAWELL PREDICTION LIMIT VALUES
(Data Collected from October 1, 2018 - December 31, 2018)

Well	Parameter / Units	Total Antimony mg/L	Total Arsenic mg/L	Total Barium mg/L	Total Beryllium mg/L	Total Cadmium mg/L	Total Chromium mg/L	Total Cobalt mg/L	Total Copper mg/L	Total Lead mg/L	Total Nickel mg/L	Total Selenium mg/L	Total Silver mg/L	Total Thallium mg/L	Total Vanadium mg/L	Total Zinc mg/L	Nitrate as N mg/L	1,1-Dichloroethane ug/L	1,1-Dichloroethene ug/L	1,2-Dichloroethane ug/L	*cis*-1,2-Dichloroethene *ug/L*	*trans*-1,2-Dichloroethene ug/L	Trichloroethene ug/L	Vinyl Chloride ug/L
East Perched Zone Wells																								
MW-30A	Limit	0.001	0.001	0.0077	0.001	0.002	0.005	0.003	0.002	0.001	0.01	0.001	0.003	0.001	0.00307	0.0188	14	6.90	0.20	0.23	13.76	0.20	1.63	0.03
	Result	< 0.0003	0.0009	0.0071	< 0.0001	< 0.00005	0.0017	0.000196	**0.002870**	0.000285	0.00195	< 0.0005	< 0.00004	< 0.0001	**0.00331**	0.002680	7.77	1.57	< 0.1	< 0.1	3.77	0.11	0.62	< 0.01
MW-47	Limit	0.001	0.0113	0.0458	0.001	0.002	0.005	0.003	0.0105	0.00143	0.01	0.001	0.003	0.001	0.00307	0.168	0.024	0.89	0.20	0.16	5.28	0.20	0.20	8.64
	Result	< 0.0003	0.0005	0.04	< 0.0001	< 0.00005	0.000238	0.000445	0.000408	< 0.0001	0.00183	< 0.0005	< 0.00004	< 0.0001	0.0018	< 0.0005	< 0.01	0.56	< 0.1	0.10	1.21	< 0.1	< 0.1	2.95
MW-62	Limit	0.001	0.001	0.0033	0.001	0.002	0.005	0.003	0.002	0.001	0.01	0.001	0.003	0.001	0.002	0.004	7.7	15.16	6.10	0.20	16.26	0.21	0.47	0.23
	Result	< 0.0003	0.000431	**0.0038**	< 0.0001	< 0.00005	0.00106	0.000298	0.00198	0.000447	0.00119	< 0.0005	< 0.00004	< 0.0001	**0.0021**	0.00201	2.94	0.548	< 0.1	< 0.1	1.31	< 0.1	0.118	< 0.01
South Solid Waste Area Wells																								
MW-101	Limit	0.001	0.028	0.0378	0.001	0.002	0.005	0.003	0.00416	0.00109	0.01	0.001	0.003	0.001	0.0039	0.00729	0.059	0.21	0.20	0.22	0.23	0.20	0.20	0.96
	Result	< 0.0003	0.0106	0.0194	< 0.0001	< 0.00005	0.000719	0.000234	0.00036	< 0.0001	0.00374	< 0.0005	< 0.00004	< 0.0001	0.000314	0.002	0.029	0.15	< 0.1	0.13	0.19	< 0.1	< 0.1	0.40

Results greater than Limit Value in **RED Bold**

TABLE 10
CEDAR HILLS REGIONAL LANDFILL
PERCHED ZONES VOLATILE ORGANIC COMPOUND DETECTIONS
(Data Collected from October 1, 2018 - December 31, 2018)

Analyte	Site ID	Date	Sample ID	Sample Value (ug/L)
East Perched Zone Wells				
1,1-Dichloroethane	MW-47	10/17/2018	W47-181017-	0.555
	MW-30A	10/15/2018	W30A181015-1	1.57
1,2-Dichloroethane	MW-47	10/17/2018	W47-181017-	0.104 JT
Carbon Disulfide	MW-100	10/4/2018	W100181004-	0.19 JT
	MW-72	10/29/2018	W72-181029-	0.124 JT
Chloroethane	MW-47	10/17/2018	W47-181017-	0.16 JT
cis-1,2,-Dichloroethene	MW-47	10/17/2018	W47-181017-	1.21
	MW-30A	10/15/2018	W30A181015-1	3.77
Dichlorodifluoromethane	MW-47	10/17/2018	W47-181017-	0.423
Tetrachloroethene	MW-30A	10/15/2018	W30A181015-1	0.1 JT
Trans-1,2-Dichloroethene	MW-30A	10/15/2018	W30A181015-1	0.106 JT
Trichloroethene	MW-30A	10/15/2018	W30A181015-1	0.62
Vinyl Chloride	MW-47	10/17/2018	W47-181017-	2.95
South Solid Waste Area Perched Wells				
1,1-Dichloroethane	MW-101	10/4/2018	W101181004-	0.153 JT
1,2-Dichloroethane	MW-101	10/4/2018	W101181004-	0.125 JT
cis-1,2,-Dichloroethene	MW-101	10/4/2018	W101181004-	0.187 JT
Chloroethane	MW-101	10/4/2018	W101181004-	0.102 JT
Vinyl Chloride	MW-101	10/4/2018	W101181004-	0.404

See Data Qualifier List for Qualifier Information.

Table 11
CEDAR HILLS REGIONAL LANDFILL
STORM AND SURFACE WATER MONITORING ACTIVITIES 4th QUARTER 2018

Station ID	Date	Planned Acitvity	Sample ID	Comment
SW-GS1	10/9/2018	NPDES Permit Sample	SGS1181009P	
SW-N4	10/9/2018	NPDES Permit Sample	SN4-181009P	
SW-SL3	10/9/2018	NPDES Permit Sample	SSL3181009P	
SW-TD1	12/27/2018	Area 5 Top Deck Monitoring	STD1181227-	
SW-TD2	--	Area 5 Top Deck Monitoring	--	Sample location not accessible.
SW-TD4	--	Area 5 Top Deck Monitoring	--	Sample location not accessible.
SW-TD6	--	Area 5 Top Deck Monitoring	--	Sample location not accessible.
SW-E1	12/3/2018	East Perched Zone SW Monitoring	SE1-181203-	Appendix III analyte list.
Stream Gauges	12/24/2018	Monthly Stream Gauge Level Measurement	--	

TABLE 12
CEDAR HILLS REGIONAL LANDFILL
STORMWATER PERMIT CRITERIA EXCEEDANCES
(Data Collected from October 1, 2018 - December 31, 2018)

SUMMARY OF ISGP EXCEEDANCES

Parameter	Units	Sampling Location	Date	Value	Regulatory Limit	Type
No Stormwater Exceedances for this Quarter						

*ISGP - Industrial General Stormwater Permit

SUMMARY OF CSWGP EXCEEDANCES

Parameter	Units	Sampling Location	Date	Value	Permit Limit	Type
Turbidity	NTU	C1	10/29/2018	102	25	Permit
		C3	10/29/2018	39.7		
		C4	10/29/2018	51.7		
		C4	10/30/2018	33.1		
		C4	10/31/2018	27.5		
		C1	11/5/2018	114		
		C1	11/13/2018	27.8		
		C3	11/27/2018	63.8		
		C1	11/28/2018	115		
		C3	11/28/2018	107		
		C4	11/28/2018	26.6		
		C4	11/29/2018	41.1		
		C4	11/30/2018	46.5		
		C3	12/10/2018	54		
		C3	12/11/2018	49.3		
		C1	12/12/2018	85.6		
		C3	12/12/2018	96.2		
		C1	12/13/2018	42.8		
		C3	12/13/2018	143		
		C1	12/14/2018	30.3		
		C3	12/14/2018	93.1		
		C3	12/18/2018	61.8		
		C1	12/19/2018	51.7		
		C3	12/19/2018	59.8		

*CSWGP - Construction Stormwater General Permit

TABLE 13
CEDAR HILLS REGIONAL LANDFILL
VOLATILE ORGANIC COMPOUND DETECTIONS IN BLANKS
(Data Collected from October 1, 2018 - December 31, 2018)

Analyte	Site ID	Date	Sample ID	Sample Value (µg/L)
Chloroform	FIELD BLANK	11/2/2018	W81-181102F	0.105 JT
Toluene	FIELD BLANK	11/2/2018	W81-181102F	0.116 JT

See Data Qualifier List for Qualifier Information.

Table 14
Water Quality Standards for Groundwaters of the State of Washington

	Analyte	CAS No.	Ground Water Quality Criteria Criterion*	
I.	PRIMARY AND SECONDARY CONTAMINANTS AND RADIONUCLIDES			
	A. Primary Contaminants			
	Barium	7440-39-3	1.0	mg/L
	Cadmium	7440-43-9	0.005	mg/L
	Chromium	7440-47-3	0.05	mg/L
	Lead	7439-92-1	0.015	mg/L
	Mercury	7439-97-6	0.002	mg/L
	Selenium	7782-49-2	0.01	mg/L
	Silver	7440-22-4	0.05	mg/L
	Fluoride	16984-48-8	4.0	mg/L
	Nitrate	14797-55-8	10.0	mg/L
	Endrin	72-20-8	0.2	ug/L
	Methoxychlor	72-43-5	40	ug/L
	1,1,1-Trichloroethane	71-55-6	200	ug/L
	2,4-D	94-75-7	70	ug/L
	2,4,5-TP	93-72-1	100	ug/L
	Total Coliforms		1/100	mL
	B. Secondary Standards			
	Copper	7440-50-8	1.0	mg/L
	Iron	7439-89-6	0.3	mg/L
	Manganese	7439-96-5	0.05	mg/L
	Zinc	7440-66-6	5.0	mg/L
	Chloride	16887-00-6	250	mg/L
	Sulfate	14808-79-8	250	mg/L
	Total Dissolved Solids		500	mg/L
	Foaming Agents		0.5	mg/L
	pH	12408-02-5	6.5-8.5	units
	Corrosivity		non-corrosive	
	Color		15	units
	Odor-Threshold		3	units
	C. Radionuclides and Radioactivity			
	Gross Alpha particle activity		15	pCi/L
	Gross Beta particle activity		50	pCi/L
	Tritium	10028-17-8	20,000	pCi/L
	Strontium	7440-24-6	8	pCi/L
	Radium 226 & Radium 228		5	pCi/L
	Radium 226	13982-63-3	3	pCi/L
II.	CARCINOGENS			
	1,1-Dichloroethane	75-34-3	1	ug/L
	1,2-Dichloroethane	107-06-2	0.5	ug/L
	1,2-Dichloropropane	78-87-5	0.6	ug/L
	1,2-Dimethylhydrazine	540-73-8	60	ug/L
	1,2-Diphenylhydrazine	122-66-7	0.09	ug/L
	1,3-Dichloropropene tot.	542-75-6	0.2	ug/L
	1,4-Dichlorobenzene	106-46-7	4	ug/L
	1,4-Dioxane	123-91-1	7	ug/L
	2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746-01-6	0.0000006	ug/L
	2,4,6-Trichlorophenol	88-06-2	4.0	ug/L
	2,4-Dinitrotoluene	121-14-2	0.1	ug/L
	2,4-Toluenediamine	95-80-7	0.002	ug/L
	2,6-Dinitrotoluene	606-20-2	0.1	ug/L
	2-Methoxy-5-nitroanaline	99-59-2	2.0	ug/L
	2-Methylaniline	95-53-4	0.2	ug/L
	2-Methylaniline hydrochloride	636-21-5	0.5	ug/L
	3,3'-Dichlorobenzidine	91-94-1	0.2	ug/L
	3,3'-Dimethoxybenzidine	119-90-4	6.0	ug/L
	3,3-Dimethylbenzidine	119-93-7	0.007	ug/L
	4,4'-Methylene bis(N,N'-dimethyl) aniline	101-61-1	2.0	ug/L
	4-Chloro-2-methyl analine	95-69-2	0.1	ug/L
	4-Chloro-2-methyl analine hydrochloride	3165-93-3	0.2	ug/L
	Acrylamide	79-06-1	0.02	ug/L
	Acrylonitrile	107-13-1	0.07	ug/L
	Aldrin	309-00-2	0.005	ug/L
	Aniline	62-53-3	14	ug/L
	Aramite	140-57-8	3	ug/L
	Arsenic	7440-38-2	0.00005	mg/L
	Azobenzene	103-33-3	0.7	ug/L
	Benzene	71-43-2	1	ug/L

Table 14
Water Quality Standards for Groundwaters of the State of Washington

Analyte	CAS No.	Ground Water Quality Criteria Criterion*	
Benzidine	92-87-5	0.0004	ug/L
Benzo(a)pyrene	50-32-8	0.008	ug/L
Benzotrichloride	98-07-7	0.007	ug/L
Benzyl chloride	100-44-7	0.5	ug/L
Bis(2-ethylhexyl)phthalate	117-81-7	6	ug/L
Bis(chloroethyl)ether	111-44-4	0.07	ug/L
Bis(chloromethyl)ether	542-88-1	0.0004	ug/L
Bromodichloromethane	75-27-4	0.3	ug/L
Bromoform	75-25-2	5	ug/L
Carbazole	86-74-8	5	ug/L
Carbon Tetrachloride	56-23-5	0.3	ug/L
Chlordane	5103-71-9	0.06	ug/L
Chlorodibromomethane	124-48-1	0.5	ug/L
Chloroform	67-66-3	7	ug/L
Chlorthalonil	1897-45-6	30	ug/L
DDT (includes DDE and DDD)	50-29-3, 72-55-9, 72-54-8	0.3	ug/L
Diallate	2303-16-4	1	ug/L
Dichlorovos	62-73-7	0.3	ug/L
Dieldrin	60-57-1	0.005	ug/L
Direct Black 38	1937-37-7	0.009	ug/L
Direct Blue 6	2602-46-2	0.009	ug/L
Direct Brown 95	16071-86-6	0.009	ug/L
Epichlorohydrin	106-89-8	8	ug/L
Ethyl acrylate	140-88-5	2	ug/L
Ethylene dibromide	106-93-4	0.001	ug/L
Ethylene thiourea	96-45-7	2	ug/L
Folpet	133-07-3	20	ug/L
Furazolidone	67-45-8	0.02	ug/L
Furium	531-82-8	0.002	ug/L
Furmecyclox	60568-05-0	3	ug/L
Heptachlor	76-44-8	0.02	ug/L
Heptachlor epoxide	1024-57-3	0.009	ug/L
Hexachlorobenzene	118-74-1	0.05	ug/L
Hexachlorocyclohexane (alpha)	319-84-6	0.001	ug/L
Hexachlorocyclohexane (technical)	608-73-1	0.05	ug/L
Hexachlorodibenzo-p-dioxin, mix	34465-46-8	0.00001	ug/L
Hydrazine/hydrazine sufate	302-01-2/10034-93-2	0.03	ug/L
Lindane	58-89-9	0.06	ug/L
Methylene Chloride	75-09-2	5	ug/L
Mirex	2385-85-5	0.05	ug/L
Nitrofurazone	59-87-0	0.06	ug/L
N-Nitrosodiethanolamine	1116-54-7	0.03	ug/L
N-Nitrosodiethylamine	55-18-5	0.0005	ug/L
N-Nitrosodimethylamine	62-75-9	0.002	ug/L
N-Nitroso-di-n-butylamine	924-16-3	0.02	ug/L
N-Nitroso-di-n-propylamine	621-64-7	0.01	ug/L
N-Nitrosodiphenylamine	86-30-6	17.0	ug/L
N-Nitroso-N-methylethylylamine	10595-95-6	0.004	ug/L
N-Nitrosopyrrolidine	930-55-2	0.04	ug/L
o-Chloronitrobenzene	88-73-3	3	ug/L
o-Phenylenediamine	95-54-5	0.005	ug/L
o-Toluidine	95-53-4	0.2	ug/L
p,a,a,a-Tetrachlorotoluene	5216-25-1	0.004	ug/L
PAHs [Benzo(a)pyrene]		0.01	ug/L
PBBs	59536-65-1	0.01	ug/L
PCBs c	27323-18-8	0.01	ug/L
p-Chloronitrobenzene	100-00-5	5	ug/L
Propylene oxide	75-56-9]	0.01	ug/L
Tetrachloroethylene	127-18-4	0.8	ug/L
Toxaphene c	8001-35-2	0.08	ug/L
Trichloroethylene (TCE)	79-01-6	3	ug/L
Trimethyl phosphate	512-56-1	2.0	ug/L
Vinyl chloride	75-01-4	0.02	ug/L

NOTES: pCi/L=picocuries per liter
mg/L=milligrams per liter
ug/L=micrograms per liter
*Ground Water Quality Criteria=173-200 WAC Water Quality Standards for Ground Waters of the State of Washington

TABLE 15
CEDAR HILLS REGIONAL LANDFILL
STORMWATER PERMIT BENCHMARKS and EFFLUENT LIMITS

INDUSTRIAL STORMWATER GENERAL PERMIT
BENCHMARKS and EFFLUENT LIMITS

Parameter	Units	Minimum Sampling Frequency	Benchmark	Effluent Limit	
				Monthly Average	Daily Maximum
pH	Std. Units	Quarterly	5.0 to 9.0	6.0 to 9.0	
Turbidity	NTU	Quarterly	25	--	--
Oil Sheen	Yes/No	Quarterly	None Visible	--	--
Copper, Total	ug/L	Quarterly	14	--	--
Zinc, Total	ug/L	Quarterly	117	110	200
BOD	mg/L	Quarterly	--	37	140
TSS	mg/L	Quarterly	--	27	88
Ammonia-N	mg/L	Quarterly	--	4.9	10
Alpha Terpineol	ug/L	Quarterly	--	16	33
Benzoic Acid	ug/L	Quarterly	--	71	120
4-Methylphenol*	ug/L	Quarterly	--	14	25
Phenol	ug/L	Quarterly	--	15	26

* Analytical result reported as the total of 3-Methylphenol (CAS RN 108-39-4) and 4-Methylphenol (CAS RN 106-44-5)

CONSTRUCTION STORMWATER GENERAL PERMIT
BENCHMARKS

Parameter	Units	Minimum Sampling Frequency	Benchmark
Turbidity	NTU	Weekly	25

TABLE 16
CEDAR HILLS REGIONAL LANDFILL
LAB DATA REVIEW - SUSPECT DATA
(Data Collected from July 1, 2018 - September 30, 2018)

Parameter	Units	Well ID	Sample Date	Sample ID	Sample Value	Cause of Unuseability
Chloroform	ug/L	MW-81	11/02/18	W81-181102F	0.105 JT	Field Blank Contamination
Toluene	ug/L	MW-81	11/02/18	W81-181102F	0.116 JT	Field Blank Contamination
Vanadium (D)	mg/L	MW-81	11/02/18	W81-181102F	0.000108	Field Blank Contamination
Vanadium (T)	mg/L	MW-81	11/02/18	W81-181102F	0.000109	Field Blank Contamination

See Data Qualifier List for Qualifier Information.

APPENDIX A

Potentiometric Surface Maps and Aquifer Flow Calculations

King County
Water and Land Resources Division
Department of Natural Resources and Parks
King Street Center
201 South Jackson Street, Suite 600
Seattle, WA 98104-3855
206-477-4800 Fax 206-296-0192
TTY Relay: 711

Memorandum

February 27, 2019

TO: Kris McArthur, Engineer II, Facility Engineering and Science Unit, Solid Waste Division, Department of Natural Resources and Parks (DNRP)

FM: Sevin Bilir, Environmental Scientist IV, Science and Technical Support Section, Water and Land Resources Division, DNRP

RE: Potentiometric Groundwater Surface Maps & Groundwater Velocity Calculations
Fourth Quarter 2018 Results – Regional Aquifer
Cedar Hills Regional Landfill, King County, Washington
Project No. 1033379 – Task 02.14.137.20

The King County Water and Land Resources Division (WLR Division) submits this memorandum report on groundwater conditions during the fourth quarter of 2018 for the Cedar Hills Regional Landfill (landfill), in accordance with the *Proposal for Potentiometric Groundwater Surface Maps & Groundwater Velocity Calculations* (WLR Division, 2019). King County Solid Waste Division (SWD) personnel measured regional aquifer groundwater elevations at the landfill on October 3, 2018. These measurements were received by the WLR Division on December 27, 2018 and were used to:

1. Evaluate the potentiometric groundwater surface elevation for the regional aquifer;
2. Determine the groundwater flow direction and horizontal gradient for the regional aquifer; and
3. Calculate the groundwater velocity of the regional aquifer.

There have been no significant changes in the interpreted regional aquifer groundwater conditions since the report submitted for the third quarter of the 2018 monitoring event.

Groundwater Elevation Data

SWD collected regional aquifer groundwater level measurements at 41 monitoring wells during the fourth quarter of 2018. These wells were completed in the regional aquifer as referred to in *Potentiometric Groundwater Surface Mapping and Groundwater Velocity Calculation – Cedar Hills Landfill* (Aspect, 2010).

Table A-1 lists the well identifications, locations, well details, measured groundwater levels, and calculated groundwater elevations for the regional aquifer. A total of twenty-two wells had measured water levels within ten feet of the top of the screened interval and were used for potentiometric surface mapping purposes.

Figure A-1 shows well locations, groundwater elevations at the 22 selected wells, groundwater potentiometric surface contours, and interpreted groundwater flow direction in the regional aquifer for the October 3, 2018 measurement event.

Direction of Groundwater Flow

Figure 1 shows interpreted groundwater potentiometric surface contours and groundwater flow directions in the regional aquifer, based on the October 3, 2018 measurements. Groundwater elevations indicate that groundwater in the regional aquifer generally flowed north beneath the southern portion of the landfill with minor components of flow to the north-northwest and north-northeast. In the central portion of the landfill, groundwater generally flowed to the north and north-northwest. At the northern end of the landfill, groundwater generally flowed to the northeast and north-northeast.

Groundwater Parameters

Horizontal groundwater velocity was calculated using the following formula:

where: $v = \frac{1}{n_{eff}} K \frac{\Delta H}{\Delta L}$

v = Groundwater velocity [L/t]
n_{eff} = Effective porosity [dimensionless]
K = Hydraulic conductivity [L/t]
$\frac{\Delta H}{\Delta L}$ = Hydraulic gradient [L/L]

Horizontal groundwater velocity was calculated for the regional aquifer below the landfill. Horizontal groundwater velocity was calculated for the southern, central, and northern portions of the regional aquifer, based on spatial differences in aquifer parameters and hydraulic gradients. The hydraulic conductivity and effective porosity values were based on the range referred to in the *Potentiometric Groundwater Surface Mapping and Groundwater Velocity Calculation – Cedar Hills Landfill* (Aspect, 2010).

Table 2 presents a summary of the groundwater parameters used to calculate a groundwater velocity from the fourth quarter 2018 data. The hydraulic gradient was greatest under the southern portion of the landfill and smallest under the northern portion. On October 3, 2018, average horizontal groundwater velocity within the regional aquifer ranged from 0.009 feet per day (ft/d) under the southern portion of the landfill to 1.13 ft/d under the central portion of the landfill.

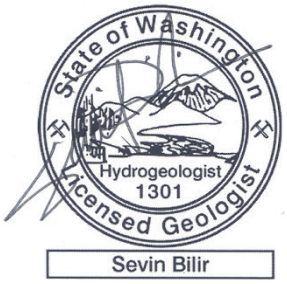
References

Aspect Consulting (Aspect). 2010. Potentiometric Groundwater Surface Mapping and Groundwater Velocity Calculation – Cedar Hills Landfill. Unpublished work. April 30.

KCWLR Division. 2019. *Proposal for 2019 Potentiometric Groundwater Surface Maps & Groundwater Velocity Calculations*; King County Closed Landfills (Cedar Falls, Enumclaw, Hobart and Vashon Island) and Cedar Hills Regional Landfill. January 31.

Thank you for the opportunity to provide hydrogeologic services to the SWD. If you have any questions, please feel free to contact me at 206-477-4646 or sevin.bilir@kingcounty.gov.

This document was prepared under the supervision of a licensed hydrogeologist, whose seal appears below.



Sevin Bilir, WA LHG
Environmental Scientist IV
King County Water and Land Resources Division

Enclosures:

Table A-1:	Groundwater Elevations – Fourth Quarter 2018
Table A-2:	Groundwater Parameters – Fourth Quarter 2018
Figure A-1:	Groundwater Potentiometric Surface Map – Fourth Quarter 2018 – Regional Aquifer

Table A-1: Groundwater Elevations – Fourth Quarter 2018

Cedar Hills Regional Landfill
King County, Washington

							October 3, 2018	
	Well Identification	X (ft)	Y (ft)	Top of Casing Elevation (ft MSL)	Top of Screen Elevation (ft)	Bottom of Screen Elevation (ft)	Measured Depth to Water (ft)	Groundwater Elevations (ft MSL)
Wells with water levels within 10 feet of the top of screen	MW-60	1701154.47	167873.20	567.15	334.81	325.81	227.36	339.79
	MW-64	1701980.27	168772.19	596.55	334.03	320.23	265.05	331.5
	MW-66	1699750.19	174250.32	531.28	294.39	280.59	238.72	292.56
	MW-67	1701776.69	172610.65	516.43	297.8	284	220.1	296.33
	MW-68	1701917.32	170609.35	647.07	311.29	292.29	331.51	315.56
	MW-69	1698061.86	172400.20	653.69	293.57	279.97	355.51	298.18
	MW-72	1698229.92	170987.71	671.87	303.63	294.03	360.47	311.4
	MW-73	1698954.95	174995.59	485.7	288.11	278.81	191.41	294.29
	MW-74R	1700386.85	173813.79	531.26	289.9	280.4	239.78	291.48
	MW-76	1700376.23	167193.13	491.71	351.06	341.56	140.73	350.98
	MW-81	1702568.87	172113.99	493.66	309.19	300.19	183.68	309.98
	MW-82	1699553.72	167725.31	474.85	348.88	339.38	124.4	350.45
	MW-83	1697939.89	167212.27	496.81	350.19	340.69	144.6	352.21
	MW-84	1698602.89	173894.54	530.8	292.46	282.96	235.83	294.97
	MW-85	1701828.95	173694.52	531.76	282.56	273.06	245.94	285.82
	MW-86	1701331.25	174917.90	536.04	283.43	274.63	248.6	287.44
	MW-87	1700670.27	173493.76	537.31	283.68	274.38	247.92	289.39
	MW-88	1701807.87	174303.06	513.68	281.52	272.22	227.02	286.66
	MW-93	1702259.35	169851.24	632.15	319.87	310.07	307.61	324.54
	MW-94	1698674.21	167210.22	495.51	357.22	348.52	143	352.51
	MW-95	1697265.32	169426.92	571.54	314.6	305.9	250.48	321.06
	MW-100	1700791.72	169610.46	620.32	319.06	309.06	297.1	323.22
	MW-106	1702536.99	173461.69	475.47	280.04	270.04	190.39	285.08
Wells with water levels greater than 10 feet above the top of screen	MW-21	1697901.86	173876.38	420.66	263.22	255.22	124.75	295.91
	MW-22P	1701844.34	173088.17	517.09	236.02	231.22	232.34	284.75
	MW-24	1699582.39	167767.76	475.99	286.76	281.76	145.54	330.45
	MW-43	1701274.23	174327.14	547.06	245.63	235.63	263.47	283.59
	MW-54	1702154.28	168435.53	580.43	250.25	228.25	278.15	302.28
	MW-56	1698980.77	167214.82	480.33	323.15	313.15	128.11	352.22
	MW-57	1699993.32	167201.99	456.64	326.65	311.65	105.23	351.41
	MW-58A	1699006.59	167207.16	479.27	270.05	260.05	149.33	329.94
	MW-59	1699983.91	167193.44	457.13	285.08	275.08	124.53	332.6
	MW-65	1701602.10	167146.55	545.83	317.71	308.91	209.82	336.01
	MW-75	1701059.70	173432.42	532.4	271.1	261	245.46	286.94
	MW-80	1701309.78	172964.99	530.41	279.17	269.67	238.69	291.72
	MW-89	1701799.57	174319.44	512.82	229.2	219.9	232.13	280.69
	MW-90	1702203.13	174300.67	502.22	235.16	226.16	221.79	280.43
	MW-91	1701023.09	173423.94	532.02	260.81	240.71	246.74	285.28
	MW-99	1702556.06	172098.73	493.64	221.77	212.77	200.32	293.32
	WS-NPW-1	1701906.96	171138.99	646.33	282.8	267.9	331.97	314.36
	WS-NPW-3	1701922.88	170663.28	645.81	285	273.9	330.45	315.36

Notes

1. Water level measurements made by KCSWD personnel.
2. Reference datum for XY coordinates is the North American Datum of 1927 (NAD27)
3. Elevations reported in feet above Mean Sea Level based on the National Geodetic Vertical Datum, 1929.

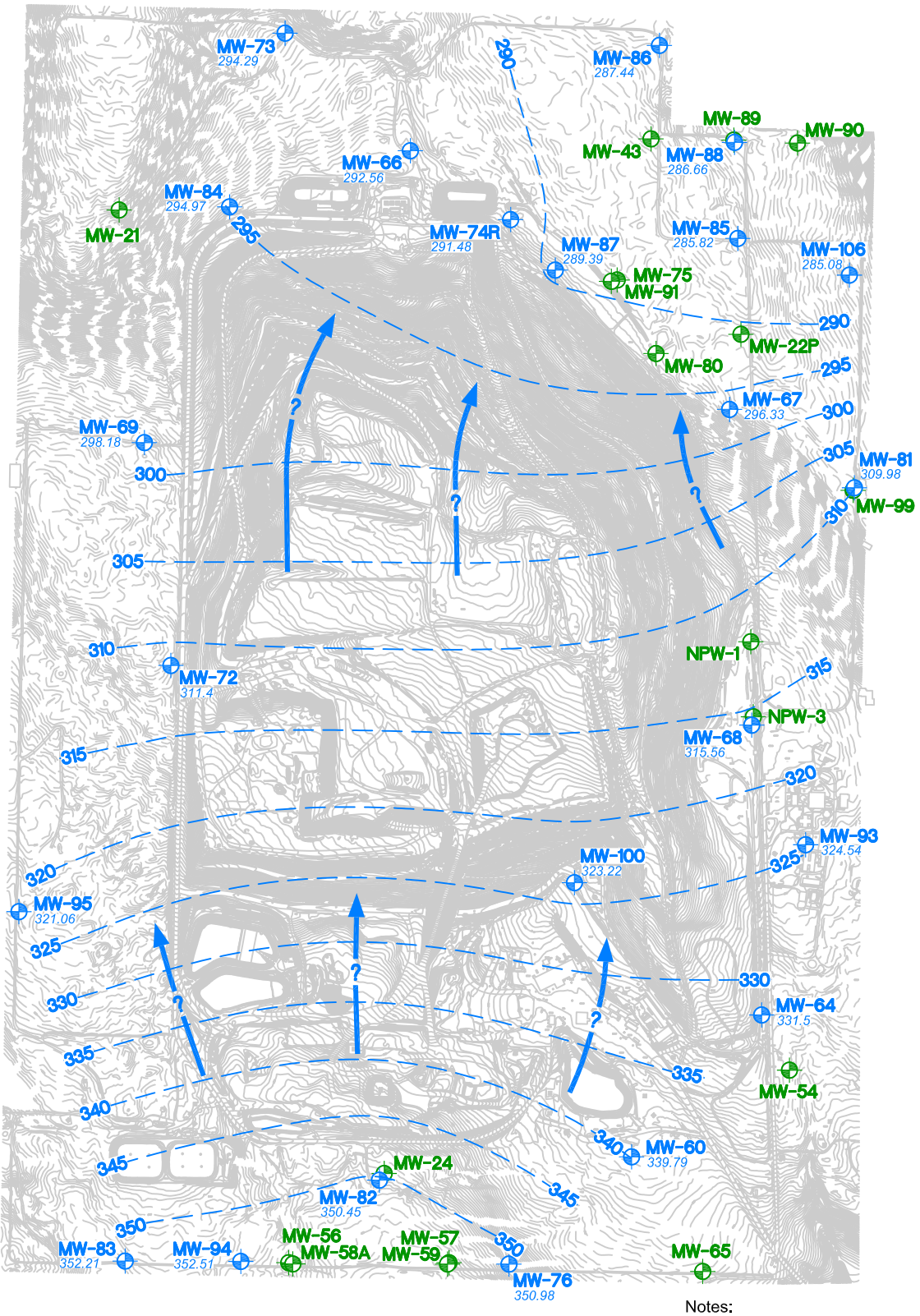
Table A-2: Groundwater Parameters – Fourth Quarter 2018

Cedar Hills Regional Landfill
King County, Washington

Regional Aquifer Zone Beneath the Landfill	Horizontal Hydraulic Conductivity (*K*)			Horizontal Hydraulic Gradient (DH/DL)	Effective Porosity (n_{eff})	Horizontal Groundwater Velocity (*v*)	General Groundwater Flow Direction
	Range	(cm/s)	(ft/d)	(ft/ft)		(ft/d)	
Northern	Minimum	2.10E-03	6	0.005	24%	0.113	NNE, NE
	Maximum	4.20E-02	120	0.005	24%	2.26	
	Mean	2.10E-02	60	0.005	24%	1.13	
Central	Minimum	2.10E-03	6	0.010	24%	0.24	N, NNW
	Maximum	4.20E-02	120	0.010	24%	4.8	
	Mean	2.10E-02	60	0.010	24%	2.4	
Southern	Minimum	6.40E-06	0.018	0.0136	26%	0.001	N, NNE, NNW
	Maximum	6.40E-04	1.8	0.0136	26%	0.094	
	Mean	6.40E-05	0.18	0.0136	26%	0.009	

Notes

1. Horizontal hydraulic conductivity values and effective porosity values from *Potentiometric Groundwater Surface Mapping and Groundwater Velocity Calculation – Cedar Hills Landfill (Aspect, 2010).*
2. Hydraulic gradients measured from the potentiometric surface map shown on Figure 1.
3. Mean hydraulic conductivity values are the geometric mean of the high and low values.
4. NNE, north-northeast; NNW, north-northwest; NE, northeast; N, north



Legend

MW-X XXX.XX — Well completed in Regional Aquifer with water levels within the screen or within 10 feet of the top of screen.

MW-X — Wells completed in Regional Aquifer with water levels more than 10 feet above the top of screen.

300 — Regional Aquifer Groundwater Elevation Contour *(feet MSL)*.

? — Inferred Horizontal Groundwater Flow Path

0 1000 2000 Feet

N

Notes:

1. Groundwater measurements made on October 3, 2018.
2. Only wells completed in the Regional Aquifer with well screen tops within 10 feet of the water table were used for contouring.

King County

Groundwater Potentiometric Surface Map
Fourth Quarter 2018 - Regional Aquifer
Cedar Hills Regional Landfill
King County, Washington

DATE: February 2019	PROJECT NO. 1033379
DESIGNED BY: SB	
DRAWN BY: KK	FIGURE NO. 1
REVISED BY: SB	

CH_4Q2018.dwg

APPENDIX B

Field and Analytical Test Results

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Groundwater Field and Analytical Data

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Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Groundwater Elevation Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Reference Elevation (msl)	Depth to Water (feet)	Ground-Water Elevation (msl)	Comment
EW-25	10/3/2018	643.61			Decommissioned
MW-100	10/3/2018	620.32	297.1	323.22	
MW-101	10/3/2018	474.72	35.15	439.57	
MW-102	10/3/2018	552.48	51.62	500.86	New to this list
MW-103	10/3/2018	639.08	23.43	615.65	
MW-104	10/3/2018	629.68	29.48	600.2	
MW-105	10/3/2018	521.23	23.47	497.76	
MW-106	10/3/2018	475.47	190.39	285.08	
MW-21	10/3/2018	420.66	124.75	295.91	
MW-22	10/3/2018	517.09	232.34	284.75	
MW-24	10/3/2018	475.99	145.54	330.45	
MW-25	10/3/2018	474.41	18.81	455.6	
MW-27A	10/3/2018	584.23	55.29	528.94	
MW-28	10/3/2018	527.75	39.62	488.13	
MW-29	10/3/2018	532.92	17.77	515.15	
MW-30A	10/3/2018	568.43	31.2	537.23	Water in annulus
MW-41D	10/3/2018	462.32	32.46	429.86	
MW-41S	10/3/2018	462.44	15.31	447.13	
MW-43	10/3/2018	547.06	263.47	283.59	
MW-45	10/3/2018	488.4	19.17	469.23	
MW-47	10/3/2018	634.6	22.46	612.14	
MW-48	10/3/2018	594.49	46.25	548.24	
MW-50	10/3/2018	637.02	33.67	603.35	
MW-54	10/3/2018	580.43	278.15	302.28	
MW-55	10/3/2018	652.29	32.73	619.56	
MW-56	10/3/2018	480.33	128.11	352.22	Water in annulus
MW-57	10/3/2018	456.64	105.23	351.41	Water in annulus
MW-58A	10/3/2018	479.27	149.33	329.94	
MW-59	10/3/2018	457.13	124.53	332.6	
MW-60	10/3/2018	567.15	227.36	339.79	
MW-62	10/3/2018	556.21	54.87	501.34	Below pump; water in annulus
MW-63	10/3/2018	515.88	18.57	497.31	
MW-64	10/3/2018	596.55	265.05	331.5	
MW-65	10/3/2018	545.83	209.82	336.01	
MW-66	10/3/2018	531.28	238.72	292.56	
MW-67	10/3/2018	516.43	220.1	296.33	
MW-68	10/3/2018	647.07	331.51	315.56	

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Groundwater Elevation Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Reference Elevation (msl)	Depth to Water (feet)	Ground-Water Elevation (msl)	Comment
MW-69	10/3/2018	653.69	355.51	298.18	
MW-72	10/3/2018	671.87	360.47	311.4	
MW-73	10/3/2018	485.7	191.41	294.29	
MW-74	10/3/2018	531.26	239.78	291.48	
MW-75	10/3/2018	532.4	245.46	286.94	
MW-76	10/3/2018	491.71	140.73	350.98	
MW-79	10/3/2018	459.17			Needs to be fixed
MW-80	10/3/2018	530.41	238.69	291.72	Insects
MW-81	10/3/2018	493.66	183.68	309.98	
MW-82	10/3/2018	474.85	124.4	350.45	
MW-83	10/3/2018	496.81	144.6	352.21	
MW-84	10/3/2018	530.8	235.83	294.97	
MW-85	10/3/2018	531.76	245.94	285.82	Insects in annulus.
MW-86	10/3/2018	536.04	248.6	287.44	
MW-87	10/3/2018	537.31	247.92	289.39	
MW-88	10/3/2018	513.68	227.02	286.66	
MW-89	10/3/2018	512.82	232.13	280.69	Covered by vegetation
MW-90	10/3/2018	502.22	221.79	280.43	
MW-91	10/3/2018	532.02	246.74	285.28	
MW-93	10/3/2018	632.15	307.61	324.54	
MW-94	10/3/2018	495.51	143	352.51	
MW-95	10/3/2018	571.54	250.48	321.06	
MW-98	10/3/2018	503.73	22.49	481.24	Insects in annulus.
MW-99	10/3/2018	493.64	200.32	293.32	
MW-EB5	10/3/2018	645.36	44.1	601.26	
MW-EB5S	10/3/2018	645.77	21.2	624.57	
MW-EB6	10/3/2018	589.61	31.25	558.36	
WS-NPW-1	10/3/2018	646.33	331.97	314.36	From upper plug
WS-NPW-3	10/3/2018	645.81	330.45	315.36	From lower plug

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Groundwater Field Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	pH (Field) (std. Units)	Conductance (Field) (umhos/cm)	Temperature (^{o}C)	Purge Volume (gal)	Dissolved Oxygen (mg/L)	ORP mV	Turbidity NTU
MW-100	10/4/2018	W100181004-	6.93	325	11.76	3.5	1.52	166.5	11.5
MW-101	10/4/2018	W101181004-	6.93	510	10.3	2			3.63
MW-21	10/22/2018	W21-181022-	7.29	135.9	9.38	2.25	0.86	-148.7	5.74
MW-24	10/10/2018	W24-181010-	6.56	180.9	9.66	4.5	0.73	-41.9	2.48
MW-30A	10/15/2018	W30A181015-1	6.82	265	10.9				5.61
MW-30A	10/16/2018	W30A181015-2	6.84	270	10.8				2.84
MW-47	10/17/2018	W47-181017-	6.93	880	6.3	14.5			38.6
MW-56	11/1/2018	W56-181101-	7.04	210	10	27.45			1.9
MW-59	10/12/2018	W59-181012-	7.17	202.6	9.84	5.1	0.66	-33.4	1.27
MW-62	12/3/2018	W62-181203-	6.04	130	9.2	4			14.2
MW-64	11/2/2018	W64-181102-	7.11	260.9	12.06	3	1.31	306.2	7.83
MW-65	10/12/2018	W65-181012-	7.05	144.9	9.28	2.75	1.05	66.1	17
MW-66	10/16/2018	W66-181016-	7.18	219.3	9.96	3.5	5.82	343.8	2.48
MW-67	10/29/2018	W67-181029-	6.74	350.2	10.21	5	1.15	105.7	9
MW-68	10/22/2018	W68-181022-	7.29	283.2	10.31	3.5	0.82	143.9	0.56
MW-69	10/24/2018	W69-181024-	7.61	329.6	9.67	4.6	0.94	-26.9	0.79
MW-72	10/29/2018	W72-181029-	6.78	374.5	9.57	2.8	2.23	278.5	11.6
MW-73	10/22/2018	W73-181022-	6.82	138.4	9.37	2	9.7	378.5	0.76
MW-74	10/18/2018	W74R181018-	7.1	547	10.15	3	4.88	309.3	0.73
MW-75	10/19/2018	W75-181019-	7.11	370	9.59	1.6	1.84	141	0.84
MW-76	10/12/2018	W76-181012-	6.57	234.2	9.74	1.6	7.76	323.8	0.23
MW-80	10/19/2018	W80-181019-	7.3	314.5	10.13	3	1.28	22.5	0.39
MW-81	11/2/2018	W81-181102-	7.36	160.8	9.96	2.3	9.96	336.7	0.76
MW-81	11/2/2018	W81-181102F	6.7	0.9	13.3				
MW-82	10/10/2018	W82-181010-	6.74	308.3	9.96	2.7	7.85	337.3	3.71
MW-83	10/22/2018	W83-181022-	6.87	619	10.34	2.5	1.35	309	0.27
MW-84	10/26/2018	W84-181026-	6.98	188.1	10.16	3	1.81	356.6	0.31
MW-85	10/26/2018	W85-181026-	7.11	354.6	9.76	2.5	3.4	380.5	1.25
MW-86	10/29/2018	W86-181029-	7.06	195.1	9.36	3.4	1.65	259.8	77.3
MW-87	10/24/2018	W87-181024-	6.97	536	11.69	2.5	1.08	115.3	4.19
MW-88	10/23/2018	W88-181023-	7.1	125.8	9.31	2.7	6.14	350.7	0.2
MW-89	10/24/2018	W89-181024-	7.23	225.2	9.8	2.7	2.42	144.5	41.2
MW-93	11/5/2018	W93-181105-	7.4	320.7	11.18	3.7	1.04	318.9	0.28
MW-94	10/19/2018	W94-181019-	7.01	327.1	9.89	2	7.23	313.7	0.26
MW-94	10/19/2018	W94-181019D	7.01	327.1	9.89	2	7.23	313.7	0.26

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Groundwater Field Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	pH (Field) (std. Units)	Conductance (Field) (umhos/cm)	Temperature (^{o}C)	Purge Volume (gal)	Dissolved Oxygen (mg/L)	ORP mV	Turbidity NTU
MW-95	10/29/2018	W95-181029-	7.6	223.8	9.77	3.5	1.3	318.9	0.22
WS-OS-1	10/8/2018	WOS1181008-	7.31	175	10	117			
WS-OS-2	10/8/2018	WOS2181008-	7.71	145	10.7	6.5			
WS-OS-3	10/11/2018	WOS3181011-	8.16	250	12.6	90			
WS-OS-3	10/11/2018	WOS3181011F	9.07	1	8.7				
WS-OS-4	10/8/2018	WOS4181008-	7.29	160	13.1	45			
FIELD BLANK	12/11/2018	LEPS181211F	8.92	1.8	7.8				

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Groundwater Conventional Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Alkalinity, Total ($CaCO_3$) (mg/L)	Ammonia, (NH_3) (mg/L)	Chloride (mg/L)	Nitrate-Nitrogen, (NO_3 as N) (mg/L)	Specific Conductance (umhos/cm)	Sulfate (SO4) (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)	Total Solids (mg/L)	Suspended Solids (mg/L)
MW-21	W21-181022-	10/22/2018	56.8	0.0271	2.32	0.01 U	131	4.8	84.7	0.5 U	84.7	1.3 T
MW-24	W24-181010-	10/10/2018	66.4	0.0361	5.94	0.01 U	173	11.1	107	0.5 U	117	4.26
MW-30A	W30A181015-1	10/15/2018	93.1	0.002 U	2.61	7.77	269	11.4	213	0.95 T	218	
MW-30A	W30A181015-2	10/16/2018										4.14
MW-47	W47-181017-	10/17/2018	653	0.0693	5.6	0.01 U	1130	5.83	705	3.66	714	2.86
MW-56	W56-181101-	11/1/2018	74.3	0.0029 T	18.6 S	0.0742	226	7.91 S	136	0.73 T	142	1 U
MW-59	W59-181012-	10/12/2018	68.5	0.0081 T	7.35	0.01 T	185	15.3	120	0.5 U	126	2.64
MW-62	W62-181203-	12/3/2018	42	0.002 U	3.24	2.94	142	11	114	0.95 T	110	6.1
MW-64	W64-181102-	11/2/2018	102 S	0.0266	2.77 S	0.01 U	261 S	28.6 S	155	0.5 U	166	6.4
MW-65	W65-181012-	10/12/2018	52.1	0.0046 T	3.63	0.01 U	133	9.66	86.6	0.5 U	101	10.6
MW-66	W66-181016-	10/16/2018	88.9	0.002 U	4.4	0.513	215	12.5	130	0.5 U	133	0.63 T
MW-67	W67-181029-	10/29/2018	159	0.0063 T	5.23	0.091	374	32.1	225	0.5 U	233	5
MW-67	W67-181029D	10/29/2018	159	0.0065 T	5.24	0.092	363	32.2	227	0.5 U	239	5.6
MW-68	W68-181022-	10/22/2018	128	0.0187	2.67	0.01 U	286	14.4	167	0.5 U	166	1.03
MW-69	W69-181024-	10/24/2018	137	0.0171	3.87	0.01 U	316	24.2	193	0.5 U	201	1.4
MW-72	W72-181029-	10/29/2018	128	0.0165	6.55	0.01 U	341	39.4	211	0.52 T	224	4.8
MW-73	W73-181022-	10/22/2018	51.2	0.002 U	2.13	1.05	139	7.45	97.1	0.5 U	98.9	0.95 T
MW-74	W74R181018-	10/18/2018	216	0.002 U	23.7	0.314	533	31.4	313	0.52 T	320	1 U
MW-75	W75-181019-	10/19/2018	107	0.008 T	9.52	0.01 U	360	54.1	233	0.5 U	243	1.69
MW-76	W76-181012-	10/12/2018	60.9	0.002 U	16.4	1.53	226	17.9	148	1.37	151	0.5 U
MW-80	W80-181019-	10/19/2018	112	0.0128	4.57	0.01 U	305	35.7	193	0.5 U	197	3.32
MW-81	W81-181102-	11/2/2018	54.4 S	0.002 U	5.02 S	1.41	155 S	9.48 S	105	0.5 U	108	0.7 T
MW-81	W81-181102F	11/2/2018	1 SU	0.002 U	0.05 SU	0.01 U	1.4 ST	0.1 SU	10 U	0.5 U	10 U	0.5 U
MW-82	W82-181010-	10/10/2018	125	0.002 U	9.88	0.872	311	15.8	192	0.74 T	199	4.29
MW-83	W83-181022-	10/22/2018	191	0.0029 T	67.2	3.02	609	10.2	382	7.17	411	0.5 U
MW-84	W84-181026-	10/26/2018	72.1	0.002 U	4	0.145	185	14.9	118	0.5 U	119	0.5 U
MW-85	W85-181026-	10/26/2018	130	0.002 U	10.8	0.114	347	33.5	220	0.5 U	228	0.5 U
MW-86	W86-181029-	10/29/2018	68.2	0.0029 T	4.75	0.021 T	191	20.1	116	0.5 U	146	22.6
MW-87	W87-181024-	10/24/2018	102	0.0196	13	0.01 U	511	145	376	0.5 U	395	4.9
MW-88	W88-181023-	10/23/2018	51	0.002 U	1.76	0.771	126	5.56	87	0.5 U	86.4	0.5 U
MW-89	W89-181024-	10/24/2018	77.2	0.0178	11.6	0.01 U	216	16.2	137	0.5 U	154	16.4
MW-93	W93-181105-	11/5/2018	121 S	0.0596	2.93 S	0.01 U	308 S	35.9 S	199	0.5 U	205	0.5 U
MW-94	W94-181019-	10/19/2018	109	0.002 U	20.4	2.14	318	7.35	202	2.13	215	0.5 U
MW-94	W94-181019D	10/19/2018	109	0.002 U	20.2	2.12	318	7.27	202	1.97	208	0.5 U
MW-95	W95-181029-	10/29/2018	87.6	0.0257	5.47	0.01 U	216	16.3	135	0.58 T	134	1 U

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Groundwater Conventional Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Alkalinity, Total ($CaCO_3$) (mg/L)	Ammonia, (NH_3) (mg/L)	Chloride (mg/L)	Nitrate-Nitrogen, (NO_3 as N) (mg/L)	Specific Conductance (umhos/cm)	Sulfate (SO4) (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)	Total Solids (mg/L)	Suspended Solids (mg/L)
MW-100	W100181004-	10/4/2018	142	0.0124	3.01	0.01 U	316	19.9	182	0.5 U	195	3.98
MW-101	W101181004-	10/4/2018	274	0.0151	2.75	0.029 T	504	4.07	286	4.2	307	3.46
WS-OS-1	WOS1181008-	10/8/2018	75.8	0.002 U	3.89	1.21	193	10.6	127	0.5 U	129	0.5 U
WS-OS-2	WOS2181008-	10/8/2018	70	0.0068 T	2.09	0.177	159	7.17	106	0.5 U	157	31.8
WS-OS-3	WOS3181011-	10/11/2018	115	0.002 U	8.31	0.01 U	248	3.45	161	0.5 U	167	0.5 U
WS-OS-3	WOS3181011F	10/11/2018	1 U	0.002 U	0.05 U	0.01 U	1.5 T	0.1 U	10 U	0.5 U	10 U	0.5 U
WS-OS-4	WOS4181008-	10/8/2018	63.4	0.002 U	3.2	0.758	164	10.3	106	0.5 U	110	0.5 U

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Groundwater Metals Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Antimony, dissolved (mg/L)	Antimony, total (mg/L)	Arsenic, dissolved (mg/L)	Arsenic, total (mg/L)	Barium, dissolved (mg/L)	Barium, total (mg/L)	Beryllium, dissolved (mg/L)	Beryllium, total (mg/L)	Cadmium, dissolved (mg/L)	Cadmium, total (mg/L)
MW-21	W21-181022-	10/22/2018	0.0003 U	0.0003 U	0.000941	0.000979	0.0049	0.00461	0.0001 U	0.0001 U	5E-05 U	5E-05 U
MW-24	W24-181010-	10/10/2018	0.0003 U	0.0003 U	0.000557	0.00058	0.002	0.0019	0.0001 U	0.0001 U	5E-05 U	5E-05 U
MW-30A	W30A181015-1	10/15/2018		0.0003 U		0.000862		0.00706		0.0001 U		5E-05 U
MW-30A	W30A181015-2	10/16/2018	0.0003 U		0.000508		0.00417		0.0001 U		5E-05 U	
MW-47	W47-181017-	10/17/2018	0.0003 U	0.0003 U	0.000518	0.000547	0.0386	0.04	0.0001 U	0.0001 U	5E-05 U	5E-05 U
MW-56	W56-181101-	11/1/2018	0.0003 U	0.0003 U	0.0000897	0.0000878	0.00384	0.00395	0.0001 U	0.0001 U	5E-05 U	5E-05 U
MW-59	W59-181012-	10/12/2018	0.0003 U	0.0003 U	4.10E-04	0.000431	0.00374	0.00394	0.0001 U	0.0001 U	5E-05 U	5E-05 U
MW-62	W62-181203-	12/3/2018	0.0003 U	0.0003 U	0.000217	0.000431	0.00138	0.0038	0.0001 U	0.0001 U	5E-05 U	5E-05 U
MW-64	W64-181102-	11/2/2018	0.0003 U	0.0003 U	0.00063	0.00178	0.00967	0.0185	0.0001 U	0.0001 U	5E-05 U	0.000269
MW-65	W65-181012-	10/12/2018	0.0003 U	0.0003 U	0.000346	0.000838	0.00588	0.0062	0.0001 U	0.0001 U	5E-05 U	5E-05 U
MW-66	W66-181016-	10/16/2018	0.0003 U	0.0003 U	0.000638	0.000667	0.00472	0.00483	0.0001 U	0.0001 U	5E-05 U	5E-05 U
MW-67	W67-181029-	10/29/2018	0.0003 U	0.0003 U	0.000316	0.00202	0.0129	0.0167	0.0001 U	0.0001 U	5E-05 U	5E-05 U
MW-67	W67-181029D	10/29/2018	0.0003 U	0.0003 U	0.000313	0.00167	0.0134	0.0158	0.0001 U	0.0001 U	5E-05 U	5E-05 U
MW-68	W68-181022-	10/22/2018	0.0003 U	0.0003 U	0.00994	0.0125	0.0121	0.0115	0.0001 U	0.0001 U	5E-05 U	5E-05 U
MW-69	W69-181024-	10/24/2018	0.0003 U	0.0003 U	0.00208	0.00222	0.013	0.0124	0.0001 U	0.0001 U	5E-05 U	5E-05 U
MW-72	W72-181029-	10/29/2018	0.0003 U	0.0003 U	0.0000714	0.000105	0.0121	0.0132	0.0001 U	0.0001 U	5E-05 U	5E-05 U
MW-73	W73-181022-	10/22/2018	0.0003 U	0.0003 U	0.00069	0.000679	0.00263	0.00273	0.0001 U	0.0001 U	5E-05 U	5E-05 U
MW-74	W74R181018-	10/18/2018	0.0003 U	0.0003 U	0.000386	0.000459	0.0133	0.0134	0.0001 U	0.0001 U	5E-05 U	5E-05 U
MW-75	W75-181019-	10/19/2018	0.0003 U	0.0003 U	0.000349	0.000375	0.0111	0.0113	0.0001 U	0.0001 U	5E-05 U	5E-05 U
MW-76	W76-181012-	10/12/2018	0.0003 U	0.0003 U	0.000184	0.000203	0.00375	0.00413	0.0001 U	0.0001 U	5E-05 U	5E-05 U
MW-80	W80-181019-	10/19/2018	0.0003 U	0.0003 U	0.00397	0.00409	0.0142	0.0145	0.0001 U	0.0001 U	5E-05 U	5E-05 U
MW-81	W81-181102-	11/2/2018	0.0003 U	0.0003 U	0.000523	0.000545	0.00322	0.00338	0.0001 U	0.0001 U	5E-05 U	5E-05 U
MW-81	W81-181102F	11/2/2018	0.0003 U	0.0003 U	5E-05 U	5E-05 U	0.0005 U	0.0005 U	0.0001 U	0.0001 U	5E-05 U	5E-05 U
MW-82	W82-181010-	10/10/2018	0.0003 U	0.0003 U	0.000241	0.00026	0.00127	0.00151	0.0001 U	0.0001 U	5E-05 U	5E-05 U
MW-83	W83-181022-	10/22/2018	0.0003 U	0.0003 U	0.000423	0.00042	0.0107	0.0101	0.0001 U	0.0001 U	5E-05 U	5E-05 U
MW-84	W84-181026-	10/26/2018	0.0003 U	0.0003 U	0.000328	0.00032	0.00467	0.00435	0.0001 U	0.0001 U	5E-05 U	5E-05 U
MW-85	W85-181026-	10/26/2018	0.0003 U	0.0003 U	0.000734	0.000708	0.00693	0.00667	0.0001 U	0.0001 U	5E-05 U	5E-05 U
MW-86	W86-181029-	10/29/2018	0.0003 U	0.0003 U	0.000746	0.0194	0.00567	0.0088	0.0001 U	0.0001 U	5E-05 U	5E-05 U
MW-87	W87-181024-	10/24/2018	0.0003 U	0.0003 U	0.000421	0.0011	0.0265	0.0255	0.0001 U	0.0001 U	5E-05 U	5E-05 U
MW-88	W88-181023-	10/23/2018	0.0003 U	0.0003 U	0.00104	0.00101	0.00236	0.00224	0.0001 U	0.0001 U	5E-05 U	5E-05 U
MW-89	W89-181024-	10/24/2018	0.0003 U	0.0003 U	0.000918	0.00638	0.00757	0.0101	0.0001 U	0.0001 U	5E-05 U	5E-05 U
MW-93	W93-181105-	11/5/2018	0.0003 U	0.0003 U	0.00134	0.00132	0.00748	0.00761	0.0001 U	0.0001 U	5E-05 U	5E-05 U
MW-94	W94-181019-	10/19/2018	0.0003 U	0.0003 U	0.000155	0.000156	0.00263	0.0027	0.0001 U	0.0001 U	5E-05 U	5E-05 U
MW-94	W94-181019D	10/19/2018	0.0003 U	0.0003 U	0.00016	0.000159	0.00264	0.00267	0.0001 U	0.0001 U	5E-05 U	5E-05 U
MW-95	W95-181029-	10/29/2018	0.0003 U	0.0003 U	0.00107	0.00111	0.00444	0.00427	0.0001 U	0.0001 U	5E-05 U	5E-05 U

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Groundwater Metals Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Antimony, dissolved (mg/L)	Antimony, total (mg/L)	Arsenic, dissolved (mg/L)	Arsenic, total (mg/L)	Barium, dissolved (mg/L)	Barium, total (mg/L)	Beryllium, dissolved (mg/L)	Beryllium, total (mg/L)	Cadmium, dissolved (mg/L)	Cadmium, total (mg/L)
MW-100	W100181004-	10/4/2018	0.0003 U	0.0003 U	0.000312	0.00178	0.00672	0.0074	0.0001 U	0.0001 U	5E-05 U	5E-05 U
MW-101	W101181004-	10/4/2018	0.0003 U	0.0003 U	0.0125	0.0106	0.0206	0.0194	0.0001 U	0.0001 U	5E-05 U	5E-05 U
WS-OS-1	WOS1181008-	10/8/2018		0.0003 U		0.000424		0.00238		0.0001 U		5E-05 U
WS-OS-2	WOS2181008-	10/8/2018		0.0003 U		0.000698		0.00716		0.0001 U		5E-05 U
WS-OS-3	WOS3181011-	10/11/2018		0.0003 U		0.00483		0.00502		0.0001 U		5E-05 U
WS-OS-3	WOS3181011F	10/11/2018		0.0003 U		5E-05 U		0.0005 U		0.0001 U		5E-05 U
WS-OS-4	WOS4181008-	10/8/2018		0.0003 U		0.000856		0.00173		0.0001 U		5E-05 U

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Groundwater Metals Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Calcium, dissolved (mg/L)	Calcium, total (mg/L)	Chromium, dissolved (mg/L)	Chromium total (mg/L)	Cobalt, dissolved (mg/L)	Cobalt, total (mg/L)	Copper, dissolved (mg/L)	Copper, total (mg/L)	Iron, dissolved (mg/L)	Iron, total (mg/L)
MW-21	W21-181022-	10/22/2018	11.7	11.5	0.0002 U	0.0002 U	5E-05 U	5E-05 U	0.0002 U	0.0002 U	1.97	2.61
MW-24	W24-181010-	10/10/2018	14.3	13.9	0.0002 U	0.0002 U	5E-05 U	5E-05 U	0.0002 U	0.0002 U	3.37	3.46
MW-30A	W30A181015-1	10/15/2018		25.5		0.00167		0.000196		0.00287		0.732
MW-30A	W30A181015-2	10/16/2018	26.3		0.000754		5E-05 U		0.000267		0.0329	
MW-47	W47-181017-	10/17/2018	142	145	0.000311	2.38E-04	0.000434	0.000445	0.000343	0.000408	0.056	0.121
MW-56	W56-181101-	11/1/2018	19.5	19.7	0.0002 U	0.0002 U	0.000209	0.000205	0.0002 U	0.000204	0.0945	0.112
MW-59	W59-181012-	10/12/2018	16.5	16.7	0.0002 U	0.0002 U	5E-05 U	5E-05 U	0.0002 U	0.0002 U	4	4.29
MW-62	W62-181203-	12/3/2018	12.7	12.6	0.000227	0.00106 J	6.57E-05	0.000298	0.000269	0.00198	0.01 U	0.73
MW-64	W64-181102-	11/2/2018	20.9	21.1	0.0002 U	0.0002 U	0.0000659	0.00211	0.0002 U	0.000765	0.0568	0.554
MW-65	W65-181012-	10/12/2018	11.3	11.5	0.0002 U	0.0002 U	5E-05 U	5E-05 U	0.0002 U	0.0002 U	3.12	4.61
MW-66	W66-181016-	10/16/2018	16.8	17	0.0002 U	0.000212	5E-05 U	5E-05 U	0.0002 U	0.0002 U	0.01 U	0.034
MW-67	W67-181029-	10/29/2018	35.8	36.6	0.0002 U	0.0002 U	0.000157	0.000417	0.0002 U	0.000457	0.199	1.74
MW-67	W67-181029D	10/29/2018	35.8	37.3	0.0002 U	0.0002 U	0.000154	0.000344	0.0002 U	0.000368	0.203	1.43
MW-68	W68-181022-	10/22/2018	27.7	27.3	0.0002 U	0.0002 U	0.000231	0.000235	0.0002 U	0.000213	0.515	0.569
MW-69	W69-181024-	10/24/2018	34.4	33.6	0.0002 U	0.0002 U	5E-05 U	5E-05 U	0.0002 U	0.0002 U	1.01	1.08
MW-72	W72-181029-	10/29/2018	31.6	32.5	0.0002 U	0.0002 U	5E-05 U	5E-05 U	0.0002 U	0.000218	2.62	3.71
MW-73	W73-181022-	10/22/2018	12.4	12.4	0.0002 U	0.000257	5E-05 U	5E-05 U	0.000254	0.000221	0.01 U	0.0201
MW-74	W74R181018-	10/18/2018	46.8	47.3	0.0002 U	0.0002 U	5E-05 U	5E-05 U	0.000225	0.000249	0.01 U	0.0683
MW-75	W75-181019-	10/19/2018	30	30.4	0.0002 U	0.0002 U	5E-05 U	5E-05 U	0.0002 U	0.0002 U	1.23	1.31
MW-76	W76-181012-	10/12/2018	20.5	21.4	0.000405	0.000406	5E-05 U	5E-05 U	0.000643	0.00069	0.01 U	0.01 U
MW-80	W80-181019-	10/19/2018	30.1	30.7	0.0002 U	0.0002 U	5E-05 U	5E-05 U	0.0002 U	0.0002 U	2.08	2.1
MW-81	W81-181102-	11/2/2018	13.3	13.7	0.0002 U	0.0002 U	5E-05 U	5E-05 U	0.0002 U	0.0002 U	0.01 U	0.0295
MW-81	W81-181102F	11/2/2018	0.05 U	0.05 U	0.0002 U	0.0002 U	5E-05 U	5E-05 U	0.0002 U	0.0002 U	0.01 U	0.01 U
MW-82	W82-181010-	10/10/2018	30.2	29.2	0.000213	0.00162	5E-05 U	5E-05 U	0.0002 U	0.000242	0.01 U	0.0762
MW-83	W83-181022-	10/22/2018	66.4	65.7	0.000223	0.000249	0.000323	0.000336	0.00489	0.00482	0.01 U	0.01 U
MW-84	W84-181026-	10/26/2018	14.7	14.4	0.0002 U	0.0002 U	5E-05 U	5E-05 U	0.0002 U	0.0002 U	0.01 U	0.01 U
MW-85	W85-181026-	10/26/2018	33	32.5	0.0002 U	0.0002 U	5E-05 U	5E-05 U	0.0002 U	0.0002 U	0.01 U	0.01 U
MW-86	W86-181029-	10/29/2018	15.3	15.3	0.0002 U	0.000244	0.000107	0.00067	0.0002 U	0.000344	0.669	13.4
MW-87	W87-181024-	10/24/2018	47.2	45.9	0.0002 U	0.0002 U	0.000125	0.000128	0.0002 U	0.0002 U	4.48	4.92
MW-88	W88-181023-	10/23/2018	9.5	9.25	0.000703	1.04E-03	5E-05 U	5E-05 U	0.0002 U	0.0002 U	0.01 U	0.01 U
MW-89	W89-181024-	10/24/2018	16.3	16.4	0.0002 U	0.0002 U	5E-05 U	5E-05 U	0.0002 U	0.0002 U	0.993	5.21
MW-93	W93-181105-	11/5/2018	31.2	31	0.0002 U	0.0002 U	6.81E-05	0.0000923	0.00025 J	0.0002 U	0.01 U	0.01 U
MW-94	W94-181019-	10/19/2018	31.9	32.6	0.0002 U	0.000233	0.000059	0.0000611	0.000849	0.000887	0.01 U	0.01 U
MW-94	W94-181019D	10/19/2018	31.9	31.8	0.0002 U	0.000262	0.0000611	0.0000624	0.000849	0.000839	0.01 U	0.01 U
MW-95	W95-181029-	10/29/2018	20.5	21.2	0.0002 U	0.0002 U	0.000069	0.0000721	0.0002 U	0.0002 U	0.01 U	0.01 U

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Groundwater Metals Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Calcium, dissolved (mg/L)	Calcium, total (mg/L)	Chromium, dissolved (mg/L)	Chromium total (mg/L)	Cobalt, dissolved (mg/L)	Cobalt, total (mg/L)	Copper, dissolved (mg/L)	Copper, total (mg/L)	Iron, dissolved (mg/L)	Iron, total (mg/L)
MW-100	W100181004-	10/4/2018	30.7	32.4	0.0002 U	0.0002 U	0.00027	0.000409	0.0002 U	0.0002 U	0.65	2.12
MW-101	W101181004-	10/4/2018	55	53.9	0.0002 U	0.000719	0.000272	0.000234	0.0002 U	0.00036	0.859	0.829
WS-OS-1	WOS1181008-	10/8/2018		18.6		0.0002 U		5E-05 U		0.000692		0.01 U
WS-OS-2	WOS2181008-	10/8/2018		15.2		0.00124		0.000464		0.0295		0.95
WS-OS-3	WOS3181011-	10/11/2018		19		0.0002 U		5E-05 U		0.00275		0.0157
WS-OS-3	WOS3181011F	10/11/2018		0.05 U		0.0002 U		5E-05 U		0.0002 U		0.01 U
WS-OS-4	WOS4181008-	10/8/2018		13.7		0.0002 U		5E-05 U		0.00476		0.01 U

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Groundwater Metals Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Lead, dissolved (mg/L)	Lead, total (mg/L)	Magnesium, dissolved (mg/L)	Magnesium, total (mg/L)	Manganese, dissolved (mg/L)	Manganese, total (mg/L)	Mercury, dissolved (mg/L)	Mercury, total (mg/L)	Nickel, dissolved (mg/L)	Nickel, total (mg/L)
MW-21	W21-181022-	10/22/2018	0.0001 U	0.0001 U	6.37	6.36	0.102	0.107	5E-05 U	5E-05 U	0.0001 U	0.000136
MW-24	W24-181010-	10/10/2018	0.0001 U	0.0001 U	9.35	9.29	0.11	0.111	5E-05 U	5E-05 U	0.0001 U	0.0001 U
MW-30A	W30A181015-1	10/15/2018		0.000285		14.5		0.00601		5E-05 U		0.00195
MW-30A	W30A181015-2	10/16/2018	0.0001 U		15.4		0.00044		5E-05 U		0.000981	
MW-47	W47-181017-	10/17/2018	0.0001 U	0.0001 U	70.1	71.8	1.55 D	1.56 D	5E-05 U	5E-05 U	0.00197	0.00183
MW-56	W56-181101-	11/1/2018	0.0001 U	0.0001 U	11.7	11.7	0.344	0.343	5E-05 U	5E-05 U	0.000767	0.000762
MW-59	W59-181012-	10/12/2018	0.0001 U	0.0001 U	10.1	10.3	0.125	0.13	5E-05 U	5E-05 U	0.000134	0.000168
MW-62	W62-181203-	12/3/2018	0.0001 U	0.000447	3.57	3.41	0.000497	0.0136	5E-05 U	5E-05 U	0.000467	0.00119
MW-64	W64-181102-	11/2/2018	0.0001 U	0.0001 U	16.3	16.7	0.0824	1.85	5E-05 U	5E-05 U	0.00078	0.00797
MW-65	W65-181012-	10/12/2018	0.0001 U	0.0001 U	6.95	6.88	0.137	0.172	5E-05 U	5E-05 U	0.000142	0.000123
MW-66	W66-181016-	10/16/2018	0.0001 U	0.0001 U	13	13.1	0.0001 U	0.001	5E-05 U	5E-05 U	0.000184	0.000192
MW-67	W67-181029-	10/29/2018	0.0001 U	0.0001 U	21.5	21.8	0.202	0.804	0.0001 U	0.0001 U	0.000302	0.00086
MW-67	W67-181029D	10/29/2018	0.0001 U	0.0001 U	21.4	21.8	0.201	0.579	5E-05 U	5E-05 U	0.000291	0.00066
MW-68	W68-181022-	10/22/2018	0.0001 U	0.0001 U	15.1	15	0.319	0.314	5E-05 U	5E-05 U	0.000525	0.000533
MW-69	W69-181024-	10/24/2018	0.0001 U	0.0001 U	16.4	16.1	0.278	0.266	5E-05 U	5E-05 U	0.000139	0.000143
MW-72	W72-181029-	10/29/2018	0.0001 U	0.0001 U	19.9	20.2	0.37	0.394	5E-05 U	5E-05 U	0.0001 U	0.000235
MW-73	W73-181022-	10/22/2018	0.0001 U	0.0001 U	6.36	6.44	0.0001 U	0.00061	5E-05 U	5E-05 U	0.000241	0.00024
MW-74	W74R181018-	10/18/2018	0.0001 U	0.0001 U	36	36.1	0.0001 U	0.000523	5E-05 U	5E-05 U	0.00104	0.000962
MW-75	W75-181019-	10/19/2018	0.0001 U	0.0001 U	22.4	22.5	0.139	0.131	5E-05 U	5E-05 U	0.0001 U	0.0001 U
MW-76	W76-181012-	10/12/2018	0.0001 U	0.0001 U	9.56	10.1	0.0001 U	0.0001 U	5E-05 U	5E-05 U	0.000323	0.000334
MW-80	W80-181019-	10/19/2018	0.0001 U	0.0001 U	16.1	16.3	0.345	0.35	5E-05 U	5E-05 U	0.000129	0.000107
MW-81	W81-181102-	11/2/2018	0.0001 U	0.0001 U	7.26	7.46	0.0001 U	0.000725	5E-05 U	5E-05 U	0.000124	0.000158
MW-81	W81-181102F	11/2/2018	0.0001 U	0.0001 U	0.05 U	0.05 U	0.0001 U	0.0001 U	5E-05 U	5E-05 U	0.0001 U	0.0001 U
MW-82	W82-181010-	10/10/2018	0.0001 U	0.0001 U	18.5	17.6	0.0001 U	0.00106	5E-05 U	5E-05 U	0.000573	0.00259
MW-83	W83-181022-	10/22/2018	0.0001 U	0.0001 U	26.9	26.9	0.00172	0.0512	5E-05 U	5E-05 U	0.00219	0.00239
MW-84	W84-181026-	10/26/2018	0.0001 U	0.0001 U	11.1	11.1	0.000804	0.000802	5E-05 U	5E-05 U	0.00029	0.000298
MW-85	W85-181026-	10/26/2018	0.0001 U	0.0001 U	20.4	20.8	0.0001 U	0.0001 U	5E-05 U	5E-05 U	0.000172	0.000179
MW-86	W86-181029-	10/29/2018	0.0001 U	0.0001 U	10.7	10.6	0.0341	0.165	0.0001 U	0.0001 U	0.000174	0.000479
MW-87	W87-181024-	10/24/2018	0.0001 U	0.0001 U	31.4	30.8	0.542 D	0.549	5E-05 U	5E-05 U	0.000127	0.000124
MW-88	W88-181023-	10/23/2018	0.0001 U	0.0001 U	6.87	7.03	0.000247	0.000176	5E-05 U	5E-05 U	0.000123	0.000185
MW-89	W89-181024-	10/24/2018	0.0001 U	0.0001 U	11.9	11.9	0.25	0.269	5E-05 U	5E-05 U	0.0001 U	0.0001 U
MW-93	W93-181105-	11/5/2018	0.0001 U	0.0001 U	16.6	17	0.176	0.207	5E-05 U	5E-05 U	0.000178	0.000203
MW-94	W94-181019-	10/19/2018	0.0001 U	0.0001 U	14.5	14.4	0.0001 U	0.000127	5E-05 U	5E-05 U	0.000441	0.000434
MW-94	W94-181019D	10/19/2018	0.0001 U	0.0001 U	14.3	14.4	0.0001 U	0.000114	5E-05 U	5E-05 U	0.000425	0.000486
MW-95	W95-181029-	10/29/2018	0.0001 U	0.0001 U	11.1	11.4	0.174	0.18	5E-05 U	5E-05 U	0.000198	0.000198

Environmental Monitoring Data

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Cedar Hills Landfill --- Groundwater Metals Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Lead, dissolved (mg/L)	Lead, total (mg/L)	Magnesium, dissolved (mg/L)	Magnesium, total (mg/L)	Manganese, dissolved (mg/L)	Manganese, total (mg/L)	Mercury, dissolved (mg/L)	Mercury, total (mg/L)	Nickel, dissolved (mg/L)	Nickel, total (mg/L)
MW-100	W100181004-	10/4/2018	0.0001 U	0.0001 U	17.2	17.2	0.186	0.274	5E-05 U	5E-05 U	0.000562	0.000872
MW-101	W101181004-	10/4/2018	0.0001 U	0.0001 U	32.8	29.6	1.31 D	1.11	5E-05 U	5E-05 U	0.0036	0.00374
WS-OS-1	WOS1181008-	10/8/2018		0.0001 U		8.38		0.000114		5E-05 U		0.0001 U
WS-OS-2	WOS2181008-	10/8/2018		0.00377		7.05		0.059		5E-05 U		0.00164
WS-OS-3	WOS3181011-	10/11/2018		0.0001 U		5.43		0.033		5E-05 U		0.0001 U
WS-OS-3	WOS3181011F	10/11/2018		0.0001 U		0.05 U		0.0001 U		5E-05 U		0.0001 U
WS-OS-4	WOS4181008-	10/8/2018		0.000143		8.45		0.000893		5E-05 U		0.000157

Environmental Monitoring Data

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Cedar Hills Landfill --- Groundwater Metals Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Potassium, dissolved (mg/L)	Potassium, total (mg/L)	Selenium, dissolved (mg/L)	Selenium, total (mg/L)	Silver, dissolved (mg/L)	Silver, total (mg/L)	Sodium, dissolved (mg/L)	Sodium, total (mg/L)	Thallium, dissolved (mg/L)	Thallium, total (mg/L)
MW-21	W21-181022-	10/22/2018	1.06	1.06	0.0005 U	0.0005 U	4E-05 U	4E-05 U	5.7	5.6	0.0001 U	0.0001 U
MW-24	W24-181010-	10/10/2018	0.927	0.907	0.0005 U	0.0005 U	4E-05 DU	4E-05 DU	5.68	5.64	0.0001 U	0.0001 U
MW-30A	W30A181015-1	10/15/2018		1.55		0.0005 U		4E-05 U		11.9		0.0001 U
MW-30A	W30A181015-2	10/16/2018	1.52		0.0005 U		4E-05 U		11.7		0.0001 U	
MW-47	W47-181017-	10/17/2018	5.66	5.85	0.0005 U	0.0005 U	4E-05 U	4E-05 U	19.1	19.5	0.0001 U	0.0001 U
MW-56	W56-181101-	11/1/2018	1.31	1.32	0.0005 U	0.0005 U	4E-05 U	4E-05 U	6.27	6.25	0.0001 U	0.0001 U
MW-59	W59-181012-	10/12/2018	1.14	1.13	0.0005 U	0.0005 U	4E-05 DU	4E-05 DU	6.11	6.14	0.0001 U	0.0001 U
MW-62	W62-181203-	12/3/2018	0.742	0.814	0.0005 U	0.0005 U	4E-05 U	4E-05 U	10.5	10.6	0.0001 U	0.0001 U
MW-64	W64-181102-	11/2/2018	1.8	1.84	0.0005 U	0.0005 U	4E-05 U	4E-05 U	8.12	8.18	0.0001 U	0.0001 U
MW-65	W65-181012-	10/12/2018	0.898	0.905	0.0005 U	0.0005 U	4E-05 DU	4E-05 DU	5.25	5.25	0.0001 U	0.0001 U
MW-66	W66-181016-	10/16/2018	1.1	1.14	0.000991	0.001	4E-05 U	4E-05 U	7.43	7.5	0.0001 U	0.0001 U
MW-67	W67-181029-	10/29/2018	1.77	1.84	0.0005 U	0.0005 U	4E-05 U	4E-05 U	9.57	9.71	0.0001 U	0.0001 U
MW-67	W67-181029D	10/29/2018	1.76	1.84	0.0005 U	0.0005 U	4E-05 U	4E-05 U	9.52	9.72	0.0001 U	0.0001 U
MW-68	W68-181022-	10/22/2018	1.72	1.71	0.0005 U	0.0005 U	4E-05 U	4E-05 U	9	8.99	0.0001 U	0.0001 U
MW-69	W69-181024-	10/24/2018	1.8	1.75	0.0005 U	0.0005 U	4E-05 U	4E-05 U	8.77	8.44	0.0001 U	0.0001 U
MW-72	W72-181029-	10/29/2018	1.99	2.04	0.0005 U	0.0005 U	4E-05 U	4E-05 U	8.15	8.32	0.0001 U	0.0001 U
MW-73	W73-181022-	10/22/2018	0.828	0.816	0.0005 U	0.0005 U	4E-05 U	4E-05 U	5.78	5.78	0.0001 U	0.0001 U
MW-74	W74R181018-	10/18/2018	2.14	2.15	0.000758	0.000752	4E-05 U	4E-05 U	13.2	13.2	0.0001 U	0.0001 U
MW-75	W75-181019-	10/19/2018	1.87	1.88	0.0005 U	0.0005 U	4E-05 U	4E-05 U	9.26	9.34	0.0001 U	0.0001 U
MW-76	W76-181012-	10/12/2018	1.39	1.47	0.0005 U	0.0005 U	4E-05 DU	4E-05 DU	9.66	10.1	0.0001 U	0.0001 U
MW-80	W80-181019-	10/19/2018	1.65	1.66	0.0005 U	0.0005 U	4E-05 U	4E-05 U	8.03	8.18	0.0001 U	0.0001 U
MW-81	W81-181102-	11/2/2018	0.844	0.876	0.000873	0.000903	4E-05 U	4E-05 U	6.35	6.48	0.0001 U	0.0001 U
MW-81	W81-181102F	11/2/2018	0.1 U	0.1 U	0.0005 U	0.0005 U	4E-05 U	4E-05 U	0.1 U	0.1 U	0.0001 U	0.0001 U
MW-82	W82-181010-	10/10/2018	1.97	1.91	0.0005 U	0.0005 U	4E-05 DU	4E-05 DU	8.59	8.29	0.0001 U	0.0001 U
MW-83	W83-181022-	10/22/2018	3.67	3.66	0.0005 U	0.0005 U	4E-05 U	4E-05 U	14.3	14	0.0001 U	0.0001 U
MW-84	W84-181026-	10/26/2018	1.12	1.11	0.000893	0.000829	4E-05 U	4E-05 U	6.81	6.75	0.0001 U	0.0001 U
MW-85	W85-181026-	10/26/2018	1.67	1.66	0.000974	0.000796	4E-05 U	4E-05 U	9.49	9.84	0.0001 U	0.0001 U
MW-86	W86-181029-	10/29/2018	1.31	1.3	0.0005 U	0.0005 U	4E-05 U	4E-05 U	6.98	6.85	0.0001 U	0.0001 U
MW-87	W87-181024-	10/24/2018	2.42	2.37	0.0005 U	0.0005 U	4E-05 U	4E-05 U	10.8	10.5	0.0001 U	0.0001 U
MW-88	W88-181023-	10/23/2018	0.838	0.835	0.000627	0.000691	4E-05 U	4E-05 U	5.8	5.76	0.0001 U	0.0001 U
MW-89	W89-181024-	10/24/2018	1.61	1.6	0.0005 U	0.0005 U	4E-05 U	4E-05 U	9.9	9.94	0.0001 U	0.0001 U
MW-93	W93-181105-	11/5/2018	1.54	1.52	0.0005 U	0.0005 U	4E-05 U	4E-05 U	9.33	9.47	0.0001 U	0.0001 U
MW-94	W94-181019-	10/19/2018	2.29	2.28	0.0005 U	0.0005 U	4E-05 U	4E-05 U	8.18	8.2	0.0001 U	0.0001 U
MW-94	W94-181019D	10/19/2018	2.22	2.24	0.0005 U	0.0005 U	4E-05 U	4E-05 U	8.08	8.03	0.0001 U	0.0001 U
MW-95	W95-181029-	10/29/2018	1.2	1.25	0.0005 U	0.0005 U	4E-05 U	4E-05 U	6.01	6.17	0.0001 U	0.0001 U

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Groundwater Metals Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Potassium, dissolved (mg/L)	Potassium, total (mg/L)	Selenium, dissolved (mg/L)	Selenium, total (mg/L)	Silver, dissolved (mg/L)	Silver, total (mg/L)	Sodium, dissolved (mg/L)	Sodium, total (mg/L)	Thallium, dissolved (mg/L)	Thallium, total (mg/L)
MW-100	W100181004-	10/4/2018	1.79	1.97	0.0005 U	0.0005 U	4E-05 DU	4E-05 U	9.61	10.6	0.0001 U	0.0001 U
MW-101	W101181004-	10/4/2018	2.71	2.7	0.0005 U	0.0005 U	4E-05 DU	4E-05 U	16.9	17.3	0.0001 U	0.0001 U
WS-OS-1	WOS1181008-	10/8/2018		0.917		0.000795		4E-05 U		7.44		0.0001 U
WS-OS-2	WOS2181008-	10/8/2018		1.12		0.0005 U		4E-05 U		6.67		0.0001 U
WS-OS-3	WOS3181011-	10/11/2018		1.72		0.0005 U		4E-05 DU		30.4		0.0001 U
WS-OS-3	WOS3181011F	10/11/2018		0.1 U		0.0005 U		4E-05 DU		0.1 U		0.0001 U
WS-OS-4	WOS4181008-	10/8/2018		0.98		0.00168		4E-05 U		6.72		0.0001 U

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Groundwater Metals Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Vanadium, dissolved (mg/L)	Vanadium, total (mg/L)	Zinc, dissolved (mg/L)	Zinc, total (mg/L)
MW-21	W21-181022-	10/22/2018	7.5E-05 U	7.5E-05 U	0.0005 U	0.0005 U
MW-24	W24-181010-	10/10/2018	7.5E-05 U	7.5E-05 U	0.0005 U	0.0005 U
MW-30A	W30A181015-1	10/15/2018		0.00331		0.00268
MW-30A	W30A181015-2	10/16/2018	0.00206		0.000881	
MW-47	W47-181017-	10/17/2018	0.0017	0.0018	0.000558	0.0005 JU
MW-56	W56-181101-	11/1/2018	2.72E-04	0.000249	0.00118	0.00101
MW-59	W59-181012-	10/12/2018	7.5E-05 U	7.5E-05 U	0.00117	0.00115
MW-62	W62-181203-	12/3/2018	0.000929	0.0021	0.000929	0.00201
MW-64	W64-181102-	11/2/2018	0.000172	0.000682	0.000545	0.00219
MW-65	W65-181012-	10/12/2018	7.5E-05 U	7.5E-05 U	0.0005 U	0.0005 U
MW-66	W66-181016-	10/16/2018	0.000666	0.000716	0.000606	0.00147
MW-67	W67-181029-	10/29/2018	0.000238	0.0011	0.000596	0.00108
MW-67	W67-181029D	10/29/2018	0.000283	0.000873	0.0005 U	0.000912
MW-68	W68-181022-	10/22/2018	0.000213	0.00024	0.0005 U	0.000574
MW-69	W69-181024-	10/24/2018	0.0001	0.000115	0.0005 U	0.0005 U
MW-72	W72-181029-	10/29/2018	7.5E-05 U	0.0000815	0.000885	0.00237
MW-73	W73-181022-	10/22/2018	0.0012	0.00119	0.0005 U	0.0005 U
MW-74	W74R181018-	10/18/2018	0.000622	0.000649	0.000626	0.000557
MW-75	W75-181019-	10/19/2018	7.5E-05 U	7.5E-05 U	0.0005 U	0.0005 U
MW-76	W76-181012-	10/12/2018	0.000527	0.000564	0.000967	0.000678
MW-80	W80-181019-	10/19/2018	7.5E-05 U	7.5E-05 U	0.000569	0.0005 U
MW-81	W81-181102-	11/2/2018	0.00164	0.00177	0.000513	0.000939
MW-81	W81-181102F	11/2/2018	0.000108	0.000109	0.0005 U	0.0005 U
MW-82	W82-181010-	10/10/2018	0.0013	0.00132	0.00102	0.000776
MW-83	W83-181022-	10/22/2018	0.000895	0.000921	0.000523	0.000549
MW-84	W84-181026-	10/26/2018	0.000494	0.000495	0.0005 U	0.0005 U
MW-85	W85-181026-	10/26/2018	0.000928	0.000932	0.0005 U	0.000644
MW-86	W86-181029-	10/29/2018	0.000203	0.00336	0.00097	0.00151
MW-87	W87-181024-	10/24/2018	7.5E-05 U	0.000172	0.000685	0.000639
MW-88	W88-181023-	10/23/2018	0.0029	0.00285	0.00085	0.000511
MW-89	W89-181024-	10/24/2018	7.5E-05 U	0.000211	0.00163	0.00226
MW-93	W93-181105-	11/5/2018	0.00217	0.00218	0.00212 J	0.000781
MW-94	W94-181019-	10/19/2018	0.00132	0.00132	0.0005 U	0.000904
MW-94	W94-181019D	10/19/2018	0.00127	0.0013	0.00103 J	0.000812
MW-95	W95-181029-	10/29/2018	0.000434	0.000353	0.00063	0.0005 U

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Groundwater Metals Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Vanadium, dissolved (mg/L)	Vanadium, total (mg/L)	Zinc, dissolved (mg/L)	Zinc, total (mg/L)
MW-100	W100181004-	10/4/2018	7.5E-05 U	7.5E-05 U	0.00106	0.00183
MW-101	W101181004-	10/4/2018	0.000197	0.000314	0.00183	0.002
WS-OS-1	WOS1181008-	10/8/2018		0.00179		0.00942
WS-OS-2	WOS2181008-	10/8/2018		0.00391		0.0726
WS-OS-3	WOS3181011-	10/11/2018		7.5E-05 U		0.00462
WS-OS-3	WOS3181011F	10/11/2018		7.5E-05 U		0.0005 U
WS-OS-4	WOS4181008-	10/8/2018		0.00118		0.0986

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Groundwater VOAs Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	1,1,1,2-Tetrachloroethane ug/l 630-20-6	1,1,1-Trichloroethane ug/l 71-55-6	1,1,2,2-Tetrachloroethane ug/l 79-34-5	1,1,2-Trichloroethane ug/l 79-00-5	1,1-Dichloroethane ug/l 75-34-3	1,1-Dichloroethene ug/l 75-35-4	1,2,3-Trichloropropane ug/l 96-18-4	1,2-Dibromo-3-Chloropropa ug/l 96-12-8	1,2-Dibromoethane ug/l 106-93-4	1,2-Dichlorobenzene ug/l 95-50-1	1,2-Dichloroethane ug/l 107-06-2
MW-21	W21-181022-	10/22/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
MW-24	W24-181010-	10/10/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
MW-30A	W30A181015-1	10/15/2018	0.25 U	0.1 U	0.1 U	0.1 U	1.57	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
MW-47	W47-181017-	10/17/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.555	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.104 JT
MW-56	W56-181101-	11/1/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
MW-59	W59-181012-	10/12/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
MW-62	W62-181203-	12/3/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.548	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
MW-64	W64-181102-	11/2/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
MW-65	W65-181012-	10/12/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
MW-66	W66-181016-	10/16/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
MW-67	W67-181029-	10/29/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
MW-67	W67-181029D	10/29/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
MW-68	W68-181022-	10/22/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
MW-69	W69-181024-	10/24/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
MW-72	W72-181029-	10/29/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
MW-73	W73-181022-	10/22/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
MW-74	W74R181018-	10/18/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
MW-75	W75-181019-	10/19/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
MW-76	W76-181012-	10/12/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
MW-80	W80-181019-	10/19/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
MW-81	W81-181102-	11/2/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
MW-81	W81-181102F	11/2/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
MW-82	W82-181010-	10/10/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
MW-83	W83-181022-	10/22/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
MW-84	W84-181026-	10/26/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
MW-85	W85-181026-	10/26/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
MW-86	W86-181029-	10/29/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
MW-87	W87-181024-	10/24/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
MW-88	W88-181023-	10/23/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
MW-89	W89-181024-	10/24/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
MW-93	W93-181105-	11/5/2018	0.25 SU	0.1 SU	0.1 SU	0.1 SU	0.1 SU	0.1 SU	0.1 SU	2.5 SU	0.1 SU	0.1 SU	0.1 SU
MW-94	W94-181019-	10/19/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
MW-94	W94-181019D	10/19/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
MW-95	W95-181029-	10/29/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
MW-100	W100181004-	10/4/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Groundwater VOAs Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	1,1,1,2-Tetrachloroethane ug/l 630-20-6	1,1,1-Trichloroethane ug/l 71-55-6	1,1,2,2-Tetrachloroethane ug/l 79-34-5	1,1,2-Trichloroethane ug/l 79-00-5	1,1-Dichloroethane ug/l 75-34-3	1,1-Dichloroethene ug/l 75-35-4	1,2,3-Trichloropropane ug/l 96-18-4	1,2-Dibromo-3-Chloropropa ug/l 96-12-8	1,2-Dibromoethane ug/l 106-93-4	1,2-Dichlorobenzene ug/l 95-50-1	1,2-Dichloroethane ug/l 107-06-2
MW-101	W101181004-	10/4/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.153 JT	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.125 JT
WS-OS-1	WOS1181008-	10/8/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
WS-OS-2	WOS2181008-	10/8/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
WS-OS-3	WOS3181011-	10/11/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
WS-OS-3	WOS3181011F	10/11/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
WS-OS-4	WOS4181008-	10/8/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
VOA TRIP BLANK	VTRP181004Y	10/2/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
VOA TRIP BLANK	VTRP181008X	10/4/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
VOA TRIP BLANK	VTRP181010X	10/9/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
VOA TRIP BLANK	VTRP181011X	10/9/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
VOA TRIP BLANK	VTRP181012Y	10/4/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
VOA TRIP BLANK	VTRP181016Y	10/12/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
VOA TRIP BLANK	VTRP181018Y	10/12/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
VOA TRIP BLANK	VTRP181019Y	10/12/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
VOA TRIP BLANK	VTRP181022X	10/18/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
VOA TRIP BLANK	VTRP181022Y	10/22/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
VOA TRIP BLANK	VTRP181029X	10/24/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
VOA TRIP BLANK	VTRP181029Y	10/26/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
VOA TRIP BLANK	VTRP181101Y	10/26/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
VOA TRIP BLANK	VTRP181102Y	10/29/2018	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U
VOA TRIP BLANK	VTRP181105Y	11/1/2018	0.25 SU	0.1 SU	0.1 SU	0.1 SU	0.1 SU	0.1 SU	0.1 SU	2.5 SU	0.1 SU	0.1 SU	0.1 SU

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Groundwater VOAs Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	1,2-Dichloropropane ug/l 78-87-5	1,4-Dichlorobenzene ug/l 106-46-7	2-Butanone ug/l 78-93-3	2-Hexanone ug/l 591-78-6	4-Methyl-2-Pentanone ug/l 108-10-1	Acetone ug/l 67-64-1	Acrylonitrile ug/l 107-13-1	Benzene ug/l 71-43-2	Bromochloromethane ug/l 74-97-5	Bromodichloromethane ug/l 75-27-4	Bromoform ug/l 75-25-2	Bromomethane ug/l 74-83-9
MW-21	W21-181022-	10/22/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
MW-24	W24-181010-	10/10/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
MW-30A	W30A181015-1	10/15/2018	0.1 U	0.1 U	0.25 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
MW-47	W47-181017-	10/17/2018	0.1 U	0.1 U	0.25 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
MW-56	W56-181101-	11/1/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
MW-59	W59-181012-	10/12/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
MW-62	W62-181203-	12/3/2018	0.1 U	0.1 U	0.25 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
MW-64	W64-181102-	11/2/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
MW-65	W65-181012-	10/12/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
MW-66	W66-181016-	10/16/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
MW-67	W67-181029-	10/29/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
MW-67	W67-181029D	10/29/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
MW-68	W68-181022-	10/22/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
MW-69	W69-181024-	10/24/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
MW-72	W72-181029-	10/29/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
MW-73	W73-181022-	10/22/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
MW-74	W74R181018-	10/18/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
MW-75	W75-181019-	10/19/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
MW-76	W76-181012-	10/12/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
MW-80	W80-181019-	10/19/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
MW-81	W81-181102-	11/2/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
MW-81	W81-181102F	11/2/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
MW-82	W82-181010-	10/10/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
MW-83	W83-181022-	10/22/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
MW-84	W84-181026-	10/26/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
MW-85	W85-181026-	10/26/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
MW-86	W86-181029-	10/29/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
MW-87	W87-181024-	10/24/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
MW-88	W88-181023-	10/23/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
MW-89	W89-181024-	10/24/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
MW-93	W93-181105-	11/5/2018	0.1 SU	0.1 SU	1 SU	0.5 SU	2.5 SU	2.5 SU	0.035 SU	0.1 SU	0.1 SU	0.25 SU	0.5 SU	0.1 SU
MW-94	W94-181019-	10/19/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
MW-94	W94-181019D	10/19/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
MW-95	W95-181029-	10/29/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
MW-100	W100181004-	10/4/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Groundwater VOAs Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	1,2-Dichloropropane ug/l 78-87-5	1,4-Dichlorobenzene ug/l 106-46-7	2-Butanone ug/l 78-93-3	2-Hexanone ug/l 591-78-6	4-Methyl-2-Pentanone ug/l 108-10-1	Acetone ug/l 67-64-1	Acrylonitrile ug/l 107-13-1	Benzene ug/l 71-43-2	Bromochloromethane ug/l 74-97-5	Bromodichloromethane ug/l 75-27-4	Bromoform ug/l 75-25-2	Bromomethane ug/l 74-83-9
MW-101	W101181004-	10/4/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
WS-OS-1	WOS1181008-	10/8/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
WS-OS-2	WOS2181008-	10/8/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
WS-OS-3	WOS3181011-	10/11/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	3.61	0.5 U	0.1 U
WS-OS-3	WOS3181011F	10/11/2018	0.1 U	0.1 U	7.02	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
WS-OS-4	WOS4181008-	10/8/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
VOA TRIP BLANK	VTRP181004Y	10/2/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
VOA TRIP BLANK	VTRP181008X	10/4/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
VOA TRIP BLANK	VTRP181010X	10/9/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
VOA TRIP BLANK	VTRP181011X	10/9/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
VOA TRIP BLANK	VTRP181012Y	10/4/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
VOA TRIP BLANK	VTRP181016Y	10/12/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
VOA TRIP BLANK	VTRP181018Y	10/12/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
VOA TRIP BLANK	VTRP181019Y	10/12/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
VOA TRIP BLANK	VTRP181022X	10/18/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
VOA TRIP BLANK	VTRP181022Y	10/22/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
VOA TRIP BLANK	VTRP181029X	10/24/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
VOA TRIP BLANK	VTRP181029Y	10/26/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
VOA TRIP BLANK	VTRP181101Y	10/26/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
VOA TRIP BLANK	VTRP181102Y	10/29/2018	0.1 U	0.1 U	1 U	0.5 U	2.5 U	2.5 U	0.035 U	0.1 U	0.1 U	0.25 U	0.5 U	0.1 U
VOA TRIP BLANK	VTRP181105Y	11/1/2018	0.1 SU	0.1 SU	1 SU	0.5 SU	2.5 SU	2.5 SU	0.035 SU	0.1 SU	0.1 SU	0.25 SU	0.5 SU	0.1 SU

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Groundwater VOAs Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Carbon Disulfide ug/l 75-15-0	Carbon Tetrachloride ug/l 56-23-5	Chlorbenzene ug/l 108-90-7	Chlorodibromomethane ug/l 124-48-1	Chloroethane ug/l 75-00-3	Chloroform ug/l 67-66-3	Chloromethane ug/l 74-87-3	cis-1,2-Dichloroethene ug/l 156-59-2	cis-1,3-Dichloropropene ug/l 10061-01-5	Dibromomethane ug/l 74-95-3	Dichlorodifluoromethane ug/l 75-71-8	Ethylbenzene ug/l 100-41-4
MW-21	W21-181022-	10/22/2018	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U
MW-24	W24-181010-	10/10/2018	0.135 JT	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	0.104 JT	0.25 U	0.1 U	0.1 U	0.1 U
MW-30A	W30A181015-1	10/15/2018	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	3.77	0.25 U	0.1 U	0.1 U	0.1 U
MW-47	W47-181017-	10/17/2018	0.1 U	0.25 U	0.1 U	0.5 U	0.16 JT	0.1 U	0.25 U	1.21	0.25 U	0.1 U	0.423	0.1 U
MW-56	W56-181101-	11/1/2018	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	1.53	0.25 U	0.1 U	0.1 U	0.1 U
MW-59	W59-181012-	10/12/2018	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	1.17	0.25 U	0.1 U	0.1 U	0.1 U
MW-62	W62-181203-	12/3/2018	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 GU	1.31	0.25 U	0.1 U	0.1 U	0.1 U
MW-64	W64-181102-	11/2/2018	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U
MW-65	W65-181012-	10/12/2018	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U
MW-66	W66-181016-	10/16/2018	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U
MW-67	W67-181029-	10/29/2018	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U
MW-67	W67-181029D	10/29/2018	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U
MW-68	W68-181022-	10/22/2018	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U
MW-69	W69-181024-	10/24/2018	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U
MW-72	W72-181029-	10/29/2018	0.124 JT	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U
MW-73	W73-181022-	10/22/2018	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U
MW-74	W74R181018-	10/18/2018	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U
MW-75	W75-181019-	10/19/2018	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U
MW-76	W76-181012-	10/12/2018	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	0.221	0.25 U	0.1 U	0.1 U	0.1 U
MW-80	W80-181019-	10/19/2018	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U
MW-81	W81-181102-	11/2/2018	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U
MW-81	W81-181102F	11/2/2018	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U	0.105 JT	0.25 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U
MW-82	W82-181010-	10/10/2018	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U
MW-83	W83-181022-	10/22/2018	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U
MW-84	W84-181026-	10/26/2018	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U
MW-85	W85-181026-	10/26/2018	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U
MW-86	W86-181029-	10/29/2018	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U
MW-87	W87-181024-	10/24/2018	0.178 JT	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U
MW-88	W88-181023-	10/23/2018	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U
MW-89	W89-181024-	10/24/2018	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U
MW-93	W93-181105-	11/5/2018	0.1 SU	0.25 SU	0.1 SU	0.5 SU	0.1 SU	0.1 SU	0.25 SU	0.1 SU	0.25 SU	0.1 SU	0.1 SU	0.1 SU
MW-94	W94-181019-	10/19/2018	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U
MW-94	W94-181019D	10/19/2018	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U
MW-95	W95-181029-	10/29/2018	0.151 JT	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U
MW-100	W100181004-	10/4/2018	0.19 JT	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Groundwater VOAs Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Carbon Disulfide ug/l 75-15-0	Carbon Tetrachloride ug/l 56-23-5	Chlorbenzene ug/l 108-90-7	Chlorodibromomethane ug/l 124-48-1	Chloroethane ug/l 75-00-3	Chloroform ug/l 67-66-3	Chloromethane ug/l 74-87-3	cis-1,2-Dichloroethene ug/l 156-59-2	cis-1,3-Dichloropropene ug/l 10061-01-5	Dibromomethane ug/l 74-95-3	Dichlorodifluoromethane ug/l 75-71-8	Ethylbenzene ug/l 100-41-4
MW-101	W101181004-	10/4/2018	0.1 U	0.25 U	0.1 U	0.5 U	0.102 JT	0.1 U	0.25 U	0.187 JT	0.25 U	0.1 U	0.1 U	0.1 U
WS-OS-1	WOS1181008-	10/8/2018	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U
WS-OS-2	WOS2181008-	10/8/2018	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U
WS-OS-3	WOS3181011-	10/11/2018	0.1 U	0.25 U	0.1 U	1.19	0.1 U	10.2	0.25 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U
WS-OS-3	WOS3181011F	10/11/2018	0.185 JT	0.25 U	0.1 U	0.5 U	0.1 U	0.417	0.25 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U
WS-OS-4	WOS4181008-	10/8/2018	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U
VOA TRIP BLANK	VTRP181004Y	10/2/2018	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U
VOA TRIP BLANK	VTRP181008X	10/4/2018	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U
VOA TRIP BLANK	VTRP181010X	10/9/2018	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U
VOA TRIP BLANK	VTRP181011X	10/9/2018	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U
VOA TRIP BLANK	VTRP181012Y	10/4/2018	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U
VOA TRIP BLANK	VTRP181016Y	10/12/2018	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U
VOA TRIP BLANK	VTRP181018Y	10/12/2018	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U
VOA TRIP BLANK	VTRP181019Y	10/12/2018	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U
VOA TRIP BLANK	VTRP181022X	10/18/2018	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U
VOA TRIP BLANK	VTRP181022Y	10/22/2018	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U
VOA TRIP BLANK	VTRP181029X	10/24/2018	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U
VOA TRIP BLANK	VTRP181029Y	10/26/2018	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U
VOA TRIP BLANK	VTRP181101Y	10/26/2018	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U
VOA TRIP BLANK	VTRP181102Y	10/29/2018	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U
VOA TRIP BLANK	VTRP181105Y	11/1/2018	0.1 SU	0.25 SU	0.1 SU	0.5 SU	0.1 SU	0.1 SU	0.25 SU	0.1 SU	0.25 SU	0.1 SU	0.1 SU	0.1 SU

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Groundwater VOAs Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	M & P Xylene ug/l MPX	Methyl Iodide ug/l 74-88-4	Methylene Chloride ug/l 75-09-2	O-Xylene ug/l 95-47-6	Styrene ug/l 100-42-5	Tetrachloroethene ug/l 127-18-4	Toluene ug/l 108-88-3	Trans-1,2-Dichloroethene ug/l 156-60-5	Trans-1,3-Dichloropropene ug/l 10061-02-6
MW-21	W21-181022-	10/22/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
MW-24	W24-181010-	10/10/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
MW-30A	W30A181015-1	10/15/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 JT	0.1 U	0.106 JT	0.5 U
MW-47	W47-181017-	10/17/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
MW-56	W56-181101-	11/1/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
MW-59	W59-181012-	10/12/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
MW-62	W62-181203-	12/3/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
MW-64	W64-181102-	11/2/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
MW-65	W65-181012-	10/12/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
MW-66	W66-181016-	10/16/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
MW-67	W67-181029-	10/29/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
MW-67	W67-181029D	10/29/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
MW-68	W68-181022-	10/22/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
MW-69	W69-181024-	10/24/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
MW-72	W72-181029-	10/29/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
MW-73	W73-181022-	10/22/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
MW-74	W74R181018-	10/18/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
MW-75	W75-181019-	10/19/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
MW-76	W76-181012-	10/12/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.44	0.1 U	0.1 U	0.5 U
MW-80	W80-181019-	10/19/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
MW-81	W81-181102-	11/2/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
MW-81	W81-181102F	11/2/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.116 JT	0.1 U	0.5 U
MW-82	W82-181010-	10/10/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
MW-83	W83-181022-	10/22/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
MW-84	W84-181026-	10/26/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
MW-85	W85-181026-	10/26/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
MW-86	W86-181029-	10/29/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
MW-87	W87-181024-	10/24/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
MW-88	W88-181023-	10/23/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
MW-89	W89-181024-	10/24/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
MW-93	W93-181105-	11/5/2018	0.1 SU	0.1 SU	2.5 SU	0.1 SU	0.1 SU	0.1 SU	0.1 SU	0.1 SU	0.5 SU
MW-94	W94-181019-	10/19/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
MW-94	W94-181019D	10/19/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
MW-95	W95-181029-	10/29/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
MW-100	W100181004-	10/4/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Groundwater VOAs Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	M & P Xylene ug/l MPX	Methyl Iodide ug/l 74-88-4	Methylene Chloride ug/l 75-09-2	O-Xylene ug/l 95-47-6	Styrene ug/l 100-42-5	Tetrachloroethene ug/l 127-18-4	Toluene ug/l 108-88-3	Trans-1,2-Dichloroethene ug/l 156-60-5	Trans-1,3-Dichloropropene ug/l 10061-02-6
MW-101	W101181004-	10/4/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
WS-OS-1	WOS1181008-	10/8/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
WS-OS-2	WOS2181008-	10/8/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
WS-OS-3	WOS3181011-	10/11/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
WS-OS-3	WOS3181011F	10/11/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
WS-OS-4	WOS4181008-	10/8/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
VOA TRIP BLANK	VTRP181004Y	10/2/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
VOA TRIP BLANK	VTRP181008X	10/4/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
VOA TRIP BLANK	VTRP181010X	10/9/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
VOA TRIP BLANK	VTRP181011X	10/9/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
VOA TRIP BLANK	VTRP181012Y	10/4/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
VOA TRIP BLANK	VTRP181016Y	10/12/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
VOA TRIP BLANK	VTRP181018Y	10/12/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
VOA TRIP BLANK	VTRP181019Y	10/12/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
VOA TRIP BLANK	VTRP181022X	10/18/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
VOA TRIP BLANK	VTRP181022Y	10/22/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
VOA TRIP BLANK	VTRP181029X	10/24/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
VOA TRIP BLANK	VTRP181029Y	10/26/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
VOA TRIP BLANK	VTRP181101Y	10/26/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
VOA TRIP BLANK	VTRP181102Y	10/29/2018	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U
VOA TRIP BLANK	VTRP181105Y	11/1/2018	0.1 SU	0.1 SU	2.5 SU	0.1 SU	0.1 SU	0.1 SU	0.1 SU	0.1 SU	0.5 SU

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Groundwater VOAs Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Trans-1,4-Dichloro-2-Butene ug/l 110-57-6	Trichloroethene ug/l 79-01-6	Trichlorofluoromethane ug/l 75-69-4	Vinyl Acetate ug/l 108-05-4	Vinyl Chloride ug/l 75-01-4
MW-21	W21-181022-	10/22/2018	5 U	0.1 U	0.1 U	0.1 U	0.01 U
MW-24	W24-181010-	10/10/2018	5 U	0.1 U	0.1 U	0.1 U	0.0154 JT
MW-30A	W30A181015-1	10/15/2018	0.5 U	0.62	0.1 U	0.1 U	0.01 U
MW-47	W47-181017-	10/17/2018	0.5 U	0.1 U	0.1 U	0.1 U	2.95
MW-56	W56-181101-	11/1/2018	5 U	0.1 U	0.1 U	0.1 U	0.01 U
MW-59	W59-181012-	10/12/2018	5 U	0.1 U	0.1 U	0.1 U	0.01 U
MW-62	W62-181203-	12/3/2018	0.5 U	0.118 JT	0.1 U	0.1 U	0.01 GU
MW-64	W64-181102-	11/2/2018	5 U	0.1 U	0.1 U	0.1 U	0.01 U
MW-65	W65-181012-	10/12/2018	5 U	0.1 U	0.1 U	0.1 U	0.0295
MW-66	W66-181016-	10/16/2018	5 U	0.1 U	0.1 U	0.1 U	0.01 U
MW-67	W67-181029-	10/29/2018	5 U	0.1 U	0.1 U	0.1 U	0.01 U
MW-67	W67-181029D	10/29/2018	5 U	0.1 U	0.1 U	0.1 U	0.01 U
MW-68	W68-181022-	10/22/2018	5 U	0.1 U	0.1 U	0.1 U	0.01 U
MW-69	W69-181024-	10/24/2018	5 U	0.1 U	0.1 U	0.1 U	0.01 U
MW-72	W72-181029-	10/29/2018	5 U	0.1 U	0.1 U	0.1 U	0.01 U
MW-73	W73-181022-	10/22/2018	5 U	0.1 U	0.1 U	0.1 U	0.01 U
MW-74	W74R181018-	10/18/2018	5 U	0.1 U	0.1 U	0.1 U	0.01 U
MW-75	W75-181019-	10/19/2018	5 U	0.1 U	0.1 U	0.1 U	0.01 U
MW-76	W76-181012-	10/12/2018	5 U	9.12	0.1 U	0.1 U	0.01 U
MW-80	W80-181019-	10/19/2018	5 U	0.1 U	0.1 U	0.1 U	0.01 U
MW-81	W81-181102-	11/2/2018	5 U	0.1 U	0.1 U	0.1 U	0.01 U
MW-81	W81-181102F	11/2/2018	5 U	0.1 U	0.1 U	0.1 U	0.01 U
MW-82	W82-181010-	10/10/2018	5 U	4.88	0.1 U	0.1 U	0.01 U
MW-83	W83-181022-	10/22/2018	5 U	2.05	0.1 U	0.1 U	0.01 U
MW-84	W84-181026-	10/26/2018	5 U	0.1 U	0.1 U	0.1 U	0.01 U
MW-85	W85-181026-	10/26/2018	5 U	0.1 U	0.1 U	0.1 U	0.01 U
MW-86	W86-181029-	10/29/2018	5 U	0.1 U	0.1 U	0.1 U	0.01 U
MW-87	W87-181024-	10/24/2018	5 U	0.1 U	0.1 U	0.1 U	0.01 U
MW-88	W88-181023-	10/23/2018	5 U	0.1 U	0.1 U	0.1 U	0.01 U
MW-89	W89-181024-	10/24/2018	5 U	0.1 U	0.1 U	0.1 U	0.01 U
MW-93	W93-181105-	11/5/2018	5 SU	0.1 SU	0.1 SU	0.1 SU	0.01 SU
MW-94	W94-181019-	10/19/2018	5 U	2.54	0.1 U	0.1 U	0.01 U
MW-94	W94-181019D	10/19/2018	5 U	2.54	0.1 U	0.1 U	0.01 U
MW-95	W95-181029-	10/29/2018	5 U	0.1 U	0.1 U	0.1 U	0.01 U
MW-100	W100181004-	10/4/2018	5 U	0.1 U	0.1 U	0.1 U	0.01 U

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Groundwater VOAs Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Trans-1,4-Dichloro-2-Butene ug/l 110-57-6	Trichloroethene ug/l 79-01-6	Trichlorofluoromethane ug/l 75-69-4	Vinyl Acetate ug/l 108-05-4	Vinyl Chloride ug/l 75-01-4
MW-101	W101181004-	10/4/2018	5 U	0.1 U	0.1 U	0.1 U	0.404
WS-OS-1	WOS1181008-	10/8/2018	5 U	0.1 U	0.1 U	0.1 U	0.01 U
WS-OS-2	WOS2181008-	10/8/2018	5 U	0.1 U	0.1 U	0.1 U	0.01 U
WS-OS-3	WOS3181011-	10/11/2018	5 U	0.1 U	0.1 U	0.1 U	0.01 U
WS-OS-3	WOS3181011F	10/11/2018	5 U	0.1 U	0.1 U	0.1 U	0.01 U
WS-OS-4	WOS4181008-	10/8/2018	5 U	0.1 U	0.1 U	0.1 U	0.01 U
VOA TRIP BLANK	VTRP181004Y	10/2/2018	5 U	0.1 U	0.1 U	0.1 U	0.01 U
VOA TRIP BLANK	VTRP181008X	10/4/2018	5 U	0.1 U	0.1 U	0.1 U	0.01 U
VOA TRIP BLANK	VTRP181010X	10/9/2018	5 U	0.1 U	0.1 U	0.1 U	0.01 U
VOA TRIP BLANK	VTRP181011X	10/9/2018	5 U	0.1 U	0.1 U	0.1 U	0.01 U
VOA TRIP BLANK	VTRP181012Y	10/4/2018	5 U	0.1 U	0.1 U	0.1 U	0.01 U
VOA TRIP BLANK	VTRP181016Y	10/12/2018	5 U	0.1 U	0.1 U	0.1 U	0.01 U
VOA TRIP BLANK	VTRP181018Y	10/12/2018	5 U	0.1 U	0.1 U	0.1 U	0.01 U
VOA TRIP BLANK	VTRP181019Y	10/12/2018	5 U	0.1 U	0.1 U	0.1 U	0.01 U
VOA TRIP BLANK	VTRP181022X	10/18/2018	5 U	0.1 U	0.1 U	0.1 U	0.01 U
VOA TRIP BLANK	VTRP181022Y	10/22/2018	5 U	0.1 U	0.1 U	0.1 U	0.01 U
VOA TRIP BLANK	VTRP181029X	10/24/2018	5 U	0.1 U	0.1 U	0.1 U	0.01 U
VOA TRIP BLANK	VTRP181029Y	10/26/2018	5 U	0.1 U	0.1 U	0.1 U	0.01 U
VOA TRIP BLANK	VTRP181101Y	10/26/2018	5 U	0.1 U	0.1 U	0.1 U	0.01 U
VOA TRIP BLANK	VTRP181102Y	10/29/2018	5 U	0.1 U	0.1 U	0.1 U	0.01 U
VOA TRIP BLANK	VTRP181105Y	11/1/2018	5 SU	0.1 SU	0.1 SU	0.1 SU	0.01 SU

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Groundwater Appendix III Analytical Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	1,1-Dichloro-Propene	1,2,4,5-Tetrachloro-Benzene	1,2,4-Trichloro-Benzene	1,2-Diphenyl-Hydrazine	1,3,5-Trinitro-Benzene	1,3-Dichloro-Benzene	1,3-Dichloro-Propane	1,4-Naphtho-Quinone	1-Naphthyl-Amine	2,2-Dichloro-Propane
			563-58-6	95-94-3	120-82-1	122-66-7	99-35-4	541-73-1	142-28-9	130-15-4	134-32-7	594-20-7
			(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
MW-30A	10/15/2018	W30A181015-1	0.1 U	1.05 U	0.526 U	0.211 U	0.526 U	0.1 U	0.1 U	1.05 U	5.26 U	0.1 U
MW-47	10/17/2018	W47-181017-	0.1 U	0.99 U	0.495 U	0.198 U	0.495 U	0.1 U	0.1 U	0.99 U	4.95 U	0.1 U
MW-62	12/3/2018	W62-181203-	0.1 U	0.952 U	0.476 U	0.19 U	0.476 U	0.1 U	0.1 U	0.952 U	4.76 U	0.1 U
SW-E1	12/3/2018	SE1-181203-	0.1 U	0.943 U	0.472 U	0.189 U	0.472 U	0.1 U	0.1 U	0.943 U	4.72 U	0.1 U

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Site	Date	Sample ID	2,2-Oxybis (1-Chloro-Propane)	2,4,5-T	2,4,5-Tp Silvex	2,4,5-Trichloro-Phenol	2,4,6-Trichloro-Phenol	2,4-D	2,4-Dichloro-Phenol	2,4-Dimethyl-Phenol	2,4-Dinitro-Phenol	2,4-Dinitro-Toluene	2,6-Dichloro-Phenol	2,6-Dinitro-Toluene
			108-60-1 (ug/L)	93-76-5 (ug/L)	93-72-1 (ug/L)	95-95-4 (ug/L)	88-06-2 (ug/L)	94-75-7 (ug/L)	120-83-2 (ug/L)	105-67-9 (ug/L)	51-28-5 (ug/L)	121-14-2 (ug/L)	87-65-0 (ug/L)	606-20-2 (ug/L)
MW-30A	10/15/2018	W30A181015-1	0.526 U	0.025 U	0.025 U	1.05 U	1.05 U	0.05 U	0.526 U	2.11 U	10.5 U	1.05 U	0.526 U	1.05 U
MW-47	10/17/2018	W47-181017-	0.495 U	0.025 U	0.025 U	0.99 U	0.99 U	0.05 U	0.495 U	1.98 U	9.9 U	0.99 U	0.495 U	0.99 U
MW-62	12/3/2018	W62-181203-	0.476 U	0.025 U	0.025 U	0.952 U	0.952 U	0.05 U	0.476 U	1.9 U	9.52 U	0.952 U	0.476 U	0.952 U
SW-E1	12/3/2018	SE1-181203-	0.472 U	0.025 U	0.025 U	0.943 U	0.943 U	0.05 U	0.472 U	1.89 U	9.43 U	0.943 U	0.472 U	0.943 U

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Site	Date	Sample ID	2-Acetylamino-Fluorene	2-Chloro-Naphthalene	2-Chlorophenol	2-Methyl-1-Propanol	2-Methyl-Naphthalene	2-Methylphenol	2-Naphthylamine	2-Nitroaniline	2-Nitrophenol	2,3,7,8-Tcdd	13C12 - 2,3,7,8-TCDD
			53-96-3 (ug/L)	91-58-7 (ug/L)	95-57-8 (ug/L)	78-83-1 (ug/L)	91-57-6 (ug/L)	95-48-7 (ug/L)	91-59-8 (ug/L)	88-74-4 (ug/L)	88-75-5 (ug/L)	1746-01-6 (pg/L)	76523-40-5 (%)
MW-30A	10/15/2018	W30A181015-1	1.05 U	0.526 U	0.526 U	5 U	0.0238 U	0.526 U	5.26 U	1.05 U	0.211 U	0.026 U J	88
MW-47	10/17/2018	W47-181017-	0.99 U	0.495 U	0.495 U	5 U	0.0243 U	0.495 U	4.95 GU	0.99 U	0.198 U	0.003 U J	128
MW-62	12/3/2018	W62-181203-	0.952 U	0.476 U	0.476 U	5 U	0.024 U	0.476 U	4.76 U	0.952 U	0.19 U		
SW-E1	12/3/2018	SE1-181203-	0.943 U	0.472 U	0.472 U	5 U	0.0236 U	0.472 U	4.72 U	0.943 U	0.189 U		

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Site	Date	Sample ID	37C4 -2,3,7,8-TCDD	3,3-Dichloro-Benzidine	3,3'-Dimethyl-Benzidine	3,4-Methylphenol Mixture	3-Chloro-Propene	3-Methylchlor-Anthrene	3-Nitroaniline	4,4'DDD	4,4'DDE	4,4'DDT	4,6-Dinitro-2-Methylphenol
			85508-50-5	91-94-1	119-93-7	15831-10-4	107-05-1	56-49-5	99-09-2	72-54-8	72-55-9	50-29-3	534-52-1
			(%)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
MW-30A	10/15/2018	W30A181015-1	86	< 0.19 U	< 4.7 U	< 0.47 U	< 0.1 U	< 0.47 U	< 0.94 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.94 U
MW-47	10/17/2018	W47-181017-	80	< 0.19 U	< 4.7 U	< 0.47 U	< 0.1 U	< 0.47 U	< 0.94 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.94 U
MW-62	12/3/2018	W62-181203-		< 0.19 U	< 4.8 U	< 0.48 U	< 0.1 U	< 0.48 U	< 0.96 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.96 U
SW-E1	12/3/2018	SE1-181203-		0.189 U	4.72 U	0.472 U	0.1 U	0.472 U	0.943 U	0.005 U	0.005 U	0.005 U	0.943 U

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Site	Date	Sample ID	4-Amino-Biphenyl	4-Bromophenyl Phenyl Ether	4-Chloro-3-Methylphenol	4-Chlorophenyl Phenyl Ether	4-Dimethylaminoazobenzene	4-Nitroaniline	4-Nitrophenol	5-Nitro-O-Toluidine	7,12-Dimethylbenz-(A)Anthracene
			92-67-1 (ug/L)	101-55-3 (ug/L)	59-50-7 (ug/L)	7005-72-3 (ug/L)	60-11-7 (ug/L)	100-01-6 (ug/L)	100-02-7 (ug/L)	99-55-8 (ug/L)	57-97-6 (ug/L)
MW-30A	10/15/2018	W30A181015-1	< 1.9 U	< 0.47 U	< 0.47 U	< 0.47 U	< 0.94 U	< 4.7 U	< 4.7 U	< 1.9 U	< 0.47 U
MW-47	10/17/2018	W47-181017-	< 1.9 U	< 0.47 U	< 0.47 U	< 0.47 U	< 0.94 U	< 4.7 U	< 4.7 U	< 1.9 U	< 0.47 U
MW-62	12/3/2018	W62-181203-	< 1.9 U	< 0.48 U	< 0.48 U	< 0.48 U	< 0.96 U	< 4.8 U	< 4.8 U	< 1.9 U	< 0.48 U
SW-E1	12/3/2018	SE1-181203-	1.89 U	0.472 U	0.472 U	0.472 U	0.943 U	4.72 U	4.72 U	1.89 U	0.472 U

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Site	Date	Sample ID	Acenaphthylene 208-96-8 (ug/L)	Acenapthalene 83-32-9 (ug/L)	Acetonitrile 75-05-8 (ug/L)	Acetophenone 98-86-2 (ug/L)	Acrolein 107-02-8 (ug/L)	Aldrin 309-00-2 (ug/L)	Alpha Bhc 319-84-6 (ug/L)	Alpha Chlordane 5103-71-9 (ug/L)	Alpha-Terpineol 98-55-5 (ug/L)	Aniline 62-53-3 (ug/L)	Anthracene 120-12-7 (ug/L)
MW-30A	10/15/2018	W30A181015-1	< 0.024 U	< 0.024 U	< 5 U	< 0.47 U	< 2.5 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.47 U	< 0.94 U	< 0.047 U
MW-47	10/17/2018	W47-181017-	< 0.024 U	< 0.024 U	< 5 U	< 0.47 U	< 2.5 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.47 U	< 0.94 U	< 0.047 U
MW-62	12/3/2018	W62-181203-	< 0.024 U	< 0.024 U	< 5 U	< 0.48 U	< 2.5 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.48 U	< 0.96 U	< 0.047 U
SW-E1	12/3/2018	SE1-181203-	0.0236 U	0.0236 U	5 U	0.472 U	2.5 U	0.005 U	0.005 U	0.005 U	0.472 U	0.943 U	0.0472 U

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Site	Date	Sample ID	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Benzo(A)-Anthracene	Benzo(A)Pyrene	Benzo(B,J,K)-Fluoranthrene
			12674-11-2 (ug/L)	11104-28-2 (ug/L)	11141-16-5 (ug/L)	53469-21-9 (ug/L)	12672-29-6 (ug/L)	11097-69-1 (ug/L)	11096-82-5 (ug/L)	56-55-3 (ug/L)	50-32-8 (ug/L)	BJK (ug/L)
MW-30A	10/15/2018	W30A181015-1	< 0.00625 U	< 0.0125 U	< 0.00625 U	< 0.00625 U	< 0.00625 U	< 0.00625 U	< 0.00625 U	< 0.047 U	< 0.047 U	< 0.047 U
MW-47	10/17/2018	W47-181017-	< 0.00625 U	< 0.00625 U	< 0.00625 U	< 0.00625 U	< 0.00625 U	< 0.00625 U	< 0.00625 U	< 0.047 U	< 0.047 U	< 0.047 U
MW-62	12/3/2018	W62-181203-	< 0.00625 U	< 0.00625 U	< 0.00625 U	< 0.00625 U	< 0.00625 U	< 0.00625 U	< 0.00625 U	< 0.047 U	< 0.047 U	< 0.047 U
SW-E1	12/3/2018	SE1-181203-	0.00625 U	0.00625 U	0.00625 U	0.00625 U	0.00625 U	0.00625 U	0.00625 U	0.0472 U	0.0472 U	0.0472 U

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Site	Date	Sample ID	Benzo(G,H,I)-Perylene	Benzoic Acid	Benzyl Alcohol	Beta Bhc	Bis-(2-Chloroethoxy)-Methane	Bis(2-Chloroethyl)-Ether	Bis(2-Ethylhexyl)-Phthalate	Butyl-Benzyl-Phthalate	Chlordecone (Kepone)	Chlorobenzilate
			191-24-2 (ug/L)	65-85-0 (ug/L)	100-51-6 (ug/L)	319-85-7 (ug/L)	111-91-1 (ug/L)	111-44-4 (ug/L)	117-81-7 (ug/L)	85-68-7 (ug/L)	143-50-0 (ug/L)	510-15-6 (ug/L)
MW-30A	10/15/2018	W30A181015-1	< 0.047 U	< 9.4 U	< 4.7 U	< 0.005 U	< 0.47 U	< 0.47 U	57.7 DJ	< 0.94 U	< 4.7 GU	< 0.47 U
MW-47	10/17/2018	W47-181017-	< 0.047 U	< 9.4 U	< 4.7 U	< 0.005 U	< 0.47 U	< 0.47 U	11.9 DJ	< 0.94 U	< 4.7 GU	< 0.47 U
MW-62	12/3/2018	W62-181203-	< 0.047 U	< 9.6 U	< 4.8 U	< 0.005 U	< 0.48 U	< 0.48 U	2.83 J	< 0.94 U	< 4.8 GU	< 0.48 U
SW-E1	12/3/2018	SE1-181203-	0.0472 U	9.43 U	4.72 U	0.005 U	0.472 U	0.472 U	1.89	0.943 U	4.72 U	0.472 U

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Site	Date	Sample ID	Chlorophenols	Chloroprene	Chrysene	Cis-Diallate	Cygon	Delta Bhc	Diallate	Dibenzo(A,H)-Anthracene	Dibenzofuran	Dieldrin
			58-90-2 (ug/L)	126-99-8 (ug/L)	218-01-9 (ug/L)	17708-57-5 (ug/L)	60-51-5 (ug/L)	319-86-8 (ug/L)	2303-16-4 (ug/L)	53-70-3 (ug/L)	132-64-9 (ug/L)	60-57-1 (ug/L)
MW-30A	10/15/2018	W30A181015-1	< 0.94 U	< 0.1 U	< 0.047 U	< 0.038 U	< 0.094 U	< 0.005 U	< 0.038 U	< 0.047 U	< 0.47 U	< 0.005 U
MW-47	10/17/2018	W47-181017-	< 0.94 U	< 0.1 U	< 0.047 U	< 0.038 U	< 0.094 U	< 0.005 U	< 0.038 U	< 0.047 U	< 0.47 U	< 0.005 U
MW-62	12/3/2018	W62-181203-	< 0.96 U	< 0.1 U	< 0.047 U	< 0.038 U	< 0.094 U	< 0.005 U	< 0.038 U	< 0.047 U	< 0.48 U	< 0.005 U
SW-E1	12/3/2018	SE1-181203-	0.943 U	0.1 U	0.0472 U	0.0377 U	0.0943 U	0.005 U	0.0377 U	0.0472 U	0.472 U	0.005 U

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Site	Date	Sample ID	Diethyl-Phthalate	Dimethyl-Phthalate	Di-N-Butylphthalate	Di-N-Octyl Phthalate	Dinoseb	Diphenylamine	Disulfoton	Endosulfan I	Endosulfan Ii	Endosulfan Sulfate
			84-66-2 (ug/L)	131-11-3 (ug/L)	84-74-2 (ug/L)	117-84-0 (ug/L)	88-85-7 (ug/L)	122-39-4 (ug/L)	298-04-4 (ug/L)	959-98-8 (ug/L)	33213-65-9 (ug/L)	1031-07-8 (ug/L)
MW-30A	10/15/2018	W30A181015-1	< 0.94 U	< 0.94 U	< 0.94 U	< 0.94 U	< 0.025 U	< 0.47 U	< 0.038 U	< 0.005 U	< 0.005 U	< 0.005 U
MW-47	10/17/2018	W47-181017-	< 0.94 U	< 0.94 U	< 0.94 U	< 0.94 U	< 0.0248 U	< 0.47 U	< 0.038 U	< 0.005 U	< 0.005 U	< 0.005 U
MW-62	12/3/2018	W62-181203-	< 0.94 U	< 0.94 U	< 0.94 U	< 0.94 U	< 0.025 U	< 0.48 U	< 0.038 U	< 0.005 U	< 0.005 U	< 0.005 U
SW-E1	12/3/2018	SE1-181203-	0.943 U	0.943 U	0.943 U	0.943 U	0.025 U	0.472 U	0.0377 U	0.005 U	0.005 U	0.005 U

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Site	Date	Sample ID	Endrin	Endrin Aldehyde	Ethyl Methacrylate	Ethyl Methane Sulfonate	Famphur	Fluoranthene	Fluorene	Heptachlor	Heptachlor Epoxide	Hexachloro-Benzene
			72-20-8 (ug/L)	7421-93-4 (ug/L)	97-63-2 (ug/L)	62-50-0 (ug/L)	52-85-7 (ug/L)	206-44-0 (ug/L)	86-73-7 (ug/L)	76-44-8 (ug/L)	1024-57-3 (ug/L)	118-74-1 (ug/L)
MW-30A	10/15/2018	W30A181015-1	< 0.005 U	< 0.005 U	< 0.1 U	< 0.47 U	< 0.038 U	< 0.047 U	< 0.047 U	< 0.005 U	< 0.005 U	< 0.19 U
MW-47	10/17/2018	W47-181017-	< 0.005 U	< 0.005 U	< 0.1 U	< 0.47 U	< 0.038 U	< 0.047 U	< 0.047 U	< 0.005 U	< 0.005 U	< 0.19 U
MW-62	12/3/2018	W62-181203-	< 0.005 U	< 0.005 U	< 0.1 U	< 0.48 U	< 0.038 U	< 0.047 U	< 0.047 U	< 0.005 U	< 0.005 U	< 0.19 U
SW-E1	12/3/2018	SE1-181203-	0.005 U	0.005 U	0.1 U	0.472 U	0.0377 U	0.0472 U	0.0472 U	0.005 U	0.005 U	0.189 U

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Site	Date	Sample ID	Hexachloro-Butadiene	Hexachloro-Cyclo-Pentadiene	Hexachloro-Ethane	Hexachloro-Propene	Indeno(1,2,3-C,D)-Pyrene	Isodrin	Isophorone	Isosafrole	Lindane (Gamma Bhc)	M-Dinitrobenzene
			87-68-3	77-47-4	67-72-1	1888-71-7	193-39-5	465-73-6	78-59-1	120-58-1	58-89-9	99-65-0
			(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
MW-30A	10/15/2018	W30A181015-1	< 1.9 U	< 4.7 U	< 4.7 U	< 1.9 U	< 0.047 U	< 0.005 U	< 0.47 U	< 0.47 U	< 0.005 U	< 0.94 U
MW-47	10/17/2018	W47-181017-	< 1.9 U	< 4.7 U	< 4.7 U	< 1.9 U	< 0.047 U	< 0.005 U	< 0.47 U	< 0.47 U	< 0.005 U	< 0.94 U
MW-62	12/3/2018	W62-181203-	< 1.9 U	< 4.8 U	< 4.8 U	< 1.9 U	< 0.047 U	< 0.005 U	< 0.48 U	< 0.48 U	< 0.005 U	< 0.96 U
SW-E1	12/3/2018	SE1-181203-	1.89 U	4.72 U	4.72 U	1.89 U	0.0472 U	0.005 U	0.472 U	0.472 U	0.005 U	0.943 U

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Site	Date	Sample ID	Methapyrilene	Methoxychlor	Methyl Methacrylate	Methyl Methane-Sulfonate	Methyl Parathion	Methylacrylonitrile	Naphthalene	Nitrobenzene	N-Nitroso-Diethylamine	N-Nitroso-Dimethylamine
			91-80-5 (ug/L)	72-43-5 (ug/L)	80-62-6 (ug/L)	66-27-3 (ug/L)	298-00-0 (ug/L)	126-98-7 (ug/L)	91-20-3 (ug/L)	98-95-3 (ug/L)	55-18-5 (ug/L)	62-75-9 (ug/L)
MW-30A	10/15/2018	W30A181015-1	< 47 U	< 0.025 U	< 0.25 U	< 0.47 U	< 0.038 U	< 0.1 U	< 0.024 U	< 0.47 U	< 0.47 U	< 0.47 U
MW-47	10/17/2018	W47-181017-	< 47 U	< 0.025 U	< 0.25 U	< 0.47 U	< 0.038 U	< 0.1 U	< 0.024 U	< 0.47 U	< 0.47 U	< 0.47 U
MW-62	12/3/2018	W62-181203-	< 48 U	< 0.025 U	< 0.25 U	< 0.48 U	< 0.038 U	< 0.1 U	< 0.024 U	< 0.48 U	< 0.48 U	< 0.48 U
SW-E1	12/3/2018	SE1-181203-	47.2 GU	0.025 U	0.25 U	0.472 U	0.0377 U	0.1 U	0.0236 U	0.472 U	0.472 U	0.472 U

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Site	Date	Sample ID	N-Nitrosodi-N-Butylamine	N-Nitroso-Diphenylamine	N-Nitroso-Dipropylamine	N-Nitroso-Methyl-Ethalamine	N-Nitroso-Piperidine	N-Nitroso-Pyrrolidine	O,O,O-Triethyl Phosphoro-Thioate	O,O-Diethyl O-Pyrazinyl Phosphoro-Thioate	O-Toluidine
			924-16-3 (ug/L)	86-30-6 (ug/L)	621-64-7 (ug/L)	10595-95-6 (ug/L)	100-75-4 (ug/L)	930-55-2 (ug/L)	126-68-1 (ug/L)	297-97-2 (ug/L)	95-53-4 (ug/L)
MW-30A	10/15/2018	W30A181015-1	< 0.47 U	< 0.47 U	< 0.47 U	< 0.47 U	< 0.94 U	< 0.94 U	< 0.038 U	< 0.038 U	< 0.094 U
MW-47	10/17/2018	W47-181017-	< 0.47 U	< 0.47 U	< 0.47 U	< 0.47 U	< 0.94 U	< 0.94 U	< 0.038 U	< 0.038 U	< 0.094 U
MW-62	12/3/2018	W62-181203-	< 0.48 U	< 0.48 U	< 0.48 U	< 0.48 U	< 0.96 U	< 0.96 U	< 0.038 U	< 0.038 U	< 0.096 U
SW-E1	12/3/2018	SE1-181203-	0.472 U	0.472 U	0.472 U	0.472 U	0.943 U	0.943 U	0.0377 U	0.0377 U	0.0943 U

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Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Parathion	P-Chloroaniline	Pentachloro-Benzene	Pentachloronitrobenzene	Pentachlorophenol	Phenacetin	Phenanthrene	Phenol	Phentermine	Phorate
			56-38-2 (ug/L)	106-47-8 (ug/L)	608-93-5 (ug/L)	82-68-8 (ug/L)	87-86-5 (ug/L)	62-44-2 (ug/L)	85-01-8 (ug/L)	108-95-2 (ug/L)	122-09-8 (ug/L)	298-02-2 (ug/L)
MW-30A	10/15/2018	W30A181015-1	< 0.038 U	< 0.94 U	< 0.47 U	< 0.47 U	< 1.9 GU	< 0.47 U	< 0.047 U	< 0.47 U	< 19 GU	< 0.038 U
MW-47	10/17/2018	W47-181017-	< 0.038 U	< 0.94 U	< 0.47 U	< 0.47 U	< 1.9 GU	< 0.47 U	< 0.047 U	< 0.47 U	< 19 GU	< 0.038 U
MW-62	12/3/2018	W62-181203-	< 0.038 U	< 0.96 U	< 0.48 U	< 0.48 U	< 1.9 GU	< 0.48 U	< 0.047 U	< 0.48 U	< 19 GU	< 0.038 U
SW-E1	12/3/2018	SE1-181203-	0.0377 U	0.943 U	0.472 U	0.472 U	1.89 U	0.472 U	0.0472 U	0.472 U	18.9 GU	0.0377 U

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Groundwater Appendix III Analytical Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	P-Phenylene-Diamine	Proprionitrile	Propyzamide	Pyrene	Safrole	Total Aroclors	Toxaphene	Trans-Chlordane	Trans-Diallate
			106-50-3 (ug/L)	107-12-0 (ug/L)	23950-58-5 (ug/L)	129-00-0 (ug/L)	94-59-7 (ug/L)	T_AROCLOR (ug/L)	8001-35-2 (ug/L)	5103-74-2 (ug/L)	17708-58-6 (ug/L)
MW-30A	10/15/2018	W30A181015-1	< 19 GU	< 0.5 U	< 0.038 U	< 0.047 U	< 0.94 U	< 0.0125 U	< 0.5 U	< 0.005 U	< 0.038 U
MW-47	10/17/2018	W47-181017-	< 19 GU	< 0.5 U	< 0.038 U	< 0.047 U	< 0.94 U	< 0.00625 U	< 0.5 U	< 0.005 U	< 0.038 U
MW-62	12/3/2018	W62-181203-	< 19 GU	< 0.5 U	< 0.038 U	< 0.047 U	< 0.96 U	< 0.00625 U	< 0.5 U	< 0.005 U	< 0.038 U
SW-E1	12/3/2018	SE1-181203-	18.9 GU	0.5 U	0.0377 U	0.0472 U	0.943 U	0.00625 U	0.5 U	0.005 U	0.0377 U

Storm and Surface Water Field and Analytical Data

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Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Stormwater Elevation Data
Contact Person: Sendy Jimenez (206) 477-5224

Staff Gage	Location	Date	Reference Elevation Staff Gage 0' (msl)	Staff Gage Reading (feet)	Reference Elevation Top of Peizo (msl)	Depth to Water (Peizometer) (feet)	Surface Water Elevation (msl)
SW-G1	SW-W1	9/27/2018	415.38	0.68	418.84	--	416.06
SW-G2	SW-N1	9/27/2018	355.68	--	358.21	3.59	354.62
SW-G3	SW -V	9/27/2018	466.46	--	469.88	5.38	464.50
SW-G4	Upstream of SW-E1	9/27/2018	502.41	--	505.85	6.25	499.60
SW-G5	SW-E1	9/27/2018	486.92	--	490.34	5.34	485.00
SW-G6	Upstream of SW-GS1	9/27/2018	490.72	--	494.12	7.24	486.88
SW-G7	SW-S2	9/27/2018	453.03	--	456.41	8.87	447.54
SW-G8	Upstream of SW-S1	9/27/2018	510.61	--	515.56	4.75	510.81
SW-G9	SW-S1	9/27/2018	490.93	--	494.35	6.39	487.96

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Stormwater Elevation Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	pH (Field) (std. Units)	Conductance (Field) (umho/cm)	Temperature (^{o}C)	Turbidity (NTU)	Oxygen, Dissolved (mg/L)
SW-E1	12/3/2018	SE1-181203-	5.89	46.4	6.67	13.5	3.16
SW-GS1	10/9/2018	SGS1181009P	6.78	182.7	13.41	13	7.16
SW-N4	10/9/2018	SN4-181009P	6.98	191.6	13.04		9.79
SW-SL3	10/9/2018	SSL3181009P	6.79	168.1	12.73		7.61

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Stormwater Conventional Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Ammonia, (NH3) (mg/L)	Biological Oxygen Demand (mg/L)	Total Suspended Solids (mg/L)	Copper, total (mg/L)	Zinc, total (mg/L)

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Stormwater VOAs Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	3-4-Methyl-phenol 106-44-5 (ug/L)	Alpha Terpineol 98-55-5 (ug/L)	Benzoic Acid 65-85-0 (ug/L)	Phenol 108-95-2 (ug/L)
SW-GS1	10/9/2018	SGS1181009P	0.476 U	0.476 U	9.52 U	0.476 U
SW-N4	10/9/2018	SN4-181009P	0.5 U	0.5 U	10 U	0.5 U
SW-SL3	10/9/2018	SSL3181009P	0.5 U	0.5 U	10 U	0.5 U

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Surface Water Stn. E Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,2,3-Trichloropropane	1,2-Dibromo-3-Chloropropane	1,2-Dibromoethane	1,2-Dichlorobenzene
			630-20-6	71-55-6	79-34-5	79-00-5	75-34-3	75-35-4	96-18-4	96-12-8	106-93-4	95-50-1
			ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
			N	N	N	N	N	N	N	N	N	N
SW-E1	SE1-181203-	12/3/18 8:30 AM	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Surface Water Stn. E Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	1,2-Dichloroethane	1,2-Dichloropropane	1,4-Dichlorobenzene	2-Butanone	2-Hexanone	4-Methyl-2-Pentanone	Acetone	Acrylonitrile	Alkalinity, Total (As CaCO3)	Ammonia As N	Antimony	Antimony
			107-06-2	78-87-5	106-46-7	78-93-3	591-78-6	108-10-1	67-64-1	107-13-1	ALK	7664-41-7	7440-36-0	7440-36-0
			ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	mg/l	mg/l	mg/l	mg/l
			N	N	N	N	N	N	N	N	N	N	D	T
SW-E1	SE1-181203-	12/3/18 8:30 AM	0.1 U	0.1 U	0.1 U	0.25 U	0.5 U	2.5 U	2.5 U	0.035 U	12.3	0.0068 T	0.0003 U	0.0003 U

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Surface Water Stn. E Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Arsenic	Arsenic	Barium	Barium	Benzene	Beryllium	Beryllium	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane
			7440-38-2	7440-38-2	7440-39-3	7440-39-3	71-43-2	7440-41-7	7440-41-7	74-97-5	75-27-4	75-25-2	74-83-9
			mg/l	mg/l	mg/l	mg/l	ug/l	mg/l	mg/l	ug/l	ug/l	ug/l	ug/l
			D	T	D	T	N	D	T	N	N	N	N
SW-E1	SE1-181203-	12/3/18 8:30 AM	0.00019	0.000433	0.00373	0.00984	0.1 U	0.0001 U	0.0001 U	0.1 U	0.25 U	0.5 U	0.1 U

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Surface Water Stn. E Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Cadmium	Cadmium	Calcium	Calcium	Carbon Disulfide	Carbon Tetrachloride	Chloride	Chlorobenzene	Chlorodibromomethane	Chloroethane	Chloroform
			7440-43-9	7440-43-9	7440-70-2	7440-70-2	75-15-0	56-23-5	16887-00-6	108-90-7	124-48-1	75-00-3	67-66-3
			mg/l	mg/l	mg/l	mg/l	ug/l	ug/l	mg/l	ug/l	ug/l	ug/l	ug/l
			D	T	D	T	N	N	N	N	N	N	N
SW-E1	SE1-181203-	12/3/18 8:30 AM	5E-05 U	5E-05 U	4.66	5.08	0.1 U	0.25 U	2.03	0.1 U	0.5 U	0.1 U	0.1 U

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Surface Water Stn. E Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Chloromethane	Chromium	Chromium	Cis-1,2-Dichloroethene	Cis-1,3-Dichloropropene	Cobalt	Cobalt	Copper	Copper
			74-87-3	7440-47-3	7440-47-3	156-59-2	10061-01-5	7440-48-4	7440-48-4	7440-50-8	7440-50-8
			ug/l	mg/l	mg/l	ug/l	ug/l	mg/l	mg/l	mg/l	mg/l
			N	D	T	N	N	D	T	D	T
SW-E1	SE1-181203-	12/3/18 8:30 AM	0.25 U	0.000207	0.000854	0.1 U	0.25 U	5E-05 U	0.000398	0.000973	0.00193

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Surface Water Stn. E Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Dibromomethane	Dichlorodifluoromethane	Ethylbenzene	Iron	Iron	Lead	Lead	M & P Xylene	Magnesium	Magnesium	Manganese	Manganese
			74-95-3	75-71-8	100-41-4	7439-89-6	7439-89-6	7439-92-1	7439-92-1	MPX	7439-95-4	7439-95-4	7439-96-5	7439-96-5
			ug/l	ug/l	ug/l	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l	mg/l	mg/l	mg/l
			N	N	N	D	T	D	T	N	D	T	D	T
SW-E1	SE1-181203-	12/3/18 8:30 AM	0.1 U	0.1 U	0.1 U	0.0489	0.519	0.0001 U	0.0007	0.1 U	1.05	1.11	0.0107	0.19

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Surface Water Stn. E Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Mercury	Mercury	Methyl Iodide	Methylene Chloride	Nickel	Nickel	Nitrate	O-Xylene	Potassium	Potassium
			7439-97-6	7439-97-6	74-88-4	75-09-2	7440-02-0	7440-02-0	14797-55-8	95-47-6	7440-09-7	7440-09-7
			mg/l	mg/l	ug/l	ug/l	mg/l	mg/l	mg/l	ug/l	mg/l	mg/l
			D	T	N	N	D	T	N	N	D	T
SW-E1	SE1-181203-	12/3/18 8:30 AM	5E-05 U	5E-05 U	0.1 U	2.5 U	0.000258	0.000995	0.231	0.1 U	0.536	0.578

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Surface Water Stn. E Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Selenium	Selenium	Silver	Silver	Sodium	Sodium	Specific Conductance	Styrene	Sulfate	Tetrachloroethene
			7782-49-2	7782-49-2	7440-22-4	7440-22-4	7440-23-5	7440-23-5	COND	100-42-5	14808-79-8	127-18-4
			mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	umhos/cm	ug/l	mg/l	ug/l
			D	T	D	T	D	T	N	N	N	N
SW-E1	SE1-181203-	12/3/18 8:30 AM	0.0005 U	0.0005 U	4E-05 U	4E-05 U	2.29	2.3	45.2	0.1 U	3.55	0.1 U

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Surface Water Stn. E Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Thallium	Thallium	Toluene	Total Dissolved Solids	Total Organic Carbon	Total Solids	Total Suspended Solids	Trans-1,2-Dichloroethene	Trans-1,3-Dichloropropene	Trans-1,4-Dichloro-2-Butene
			7440-28-0	7440-28-0	108-88-3	TDS	TOC	TS	TSS	156-60-5	10061-02-6	110-57-6
			mg/l	mg/l	ug/l	mg/l	mg/l	mg/l	mg/l	ug/l	ug/l	ug/l
			D	T	N	N	N	N	N	N	N	N
SW-E1	SE1-181203-	12/3/18 8:30 AM	0.0001 U	0.0001 U	0.1 U	53.4	7.16	74.4	18.5	0.1 U	0.5 U	0.5 U

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Surface Water Stn. E Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Trichloroethene	Trichlorofluoromethane	Vanadium	Vanadium	Vinyl Acetate	Vinyl Chloride	Zinc	Zinc
			79-01-6	75-69-4	7440-62-2	7440-62-2	108-05-4	75-01-4	7440-66-6	7440-66-6
			ug/l	ug/l	mg/l	mg/l	ug/l	ug/l	mg/l	mg/l
			N	N	D	T	N	N	D	T
SW-E1	SE1-181203-	12/3/18 8:30 AM	0.1 U	0.1 U	0.000733	0.00185	0.1 U	0.01 U	0.00206	0.00763

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013
Cedar Hills Landfill --- Area 5 Top Deck Surface Water Monitoring Data
Contact Person: Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	pH (Field) (std. Units)	Conductance (Field) (umho/cm)	Temperature (Field) (oC)	Turbidity (Field) (NTU)	Alkalinity, Total (CaCO3) (mg/L)	Chemical Oxygen Demand (mg/L)	Chloride (mg/L)	Iron, dissolved (mg/L)	Iron, total (mg/L)	Sulfate (SO4) (mg/L)	Total Organic Carbon (mg/L)
SW-TD1	12/27/2018	STD1181227-	7.04	261.9	4.27	18.2	79.4	14 T	2.93	0.0216	0.789	42.8	5.81

Leachate Field and Analytical Data

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Leachate Monitoring Activities 4th Quarter 2018

Station ID	Date	Activity	Sample ID	Comment
LS-API	10/1/2018	Monthly Characterization Sample	LAPI181001M	
LS-API	11/6/2018	Monthly Characterization Sample	LAPI181106M	
LS-API	12/10/2018	Monthly Characterization Sample	LAPI181210M	
LS-CSW	10/2/2018	Special Investigation - Arsenic Speciation	LCSW181002I	
LS-CSW	11/7/2018	Special Investigation - Arsenic Speciation	LCSW181107I	
LS-CSW	12/11/2018	Special Investigation - Arsenic Speciation	LCSW181211I	
LS-LEPS	10/1/2018	Monthly Characterization Sample	LEPS181001M	
LS-LEPS	11/6/2018	Monthly Characterization Sample	LEPS181106M	
LS-LEPS	12/10/2018	Monthly Characterization Sample	LEPS181210M	
LS-LEPS	10/2/2018	Permit Sample	LEPS181001P	
LS-LEPS	10/30/2018	Permit Resample	LEPS181030R	
LS-LEPS	11/6/2018	Permit Sample	LEPS181106P	
LS-LEPS	11/13/2018	Permit Sample	LEPS181114P	
LS-LEPS	11/20/2018	Permit Sample	LEPS181120P	
LS-LEPS	11/27/2018	Permit Sample	LEPS181127P	
LS-LEPS	12/4/2018	Permit Sample	LEPS181204P	
LS-LEPS	12/11/2018	Permit Sample	LEPS181211P	
LS-LEPS	12/11/2018	QA/QC Sample	LEPS181211F	Field Blank
LS-LEPS	12/18/2018	Permit Sample	LEPS181218P	
LS-LEPS	12/24/2018	Permit Sample	LEPS181224P	
LS-LEPS	12/31/2018	Permit Sample	LEPS181231P	
LS-MH46N	10/2/2018	Monthly Characterization Sample	L46N181002M	
LS-MH46N	11/7/2018	Monthly Characterization Sample	L46N181107M	
LS-MH46N	12/11/2018	Monthly Characterization Sample	L46N181211M	
LS-MH5	10/2/2018	Special Investigation - Arsenic Speciation	LMH5181002I	
LS-MH5	11/7/2018	Special Investigation - Arsenic Speciation	LMH5181107I	
LS-MH5	12/11/2018	Special Investigation - Arsenic Speciation	LMH5181211I	
LS-PS1A	10/2/2018	Special Investigation	LP1A181002I	
LS-PS1A	11/7/2018	Special Investigation	LP1A181107I	
LS-PS1A	12/11/2018	Special Investigation	LP1A181211I	
LS-PS2A	10/2/2018	Monthly Characterization Sample	LP2A181002M	
LS-PS2A	11/6/2018	Monthly Characterization Sample	LP2A181107M	
LS-PS2A	12/11/2018	Monthly Characterization Sample	LP2A181211M	
LS-PS4	10/2/2018	Special Investigation	LP4-181002I	
LS-PS4	11/7/2018	Special Investigation	LP4-181107I	
LS-PS4	12/11/2018	Special Investigation	LP4-181211I	

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Leachate Field Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	pH (Field) (std. Units)	Conductance (Field) (umho/cm)	Temperature (o C)
LS-API	10/1/2018	LAPI181001M	8.36	5800	18
LS-API	11/6/2018	LAPI181106M	7.65	8000	18.2
LS-API	12/10/2018	LAPI181210M	8.17	3200	12
LS-CSW	10/2/2018	LCSW181002I	7.95	1100	14.1
LS-CSW	11/7/2018	LCSW181107I	8.32	220	13.9
LS-CSW	12/11/2018	LCSW181211I	6.56	305	6.9
LS-LEPS	10/1/2018	LEPS181001M	8.9	11000	15.8
LS-LEPS	10/1/2018	LEPS181001P	8.9	11000	15.8
LS-LEPS	10/30/2018	LEPS181030R	8.25	6700	11.3
LS-LEPS	11/6/2018	LEPS181106M	8.2	6650	11.1
LS-LEPS	11/6/2018	LEPS181106P	8.2	6650	11.1
LS-LEPS	11/13/2018	LEPS181114P	8.35	5600	8.3
LS-LEPS	11/20/2018	LEPS181120P	8.18	7100	16.8
LS-LEPS	11/27/2018	LEPS181127P	7.81	3700	14
LS-LEPS	12/4/2018	LEPS181204P	8.48	4000	4.5
LS-LEPS	12/10/2018	LEPS181210M	8.25	4600	10
LS-LEPS	12/10/2018	LEPS181210P	8.25	4600	10
LS-LEPS	12/18/2018	LEPS181218P	8.16	3800	10.3
LS-LEPS	12/24/2018	LEPS181224P	8.2	2400	11.4
LS-LEPS	12/31/2018	LEPS181231P	8.38	3700	5
LS-MH46N	10/2/2018	L46N181002M	7.41	13000	22.7
LS-MH46N	11/7/2018	L46N181107M	7.53	10700	22.6
LS-MH46N	12/11/2018	L46N181211M	7.41	8850	20.5
LS-MH5	10/2/2018	LMH5181002I	8.31	19500	29.1
LS-MH5	11/7/2018	LMH5181107I	7.16	18000	26.5
LS-MH5	12/11/2018	LMH5181211I	8.27	17000	30.7
LS-PS1A	10/2/2018	LP1A181002I	8.14	6400	16.8
LS-PS1A	11/7/2018	LP1A181107I	6.59	790	13
LS-PS1A	12/11/2018	LP1A181211I	7.38	1900.0	13.3
LS-PS2A	10/2/2018	LP2A181002M	7.51	200.0	15.1
LS-PS2A	11/7/2018	LP2A181107M	7.7	130.0	12.2
LS-PS2A	12/11/2018	LP2A181211M	7.47	135.0	10.3
LS-PS4	10/2/2018	LP4-181002I	7.99	1400.0	16.2
LS-PS4	11/7/2018	LP4-181107I	8.25	1400.0	14.3
LS-PS4	12/11/2018	LP4-181211I	7.57	850.0	11.2
FIELD BLANK	12/11/2018	LEPS181211F	8.92	1.8	7.8

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Leachate Conventional Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Alkalinity, Total (CaCO3) (mg/L)	Ammonia, (NH3 as N) (mg/L)	Biological Oxygen Demand (mg/L)	Chemical Oxygen Demand (mg/L)	Chloride (mg/L)	Coliforms, Fecal (CFU/100mL)	Coliforms, Total (CFU/100mL)	Cyanide (mg/L)	Fluoride (mg/L)	Nitrate+Nitrite (NO3+NO2 as N) (mg/L)
LS-API	10/1/2018	LAPI181001M	8290	527	2230	6170 S	2100	520000 H	5200000 H	0.024 ST	1 U	0.448
LS-API	11/6/2018	LAPI181106M	2580 S	537	590 S	1830	653 S	30000	350000	0.008 SU	0.4 SU	0.462
LS-API	12/10/2018	LAPI181210M	6080	1080	1510	4260 S	1720	190	530000	0.02 ST	2 U	0.44 T
LS-LEPS	10/1/2018	LEPS181001M	6260	1060	199	2070 S	1960	8600 H	75000 H	0.019 ST	1.83	1.22
LS-LEPS	11/6/2018	LEPS181106M	2150 S	400	83.6 S	1670 S	951 S	1900	9400	0.022 ST	0.8 ST	160
LS-LEPS	12/10/2018	LEPS181210M	2360	393	292	1390	693	23000 CH	150000 H	0.013 ST	1 U	31.7
LS-MH46N	10/2/2018	L46N181002M	3820	747	86.2	2230	2350	3	2200	0.012 ST	2.5 T	0.1 U
LS-MH46N	11/7/2018	L46N181107M	3830 S	745	109 S	2320 S	2270 S	8	5400	0.013 ST	2.7 S	0.13 T
LS-MH46N	12/11/2018	L46N181211M	3650	723	77.6	2170	2430	16000 R	13000 R	0.018 ST	2 U	0.13 T
LS-PS2A	10/2/2018	LP2A181002M	57.9	6.01	6.49	23	7.59	2	1800	0.008 U	0.0748	2.31
LS-PS2A	11/7/2018	LP2A181107M	27 S	1.17	3.21 S	30.6	2.8 S	5	900 CU	0.008 SU	0.0751 S	1.75
LS-PS2A	12/11/2018	LP2A181211M	36.9	1.61	4.63	23.7	3.02	1 U	170	0.008 U	0.0566	0.97

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Leachate Conventional Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Phosphorus, Sol. Reactive (mg/L)	Specific Conductance (umho/cm)	Sulfate (SO4) (mg/L)	Sulfide Total (mg/L)	Total Fats, Oils and Grease (mg/L)	Total Kjeldahl Nitrogen (mg/L)	Total Organic Carbon (mg/L)	Total Suspended Solids (mg/L)	Total Volatile Solids (mg/L)	Volatile Suspended Solids (mg/L)
LS-API	10/1/2018	LAPI181001M	2.66	19400	27.1	0.31 T	15.1 B	1830 S	2190 S	65.1	4750	51.5
LS-API	11/6/2018	LAPI181106M	2.52	6800 S	26.1 S	0.12 T	3.4 BST	573 S	480 ST	38.5 HS	1320	15.5 HS
LS-API	12/10/2018	LAPI181210M	6.51	14400	19.7	0.637	4.7 T	1340 S	1390 S	27	3000	17
LS-LEPS	10/1/2018	LEPS181001M	1.74	15000	77.8	0.22 T	3 BT	1140 S	583 S	660	2870	526
LS-LEPS	11/6/2018	LEPS181106M	1.19	7790 S	48.3 S	2.5 U	1.5 BST	452 S	369 S	429 HS	1500	314 HS
LS-LEPS	12/10/2018	LEPS181210M	1.43	5880	29.2	0.96 T	1.5 GU	444	388 S	132	1150	108
LS-MH46N	10/2/2018	L46N181002M	2.93	13300	1 U	1.17	8.2 B	828	786 S	0.91 T	1790	0.96 T
LS-MH46N	11/7/2018	L46N181107M	3.72	13300 S	2 SU	1.01	3.9 BST	790 S	696 S	0.74 ST	1520	1.05 S
LS-MH46N	12/11/2018	L46N181211M	3.38	12500	1.2 T	1.08	2.3 T	765	722 S	1.5	1560	1.2
LS-PS2A	10/2/2018	LP2A181002M	0.0094 T	228	18.5	0.012 T	3.1 BT	7.26	11.1	1.61	66.8	1.56
LS-PS2A	11/7/2018	LP2A181107M	0.0226	129 S	13.1 S	0.01 U	1.4 SU	1.98 S	11.9 S	3.4 S	47.7	2 S
LS-PS2A	12/11/2018	LP2A181211M	0.0135	135	12.4	0.022 T	1.5 U	2.3	11.5	3.7	54.3	2.2

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Leachate Metals Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Aluminum, total (mg/L)	Antimony, total (mg/L)	Arsenic, total (mg/L)	Barium, total (mg/L)	Beryllium, total (mg/L)	Cadmium, total (mg/L)	Calcium, total (mg/L)	Chromium, total (mg/L)	Cobalt, total (mg/L)	Copper, total (mg/L)
LS-API	10/1/2018	LAPI181001M	1.75	0.028	0.369	0.288	0.001 U	0.0005 U	63	0.278	0.0564	0.00941
LS-API	11/6/2018	LAPI181106M	1.99	0.0106	0.122	0.117	0.001 U	0.0005 U	37.2	0.0881	0.02	0.018
LS-API	12/10/2018	LAPI181210M	1.07	0.0154	0.226	0.234	0.001 U	0.0005 U	55.8	0.21	0.0422	0.0087
LS-CSW	10/2/2018	LCSW181002I	0.582	0.003 U	0.0177	0.0268	0.001 U	0.0005 U	45.3	0.0118	0.00441	0.00502
LS-CSW	11/7/2018	LCSW181107I	4.01	0.003 U	0.0035	0.0333	0.001 U	0.0005 U	29.7	0.00648	0.00348	0.0167
LS-CSW	12/11/2018	LCSW181211I	3.92	0.003 U	0.00412	0.0428	0.001 U	0.0005 U	30.5	0.00811	0.00297	0.0172
LS-LEPS	10/1/2018	LEPS181001P	2	0.0282	0.347	0.245	0.001 U	0.0005 U	66.1	0.231	0.0522	0.0127
LS-LEPS	10/30/2018	LEPS181030R	1.97	0.0229	0.264	0.224	0.001 U	0.0005 U	68.1	0.173	0.0423	0.0202
LS-LEPS	11/6/2018	LEPS181106P	1.51	0.0156	0.176	0.154	0.001 U	0.0005 U	51.4	0.126	0.0297	0.018
LS-LEPS	11/13/2018	LEPS181114P	1.5	0.0117	0.133	0.138	0.001 U	0.0005 U	48.4	0.0974	0.0238	0.0159
LS-LEPS	11/20/2018	LEPS181120P	0.949	0.0129	0.147	0.139	0.001 U	0.0005 U	49.6	0.108	0.0248	0.0134
LS-LEPS	11/27/2018	LEPS181127P	0.953	0.00965	0.102	0.104	0.001 U	0.0005 U	38.4	0.0803	0.0171	0.0127
LS-LEPS	12/4/2018	LEPS181204P	1.07	0.00589	0.0657	0.0757	0.001 U	0.0005 U	39	0.0512	0.0122	0.0113
LS-LEPS	12/10/2018	LEPS181210P	0.728	0.0104	0.107	0.11	0.001 U	0.0005 U	38.1	0.086	0.0183	0.0108
LS-LEPS	12/18/2018	LEPS181218P	0.971	0.00906	0.0954	0.0968	0.001 U	0.0005 U	37.7	0.0713	0.0157	0.0115
LS-LEPS	12/24/2018	LEPS181224P	0.61 J	0.00808	0.087	0.0854	0.001 U	0.0005 U	34.3	0.068	0.0149	0.00972
LS-LEPS	12/31/2018	LEPS181231P	0.533	0.0084	0.0861	0.0804	0.001 U	0.0005 U	34.4	0.0573	0.0138	0.0102
LS-MH46N	10/2/2018	L46N181002M	0.05 U	0.003 U	0.106	0.601	0.001 U	0.0005 U	96.6	0.137	0.0429	0.002 U
LS-MH46N	11/7/2018	L46N181107M	0.05 U	0.003 U	0.106	0.586	0.001 U	0.0005 U	95.5	0.138	0.0439	0.002 U
LS-MH46N	12/11/2018	L46N181211M	0.05 U	0.003 U	0.101	0.574	0.001 U	0.0005 U	95.2	0.141	0.0411	0.002 U
LS-MH5	10/2/2018	LMH5181002I	0.7	0.0155	0.326	0.451	0.001 U	0.0005 U	58.5	0.267	0.0721	0.0049
LS-MH5	11/7/2018	LMH5181107I	1.81	0.016	0.335	0.545	0.001 U	0.0005 U	86.9	0.226	0.069	0.0065
LS-MH5	12/11/2018	LMH5181211I	0.893	0.0119	0.279	0.434	0.001 U	0.0005 U	69.5	0.231	0.0628	0.00681
LS-PS1A	10/2/2018	LP1A181002I	0.361	0.032	0.201	0.239	0.001 U	0.0005 U	57.8	0.0499	0.0236	0.0103
LS-PS1A	11/7/2018	LP1A181107I	0.0789	0.003 U	0.0134	0.0267	0.001 U	0.0005 U	18.7	0.00498	0.00226	0.0116
LS-PS1A	12/11/2018	LP1A181211I	0.0992	0.00656	0.0272	0.0636	0.001 U	0.0005 U	29.5	0.0115	0.00506	0.0105
LS-PS2A	10/2/2018	LP2A181002M	0.0521	0.003 U	0.00236	0.00871	0.001 U	0.0005 U	14.9	0.002 U	0.000827	0.0164
LS-PS2A	11/7/2018	LP2A181107M	0.117	0.003 U	0.00194	0.00533	0.001 U	0.0005 U	10.8	0.00261	0.00061	0.0302
LS-PS2A	12/11/2018	LP2A181211M	0.101	0.003 U	0.00176	0.00554	0.001 U	0.0005 U	11.2	0.00236	0.000582	0.0235
LS-PS4	10/2/2018	LP4-181002I	3.2	0.00437	0.0222	0.0845	0.001 U	0.0005 U	37	0.0189	0.00577	0.0226
LS-PS4	11/7/2018	LP4-181107I	3.82	0.003 U	0.0227	0.0665	0.001 U	0.0005 U	33.5	0.0186	0.00591	0.0196
LS-PS4	12/11/2018	LP4-181211I	2.93	0.003 U	0.0163	0.0589	0.001 U	0.0005 U	26.2	0.0107	0.00351	0.0137

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Leachate Metals Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Iron, total (mg/L)	Lead, total (mg/L)	Magnesium, total (mg/L)	Manganese, total (mg/L)	Mercury, total (mg/L)	Nickel, total (mg/L)	Potassium, total (mg/L)	Selenium, total (mg/L)	Silver, total (mg/L)	Sodium, total (mg/L)
LS-API	10/1/2018	LAPI181001M	8.26	0.00331	92.3	0.762	0.0001 U	0.221	713	0.005 U	0.0004 U	2040
LS-API	11/6/2018	LAPI181106M	4.31	0.00262	32.2	0.452	0.0001 U	0.0817	216	0.005 U	0.0004 U	620
LS-API	12/10/2018	LAPI181210M	4.42	0.00276	71.6	0.487	0.0001 U	0.176	515	0.005 U	0.0004 U	1470
LS-CSW	10/2/2018	LCSW181002I	1.31	0.001 U	9.05	0.228	0.0001 U	0.0161	38	0.005 U	0.0004 U	92.3
LS-CSW	11/7/2018	LCSW181107I	5.04	0.00186	4.56	0.204	0.0001 U	0.0101	4.67	0.005 U	0.000992	8.39
LS-CSW	12/11/2018	LCSW181211I	6.2	0.00266	9.58	0.37	0.0001 U	0.0114	9.04	0.005 U	0.0004 U	16.2
LS-LEPS	10/1/2018	LEPS181001P	8.06	0.0046	90.4	0.961	0.0001 U	0.205	657	0.005 U	0.0004 U	1880
LS-LEPS	10/30/2018	LEPS181030R	7.29	0.00635	69	1.09	0.0001 U	0.165	481	0.005 U	0.0004 U	1380
LS-LEPS	11/6/2018	LEPS181106P	5.2	0.00418	47.7	0.727	0.0001 U	0.117	318	0.005 U	0.0004 U	927
LS-LEPS	11/13/2018	LEPS181114P	4.55	0.00352	37.5	0.655	0.0001 U	0.0921	246	0.005 U	0.0004 U	701
LS-LEPS	11/20/2018	LEPS181120P	4.28	0.00315	40.6	0.623	0.0001 U	0.0944	275	0.005 U	0.0004 U	785
LS-LEPS	11/27/2018	LEPS181127P	3.63	0.00236	30.6	0.497	0.0001 U	0.0688	193	0.005 U	0.0004 U	562
LS-LEPS	12/4/2018	LEPS181204P	2.84	0.00212	22.5	0.492	0.0001 U	0.0481	134	0.005 U	0.0004 U	363
LS-LEPS	12/10/2018	LEPS181210P	3.02	0.00194	31.3	0.447	0.0001 U	0.0747	202	0.005 U	0.0004 U	574
LS-LEPS	12/18/2018	LEPS181218P	3.33	0.00261	27.7	0.444	0.0001 U	0.0657	184	0.005 U	0.0004 U	517
LS-LEPS	12/24/2018	LEPS181224P	2.63	0.00166	26.1	0.4	0.0001 U	0.0604	171	0.005 U	0.0004 U	484
LS-LEPS	12/31/2018	LEPS181231P	2.48	0.00136	23.7	0.379	0.0001 U	0.0581	161	0.005 U	0.0004 U	425
LS-MH46N	10/2/2018	L46N181002M	2.61	0.001 U	60.8	0.477	0.0001 U	0.178	450	0.005 U	0.0004 U	1630
LS-MH46N	11/7/2018	L46N181107M	2.52	0.001 U	57.3	0.483	0.0001 U	0.183	445	0.005 U	0.0004 U	1550
LS-MH46N	12/11/2018	L46N181211M	2.7	0.001 U	57.6	0.469	0.0001 U	0.173	438	0.005 U	0.0004 U	1510
LS-MH5	10/2/2018	LMH5181002I	4.36	0.00316	102	0.334	0.0001 U	0.283	816	0.005 U	0.0004 U	2700 D
LS-MH5	11/7/2018	LMH5181107I	19.4	0.00412	96.1	0.93	0.0001 U	0.286	753	0.005 U	0.0004 U	2390
LS-MH5	12/11/2018	LMH5181211I	4.68	0.00299	96.7	0.413	0.0001 U	0.256	721	0.005 U	0.0004 U	2330
LS-PS1A	10/2/2018	LP1A181002I	1.12	0.001	43.7	0.364	0.0001 U	0.0817	235	0.005 U	0.0004 U	873
LS-PS1A	11/7/2018	LP1A181107I	0.401	0.001 U	6.45	0.126	0.0001 U	0.00958	19.4	0.005 U	0.0004 U	66.7
LS-PS1A	12/11/2018	LP1A181211I	0.687	0.001 U	12.6	0.271	0.0001 U	0.0197	49.8	0.005 U	0.0004 U	168
LS-PS2A	10/2/2018	LP2A181002M	0.356	0.001 U	5.72	0.133	0.0001 U	0.00851	2.92	0.005 U	0.0004 U	5.39
LS-PS2A	11/7/2018	LP2A181107M	1.13	0.001 U	3.84	0.082	0.0001 U	0.00878	1.84	0.005 U	0.0004 U	3.12
LS-PS2A	12/11/2018	LP2A181211M	1.23	0.001 U	4.16	0.0962	0.0001 U	0.00723	1.88	0.005 U	0.0004 U	3.58
LS-PS4	10/2/2018	LP4-181002I	5.78	0.00298	17.8	0.831	0.0001 U	0.0202	41	0.005 U	0.0004 U	130
LS-PS4	11/7/2018	LP4-181107I	5.26	0.00293	14.6	0.513	0.0001 U	0.0215	39.7	0.005 U	0.0004 U	116
LS-PS4	12/11/2018	LP4-181211I	4.2	0.00281	10.9	0.373	0.0001 U	0.0131	21.5	0.005 U	0.0004 U	62

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Leachate Metals Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Thallium, total (mg/L)	Tin, total (mg/L)	Vanadium, total (mg/L)	Zinc, total (mg/L)
LS-API	10/1/2018	LAPI181001M	0.001 U	0.0389	0.0839 D	0.261
LS-API	11/6/2018	LAPI181106M	0.001 U	0.0115	0.0346	0.0983
LS-API	12/10/2018	LAPI181210M	0.001 U	0.029	0.0649	0.152
LS-CSW	10/2/2018	LCSW181002I	0.001 U	0.005 U	0.009 D	0.0171
LS-CSW	11/7/2018	LCSW181107I	0.001 U	0.005 U	0.00904	0.0688
LS-CSW	12/11/2018	LCSW181211I	0.001 U	0.005 U	0.0126	0.0338
LS-LEPS	10/1/2018	LEPS181001P	0.001 U	0.0254	0.0824	0.312
LS-LEPS	10/30/2018	LEPS181030R	0.001 U	0.0182	0.0659	0.391
LS-LEPS	11/6/2018	LEPS181106P	0.001 U	0.0153	0.0472	0.218
LS-LEPS	11/13/2018	LEPS181114P	0.001 U	0.0135	0.0375	0.201
LS-LEPS	11/20/2018	LEPS181120P	0.001 U	0.0146	0.0389	0.145
LS-LEPS	11/27/2018	LEPS181127P	0.001 U	0.0109	0.0276	0.101
LS-LEPS	12/4/2018	LEPS181204P	0.001 U	0.00685	0.0197	0.0819
LS-LEPS	12/10/2018	LEPS181210P	0.001 U	0.012	0.0274	0.0923
LS-LEPS	12/18/2018	LEPS181218P	0.001 U	0.00964	0.0245	0.115
LS-LEPS	12/24/2018	LEPS181224P	0.001 U	0.00885	0.0223	0.0787
LS-LEPS	12/31/2018	LEPS181231P	0.001 U	0.00818	0.0193	0.0792
LS-MH46N	10/2/2018	L46N181002M	0.001 U	0.005 U	0.218 D	0.00809 J
LS-MH46N	11/7/2018	L46N181107M	0.001 U	0.005 U	0.231	0.00513
LS-MH46N	12/11/2018	L46N181211M	0.001 U	0.005 U	0.195	0.005 U
LS-MH5	10/2/2018	LMH5181002I	0.001 U	0.0616	0.158 D	0.0971
LS-MH5	11/7/2018	LMH5181107I	0.001 U	0.0343	0.172	0.254
LS-MH5	12/11/2018	LMH5181211I	0.001 U	0.0445	0.133	0.129
LS-PS1A	10/2/2018	LP1A181002I	0.001 U	0.005 U	0.0658 D	0.0224
LS-PS1A	11/7/2018	LP1A181107I	0.001 U	0.005 U	0.00587	0.00949
LS-PS1A	12/11/2018	LP1A181211I	0.001 U	0.005 U	0.0141	0.0123
LS-PS2A	10/2/2018	LP2A181002M	0.001 U	0.005 U	0.00148 D	0.0464
LS-PS2A	11/7/2018	LP2A181107M	0.001 U	0.005 U	0.00298	0.0181
LS-PS2A	12/11/2018	LP2A181211M	0.001 U	0.005 U	0.00307	0.0153
LS-PS4	10/2/2018	LP4-181002I	0.001 U	0.005 U	0.0127 D	0.08
LS-PS4	11/7/2018	LP4-181107I	0.001 U	0.005 U	0.0145	0.0646
LS-PS4	12/11/2018	LP4-181211I	0.001 U	0.005 U	0.0098	0.0566

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Leachate VOAs Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	1,1,1,2-Tetrachloro-ethane 630-20-6 (ug/L)	1,1,1-Trichloro-ethane 71-55-6 (ug/L)	1,1,2,2-Tetrachloro-ethane 79-34-5 (ug/L)	1,1,2-Trichloro-ethane 79-00-5 (ug/L)	1,1-Dichloro-ethane 75-34-3 (ug/L)	1,1-Dichloro-ethene 75-35-4 (ug/L)	1,1-Dichloro-propene 563-58-6 (ug/L)	1,2,3-Trichloro-propane 96-18-4 (ug/L)	1,2-Dibromo-3-Chloropropane 96-12-8 (ug/L)
LS-API	10/1/2018	LAPI181001M	2.5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U
LS-API	11/6/2018	LAPI181106M	2.5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U
LS-API	12/10/2018	LAPI181210M	2.5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U
LS-LEPS	10/1/2018	LEPS181001M	2.5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U
LS-LEPS	11/6/2018	LEPS181106M	2.5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U
LS-LEPS	12/10/2018	LEPS181210M	2.5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U
LS-MH46N	10/2/2018	L46N181002M	2.5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U
LS-MH46N	11/7/2018	L46N181107M	2.5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U
LS-MH46N	12/11/2018	L46N181211M	2.5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U
LS-PS2A	10/2/2018	LP2A181002M	2.5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U
LS-PS2A	11/7/2018	LP2A181107M	2.5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U
LS-PS2A	12/11/2018	LP2A181211M	2.5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U
VOA TRIP BLANK	10/1/2018	VTRP181001X2	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U
VOA TRIP BLANK	10/1/2018	VTRP181002Y	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U
VOA TRIP BLANK	11/5/2018	VTRP181106X2	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U
VOA TRIP BLANK	11/5/2018	VTRP181107Y	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U
VOA TRIP BLANK	12/10/2018	VTRP181211X	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U
VOA TRIP BLANK	12/10/2018	VTRP181211Y	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.5 U

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Leachate VOAs Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	1,2-Dibromo-ethane 106-93-4 (ug/L)	1,2-Dichloro-benzene 95-50-1 (ug/L)	1,2-Dichloro-ethane 107-06-2 (ug/L)	1,2-Dichloro-propane 78-87-5 (ug/L)	1,3 Dichloro-benzene 541-73-1 (ug/L)	1,3-Dichloro-propane 142-28-9 (ug/L)	1,4-Dichloro-benzene 106-46-7 (ug/L)	2,2-Dichloro-propane 594-20-7 (ug/L)	2-Butanone 78-93-3 (ug/L)
LS-API	10/1/2018	LAPI181001M	1 U	1 U	2.52	1 U	1 U	1 U	1.94 JT	1 U	3210 D
LS-API	11/6/2018	LAPI181106M	1 U	1 U	1.01 JT	1 U	1 U	1 U	1 U	1 U	1280 D
LS-API	12/10/2018	LAPI181210M	1 U	1 U	1.23 JT	1 U	1 U	1 U	1.73 JT	1 U	1920 D
LS-LEPS	10/1/2018	LEPS181001M	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2.5 U
LS-LEPS	11/6/2018	LEPS181106M	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	21.2
LS-LEPS	12/10/2018	LEPS181210M	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	527
LS-MH46N	10/2/2018	L46N181002M	1 U	2.12	1 U	1 U	1 U	1 U	8.62	1 U	2.5 U
LS-MH46N	11/7/2018	L46N181107M	1 U	2.1	1 U	1 U	1 U	1 U	8.9	1 U	2.5 U
LS-MH46N	12/11/2018	L46N181211M	1 U	2.02	1 U	1 U	1 U	1 U	8.73	1 U	2.5 U
LS-PS2A	10/2/2018	LP2A181002M	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2.5 U
LS-PS2A	11/7/2018	LP2A181107M	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2.5 U
LS-PS2A	12/11/2018	LP2A181211M	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2.5 U
VOA TRIP BLANK	10/1/2018	VTRP181001X2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.25 U
VOA TRIP BLANK	10/1/2018	VTRP181002Y	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.25 U
VOA TRIP BLANK	11/5/2018	VTRP181106X2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.25 U
VOA TRIP BLANK	11/5/2018	VTRP181107Y	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.25 U
VOA TRIP BLANK	12/10/2018	VTRP181211X	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.25 U
VOA TRIP BLANK	12/10/2018	VTRP181211Y	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.25 U

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Leachate VOAs Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	2-Hexanone	2-Methyl-1-propanol	3-Chloro-propene	4-Methyl-2-Pentanone	Acetone	Acetonitrile	Acrolein	Acrylonitrile	Benzene
			591-78-6 (ug/L)	78-83-1 (ug/L)	107-05-1 (ug/L)	108-10-1 (ug/L)	67-64-1 (ug/L)	75-05-8 (ug/L)	107-02-8 (ug/L)	107-13-1 (ug/L)	71-43-2 (ug/L)
LS-API	10/1/2018	LAPI181001M	8.18 JT	50 U	1 U	41.6 JT	4220 D	53.1 JT	25 U	0.35 U	1 U
LS-API	11/6/2018	LAPI181106M	5 U	58.2 JT	1 U	25 U	1490 D	50 U	25 U	0.35 U	1 U
LS-API	12/10/2018	LAPI181210M	5 U	50 U	1 U	25 U	2440 D	56.1 JT	25 U	0.35 U	1 U
LS-LEPS	10/1/2018	LEPS181001M	5 U	50 U	1 U	25 U	25 U	50 U	25 U	0.35 U	1 U
LS-LEPS	11/6/2018	LEPS181106M	5 U	50 U	1 U	25 U	127	50 U	25 U	0.35 U	1 U
LS-LEPS	12/10/2018	LEPS181210M	5 U	50 U	1 U	25 U	843	50 U	25 U	0.35 U	1 U
LS-MH46N	10/2/2018	L46N181002M	5 U	50 U	1 U	25 U	25 U	50 U	25 U	0.35 U	1 U
LS-MH46N	11/7/2018	L46N181107M	5 U	50 U	1 U	25 U	25 U	50 U	25 U	0.35 U	3.81
LS-MH46N	12/11/2018	L46N181211M	5 U	50 U	1 U	25 U	25 U	50 U	25 U	0.35 U	3.35
LS-PS2A	10/2/2018	LP2A181002M	5 U	50 U	1 U	25 U	25 U	50 U	25 U	0.35 U	1 U
LS-PS2A	11/7/2018	LP2A181107M	5 U	50 U	1 U	25 U	25 U	50 U	25 U	0.35 U	1 U
LS-PS2A	12/11/2018	LP2A181211M	5 U	50 U	1 U	25 U	25 U	50 U	25 U	0.35 U	1 U
VOA TRIP BLANK	10/1/2018	VTRP181001X2	0.5 U	5 U	0.1 U	2.5 U	2.5 U	5 U	2.5 U	0.035 U	0.1 U
VOA TRIP BLANK	10/1/2018	VTRP181002Y	0.5 U	5 U	0.1 U	2.5 U	2.5 U	5 U	2.5 U	0.035 U	0.1 U
VOA TRIP BLANK	11/5/2018	VTRP181106X2	0.5 U	5 U	0.1 U	2.5 U	2.5 U	5 U	2.5 U	0.035 U	0.1 U
VOA TRIP BLANK	11/5/2018	VTRP181107Y	0.5 U	5 U	0.1 U	2.5 U	2.5 U	5 U	2.5 U	0.035 U	0.1 U
VOA TRIP BLANK	12/10/2018	VTRP181211X	0.5 U	5 U	0.1 U	2.5 U	2.5 U	5 U	2.5 U	0.035 U	0.1 U
VOA TRIP BLANK	12/10/2018	VTRP181211Y	0.5 U	5 U	0.1 U	2.5 U	2.5 U	5 U	2.5 U	0.035 U	0.1 U

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Leachate VOAs Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Bromochloro-methane	Bromodichloro-methane	Bromoform	Bromo-methane	Carbon Disulfide	Carbon Tetrachloride	Chloro-benzene	Chloro-dibromo-methane	Chloroethane
			74-97-5 (ug/L)	75-27-4 (ug/L)	75-25-2 (ug/L)	74-83-9 (ug/L)	75-15-0 (ug/L)	56-23-5 (ug/L)	108-90-7 (ug/L)	124-48-1 (ug/L)	75-00-3 (ug/L)
LS-API	10/1/2018	LAPI181001M	1 U	2.5 U	5 U	1 U	1.11 JT	2.5 U	1 U	5 U	1 U
LS-API	11/6/2018	LAPI181106M	1 U	2.5 U	5 U	1 U	1 U	2.5 U	1 U	5 U	1 U
LS-API	12/10/2018	LAPI181210M	1 U	2.5 U	5 U	1 U	1 U	2.5 U	1 U	5 U	1 U
LS-LEPS	10/1/2018	LEPS181001M	1 U	2.5 U	5 U	1 U	1 U	2.5 U	1 U	5 U	1 U
LS-LEPS	11/6/2018	LEPS181106M	1 U	2.5 U	5 U	3.01	1 U	2.5 U	1 U	5 U	1 U
LS-LEPS	12/10/2018	LEPS181210M	1 U	2.5 U	5 U	1 U	1 U	2.5 U	1 U	5 U	1 U
LS-MH46N	10/2/2018	L46N181002M	1 U	2.5 U	5 U	1 U	1 U	2.5 U	2.03	5 U	1 U
LS-MH46N	11/7/2018	L46N181107M	1 U	2.5 U	5 U	1 U	1 U	2.5 U	2.11	5 U	1 U
LS-MH46N	12/11/2018	L46N181211M	1 U	2.5 U	5 U	1 U	1 U	2.5 U	1.93 JT	5 U	1 U
LS-PS2A	10/2/2018	LP2A181002M	1 U	2.5 U	5 U	1 U	1 U	2.5 U	1 U	5 U	1 U
LS-PS2A	11/7/2018	LP2A181107M	1 U	2.5 U	5 U	1 U	1 U	2.5 U	1 U	5 U	1 U
LS-PS2A	12/11/2018	LP2A181211M	1 U	2.5 U	5 U	1 U	1 U	2.5 U	1 U	5 U	1 U
VOA TRIP BLANK	10/1/2018	VTRP181001X2	0.1 U	0.25 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U
VOA TRIP BLANK	10/1/2018	VTRP181002Y	0.1 U	0.25 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U
VOA TRIP BLANK	11/5/2018	VTRP181106X2	0.1 U	0.25 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U
VOA TRIP BLANK	11/5/2018	VTRP181107Y	0.1 U	0.25 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U
VOA TRIP BLANK	12/10/2018	VTRP181211X	0.1 U	0.25 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U
VOA TRIP BLANK	12/10/2018	VTRP181211Y	0.1 U	0.25 U	0.5 U	0.1 U	0.1 U	0.25 U	0.1 U	0.5 U	0.1 U

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Leachate VOAs Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Chloroform	Chloro-methane	Chloroprene	cis-1,2-Dichloro-ethene	cis-1,3-Dichloro-propene	Dibromo-methane	Dichloro-difluoro-methane	Ethylbenzene	m & p Xylenes
			67-66-3 (ug/L)	74-87-3 (ug/L)	126-99-8 (ug/L)	156-59-2 (ug/L)	10061-01-5 (ug/L)	74-95-3 (ug/L)	75-71-8 (ug/L)	100-41-4 (ug/L)	mpx (ug/L)
LS-API	10/1/2018	LAPI181001M	1 U	2.5 U	1 U	1.27 JT	2.5 U	1 U	1 U	2.33	5.73
LS-API	11/6/2018	LAPI181106M	1 U	2.5 U	1 U	1 U	2.5 U	1 U	1 U	1.49 JT	3.39
LS-API	12/10/2018	LAPI181210M	1 U	2.5 U	1 U	1.11 JT	2.5 U	1 U	1 U	2.69	6.08
LS-LEPS	10/1/2018	LEPS181001M	1 U	2.5 U	1 U	1 U	2.5 U	1 U	1 U	1 U	1 U
LS-LEPS	11/6/2018	LEPS181106M	1 U	3.3 JT	1 U	1 U	2.5 U	1 U	1 U	1 U	1 U
LS-LEPS	12/10/2018	LEPS181210M	1 U	2.5 U	1 U	1 U	2.5 U	1 U	1 U	1 U	2.07
LS-MH46N	10/2/2018	L46N181002M	1 U	2.5 U	1 U	1.79 JT	2.5 U	1 U	1 U	35.9	45.9
LS-MH46N	11/7/2018	L46N181107M	1 U	2.5 U	1 U	1.57 JT	2.5 U	1 U	1 U	38.2	49.4
LS-MH46N	12/11/2018	L46N181211M	1 U	2.5 U	1 U	1.99 JT	2.5 U	1 U	1 U	35.3	49.2
LS-PS2A	10/2/2018	LP2A181002M	1 U	2.5 U	1 U	1 U	2.5 U	1 U	1 U	1 U	1 U
LS-PS2A	11/7/2018	LP2A181107M	1 U	2.5 U	1 U	1 U	2.5 U	1 U	1 U	1 U	1 U
LS-PS2A	12/11/2018	LP2A181211M	1 U	2.5 U	1 U	1 U	2.5 U	1 U	1 U	1 U	1 U
VOA TRIP BLANK	10/1/2018	VTRP181001X2	0.1 U	0.25 U	0.1 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U
VOA TRIP BLANK	10/1/2018	VTRP181002Y	0.1 U	0.25 U	0.1 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U
VOA TRIP BLANK	11/5/2018	VTRP181106X2	0.1 U	0.25 U	0.1 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U
VOA TRIP BLANK	11/5/2018	VTRP181107Y	0.1 U	0.25 U	0.1 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U
VOA TRIP BLANK	12/10/2018	VTRP181211X	0.1 U	0.25 U	0.1 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U
VOA TRIP BLANK	12/10/2018	VTRP181211Y	0.1 U	0.25 U	0.1 U	0.1 U	0.25 U	0.1 U	0.1 U	0.1 U	0.1 U

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Leachate VOAs Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Methyl Iodide	Methyl Methacrylate	Methylacrylo-nitrile	Methylene Chloride	o-Xylene	Proprionitrile	Styrene	Tetrachloro-ethene	Toluene
			74-88-4 (ug/L)	80-62-6 (ug/L)	126-98-7 (ug/L)	75-09-2 (ug/L)	95-47-6 (ug/L)	107-12-0 (ug/L)	100-42-5 (ug/L)	127-18-4 (ug/L)	108-88-3 (ug/L)
LS-API	10/1/2018	LAPI181001M	1 U	2.5 U	1 U	25 U	3.44	5 U	1 U	1 U	11
LS-API	11/6/2018	LAPI181106M	1 U	2.5 U	1 U	25 U	1.82 JT	5 U	1 U	1 U	5.02
LS-API	12/10/2018	LAPI181210M	1 U	2.5 U	1 U	25 U	3.27	5 U	1 U	1 U	10.2
LS-LEPS	10/1/2018	LEPS181001M	1 U	2.5 U	1 U	25 U	1 U	5 U	1 U	1 U	1 U
LS-LEPS	11/6/2018	LEPS181106M	1 U	2.5 U	1 U	25 U	1 U	5 U	1 U	1 U	1 U
LS-LEPS	12/10/2018	LEPS181210M	1 U	2.5 U	1 U	25 U	1.09 JT	5 U	1 U	1 U	3.76
LS-MH46N	10/2/2018	L46N181002M	1 U	2.5 U	1 U	25 U	4.98	5 U	1 JT	1 U	5.19
LS-MH46N	11/7/2018	L46N181107M	1 U	2.5 U	1 U	25 U	6.36	5 U	1 U	1 U	6.31
LS-MH46N	12/11/2018	L46N181211M	1 U	2.5 U	1 U	25 U	6.77	5 U	1 U	1 U	5.58
LS-PS2A	10/2/2018	LP2A181002M	1 U	2.5 U	1 U	25 U	1 U	5 U	1 U	1 U	1 U
LS-PS2A	11/7/2018	LP2A181107M	1 U	2.5 U	1 U	25 U	1 U	5 U	1 U	1 U	1 U
LS-PS2A	12/11/2018	LP2A181211M	1 U	2.5 U	1 U	25 U	1 U	5 U	1 U	1 U	1 U
VOA TRIP BLANK	10/1/2018	VTRP181001X2	0.1 U	0.25 U	0.1 U	2.5 U	0.1 U	0.5 U	0.1 U	0.1 U	0.1 U
VOA TRIP BLANK	10/1/2018	VTRP181002Y	0.1 U	0.25 U	0.1 U	2.5 U	0.1 U	0.5 U	0.1 U	0.1 U	0.1 U
VOA TRIP BLANK	11/5/2018	VTRP181106X2	0.1 U	0.25 U	0.1 U	2.5 U	0.1 U	0.5 U	0.1 U	0.1 U	0.1 U
VOA TRIP BLANK	11/5/2018	VTRP181107Y	0.1 U	0.25 U	0.1 U	2.5 U	0.1 U	0.5 U	0.1 U	0.1 U	0.1 U
VOA TRIP BLANK	12/10/2018	VTRP181211X	0.1 U	0.25 U	0.1 U	2.5 U	0.1 U	0.5 U	0.1 U	0.1 U	0.1 U
VOA TRIP BLANK	12/10/2018	VTRP181211Y	0.1 U	0.25 U	0.1 U	2.5 U	0.1 U	0.5 U	0.1 U	0.1 U	0.1 U

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Leachate VOAs Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	trans-1,2-Dichloro-ethene 156-60-5 (ug/L)	trans-1,3-Dichloro-propene 10061-02-6 (ug/L)	trans-1,4-Dichloro-2-butene 110-57-6 (ug/L)	Trichloro-ethene 79-01-6 (ug/L)	Trichloro-fluoro-methane 75-69-4 (ug/L)	Vinyl Acetate 108-05-4 (ug/L)	Vinyl Chloride 75-01-4 (ug/L)
LS-API	10/1/2018	LAPI181001M	1 U	5 U	5 U	1 U	1 U	1 U	0.1 U
LS-API	11/6/2018	LAPI181106M	1 U	5 U	5 U	1 U	1 U	1 U	0.1 U
LS-API	12/10/2018	LAPI181210M	1 U	5 U	5 U	1 U	1 U	1 U	0.1 U
LS-LEPS	10/1/2018	LEPS181001M	1 U	5 U	5 U	1 U	1 U	1 U	0.1 U
LS-LEPS	11/6/2018	LEPS181106M	1 U	5 U	5 U	1 U	1 U	1 U	0.1 U
LS-LEPS	12/10/2018	LEPS181210M	1 U	5 U	5 U	1 U	1 U	1 U	0.1 U
LS-MH46N	10/2/2018	L46N181002M	1 U	5 U	5 U	1 U	1 U	1 U	4.17
LS-MH46N	11/7/2018	L46N181107M	1 U	5 U	5 U	1 U	1 U	1 U	3.87
LS-MH46N	12/11/2018	L46N181211M	1 U	5 U	5 U	1 U	1 U	1 U	3.53
LS-PS2A	10/2/2018	LP2A181002M	1 U	5 U	5 U	1 U	1 U	1 U	0.1 U
LS-PS2A	11/7/2018	LP2A181107M	1 U	5 U	5 U	1 U	1 U	1 U	0.1 U
LS-PS2A	12/11/2018	LP2A181211M	1 U	5 U	5 U	1 U	1 U	1 U	0.1 U
VOA TRIP BLANK	10/1/2018	VTRP181001X2	0.1 U	0.5 U	0.5 U	0.1 U	0.1 U	0.1 U	0.01 U
VOA TRIP BLANK	10/1/2018	VTRP181002Y	0.1 U	0.5 U	0.5 U	0.1 U	0.1 U	0.1 U	0.01 U
VOA TRIP BLANK	11/5/2018	VTRP181106X2	0.1 U	0.5 U	0.5 U	0.1 U	0.1 U	0.1 U	0.01 U
VOA TRIP BLANK	11/5/2018	VTRP181107Y	0.1 U	0.5 U	0.5 U	0.1 U	0.1 U	0.1 U	0.01 U
VOA TRIP BLANK	12/10/2018	VTRP181211X	0.1 U	0.5 U	0.5 U	0.1 U	0.1 U	0.1 U	0.01 U
VOA TRIP BLANK	12/10/2018	VTRP181211Y	0.1 U	0.5 U	0.5 U	0.1 U	0.1 U	0.1 U	0.01 U

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Leachate Pestacides, Herbacides, PCBs Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	2,4,5-T	2,4,5-TP Silvex	2,4-D	4,4' DDD	4,4' DDE	4,4' DDT	Aldrin	Alpha BHC	Alpha Chlordane	Aroclor 1016
										BHC	Chlordane	1016
			93-76-5	93-72-1	94-75-7	72-54-8	72-55-9	50-29-3	309-00-2	319-84-6	5103-71-9	12674-11-2
			ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LS-API	10/1/2018	LAPI181001M	0.5 U	2.5 U	2.5 U	0.025 U	0.05 U	0.05 U	0.025 U	0.025 U	0.05 U	0.025 U
LS-API	11/6/2018	LAPI181106M	0.5 SU	0.5 SU	1 SU	0.025 GSU	0.025 GSU	0.025 GSU	0.025 GSU	0.025 SU	0.025 GSU	0.025 SU
LS-API	12/10/2018	LAPI181210M	0.5 U	1.5 U	1.5 U	0.025 U	0.04 G	0.025 U	0.025 U	0.025 U	0.025 GU	0.025 U
LS-LEPS	10/1/2018	LEPS181001M	0.5 U	2 U	1 U	0.025 U	0.0299 J	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U
LS-LEPS	11/6/2018	LEPS181106M	0.5 SU	0.5 SU	1 SU	0.025 GSU	0.0446 GS	0.025 GSU	0.025 GSU	0.025 SU	0.025 GSU	0.025 SU
LS-LEPS	12/10/2018	LEPS181210M	0.5 U	0.5 U	1 U	0.025 U	0.025 GU	0.025 U	0.025 U	0.025 U	0.025 GU	0.025 U
LS-MH46N	10/2/2018	L46N181002M	0.5 U	1.59	2.54	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0428 J	0.025 U
LS-MH46N	11/7/2018	L46N181107M	0.5 SU	1.71 S	2.26 S	0.03 SU	0.0233 JS	0.01 SU	0.01 SU	0.01 SU	0.0504 JS	0.025 SU
LS-MH46N	12/11/2018	L46N181211M	0.5 U	1.38	3.16	0.01 U	0.04 U	0.01 U	0.01 U	0.01 U	0.0293 J	0.025 U
LS-PS2A	10/2/2018	LP2A181002M	0.5 U	0.5 U	1 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.025 U
LS-PS2A	11/7/2018	LP2A181107M	0.5 SU	0.5 SU	1 SU	0.01 SU	0.01 SU	0.01 SU	0.01 SU	0.01 SU	0.01 SU	0.025 SU
LS-PS2A	12/11/2018	LP2A181211M	0.5 U	0.5 U	1 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.025 U

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Leachate Pestacides, Herbacides, PCBs Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Beta Bhc	Delta Bhc	Dieldrin	Dinoseb
			1221	1232	1242	1248	1254	1260	BHC	BHC		
			11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	319-85-7	319-86-8	60-57-1	88-85-7
			ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LS-API	10/1/2018	LAPI181001M	0.4 U	0.025 U	0.531	0.025 U	0.122	0.025 U	0.3 GU	0.1 U	0.025 U	1 U
LS-API	11/6/2018	LAPI181106M	0.025 SU	0.025 SU	0.0952 S	0.025 SU	0.0379 S	0.025 SU	0.0306 GS	0.025 GSU	0.025 GSU	0.5 SU
LS-API	12/10/2018	LAPI181210M	0.025 U	0.025 U	0.189	0.025 U	0.0686	0.025 U	0.075 GU	0.025 GU	0.025 U	0.5 U
LS-LEPS	10/1/2018	LEPS181001M	0.025 U	0.025 U	0.154	0.025 U	0.0624	0.025 U	0.075 GU	0.025 U	0.025 U	2.5 U
LS-LEPS	11/6/2018	LEPS181106M	0.025 SU	0.025 SU	0.0767 S	0.025 SU	0.0349 S	0.025 SU	0.025 GSU	0.025 GSU	0.025 GSU	1.5 SU
LS-LEPS	12/10/2018	LEPS181210M	0.025 U	0.025 U	0.068	0.025 U	0.025 U	0.025 U	0.05 GU	0.025 GU	0.025 U	0.5 U
LS-MH46N	10/2/2018	L46N181002M	0.025 U	0.025 U	0.226	0.025 U	0.025 U	0.025 U	0.0516 J	0.01 U	0.01 U	2.5 U
LS-MH46N	11/7/2018	L46N181107M	0.0787 JS	0.025 SU	0.217 S	0.025 SU	0.0292 S	0.025 SU	0.0347 JS	0.05 SU	0.01 SU	0.5 SU
LS-MH46N	12/11/2018	L46N181211M	0.15 U	0.025 U	0.237	0.025 U	0.025 U	0.025 U	0.0767 J	0.1 U	0.0404 J	0.5 U
LS-PS2A	10/2/2018	LP2A181002M	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.01 U	0.01 U	0.01 U	0.5 U
LS-PS2A	11/7/2018	LP2A181107M	0.025 SU	0.025 SU	0.025 SU	0.025 SU	0.025 SU	0.025 SU	0.01 SU	0.01 SU	0.01 SU	0.5 SU
LS-PS2A	12/11/2018	LP2A181211M	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.01 U	0.01 U	0.01 U	0.5 U

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Leachate Pestacides, Herbacides, PCBs Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Endosulfan I	Endosulfan II	Endosulfan Sulfate	Endrin	Endrin Aldehyde	Heptachlor	Heptachlor Epoxide	Isodrin	Lindane(Gamma BHC)	Methoxychlor
			sulfan I	sulfan II	Sulfate		Aldehyde		Epoxide			chlor
			959-98-8	33213-65-9	1031-07-8	72-20-8	7421-93-4	76-44-8	1024-57-3	465-73-6	58-89-9	72-43-5
			ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LS-API	10/1/2018	LAPI181001M	0.025 U	0.1 U	0.025 U	0.05 U	0.075 GU	0.125 U	0.05 U	0.025 U	0.0509 J	0.125 U
LS-API	11/6/2018	LAPI181106M	0.025 SU	0.025 SU	0.025 SU	0.025 SU	0.025 GSU	0.025 GSU	0.025 GSU	0.025 GSU	0.025 SU	0.125 SU
LS-API	12/10/2018	LAPI181210M	0.025 U	0.025 U	0.025 U	0.025 U	0.025 GU	0.025 U	0.025 U	0.025 U	0.025 U	0.125 U
LS-LEPS	10/1/2018	LEPS181001M	0.025 U	0.025 U	0.025 U	0.025 U	0.025 GU	0.05 U	0.025 U	0.025 U	0.05 U	0.125 U
LS-LEPS	11/6/2018	LEPS181106M	0.025 SU	0.025 SU	0.025 SU	0.025 SU	0.025 GSU	0.025 GSU	0.025 GSU	0.025 GSU	0.025 SU	0.125 SU
LS-LEPS	12/10/2018	LEPS181210M	0.025 U	0.025 U	0.025 U	0.025 U	0.025 GU	0.025 U	0.025 U	0.025 U	0.025 U	0.125 U
LS-MH46N	10/2/2018	L46N181002M	0.01 U	0.01 U	0.01 U	0.01 U	0.02 U	0.01 U	0.02 U	0.01 U	0.0404 J	0.05 U
LS-MH46N	11/7/2018	L46N181107M	0.01 SU	0.01 SU	0.01 SU	0.01 SU	0.01 SU	0.01 SU	0.01 SU	0.01 SU	0.01 SU	0.05 SU
LS-MH46N	12/11/2018	L46N181211M	0.01 U	0.01 U	0.01 U	0.01 U	0.0113 J	0.01 U	0.01 U	0.01 U	0.06 U	0.05 U
LS-PS2A	10/2/2018	LP2A181002M	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.05 U
LS-PS2A	11/7/2018	LP2A181107M	0.01 SU	0.01 SU	0.01 SU	0.01 SU	0.01 SU	0.01 SU	0.01 SU	0.01 SU	0.01 SU	0.05 SU
LS-PS2A	12/11/2018	LP2A181211M	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.05 U

Environmental Monitoring Data

Data Collected from October 1, 2018 to December 31, 2018
Cedar Hills Landfill --- Leachate Pestacides, Herbacides, PCBs Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Total Aroclors	Toxaphene	Trans-Chlordane
			T_AROCLOR	8001-35-2	5103-74-2
			ug/l	ug/l	ug/l
LS-API	10/1/2018	LAPI181001M	0.653	2.5 U	0.025 GU
LS-API	11/6/2018	LAPI181106M	0.1331	2.5 SU	0.025 GSU
LS-API	12/10/2018	LAPI181210M	0.2576	2.5 U	0.025 GU
LS-LEPS	10/1/2018	LEPS181001M	0.2164	2.5 U	0.025 GU
LS-LEPS	11/6/2018	LEPS181106M	0.1116	2.5 SU	0.025 GSU
LS-LEPS	12/10/2018	LEPS181210M	0.068	2.5 U	0.025 GU
LS-MH46N	10/2/2018	L46N181002M	0.226	1 U	0.01 U
LS-MH46N	11/7/2018	L46N181107M	0.3249	1 SU	0.01 SU
LS-MH46N	12/11/2018	L46N181211M	0.237	1 U	0.01 U
LS-PS2A	10/2/2018	LP2A181002M	0.025 U	1 U	0.01 U
LS-PS2A	11/7/2018	LP2A181107M	0.025 U	1 SU	0.01 SU
LS-PS2A	12/11/2018	LP2A181211M	0.025 U	1 U	0.01 U

Washington Department of Ecology
Electronic Submission Cover Letter

DEPARTMENT OF ECOLOGY
State of Washington

WQWebDMR - Permit# WAR000756 - DMR Submission Id: 1661307 - 2/6/2019 3:15:03 PM

Company Name	Signer Name	System Name
King County Solid Waste Division	Jennifer Keune	WQWebPortal

Attachments:

Document Name Or Description	Document Name
Submitted Copy of Record for King County Solid Waste Division	Copy of Record KingCountySolidWasteDivision Wednesday February 6 2019

Attestation Agreed to at Signing:

I certify I personally signed and submitted to the Department of Ecology an Electronic Signature Agreement. I understand that use of my electronic signature account/password to submit this information is equal to my written signature. I have read and followed all the rules of use in my Electronic Signature Agreement. I believe no one but me has had access to my password and other account information.

I further certify: I had the opportunity to review the content or meaning of the submittal before signing it; and to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I intend to submit this information as part of the implementation, oversight, and enforcement of a federal environmental program. I am aware there are significant penalties for submitting false information, including possible fines and imprisonment.

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OOHVyT2m+mtjCPrX3hdWsKh/E8q/j2/ywf+J7XxSDHK+drpZEAPp5RPcas3ZPRWugI/IwPrC/UMYgXG4bK+geFC99cBsk2sw+wPJFdsjjaE=

Report Received: 2019-02-06 15:15
Page 1 of 1 Pages

DMR Validation Messages

Your DMR has been validated.

There were no error, violation, or warning messages generated during the validation process. You may now submit your DMR.

Close

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Washington State Department of Ecology **Discharge Monitoring Report (DMR)**

Permit Number: WAR000756 **Permittee:** CEDAR HILLS LANDFILL

Facility County: King **Receiving Waterbody:** Unnamed stream

Monitoring Period: 10/01/2018 - 12/31/2018 **Outfall:** GS1 - Discharge to unnamed stream (wetland) **Version:** 1

Week	Monitoring Point	Turbidity (NTU) Measured NTU Quarterly Grab	pH Standard Units Quarterly Grab	Oil & Grease Yes/No Quarterly Visual Observation	Copper Total Micrograms/L (ug/L) Quarterly Grab	Zinc Total Micrograms/L (ug/L) Quarterly Grab	Total BOD5 Total Milligrams/L (mg/L) Quarterly Grab	Solids (Residue) Total suspended (TSS) Milligrams/L (mg/L) Quarterly Grab	Ammonia Total Milligrams/L (mg/L) Quarterly Grab	Alpha-terpineol (3-Cyclohexene-1-methanol,.alpha.,alpha.,trimethyl-) Micrograms/L (ug/L) Quarterly Grab	Benzoic Acid Micrograms/L (ug/L) Quarterly Grab	p-Cresol (4-methylphenol) Micrograms/L (ug/L) Quarterly Grab
		GS1	GS1	GS1	GS1	GS1	GS1	GS1	GS1	GS1	GS1	GS1
Limit Set		ISGP Western WA - 2015 Permit	ISGP Western WA - 2015 Permit	ISGP Western WA - 2015 Permit	ISGP Western WA - 2015 Permit	ISGP Western WA - 2015 Permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit
2-T	**10/9/18**	13.0	A	No	4.1	A	<2	1	0.32	<0.476	<9.52	<0.476
Minimum			A									
			BM: >= 5.0 (RO)									
Average		13			4.1	A						
		BM: <= 25			BM: <= 14	BM: <= 117						
Maximum			A									
			BM: <= 9.0 (RO)									
Month 1 Average							<2	1	0.32	<0.476	<9.52	<0.476
							<= 37	<= 27	<= 4.9	<= 16	<= 71	<= 14
Month 2 Average							M	M	M	M	M	M
							<= 37	<= 27	<= 4.9	<= 16	<= 71	<= 14
Month 3 Average							M	M	M	M	M	M
							<= 37	<= 27	<= 4.9	<= 16	<= 71	<= 14

Reporting Codes Used: A - Consistent Attainment Of Benchmark, B - Below Detection Limit/No Detection, M - Monitoring Is Conditional/Not Req This MP

Week	Monitoring Point	Phenol Micrograms/L (ug/L) Quarterly Grab	Zinc Total Micrograms/L (ug/L) Quarterly Grab	pH Standard Units Quarterly Grab
		GS1	GS1	GS1
Limit Set		ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit
2-T	**10/9/18**	<0.476	2.61	6.78
Minimum				7.43
				>= 6.0 (RO)
Average				
Maximum				7.43
				<= 9.0 (RO)
Month 1 Average		<0.476	2.61	
		<= 15	<= 110	
Month 2 Average		M	M	
		<= 15	<= 110	
Month 3 Average		M	M	
		<= 15	<= 110	

Washington State Department of Ecology **Discharge Monitoring Report (DMR)**

Permit Number: WAR000756 **Permittee:** CEDAR HILLS LANDFILL

Facility County: King **Receiving Waterbody:** Unnamed stream

Monitoring Period: 10/01/2018 - 12/31/2018 **Outfall:** N4 - Discharge to unnamed stream (McDonald Cr) **Version:** 1

Week	Monitoring Point	Turbidity (NTU) Measured NTU Quarterly Grab	pH Standard Units Quarterly Grab	Oil & Grease Yes/No Quarterly Visual Observation	Copper Total Micrograms/L (ug/L) Quarterly Grab	Zinc Total Micrograms/L (ug/L) Quarterly Grab	Total BOD5 Total Milligrams/L (mg/L) Quarterly Grab	Solids (Residue) Total suspended (TSS) Milligrams/L (mg/L) Quarterly Grab	Ammonia Total Milligrams/L (mg/L) Quarterly Grab	Alpha-terpineol (3-Cyclohexene-1-methanol, alpha, alpha, trimethyl-) Micrograms/L (ug/L) Quarterly Grab	Benzoic Acid Micrograms/L (ug/L) Quarterly Grab	p-Cresol (4-methylphenol) Micrograms/L (ug/L) Quarterly Grab
		N4	N4	N4	N4	N4	N4	N4	N4	N4	N4	N4
Limit Set		ISGP Western WA - 2015 Permit	ISGP Western WA - 2015 Permit	ISGP Western WA - 2015 Permit	ISGP Western WA - 2015 Permit	ISGP Western WA - 2015 Permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit
2-T	**10/9/18**	A	A	No	A	A	3.04	12.8	0.0159	<0.5	<10	<0.5
Minimum			A									
			BM: >= 5.0 (RO)									
Average		A			A	A						
		BM: <= 25			BM: <= 14	BM: <= 117						
Maximum			A									
			BM: <= 9.0 (RO)									
Month 1 Average							3.04	12.8	0.0159	<0.5	<10	<0.5
							<= 37	<= 27	<= 4.9	<= 16	<= 71	<= 14
Month 2 Average							M	M	M	M	M	M
							<= 37	<= 27	<= 4.9	<= 16	<= 71	<= 14
Month 3 Average							M	M	M	M	M	M
							<= 37	<= 27	<= 4.9	<= 16	<= 71	<= 14

Reporting Codes Used: A - Consistent Attainment Of Benchmark, B - Below Detection Limit/No Detection, M - Monitoring Is Conditional/Not Req This MP

Week	Monitoring Point	Phenol Micrograms/L (ug/L) Quarterly Grab	Zinc Total Micrograms/L (ug/L) Quarterly Grab	pH Standard Units Quarterly Grab
		N4	N4	N4
Limit Set		ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit
2-T	**10/9/18**	<0.5	10.3	6.98
Minimum				6.98
				>= 6.0 (RO)
Average				
Maximum				6.98
				<= 9.0 (RO)
Month 1 Average		<0.5	10.3	
		<= 15	<= 110	
Month 2 Average		M	M	
		<= 15	<= 110	
Month 3 Average		M	M	
		<= 15	<= 110	

Washington State Department of Ecology **Discharge Monitoring Report (DMR)**

Permit Number: WAR000756 **Permittee:** CEDAR HILLS LANDFILL

Facility County: King **Receiving Waterbody:** Unnamed stream

Monitoring Period: 10/01/2018 - 12/31/2018 **Outfall:** SL3 - Discharge to unnamed stream (ditch) **Version:** 1

Week	Monitoring Point	Turbidity (NTU) Measured NTU Quarterly Grab	pH Standard Units Quarterly Grab	Oil & Grease Yes/No Quarterly Visual Observation	Copper Total Micrograms/L (ug/L) Quarterly Grab	Zinc Total Micrograms/L (ug/L) Quarterly Grab	Total BOD5 Total Milligrams/L (mg/L) Quarterly Grab	Solids (Residue) Total suspended (TSS) Milligrams/L (mg/L) Quarterly Grab	Ammonia Total Milligrams/L (mg/L) Quarterly Grab	Alpha-terpineol (3-Cyclohexene-1-methanol,.alpha.,alpha.,4-trimethyl-) Micrograms/L (ug/L) Quarterly Grab	Benzoic Acid Micrograms/L (ug/L) Quarterly Grab	p-Cresol (4-methylphenol) Micrograms/L (ug/L) Quarterly Grab
		SL3	SL3	SL3	SL3	SL3	SL3	SL3	SL3	SL3	SL3	SL3
Limit Set		ISGP Western WA - 2015 Permit	ISGP Western WA - 2015 Permit	ISGP Western WA - 2015 Permit	ISGP Western WA - 2015 Permit	ISGP Western WA - 2015 Permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit
2-T	**10/9/18**	A	A	No	A	A	<2	6.3	0.0032	<0.5	<10	<0.5
Minimum			A									
			BM: >= 5.0 (RO)									
Average		A			A	A						
		BM: <= 25			BM: <= 14	BM: <= 117						
Maximum			A									
			BM: <= 9.0 (RO)									
Month 1 Average							<2	6.3	0.0032	<0.5	<10	<0.5
							<= 37	<= 27	<= 4.9	<= 16	<= 71	<= 14
Month 2 Average							M	M	M	M	M	M
							<= 37	<= 27	<= 4.9	<= 16	<= 71	<= 14
Month 3 Average							M	M	M	M	M	M
							<= 37	<= 27	<= 4.9	<= 16	<= 71	<= 14

Reporting Codes Used: A - Consistent Attainment Of Benchmark, B - Below Detection Limit/No Detection, M - Monitoring Is Conditional/Not Req This MP

I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Jennifer Keune — **Signature**

2/6/2019 3:14:58 PM — **Date**

Week	Monitoring Point	Phenol Micrograms/L (ug/L) Quarterly Grab	Zinc Total Micrograms/L (ug/L) Quarterly Grab	pH Standard Units Quarterly Grab
		SL3	SL3	SL3
Limit Set		ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit
2-T	**10/9/18**	<0.5	6.55	6.79
Minimum				6.79
				>= 6.0 (RO)
Average				
Maximum				6.79
				<= 9.0 (RO)
Month 1 Average		<0.5	6.55	
		<= 15	<= 110	
Month 2 Average		M	M	
		<= 15	<= 110	
Month 3 Average		M	M	
		<= 15	<= 110	

Washington Department of Ecology
Electronic Submission Cover Letter

DEPARTMENT OF ECOLOGY
State of Washington

WQWebDMR - Permit# WAR305034 - DMR Submission Id: 1649919 - 11/12/2018 8:15:43 AM

Company Name	Signer Name	System Name
Herrera Environmental Consultants	George Iftner	WQWebPortal

Attachments:

Document Name Or Description	Document Name
Submitted Copy of Record for Herrera Environmental Consultants	Copy of Record HerreraEnvironmentalConsultants Monday November 12 2018

Attestation Agreed to at Signing:

I certify I personally signed and submitted to the Department of Ecology an Electronic Signature Agreement. I understand that use of my electronic signature account/password to submit this information is equal to my written signature. I have read and followed all the rules of use in my Electronic Signature Agreement. I believe no one but me has had access to my password and other account information.

I further certify: I had the opportunity to review the content or meaning of the submittal before signing it; and to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I intend to submit this information as part of the implementation, oversight, and enforcement of a federal environmental program. I am aware there are significant penalties for submitting false information, including possible fines and imprisonment.

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+gW7XEcG0Rlp5rTu/t60yViA=

Washington State Department of Ecology **Discharge Monitoring Report (DMR)**

Permit Number: WAR305034 **Permittee:** Cedar Hills regional Landfill

Facility County: King **Receiving Waterbody:** Queen City Farms Lake (QCFL)

Monitoring Period: 10/01/2018 - 10/31/2018 **Outfall:** CHL - Queen City Farms Lake (QCFL) **Version:** 1

Week	Monitoring Point	Turbidity (NTU) Measured NTU Weekly Grab	pH Standard Units Weekly Grab
		CHL	CHL
1-M	**10/1/18**	18.2	M
2-M	**10/8/18**	13.3	M
3-M	**10/15/18**	C	M
4-M	**10/22/18**	15.3	M
5-M	**10/29/18**	51.7	M
5-T	**10/30/18**	33.1	M
5-W	**10/31/18**	27.5	M
Minimum			M
			BM: >= 6.5 (RO)
Maximum		51.7	M
		BM: <= 25 (RO)	BM: <= 8.5 (RO)

Reporting Codes Used: C - No Discharge, M - Monitoring Is Conditional/Not Req This MP

BMPs

Monitoring Point	Week	BMP
	1	Check Dams
	1	Sediment Trap
	1	Silt Fence
	1	Straw Wattles
	1	Temporary Sediment Pond
	2	Check Dams
	2	Sediment Trap
	2	Silt Fence
	2	Straw Wattles
	2	Temporary Sediment Pond
	3	Check Dams
	3	Sediment Trap
	3	Silt Fence
	3	Straw Wattles
	3	Temporary Sediment Pond
	4	Check Dams
	4	Sediment Trap
	4	Silt Fence
	4	Straw Wattles
	4	Temporary Sediment Pond
	5	Check Dams
	5	Sediment Trap
	5	Silt Fence
	5	Straw Wattles
	5	Temporary Sediment Pond

Washington State Department of Ecology **Discharge Monitoring Report (DMR)**

Permit Number: WAR305034 **Permittee:** Cedar Hills regional Landfill

Facility County: King **Receiving Waterbody:** gravel pit lake

Monitoring Period: 10/01/2018 - 10/31/2018 **Outfall:** grav - The gravel pit lake infiltrates and has no surface discharge outlet **Version:** 1

Week	Monitoring Point	Turbidity (NTU) Measured NTU Weekly Grab	pH Standard Units Weekly Grab
		C3	C3
1-M	**10/1/18**	C	M
2-M	**10/8/18**	C	M
3-M	**10/15/18**	C	M
4-M	**10/22/18**	C	M
5-M	**10/29/18**	39.7	M
Minimum			M
			BM: >= 6.5 (RO)
Maximum		39.7	M
		BM: <= 25 (RO)	BM: <= 8.5 (RO)

Reporting Codes Used: C - No Discharge, M - Monitoring Is Conditional/Not Req This MP

BMPs

Monitoring Point	Week	BMP
	1	Check Dams
	1	Sediment Trap
	1	Silt Fence
	1	Straw Wattles
	1	Temporary Sediment Pond
	2	Check Dams
	2	Sediment Trap
	2	Silt Fence
	2	Straw Wattles
	2	Temporary Sediment Pond
	3	Check Dams
	3	Sediment Trap
	3	Silt Fence
	3	Straw Wattles
	3	Temporary Sediment Pond
	4	Check Dams
	4	Sediment Trap
	4	Silt Fence
	4	Straw Wattles
	4	Temporary Sediment Pond
	5	Check Dams
	5	Sediment Trap
	5	Silt Fence
	5	Straw Wattles
	5	Temporary Sediment Pond

Washington State Department of Ecology **Discharge Monitoring Report (DMR)**

Permit Number: WAR305034 **Permittee:** Cedar Hills regional Landfill

Facility County: King **Receiving Waterbody:** McDonald Creek

Monitoring Period: 10/01/2018 - 10/31/2018 **Outfall:** McDo - Outfall SW N4 The discharge on the northern boundary drains to McDonald Creek at Lat 47 477875 and Long 122 054943 **Version:** 1

Week	Monitoring Point	Turbidity (NTU) Measured NTU Weekly Grab	pH Standard Units Weekly Grab	Turbidity (NTU) Measured NTU Weekly Grab	pH Standard Units Weekly Grab
		C1	C1	C2	C2
1-M	**10/1/18**	C	M	C	M
2-M	**10/8/18**	C	M	C	M
3-M	**10/15/18**	C	M	C	M
4-M	**10/22/18**	C	M	C	M
5-M	**10/29/18**	102	M	C	M
Minimum			M		M
			BM: >= 6.5 (RO)		BM: >= 6.5 (RO)
Maximum		102	M	C	M
		BM: <= 25 (RO)	BM: <= 8.5 (RO)	BM: <= 25 (RO)	BM: <= 8.5 (RO)

Reporting Codes Used: C - No Discharge, M - Monitoring Is Conditional/Not Req This MP

BMPs

Monitoring Point	Week	BMP
	1	Check Dams
	1	Sediment Trap
	1	Silt Fence
	1	Straw Wattles
	1	Temporary Sediment Pond
	2	Check Dams
	2	Sediment Trap
	2	Silt Fence
	2	Straw Wattles
	2	Temporary Sediment Pond
	3	Check Dams
	3	Sediment Trap
	3	Silt Fence
	3	Straw Wattles
	3	Temporary Sediment Pond
	4	Check Dams
	4	Sediment Trap
	4	Silt Fence
	4	Straw Wattles
	4	Temporary Sediment Pond
	5	Check Dams
	5	Sediment Trap
	5	Silt Fence
	5	Straw Wattles
	5	Temporary Sediment Pond

I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

George Iftner — **Signature**

11/12/2018 8:15:42 AM — **Date**

Washington Department of Ecology
Electronic Submission Cover Letter

DEPARTMENT OF ECOLOGY
State of Washington

WQWebDMR - Permit# WAR305034 - DMR Submission Id: 1653855 - 12/11/2018 3:17:20 PM

Company Name	Signer Name	System Name
Herrera Environmental Consultants	George Iftner	WQWebPortal

Attachments:

Document Name Or Description	Document Name
Submitted Copy of Record for Herrera Environmental Consultants	Copy of Record HerreraEnvironmentalConsultants Tuesday December 11 2018

Attestation Agreed to at Signing:

I certify I personally signed and submitted to the Department of Ecology an Electronic Signature Agreement. I understand that use of my electronic signature account/password to submit this information is equal to my written signature. I have read and followed all the rules of use in my Electronic Signature Agreement. I believe no one but me has had access to my password and other account information.

I further certify: I had the opportunity to review the content or meaning of the submittal before signing it; and to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I intend to submit this information as part of the implementation, oversight, and enforcement of a federal environmental program. I am aware there are significant penalties for submitting false information, including possible fines and imprisonment.

For Ecology Use Only



P5JkPR/HIn+MX8BoEchB0SFG56r1z76NUyTBoc/1i4+81Sw/a
+CCLC1umR3XjyWeRx6fo67bO4H1fcZl9iTmk7H8s6FdWAKQLSvMMedJ0AI=

Washington State Department of Ecology **Discharge Monitoring Report (DMR)**

Permit Number: WAR305034 **Permittee:** Cedar Hills regional Landfill

Facility County: King **Receiving Waterbody:** Queen City Farms Lake (QCFL)

Monitoring Period: 11/01/2018 - 11/30/2018 **Outfall:** CHL - Queen City Farms Lake (QCFL) **Version:** 1

Week	Monitoring Point	Turbidity (NTU) Measured NTU Weekly Grab	pH Standard Units Weekly Grab
		CHL	CHL
2-Su	**11/4/18**		
2-M	**11/5/18**	22.2	M
3-T	**11/13/18**	23.7	M
4-T	**11/20/18**	15	M
5-M	**11/26/18**	20.1	M
5-T	**11/27/18**	18.3	M
5-W	**11/28/18**	26.6	M
5-Th	**11/29/18**	41.1	M
5-F	**11/30/18**	46.5	M
Minimum			M
			BM: >= 6.5 (RO)
Maximum		46.5	M
		BM: <= 25 (RO)	BM: <= 8.5 (RO)

Reporting Codes Used: C - No Discharge, M - Monitoring Is Conditional/Not Req This MP

Overall DMR Notes/Comment

Stormwater treatment in ditches with Floc TM Socs was approved by Ecology, but was NOT implemented in November. The use of the floc socs is on hold.

BMPs

Monitoring Point	Week	BMP
	1	Check Dams
	1	Sediment Trap
	1	Silt Fence
	1	Straw Wattles
	1	Temporary Sediment Pond
	1	Triangular Silt Dike
	2	Check Dams
	2	Sediment Trap
	2	Silt Fence
	2	Straw Wattles
	2	Temporary Sediment Pond
	2	Triangular Silt Dike
	3	Check Dams
	3	Sediment Trap
	3	Silt Fence
	3	Straw Wattles
	3	Temporary Sediment Pond
	3	Triangular Silt Dike
	4	Check Dams
	4	Sediment Trap
	4	Silt Fence
	4	Straw Wattles
	4	Temporary Sediment Pond
	4	Triangular Silt Dike
	5	Check Dams
	5	Sediment Trap

	5	Silt Fence
	5	Straw Wattles
	5	Temporary Sediment Pond
	5	Triangular Silt Dike

Washington State Department of Ecology **Discharge Monitoring Report (DMR)**

Permit Number: WAR305034 **Permittee:** Cedar Hills regional Landfill

Facility County: King **Receiving Waterbody:** gravel pit lake

Monitoring Period: 11/01/2018 - 11/30/2018 **Outfall:** grav - The gravel pit lake infiltrates and has no surface discharge outlet **Version:** 1

Week	Monitoring Point	Turbidity (NTU) Measured NTU Weekly Grab	pH Standard Units Weekly Grab
		C3	C3
2-Su	**11/4/18**		
2-M	**11/5/18**	22.4	M
3-T	**11/13/18**	2.72	M
4-T	**11/20/18**	1.67	M
5-M	**11/26/18**	13.6	M
5-T	**11/27/18**	63.8	M
5-W	**11/28/18**	107	M
5-Th	**11/29/18**	17.4	M
Minimum			M
			BM: >= 6.5 (RO)
Maximum		107	M
		BM: <= 25 (RO)	BM: <= 8.5 (RO)

Reporting Codes Used: C - No Discharge, M - Monitoring Is Conditional/Not Req This MP

Overall DMR Notes/Comment

Stormwater treatment in ditches with Floc TM Socs was approved by Ecology, but was NOT implemented in November. The use of the floc socs is on hold.

BMPs

Monitoring Point	Week	BMP
	1	Check Dams
	1	Sediment Trap
	1	Silt Fence
	1	Straw Wattles
	1	Temporary Sediment Pond
	2	Check Dams
	2	Sediment Trap
	2	Silt Fence
	2	Straw Wattles
	2	Temporary Sediment Pond
	3	Check Dams
	3	Sediment Trap
	3	Silt Fence
	3	Straw Wattles
	3	Temporary Sediment Pond
	4	Check Dams
	4	Sediment Trap
	4	Silt Fence
	4	Straw Wattles
	4	Temporary Sediment Pond
	5	Check Dams
	5	Sediment Trap
	5	Silt Fence
	5	Straw Wattles
	5	Temporary Sediment Pond

Washington State Department of Ecology **Discharge Monitoring Report (DMR)**

Permit Number: WAR305034 **Permittee:** Cedar Hills regional Landfill

Facility County: King **Receiving Waterbody:** McDonald Creek

Monitoring Period: 11/01/2018 - 11/30/2018 **Outfall:** McDo - Outfall SW N4 The discharge on the northern boundary drains to McDonald Creek at Lat 47 477875 and Long 122 054943 **Version:** 1

Week	Monitoring Point	Turbidity (NTU) Measured NTU Weekly Grab	pH Standard Units Weekly Grab	Turbidity (NTU) Measured NTU Weekly Grab	pH Standard Units Weekly Grab
		C1	C1	C2	C2
2-Su	**11/4/18**				
2-M	**11/5/18**	114	M	4.92	M
3-T	**11/13/18**	27.8	M	C	M
4-T	**11/20/18**	11.6	M	7.12	M
5-M	**11/26/18**	15.9	M	5.06	M
5-T	**11/27/18**	17.2	M	5.89	M
5-W	**11/28/18**	115	M	16.2	M
5-Th	**11/29/18**	23.1	M		
Minimum			M		M
			BM: >= 6.5 (RO)		BM: >= 6.5 (RO)
Maximum		114	M	16.2	M
		BM: <= 25 (RO)	BM: <= 8.5 (RO)	BM: <= 25 (RO)	BM: <= 8.5 (RO)

Reporting Codes Used: C - No Discharge, M - Monitoring Is Conditional/Not Req This MP

Overall DMR Notes/Comment

Stormwater treatment in ditches with Floc TM Socs was approved by Ecology, but was NOT implemented in November. The use of the floc socs is on hold.

BMPs

Monitoring Point	Week	BMP
	1	Check Dams
	1	Sediment Trap
	1	Silt Fence
	1	Straw Wattles
	1	Temporary Sediment Pond
	2	Check Dams
	2	Sediment Trap
	2	Silt Fence
	2	Straw Wattles
	2	Temporary Sediment Pond
	3	Check Dams
	3	Sediment Trap
	3	Silt Fence
	3	Straw Wattles
	3	Temporary Sediment Pond
	4	Check Dams
	4	Sediment Trap
	4	Silt Fence
	4	Straw Wattles
	4	Temporary Sediment Pond
	5	Check Dams
	5	Sediment Trap
	5	Silt Fence
	5	Straw Wattles
	5	Temporary Sediment Pond

I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

George Iftner	12/11/2018 3:17:18 PM
Signature	**Date**

Washington Department of Ecology
Electronic Submission Cover Letter

DEPARTMENT OF ECOLOGY
State of Washington

WQWebDMR - Permit# WAR305034 - DMR Submission Id: 1656514 - 1/7/2019 1:25:17 PM

Company Name	Signer Name	System Name
Herrera Environmental Consultants	George Iftner	WQWebPortal

Attachments:

Document Name Or Description	Document Name
Submitted Copy of Record for Herrera Environmental Consultants	Copy of Record HerreraEnvironmentalConsultants Monday January 7 2019

Attestation Agreed to at Signing:

I certify I personally signed and submitted to the Department of Ecology an Electronic Signature Agreement. I understand that use of my electronic signature account/password to submit this information is equal to my written signature. I have read and followed all the rules of use in my Electronic Signature Agreement. I believe no one but me has had access to my password and other account information.

I further certify: I had the opportunity to review the content or meaning of the submittal before signing it; and to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I intend to submit this information as part of the implementation, oversight, and enforcement of a federal environmental program. I am aware there are significant penalties for submitting false information, including possible fines and imprisonment.

For Ecology Use Only



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+z0e2JMvtfG1391hyUUTfy7TnX1j0PN90vujP/zvlw4qlQNS2PEEkIBZRmUME/I32Wfcv1sEPzNCxGwy5wCqEsuvbDCCHL
w1n8=

Washington State Department of Ecology **Discharge Monitoring Report (DMR)**

Permit Number: WAR305034 **Permittee:** Cedar Hills regional Landfill

Facility County: King **Receiving Waterbody:** Queen City Farms Lake (QCFL)

Monitoring Period: 12/01/2018 - 12/31/2018 **Outfall:** CHL - Queen City Farms Lake (QCFL) **Version:** 1

Week	Monitoring Point	Turbidity (NTU) Measured NTU Weekly Grab	pH Standard Units Weekly Grab
		CHL	CHL
2-Su	**12/2/18**		
2-T	**12/4/18**	23.1	M
3-M	**12/10/18**	22.2	M
3-W	**12/12/18**	18.3	M
4-Su	**12/16/18**		
4-T	**12/18/18**	17.8	M
4-W	**12/19/18**	19.2	M
6-Su	**12/30/18**		
Minimum			M
			BM: >= 6.5 (RO)
Maximum		23.1	M
		BM: <= 25 (RO)	BM: <= 8.5 (RO)

Reporting Codes Used: M - Monitoring Is Conditional/Not Req This MP

Overall DMR Notes/Comment

the jobsite was shut down for the holidays from December 24 - January 1 with no construction activity.

BMPs

Monitoring Point	Week	BMP
	1	Check Dams
	1	Sediment Trap
	1	Silt Fence
	1	Straw Wattles
	1	Temporary Sediment Pond
	2	Check Dams
	2	Sediment Trap
	2	Silt Fence
	2	Straw Wattles
	2	Temporary Sediment Pond
	3	Check Dams
	3	Sediment Trap
	3	Silt Fence
	3	Straw Wattles
	3	Temporary Sediment Pond
	4	Check Dams
	4	Sediment Trap
	4	Silt Fence
	4	Straw Wattles
	4	Temporary Sediment Pond
	5	Check Dams
	5	Sediment Trap
	5	Silt Fence
	5	Straw Wattles
	5	Temporary Sediment Pond
	6	Check Dams
	6	Sediment Trap
	6	Silt Fence

	6	Straw Wattles
	6	Temporary Sediment Pond

Washington State Department of Ecology **Discharge Monitoring Report (DMR)**

Permit Number: WAR305034 **Permittee:** Cedar Hills regional Landfill

Facility County: King **Receiving Waterbody:** gravel pit lake

Monitoring Period: 12/01/2018 - 12/31/2018 **Outfall:** grav - The gravel pit lake infiltrates and has no surface discharge outlet **Version:** 1

Week	Monitoring Point	Turbidity (NTU) Measured NTU Weekly Grab	pH Standard Units Weekly Grab
		C3	C3
2-Su	**12/2/18**		
2-T	**12/4/18**	15.2	M
3-M	**12/10/18**	54	M
3-T	**12/11/18**	49.3	M
3-W	**12/12/18**	96.2	M
3-Th	**12/13/18**	143	M
3-F	**12/14/18**	93.1	M
4-Su	**12/16/18**		
4-T	**12/18/18**	61.8	M
4-W	**12/19/18**	59.8	M
6-Su	**12/30/18**		
Minimum			M
			BM: >= 6.5 (RO)
Maximum		143	M
		BM: <= 25 (RO)	BM: <= 8.5 (RO)

Reporting Codes Used: M - Monitoring Is Conditional/Not Req This MP

Overall DMR Notes/Comment

the jobsite was shut down for the holidays from December 24 - January 1 with no construction activity.

BMPs

Monitoring Point	Week	BMP
	1	Check Dams
	1	Sediment Trap
	1	Silt Fence
	1	Straw Wattles
	1	Temporary Sediment Pond
	2	Check Dams
	2	Sediment Trap
	2	Silt Fence
	2	Straw Wattles
	2	Temporary Sediment Pond
	3	Check Dams
	3	Sediment Trap
	3	Silt Fence
	3	Straw Wattles
	3	Temporary Sediment Pond
	4	Check Dams
	4	Sediment Trap
	4	Silt Fence
	4	Straw Wattles
	4	Temporary Sediment Pond
	5	Check Dams
	5	Sediment Trap
	5	Silt Fence
	5	Straw Wattles

	5	Temporary Sediment Pond
	6	Check Dams
	6	Sediment Trap
	6	Silt Fence
	6	Straw Wattles
	6	Temporary Sediment Pond

Washington State Department of Ecology **Discharge Monitoring Report (DMR)**

Permit Number: WAR305034 **Permittee:** Cedar Hills regional Landfill

Facility County: King **Receiving Waterbody:** McDonald Creek

Monitoring Period: 12/01/2018 - 12/31/2018 **Outfall:** McDo - Outfall SW N4 The discharge on the northern boundary drains to McDonald Creek at Lat 47 477875 and Long 122 054943 **Version:** 1

Week	Monitoring Point	Turbidity (NTU) Measured NTU Weekly Grab	pH Standard Units Weekly Grab	Turbidity (NTU) Measured NTU Weekly Grab	pH Standard Units Weekly Grab
		C1	C1	C2	C2
2-Su	**12/2/18**				
2-T	**12/4/18**	14.1	M	6.32	M
3-M	**12/10/18**	15.4	M	7.01	M
3-W	**12/12/18**	85.6	M	10.5	M
3-Th	**12/13/18**	42.8	M		
3-F	**12/14/18**	30.3	M		
4-T	**12/18/18**	16.7	M	8.53	M
4-W	**12/19/18**	51.7	M	8.79	M
5-Su	**12/23/18**				
6-Su	**12/30/18**				
Minimum			M		M
			BM: >= 6.5 (RO)		BM: >= 6.5 (RO)
Maximum		85.6	M	10.5	M
		BM: <= 25 (RO)	BM: <= 8.5 (RO)	BM: <= 25 (RO)	BM: <= 8.5 (RO)

Reporting Codes Used: M - Monitoring Is Conditional/Not Req This MP

Overall DMR Notes/Comment

the jobsite was shut down for the holidays from December 24 - January 1 with no construction activity.

BMPs

Monitoring Point	Week	BMP
	1	Check Dams
	1	Sediment Trap
	1	Silt Fence
	1	Straw Wattles
	1	Temporary Sediment Pond
	2	Check Dams
	2	Sediment Trap
	2	Silt Fence
	2	Straw Wattles
	2	Temporary Sediment Pond
	3	Check Dams
	3	Sediment Trap
	3	Silt Fence
	3	Straw Wattles
	3	Temporary Sediment Pond
	4	Check Dams
	4	Sediment Trap
	4	Silt Fence
	4	Straw Wattles
	4	Temporary Sediment Pond
	5	Check Dams
	5	Sediment Trap
	5	Silt Fence
	5	Straw Wattles
	5	Temporary Sediment Pond

	6	Check Dams
	6	Sediment Trap
	6	Silt Fence
	6	Straw Wattles
	6	Temporary Sediment Pond

I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

George Iftner
Signature

1/7/2019 1:25:16 PM
Date

Landfill Gas Monitoring Data

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Compliance Probes

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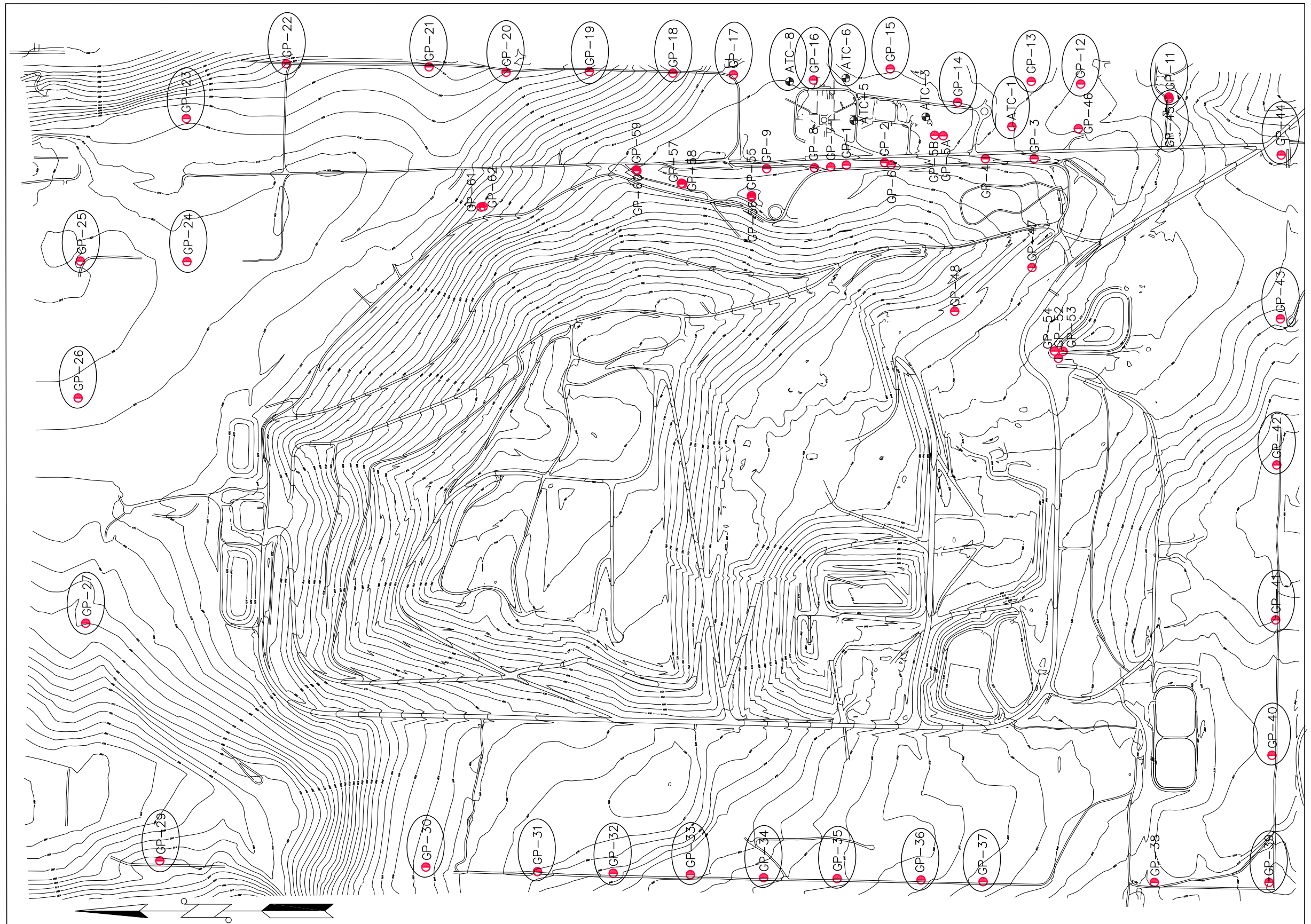

Northing	Easting	Elev	Description	Inst. Date
170,000.33	1,701,942.93	640.02	GP-1 CASE EL	1985/86
169,740.00	1,701,960.00	622.00	GP-2 CASE EL	1985/86
168,758.11	1,701,985.28	594.21	GP-3 CASE EL	1985/86
169,058.18	1,701,972.94	606.19	GP-4 CASE EL	1985/86
169,370.19	1,702,134.95	616.23	GP-5A GRND EL	1988
169,422.02	1,702,138.87	619.63	GP-5B CASE EL	1988
169,731.73	1,701,946.48	635.59	GP-6 CASE EL	1988
170,101.22	1,701,930.58	640.66	GP-7 CASE EL	1988
170,208.37	1,701,925.10	642.67	GP8 CASE EL	1988
170,519.95	1,701,919.34	645.27	GP-9 CASE EL	1988
		GP-10 NOT INSTALLED		1988
167,890.09	1,702,389.27	567.15	GP-11 CASE EL	1988
168,466.64	1,702,473.27	568.08	GP-12 CASE EL	1988
168,790.03	1,702,490.84	588.15	GP-13 CASE EL	1988
169,271.56	1,702,354.75	613.32	GP-14 CASE EL	1988
169,724.93	1,702,446.19	618.75	GP-15 CASE EL	1988
170,214.28	1,702,500.56	630.19	GP-16 CASE EL	1988
170,738.83	1,702,535.09	625.18	GP-17 CASE EL	1988
171,132.85	1,702,543.29	600.83	GP-18 CASE EL	1988
171,634.52	1,702,554.91	544.15	GP-19 CASE EL	1988
172,224.83	1,702,550.70	496.61	GP-20 CASE EL	1988
172,729.15	1,702,584.65	489.79	GP-21 CASE EL	1988
173,662.40	1,702,607.81	374.84	GP-22 CASE EL	1988
174,317.16	1,702,248.74	501.77	GP-23 CASE EL	1988
174,313.44	1,701,311.74	544.72	GP-24 CASE EL	1988
175,011.63	1,701,324.89	533.86	GP-25 CASE EL	1988
175,043.82	1,700,364.55	541.69	GP-26 CASE EL	1988
174,983.78	1,698,935.68	484.75	GP-27 CASE EL	1988
		GP-28 NOT INSTALLED		1988
174,455.39	1,697,385.67	431.05	GP-29 CASE EL	1988
172,787.40	1,697,339.61	644.62	GP-30 CASE EL	1988
172,013.96	1,697,321.72	673.37	GP-31 CASE EL	1988
171,524.28	1,697,308.08	647.57	GP-32 CASE EL	1988
171,017.18	1,697,293.36	625.03	GP-33 CASE EL	1988
170,537.12	1,697,287.04	604.93	GP-34 CASE EL	1988
170,083.32	1,697,286.32	596.28	GP-35 CASE EL	1988
169,510.89	1,697,265.94	574.92	GP-36 CASE EL	1988
169,049.03	1,697,252.08	557.38	GP-37 CASE EL	1988
167,909.72	1,697,243.54	523.57	GP-38 CASE EL	1988
167,239.45	1,697,232.41	541.03	GP-39 CASE EL	1988
167,205.68	1,698,100.32	502.77	GP-40 CASE EL	1988
167,191.96	1,698,965.50	482.97	GP-41 CASE EL	1988
167,183.37	1,699,979.90	457.95	GP-42 CASE EL	1988
167,160.00	1,700,961.11	536.86	GP-43 CASE EL	1988
167,135.28	1,702,007.20	529.11	GP-44 CASE EL	1994
167,888.74	1,702,378.77	567.47	GP-45 CASE EL	1994
168,482.15	1,702,182.52	589.79	GP-46 CASE EL	1994
168,783.75	1,701,272.71	600.07	GP-47 CASE EL	1994
169,289.65	1,700,985.98	616.56	GP-48 CASE EL	1994
168,612.91	1,700,710.62	561.13	GP-52 GRND EL	2001
168,601.99	1,700,711.34	561.02	GP-53 GRND EL	2001
168,617.89	1,700,717.53	561.20	GP-54 GRND EL	2001
168,916.92	1,702,195.87	591.29	GP-ATC-1 GRND EL	1985/86
169,479.79	1,702,259.97	616.25	GP-ATC-3 GRND EL	1985/86
		GP-ATC-4 ABANDONED/REMOVED		
169,950.42	1,702,235.30	625.65	GP-ATC-5 GRND EL	1985/86
170,002.70	1,702,512.99	620.16	GP-ATC-6 GRND EL	1985/86
170,371.26	1,702,490.56	629.94	GP-ATC-8 GRND EL	1985/86

LEGEND

INTERIOR LFG MONITORING PROBES

LFG MIGRATION MONITORING PROBES

GP-61	172389.358	1701669.133	561.42	563.673	563.18	GP61 TOP LID
GP-62	172375.658	1701672.384	563.35	565.703	565.28	GP62 TOP LID
GP-59	171373.815	1701913.385	633.45	635.991	635.45	GP59 TOP LID
GP-60	171369.626	1701906.243	633.68	636.366	635.84	GP60 TOP LID
GP-57	171077.878	1701825.385	637.02	639.432	639.00	GP57 TOP LID
GP-58	171070.016	1701820.583	637.56	640.345	639.81	GP58 TOP LID
GP-56	170619.58	1701733.666	641.07	644.03	643.57	GP56 TOP LID
GP-55	170619.474	1701744.081	640.99	643.621	643.09	GP55 TOP LID

DATE	REVISION	BY

KING COUNTY DEPARTMENT OF NATURAL RESOURCES AND PARKS

SOLID WASTE DIVISION

CEDAR HILLS REGIONAL LANDFILL
LANDFILL GAS MIGRATION MONITORING PLAN

APPROVED VICTOR O. OKEREKE DATE 03-27-08

RECOMMENDED TOM THENO DATE 03-27-08

DESIGNED N/A DRAWN PHAM / McEWEN

PROJECT NO. _____ SURVEY NO. _____ SHEET 1 OF 1

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CEDAR HILLS REGIONAL LANDFILL
Landfill Gas Compliance Probes
October 2018 Monitoring

Probe ID	Date/Time	CH4 %vol	CO2 %vol2	O2 %vol3	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
ATC-1D	10/24/2018 9:24	0	0.1	20.3	0	0	None
ATC-1S	10/24/2018 9:23	0	0.9	20	0	0.02	None
ATC-6D	10/24/2018 10:34	0	0.4	20.3	0	-0.06	None
ATC-6S	10/24/2018 10:33	0	0.7	20.1	0	0.02	None
ATC-8D	10/24/2018 10:25	0	0.9	20	0	0	None
ATC-8S	10/24/2018 10:24	0	0.3	20.3	0	-0.21	None
GP-11A	10/24/2018 9:08	0	0.7	19.7	0	0.09	None
GP-11B	10/24/2018 9:10	0	0.1	20.3	0	-0.22	None
GP-11C	10/24/2018 9:11	0	0.1	20.3	0	-0.12	None
GP-11D	10/24/2018 9:13	0	0.1	20.1	0	-0.13	None
GP-12A	10/24/2018 9:32	0	0.7	20.6	0	-0.03	None
GP-12B	10/24/2018 9:33	0	0.1	21	0	-0.01	None
GP-12C	10/24/2018 9:34	0	0.2	20.1	0	-0.02	None
GP-12D	10/24/2018 9:35	0	0.2	20.7	0	-0.12	None
GP-13A	10/24/2018 9:39	0	0.8	20.6	0	-0.03	None
GP-13B	10/24/2018 9:40	0	0.2	20.3	0	0.03	None
GP-13C	10/24/2018 9:41	0	0.1	21	0	-0.04	None
GP-13D	10/24/2018 9:42	0	0.1	21	0	-0.59	None
GP-14A	10/24/2018 9:48	0	0.1	21	0	-7.00E-02	None
GP-14B	10/24/2018 9:51	0	0.1	20.9	0	-0.08	None
GP-15A	10/24/2018 10:16	0	1.3	19.6	0	-0.02	None
GP-15C	10/24/2018 10:17	0	0.3	19.8	0	-0.02	None
GP-15D	10/24/2018 10:18	0	0.2	20.6	0	-0.02	None
GP-16A	10/24/2018 10:27	0	1.3	19.7	0	-0.02	None
GP-16B	10/24/2018 10:28	0	0.2	20.4	0	-0.75	None
GP-16C	10/24/2018 10:29	0	0.1	20.6	0	-0.49	None
GP-17A	10/24/2018 10:43	0	2.5	18.4	0	0.01	None
GP-17B	10/24/2018 10:44	0	0.6	16.6	0	0.03	None
GP-17C	10/24/2018 10:45	0	0.1	20.6	0	-0.54	None
GP-18A	10/24/2018 10:48	0	2.4	17.8	0	0.13	None
GP-18B	10/24/2018 10:49	0	0.4	16.3	0	0.04	None
GP-18C	10/24/2018 10:51	0	0.2	16.4	0	-0.41	None
GP-19A	10/24/2018 10:53	0	1.2	18	0	0.03	None
GP-19B	10/24/2018 10:55	0	0.6	16.2	0	0.01	None
GP-19C	10/24/2018 10:56	0	0.1	20.5	0	0.03	None
GP-20A	10/24/2018 10:59	0	0.4	20.1	0	0.04	None
GP-20B	10/24/2018 11:00	0	0.2	19.3	0	0	None
GP-20C	10/24/2018 11:01	0	0.2	8.4	0	7.00E-02	None
GP-21A	10/24/2018 11:05	0	0.6	19.5	0	0.04	None
GP-21B	10/24/2018 11:06	0	0.2	11.4	0	7.00E-02	None
GP-21C	10/24/2018 11:07	0	0	0	0	0	NR Flow fail
GP-22A	10/24/2018 11:10	0	2.7	16	0	0.01	None
GP-22C	10/24/2018 11:11	0	1.1	2.4	0	-0.23	None
GP-23A	10/24/2018 11:18	0	0.1	20.6	0	7.00E-02	None
GP-23B	10/24/2018 11:19	0	0.1	20.6	0	0.08	None

CEDAR HILLS REGIONAL LANDFILL
Landfill Gas Compliance Probes
October 2018 Monitoring

Probe ID	Date/Time	CH4 %vol	CO2 %vol2	O2 %vol3	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
GP-23C	10/24/2018 11:20	0	0.1	20.6	0	0.05	None
GP-24A	10/24/2018 11:23	0	4.3	16.3	0	0.05	None
GP-24B	10/24/2018 11:24	0	0.4	20.2	0	0.02	None
GP-25	10/24/2018 11:26	0	2.6	17	0	0.03	None
GP-26	10/24/2018 11:29	0	0.4	19.6	0	-0.21	None
GP-27	10/24/2018 11:37	0	8.9	9.9	0	7.00E-02	None
GP-29A	10/24/2018 11:41	0	1.8	18.7	0	0.09	None
GP-29B	10/24/2018 11:42	0	0.4	19.7	0	0.04	None
GP-30A	10/24/2018 13:00	0	0.8	19.1	0	0.13	None
GP-30B	10/24/2018 13:02	0	0	20.1	0	0.08	None
GP-31A	10/24/2018 13:06	0	5.9	14.1	0	0.02	None
GP-31B	10/24/2018 13:07	0	0.2	17.7	0	0.02	None
GP-31C	10/24/2018 13:08	0	1.2	17.7	0	0.03	None
GP-32A	10/24/2018 13:11	0	0.4	19.8	0	0.04	None
GP-32B	10/24/2018 13:12	0	0.2	20.1	0	0.01	None
GP-32C	10/24/2018 13:13	0	0.2	20.1	0	-0.02	None
GP-33A	10/24/2018 13:15	0	2.2	17.5	0	0.04	None
GP-33B	10/24/2018 13:16	0	0.5	19.8	0	-0.04	None
GP-33C	10/24/2018 13:18	0	0.1	20.6	0	-0.41	None
GP-34A	10/24/2018 13:20	0	7.8	12.1	0	0.03	None
GP-34B	10/24/2018 13:21	0	0.1	20.6	0	0.01	None
GP-34C	10/24/2018 13:22	0	0.1	19.4	0	-0.27	None
GP-35A	10/24/2018 13:24	0	4.3	16	0	0.04	None
GP-35B	10/24/2018 13:26	0	0.1	20.8	0	-0.01	None
GP-35C	10/24/2018 13:27	0	0.1	20.8	0	0	None
GP-36A	10/24/2018 13:30	0	0.8	20.2	0	-1.25	None
GP-36B	10/24/2018 13:31	0	2.4	18.3	0	0.02	None
GP-36C	10/24/2018 13:32	0	0.3	20.1	0	-0.02	None
GP-37A	10/24/2018 13:35	0	1.8	18	0	0.02	None
GP-37B	10/24/2018 13:36	0	0	0	0	0	NR Flow fail
GP-37C	10/24/2018 13:37	0	0.4	3.5	0	-0.28	None
GP-39	10/24/2018 13:41	0	0.7	18.7	0	0.02	None
GP-40	10/24/2018 13:44	0	0.1	20.5	0	0.02	None
GP-41A	10/24/2018 13:47	0	2.3	18.9	0	0.04	None
GP-41B	10/24/2018 13:48	0	0.6	8.9	0	0	None
GP-41C	10/24/2018 13:49	0	0.1	20.8	0	0.04	None
GP-42A	10/24/2018 13:52	0	3.9	14.7	0	0.05	None
GP-42B	10/24/2018 13:53	0	0.2	20.5	0	0.08	None
GP-43A	10/24/2018 13:56	0	0.1	20.9	0	0.1	None
GP-43B	10/24/2018 13:58	0	0	21	0	0.03	None
GP-43C	10/24/2018 13:59	0	0.1	19.5	0	0.02	None
GP-44A	10/24/2018 14:02	0	7.2	12.3	0	0.02	None
GP-44B	10/24/2018 14:03	0	3.9	16.5	0	0.06	None
GP-44C	10/24/2018 14:04	0	0.1	21	0	0.05	None
GP-45D	10/24/2018 9:16	0	0.1	20.4	0	0	None

CEDAR HILLS REGIONAL LANDFILL
Landfill Gas Compliance Probes
October 2018 Monitoring

Probe ID	Date/Time	CH4 %vol	CO2 %vol2	O2 %vol3	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
GP-45I	10/24/2018 9:15	0	0.1	20.4	0	7.00E-02	None
GP-45S	10/24/2018 9:14	0	0.1	20.3	0	0.03	None

CEDAR HILLS REGIONAL LANDFILL
Landfill Gas Compliance Probes
November 2018 Monitoring

Probe ID	Date/Time	CH4 %vol	CO2 %vol2	O2 %vol3	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
ATC-1D	11/20/2018 11:01	0	0.3	11.9	0	0.68	None
ATC-1S	11/20/2018 11:00	0	1.1	18	0	0.06	None
ATC-6D	11/20/2018 12:21	0	0.7	10.7	0	1.08	None
ATC-6S	11/20/2018 12:20	0	1	18.9	0	0	None
ATC-8D	11/20/2018 12:27	0	2.3	17.1	0	0	None
ATC-8S	11/20/2018 12:26	0	0.2	12.4	0	2.44	None
GP-11A	11/20/2018 10:17	0	1	18.8	0	0.06	None
GP-11B	11/20/2018 10:18	0	0.8	12.6	0	0.69	None
GP-11C	11/20/2018 10:19	0	0.1	16.2	0	0.85	None
GP-11D	11/20/2018 10:21	0	0.3	13.1	0	0.17	None
GP-12A	11/20/2018 11:14	0	1.4	18.4	0	0	None
GP-12B	11/20/2018 11:15	0	0	19.8	0	0	None
GP-12C	11/20/2018 11:16	0	0.1	16.6	0	7.6	None
GP-12D	11/20/2018 11:18	0	0.2	17.8	0	3.4	None
GP-13A	11/20/2018 11:06	0	1.1	18.6	0	0	None
GP-13B	11/20/2018 11:07	0	0.4	17.7	0	0.1	None
GP-13C	11/20/2018 11:09	0	0.1	19.2	0	0.1	None
GP-13D	11/20/2018 11:10	0	0.1	18.8	0	2.36	None
GP-14A	11/20/2018 11:24	0	0.1	18.4	0	1.00E+00	None
GP-14B	11/20/2018 11:25	0	0.1	18.6	0	0.69	None
GP-15A	11/20/2018 11:37	0	1.1	19.5	0	-2.03	H2O @34 SECS.
GP-15C	11/20/2018 11:38	0	2.5	4.2	0	0.2	None
GP-15D	11/20/2018 11:39	0	0.1	20	0	-2.35	None
GP-16A	11/20/2018 12:14	0	1.5	18.1	0	0.07	None
GP-16B	11/20/2018 12:16	0	0.2	18.9	0	0.53	None
GP-16C	11/20/2018 12:17	0	0.9	13.4	0	2.96	None
GP-17A	11/20/2018 14:19	0	0	0	0	0	NR H2O
GP-17B	11/20/2018 14:20	0	0.7	13.1	0	0.04	None
GP-17C	11/20/2018 14:22	0	0	19.5	0	3.09	None
GP-18A	11/20/2018 14:25	0	2.3	16.2	0	0.03	None
GP-18B	11/20/2018 14:26	0	0.3	15.8	0	0.17	None
GP-18C	11/20/2018 14:27	0	0.2	14.9	0	3.39	None
GP-19A	11/20/2018 14:30	0	0	19.8	0	0.03	None
GP-19B	11/20/2018 14:31	0	0.6	15.2	0	0.26	None
GP-19C	11/20/2018 14:33	0	0	19.8	0	0.31	None
GP-20A	11/20/2018 14:36	0	1.1	18.4	0	0.06	None
GP-20B	11/20/2018 14:37	0	0.1	18.5	0	0.07	None
GP-20C	11/20/2018 14:38	0	0.2	6.3	0	4.00E-01	None
GP-21A	11/20/2018 14:41	0	0	20	0	0.04	None
GP-21B	11/20/2018 14:42	0	0.1	11.2	0	2.00E-02	None
GP-21C	11/20/2018 14:43	0	0	0	0	0	NR H2O
GP-22A	11/20/2018 14:47	0	0.5	19.2	0	-8.85	None
GP-22C	11/20/2018 14:48	0	1.2	2	0	3.35	None
GP-23A	11/20/2018 15:30	0	0	20.1	0	0.00E+00	None
GP-23B	11/20/2018 15:31	0	0	20.2	0	0.02	None

CEDAR HILLS REGIONAL LANDFILL
Landfill Gas Compliance Probes
November 2018 Monitoring

Probe ID	Date/Time	CH4 %vol	CO2 %vol2	O2 %vol3	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
GP-23C	11/20/2018 15:32	0	0	20.2	0	-0.22	None
GP-24A	11/20/2018 15:35	0	1.6	16.5	0	0.06	None
GP-24B	11/20/2018 15:37	0	1.1	16.7	0	1.8	None
GP-25	11/20/2018 15:39	0	3.2	14.9	0	0.05	None
GP-26	11/20/2018 15:42	0	0.4	16.5	0	0.84	None
GP-27	11/20/2018 15:45	0	8.5	8.3	0	-2.00E-02	None
GP-29A	11/20/2018 15:49	0	3.9	15.5	0	0.01	None
GP-29B	11/20/2018 15:50	0	0.4	19.5	0	0.17	None
GP-30A	11/20/2018 8:20	0	1.7	18.4	0	0.04	None
GP-30B	11/20/2018 8:21	0	0.9	19	0	0.08	None
GP-31A	11/20/2018 8:24	0	6.2	13.3	0	-0.04	None
GP-31B	11/20/2018 8:25	0	0.3	14.9	0	0.36	None
GP-31C	11/20/2018 8:27	0	1.4	17.3	0	-0.05	None
GP-32A	11/20/2018 8:29	0	0.6	18.8	0	-0.01	None
GP-32B	11/20/2018 8:30	0	0.3	19.6	0	0.03	None
GP-32C	11/20/2018 8:32	0	0.3	19.7	0	-0.03	None
GP-33A	11/20/2018 8:35	0	2.6	16.5	0	-0.03	None
GP-33B	11/20/2018 8:37	0	0.9	18.2	0	0.03	None
GP-33C	11/20/2018 8:38	0	0.1	20	0	-0.02	None
GP-34A	11/20/2018 8:41	0	9	10.6	0	0.04	None
GP-34B	11/20/2018 8:42	0	0.2	19.5	0	0.25	None
GP-34C	11/20/2018 8:43	0	0.1	4.1	0	2.13	None
GP-35A	11/20/2018 8:47	0	7.4	10.2	0	-0.04	None
GP-35B	11/20/2018 8:48	0	0.1	20.1	0	-0.05	None
GP-35C	11/20/2018 8:50	0	0.1	20.3	0	0.02	None
GP-36A	11/20/2018 8:52	0	0.7	15	0	1.46	None
GP-36B	11/20/2018 8:54	0	3	16.3	0	-0.08	None
GP-36C	11/20/2018 8:55	0	0.3	13.3	0	1.37	None
GP-37A	11/20/2018 8:59	0	1.9	17	0	-0.04	None
GP-37B	11/20/2018 9:00	0	0.5	17.8	0	0	None
GP-37C	11/20/2018 9:02	0	0.6	1.9	0	2.49	None
GP-39	11/20/2018 9:07	0	0.6	18.2	0	0.03	None
GP-40	11/20/2018 9:10	0	0.1	19.9	0	0.14	None
GP-41A	11/20/2018 9:13	0	2.7	18.2	0	-0.03	None
GP-41B	11/20/2018 9:14	0	0.8	7.3	0	0.05	None
GP-41C	11/20/2018 9:16	0	0.1	20.7	0	-0.05	None
GP-42A	11/20/2018 9:19	0	0	0	0	0	NR H2O
GP-42B	11/20/2018 9:21	0	0.6	17.2	0	1.02	None
GP-43A	11/20/2018 9:24	0	0.3	18.2	0	-0.08	None
GP-43B	11/20/2018 9:25	0	0.1	20.7	0	-0.04	None
GP-43C	11/20/2018 9:26	0	0.1	19.4	0	0.09	None
GP-44A	11/20/2018 9:29	0	0.4	20.1	0	0.08	None
GP-44B	11/20/2018 9:31	0	0.9	9.7	0	4.67	None
GP-44C	11/20/2018 9:32	0	0.1	20.1	0	0.01	None
GP-45D	11/20/2018 10:15	0	0.1	18.6	0	0.98	None

CEDAR HILLS REGIONAL LANDFILL
Landfill Gas Compliance Probes
November 2018 Monitoring

Probe ID	Date/Time	CH4 %vol	CO2 %vol2	O2 %vol3	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
GP-45I	11/20/2018 10:13	0	0.1	19.1	0	1.20E-01	None
GP-45S	11/20/2018 10:12	0	0.4	14.5	0	0.06	None

CEDAR HILLS REGIONAL LANDFILL
Landfill Gas Compliance Probes
December 2018 Monitoring

Probe ID	Date/Time	CH4 %vol	CO2 %vol2	O2 %vol3	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
ATC-1D	12/24/2018 10:27	0	0.2	14.8	0	0.12	None
ATC-1S	12/24/2018 10:26	0	0.1	20.2	0	0.04	None
ATC-6D	12/24/2018 11:13	0	0.9	4.5	0	8.70	None
ATC-6S	12/24/2018 11:12	0	0.2	20.8	0	-0.08	None
ATC-8D	12/24/2018 11:04	0	0.1	21	0	-0.21	None
ATC-8S	12/24/2018 11:02	0	0.2	18.3	0	0.65	None
GP-11A	12/24/2018 10:00	0	0.3	20.2	0	0.02	None
GP-11B	12/24/2018 10:01	0	0.1	20.9	0	0.04	None
GP-11C	12/24/2018 10:03	0	0.1	20.9	0	0.07	None
GP-11D	12/24/2018 10:04	0	0.1	21	0	0.03	None
GP-12A	12/24/2018 10:32	0	0.1	20.7	0	0.01	None
GP-12B	12/24/2018 10:33	0	0.1	20.8	0	0.00	None
GP-12C	12/24/2018 10:34	0	0.1	20.7	0	0.19	None
GP-12D	12/24/2018 10:35	0	0.7	4.7	0	-0.09	None
GP-13A	12/24/2018 10:38	0	0.1	20.7	0	-0.01	None
GP-13B	12/24/2018 10:39	0	0.1	21	0	-0.01	None
GP-13C	12/24/2018 10:40	0	0.1	20.5	0	-0.03	None
GP-13D	12/24/2018 10:42	0	0.1	21	0	-0.42	None
GP-14A	12/24/2018 10:45	0	0.1	21	0	-0.06	None
GP-14B	12/24/2018 10:46	0	0.1	21	0	-0.08	None
GP-15A	12/31/2018 11:26	0	0	0	0	0.00	NR H2O
GP-15C	12/31/2018 11:27	0	0.1	19.7	0	0.09	None
GP-15D	12/31/2018 11:28	0	0.1	19.8	0	0.11	None
GP-16A	12/24/2018 11:06	0	0.1	20.9	0	-0.07	None
GP-16B	12/24/2018 11:07	0	0.1	20.3	0	0.03	None
GP-16C	12/24/2018 11:09	0	0.1	20.9	0	-0.22	None
GP-17A	12/24/2018 12:34	0	0.1	19.2	0	0.07	None
GP-17B	12/24/2018 12:35	0	0.3	17.6	0	0.08	None
GP-17C	12/24/2018 12:36	0	0.1	19.4	0	0.09	None
GP-18A	12/24/2018 12:42	0	0.1	19.6	0	0.08	None
GP-18B	12/24/2018 12:43	0	0.1	19	0	0.10	None
GP-18C	12/24/2018 12:44	0	0.1	19.6	0	0.09	None
GP-19A	12/24/2018 12:46	0	0.1	19.9	0	0.07	None
GP-19B	12/24/2018 12:47	0	0.3	17.8	0	0.10	None
GP-19C	12/24/2018 12:48	0	0.1	20	0	-0.03	None
GP-20A	12/24/2018 12:50	0	0.1	20.1	0	0.07	None
GP-20B	12/24/2018 12:52	0	0.2	16.9	0	0.07	None
GP-20C	12/24/2018 12:53	0	0.1	19.1	0	0.06	None
GP-21A	12/24/2018 12:55	0	0.1	20.2	0	0.05	None
GP-21B	12/24/2018 12:56	0	0.1	13.1	0	0.04	None
GP-21C	12/24/2018 12:57	0	0.1	20.3	0	0.06	None
GP-22A	12/24/2018 13:00	0	0.2	20.3	0	0.29	None
GP-22C	12/24/2018 13:01	0	1.2	3.7	0	1.05	None
GP-23A	12/24/2018 13:04	0	0.1	20.3	0	-0.01	None
GP-23B	12/24/2018 13:05	0	0.1	20.6	0	0.04	None

CEDAR HILLS REGIONAL LANDFILL
Landfill Gas Compliance Probes
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Probe ID	Date/Time	CH4 %vol	CO2 %vol2	O2 %vol3	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
GP-23C	12/24/2018 13:06	0	0.1	20.6	0	-0.01	None
GP-24A	12/24/2018 13:09	0	3.9	10.2	0	0.02	None
GP-24B	12/24/2018 13:10	0	2.8	14.2	0	0.01	None
GP-25	12/24/2018 13:12	0	2.8	12.1	0	0.00	None
GP-26	12/24/2018 13:15	0	0.2	20.1	0	0.02	None
GP-27	12/24/2018 13:18	0	5.5	12.1	0	0.00	None
GP-29A	12/24/2018 13:22	0	2.7	16.8	0	0.00	None
GP-29B	12/24/2018 13:23	0	0.3	20.5	0	0.00	None
GP-30A	12/24/2018 8:46	0	2	18.9	0	0.33	None
GP-30B	12/24/2018 8:47	0	0.4	20.4	0	-0.09	None
GP-31A	12/24/2018 8:50	0	4.9	15.5	0	0.97	None
GP-31B	12/24/2018 8:51	0	0.3	16.2	0	0.59	None
GP-31C	12/24/2018 8:52	0	1.4	17.4	0	0.08	None
GP-32A	12/24/2018 8:55	0	1.8	18.2	0	0.11	None
GP-32B	12/24/2018 8:56	0	0.9	19.5	0	0.07	None
GP-32C	12/24/2018 8:57	0	0.7	19.8	0	0.04	None
GP-33A	12/24/2018 8:59	0	0.2	21	0	0.22	None
GP-33B	12/24/2018 9:01	0	0.3	20.3	0	0.76	None
GP-33C	12/24/2018 9:02	0	0.1	21	0	-0.63	None
GP-34A	12/24/2018 9:04	0	0	0	0	0.00	NR H2O
GP-34B	12/24/2018 9:06	0	0.1	21	0	0.03	None
GP-34C	12/24/2018 9:08	0	0.1	21	0	-0.45	None
GP-35A	12/24/2018 9:11	0	0.5	20.1	0	4.34	None
GP-35B	12/24/2018 9:13	0	0.1	17.7	0	-0.04	None
GP-35C	12/24/2018 9:14	0	0.1	21	0	0.01	None
GP-36A	12/24/2018 9:19	0	0.3	13.2	0	0.52	None
GP-36B	12/24/2018 9:21	0	0.1	21	0	0.01	None
GP-36C	12/24/2018 9:22	0	0.1	21	0	0.02	None
GP-37A	12/24/2018 9:24	0	0.1	21	0	-0.01	None
GP-37B	12/24/2018 9:26	0	0.1	20.9	0	0.01	None
GP-37C	12/24/2018 9:27	0	0.1	20.2	0	0.00	None
GP-39	12/24/2018 9:31	0	0.5	18.6	0	0.02	None
GP-40	12/24/2018 9:34	0	0.1	20.8	0	0.00	None
GP-41A	12/24/2018 9:37	0	0.1	20.8	0	0.00	None
GP-41B	12/24/2018 9:38	0	0.1	20.8	0	-0.07	None
GP-41C	12/24/2018 9:40	0	0.1	20.9	0	0.00	None
GP-42A	12/24/2018 9:43	0	0.1	20.8	0	0.01	None
GP-42B	12/24/2018 9:44	0	0.2	20.3	0	0.02	None
GP-43A	12/24/2018 9:47	0	0.1	20.8	0	0.03	None
GP-43B	12/24/2018 9:48	0	0.1	20.9	0	0.03	None
GP-43C	12/24/2018 9:49	0	0.1	20.9	0	0.02	None
GP-44A	12/24/2018 9:52	0	0.1	20.9	0	0.03	None
GP-44B	12/24/2018 9:54	0	1	8.7	0	6.98	None
GP-44C	12/24/2018 9:55	0	0.1	20.7	0	0.03	None
GP-45D	12/24/2018 10:07	0	0.1	21	0	0.09	None

CEDAR HILLS REGIONAL LANDFILL
Landfill Gas Compliance Probes
December 2018 Monitoring

Probe ID	Date/Time	CH4 %vol	CO2 %vol2	O2 %vol3	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
GP-45I	12/24/2018 10:06	0	0.1	21	0	0.03	None
GP-45S	12/24/2018 10:05	0	0.1	21	0	0.04	None

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Interior Probes

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CEDAR HILLS REGIONAL LANDFILL
Landfill Gas Compliance Probes
October 2018 Monitoring

Probe ID	Date/Time	CH4 %vol	CO2 %vol2	O2 %vol3	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
ATC-03D	10/24/2018 10:11	0	0.5	16.5	0	-0.07	None
ATC-03S	10/24/2018 10:09	0	1	19.9	0	-0.05	None
GP-1A	10/17/2018 22:30	0	0.5	20.7	0	-0.07	None
GP-1B	10/17/2018 22:32	0	0.3	21	0	-0.08	None
GP-2A	10/17/2018 23:06	0	7	10.9	0	-0.1	None
GP-2B	10/17/2018 23:08	0	0.1	21	0	-0.12	None
GP-3	10/17/2018 23:30	0	13.9	8.9	0	-0.18	None
GP-46D	10/17/2018 23:39	0	0.1	21	0	0.29	None
GP-46I	10/17/2018 23:37	0	0.1	21	0	-1.33	None
GP-46S	10/17/2018 23:35	0	0.1	21	0	-0.18	None
GP-47D	10/24/2018 14:21	0	0.8	19.7	0	0.03	None
GP-47I	10/24/2018 14:20	24.4	17.4	1.9	4.88	0.35	None
GP-47S	10/24/2018 14:18	0	0.1	21	0	0.1	None
GP-48D	10/17/2018 23:52	0.6	9.4	1.3	0.12	0.58	None
GP-48I	10/17/2018 23:50	0	0.1	21	0	-0.14	None
GP-48S	10/17/2018 23:49	0	0.1	21	0	-0.15	None
GP-4A	10/17/2018 23:17	0	0.1	21	0	0.01	None
GP-4B	10/17/2018 23:19	0	0.1	21	0	-0.1	None
GP-52	10/24/2018 14:11	0	0.1	21	0	5.00E-02	None
GP-53	10/24/2018 14:12	0	0.3	19.6	0	0.05	None
GP-54	10/24/2018 14:13	0	0.1	21	0	0.02	None
GP-55	10/17/2018 22:10	55.1	15.6	0.6	11.02	0.82	None
GP-56	10/17/2018 22:08	0	2.5	18	0	-0.08	None
GP-57	10/17/2018 22:01	43.9	24.3	3.3	8.78	-10.75	None
GP-58	10/17/2018 21:58	0	13.8	7.3	0	-0.09	None
GP-59	10/17/2018 21:52	6.7	2.1	14	1.34	0.69	None
GP-5A	10/24/2018 9:57	0	0.1	20.9	0	-0.2	None
GP-5BA	10/24/2018 10:01	0	0.3	19.6	0	-0.01	None
GP-5BB	10/24/2018 10:02	0	0.2	20.8	0	-0.23	None
GP-5BC	10/24/2018 10:03	0	0.1	20.8	0	-0.24	None
GP-5BD	10/24/2018 10:04	0	0.1	20.8	0	-0.76	None
GP-60	10/17/2018 21:49	0	0.1	21	0	0	None
GP-61	10/17/2018 21:30	0	1.6	20.3	0	0.38	None
GP-62	10/17/2018 21:26	0	1.3	20	0	-0.79	None
GP-6A	10/17/2018 22:44	0	0.1	21	0	-0.52	None
GP-6B	10/17/2018 22:46	0	0.1	21	0	1.03	None
GP-6C	10/17/2018 22:47	0	0.1	21	0	0.97	None
GP-6D	10/17/2018 22:49	0	0.1	21	0	5.90E-01	None
GP-6E	10/17/2018 22:51	0	0.1	21	0	0.96	None
GP-6F	10/17/2018 22:53	0	0.1	21	0	9.90E-01	None
GP-6G	10/17/2018 22:54	0	1.3	14.5	0	0.95	None
GP-6H	10/17/2018 22:56	0	0.1	21	0	0.58	None
GP-7	10/17/2018 22:24	0	0.1	21	0	0.65	None
GP-8	10/17/2018 22:18	0.1	0.5	19.2	0.02	5.90E-01	None
GP-9	10/17/2018 21:41	0	0.1	21	0	0.63	None

CEDAR HILLS REGIONAL LANDFILL
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Probe ID	Date/Time	CH4 %vol	CO2 %vol2	O2 %vol3	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
GP-B4-1	10/17/2018 23:24	0	0.1	21	0	-0.05	None
GP-B4-2	10/17/2018 23:26	0	0.4	21	0	0.55	None

CEDAR HILLS REGIONAL LANDFILL
Landfill Gas Compliance Probes
October 2018 Monitoring

Probe ID	Date/Time	CH4 %vol	CO2 %vol2	O2 %vol3	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments

CEDAR HILLS REGIONAL LANDFILL
Landfill Gas Compliance Probes
November 2018 Monitoring

Probe ID	Date/Time	CH4 %vol	CO2 %vol2	O2 %vol3	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
ATC-03D	11/20/2018 11:33	0	0	0	0	0	NR H2O
ATC-03S	11/20/2018 11:32	0	1.2	17.6	0	2.13	None
GP-1A	11/19/2018 21:23	0	0.2	21.6	0	-0.07	None
GP-1B	11/19/2018 21:24	0	0.5	21.4	0	-0.1	None
GP-2A	11/19/2018 21:58	0	10.4	1.7	0	-0.06	None
GP-2B	11/19/2018 22:00	0	0.2	21.5	0	-0.07	None
GP-3	11/19/2018 22:18	0	11.3	4.7	0	-0.12	None
GP-46D	11/19/2018 22:28	0	0.2	21.8	0	1.27	None
GP-46I	11/19/2018 22:27	0	0.1	21.8	0	-0.33	None
GP-46S	11/19/2018 22:25	0	0.3	15.8	0	-0.01	None
GP-47D	11/20/2018 12:57	0	2.2	14	0	0.14	None
GP-47I	11/20/2018 12:55	39.2	21.9	0	7.84	3.2	None
GP-47S	11/20/2018 12:54	66.4	23.7	0	13.28	3.52	None
GP-48D	11/19/2018 22:40	6.8	9.9	0	1.36	1.64	None
GP-48I	11/19/2018 22:38	0	0.1	21.9	0	-0.1	None
GP-48S	11/19/2018 22:37	0	1.6	13.9	0	-0.09	None
GP-4A	11/19/2018 22:05	0	0.1	21.6	0	-0.05	None
GP-4B	11/19/2018 22:06	0	0.1	21.6	0	-0.03	None
GP-52	11/20/2018 12:45	0	0.1	19.3	0	1.90E-01	None
GP-53	11/20/2018 12:47	0	0.2	19	0	0.66	None
GP-54	11/20/2018 12:48	1.8	12.6	5.7	0.36	1.19	None
GP-55	11/19/2018 21:01	41	18.4	0	8.2	1.77	None
GP-56	11/19/2018 21:02	0.1	2.7	11.5	0.02	2.27	None
GP-57	11/19/2018 20:53	38.4	25.7	0.9	7.68	-0.81	None
GP-58	11/19/2018 20:55	0.1	16.9	1.8	0.02	-0.05	None
GP-59	11/19/2018 20:44	20.5	7.5	7.2	4.1	1.16	None
GP-5A	11/20/2018 12:32	0	0.5	10.2	0	3.72	None
GP-5BA	11/20/2018 12:35	0	0.2	19.2	0	0.24	None
GP-5BB	11/20/2018 12:37	0	1.4	12.8	0	3.65	None
GP-5BC	11/20/2018 12:38	0	0.7	7	0	3.51	None
GP-5BD	11/20/2018 12:39	0	1	10.1	0	3.24	None
GP-60	11/19/2018 20:47	0	0.2	21.5	0	-0.04	None
GP-61	11/19/2018 20:29	0	1.5	19.9	0	1.01	None
GP-62	11/19/2018 20:34	0	1.9	18.9	0	-0.02	None
GP-6A	11/19/2018 21:30	0	0.1	21.8	0	1.04	None
GP-6B	11/19/2018 21:31	0	4.3	2.3	0	2.21	None
GP-6C	11/19/2018 21:33	0	0.9	17.2	0	2.17	None
GP-6D	11/19/2018 21:34	0	4.9	0.2	0	2.08E+00	None
GP-6E	11/19/2018 21:36	0	2.6	7.6	0	2.24	None
GP-6F	11/19/2018 21:37	0	2.1	8.9	0	2.21E+00	None
GP-6G	11/19/2018 21:39	0	1.4	13.5	0	2.21	None
GP-6H	11/19/2018 21:40	0	4.9	0.1	0	2	None
GP-7	11/19/2018 21:20	0	3.7	13.1	0	1.47	None
GP-8	11/19/2018 21:10	0	5.7	12	0	1.54E+00	None
GP-9	11/19/2018 20:39	0	1.2	18.3	0	1.67	None

CEDAR HILLS REGIONAL LANDFILL
Landfill Gas Compliance Probes
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Probe ID	Date/Time	CH4 %vol	CO2 %vol2	O2 %vol3	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
GP-B4-1	11/19/2018 22:12	0	0.3	21.4	0	1.72	None
GP-B4-2	11/19/2018 22:14	0	2.5	19.1	0	1.8	None

CEDAR HILLS REGIONAL LANDFILL
Landfill Gas Compliance Probes
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Probe ID	Date/Time	CH4 %vol	CO2 %vol2	O2 %vol3	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments

CEDAR HILLS REGIONAL LANDFILL
Landfill Gas Compliance Probes
December 2018 Monitoring

Probe ID	Date/Time	CH4 %vol	CO2 %vol2	O2 %vol3	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
ATC-03D	12/31/2018 11:23	0.00	0.40	19.40	0.00	0.06	None
ATC-03S	12/31/2018 11:21	0.00	0.20	19.60	0.00	0.00	None
GP-1A	12/20/2018 22:28	0.00	0.10	21.00	0.00	0.05	None
GP-1B	12/20/2018 22:30	0.00	0.20	20.90	0.00	0.04	None
GP-2A	12/20/2018 22:58	0.00	3.10	21.00	0.00	-0.01	None
GP-2B	12/20/2018 23:00	0.00	0.10	21.00	0.00	0.01	None
GP-3	12/20/2018 23:26	0.00	2.30	19.00	0.00	0.15	NR H2O
GP-46D	12/20/2018 23:36	0.00	0.10	21.00	0.00	-1.74	None
GP-46I	12/20/2018 23:34	0.00	0.10	21.00	0.00	-2.30	None
GP-46S	12/20/2018 23:32	0.00	0.20	18.60	0.00	-0.35	None
GP-47D	12/24/2018 11:30	0.00	0.70	15.50	0.00	0.49	None
GP-47I	12/24/2018 11:29	48.40	23.70	0.10	9.68	0.16	None
GP-47S	12/24/2018 11:27	0.00	0.10	20.50	0.00	0.13	None
GP-48D	12/20/2018 23:48	0.00	0.20	21.00	0.00	-0.30	None
GP-48I	12/20/2018 23:46	0.00	0.10	21.00	0.00	-0.86	None
GP-48S	12/20/2018 23:44	0.00	1.20	15.00	0.00	-0.08	None
GP-4A	12/20/2018 23:09	0.00	0.10	21.00	0.00	-0.04	None
GP-4B	12/20/2018 23:11	0.00	0.10	21.00	0.00	-0.09	None
GP-52	12/24/2018 11:19	0.00	0.10	20.40	0.00	-0.10	None
GP-53	12/24/2018 11:21	0.00	0.60	18.80	0.00	0.05	None
GP-54	12/24/2018 11:22	0.00	0.10	20.60	0.00	-0.07	None
GP-55	12/20/2018 22:09	0.20	0.50	20.40	0.04	-1.50	None
GP-56	12/20/2018 22:07	0.10	1.30	19.80	0.02	0.06	None
GP-57	12/20/2018 22:02	44.00	24.10	2.20	8.80	-17.13	None
GP-58	12/20/2018 22:00	0.00	16.90	0.30	0.00	47.42	None
GP-59	12/20/2018 21:55	0.00	0.20	20.60	0.00	-0.82	None
GP-5A	12/24/2018 10:51	0.00	0.10	21.00	0.00	-0.99	None
GP-5BA	12/24/2018 10:53	0.00	0.00	0.00	0.00	0.00	NR H2O
GP-5BB	12/24/2018 10:54	0.00	0.10	21.00	0.00	-0.98	None
GP-5BC	12/24/2018 10:55	0.00	0.10	21.00	0.00	-0.97	None
GP-5BD	12/24/2018 10:57	0.00	0.10	21.00	0.00	-0.53	None
GP-60	12/20/2018 21:53	0.00	0.10	20.50	0.00	0.00	None
GP-61	12/20/2018 21:38	0.00	0.10	20.60	0.00	-0.46	None
GP-62	12/20/2018 21:35	0.00	1.90	19.20	0.00	0.15	None
GP-6A	12/20/2018 22:37	0.00	0.10	21.00	0.00	-3.04	None
GP-6B	12/20/2018 22:39	0.00	1.80	15.10	0.00	-1.05	None
GP-6C	12/20/2018 22:41	0.00	0.30	20.00	0.00	-1.16	None
GP-6D	12/20/2018 22:43	0.00	0.10	21.00	0.00	-1.73	None
GP-6E	12/20/2018 22:45	0.00	2.60	7.70	0.00	-1.19	None
GP-6F	12/20/2018 22:47	0.00	0.10	21.00	0.00	-1.27	None
GP-6G	12/20/2018 22:49	0.00	0.10	21.00	0.00	-1.28	None
GP-6H	12/20/2018 22:51	0.00	0.10	21.00	0.00	-1.82	None
GP-7	12/20/2018 22:21	0.00	0.50	20.10	0.00	-1.51	None
GP-8	12/20/2018 22:15	0.00	0.10	20.90	0.00	-1.54	None
GP-9	12/20/2018 21:46	0.00	0.20	20.70	0.00	-0.82	None

CEDAR HILLS REGIONAL LANDFILL
Landfill Gas Compliance Probes
December 2018 Monitoring

Probe ID	Date/Time	CH4 %vol	CO2 %vol2	O2 %vol3	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
GP-B4-1	12/20/2018 23:20	0.00	1.10	20.70	0.00	-2.86	None
GP-B4-2	12/20/2018 23:22	0.00	2.60	19.60	0.00	-1.73	None

On-Site Building Monitoring

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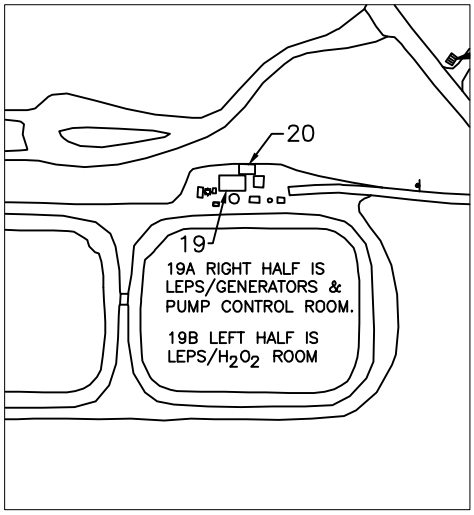
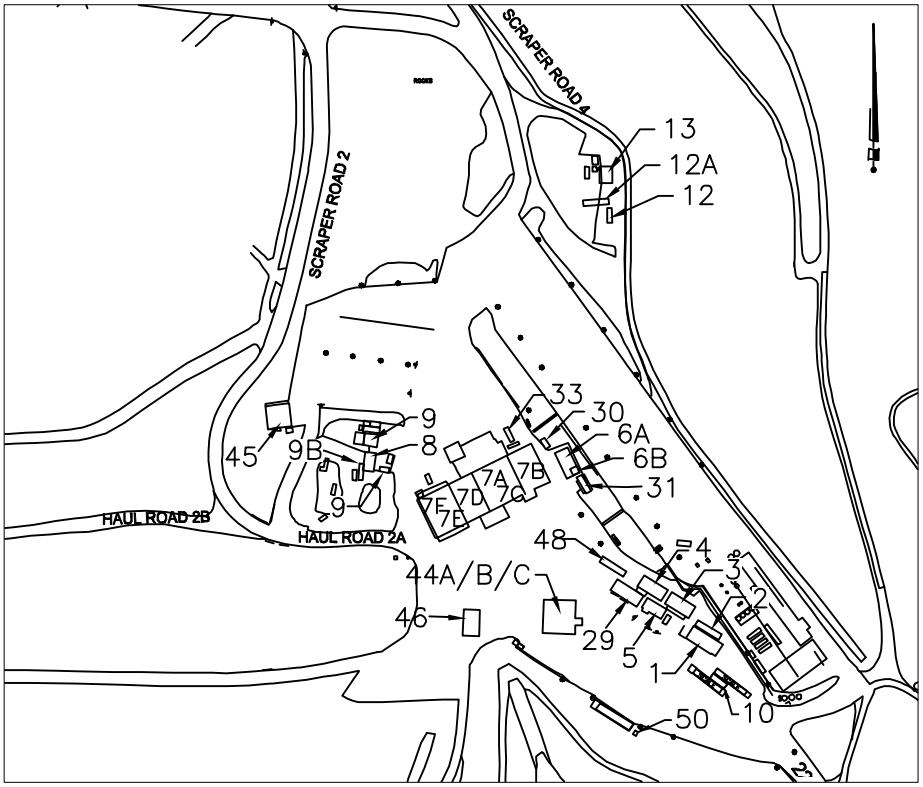
Aeration Ponds



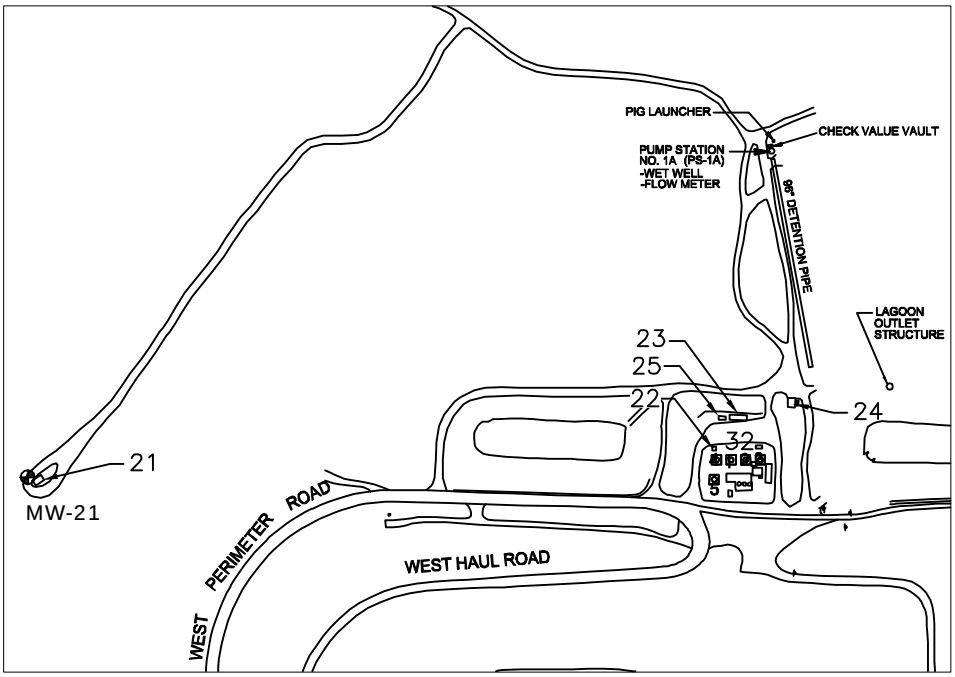
Shop and Office Buildings



BUILDING NO.	EO Description
1	Front Office
2	Conference Room
3	Vacant (Old Payroll Trailer)
4	Engineering Trailer
5	Lunch Room Trailer
6A	Dry Storage
6B	Electrician Office
7	Maintenance Shop
7A	Shop Office
7B	Stores–Shipping/Receiving
7C	Trailer Bay and Pit Area
7D	Tire Shop and Trailer Bay
7E	East Weld Shop
7F	West Weld Shop
8	Carpenter's Shop
9	Wastewater Shed
9B	Carpenter Storage
10	Scale House
11	New Eqpt. Operator's Trailer
12	EQ. Operator's Trailer (Old)
13	WW Compressor
16	Generator (Not Shown)
19	LEPS (P.S. #5)
19A	LEPS Pump Control Room
19B	LEPS/H_2O_2 room
20	LEPS, Elec Panels
21	Storage(Old PS1)
22	Storage/N.Flare
23	LFGAS Office
24	NE Generator Bldg.
25	Storage BLDG. @ N.F.S.
29	OPS Administration Office
30	Women Brk Rm.
31	Landfill Leads/Accts Payable
32	North Flare Station
33	SPOC trailer
44A	Truck Wash West Restroom
44B	Truck Wash East Restroom
44C	Pressure Wash Room
45	Heavy Equipment Canopy
46	Fuel Island
48	Operations Planning
49	CCG Faster (Not Shown)
50	Chlorine Shed

CEDAR HILLS REGIONAL LANDFILL BUILDING NUMBERS

North Flare Station



Source: KCSWD, February 2012

King County

Landfill Gas Structure Monitoring Location

Environmental Monitoring Sampling and Analysis Plan

Cedar Hills Regional Landfill, King County, Washington

DATE: February 2012	PROJECT NO.
DESIGNED BY:	
DRAWN BY:	FIGURE NO.
REVISED BY: -	

FOURTH QUARTER
BUILDING MONITORING

King County	INSTRUMENT: Place check by instrument used		WEATHER:	DATE: 10/17/18
	Foxboro TVA 1000 (sn. 301)		Night/Calm	TECH: BL
	Foxboro TVA 1000 (sn. 732)	X		

ENVIS ID	BLDG #	DESCRIPTION	CH_4 (ppm)	REMARKS	BAR PRESS (in. Hg)	TIME
GOC- 10/17/18	1	FRONT OFFICE			30.03	8:25pm
GCR- 10/17/18	2	CONF ROOM				
GAO- 10/17/18	3	PAYROLL OFFICE				
GEO- 10/17/18	4	ENGR. OFFICE				
GLRC- 10/17/18	5	LUNCHROOM				
GSPC 10/17/18		SPOC				
GELO- 10/17/18 A	6A	DRY STORAGE		Partially unaccessible		
GELO- 10/17/18 B	6B	ELECTRICIAN OFFICE				
GAP- 10/17/18		ACCOUNT PAYABLE				
GSO- 10/17/18 A	7A	SHOP OFFICE				
GPR- 10/17/18 B	7B	PARTS ROOM				
GMS- 10/17/18 C	7C	SHOP PIT AREA/BAY				
GTB- 10/17/18 D	7D	SHOP TIRE BAY				
GEW- 10/17/18 E	7E	EAST WELD SHOP				
GWW- 10/17/18 F	7F	WEST WELD SHOP				
GCS- 10/17/18	8	CARPENTER'S		Partially unaccessible		
GSS- 10/17/18	9	WASTEWATER		Partially unaccessible		
GSS- 10/17/18 B	9B	CARPENTER/STORAGE		Partially unaccessible		
GSH- 10/17/18	10	SCALEHOUSE				
GB13- 10/17/18	13	WW COMPRESSOR				
GB16- 10/17/18	16	GENERATOR				
GB19- 10/17/18	19	LEPS (P.S.# 5)				
GB19- 10/17/18 B	19B	LEPS/H_2O_2 ROOM				
GB20- 10/17/18	20	LEPS ELEC PANALS		Partially unaccessible		
GB21- 10/17/18	21	STORAGE(OLD PS 1)				
GB22- 10/17/18	22	STORAGE/N FLARE				
GB23- 10/17/18	23	LFGAS				
GB24- 10/17/18	24	NE GENERATOR BLDG				
GBWW- 10/17/18	30	WOMEN BRK RM				
GPWT- 10/17/18	PW	PRESSURE WASH RM				
GBRR- 10/17/18	RR	TRUCKWASH RR W				
GBSS- 10/17/18	SS	TRUCKWASH RR E				
GBZZ- 10/17/18	29	MANAGERS TRAILER				
GBPT- 10/17/18		CCG FASTER				
GCLS- 10/17/18		CHLORINE SHED				

Migration Probes

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CEDAR HILLS REGIONAL LANDFILL
West Perimeter Landfill Gas Migration Control Probes
Fourth Quarter 2018 Monitoring

Probe ID	Date	Time	Barometric Pressure in Hg	CH4 %vol	CO2 %vol	O2 %vol	Static Pressure in INWC
MGPW 1700	10/16/2018	11:34am	30.19	0.0	0.2	19.8	0
MGPW 1700	10/30/2018	11:50am	30.21	0.0	0.0	20.3	-0.09
MGPW 1700	11/16/2018	2:11pm	30.12	0.0	0.3	19.6	0.03
MGPW 1700	12/7/2018	12:03pm	30.03	0.1	0.3	20.0	-0.03
MGPW 1708	10/16/2018	11:24am	30.19	0.0	0.0	19.9	-0.82
MGPW 1708	10/30/2018	11:42am	30.21	0.0	0.0	20.4	-1.85
MGPW 1708	11/16/2018	2:03pm	30.12	0.0	0.1	20.5	-0.62
MGPW 1708	12/7/2018	12:12pm	30.03	0.0	0.3	20.2	-1.05
MGPW 1710S	10/16/2018	11:20am	30.19	0.0	0.3	19.8	-0.66
MGPW 1710S	10/30/2018	11:35am	30.21	0.0	0.0	20.3	-1.66
MGPW 1710S	11/16/2018	1:56pm	30.12	0.0	0.1	20.4	-0.57
MGPW 1710S	12/7/2018	12:20pm	30.03	0.0	0.3	20.4	-0.96
MGPW 1710D	10/16/2018	11:22am	30.19	0.0	0.0	20.1	-0.69
MGPW 1710D	10/30/2018	11:36am	30.21	0.0	0.0	20.7	-1.68
MGPW 1710D	11/16/2018	1:58pm	30.12	0.0	0.1	20.6	-0.54
MGPW 1710D	12/7/2018	12:23pm	30.03	0.0	0.2	20.6	-0.96
MGPW 1714	10/16/2018	11:15am	30.19	0.0	0.0	19.8	-0.66
MGPW 1714	10/30/2018	11:30am	30.21	0.0	0.2	20.3	-1.61
MGPW 1714	11/16/2018	1:51pm	30.12	0.0	0.1	20.3	-0.55
MGPW 1714	12/7/2018	12:27pm	30.03	0.0	0.2	20.6	-0.94

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Data Qualifiers

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KING COUNTY SOLID WASTE DIVISION
QUALIFIER INFORMATION
(Effective 8/27/2015)

QUAL	QUALIFIER DESCRIPTION
U	Undetected; Analyte Concentration Less than Method Detection Limit (< MDL)
T	Estimated; Less than Reporting Detection Limit (<RDL) but Greater than Method Detection Limit (> MDL)
J	Reported Value is an Estimate
B	Matrix Target Analyte Present in Blank, AND, Sample Result Less than or Equal to 10x Blank Detection
C	Confluent Growth
E	Estimated; Outside Expected Accuracy
H	Exceeds Holding Time
R	Data Rejected
S	Sample Handling Errors
X	Too Numerous to Count
D	Re-analysis Due to Dilution
P	PASS – Qualitative Result Acceptable
F	FAIL – Qualitative Result is not Acceptable
G	Estimated with Low Bias (Coliform; BOD; All Other Chemistry Parameters)
L	Estimated with High Bias (BOD; All Other Chemistry Parameters)

APPENDIX C

Meteorological Data

Cedar Hills Regional Landfill
Meteorological Data

Date/Time	Wind Speed (Average) Miles per Hour	Wind Direction Degrees	Sigma Theta Degrees	2 M Temperature (Average) ° C	Barometric Pressure inches-Hg	Precipitation inches
10/1/2018 0:00	10.68	131.3	9.28	13.54	29.01	0
10/1/2018 0:15	13.32	127.4	9.28	13.77	29.01	0
10/1/2018 0:30	13.41	130.1	9.01	14.08	29.01	0
10/1/2018 0:45	12.01	133.1	8.27	14.32	29.01	0
10/1/2018 1:00	11.13	135.8	7.981	14.44	29	0
10/1/2018 1:15	11.62	139.1	7.683	14.67	29	0
10/1/2018 1:30	12.19	139	8.14	14.79	29	0
10/1/2018 1:45	11.84	135.9	8.85	14.77	29	0
10/1/2018 2:00	9.76	157.9	12.98	14.34	28.99	0
10/1/2018 2:15	8.93	141.9	8.81	14	28.99	0
10/1/2018 2:30	9.4	138.2	8.1	14.42	28.99	0
10/1/2018 2:45	9.06	134.5	8.59	14.46	28.99	0
10/1/2018 3:00	9.18	129.9	7.955	14.49	28.98	0
10/1/2018 3:15	9.06	127.1	8.8	14.8	28.98	0
10/1/2018 3:30	8.65	132.1	8.47	15.08	28.98	0
10/1/2018 3:45	8.41	132.4	9.87	15.11	28.98	0
10/1/2018 4:00	7.025	139.3	10.86	15.22	28.97	0
10/1/2018 4:15	6.527	166.8	15.58	14.9	28.97	0
10/1/2018 4:30	8.12	144	9.14	14.7	28.97	0
10/1/2018 4:45	7.488	155	16.11	14.44	28.97	0
10/1/2018 5:00	6.599	141.7	12.67	14.62	28.96	0
10/1/2018 5:15	5.532	146.2	16.06	14.66	28.96	0
10/1/2018 5:30	6.817	157.6	12.15	14.39	28.96	0
10/1/2018 5:45	7.248	130.9	9.28	14.8	28.96	0
10/1/2018 6:00	4.731	146.2	18.03	14.96	28.97	0
10/1/2018 6:15	5.15	211	22.79	13.89	28.97	0
10/1/2018 6:30	4.968	139.7	24.7	14.18	28.97	0
10/1/2018 6:45	6.669	113.2	11.43	14.01	28.97	0
10/1/2018 7:00	7.864	131.6	11.13	15.07	28.97	0
10/1/2018 7:15	6.652	149.4	11.87	15.29	28.97	0
10/1/2018 7:30	6.606	150	19.45	15.27	28.97	0
10/1/2018 7:45	5.058	154	17.76	14.82	28.97	0
10/1/2018 8:00	5.27	204.8	25.2	14.36	29	0
10/1/2018 8:15	7.381	175.9	38.71	13.46	29	0.01
10/1/2018 8:30	5.333	114	15.86	13.61	29	0
10/1/2018 8:45	3.242	137.3	19.58	13.73	29	0.01
10/1/2018 9:00	3.119	174.9	17.11	13.85	29.01	0
10/1/2018 9:15	1.968	139.1	22.56	13.56	29.01	0.01
10/1/2018 9:30	3.452	119.1	13.61	13.48	29.01	0
10/1/2018 9:45	4.569	124.7	11.75	13.33	29.01	0
10/1/2018 10:00	7.491	127.7	10.84	13.58	29.02	0
10/1/2018 10:15	8.36	120.5	9.76	13.6	29.02	0

10/1/2018 10:30	9.02	126.8	10.51	13.76	29.02	0
10/1/2018 10:45	9.61	119.8	8.38	14.09	29.02	0
10/1/2018 11:00	7.757	121.2	8.95	14.49	29.02	0
10/1/2018 11:15	6.59	130.2	12.63	14.86	29.02	0
10/1/2018 11:30	4.884	133.1	9.23	15.25	29.02	0
10/1/2018 11:45	6.296	140.1	10.65	15.43	29.02	0
10/1/2018 12:00	2.689	176	20.78	15.59	29.01	0
10/1/2018 12:15	2.229	157	22.78	15.7	29.01	0
10/1/2018 12:30	6.603	200.4	17.16	15.05	29.01	0
10/1/2018 12:45	5.574	169.9	18.81	14.7	29.01	0.01
10/1/2018 13:00	4.234	161.1	22.06	14.62	29.02	0
10/1/2018 13:15	3.363	95.8	8.64	14.4	29.02	0.01
10/1/2018 13:30	4.589	97.3	6.789	14.36	29.02	0
10/1/2018 13:45	5.003	106.6	12.25	14.41	29.02	0.01
10/1/2018 14:00	4.35	118.8	9.26	14.34	29.03	0.02
10/1/2018 14:15	4.973	126.3	14.25	14.2	29.03	0.02
10/1/2018 14:30	4.763	122.6	8.16	14.11	29.03	0.02
10/1/2018 14:45	5.684	111.9	8.38	13.96	29.03	0.02
10/1/2018 15:00	6.714	111.2	8.88	14	29.03	0
10/1/2018 15:15	6.996	106.4	8.99	14.02	29.03	0
10/1/2018 15:30	5.282	113.2	7.442	14.25	29.03	0.01
10/1/2018 15:45	4.067	128.6	10.17	14.5	29.03	0
10/1/2018 16:00	4.989	128.8	9.38	14.45	29.02	0
10/1/2018 16:15	4.065	134	13.28	14.45	29.02	0
10/1/2018 16:30	4.882	137.3	18.6	14.32	29.02	0
10/1/2018 16:45	5.102	127.6	11.87	14.21	29.02	0.01
10/1/2018 17:00	4.823	132.7	7.909	14.19	29.01	0.01
10/1/2018 17:15	5.758	133.1	7.224	14.03	29.01	0.01
10/1/2018 17:30	5.514	137.8	8.11	13.95	29.01	0.01
10/1/2018 17:45	6.454	142.1	8.22	13.88	29.01	0.01
10/1/2018 18:00	9.31	154.2	7.57	13.87	29.01	0.02
10/1/2018 18:15	10.1	159	6.689	13.82	29.01	0.04
10/1/2018 18:30	8.34	165.5	10.3	13.85	29.01	0.01
10/1/2018 18:45	6.123	206.9	14.43	13.89	29.01	0.02
10/1/2018 19:00	7.222	209.6	11.59	13.89	29.01	0.06
10/1/2018 19:15	4.651	200.9	6.842	13.87	29.01	0.01
10/1/2018 19:30	4.408	217.1	11.58	13.84	29.01	0
10/1/2018 19:45	5.125	227.9	6.384	13.79	29.01	0
10/1/2018 20:00	5.436	224.1	6.019	13.71	29.01	0.01
10/1/2018 20:15	4.679	216.2	6.372	13.63	29.01	0
10/1/2018 20:30	3.78	190.6	9.75	13.62	29.01	0.02
10/1/2018 20:45	3.292	194.3	7.739	13.62	29.01	0.02
10/1/2018 21:00	3.52	184	6.347	13.52	29.01	0.02
10/1/2018 21:15	3.992	179.6	10.23	13.49	29.01	0
10/1/2018 21:30	3.786	193.1	13.17	13.48	29.01	0
10/1/2018 21:45	3.472	233.7	18.52	13.48	29.01	0
10/1/2018 22:00	4.281	233.2	25.42	13.39	29	0

10/1/2018 22:15	4.669	221.4	13.54	13.41	29	0.01
10/1/2018 22:30	7.813	225	7.661	13.36	29	0
10/1/2018 22:45	7.37	216.3	6.59	13.39	29	0.01
10/1/2018 23:00	7.292	205.8	7.437	13.38	29	0
10/1/2018 23:15	7.827	195.1	9.26	13.35	29	0
10/1/2018 23:30	9.21	201.1	12.07	13.22	29	0.02
10/1/2018 23:45	10.97	220.6	8.29	12.95	29	0.01
10/2/2018 0:00	8.14	211	8.4	12.84	29	0.01
10/2/2018 0:15	5.864	169.6	35.08	12.75	29	0
10/2/2018 0:30	5.497	161.3	12.48	12.54	29	0
10/2/2018 0:45	6.447	185.9	12.95	12.54	29	0
10/2/2018 1:00	4.431	204.9	16.69	12.53	28.99	0
10/2/2018 1:15	5.382	193	13.83	12.56	28.99	0
10/2/2018 1:30	6.375	187.2	12.21	12.57	28.99	0
10/2/2018 1:45	5.845	188.2	13.55	12.55	28.99	0
10/2/2018 2:00	7.916	185.6	10.14	12.55	29	0
10/2/2018 2:15	8.66	183	9.32	12.5	29	0
10/2/2018 2:30	9.03	180.5	11.32	12.54	29	0
10/2/2018 2:45	9.13	173.7	13.96	12.52	29	0
10/2/2018 3:00	11.53	179.4	7.709	12.52	29	0
10/2/2018 3:15	11.31	178.6	7.187	12.42	29	0
10/2/2018 3:30	10.87	180.6	8.2	12.33	29	0
10/2/2018 3:45	9.58	180.9	8.96	12.26	29	0
10/2/2018 4:00	8.79	177.4	9.65	12.27	28.98	0
10/2/2018 4:15	8.75	175.7	9.52	12.24	28.98	0
10/2/2018 4:30	7.939	172.9	8.37	12.16	28.98	0
10/2/2018 4:45	7.225	165.6	11	11.99	28.98	0
10/2/2018 5:00	7.914	154.9	7.75	11.84	28.98	0
10/2/2018 5:15	7.638	156.8	8.44	11.82	28.98	0
10/2/2018 5:30	7.531	162.8	10.35	11.81	28.98	0
10/2/2018 5:45	6.745	157.2	6.969	11.57	28.98	0
10/2/2018 6:00	5.61	169.4	10.76	11.79	28.98	0
10/2/2018 6:15	7.202	174	9.25	11.94	28.98	0
10/2/2018 6:30	7.092	160.8	10.81	11.93	28.98	0
10/2/2018 6:45	6.533	162.8	11.67	11.86	28.98	0
10/2/2018 7:00	6.756	190.3	10.82	12.02	28.97	0
10/2/2018 7:15	7.456	202	14.56	12.06	28.97	0
10/2/2018 7:30	7.615	194.9	9.49	12.06	28.97	0
10/2/2018 7:45	7.851	192.7	12.32	12	28.97	0
10/2/2018 8:00	7.82	189.5	11.28	11.97	28.95	0
10/2/2018 8:15	8.95	188	10.19	12.04	28.95	0
10/2/2018 8:30	10.35	203.2	13.75	12.12	28.95	0
10/2/2018 8:45	11.37	206	10.99	12.1	28.95	0
10/2/2018 9:00	13.23	212.1	9.34	12.21	28.94	0
10/2/2018 9:15	13.95	208.4	11.27	12.12	28.94	0
10/2/2018 9:30	13.39	200.1	10.89	12.38	28.94	0
10/2/2018 9:45	12.94	200	11.03	12.89	28.94	0

10/2/2018 10:00	17.71	213.7	12.53	13.15	28.95	0
10/2/2018 10:15	17.93	204.7	11.71	13.14	28.95	0
10/2/2018 10:30	16.39	208.3	11.83	13.57	28.95	0
10/2/2018 10:45	17.79	205.3	10.48	13.44	28.95	0
10/2/2018 11:00	17.82	213.8	8.98	13.34	28.93	0
10/2/2018 11:15	16.07	212.5	9.22	13.12	28.93	0
10/2/2018 11:30	16.61	214.9	8.52	13	28.93	0
10/2/2018 11:45	23.17	215.9	8.62	13.03	28.93	0
10/2/2018 12:00	21.13	214.2	8.66	12.74	28.94	0
10/2/2018 12:15	21.74	202.1	8.79	12.8	28.94	0
10/2/2018 12:30	20.89	197.7	10.55	13.33	28.94	0
10/2/2018 12:45	18.6	195.1	10.99	13.21	28.94	0
10/2/2018 13:00	16.72	200.2	9.87	13.22	28.93	0
10/2/2018 13:15	18.03	203.3	9.24	13.01	28.93	0
10/2/2018 13:30	16.09	203.1	8.52	12.63	28.93	0
10/2/2018 13:45	17.32	199.1	8.67	12.13	28.93	0
10/2/2018 14:00	14.77	196.4	11.86	12.16	28.94	0
10/2/2018 14:15	16.08	183.5	8.7	12.74	28.94	0
10/2/2018 14:30	15.15	177.4	9.92	13.13	28.94	0
10/2/2018 14:45	17.07	187.1	11.01	13.05	28.94	0
10/2/2018 15:00	13.01	199.3	11.38	12.85	28.94	0
10/2/2018 15:15	10.47	212.6	10.25	13.12	28.94	0
10/2/2018 15:30	10.64	220.7	14.19	13.14	28.94	0
10/2/2018 15:45	18.68	239.5	7.339	12.23	28.94	0
10/2/2018 16:00	12.87	267.5	17.51	11.08	28.98	0.01
10/2/2018 16:15	8.03	358.4	38.69	9.78	28.98	0.01
10/2/2018 16:30	13.42	26.42	9.6	8.34	28.98	0
10/2/2018 16:45	11.71	27.85	12.72	8.31	28.98	0
10/2/2018 17:00	10.74	32.63	9.58	8.34	29	0
10/2/2018 17:15	9.65	52.42	13.73	8.07	29	0
10/2/2018 17:30	6.667	53.28	9.24	8.15	29	0
10/2/2018 17:45	5.397	65.26	10.89	8.32	29	0
10/2/2018 18:00	5.376	62.48	37.98	8.46	29.01	0
10/2/2018 18:15	5.364	44.93	19.65	8.24	29.01	0
10/2/2018 18:30	6.34	43.65	11.73	7.916	29.01	0
10/2/2018 18:45	4.284	17.59	15.5	8.06	29.01	0
10/2/2018 19:00	2.277	23.68	22.51	8.21	29.04	0
10/2/2018 19:15	1.031	18.5	28.63	8.51	29.04	0
10/2/2018 19:30	1.515	17.28	11.36	8.25	29.04	0
10/2/2018 19:45	1.904	289	71.24	8.02	29.04	0
10/2/2018 20:00	3.496	231	18.93	8.3	29.09	0.01
10/2/2018 20:15	5.117	180	18.78	7.8	29.09	0.02
10/2/2018 20:30	3.401	124.2	12.57	7.364	29.09	0
10/2/2018 20:45	2.248	113.7	10.73	7.276	29.09	0.01
10/2/2018 21:00	1.088	72.9	24.58	7.287	29.09	0
10/2/2018 21:15	2.107	205	9.64	7.541	29.09	0
10/2/2018 21:30	0.903	145.1	44.68	7.32	29.09	0

10/2/2018 21:45	1.273	105.9	3.293	7.284	29.09	0
10/2/2018 22:00	1.373	93.5	7.94	7.22	29.14	0
10/2/2018 22:15	0.432	69.77	1.185	7.141	29.14	0
10/2/2018 22:30	1.127	98	2.072	7.19	29.14	0
10/2/2018 22:45	2.657	91.6	7.198	7.518	29.14	0
10/2/2018 23:00	2.91	86	6.721	7.142	29.14	0
10/2/2018 23:15	1.786	71.28	1.891	6.501	29.14	0
10/2/2018 23:30	1.467	70.71	1.568	6.474	29.14	0
10/2/2018 23:45	2.179	136.6	44.53	6.66	29.14	0
10/3/2018 0:00	3.438	143.4	26.94	6.693	29.15	0
10/3/2018 0:15	1.537	80.2	18.91	6.206	29.15	0
10/3/2018 0:30	3.128	89.5	6.685	5.732	29.15	0
10/3/2018 0:45	4.261	98.1	5.804	6.023	29.15	0
10/3/2018 1:00	2.844	51.98	19.89	5.911	29.16	0
10/3/2018 1:15	4.049	23.63	5.681	5.094	29.16	0
10/3/2018 1:30	4.009	19.1	6.809	4.727	29.16	0
10/3/2018 1:45	3.248	35.54	3.593	4.643	29.16	0
10/3/2018 2:00	3.175	43.81	8.04	4.328	29.16	0
10/3/2018 2:15	1.879	42.4	12.35	4.196	29.16	0
10/3/2018 2:30	2.528	33.43	2.03	4.479	29.16	0
10/3/2018 2:45	1.828	36.68	0.239	4.836	29.16	0
10/3/2018 3:00	1.307	109	61.31	4.643	29.18	0
10/3/2018 3:15	2.538	71.02	2.842	3.991	29.18	0
10/3/2018 3:30	1.116	82.2	11.93	4.856	29.18	0
10/3/2018 3:45	3.193	172.1	15.78	4.895	29.18	0
10/3/2018 4:00	4.756	163	11.41	4.969	29.21	0
10/3/2018 4:15	2.323	110.9	21.24	5.067	29.21	0
10/3/2018 4:30	2.603	99.7	12.13	4.347	29.21	0
10/3/2018 4:45	1.711	111.2	6.819	4.594	29.21	0
10/3/2018 5:00	3.179	99.1	10.53	4.672	29.19	0
10/3/2018 5:15	2.587	73.53	12.56	4.86	29.19	0
10/3/2018 5:30	2.311	52.84	3.006	4.271	29.19	0
10/3/2018 5:45	3.838	33.78	10.93	3.064	29.19	0
10/3/2018 6:00	5.118	23.35	6.445	2.654	29.18	0.01
10/3/2018 6:15	4.662	33.19	8.22	2.808	29.18	0
10/3/2018 6:30	4.097	42.66	4.992	2.971	29.18	0
10/3/2018 6:45	3.152	24.52	10.13	2.886	29.18	0
10/3/2018 7:00	3.94	31.46	6.233	3.087	29.22	0
10/3/2018 7:15	4.077	22.96	6.742	3.074	29.22	0
10/3/2018 7:30	3.956	12.28	4.799	3.601	29.22	0
10/3/2018 7:45	1.446	9.81	4.056	4.878	29.22	0
10/3/2018 8:00	1.34	110.1	23.25	5.093	29.23	0
10/3/2018 8:15	3.347	53.76	8.25	4.516	29.23	0
10/3/2018 8:30	2.987	18.11	21.59	4.57	29.23	0
10/3/2018 8:45	2.694	39.54	16.66	5.587	29.23	0
10/3/2018 9:00	3.065	24.63	24.76	6.494	29.21	0
10/3/2018 9:15	3.455	321.3	19.08	7.208	29.21	0

10/3/2018 9:30	1.785	281.9	19.14	7.866	29.21	0
10/3/2018 9:45	2.405	283.3	20.06	8.54	29.21	0
10/3/2018 10:00	3.997	309	12.38	8.88	29.2	0
10/3/2018 10:15	4.456	324.1	10.23	9.08	29.2	0
10/3/2018 10:30	4.531	315.4	14.32	9.3	29.2	0
10/3/2018 10:45	4.81	326.6	11.5	9.71	29.2	0
10/3/2018 11:00	4.263	15.11	17.87	9.77	29.16	0
10/3/2018 11:15	4.382	24.17	15.47	9.79	29.16	0
10/3/2018 11:30	4.319	19.64	14.35	9.87	29.16	0
10/3/2018 11:45	3.797	0.434	12.17	10.62	29.16	0
10/3/2018 12:00	4.047	333.9	27.4	11.32	29.17	0
10/3/2018 12:15	4.622	352	12.15	11.2	29.17	0
10/3/2018 12:30	6.684	27.74	9.38	10.88	29.17	0
10/3/2018 12:45	6.56	18.15	17.5	11.4	29.17	0
10/3/2018 13:00	7.17	31.79	10.98	11.43	29.15	0
10/3/2018 13:15	9.04	28	7.524	11.46	29.15	0
10/3/2018 13:30	7.182	26.32	6.868	11.53	29.15	0
10/3/2018 13:45	8.12	27.91	9.04	11.93	29.15	0
10/3/2018 14:00	7.04	22.46	12.69	12.43	29.15	0
10/3/2018 14:15	6.814	25.73	14.75	12.25	29.15	0
10/3/2018 14:30	8.84	27.42	9.83	12.23	29.15	0
10/3/2018 14:45	9.7	17.22	12.82	11.96	29.15	0
10/3/2018 15:00	10.16	17.31	10.32	11.85	29.13	0
10/3/2018 15:15	9.56	8.57	11.7	12.19	29.13	0
10/3/2018 15:30	7.511	17.85	12.32	12.45	29.13	0
10/3/2018 15:45	9.45	22.73	10.84	12.02	29.13	0
10/3/2018 16:00	9.37	13.04	14.04	11.84	29.13	0
10/3/2018 16:15	8.84	10.01	10.68	11.67	29.13	0
10/3/2018 16:30	9.11	13.02	11.96	11.54	29.13	0
10/3/2018 16:45	7.646	13.2	11.12	11.37	29.13	0
10/3/2018 17:00	9.2	15.11	10.63	11.22	29.1	0
10/3/2018 17:15	8.73	24.57	9.71	10.82	29.1	0
10/3/2018 17:30	8.92	16.31	10.2	10.63	29.1	0
10/3/2018 17:45	6.071	15.24	10.42	10.46	29.1	0
10/3/2018 18:00	3.769	352.6	12.92	10.28	29.11	0
10/3/2018 18:15	5.651	21.53	10.75	10.07	29.11	0
10/3/2018 18:30	9.84	26.55	7.536	9.93	29.11	0
10/3/2018 18:45	10.24	25.13	8.15	9.69	29.11	0
10/3/2018 19:00	9.84	22.73	9.15	9.6	29.1	0
10/3/2018 19:15	10.68	25.39	7.657	9.54	29.1	0
10/3/2018 19:30	10.21	31.95	11.01	9.37	29.1	0
10/3/2018 19:45	9.34	32.91	10.14	9.16	29.1	0
10/3/2018 20:00	8.54	35.4	8.4	9.04	29.08	0
10/3/2018 20:15	7.248	37.72	9.85	8.99	29.08	0
10/3/2018 20:30	7.342	34.24	9.78	8.92	29.08	0
10/3/2018 20:45	4.756	27.57	16.24	8.66	29.08	0
10/3/2018 21:00	3.791	2.382	9.45	8.29	29.08	0

10/3/2018 21:15	1.73	23.81	10.67	8.25	29.08	0
10/3/2018 21:30	2.385	46.39	3.856	8.28	29.08	0
10/3/2018 21:45	3.855	18.12	10.77	8.1	29.08	0
10/3/2018 22:00	5.604	33.98	6.103	8.15	29.1	0
10/3/2018 22:15	7.855	31.38	8.51	8.19	29.1	0
10/3/2018 22:30	7.479	36.79	8.41	8.17	29.1	0
10/3/2018 22:45	4.761	14.74	8.65	8.08	29.1	0
10/3/2018 23:00	1.553	1.102	7.277	7.953	29.09	0
10/3/2018 23:15	1.778	21.23	6.671	7.901	29.09	0
10/3/2018 23:30	5.515	29.73	7.788	7.866	29.09	0
10/3/2018 23:45	6.203	19.07	11.96	7.89	29.09	0
10/4/2018 0:00	4.419	21.44	14.02	7.862	29.11	0
10/4/2018 0:15	6.116	22.73	8.93	7.839	29.11	0
10/4/2018 0:30	7.187	29.06	10.21	7.851	29.11	0
10/4/2018 0:45	7.192	35.91	7.519	7.803	29.11	0
10/4/2018 1:00	8.15	27.5	8.23	7.777	29.1	0
10/4/2018 1:15	6.342	36.81	7.173	7.635	29.1	0
10/4/2018 1:30	4.316	46.6	7.613	7.629	29.1	0
10/4/2018 1:45	3.63	72.48	10.6	7.689	29.1	0
10/4/2018 2:00	2.82	74.31	14.95	7.692	29.1	0
10/4/2018 2:15	3.73	50.51	6.356	7.568	29.1	0
10/4/2018 2:30	2.485	42.72	8.96	7.567	29.1	0
10/4/2018 2:45	3.668	27.88	7.042	7.472	29.1	0
10/4/2018 3:00	3.596	22	6.989	7.172	29.09	0
10/4/2018 3:15	4.268	15.45	8.39	7.397	29.09	0
10/4/2018 3:30	3.528	18.81	7.264	7.253	29.09	0
10/4/2018 3:45	3.73	17.68	6.75	7.244	29.09	0
10/4/2018 4:00	3.881	18.11	4.285	7.152	29.11	0
10/4/2018 4:15	4.435	18.85	7.144	7.154	29.11	0
10/4/2018 4:30	3.9	26.64	5.517	6.941	29.11	0
10/4/2018 4:45	4.403	34.98	8.3	6.86	29.11	0
10/4/2018 5:00	3.867	45.3	5.877	6.596	29.1	0
10/4/2018 5:15	3.821	41.15	4.353	6.622	29.1	0
10/4/2018 5:30	4.727	41.76	6.457	6.657	29.1	0
10/4/2018 5:45	4.134	24.34	10.4	6.549	29.1	0
10/4/2018 6:00	4.557	9.71	5.792	6.703	29.1	0
10/4/2018 6:15	4.041	13.56	6.074	6.833	29.1	0
10/4/2018 6:30	3.347	7.843	11.71	6.825	29.1	0
10/4/2018 6:45	2.044	17.45	2.683	6.606	29.1	0
10/4/2018 7:00	2.286	335.6	20.09	6.675	29.14	0
10/4/2018 7:15	0.647	307.8	20.37	6.962	29.14	0
10/4/2018 7:30	1.168	77.78	39.09	7.096	29.14	0
10/4/2018 7:45	2.413	31.23	3.081	7.053	29.14	0
10/4/2018 8:00	3.021	30.9	10.57	7.231	29.15	0
10/4/2018 8:15	3.424	30.71	10	7.57	29.15	0
10/4/2018 8:30	3.365	26.66	12.53	7.8	29.15	0
10/4/2018 8:45	2.696	20.59	19.18	8.58	29.15	0

10/4/2018 9:00	3.032	63.93	12.4	8.63	29.17	0
10/4/2018 9:15	3.534	76.95	10.35	8.95	29.17	0
10/4/2018 9:30	1.944	12.54	44.48	9.24	29.17	0
10/4/2018 9:45	1.34	213	24.52	9.34	29.17	0
10/4/2018 10:00	2.162	200.9	44.38	9.86	29.18	0
10/4/2018 10:15	3.636	186	23.92	10.14	29.18	0
10/4/2018 10:30	3.623	227.9	36.62	10.33	29.18	0
10/4/2018 10:45	4.861	244.8	13.47	10.29	29.18	0
10/4/2018 11:00	5.811	227	15.82	10.21	29.19	0
10/4/2018 11:15	2.867	265.5	41.22	11.01	29.19	0
10/4/2018 11:30	5.516	286.9	14.01	11.32	29.19	0
10/4/2018 11:45	4.114	305.7	20.46	11.41	29.19	0
10/4/2018 12:00	3.451	252	34.59	11.54	29.21	0
10/4/2018 12:15	2.538	274.9	35.14	11.82	29.21	0
10/4/2018 12:30	2.84	259.3	35.79	12.34	29.21	0
10/4/2018 12:45	6.784	250.8	12.5	12.51	29.21	0
10/4/2018 13:00	4.449	258.7	25.15	12.68	29.19	0
10/4/2018 13:15	3.498	239.4	29.24	12.55	29.19	0
10/4/2018 13:30	6.161	266.2	16.58	12.67	29.19	0
10/4/2018 13:45	5.726	252.1	16.73	12.56	29.19	0
10/4/2018 14:00	4.637	264.3	15.15	12.67	29.21	0
10/4/2018 14:15	2.993	212.2	36.3	13.21	29.21	0
10/4/2018 14:30	4.446	230.9	23.22	13.2	29.21	0
10/4/2018 14:45	3.601	229.6	32.54	13.27	29.21	0
10/4/2018 15:00	4.214	187.5	19.81	13.18	29.2	0
10/4/2018 15:15	4.478	218.8	15.04	12.83	29.2	0
10/4/2018 15:30	2.229	190.9	44.3	13.55	29.2	0
10/4/2018 15:45	1.565	271.9	73.07	13.68	29.2	0
10/4/2018 16:00	2.286	280.3	41.41	13.66	29.23	0
10/4/2018 16:15	4.348	231.5	40.19	13.74	29.23	0
10/4/2018 16:30	4.864	276.1	17.7	13.53	29.23	0
10/4/2018 16:45	6.342	291.3	8.7	13.41	29.23	0
10/4/2018 17:00	6.812	278.1	9.29	13.24	29.22	0
10/4/2018 17:15	7.584	279.7	6.412	12.71	29.22	0
10/4/2018 17:30	5.783	279.9	4.799	12.2	29.22	0
10/4/2018 17:45	3.959	269	5.784	11.9	29.22	0
10/4/2018 18:00	2.808	263.4	2.246	11.83	29.24	0
10/4/2018 18:15	2.397	208.5	16.92	11.93	29.24	0
10/4/2018 18:30	2.808	201.1	4.309	11.84	29.24	0
10/4/2018 18:45	2.396	104.5	27.53	10.77	29.24	0
10/4/2018 19:00	2.159	93.4	4.282	10.44	29.25	0
10/4/2018 19:15	1.947	101.9	13.11	10.51	29.25	0
10/4/2018 19:30	1.648	116.2	0.431	10.42	29.25	0
10/4/2018 19:45	1.099	116.2	0.214	10.08	29.25	0
10/4/2018 20:00	1.568	116.1	0.046	9.74	29.27	0
10/4/2018 20:15	2.303	117	3.51	9.19	29.27	0
10/4/2018 20:30	3.515	140.7	7.476	9.83	29.27	0

10/4/2018 20:45	3.562	141.4	8.33	9.67	29.27	0
10/4/2018 21:00	4.202	132.8	5.603	9.47	29.26	0
10/4/2018 21:15	4.745	140.7	8.81	9.42	29.26	0
10/4/2018 21:30	4.464	145.5	7.06	9.39	29.26	0
10/4/2018 21:45	4.372	141.1	4.853	9.34	29.26	0
10/4/2018 22:00	3.996	149.9	8.34	9.26	29.27	0
10/4/2018 22:15	3.899	158.5	4.202	8.98	29.27	0
10/4/2018 22:30	3.146	148.8	14.31	8.99	29.27	0
10/4/2018 22:45	6.761	205.9	10.86	7.573	29.27	0
10/4/2018 23:00	8.58	202.8	4.28	7.252	29.29	0
10/4/2018 23:15	5.34	170	24.19	7.327	29.29	0
10/4/2018 23:30	2.816	90.1	11.12	6.755	29.29	0
10/4/2018 23:45	3.895	100.9	20.21	6.928	29.29	0
10/5/2018 0:00	5.139	135.1	7.117	7.495	29.3	0
10/5/2018 0:15	6.349	136.4	5.131	7.811	29.3	0
10/5/2018 0:30	6.142	129.9	5.27	8.15	29.3	0
10/5/2018 0:45	6.383	127.5	5.33	8.45	29.3	0
10/5/2018 1:00	6.194	131.3	4.428	8.52	29.27	0
10/5/2018 1:15	5.449	131.6	4.976	8.48	29.27	0
10/5/2018 1:30	4.321	127.3	5.671	8.49	29.27	0
10/5/2018 1:45	4.241	131.4	6.351	8.36	29.27	0
10/5/2018 2:00	3.776	133.2	7.61	8.35	29.27	0
10/5/2018 2:15	3.719	138.4	14.08	8.35	29.27	0
10/5/2018 2:30	3.759	156.6	5.77	8.14	29.27	0
10/5/2018 2:45	4.395	154.5	5.391	7.899	29.27	0
10/5/2018 3:00	4.76	147.7	4.847	7.78	29.27	0
10/5/2018 3:15	5.83	137.2	8.88	7.934	29.27	0
10/5/2018 3:30	5.787	122.3	4.915	7.887	29.27	0
10/5/2018 3:45	6.749	123.6	5.36	8.06	29.27	0
10/5/2018 4:00	5.855	143.3	17.68	8.29	29.23	0
10/5/2018 4:15	4.929	179.6	12	7.918	29.23	0
10/5/2018 4:30	5.361	160.7	8.27	8.12	29.23	0
10/5/2018 4:45	4.88	145.6	4.749	8.2	29.23	0
10/5/2018 5:00	4.153	151.9	4.427	8.15	29.25	0
10/5/2018 5:15	4.554	149.4	6.147	8.39	29.25	0
10/5/2018 5:30	5.009	150.3	7.286	8.35	29.25	0
10/5/2018 5:45	4.966	144	6.166	8.48	29.25	0
10/5/2018 6:00	5.45	142.6	5.658	8.76	29.23	0
10/5/2018 6:15	5.042	150.3	6.176	8.92	29.23	0
10/5/2018 6:30	5.163	153.7	6.875	9.06	29.23	0
10/5/2018 6:45	4.167	146.6	6.826	9.3	29.23	0
10/5/2018 7:00	3.543	152.1	5.28	9.38	29.25	0
10/5/2018 7:15	2.997	156.9	5.13	9.42	29.25	0
10/5/2018 7:30	3.359	154.1	14.25	9.25	29.25	0
10/5/2018 7:45	3.286	124.4	8.83	8.35	29.25	0.01
10/5/2018 8:00	2.422	144.1	43.84	8.05	29.25	0
10/5/2018 8:15	4.828	156	15.11	8.69	29.25	0

10/5/2018 8:30	6.263	141.3	9.62	8.46	29.25	0.01
10/5/2018 8:45	6.985	136.1	8.78	8.25	29.25	0.01
10/5/2018 9:00	6.798	119.5	7.525	8.3	29.22	0.01
10/5/2018 9:15	6.508	112.7	6.71	8.38	29.22	0
10/5/2018 9:30	5.302	117.1	6.329	8.5	29.22	0.01
10/5/2018 9:45	5.118	112.4	5.335	8.65	29.22	0
10/5/2018 10:00	4.585	124.3	7.937	8.9	29.22	0
10/5/2018 10:15	4.006	128.2	11	8.99	29.22	0.01
10/5/2018 10:30	4.317	121.8	9.25	9.08	29.22	0
10/5/2018 10:45	3.146	133	14.46	9.23	29.22	0.01
10/5/2018 11:00	2.353	148.8	16.95	9.46	29.19	0
10/5/2018 11:15	0.952	95.9	22.95	9.41	29.19	0
10/5/2018 11:30	0.305	78.92	0.037	9.38	29.19	0.01
10/5/2018 11:45	1.233	145.8	5.37	9.44	29.19	0.02
10/5/2018 12:00	0.523	38.58	45.48	9.54	29.16	0.01
10/5/2018 12:15	2.539	18.72	4.13	9.4	29.16	0.01
10/5/2018 12:30	3.338	26.24	8.24	9.26	29.16	0
10/5/2018 12:45	3.395	20.86	6.263	9.42	29.16	0
10/5/2018 13:00	3.198	25.35	6.866	9.58	29.13	0
10/5/2018 13:15	5.587	28.52	7.586	9.37	29.13	0
10/5/2018 13:30	6.304	26.16	6.456	9.32	29.13	0
10/5/2018 13:45	5.241	26.2	7.13	9.41	29.13	0.01
10/5/2018 14:00	6.301	31.41	7.939	9.3	29.11	0.04
10/5/2018 14:15	7.81	40.45	8.15	9.15	29.11	0.03
10/5/2018 14:30	8.7	41.29	8.75	9.03	29.11	0.04
10/5/2018 14:45	5.352	46.31	12.57	9.11	29.11	0.03
10/5/2018 15:00	5.691	61.82	10.76	9.12	29.08	0.02
10/5/2018 15:15	6.123	91	17.16	9.28	29.08	0.02
10/5/2018 15:30	7.239	108.3	13	9.37	29.08	0.01
10/5/2018 15:45	4.074	99.9	15.68	9	29.08	0.03
10/5/2018 16:00	3.259	104.7	18.15	8.89	29.09	0.02
10/5/2018 16:15	4.711	124.3	20.34	9.01	29.09	0.03
10/5/2018 16:30	3.685	165	28.93	8.9	29.09	0.02
10/5/2018 16:45	3.622	149	30.8	8.75	29.09	0.03
10/5/2018 17:00	3.516	108.7	23.18	8.69	29.08	0.02
10/5/2018 17:15	3.014	86.6	15.92	8.61	29.08	0
10/5/2018 17:30	2.058	85.2	18.87	8.6	29.08	0.01
10/5/2018 17:45	1.86	65.06	22.18	8.57	29.08	0.03
10/5/2018 18:00	3.155	31.71	6.652	8.33	29.06	0.03
10/5/2018 18:15	3.122	41.23	7.126	8.32	29.06	0.02
10/5/2018 18:30	3.489	53.57	7.078	8.21	29.06	0.03
10/5/2018 18:45	2.444	75.39	12.68	8.12	29.06	0.04
10/5/2018 19:00	1.412	56.53	17.72	8.02	29.09	0.03
10/5/2018 19:15	0.237	33.45	0.11	8	29.09	0.01
10/5/2018 19:30	0	0	0	7.979	29.09	0.01
10/5/2018 19:45	0.159	36.38	2.928	8.03	29.09	0.01
10/5/2018 20:00	1.662	119.1	25.91	8.09	29.07	0

10/5/2018 20:15	1.374	45.38	29.19	8.01	29.07	0
10/5/2018 20:30	1.127	1.594	11.59	8.07	29.07	0
10/5/2018 20:45	2.641	292.4	8.52	8.15	29.07	0
10/5/2018 21:00	1.197	305.6	16.8	8.17	29.08	0
10/5/2018 21:15	0.584	338	0.033	8.06	29.08	0
10/5/2018 21:30	0.273	21.63	5.576	7.977	29.08	0
10/5/2018 21:45	1.668	21.66	2.045	7.884	29.08	0
10/5/2018 22:00	1.248	17.07	1.847	7.804	29.11	0.01
10/5/2018 22:15	3.056	35.75	9.71	7.75	29.11	0
10/5/2018 22:30	3.208	26.57	8.88	7.656	29.11	0
10/5/2018 22:45	3.843	38.55	7.035	7.551	29.11	0
10/5/2018 23:00	6.823	34.2	9.33	7.507	29.08	0
10/5/2018 23:15	9.22	25.2	9.83	7.505	29.08	0
10/5/2018 23:30	9.35	28.02	9.17	7.406	29.08	0
10/5/2018 23:45	9.17	20.49	8.5	7.421	29.08	0
10/6/2018 0:00	10.28	14	7.391	7.778	29.12	0
10/6/2018 0:15	8.61	19.67	7.732	7.749	29.12	0
10/6/2018 0:30	5.357	52.02	12.91	7.745	29.12	0
10/6/2018 0:45	1.766	28.62	17	7.699	29.12	0
10/6/2018 1:00	3.926	21.03	13.7	8.1	29.12	0
10/6/2018 1:15	3.009	25.07	13.45	8.13	29.12	0
10/6/2018 1:30	6.437	28.73	9.91	7.919	29.12	0
10/6/2018 1:45	6.126	31.17	11.03	7.988	29.12	0
10/6/2018 2:00	4.904	16.58	19.08	7.921	29.16	0
10/6/2018 2:15	5.684	346	21.72	8.12	29.16	0
10/6/2018 2:30	4.162	343.8	19.55	8.15	29.16	0
10/6/2018 2:45	4.974	0.738	18.32	8.03	29.16	0
10/6/2018 3:00	6.92	358.9	15.6	7.978	29.15	0
10/6/2018 3:15	10.54	15.59	12.52	7.97	29.15	0
10/6/2018 3:30	8.57	17.74	16.07	8.07	29.15	0
10/6/2018 3:45	8.65	25.44	13.38	8.01	29.15	0
10/6/2018 4:00	8.3	16.5	11.84	8.02	29.17	0
10/6/2018 4:15	8.07	3.878	14.91	8.2	29.17	0
10/6/2018 4:30	6.777	354.1	15.72	8.46	29.17	0
10/6/2018 4:45	5.32	357.4	20.03	8.53	29.17	0
10/6/2018 5:00	6.505	14.01	11.94	8.33	29.22	0
10/6/2018 5:15	5.615	21.64	16.82	8.33	29.22	0
10/6/2018 5:30	6.047	33.39	24.23	8.27	29.22	0
10/6/2018 5:45	7.431	5.071	13.58	8.25	29.22	0
10/6/2018 6:00	11.22	9.62	11.71	8.33	29.22	0
10/6/2018 6:15	7.85	10.05	16.05	8.34	29.22	0
10/6/2018 6:30	8.31	359.9	15.67	8.34	29.22	0
10/6/2018 6:45	6.576	351.1	21.02	8.3	29.22	0
10/6/2018 7:00	3.79	335.2	25.42	8.24	29.25	0
10/6/2018 7:15	4.51	3.02	27.96	8.25	29.25	0
10/6/2018 7:30	6.798	6.119	24.43	8.28	29.25	0
10/6/2018 7:45	4.897	21.93	16.19	8.33	29.25	0

10/6/2018 8:00	3.573	30.07	31.9	8.57	29.28	0
10/6/2018 8:15	3.642	16.07	18.7	8.83	29.28	0
10/6/2018 8:30	5.91	27.46	9.36	8.9	29.28	0
10/6/2018 8:45	5.222	31.18	12.98	8.89	29.28	0
10/6/2018 9:00	4.679	40.16	6.313	8.82	29.29	0
10/6/2018 9:15	3.482	17.87	13.6	8.99	29.29	0
10/6/2018 9:30	4.37	4.866	18.65	9.16	29.29	0
10/6/2018 9:45	5.877	0.732	13.68	9.31	29.29	0
10/6/2018 10:00	7.358	4.91	13.46	9.43	29.32	0
10/6/2018 10:15	6.484	15.06	10.4	9.58	29.32	0
10/6/2018 10:30	6.583	18.7	11.44	9.44	29.32	0
10/6/2018 10:45	5.808	24.25	14.27	9.34	29.32	0
10/6/2018 11:00	5.628	20.65	12.23	9.34	29.34	0
10/6/2018 11:15	6.111	32.51	6.132	9.31	29.34	0
10/6/2018 11:30	4.749	38.78	5.962	9.32	29.34	0
10/6/2018 11:45	5.19	35.78	7.013	9.31	29.34	0
10/6/2018 12:00	5.763	28.45	7.413	9.47	29.34	0
10/6/2018 12:15	4.412	18.95	10.48	9.74	29.34	0
10/6/2018 12:30	5.539	29.71	11.2	10.12	29.34	0
10/6/2018 12:45	4.722	26.51	8.1	9.9	29.34	0
10/6/2018 13:00	3.394	61.81	15.39	10.03	29.34	0
10/6/2018 13:15	4.735	37.47	19.44	10.43	29.34	0
10/6/2018 13:30	3.419	36.5	26.76	10.84	29.34	0
10/6/2018 13:45	1.65	69.14	32.96	11.43	29.34	0
10/6/2018 14:00	2.872	263.6	51.29	11.91	29.35	0
10/6/2018 14:15	5.211	41.85	9.91	10.8	29.35	0
10/6/2018 14:30	3.193	66.28	10.41	10.82	29.35	0
10/6/2018 14:45	5.329	46.16	13.77	11.04	29.35	0
10/6/2018 15:00	4.5	44.46	13.84	11.2	29.37	0
10/6/2018 15:15	3.15	83.9	16.73	11.35	29.37	0
10/6/2018 15:30	2.761	48.08	10.26	11.29	29.37	0
10/6/2018 15:45	4.054	36.67	4.842	11.16	29.37	0
10/6/2018 16:00	4.558	36.25	4.827	11.02	29.37	0
10/6/2018 16:15	3.902	39.42	7.246	10.88	29.37	0
10/6/2018 16:30	3.45	38.26	8.02	10.8	29.37	0
10/6/2018 16:45	2.597	40.16	4.565	10.77	29.37	0
10/6/2018 17:00	2.698	36.34	1.613	10.51	29.38	0
10/6/2018 17:15	2.448	30.69	1.62	10.35	29.38	0
10/6/2018 17:30	2.718	29.3	6.167	10.13	29.38	0
10/6/2018 17:45	3.787	40.14	4.499	9.7	29.38	0
10/6/2018 18:00	2.707	31.11	2.684	9.48	29.38	0
10/6/2018 18:15	2.223	72.45	31.61	9.69	29.38	0
10/6/2018 18:30	2.683	108.1	2.944	9.45	29.38	0
10/6/2018 18:45	3.525	117.5	2.729	9.15	29.38	0
10/6/2018 19:00	3.417	101.5	8.89	9.14	29.4	0
10/6/2018 19:15	2.772	93.1	3.889	8.89	29.4	0
10/6/2018 19:30	3.097	99.2	4.093	8.74	29.4	0

10/6/2018 19:45	3.207	107.3	2.761	8.43	29.4	0
10/6/2018 20:00	3.245	112.7	3.852	8.67	29.37	0
10/6/2018 20:15	4.02	133.9	4.714	9	29.37	0
10/6/2018 20:30	4.345	144.5	7.931	9.16	29.37	0
10/6/2018 20:45	4.465	129.3	5.213	9.09	29.37	0
10/6/2018 21:00	2.838	124.9	4.769	8.72	29.39	0
10/6/2018 21:15	3.208	117.8	1.928	8.24	29.39	0
10/6/2018 21:30	3.39	113.3	2.616	8.53	29.39	0
10/6/2018 21:45	2.553	110.8	1.336	8.62	29.39	0
10/6/2018 22:00	1.864	115.2	5.537	8.81	29.37	0
10/6/2018 22:15	2.983	160.8	14.37	8.47	29.37	0
10/6/2018 22:30	3.799	176.8	6.996	8.12	29.37	0
10/6/2018 22:45	3.815	163.6	7.708	8.11	29.37	0
10/6/2018 23:00	2.116	136.6	6.273	8.2	29.4	0
10/6/2018 23:15	3.075	137.1	6.593	8.14	29.4	0
10/6/2018 23:30	4.1	143.5	3.697	8.18	29.4	0
10/6/2018 23:45	4.361	146.1	4.678	8.39	29.4	0
10/7/2018 0:00	4.11	154.6	4.312	8.26	29.37	0
10/7/2018 0:15	4.347	164.2	7.418	8.29	29.37	0
10/7/2018 0:30	4.585	171	5.869	8.04	29.37	0
10/7/2018 0:45	3.819	174.8	6.097	8.19	29.37	0
10/7/2018 1:00	3.934	195.8	8.78	7.599	29.4	0
10/7/2018 1:15	4.074	172.5	10.09	7.63	29.4	0
10/7/2018 1:30	3.188	161.2	6.127	7.873	29.4	0
10/7/2018 1:45	2.622	155.1	4.611	7.905	29.4	0
10/7/2018 2:00	4.42	175.9	11.29	7.773	29.38	0
10/7/2018 2:15	4.826	181.4	7.667	7.664	29.38	0
10/7/2018 2:30	4.674	163.8	10.02	8.03	29.38	0
10/7/2018 2:45	3.694	167.7	8.93	8.02	29.38	0
10/7/2018 3:00	4.609	191.9	9.06	7.646	29.38	0
10/7/2018 3:15	4.863	174.4	8.85	7.87	29.38	0
10/7/2018 3:30	2.181	155.9	10.49	8.02	29.38	0
10/7/2018 3:45	2.091	163.6	11.16	7.885	29.38	0
10/7/2018 4:00	2.207	174.2	8.23	7.907	29.37	0
10/7/2018 4:15	3.353	181.5	6.53	7.814	29.37	0
10/7/2018 4:30	4.967	181.2	4.955	7.662	29.37	0
10/7/2018 4:45	3.584	157.9	16.54	7.693	29.37	0
10/7/2018 5:00	2.698	132.2	5.604	8.09	29.38	0
10/7/2018 5:15	4.058	166.2	14.23	7.879	29.38	0
10/7/2018 5:30	5.099	177.4	7.192	7.836	29.38	0
10/7/2018 5:45	4.441	178.7	7.635	7.784	29.38	0
10/7/2018 6:00	4.827	169.1	10.98	8.21	29.35	0
10/7/2018 6:15	3.883	165.1	3.612	8.25	29.35	0
10/7/2018 6:30	2.457	145.5	15.4	8.04	29.35	0
10/7/2018 6:45	3.012	129.2	7.394	7.996	29.35	0
10/7/2018 7:00	3.801	148.3	9.89	8.11	29.38	0
10/7/2018 7:15	4.743	163.9	4.315	8.45	29.38	0

10/7/2018 7:30	4.253	172.4	8.31	8.62	29.38	0
10/7/2018 7:45	4.465	186.9	13.06	8.55	29.38	0
10/7/2018 8:00	5.075	212.7	10.08	8.02	29.37	0
10/7/2018 8:15	5.077	208.5	6.418	8.2	29.37	0
10/7/2018 8:30	4.892	212.8	6.701	8.28	29.37	0
10/7/2018 8:45	3.401	195.8	11.13	8.71	29.37	0
10/7/2018 9:00	2.543	163.5	10.4	9.41	29.36	0
10/7/2018 9:15	2.361	185.3	15.03	9.4	29.36	0
10/7/2018 9:30	1.709	210.3	12.09	9.88	29.36	0
10/7/2018 9:45	0.464	175.8	48.81	10.3	29.36	0
10/7/2018 10:00	1.06	87.4	6.559	10.39	29.36	0
10/7/2018 10:15	1.416	199.2	66.14	10.53	29.36	0
10/7/2018 10:30	1.499	247.9	29.28	10.67	29.36	0
10/7/2018 10:45	1.348	239.3	32.95	10.42	29.36	0
10/7/2018 11:00	2.244	200.8	25.02	10.5	29.38	0
10/7/2018 11:15	3.234	207.9	8.33	10.33	29.38	0
10/7/2018 11:30	3.038	199.5	12.72	10.41	29.38	0
10/7/2018 11:45	2.092	203	20.93	10.51	29.38	0
10/7/2018 12:00	1.979	204.7	17.84	10.53	29.37	0.01
10/7/2018 12:15	2.387	202.8	20.38	10.8	29.37	0
10/7/2018 12:30	3.036	167.5	34.75	11.17	29.37	0
10/7/2018 12:45	3.13	167.6	29.95	11.29	29.37	0
10/7/2018 13:00	3.179	169.1	30.41	11.26	29.33	0
10/7/2018 13:15	2.975	177.3	37.96	11.22	29.33	0
10/7/2018 13:30	3.339	214.5	14.66	11.33	29.33	0
10/7/2018 13:45	2.604	211.2	26.94	11.45	29.33	0
10/7/2018 14:00	2.562	205.3	21.9	11.5	29.34	0
10/7/2018 14:15	2.732	219.1	29.21	11.69	29.34	0
10/7/2018 14:30	2.082	225.7	47.66	11.82	29.34	0
10/7/2018 14:45	2.745	206.5	33.46	12.03	29.34	0
10/7/2018 15:00	2.273	171.4	10.49	11.93	29.33	0
10/7/2018 15:15	1.209	137.3	31.57	12.04	29.33	0
10/7/2018 15:30	1.334	236.6	48.75	12.14	29.33	0
10/7/2018 15:45	0.884	256.4	20.53	12.13	29.33	0
10/7/2018 16:00	1.502	214.8	16.88	12.04	29.31	0
10/7/2018 16:15	0.908	193.8	6.677	12.04	29.31	0
10/7/2018 16:30	0.865	95.8	13.46	11.91	29.31	0
10/7/2018 16:45	0.88	63.11	7.179	11.65	29.31	0
10/7/2018 17:00	0.751	48.04	1.426	11.55	29.28	0
10/7/2018 17:15	0.3	43.3	2.969	11.61	29.28	0
10/7/2018 17:30	0.888	36.26	0.228	11.43	29.28	0
10/7/2018 17:45	0.51	32.72	3.177	11.36	29.28	0
10/7/2018 18:00	1.574	26.12	0.259	11.21	29.28	0
10/7/2018 18:15	2	14.56	11.37	11.08	29.28	0
10/7/2018 18:30	3.296	326	15.1	10.98	29.28	0
10/7/2018 18:45	3.795	306.5	2.988	10.88	29.28	0
10/7/2018 19:00	2.766	311.2	5.914	10.79	29.28	0

10/7/2018 19:15	2.125	311.9	6.3	10.74	29.28	0
10/7/2018 19:30	2.566	276.3	11.04	10.75	29.28	0
10/7/2018 19:45	3.84	289.3	9.12	10.6	29.28	0
10/7/2018 20:00	3.054	324	16.34	10.46	29.27	0
10/7/2018 20:15	1.661	14.91	2.524	10.19	29.27	0
10/7/2018 20:30	1.758	21.7	11.76	10.19	29.27	0
10/7/2018 20:45	1.973	16.5	15.2	10.21	29.27	0.01
10/7/2018 21:00	2.116	4.919	11.23	10.17	29.26	0
10/7/2018 21:15	2.365	17.4	10.66	10.22	29.26	0
10/7/2018 21:30	2.029	12.62	6.431	10.31	29.26	0
10/7/2018 21:45	2.129	18.47	5.075	10.17	29.26	0
10/7/2018 22:00	2.464	10.39	6.172	10.06	29.26	0
10/7/2018 22:15	1.897	17.94	12.19	10.02	29.26	0
10/7/2018 22:30	2.348	32.44	3.449	9.87	29.26	0
10/7/2018 22:45	1.938	38.11	3.436	9.87	29.26	0
10/7/2018 23:00	1.056	41.58	0.057	9.88	29.25	0
10/7/2018 23:15	0.022	41.57	0.005	9.79	29.25	0
10/7/2018 23:30	0.894	41.4	0.095	9.88	29.25	0
10/7/2018 23:45	1.336	41.23	0.074	9.93	29.25	0
10/8/2018 0:00	1.155	37.42	8.72	10.07	29.25	0
10/8/2018 0:15	3.034	7.768	1.537	10.05	29.25	0
10/8/2018 0:30	2.448	22.43	10.68	9.96	29.25	0
10/8/2018 0:45	1.756	33.09	3.6	9.88	29.25	0
10/8/2018 1:00	1.295	64.21	19.14	9.84	29.24	0
10/8/2018 1:15	1.58	17.27	3.812	9.88	29.24	0
10/8/2018 1:30	0.71	15.71	0.048	9.86	29.24	0
10/8/2018 1:45	1.051	15.7	0.112	9.84	29.24	0
10/8/2018 2:00	1.383	15.72	0.138	9.94	29.23	0.01
10/8/2018 2:15	1.073	19.73	3.134	9.93	29.23	0
10/8/2018 2:30	1.013	32.05	3.01	9.84	29.23	0
10/8/2018 2:45	0.279	34.18	0.037	9.83	29.23	0
10/8/2018 3:00	0.004	34.43	0	9.77	29.23	0.01
10/8/2018 3:15	0.404	87.5	6.335	9.92	29.23	0
10/8/2018 3:30	3.001	127.9	17.92	10.07	29.23	0.01
10/8/2018 3:45	3.013	143.1	4.181	10.04	29.23	0
10/8/2018 4:00	1.512	121.3	21.21	9.98	29.22	0
10/8/2018 4:15	1.503	131.1	12.69	10.02	29.22	0
10/8/2018 4:30	0.649	136.4	0.143	10.01	29.22	0
10/8/2018 4:45	0	0	0	10.06	29.22	0
10/8/2018 5:00	0	0	0	10.06	29.21	0
10/8/2018 5:15	2.028	51.92	10.25	9.89	29.21	0.01
10/8/2018 5:30	1.691	35.27	3.051	9.89	29.21	0
10/8/2018 5:45	0.172	20.03	17.22	9.97	29.21	0
10/8/2018 6:00	0.043	296.3	0.016	10.14	29.2	0
10/8/2018 6:15	0	0	0	9.95	29.2	0.01
10/8/2018 6:30	0.341	4.688	0.881	9.85	29.2	0
10/8/2018 6:45	2.126	19.2	8.41	9.89	29.2	0

10/8/2018 7:00	2.606	14.43	3.398	9.93	29.21	0
10/8/2018 7:15	1.676	8.11	0.469	10	29.21	0
10/8/2018 7:30	0.803	8.42	0.078	10.1	29.21	0
10/8/2018 7:45	0.653	58.58	9.2	10.18	29.21	0
10/8/2018 8:00	1.729	92.1	18.6	10.16	29.19	0
10/8/2018 8:15	1.316	102.6	2.8	10.37	29.19	0
10/8/2018 8:30	1.197	91.9	23.19	10.7	29.19	0
10/8/2018 8:45	0.259	78.61	44.5	10.83	29.19	0
10/8/2018 9:00	1.398	207.7	29.85	11.03	29.18	0
10/8/2018 9:15	0.472	263.9	13.88	11.17	29.18	0
10/8/2018 9:30	0.738	253.3	20.33	11.38	29.18	0.01
10/8/2018 9:45	2.958	223.2	5.328	11.34	29.18	0
10/8/2018 10:00	2.655	242.3	7.663	11.29	29.19	0.02
10/8/2018 10:15	0.726	255.5	4.314	11.54	29.19	0.01
10/8/2018 10:30	0.216	291.4	10.7	11.89	29.19	0
10/8/2018 10:45	0.179	9.55	13.14	12.13	29.19	0
10/8/2018 11:00	0.378	51.81	6.031	11.9	29.15	0.01
10/8/2018 11:15	1.836	82.2	18.93	11.91	29.15	0
10/8/2018 11:30	3.131	110.5	8.78	12.11	29.15	0
10/8/2018 11:45	1.213	105.9	16.86	12.42	29.15	0
10/8/2018 12:00	1.348	224.5	40.07	12.68	29.16	0.01
10/8/2018 12:15	1.429	213.1	24.79	12.77	29.16	0
10/8/2018 12:30	1.087	86.7	34.95	12.69	29.16	0
10/8/2018 12:45	1.157	122.9	54.43	12.64	29.16	0
10/8/2018 13:00	0.958	196.8	15.84	12.91	29.15	0
10/8/2018 13:15	0.884	53.88	74.34	12.79	29.15	0
10/8/2018 13:30	2.188	131.1	11.56	12.75	29.15	0
10/8/2018 13:45	3.965	192.8	63.51	12.49	29.15	0.01
10/8/2018 14:00	4.698	238.3	9.37	12.12	29.13	0.02
10/8/2018 14:15	3.205	224.3	7.174	12.06	29.13	0.01
10/8/2018 14:30	3.136	205.8	7.218	12.24	29.13	0
10/8/2018 14:45	2.875	200.6	10.92	12.21	29.13	0.02
10/8/2018 15:00	3.457	152.8	29.23	12.25	29.12	0
10/8/2018 15:15	3.742	145.5	14.65	12.23	29.12	0.01
10/8/2018 15:30	2.684	166.7	15.21	12.36	29.12	0.01
10/8/2018 15:45	3.326	182.5	11.86	12.21	29.12	0
10/8/2018 16:00	3.249	192	7.077	12.11	29.13	0.01
10/8/2018 16:15	2.381	195	4.256	12.03	29.13	0.01
10/8/2018 16:30	0.771	222	5.885	12.01	29.13	0.01
10/8/2018 16:45	0.698	30.32	10.52	11.98	29.13	0.02
10/8/2018 17:00	2.473	344	5.421	11.85	29.1	0
10/8/2018 17:15	1.31	339	0.082	11.78	29.1	0.01
10/8/2018 17:30	0.995	340.2	0.498	11.74	29.1	0.01
10/8/2018 17:45	1.396	324.3	9.53	11.73	29.1	0
10/8/2018 18:00	2.993	286.2	13.97	11.66	29.1	0
10/8/2018 18:15	2.531	282.5	2.508	11.68	29.1	0
10/8/2018 18:30	3.261	277.5	3.609	11.65	29.1	0.01

10/8/2018 18:45	3.502	268	10.2	11.63	29.1	0
10/8/2018 19:00	4.511	260.2	7.402	11.58	29.07	0
10/8/2018 19:15	4.45	274.7	8.1	11.49	29.07	0
10/8/2018 19:30	3.688	272.1	7.885	11.44	29.07	0
10/8/2018 19:45	3.672	251.3	8.71	11.43	29.07	0.01
10/8/2018 20:00	3.724	229	10.48	11.36	29.09	0
10/8/2018 20:15	3.171	232	9.96	11.31	29.09	0
10/8/2018 20:30	1.716	215.6	15.97	11.36	29.09	0.01
10/8/2018 20:45	0.646	162.5	27.14	11.34	29.09	0
10/8/2018 21:00	0.953	234	20.25	11.31	29.07	0
10/8/2018 21:15	0.377	184.5	37.77	11.32	29.07	0.01
10/8/2018 21:30	1.696	113.2	9.38	11.26	29.07	0
10/8/2018 21:45	2.528	98.4	11.83	11.2	29.07	0
10/8/2018 22:00	2.166	152.9	18.65	11.11	29.03	0
10/8/2018 22:15	2.912	169.4	10.58	11.04	29.03	0.01
10/8/2018 22:30	1.648	165.6	27.36	11.04	29.03	0
10/8/2018 22:45	1.106	338	14.54	11.06	29.03	0.04
10/8/2018 23:00	0.457	0.025	2.392	11.04	29.02	0.04
10/8/2018 23:15	0.104	42.38	0.028	11.05	29.02	0
10/8/2018 23:30	0.475	111.1	18.92	11.07	29.02	0
10/8/2018 23:45	2.56	150	4.111	11.13	29.02	0
10/9/2018 0:00	0.983	84	16.17	11.09	28.99	0
10/9/2018 0:15	4.384	355.9	19.46	11.13	28.99	0
10/9/2018 0:30	2.79	19.14	14.45	11.06	28.99	0.1
10/9/2018 0:45	4.497	328.4	16.99	11.06	28.99	0.05
10/9/2018 1:00	2.674	44.24	14.73	10.99	28.98	0.01
10/9/2018 1:15	4.567	10.72	7.604	10.99	28.98	0
10/9/2018 1:30	3.602	332.5	40.82	11.05	28.98	0
10/9/2018 1:45	2.199	340.3	44.2	11.06	28.98	0
10/9/2018 2:00	1.301	282.7	34.83	11.06	29	0
10/9/2018 2:15	6.556	358.1	18.88	11.02	29	0
10/9/2018 2:30	10.23	353.3	15.09	11.09	29	0
10/9/2018 2:45	8.81	2.845	13.18	11.24	29	0
10/9/2018 3:00	9.25	355.7	14.8	11.19	29	0
10/9/2018 3:15	10.84	12.96	14.55	11.04	29	0
10/9/2018 3:30	12.26	8.57	11.06	10.93	29	0
10/9/2018 3:45	10.79	359.5	13.54	10.96	29	0
10/9/2018 4:00	11.69	5.951	13.69	11.01	28.99	0
10/9/2018 4:15	11.56	3.253	13.14	10.98	28.99	0.01
10/9/2018 4:30	13.78	347	16.12	10.99	28.99	0.01
10/9/2018 4:45	15.14	337.7	11.23	10.85	28.99	0.02
10/9/2018 5:00	14.63	340.7	10.73	10.67	29	0.02
10/9/2018 5:15	16.42	343	9.93	10.73	29	0.01
10/9/2018 5:30	11.85	344.6	14.43	10.51	29	0.01
10/9/2018 5:45	14.48	340.2	11.94	10.54	29	0.01
10/9/2018 6:00	14.54	339.2	12.68	10.54	29.03	0
10/9/2018 6:15	13.35	335.1	8.67	10.34	29.03	0

10/9/2018 6:30	11.87	337	9.41	10.27	29.03	0
10/9/2018 6:45	12.23	334.4	10.41	10.29	29.03	0
10/9/2018 7:00	9.26	326.2	16.24	10.27	29.06	0
10/9/2018 7:15	4.696	303.9	13.78	10.22	29.06	0.01
10/9/2018 7:30	6.257	307.6	7.052	10.19	29.06	0
10/9/2018 7:45	6.698	322.3	14.23	10.16	29.06	0.01
10/9/2018 8:00	11.71	328.8	12.73	10.23	29.08	0
10/9/2018 8:15	13.87	339	10.71	10.27	29.08	0
10/9/2018 8:30	13.13	337.1	10.12	10.37	29.08	0.01
10/9/2018 8:45	12.94	337.5	8.21	10.31	29.08	0
10/9/2018 9:00	11.73	342.8	10.26	10.28	29.1	0
10/9/2018 9:15	10.01	345.9	10.79	10.37	29.1	0
10/9/2018 9:30	7.568	5.546	12.07	10.52	29.1	0
10/9/2018 9:45	4.452	2.892	11.08	10.62	29.1	0
10/9/2018 10:00	1.169	44.91	11.65	10.4	29.11	0
10/9/2018 10:15	0.953	37.43	26.87	10.45	29.11	0
10/9/2018 10:30	5.052	355.3	22.13	10.67	29.11	0
10/9/2018 10:45	6.439	0.955	17.29	11.06	29.11	0
10/9/2018 11:00	6.926	8.51	12.62	10.89	29.12	0
10/9/2018 11:15	4.642	4.332	10.05	10.94	29.12	0
10/9/2018 11:30	3.963	4.046	12.84	11.11	29.12	0
10/9/2018 11:45	6.016	330.4	11.27	11.27	29.12	0
10/9/2018 12:00	6.96	323.6	6.566	11.4	29.15	0
10/9/2018 12:15	7.24	326.5	9.8	11.7	29.15	0
10/9/2018 12:30	7.584	323.3	6.965	11.9	29.15	0
10/9/2018 12:45	8.03	327.5	8.56	12.06	29.15	0
10/9/2018 13:00	7.971	324.1	9.11	12.62	29.15	0
10/9/2018 13:15	6.145	346.2	36.78	12.8	29.15	0
10/9/2018 13:30	7.131	27.78	8.16	11.52	29.15	0
10/9/2018 13:45	6.959	26.99	7.383	11.46	29.15	0
10/9/2018 14:00	6.132	27.44	8.56	11.63	29.16	0
10/9/2018 14:15	5.629	26.89	6.78	11.82	29.16	0
10/9/2018 14:30	5.614	22.87	8.91	11.92	29.16	0
10/9/2018 14:45	5.389	27.72	9.96	12.15	29.16	0
10/9/2018 15:00	6.411	27.25	7.106	12.12	29.15	0
10/9/2018 15:15	6.491	32.29	10.9	12.18	29.15	0
10/9/2018 15:30	6.468	32.22	6.922	11.85	29.15	0
10/9/2018 15:45	5.435	23.17	5.571	11.75	29.15	0
10/9/2018 16:00	5.088	16.26	7.327	11.83	29.14	0
10/9/2018 16:15	3.663	355.6	10.99	12.06	29.14	0
10/9/2018 16:30	1.479	342.7	6.797	12.4	29.14	0
10/9/2018 16:45	1.817	354	16.65	12.46	29.14	0
10/9/2018 17:00	5.103	19.1	10.1	12.37	29.17	0
10/9/2018 17:15	6.257	22.58	9.85	11.79	29.17	0
10/9/2018 17:30	6	23.44	6.631	11.22	29.17	0
10/9/2018 17:45	5.334	28.95	6.534	10.93	29.17	0
10/9/2018 18:00	3.981	39.58	6.612	10.72	29.17	0

10/9/2018 18:15	3.168	32.05	7.129	10.75	29.17	0
10/9/2018 18:30	3.012	37.64	5.665	10.61	29.17	0
10/9/2018 18:45	2.908	48.7	3.228	10.69	29.17	0
10/9/2018 19:00	2.316	45.95	9.56	10.67	29.17	0
10/9/2018 19:15	2.843	23.62	5.409	9.92	29.17	0
10/9/2018 19:30	3.715	33.09	3.285	9.74	29.17	0
10/9/2018 19:45	2.536	29.34	5.386	9.94	29.17	0
10/9/2018 20:00	1.716	31.64	0.191	10.2	29.17	0
10/9/2018 20:15	1.731	35.64	4.814	10.35	29.17	0
10/9/2018 20:30	1.687	50.37	9.94	10.31	29.17	0
10/9/2018 20:45	1.427	66.1	3.928	9.99	29.17	0
10/9/2018 21:00	2.304	33.15	12.63	10.18	29.17	0
10/9/2018 21:15	2.645	357.5	8.82	10.29	29.17	0
10/9/2018 21:30	2.651	335.7	3.664	10.66	29.17	0
10/9/2018 21:45	0.204	3.803	6.196	9.8	29.17	0
10/9/2018 22:00	1.097	7.443	0.237	9.74	29.19	0
10/9/2018 22:15	0.475	352.5	38.95	10.03	29.19	0
10/9/2018 22:30	0.026	214	0.012	10.15	29.19	0
10/9/2018 22:45	0.205	202.3	18.52	10.09	29.19	0
10/9/2018 23:00	0.524	130.9	0.073	10.15	29.19	0
10/9/2018 23:15	0.262	132.6	0.913	10.37	29.19	0
10/9/2018 23:30	1.915	194.5	23.75	10.14	29.19	0
10/9/2018 23:45	2.551	155.6	5.015	10.07	29.19	0
10/10/2018 0:00	2.807	123.5	13.6	9.93	29.21	0
10/10/2018 0:15	1.865	103.2	0.708	9.81	29.21	0
10/10/2018 0:30	2.555	98.4	3.111	10.05	29.21	0
10/10/2018 0:45	1.896	96.1	0.196	9.87	29.21	0
10/10/2018 1:00	0.461	96.3	0.398	9.74	29.21	0
10/10/2018 1:15	0.765	99.8	0.13	9.91	29.21	0
10/10/2018 1:30	1.084	99.9	0.097	9.82	29.21	0
10/10/2018 1:45	0.233	99.9	0.03	9.8	29.21	0
10/10/2018 2:00	0.076	99.9	0.017	9.83	29.21	0
10/10/2018 2:15	0.48	28.68	5.343	9.67	29.21	0
10/10/2018 2:30	0.933	22.81	0.163	9.41	29.21	0
10/10/2018 2:45	2.002	22.81	0.138	9.46	29.21	0
10/10/2018 3:00	1.537	13.97	45.83	9.53	29.2	0
10/10/2018 3:15	1.012	247	9.5	9.33	29.2	0
10/10/2018 3:30	4.63	243.9	8.19	9.48	29.2	0
10/10/2018 3:45	4.129	233.5	6.577	9.68	29.2	0
10/10/2018 4:00	2.275	312.1	97.7	9.45	29.19	0
10/10/2018 4:15	1.072	33.1	2.003	8.89	29.19	0
10/10/2018 4:30	0.665	39.93	0.923	9.07	29.19	0
10/10/2018 4:45	0.027	40.7	0.005	9.15	29.19	0
10/10/2018 5:00	0.438	40.7	0.047	9.35	29.18	0
10/10/2018 5:15	0	0	0	9.35	29.18	0
10/10/2018 5:30	1.163	121.2	55.87	9.44	29.18	0
10/10/2018 5:45	2.641	184.1	4.955	9.61	29.18	0

10/10/2018 6:00	2.203	173.5	6.917	9.49	29.19	0
10/10/2018 6:15	2.21	188.6	7.015	9.39	29.19	0
10/10/2018 6:30	3.397	182.5	5.586	9.26	29.19	0
10/10/2018 6:45	2.878	206.2	5.462	9.18	29.19	0
10/10/2018 7:00	3.471	205.7	5.762	9.28	29.21	0
10/10/2018 7:15	3.276	182.6	12.51	9.33	29.21	0
10/10/2018 7:30	2.516	132.2	16.43	9.21	29.21	0
10/10/2018 7:45	1.46	119	0.801	9.29	29.21	0
10/10/2018 8:00	1.049	122.5	4.549	9.74	29.22	0
10/10/2018 8:15	2.516	138.1	3.353	10	29.22	0
10/10/2018 8:30	2.625	123.4	11.78	11.1	29.22	0
10/10/2018 8:45	2.736	146.9	18.24	11.65	29.22	0
10/10/2018 9:00	2.375	205.2	32.44	11.73	29.21	0
10/10/2018 9:15	1.469	179.8	30.97	11.76	29.21	0
10/10/2018 9:30	1.257	227.9	45.98	12.15	29.21	0
10/10/2018 9:45	1.004	281	34.56	12.55	29.21	0
10/10/2018 10:00	2.107	313.1	8.61	12.91	29.22	0
10/10/2018 10:15	1.645	19.76	31.12	13.12	29.22	0
10/10/2018 10:30	1.107	277.2	51.05	13.53	29.22	0
10/10/2018 10:45	3.668	308.5	19.89	13.32	29.22	0
10/10/2018 11:00	2.597	326.9	13.15	13.23	29.21	0
10/10/2018 11:15	2.845	350.2	29.19	13.95	29.21	0
10/10/2018 11:30	5.062	28.43	12.28	13.6	29.21	0
10/10/2018 11:45	3.409	295	48.73	13.9	29.21	0
10/10/2018 12:00	4.395	300.3	18.06	14.69	29.21	0
10/10/2018 12:15	6.347	311.4	10	14.05	29.21	0
10/10/2018 12:30	4.533	339.9	30.65	14.68	29.21	0
10/10/2018 12:45	6.915	30.9	8.88	14.47	29.21	0
10/10/2018 13:00	6.862	25.63	9.35	14.19	29.2	0
10/10/2018 13:15	6.004	31.37	12.09	14.81	29.2	0
10/10/2018 13:30	5.526	19.53	22.52	15.22	29.2	0
10/10/2018 13:45	7.582	33.6	9.97	15.1	29.2	0
10/10/2018 14:00	6.916	20.27	18.41	15.36	29.18	0
10/10/2018 14:15	7.691	22.56	16.51	15.25	29.18	0
10/10/2018 14:30	7.035	31.16	11.42	15.11	29.18	0
10/10/2018 14:45	5.273	19.46	21.5	15.3	29.18	0
10/10/2018 15:00	7.617	27.47	17.02	15.21	29.18	0
10/10/2018 15:15	6.44	21.78	11.5	15.25	29.18	0
10/10/2018 15:30	6.416	9.7	16.1	15.19	29.18	0
10/10/2018 15:45	5.415	15.25	13.3	15.21	29.18	0
10/10/2018 16:00	5.154	15.22	9.97	15.1	29.19	0
10/10/2018 16:15	3.762	1.838	13.02	15.23	29.19	0
10/10/2018 16:30	4.306	340.8	15.55	15.2	29.19	0
10/10/2018 16:45	4.378	336.2	12.92	14.8	29.19	0
10/10/2018 17:00	5.369	326.1	5.921	14.46	29.19	0
10/10/2018 17:15	5.269	321.6	5.749	13.99	29.19	0
10/10/2018 17:30	5.21	330.3	11.5	13.75	29.19	0

10/10/2018 17:45	3.164	13	20.67	13.43	29.19	0
10/10/2018 18:00	3.74	20.06	7.508	12.98	29.2	0
10/10/2018 18:15	4.437	17.71	5.172	12.46	29.2	0
10/10/2018 18:30	3.986	21.17	10.23	12.14	29.2	0
10/10/2018 18:45	4.02	37.72	8.61	11.98	29.2	0
10/10/2018 19:00	4.035	18.02	11.87	12.01	29.21	0
10/10/2018 19:15	4.383	32.79	10.86	11.35	29.21	0
10/10/2018 19:30	7.02	40.6	9.02	10.95	29.21	0
10/10/2018 19:45	7.252	39.3	7.915	10.87	29.21	0
10/10/2018 20:00	6.743	38.65	10.44	10.92	29.2	0
10/10/2018 20:15	6.25	29.5	10.53	11	29.2	0
10/10/2018 20:30	6.988	41.22	10	10.85	29.2	0
10/10/2018 20:45	9.4	28.66	9.07	10.96	29.2	0
10/10/2018 21:00	8.12	29.92	7.64	10.6	29.21	0
10/10/2018 21:15	9.44	25.98	7.011	10.49	29.21	0
10/10/2018 21:30	10.89	29.1	5.906	10.38	29.21	0
10/10/2018 21:45	8.48	38.88	7.445	10.21	29.21	0
10/10/2018 22:00	6.221	48.01	10.11	10.12	29.21	0
10/10/2018 22:15	4.881	54.69	10.1	10.09	29.21	0
10/10/2018 22:30	3.832	54.31	10.58	9.95	29.21	0
10/10/2018 22:45	4.286	57.38	10.05	9.7	29.21	0
10/10/2018 23:00	3.978	54.63	6.582	9.39	29.23	0
10/10/2018 23:15	3.138	33.12	8.49	8.94	29.23	0
10/10/2018 23:30	3.52	33.63	5.141	8.85	29.23	0
10/10/2018 23:45	1.778	40.68	0.802	8.6	29.23	0
10/11/2018 0:00	0.702	42.81	0.078	8.83	29.25	0
10/11/2018 0:15	1.007	42.35	0.351	9.2	29.25	0
10/11/2018 0:30	0.88	28.14	8.94	9.16	29.25	0
10/11/2018 0:45	2.065	339.6	13.99	9	29.25	0
10/11/2018 1:00	2.833	334.3	3.369	8.84	29.24	0
10/11/2018 1:15	3.236	348	2.453	8.92	29.24	0
10/11/2018 1:30	2.477	13.86	12.25	8.42	29.24	0
10/11/2018 1:45	2.778	13.56	1.076	7.432	29.24	0
10/11/2018 2:00	2.036	17.7	3.216	7.067	29.27	0
10/11/2018 2:15	0.784	22.87	4.607	6.885	29.27	0
10/11/2018 2:30	2.628	120.3	15.23	7.76	29.27	0
10/11/2018 2:45	1.635	135.6	0.119	8.32	29.27	0
10/11/2018 3:00	2.582	158.3	12.75	8.24	29.25	0
10/11/2018 3:15	1.713	171.6	7.67	8.09	29.25	0
10/11/2018 3:30	0.429	180.4	0.102	7.973	29.25	0
10/11/2018 3:45	0	0	0	7.734	29.25	0
10/11/2018 4:00	0.853	84.3	47.48	7.972	29.28	0
10/11/2018 4:15	0.773	59.73	0.265	7.994	29.28	0
10/11/2018 4:30	0.474	60.84	0.725	7.878	29.28	0
10/11/2018 4:45	0.002	62.41	0.002	8.03	29.28	0
10/11/2018 5:00	0.04	63.01	0.02	7.923	29.29	0
10/11/2018 5:15	0.307	62.53	0.843	7.452	29.29	0

10/11/2018 5:30	2.268	51.56	3.091	6.424	29.29	0
10/11/2018 5:45	2.11	39.54	8.56	5.549	29.29	0
10/11/2018 6:00	0.301	28.26	0.037	5.901	29.28	0
10/11/2018 6:15	0.858	40.89	3.984	6.238	29.28	0
10/11/2018 6:30	0.297	44.22	0.057	5.99	29.28	0
10/11/2018 6:45	2.157	167.2	16.41	6.461	29.28	0
10/11/2018 7:00	3.923	174.8	9.73	6.968	29.28	0
10/11/2018 7:15	4.746	213.4	8.58	6.635	29.28	0
10/11/2018 7:30	4.877	195.7	12.58	6.891	29.28	0
10/11/2018 7:45	3.121	186.8	10.79	7.454	29.28	0
10/11/2018 8:00	1.625	158.9	56.01	8.11	29.31	0
10/11/2018 8:15	0.993	8.59	23.6	8.67	29.31	0
10/11/2018 8:30	2.361	30.33	10.94	8.17	29.31	0
10/11/2018 8:45	2.457	30.88	7.276	7.653	29.31	0
10/11/2018 9:00	2.75	29.15	4.666	8.1	29.31	0
10/11/2018 9:15	2.23	30.74	6.18	8.61	29.31	0
10/11/2018 9:30	2.202	29.71	11.85	9.21	29.31	0
10/11/2018 9:45	1.702	52.42	17.17	9.95	29.31	0
10/11/2018 10:00	2.122	116	15.14	11.14	29.33	0
10/11/2018 10:15	1.805	53.76	17.16	11.12	29.33	0
10/11/2018 10:30	1.982	159	64.18	11.87	29.33	0
10/11/2018 10:45	2.853	220.9	23.08	11.92	29.33	0
10/11/2018 11:00	1.926	236.6	32	12.58	29.32	0
10/11/2018 11:15	1.306	258.8	70.65	13.45	29.32	0
10/11/2018 11:30	1.352	270.7	20.78	13.87	29.32	0
10/11/2018 11:45	2.337	305.2	52.02	13.76	29.32	0
10/11/2018 12:00	1.876	347.5	32.45	14.1	29.32	0
10/11/2018 12:15	2.026	293.9	39.48	14.63	29.32	0
10/11/2018 12:30	3.338	282.6	31.7	14.73	29.32	0
10/11/2018 12:45	3.07	286.3	23.72	14.87	29.32	0
10/11/2018 13:00	3.401	256	20.28	14.97	29.29	0
10/11/2018 13:15	4.739	296.8	26.18	15.08	29.29	0
10/11/2018 13:30	4.066	280.9	14.4	15.1	29.29	0
10/11/2018 13:45	5.305	277.1	15.12	14.94	29.29	0
10/11/2018 14:00	5.771	281.5	11.54	14.71	29.28	0
10/11/2018 14:15	5.051	285.8	14.96	14.85	29.28	0
10/11/2018 14:30	3.762	279.3	21.69	15.19	29.28	0
10/11/2018 14:45	4.143	320.7	22.15	15.45	29.28	0
10/11/2018 15:00	3.335	317.2	22.96	15.74	29.27	0
10/11/2018 15:15	3.513	328.1	21.09	15.66	29.27	0
10/11/2018 15:30	4.581	316.8	25.29	15.62	29.27	0
10/11/2018 15:45	3.756	291.9	35.22	15.72	29.27	0
10/11/2018 16:00	4.179	289.4	13.53	15.58	29.29	0
10/11/2018 16:15	4.079	291.4	9.72	15.41	29.29	0
10/11/2018 16:30	5.283	290.3	11.33	15.05	29.29	0
10/11/2018 16:45	3.14	288.3	10.46	14.99	29.29	0
10/11/2018 17:00	3.328	6.666	27.6	14.6	29.28	0

10/11/2018 17:15	2.977	39.99	4.826	13.55	29.28	0
10/11/2018 17:30	3.676	11.48	8.73	13.35	29.28	0
10/11/2018 17:45	2.658	338.4	24.69	13.31	29.28	0
10/11/2018 18:00	1.708	302.7	5.792	13.31	29.28	0
10/11/2018 18:15	1.084	330.1	9.6	12.82	29.28	0
10/11/2018 18:30	2.565	334.6	2.484	12.55	29.28	0
10/11/2018 18:45	3.839	346.5	23.35	12	29.28	0
10/11/2018 19:00	2.638	40.37	8.46	10.88	29.29	0
10/11/2018 19:15	2.874	42.93	4.951	10.59	29.29	0
10/11/2018 19:30	3.505	41.7	2.858	10.84	29.29	0
10/11/2018 19:45	1.501	61.8	12.73	10.54	29.29	0
10/11/2018 20:00	2.348	85	5.199	10.12	29.3	0
10/11/2018 20:15	2.605	130.9	24.32	10.27	29.3	0
10/11/2018 20:30	2.067	126.4	24.67	10.98	29.3	0
10/11/2018 20:45	1.806	105.3	14.11	10.64	29.3	0
10/11/2018 21:00	2.065	148.5	1.729	10.55	29.3	0
10/11/2018 21:15	2.748	134.7	2.52	10.59	29.3	0
10/11/2018 21:30	3.8	141.2	3.543	10.25	29.3	0
10/11/2018 21:45	3.089	166.3	7.688	10.31	29.3	0
10/11/2018 22:00	2.919	154.7	4.949	10.23	29.29	0
10/11/2018 22:15	0.972	142.9	0.456	10.02	29.29	0
10/11/2018 22:30	2.228	20.87	49.24	9.85	29.29	0
10/11/2018 22:45	2.936	15.69	5.063	9.39	29.29	0
10/11/2018 23:00	2.943	30.7	5.409	9.26	29.28	0
10/11/2018 23:15	1.22	59.91	15.57	9.38	29.28	0
10/11/2018 23:30	0.6	170.2	13.9	9.5	29.28	0
10/11/2018 23:45	1.387	77.02	6.272	9.45	29.28	0
10/12/2018 0:00	2.564	133.9	24.74	8.92	29.31	0
10/12/2018 0:15	2.632	160.6	5.23	9.45	29.31	0
10/12/2018 0:30	2.718	141.8	5.214	9	29.31	0
10/12/2018 0:45	3.428	153	4.713	9.06	29.31	0
10/12/2018 1:00	3.671	172.1	6.563	9.14	29.31	0
10/12/2018 1:15	3.371	171.4	5.18	8.94	29.31	0
10/12/2018 1:30	3.074	164.6	6.184	8.91	29.31	0
10/12/2018 1:45	3.256	165.9	5.03	8.84	29.31	0
10/12/2018 2:00	3.477	172.1	5.834	8.79	29.31	0
10/12/2018 2:15	2.8	149.5	6.176	9.03	29.31	0
10/12/2018 2:30	2.337	140.7	3.207	8.77	29.31	0
10/12/2018 2:45	1.682	127.8	7.266	8.76	29.31	0
10/12/2018 3:00	0.667	120.4	0.076	8.23	29.31	0
10/12/2018 3:15	2.621	135.5	9.49	8.67	29.31	0
10/12/2018 3:30	1.927	142.3	9.63	8.89	29.31	0
10/12/2018 3:45	1.441	139.7	11.8	8.69	29.31	0
10/12/2018 4:00	1.205	119.6	13.97	7.648	29.31	0
10/12/2018 4:15	2.501	117.8	15.6	8.54	29.31	0
10/12/2018 4:30	2.327	146.7	0.172	8.62	29.31	0
10/12/2018 4:45	1.612	143.5	3.941	8.4	29.31	0

10/12/2018 5:00	1.5	125.6	7.068	8.3	29.29	0
10/12/2018 5:15	1.141	113.7	1.016	8.05	29.29	0
10/12/2018 5:30	1.303	139.1	21.74	7.634	29.29	0
10/12/2018 5:45	1.911	152.3	16.72	7.502	29.29	0
10/12/2018 6:00	1.823	72.02	37.43	7.893	29.3	0
10/12/2018 6:15	0.573	94.1	37.35	8.15	29.3	0
10/12/2018 6:30	4.319	172.5	3.801	7.698	29.3	0
10/12/2018 6:45	2.686	160.2	12.2	7.606	29.3	0
10/12/2018 7:00	3.125	152.2	11.48	8.02	29.31	0
10/12/2018 7:15	2.038	132.7	4.156	8.7	29.31	0
10/12/2018 7:30	2.423	141.5	10.59	8.98	29.31	0
10/12/2018 7:45	3.619	163.2	6.994	8.93	29.31	0
10/12/2018 8:00	2.841	154	10.9	9.13	29.3	0
10/12/2018 8:15	1.106	114.1	5.838	10.63	29.3	0
10/12/2018 8:30	1.483	8.4	30.49	10.44	29.3	0
10/12/2018 8:45	2.213	320.6	7.291	10.58	29.3	0
10/12/2018 9:00	1.649	343.4	11.73	10.97	29.32	0
10/12/2018 9:15	0.755	14.65	23.71	11.36	29.32	0
10/12/2018 9:30	2.149	178	64.27	11.85	29.32	0
10/12/2018 9:45	0.751	142.1	51.31	12.58	29.32	0
10/12/2018 10:00	1.444	43.11	39.7	12.55	29.32	0
10/12/2018 10:15	1.897	244.4	36.47	12.79	29.32	0
10/12/2018 10:30	1.604	235.8	23.84	13	29.32	0
10/12/2018 10:45	1.487	149.1	53.8	14.04	29.32	0
10/12/2018 11:00	1.871	179.5	56.66	14.3	29.29	0
10/12/2018 11:15	1.055	359.5	31.62	14.61	29.29	0
10/12/2018 11:30	1.937	335.9	32.06	14.92	29.29	0
10/12/2018 11:45	2.815	25.7	20.43	14.95	29.29	0
10/12/2018 12:00	3.599	25.21	23.37	14.82	29.3	0
10/12/2018 12:15	4.337	33.58	26.28	14.96	29.3	0
10/12/2018 12:30	3.123	18.59	61.73	15.55	29.3	0
10/12/2018 12:45	4.684	10.68	34.6	15.63	29.3	0
10/12/2018 13:00	4.537	318.1	79.91	16.33	29.26	0
10/12/2018 13:15	9.55	27.96	10.03	15.61	29.26	0
10/12/2018 13:30	7.589	25.85	15.17	15.6	29.26	0
10/12/2018 13:45	9.1	28.25	13.47	15.61	29.26	0
10/12/2018 14:00	7.739	11.81	15.86	15.68	29.28	0
10/12/2018 14:15	9.52	15.54	13.84	15.67	29.28	0
10/12/2018 14:30	8.78	6.037	25.68	15.63	29.28	0
10/12/2018 14:45	10.29	327.9	11.55	15.62	29.28	0
10/12/2018 15:00	8.82	323	9.25	15.12	29.26	0
10/12/2018 15:15	9.4	321.9	7.461	15.33	29.26	0
10/12/2018 15:30	8.14	336.9	13.94	15.31	29.26	0
10/12/2018 15:45	9.22	324.7	7.934	15.05	29.26	0
10/12/2018 16:00	6.273	338.1	12.47	15.1	29.27	0
10/12/2018 16:15	6.719	343.7	19.88	14.91	29.27	0
10/12/2018 16:30	5.966	325.6	6.915	14.43	29.27	0

10/12/2018 16:45	6.624	322.9	5.845	14.01	29.27	0
10/12/2018 17:00	6.323	318.9	5.566	13.51	29.26	0
10/12/2018 17:15	6.366	321.9	5.094	12.98	29.26	0
10/12/2018 17:30	3.539	354.5	13.26	12.44	29.26	0
10/12/2018 17:45	2.776	343.6	7.968	12.04	29.26	0
10/12/2018 18:00	2.856	337.1	14.7	11.97	29.26	0
10/12/2018 18:15	1.715	14.45	18.78	11.54	29.26	0
10/12/2018 18:30	1.954	24.66	14.37	11.48	29.26	0
10/12/2018 18:45	1.519	23.01	18.6	11.28	29.26	0
10/12/2018 19:00	2.295	251.6	63.11	11.31	29.28	0
10/12/2018 19:15	0.793	42.24	22.69	11.16	29.28	0
10/12/2018 19:30	2.49	351.7	15.39	10.63	29.28	0
10/12/2018 19:45	4.441	359.8	19.36	10.42	29.28	0
10/12/2018 20:00	9.59	29.35	10.39	10.46	29.27	0
10/12/2018 20:15	12.2	24.4	8.63	10.96	29.27	0
10/12/2018 20:30	11.93	20.5	8.11	11.35	29.27	0
10/12/2018 20:45	10.78	16.97	12.33	11.3	29.27	0
10/12/2018 21:00	10.33	20.26	11.98	11.21	29.29	0
10/12/2018 21:15	9.32	22.58	10.2	11	29.29	0
10/12/2018 21:30	6.659	19.68	14.09	10.88	29.29	0
10/12/2018 21:45	8.04	19.16	15.44	10.94	29.29	0
10/12/2018 22:00	5.331	11.62	17.62	10.6	29.29	0
10/12/2018 22:15	5.567	6.102	18.66	10.5	29.29	0
10/12/2018 22:30	3.884	352	21.68	10.33	29.29	0
10/12/2018 22:45	2.812	2.989	25.42	10.29	29.29	0
10/12/2018 23:00	2.216	14.77	17.29	10.28	29.31	0
10/12/2018 23:15	2.35	18.12	28.13	10.23	29.31	0
10/12/2018 23:30	4.417	19.51	20.79	10.3	29.31	0
10/12/2018 23:45	2.915	7.868	18.97	10.39	29.31	0
10/13/2018 0:00	4.398	25	15.64	10.27	29.32	0
10/13/2018 0:15	3.542	21.25	19.05	10.11	29.32	0
10/13/2018 0:30	4.022	64.96	58.28	10.01	29.32	0
10/13/2018 0:45	2.254	90.8	46.7	9.85	29.32	0
10/13/2018 1:00	3.825	5.872	30.99	9.85	29.33	0
10/13/2018 1:15	5.164	20.64	13.16	9.66	29.33	0
10/13/2018 1:30	6.83	13.45	14.36	9.44	29.33	0
10/13/2018 1:45	8.64	356.8	13.09	9.44	29.33	0
10/13/2018 2:00	7.008	354.4	12.43	9.38	29.34	0
10/13/2018 2:15	5.99	9.12	12.67	9.25	29.34	0
10/13/2018 2:30	4.61	17.27	9.26	9.09	29.34	0
10/13/2018 2:45	5.748	29.4	4.45	8.98	29.34	0
10/13/2018 3:00	7.083	30.68	6.091	9.02	29.34	0
10/13/2018 3:15	6.415	24.25	9.06	9.15	29.34	0
10/13/2018 3:30	6.73	17.68	8.71	9.19	29.34	0
10/13/2018 3:45	7.156	20.91	16.47	9.11	29.34	0
10/13/2018 4:00	7.71	23.64	11.25	8.99	29.35	0
10/13/2018 4:15	8.37	17.4	10.78	8.95	29.35	0

10/13/2018 4:30	6.113	1.597	15.77	8.94	29.35	0
10/13/2018 4:45	8.1	2.274	13.89	8.89	29.35	0
10/13/2018 5:00	8.17	11.02	9.86	8.8	29.38	0
10/13/2018 5:15	10.11	23.23	11.62	8.68	29.38	0
10/13/2018 5:30	10.45	11.14	10.79	8.56	29.38	0
10/13/2018 5:45	8.5	10.86	15.43	8.4	29.38	0
10/13/2018 6:00	10.03	11.33	14.64	8.31	29.4	0
10/13/2018 6:15	7.923	19.72	15.32	8.26	29.4	0
10/13/2018 6:30	9.54	15.16	11.73	8.16	29.4	0
10/13/2018 6:45	9.75	17.86	14.88	8.05	29.4	0
10/13/2018 7:00	12.58	21.2	10.71	7.887	29.42	0
10/13/2018 7:15	8.8	12.55	19.75	7.864	29.42	0
10/13/2018 7:30	6.695	7.498	15.57	8.04	29.42	0
10/13/2018 7:45	8.53	14.47	12.09	8.14	29.42	0
10/13/2018 8:00	9.2	13.54	9.59	8.24	29.42	0
10/13/2018 8:15	10.97	15.74	11.06	8.25	29.42	0
10/13/2018 8:30	10.11	20.67	14.8	8.34	29.42	0
10/13/2018 8:45	12.08	14.99	7.707	8.6	29.42	0
10/13/2018 9:00	11.13	8.33	15.83	8.89	29.45	0
10/13/2018 9:15	9.2	21.86	9.96	9.52	29.45	0
10/13/2018 9:30	9.45	30.39	13.52	9.62	29.45	0
10/13/2018 9:45	8.22	18.4	15.66	9.68	29.45	0
10/13/2018 10:00	6.786	18.96	20.44	10.1	29.44	0
10/13/2018 10:15	5.429	16.74	30.39	10.5	29.44	0
10/13/2018 10:30	3.868	339	54.39	10.55	29.44	0
10/13/2018 10:45	5.418	36.3	34.39	11.16	29.44	0
10/13/2018 11:00	7.175	9.35	20.91	11.7	29.44	0
10/13/2018 11:15	5.335	347	30.89	11.97	29.44	0
10/13/2018 11:30	4.761	17.42	30.11	12.26	29.44	0
10/13/2018 11:45	5.898	40.52	15.79	12.44	29.44	0
10/13/2018 12:00	7.978	36.74	12.16	12.5	29.45	0
10/13/2018 12:15	9.9	36.63	12.6	12.38	29.45	0
10/13/2018 12:30	9.56	34.57	9.89	12.48	29.45	0
10/13/2018 12:45	7.47	33.22	19	12.89	29.45	0
10/13/2018 13:00	8.25	20.45	20.13	13.12	29.42	0
10/13/2018 13:15	8.97	13.52	21.21	13.53	29.42	0
10/13/2018 13:30	7.929	355.8	23.85	13.88	29.42	0
10/13/2018 13:45	7.795	19.27	16.06	14.08	29.42	0
10/13/2018 14:00	6.676	10.76	18.27	14.15	29.43	0
10/13/2018 14:15	7.53	17.66	18.99	14.41	29.43	0
10/13/2018 14:30	6.374	13.9	16.2	14.45	29.43	0
10/13/2018 14:45	6.548	17.82	17.55	14.82	29.43	0
10/13/2018 15:00	8.1	337.4	15.57	15.1	29.43	0
10/13/2018 15:15	7.737	320.6	12.79	15.13	29.43	0
10/13/2018 15:30	6.903	326.4	18.2	15.12	29.43	0
10/13/2018 15:45	4.899	324.7	17.93	15.24	29.43	0
10/13/2018 16:00	6.585	335.9	18.57	14.99	29.43	0

10/13/2018 16:15	3.785	338.6	25.38	14.95	29.43	0
10/13/2018 16:30	2.942	287.7	47.79	15.12	29.43	0
10/13/2018 16:45	2.228	357.8	21.87	14.85	29.43	0
10/13/2018 17:00	6.643	344.8	22.4	14.19	29.42	0
10/13/2018 17:15	4.501	338.4	28.1	13.8	29.42	0
10/13/2018 17:30	3.822	318.9	13.67	13.69	29.42	0
10/13/2018 17:45	4.348	326.3	14.93	13.32	29.42	0
10/13/2018 18:00	5.145	329.7	16.4	12.85	29.42	0
10/13/2018 18:15	4.486	325.8	14.87	12.7	29.42	0
10/13/2018 18:30	4.36	340.6	19.48	12.58	29.42	0
10/13/2018 18:45	1.644	38.86	7.418	11.27	29.42	0
10/13/2018 19:00	2.808	17.88	9.12	11.69	29.44	0
10/13/2018 19:15	3.443	8.76	9.53	11.18	29.44	0
10/13/2018 19:30	1.622	11.8	5.357	10.32	29.44	0
10/13/2018 19:45	2.492	20.4	10.95	9.94	29.44	0
10/13/2018 20:00	3.692	29.45	6.373	9.9	29.44	0
10/13/2018 20:15	2.439	36.79	8.73	9.62	29.44	0
10/13/2018 20:30	2.522	40.2	1.887	9.3	29.44	0
10/13/2018 20:45	2.737	31.19	9.94	9.56	29.44	0
10/13/2018 21:00	3.277	16.88	9.55	9.73	29.44	0
10/13/2018 21:15	1.707	89.9	41.52	8.72	29.44	0
10/13/2018 21:30	2.73	73.39	31.15	9.28	29.44	0
10/13/2018 21:45	3.326	48.82	10.16	9.23	29.44	0
10/13/2018 22:00	3.668	51.78	7.005	8.51	29.46	0
10/13/2018 22:15	4.082	41.33	6.689	8.45	29.46	0
10/13/2018 22:30	3.746	50.16	10.9	7.54	29.46	0
10/13/2018 22:45	2.551	128.6	36.59	7.437	29.46	0
10/13/2018 23:00	1.231	164.1	29.66	8.7	29.48	0
10/13/2018 23:15	3.069	202.6	7.492	9.02	29.48	0
10/13/2018 23:30	2.525	188.4	34.01	8.43	29.48	0
10/13/2018 23:45	1.09	26.37	22.68	7.371	29.48	0
10/14/2018 0:00	1.147	354.7	11.39	7.369	29.47	0
10/14/2018 0:15	0.145	33.51	1.534	7.265	29.47	0
10/14/2018 0:30	0.598	37.59	0.018	7.755	29.47	0
10/14/2018 0:45	0.287	37.58	0.064	7.524	29.47	0
10/14/2018 1:00	0.163	37.58	0.018	7.623	29.49	0
10/14/2018 1:15	0.01	37.58	0.006	7.817	29.49	0
10/14/2018 1:30	1.3	37.22	0.536	7.38	29.49	0
10/14/2018 1:45	2.366	27.87	6.443	6.982	29.49	0
10/14/2018 2:00	2.878	23.09	11.19	7.256	29.49	0
10/14/2018 2:15	3.84	30	13.81	7.051	29.49	0
10/14/2018 2:30	4.986	19.5	9.74	6.808	29.49	0
10/14/2018 2:45	4.81	19.21	7.436	6.43	29.49	0
10/14/2018 3:00	4.888	29.1	6.337	5.955	29.49	0
10/14/2018 3:15	5.762	27.41	6.777	5.984	29.49	0
10/14/2018 3:30	5.281	24.28	7.593	5.541	29.49	0
10/14/2018 3:45	5.886	24.43	8.9	5.582	29.49	0

10/14/2018 4:00	6.173	23.72	7.778	5.672	29.5	0
10/14/2018 4:15	5.859	19.69	10.15	5.548	29.5	0
10/14/2018 4:30	5.442	12.84	10.66	4.887	29.5	0
10/14/2018 4:45	5.418	12.08	8.09	5.31	29.5	0
10/14/2018 5:00	3.994	18.88	13.19	6.058	29.51	0
10/14/2018 5:15	6.224	20.94	9.28	5.173	29.51	0
10/14/2018 5:30	5.1	19.85	6.074	5.302	29.51	0
10/14/2018 5:45	3.218	8.3	8.51	7.059	29.51	0
10/14/2018 6:00	3.823	16.69	11.5	6.989	29.53	0
10/14/2018 6:15	3.43	4.827	12.27	9.27	29.53	0
10/14/2018 6:30	3.727	350.5	9.94	9.36	29.53	0
10/14/2018 6:45	3.859	15.15	13.11	8.66	29.53	0
10/14/2018 7:00	4.003	31.96	16.75	7.695	29.54	0
10/14/2018 7:15	2.778	32.3	16.39	7.712	29.54	0
10/14/2018 7:30	2.84	34.98	27.31	7.982	29.54	0
10/14/2018 7:45	1.626	32.8	27.69	7.645	29.54	0
10/14/2018 8:00	2.511	22.05	12.58	7.611	29.54	0
10/14/2018 8:15	2.502	35.34	13.1	8.14	29.54	0
10/14/2018 8:30	1.967	7.483	14.54	9.83	29.54	0
10/14/2018 8:45	2.507	354.4	20.45	10.06	29.54	0
10/14/2018 9:00	2.052	351.9	6.703	10.88	29.54	0
10/14/2018 9:15	2.6	5.778	7.246	11.44	29.54	0
10/14/2018 9:30	3.828	358	13.53	11.65	29.54	0
10/14/2018 9:45	6.336	6.785	13.9	12	29.54	0
10/14/2018 10:00	4.727	1.649	16.88	11.98	29.57	0
10/14/2018 10:15	6.024	6.993	13.84	12.78	29.57	0
10/14/2018 10:30	5.346	17.59	14.41	13.21	29.57	0
10/14/2018 10:45	4.014	24.43	13.04	13.19	29.57	0
10/14/2018 11:00	4.432	30.42	11.43	13.38	29.55	0
10/14/2018 11:15	4.462	28.87	7.872	13.93	29.55	0
10/14/2018 11:30	5.921	23.56	8.42	14.69	29.55	0
10/14/2018 11:45	5.851	15.35	11.06	15.38	29.55	0
10/14/2018 12:00	6.029	25.77	13.17	15.76	29.54	0
10/14/2018 12:15	6.043	18.15	10.87	16.33	29.54	0
10/14/2018 12:30	4.572	13.3	15.27	17.05	29.54	0
10/14/2018 12:45	6.959	24.25	10.12	17.1	29.54	0
10/14/2018 13:00	7.286	23.99	10.18	17.34	29.54	0
10/14/2018 13:15	6.956	27.43	8.64	17.6	29.54	0
10/14/2018 13:30	5.899	25.58	8.32	17.92	29.54	0
10/14/2018 13:45	5.749	23.67	8.73	18	29.54	0
10/14/2018 14:00	7.768	24	8.67	18.01	29.53	0
10/14/2018 14:15	8.31	25.91	10.47	17.9	29.53	0
10/14/2018 14:30	9.01	25.21	10.59	17.85	29.53	0
10/14/2018 14:45	8.13	23.4	11.25	17.81	29.53	0
10/14/2018 15:00	8.82	17.5	13.85	17.71	29.52	0
10/14/2018 15:15	9.31	16.17	12.13	17.52	29.52	0
10/14/2018 15:30	9.27	14.61	9.14	17.36	29.52	0

10/14/2018 15:45	10.61	11.17	13.79	17.13	29.52	0
10/14/2018 16:00	9.98	11.93	12.97	16.96	29.5	0
10/14/2018 16:15	10.33	10.63	10.44	16.61	29.5	0
10/14/2018 16:30	11.18	11.38	11.33	16.29	29.5	0
10/14/2018 16:45	10.44	18.44	11.56	15.92	29.5	0
10/14/2018 17:00	11.11	23.11	12.05	15.76	29.5	0
10/14/2018 17:15	10.98	22.63	8.98	15.45	29.5	0
10/14/2018 17:30	10.78	17.93	8.32	15.2	29.5	0
10/14/2018 17:45	10.4	18.04	9.36	14.81	29.5	0
10/14/2018 18:00	11.67	18.42	8.77	14.37	29.51	0
10/14/2018 18:15	10.23	18.54	10.35	14.31	29.51	0
10/14/2018 18:30	9.65	15.04	9.64	13.99	29.51	0
10/14/2018 18:45	10.84	20.35	9.13	13.9	29.51	0
10/14/2018 19:00	8.31	26.27	10.89	13.23	29.5	0
10/14/2018 19:15	8.36	36.86	6.149	12.13	29.5	0
10/14/2018 19:30	9.49	33.09	6.353	12.14	29.5	0
10/14/2018 19:45	7.621	35.84	7.746	12.03	29.5	0
10/14/2018 20:00	5.796	42.3	9.18	11.55	29.52	0
10/14/2018 20:15	6.115	35.59	7.727	11.43	29.52	0
10/14/2018 20:30	5.189	31.74	9.87	11.17	29.52	0
10/14/2018 20:45	5.236	27.99	5.222	10.61	29.52	0
10/14/2018 21:00	5.306	33.7	4.94	10.51	29.52	0
10/14/2018 21:15	4.017	32.18	9.5	10.22	29.52	0
10/14/2018 21:30	3.303	35.64	7.526	10.06	29.52	0
10/14/2018 21:45	4.347	33.33	7.61	9.95	29.52	0
10/14/2018 22:00	3.745	24.76	2.687	10.26	29.52	0
10/14/2018 22:15	1.573	23.43	4.002	10.64	29.52	0
10/14/2018 22:30	2.119	10.19	4.725	10.59	29.52	0
10/14/2018 22:45	1.343	8.31	0.456	10.4	29.52	0
10/14/2018 23:00	3.193	336.9	20.29	10.56	29.51	0
10/14/2018 23:15	3.62	323.1	11.44	10.36	29.51	0
10/14/2018 23:30	2.025	7.215	27.2	9.76	29.51	0
10/14/2018 23:45	3.651	31.6	10.85	8.76	29.51	0
10/15/2018 0:00	4.592	19.09	4.046	8.63	29.52	0
10/15/2018 0:15	4.886	25.33	3.981	7.9	29.52	0
10/15/2018 0:30	5.478	22.62	5.385	7.508	29.52	0
10/15/2018 0:45	5.719	24.26	5.409	7.346	29.52	0
10/15/2018 1:00	5.387	42.48	6.752	6.725	29.5	0
10/15/2018 1:15	5.579	38.4	11.17	6.455	29.5	0
10/15/2018 1:30	5.873	20.6	7.543	6.911	29.5	0
10/15/2018 1:45	6.579	18.4	5.575	7.79	29.5	0
10/15/2018 2:00	4.783	28.74	8.66	7.173	29.52	0
10/15/2018 2:15	5.516	21.22	9.18	6.37	29.52	0
10/15/2018 2:30	5.958	10.91	6.232	6.732	29.52	0
10/15/2018 2:45	3.676	8.96	6.808	6.192	29.52	0
10/15/2018 3:00	0.513	3.293	0.083	6.375	29.52	0
10/15/2018 3:15	1.688	304.7	13.34	6.995	29.52	0

10/15/2018 3:30	2.829	19.19	8.77	6.404	29.52	0
10/15/2018 3:45	3.09	0.562	9.14	7.091	29.52	0
10/15/2018 4:00	3.492	19.8	4.355	6.801	29.52	0
10/15/2018 4:15	4.205	27.02	1.864	6.228	29.52	0
10/15/2018 4:30	6.054	23.03	3.427	5.719	29.52	0
10/15/2018 4:45	5.749	16.42	6.205	5.967	29.52	0
10/15/2018 5:00	5.255	16.36	6.797	5.246	29.52	0
10/15/2018 5:15	5.916	18.89	7.057	4.924	29.52	0
10/15/2018 5:30	5.522	16.12	7.834	5.05	29.52	0
10/15/2018 5:45	5.312	19.71	6.753	5.094	29.52	0
10/15/2018 6:00	5.412	24.41	10.59	5.1	29.52	0
10/15/2018 6:15	5.785	27.21	7.946	5.212	29.52	0
10/15/2018 6:30	5.349	18.68	7.016	5.326	29.52	0
10/15/2018 6:45	5.023	19.28	6.903	5.648	29.52	0
10/15/2018 7:00	5.517	17.04	8.07	5.706	29.52	0
10/15/2018 7:15	6.028	14.13	7.956	6.003	29.52	0
10/15/2018 7:30	5.669	15.03	6.213	6.058	29.52	0
10/15/2018 7:45	6.094	23.99	7.176	6.474	29.52	0
10/15/2018 8:00	5.5	27.52	7.043	6.824	29.53	0
10/15/2018 8:15	4.698	19.19	7.358	7.119	29.53	0
10/15/2018 8:30	3.111	24.72	4.434	7.92	29.53	0
10/15/2018 8:45	1.076	46.2	29.58	9.26	29.53	0
10/15/2018 9:00	1.406	57.38	9.44	9.79	29.54	0
10/15/2018 9:15	2.22	47.4	10.29	10.21	29.54	0
10/15/2018 9:30	1.577	0.584	19.97	11.28	29.54	0
10/15/2018 9:45	1.433	358.9	43.7	12.32	29.54	0
10/15/2018 10:00	3.033	43.89	11.19	11.63	29.51	0
10/15/2018 10:15	2.85	38.61	13.78	11.82	29.51	0
10/15/2018 10:30	2.394	49.16	10.79	12.65	29.51	0
10/15/2018 10:45	3.183	40.06	9.63	12.83	29.51	0
10/15/2018 11:00	4.087	36.18	9.76	12.98	29.53	0
10/15/2018 11:15	4.078	41.82	14.2	13.44	29.53	0
10/15/2018 11:30	4.018	38.09	12.61	13.96	29.53	0
10/15/2018 11:45	3.508	49.03	14.72	14.59	29.53	0
10/15/2018 12:00	4.365	38.47	14	14.96	29.53	0
10/15/2018 12:15	3.512	35.42	10.79	15.22	29.53	0
10/15/2018 12:30	3.383	31.67	12.9	15.64	29.53	0
10/15/2018 12:45	4.1	38.83	12.12	16.03	29.53	0
10/15/2018 13:00	4.752	42.45	12.56	16.13	29.49	0
10/15/2018 13:15	4.103	36.24	10.64	16.45	29.49	0
10/15/2018 13:30	4.015	37.34	13.88	16.93	29.49	0
10/15/2018 13:45	5.154	30.7	12.15	17.09	29.49	0
10/15/2018 14:00	4.861	24.84	8.48	17.28	29.5	0
10/15/2018 14:15	5.368	33.77	6.735	17.29	29.5	0
10/15/2018 14:30	3.624	35.76	12.96	17.59	29.5	0
10/15/2018 14:45	3.349	27.68	11	17.7	29.5	0
10/15/2018 15:00	3.378	18.5	14.63	17.81	29.49	0

10/15/2018 15:15	4.801	28.16	10.69	17.64	29.49	0
10/15/2018 15:30	2.553	20.02	7.549	17.87	29.49	0
10/15/2018 15:45	2.788	26.8	12.2	17.85	29.49	0
10/15/2018 16:00	2.331	18.67	5.997	17.65	29.48	0
10/15/2018 16:15	1.256	15.81	13.68	17.77	29.48	0
10/15/2018 16:30	4.444	282	9	17.27	29.48	0
10/15/2018 16:45	3.137	277.7	3.184	16.79	29.48	0
10/15/2018 17:00	1.093	276	16.49	16.8	29.45	0
10/15/2018 17:15	0.882	120.2	28.76	16.33	29.45	0
10/15/2018 17:30	0.534	103.8	43.36	15.7	29.45	0
10/15/2018 17:45	2.903	21.78	12.42	14.98	29.45	0
10/15/2018 18:00	5.025	22.47	7.106	14.3	29.47	0
10/15/2018 18:15	7.124	18.73	8.95	14.05	29.47	0
10/15/2018 18:30	7.842	26.36	7.116	13.6	29.47	0
10/15/2018 18:45	8.16	29.9	7.466	13.51	29.47	0
10/15/2018 19:00	6.116	31.44	7.799	13.01	29.46	0
10/15/2018 19:15	6.407	31.85	6.984	12.74	29.46	0
10/15/2018 19:30	7.079	28.68	7.213	12.55	29.46	0
10/15/2018 19:45	8.21	23.08	7.184	12.26	29.46	0
10/15/2018 20:00	4.721	17.8	6.356	11.87	29.47	0
10/15/2018 20:15	3.509	34.2	5.499	11.81	29.47	0
10/15/2018 20:30	4.297	27.15	7.403	11.7	29.47	0
10/15/2018 20:45	4.486	31.61	7.867	11.56	29.47	0
10/15/2018 21:00	3.894	25.13	4.76	11.12	29.46	0
10/15/2018 21:15	4.526	25.05	8.22	10.9	29.46	0
10/15/2018 21:30	4.261	30.8	12.6	10.64	29.46	0
10/15/2018 21:45	5.094	32.96	5.892	10.32	29.46	0
10/15/2018 22:00	5.875	27.19	3.506	10.17	29.46	0
10/15/2018 22:15	4.655	18.59	10.23	9.92	29.46	0
10/15/2018 22:30	5.85	25.48	5.305	9.87	29.46	0
10/15/2018 22:45	5.302	25.25	3.494	9.39	29.46	0
10/15/2018 23:00	5.247	20.69	2.764	9.56	29.48	0
10/15/2018 23:15	5.536	21.18	4.223	9.74	29.48	0
10/15/2018 23:30	5.566	14.38	6.434	9.77	29.48	0
10/15/2018 23:45	5.283	19.82	6.002	9.48	29.48	0
10/16/2018 0:00	5.4	20.77	8.59	9.28	29.48	0
10/16/2018 0:15	5.04	22.53	7.304	8.87	29.48	0
10/16/2018 0:30	5.411	20.96	6.894	9.02	29.48	0
10/16/2018 0:45	5.539	27.19	3.089	8.78	29.48	0
10/16/2018 1:00	6.852	24	4.84	8.98	29.46	0
10/16/2018 1:15	6.66	23.85	7.758	8.74	29.46	0
10/16/2018 1:30	5.926	25.92	7.694	8.53	29.46	0
10/16/2018 1:45	5.661	30.03	9.92	8.35	29.46	0
10/16/2018 2:00	4.873	26.28	5.528	8.15	29.48	0
10/16/2018 2:15	4.825	28.77	9.88	8.19	29.48	0
10/16/2018 2:30	3.962	12.55	4.27	8.74	29.48	0
10/16/2018 2:45	4.433	23.19	7.176	9.28	29.48	0

10/16/2018 3:00	4.596	29.89	6.191	8.46	29.46	0
10/16/2018 3:15	4.704	31.61	4.543	8.51	29.46	0
10/16/2018 3:30	6.057	9.58	7.116	8.44	29.46	0
10/16/2018 3:45	4.795	19.29	8.78	7.687	29.46	0
10/16/2018 4:00	3.401	352.1	22	8.15	29.47	0
10/16/2018 4:15	4.074	259.8	29.28	8.97	29.47	0
10/16/2018 4:30	3.997	318.9	18.25	8.51	29.47	0
10/16/2018 4:45	3.51	359.8	15.23	7.562	29.47	0
10/16/2018 5:00	5.737	21.77	4.974	6.848	29.48	0
10/16/2018 5:15	6.582	27.09	6.351	6.546	29.48	0
10/16/2018 5:30	6.604	28.45	7.537	6.264	29.48	0
10/16/2018 5:45	5.936	27.93	7.991	5.96	29.48	0
10/16/2018 6:00	6.873	21.6	8.09	6.299	29.46	0
10/16/2018 6:15	7.235	21.06	6.798	6.348	29.46	0
10/16/2018 6:30	6.579	10.09	6.417	5.953	29.46	0
10/16/2018 6:45	3.035	7.008	9.78	6.281	29.46	0
10/16/2018 7:00	2.602	30.68	11.48	7.075	29.46	0
10/16/2018 7:15	4.937	32.52	7.455	7.493	29.46	0
10/16/2018 7:30	6.013	22.37	8.04	7.727	29.46	0
10/16/2018 7:45	6.128	23.81	8.28	7.661	29.46	0
10/16/2018 8:00	3.436	29.15	8.92	7.683	29.49	0
10/16/2018 8:15	2.65	13.66	6.73	9.07	29.49	0
10/16/2018 8:30	2.086	22.13	12.24	9.93	29.49	0
10/16/2018 8:45	2.424	19.74	7.584	10.3	29.49	0
10/16/2018 9:00	1.037	10.71	23.49	11.14	29.48	0
10/16/2018 9:15	1.462	56.48	36.36	11.96	29.48	0
10/16/2018 9:30	1.759	32.24	12.36	11.6	29.48	0
10/16/2018 9:45	1.481	317.4	72.21	12.76	29.48	0
10/16/2018 10:00	1.39	211.3	24.81	14.12	29.48	0
10/16/2018 10:15	1.382	43.74	21.45	14.29	29.48	0
10/16/2018 10:30	1.575	44.65	16.87	14.25	29.48	0
10/16/2018 10:45	1.797	325	37.94	15.06	29.48	0
10/16/2018 11:00	2.763	354.2	33.63	15.98	29.48	0
10/16/2018 11:15	3.22	31.38	15.43	15.88	29.48	0
10/16/2018 11:30	2.81	9.17	17.77	16.54	29.48	0
10/16/2018 11:45	1.984	1.557	17.12	17.59	29.48	0
10/16/2018 12:00	2.643	348.2	18.08	18.28	29.44	0
10/16/2018 12:15	2.568	353.2	24.36	18.49	29.44	0
10/16/2018 12:30	2.03	359.4	31.34	18.97	29.44	0
10/16/2018 12:45	2.164	15.1	24.12	19.17	29.44	0
10/16/2018 13:00	2.094	36.23	14.98	19.03	29.45	0
10/16/2018 13:15	1.742	16.43	14.52	19.5	29.45	0
10/16/2018 13:30	1.876	3.485	20.44	19.92	29.45	0
10/16/2018 13:45	2.819	299.8	19.69	19.99	29.45	0
10/16/2018 14:00	1.229	316.7	29.99	20.49	29.44	0
10/16/2018 14:15	2.241	354.3	13.86	20.48	29.44	0
10/16/2018 14:30	2.049	349.6	16.46	20.55	29.44	0

10/16/2018 14:45	1.668	352.2	17.42	20.61	29.44	0
10/16/2018 15:00	2.163	9.56	13.84	20.65	29.42	0
10/16/2018 15:15	1.939	16.31	9.48	20.59	29.42	0
10/16/2018 15:30	1.483	3.163	7.225	20.7	29.42	0
10/16/2018 15:45	1.486	11.47	3.552	20.62	29.42	0
10/16/2018 16:00	1.192	14.84	0.879	20.55	29.4	0
10/16/2018 16:15	1.288	17.37	0.357	20.33	29.4	0
10/16/2018 16:30	1.251	22.1	2.34	20.53	29.4	0
10/16/2018 16:45	0.183	22.91	0.021	21.47	29.4	0
10/16/2018 17:00	0.326	22.9	0.079	20.19	29.39	0
10/16/2018 17:15	4.541	276.8	10.38	18.45	29.39	0
10/16/2018 17:30	4.908	285.9	4.715	17.87	29.39	0
10/16/2018 17:45	4.354	294.2	4	18.01	29.39	0
10/16/2018 18:00	4.344	282.9	2.799	17.87	29.38	0
10/16/2018 18:15	1.26	281.6	9.59	17.4	29.38	0
10/16/2018 18:30	0.731	272	39.26	16.99	29.38	0
10/16/2018 18:45	2.612	20.28	7.232	17	29.38	0
10/16/2018 19:00	2.014	29.12	7.89	15.67	29.41	0
10/16/2018 19:15	2.335	8.1	14.54	15.91	29.41	0
10/16/2018 19:30	3.999	51.95	9.74	15.53	29.41	0
10/16/2018 19:45	3.753	38.72	8.83	14.96	29.41	0
10/16/2018 20:00	4.214	37.38	7.314	14.85	29.4	0
10/16/2018 20:15	4.27	31.05	3.558	14.69	29.4	0
10/16/2018 20:30	3.952	32.53	5.763	14.34	29.4	0
10/16/2018 20:45	3.47	40.59	6.192	13.67	29.4	0
10/16/2018 21:00	3.888	30.25	9.95	13.74	29.4	0
10/16/2018 21:15	4.024	28.38	3.093	13.93	29.4	0
10/16/2018 21:30	3.201	19.79	8.78	13.44	29.4	0
10/16/2018 21:45	1.642	22.43	2.1	13.45	29.4	0
10/16/2018 22:00	0.731	329.6	55.9	13.52	29.4	0
10/16/2018 22:15	2.34	230.4	7.07	15.19	29.4	0
10/16/2018 22:30	0.922	312.3	63.86	14.8	29.4	0
10/16/2018 22:45	1.762	281.1	37.26	14.37	29.4	0
10/16/2018 23:00	1.629	278	9.87	15.36	29.4	0
10/16/2018 23:15	0.286	313.1	6.569	15.05	29.4	0
10/16/2018 23:30	2.145	1.327	13.09	14.13	29.4	0
10/16/2018 23:45	1.495	23.26	9.62	13.36	29.4	0
10/17/2018 0:00	2.438	72.46	22.41	13.21	29.38	0
10/17/2018 0:15	3.516	90.8	12.79	12.82	29.38	0
10/17/2018 0:30	5.33	86.9	16.97	13.36	29.38	0
10/17/2018 0:45	5.796	84.6	17.34	14.08	29.38	0
10/17/2018 1:00	7.045	90	14.26	14.43	29.38	0
10/17/2018 1:15	6.08	84.2	15.85	13.65	29.38	0
10/17/2018 1:30	5.088	84.1	17.1	13.53	29.38	0
10/17/2018 1:45	3.943	99.7	14.43	14.27	29.38	0
10/17/2018 2:00	2.818	68.07	16.48	13.59	29.37	0
10/17/2018 2:15	2.957	47.59	11.08	13.65	29.37	0

10/17/2018 2:30	2.751	45.78	17.8	12.92	29.37	0
10/17/2018 2:45	2.863	21.33	9.12	12.25	29.37	0
10/17/2018 3:00	4.273	24.12	10	12.72	29.35	0
10/17/2018 3:15	3.346	30.84	11.2	12.17	29.35	0
10/17/2018 3:30	2.817	49.47	15.77	12.51	29.35	0
10/17/2018 3:45	1.213	23.2	34.13	14.7	29.35	0
10/17/2018 4:00	3.9	302.3	14.64	14.54	29.35	0
10/17/2018 4:15	4.463	278.4	10.65	14.42	29.35	0
10/17/2018 4:30	4.851	287.9	4.887	15.03	29.35	0
10/17/2018 4:45	4.629	291.5	2.139	14.85	29.35	0
10/17/2018 5:00	2.301	300	17.85	14.09	29.37	0
10/17/2018 5:15	1.692	307.3	23.07	14.42	29.37	0
10/17/2018 5:30	2.573	300.7	11.63	14.26	29.37	0
10/17/2018 5:45	3.15	316.6	8.42	14.4	29.37	0
10/17/2018 6:00	1.996	12.89	31.96	12.5	29.37	0
10/17/2018 6:15	1.765	353.6	19.47	12.65	29.37	0
10/17/2018 6:30	2.596	341.1	17	13.03	29.37	0
10/17/2018 6:45	3.228	5.079	17.04	12.74	29.37	0
10/17/2018 7:00	2.532	354.8	28	12.53	29.36	0
10/17/2018 7:15	2.009	9.53	14.23	12.97	29.36	0
10/17/2018 7:30	2.517	321.1	20.68	13.43	29.36	0
10/17/2018 7:45	1.698	325.3	26.49	13.02	29.36	0
10/17/2018 8:00	2.347	346.3	18.08	12.86	29.35	0
10/17/2018 8:15	1.59	6.085	11.38	13.09	29.35	0
10/17/2018 8:30	0.483	22.44	0.719	14.07	29.35	0
10/17/2018 8:45	1.684	36.6	13.69	14.28	29.35	0
10/17/2018 9:00	1.94	18.97	20.01	14.73	29.36	0
10/17/2018 9:15	2.706	20.5	4.373	14.58	29.36	0
10/17/2018 9:30	1.465	1.067	20.18	15.73	29.36	0
10/17/2018 9:45	0.84	0.878	36.75	16.65	29.36	0
10/17/2018 10:00	1.873	5.725	22.88	15.93	29.36	0
10/17/2018 10:15	1.61	344.9	17.46	15.89	29.36	0
10/17/2018 10:30	1.653	328.7	42.6	16.73	29.36	0
10/17/2018 10:45	1.642	53.68	48.36	17.23	29.36	0
10/17/2018 11:00	1.226	183	26.53	18.44	29.36	0
10/17/2018 11:15	1.754	49.88	60.46	18.42	29.36	0
10/17/2018 11:30	0.768	314.9	40.56	18.97	29.36	0
10/17/2018 11:45	2.265	48.69	43.62	19.16	29.36	0
10/17/2018 12:00	2.563	44.91	16.5	18.69	29.33	0
10/17/2018 12:15	0.761	4.567	9.1	19.61	29.33	0
10/17/2018 12:30	2.031	1.343	15.81	20.56	29.33	0
10/17/2018 12:45	2.488	34.05	13.24	20.37	29.33	0
10/17/2018 13:00	1.901	39.23	10.73	20.73	29.31	0
10/17/2018 13:15	2.263	0.996	48.14	21.11	29.31	0
10/17/2018 13:30	4.612	292.2	11.08	21.11	29.31	0
10/17/2018 13:45	3.907	291.9	13.29	21.09	29.31	0
10/17/2018 14:00	3.198	327.3	11.44	21.46	29.29	0

10/17/2018 14:15	3.828	322.4	9.16	21.63	29.29	0
10/17/2018 14:30	2.548	22.12	26.37	21.51	29.29	0
10/17/2018 14:45	1.817	28.51	2.727	21.45	29.29	0
10/17/2018 15:00	1.88	6.27	8.53	21.77	29.28	0
10/17/2018 15:15	2.247	334.7	37.2	21.87	29.28	0
10/17/2018 15:30	6.064	280.9	4.288	21.02	29.28	0
10/17/2018 15:45	5.632	281.8	5.106	20.55	29.28	0
10/17/2018 16:00	3.112	285.8	5.711	20.63	29.26	0
10/17/2018 16:15	3.159	286	5.344	20.46	29.26	0
10/17/2018 16:30	3.518	275.5	5.072	19.89	29.26	0
10/17/2018 16:45	3.772	275.3	4.205	19.43	29.26	0
10/17/2018 17:00	5.89	280.2	2.989	18.77	29.28	0
10/17/2018 17:15	4.441	292.9	3.562	18.59	29.28	0
10/17/2018 17:30	2.47	311.8	8.78	18.86	29.28	0
10/17/2018 17:45	2.073	308.8	18.69	18.79	29.28	0
10/17/2018 18:00	0.48	331.5	0.233	18.29	29.29	0
10/17/2018 18:15	0.155	0.344	18.73	17.24	29.29	0
10/17/2018 18:30	0.547	51.94	0.106	16.96	29.29	0
10/17/2018 18:45	1.494	83	9.64	17.04	29.29	0
10/17/2018 19:00	0.658	87.2	0.014	17.18	29.29	0
10/17/2018 19:15	0.213	87.2	0.049	17.39	29.29	0
10/17/2018 19:30	0.004	100.5	0.733	16.62	29.29	0
10/17/2018 19:45	1.238	145.4	8.46	16.2	29.29	0
10/17/2018 20:00	0.721	146.3	6.081	15.66	29.29	0
10/17/2018 20:15	3.137	169.1	1.542	15.78	29.29	0
10/17/2018 20:30	2.195	158.5	3.399	15.61	29.29	0
10/17/2018 20:45	2.883	143.7	10.09	15.82	29.29	0
10/17/2018 21:00	3.292	124.1	10.23	15.55	29.29	0
10/17/2018 21:15	3.831	140.3	7.376	15.52	29.29	0
10/17/2018 21:30	5.05	157.6	5.216	15.58	29.29	0
10/17/2018 21:45	5.93	156.1	5.663	15.31	29.29	0
10/17/2018 22:00	3.749	150.8	6.528	15.03	29.29	0
10/17/2018 22:15	1.456	169.6	9.44	14.41	29.29	0
10/17/2018 22:30	2.069	132.5	9.28	14.8	29.29	0
10/17/2018 22:45	2.31	132.8	2.505	15.07	29.29	0
10/17/2018 23:00	3.123	137.8	6.007	14.76	29.28	0
10/17/2018 23:15	5.27	156.9	4.775	14.36	29.28	0
10/17/2018 23:30	5.094	146.4	7.327	15.01	29.28	0
10/17/2018 23:45	5.74	147.3	6.254	14.78	29.28	0
10/18/2018 0:00	2.403	105.5	15.78	13.28	29.31	0
10/18/2018 0:15	1.922	81	10.9	13.23	29.31	0
10/18/2018 0:30	1.892	33.07	8.71	12.2	29.31	0
10/18/2018 0:45	0.18	30.43	0.061	12.29	29.31	0
10/18/2018 1:00	0.141	39.14	3.185	13.2	29.29	0
10/18/2018 1:15	1.503	113.7	19.46	13.2	29.29	0
10/18/2018 1:30	2.49	146.9	4.576	13.23	29.29	0
10/18/2018 1:45	3.842	162.9	3.725	13.18	29.29	0

10/18/2018 2:00	4.855	172.5	10.02	12.54	29.28	0
10/18/2018 2:15	5.542	178.9	7.783	12.02	29.28	0
10/18/2018 2:30	5.95	164.2	5.365	12.57	29.28	0
10/18/2018 2:45	5.544	164.5	8.96	12.56	29.28	0
10/18/2018 3:00	5.002	183	7.168	11.93	29.29	0
10/18/2018 3:15	3.395	175.6	5.728	12.3	29.29	0
10/18/2018 3:30	1.114	145.7	6.81	11.82	29.29	0
10/18/2018 3:45	0.295	34.78	3.107	11.98	29.29	0
10/18/2018 4:00	0.008	32.66	0.074	13.08	29.31	0
10/18/2018 4:15	0.653	87.5	3.982	13.06	29.31	0
10/18/2018 4:30	2.981	146.3	4.972	12.38	29.31	0
10/18/2018 4:45	3.688	148.6	8.01	12.45	29.31	0
10/18/2018 5:00	1.65	143.4	4.82	12.43	29.32	0
10/18/2018 5:15	0.746	105.4	66.93	11.27	29.32	0
10/18/2018 5:30	1.403	210.5	19.8	10.63	29.32	0
10/18/2018 5:45	3.259	165.4	5.03	10.74	29.32	0
10/18/2018 6:00	2.622	151	11.91	11.34	29.31	0
10/18/2018 6:15	3.555	168.5	7.256	12.08	29.31	0
10/18/2018 6:30	3.929	179.1	12.79	10.94	29.31	0
10/18/2018 6:45	4.637	216.2	9.59	10.25	29.31	0
10/18/2018 7:00	5.692	195.5	4.387	10.09	29.32	0
10/18/2018 7:15	6.029	196.3	3.451	10.17	29.32	0
10/18/2018 7:30	4.788	181	11.14	10.58	29.32	0
10/18/2018 7:45	3.439	139.9	12.93	10.99	29.32	0
10/18/2018 8:00	5.927	163.6	5.851	10.48	29.33	0
10/18/2018 8:15	5.56	163.8	5.437	11.7	29.33	0
10/18/2018 8:30	5.543	171.6	5.947	12.48	29.33	0
10/18/2018 8:45	5.861	185.3	18.67	12.71	29.33	0
10/18/2018 9:00	3.874	191.5	10.98	13.32	29.37	0
10/18/2018 9:15	3.504	173.4	10.14	14.02	29.37	0
10/18/2018 9:30	2.142	204.9	8.61	14.04	29.37	0
10/18/2018 9:45	2.54	264.2	21.08	14.21	29.37	0
10/18/2018 10:00	1.366	265.6	29.01	14.49	29.35	0
10/18/2018 10:15	2.577	267.4	11.27	14.52	29.35	0
10/18/2018 10:30	1.839	284.3	10.53	14.95	29.35	0
10/18/2018 10:45	1.832	228.2	57.26	15.55	29.35	0
10/18/2018 11:00	1.139	268.1	37.73	16.1	29.37	0
10/18/2018 11:15	2.213	309.3	20.57	16.23	29.37	0
10/18/2018 11:30	2.799	284.3	18.84	16.52	29.37	0
10/18/2018 11:45	2.778	268.2	17.3	16.62	29.37	0
10/18/2018 12:00	2.202	288.5	26.28	17.14	29.35	0
10/18/2018 12:15	1.436	294.2	24.71	17.73	29.35	0
10/18/2018 12:30	2.258	299.1	12.44	18.21	29.35	0
10/18/2018 12:45	2.691	290.1	17.05	18.4	29.35	0
10/18/2018 13:00	1.962	273.8	23.12	18.84	29.36	0
10/18/2018 13:15	3.187	265.9	15.24	19.08	29.36	0
10/18/2018 13:30	3.89	266	20.18	19.08	29.36	0

10/18/2018 13:45	4.025	276.5	14.71	19.2	29.36	0
10/18/2018 14:00	3.966	266.2	18.27	19.45	29.36	0
10/18/2018 14:15	4.12	281.8	14.65	19.36	29.36	0
10/18/2018 14:30	4.04	290	13.67	19.47	29.36	0
10/18/2018 14:45	3.629	288.2	13.08	19.68	29.36	0
10/18/2018 15:00	4.785	291.7	9.68	19.37	29.35	0
10/18/2018 15:15	3.652	275.4	14.86	19.4	29.35	0
10/18/2018 15:30	4.803	274.9	12.05	19.27	29.35	0
10/18/2018 15:45	5.857	279.1	4.565	18.85	29.35	0
10/18/2018 16:00	5.607	282.4	7.256	18.64	29.34	0
10/18/2018 16:15	5.044	284.5	5.665	18.18	29.34	0
10/18/2018 16:30	5.4	276.9	4.783	17.55	29.34	0
10/18/2018 16:45	6.411	292.7	7.645	17.09	29.34	0
10/18/2018 17:00	6.492	305.2	4.991	16.44	29.37	0
10/18/2018 17:15	6.366	300.3	2.134	16.15	29.37	0
10/18/2018 17:30	5.254	308.6	3.797	16.19	29.37	0
10/18/2018 17:45	5.315	312	1.107	16.11	29.37	0
10/18/2018 18:00	4.239	310.1	1.381	16.26	29.37	0
10/18/2018 18:15	5.089	305.3	1.51	15.96	29.37	0
10/18/2018 18:30	3.412	343.1	28.32	15.04	29.37	0
10/18/2018 18:45	2.439	349.2	10.54	14.58	29.37	0
10/18/2018 19:00	1.062	2.48	0.092	14.61	29.38	0
10/18/2018 19:15	0.732	2.712	0.137	14.29	29.38	0
10/18/2018 19:30	1.239	27.34	24.15	14.24	29.38	0
10/18/2018 19:45	0.487	61.45	2.086	14.15	29.38	0
10/18/2018 20:00	1.803	172.3	18.7	13.84	29.38	0
10/18/2018 20:15	4.725	184.4	6.77	13.59	29.38	0
10/18/2018 20:30	3.826	182	5.49	13.48	29.38	0
10/18/2018 20:45	2.46	178.7	7.141	13.14	29.38	0
10/18/2018 21:00	2.704	218.7	17.96	12.45	29.39	0
10/18/2018 21:15	3.666	231.8	4.874	12.13	29.39	0
10/18/2018 21:30	2.42	222.6	23.17	12.66	29.39	0
10/18/2018 21:45	1.858	176.5	2.6	12.2	29.39	0
10/18/2018 22:00	3.7	197	10.36	11.8	29.38	0
10/18/2018 22:15	3.996	215	5.01	11.42	29.38	0
10/18/2018 22:30	3.056	199.7	13.52	11.36	29.38	0
10/18/2018 22:45	3.32	192.7	4.777	11.42	29.38	0
10/18/2018 23:00	3.214	177.9	9.81	11.3	29.38	0
10/18/2018 23:15	4.154	167.3	4.968	10.71	29.38	0
10/18/2018 23:30	2.698	171.9	5.79	10.43	29.38	0
10/18/2018 23:45	2.315	172.7	0.737	10.49	29.38	0
10/19/2018 0:00	2.13	157.6	10.12	10.52	29.39	0
10/19/2018 0:15	2.905	141.4	6.259	10.69	29.39	0
10/19/2018 0:30	3.051	142.6	5.127	10.58	29.39	0
10/19/2018 0:45	3.314	146	3.625	10.38	29.39	0
10/19/2018 1:00	2.871	138	4.574	10.17	29.4	0
10/19/2018 1:15	4.333	132.7	4.317	10.3	29.4	0

10/19/2018 1:30	2.466	128.8	14.25	10.53	29.4	0
10/19/2018 1:45	1.71	160.9	6.489	10.27	29.4	0
10/19/2018 2:00	0.809	149.7	1.46	9.84	29.42	0
10/19/2018 2:15	0.48	152.2	0.099	9.73	29.42	0
10/19/2018 2:30	0.054	152.2	0.005	9.63	29.42	0
10/19/2018 2:45	0.666	150.7	1.004	9.52	29.42	0
10/19/2018 3:00	0.21	73.16	1.164	9.04	29.4	0
10/19/2018 3:15	1.144	72.56	0.219	9.26	29.4	0
10/19/2018 3:30	2.757	62.83	9.7	8.93	29.4	0
10/19/2018 3:45	2.267	40.36	9.36	8.95	29.4	0
10/19/2018 4:00	2.751	9.39	12.03	9.01	29.42	0
10/19/2018 4:15	1.408	11.43	12.58	8.37	29.42	0
10/19/2018 4:30	0.355	349.4	13.08	8.69	29.42	0
10/19/2018 4:45	2.007	277.5	36.3	9	29.42	0
10/19/2018 5:00	4.593	326.2	4.151	8.84	29.43	0
10/19/2018 5:15	4.468	315.8	15.61	8.42	29.43	0
10/19/2018 5:30	3.698	334.9	9.73	8.62	29.43	0
10/19/2018 5:45	5.992	317.7	2.186	8.4	29.43	0
10/19/2018 6:00	3.012	325.7	0.773	8.13	29.42	0
10/19/2018 6:15	1.455	343.9	31.08	8.24	29.42	0
10/19/2018 6:30	1.74	45.89	6.501	7.474	29.42	0
10/19/2018 6:45	1.865	40.46	16.82	7.209	29.42	0
10/19/2018 7:00	1.677	350.1	13.34	8.47	29.45	0
10/19/2018 7:15	2.333	350.3	16.42	8.55	29.45	0
10/19/2018 7:30	0.514	20.36	1.65	8.59	29.45	0
10/19/2018 7:45	0.319	33.81	14.99	8.71	29.45	0
10/19/2018 8:00	0.181	76.1	0.102	9.45	29.44	0
10/19/2018 8:15	0.062	350.1	10.85	11.02	29.44	0
10/19/2018 8:30	0.431	14.06	36.39	10.28	29.44	0
10/19/2018 8:45	0.538	38.46	13.67	10.63	29.44	0
10/19/2018 9:00	0.709	303.3	10.09	11.3	29.44	0
10/19/2018 9:15	0.905	283.5	17.13	11.07	29.44	0
10/19/2018 9:30	1.26	222.9	85.6	11.81	29.44	0
10/19/2018 9:45	2.266	188.5	27.86	11.75	29.44	0
10/19/2018 10:00	1.505	239.7	30.23	12.24	29.45	0
10/19/2018 10:15	0.666	300.1	11.56	13.08	29.45	0
10/19/2018 10:30	1.639	218.4	54.87	13.77	29.45	0
10/19/2018 10:45	3.651	214.9	15.66	13.57	29.45	0
10/19/2018 11:00	2.901	256.7	22.07	13.88	29.47	0
10/19/2018 11:15	1.545	275.9	28.6	14.45	29.47	0
10/19/2018 11:30	1.157	312.3	21.75	15.08	29.47	0
10/19/2018 11:45	1.37	312.6	19.36	15.91	29.47	0
10/19/2018 12:00	1.606	300.1	40.63	16.19	29.46	0
10/19/2018 12:15	1.531	7.173	40.08	16.45	29.46	0
10/19/2018 12:30	2.22	335.1	23.07	16.74	29.46	0
10/19/2018 12:45	2.503	315.9	33.8	16.73	29.46	0
10/19/2018 13:00	1.535	299.1	25.51	17.13	29.44	0

10/19/2018 13:15	2.758	289.3	18.77	17.31	29.44	0
10/19/2018 13:30	2.911	290.6	15.25	17.4	29.44	0
10/19/2018 13:45	2.799	266.7	21.84	17.6	29.44	0
10/19/2018 14:00	3.33	280.5	16.59	17.82	29.43	0
10/19/2018 14:15	3.533	283	14.75	17.75	29.43	0
10/19/2018 14:30	3.385	271.5	13.24	17.72	29.43	0
10/19/2018 14:45	3.398	269.5	15.24	17.84	29.43	0
10/19/2018 15:00	3.687	276.4	12.34	17.91	29.42	0
10/19/2018 15:15	2.582	281.3	12.84	18.11	29.42	0
10/19/2018 15:30	1.723	287.5	14.07	18.25	29.42	0
10/19/2018 15:45	2.636	282.1	11.87	18.06	29.42	0
10/19/2018 16:00	3.719	289.7	3.589	17.56	29.42	0
10/19/2018 16:15	4.706	289.8	2.696	17.04	29.42	0
10/19/2018 16:30	4.794	290.3	3.325	16.45	29.42	0
10/19/2018 16:45	5.692	285.2	1.8	15.71	29.42	0
10/19/2018 17:00	6.187	288	3.856	14.97	29.41	0
10/19/2018 17:15	5.484	295.3	2.522	14.29	29.41	0
10/19/2018 17:30	4.196	306	7.43	14.01	29.41	0
10/19/2018 17:45	3.762	326.9	1.866	13.69	29.41	0
10/19/2018 18:00	4.446	323.7	1.545	13.22	29.42	0
10/19/2018 18:15	3.883	339.3	7.597	13.09	29.42	0
10/19/2018 18:30	0.927	9.91	4.443	13.01	29.42	0
10/19/2018 18:45	1.844	352.1	15.08	12.88	29.42	0
10/19/2018 19:00	1.651	315.7	1.96	12.92	29.41	0
10/19/2018 19:15	1.329	10.61	28.41	12.66	29.41	0
10/19/2018 19:30	2.427	26.51	7.222	12.08	29.41	0
10/19/2018 19:45	3.159	29.72	7.111	11.17	29.41	0
10/19/2018 20:00	5.207	25.95	6.448	10.74	29.43	0
10/19/2018 20:15	5.965	30.27	9.02	10.48	29.43	0
10/19/2018 20:30	7.314	29.99	8.05	10.3	29.43	0
10/19/2018 20:45	8.48	32.45	6.984	10.12	29.43	0
10/19/2018 21:00	7.356	36.14	8.17	9.97	29.42	0
10/19/2018 21:15	6.288	34.08	7.717	9.76	29.42	0
10/19/2018 21:30	4.92	32.38	6.887	9.55	29.42	0
10/19/2018 21:45	4.712	29	7.885	9.33	29.42	0
10/19/2018 22:00	3.705	21.65	6.718	9.3	29.4	0
10/19/2018 22:15	4.06	32.31	7.186	9.14	29.4	0
10/19/2018 22:30	3.689	30.16	7.005	8.99	29.4	0
10/19/2018 22:45	4.174	39.47	3.513	8.9	29.4	0
10/19/2018 23:00	3.64	41.69	7.536	8.78	29.41	0
10/19/2018 23:15	4.81	17.75	6.231	8.87	29.41	0
10/19/2018 23:30	3.886	28.03	9.03	8.8	29.41	0
10/19/2018 23:45	4.282	22.21	4.902	8.64	29.41	0
10/20/2018 0:00	3.829	30.72	5.37	8.45	29.39	0
10/20/2018 0:15	4.398	23.43	7.275	8.35	29.39	0
10/20/2018 0:30	5.211	15.96	5.63	8.48	29.39	0
10/20/2018 0:45	4.522	20.79	2.585	8.36	29.39	0

10/20/2018 1:00	3.778	21.42	5.711	7.989	29.39	0
10/20/2018 1:15	4.805	1.673	5.042	8.21	29.39	0
10/20/2018 1:30	1.812	304	7.026	8.95	29.39	0
10/20/2018 1:45	0.649	314.8	24.08	8.7	29.39	0
10/20/2018 2:00	3.443	34.95	9.55	7.531	29.41	0
10/20/2018 2:15	2.404	25.2	7.262	7.184	29.41	0
10/20/2018 2:30	3.218	30.79	11.91	7.056	29.41	0
10/20/2018 2:45	7.466	30.35	10.6	7.246	29.41	0
10/20/2018 3:00	8.95	17.57	9.67	7.424	29.4	0
10/20/2018 3:15	14.52	25.35	7.702	8.44	29.4	0
10/20/2018 3:30	13.23	28.36	7.367	8.39	29.4	0
10/20/2018 3:45	13.75	24.69	8.4	8.66	29.4	0
10/20/2018 4:00	13.87	22.86	9.39	8.74	29.4	0
10/20/2018 4:15	13.69	30.24	9.16	8.78	29.4	0
10/20/2018 4:30	11.8	25.91	9.72	8.66	29.4	0
10/20/2018 4:45	10.01	30.85	9.54	8.34	29.4	0
10/20/2018 5:00	7.649	38.06	7.366	7.85	29.4	0
10/20/2018 5:15	7.687	33.7	10.13	7.728	29.4	0
10/20/2018 5:30	5.66	25.76	10.12	7.306	29.4	0
10/20/2018 5:45	7.383	23.11	14.89	7.894	29.4	0
10/20/2018 6:00	8.4	36	7.179	7.217	29.38	0
10/20/2018 6:15	7.897	48.07	7.078	7.37	29.38	0
10/20/2018 6:30	6.4	32.26	10.16	7.246	29.38	0
10/20/2018 6:45	2.776	337.9	24.37	6.84	29.38	0
10/20/2018 7:00	8.62	11.29	18.64	7.815	29.4	0
10/20/2018 7:15	7.036	33.19	7.429	7.003	29.4	0
10/20/2018 7:30	8.43	31.96	6.541	6.989	29.4	0
10/20/2018 7:45	6.274	42.6	7.871	6.509	29.4	0
10/20/2018 8:00	6.986	34.79	8.52	6.569	29.37	0
10/20/2018 8:15	7.889	28.34	7.542	6.841	29.37	0
10/20/2018 8:30	6.928	39.65	9.19	7.025	29.37	0
10/20/2018 8:45	4.294	32.68	6.695	7.308	29.37	0
10/20/2018 9:00	2.078	70.79	18.4	8.34	29.38	0
10/20/2018 9:15	2.819	321.5	12.83	8.77	29.38	0
10/20/2018 9:30	2.423	350.4	13.07	9.9	29.38	0
10/20/2018 9:45	3.331	304	39.41	9.32	29.38	0
10/20/2018 10:00	4.455	25.05	25.17	8.38	29.38	0
10/20/2018 10:15	4.054	38.97	8.75	8.37	29.38	0
10/20/2018 10:30	3.261	47.89	17.22	8.81	29.38	0
10/20/2018 10:45	2.956	24.97	9.83	8.87	29.38	0
10/20/2018 11:00	3.786	28.44	9.86	8.67	29.36	0
10/20/2018 11:15	3.575	36.78	13.2	8.98	29.36	0
10/20/2018 11:30	3.254	37	20.56	9.83	29.36	0
10/20/2018 11:45	4.787	44.29	10.27	9.7	29.36	0
10/20/2018 12:00	5.103	43.88	13.48	9.89	29.35	0
10/20/2018 12:15	4.275	40.16	12.76	10.17	29.35	0
10/20/2018 12:30	4.167	52.48	15.27	10.78	29.35	0

10/20/2018 12:45	4.204	41.7	9.85	10.6	29.35	0
10/20/2018 13:00	4.906	34.01	6.388	10.64	29.32	0
10/20/2018 13:15	5.38	44.54	10.12	10.59	29.32	0
10/20/2018 13:30	5.228	31.58	8.94	10.6	29.32	0
10/20/2018 13:45	5.093	40.4	6.542	10.72	29.32	0
10/20/2018 14:00	5.655	37.38	7.811	10.5	29.29	0
10/20/2018 14:15	4.854	37.63	6.727	10.61	29.29	0
10/20/2018 14:30	4.176	34.62	6.016	10.72	29.29	0
10/20/2018 14:45	4.239	27.9	3.894	10.84	29.29	0
10/20/2018 15:00	4.441	37.24	4.856	10.64	29.27	0
10/20/2018 15:15	4.613	28.19	6.302	10.64	29.27	0
10/20/2018 15:30	5.196	28.66	8.42	10.53	29.27	0
10/20/2018 15:45	5.307	36.11	7.429	10.4	29.27	0
10/20/2018 16:00	4.716	35.84	10.16	10.54	29.25	0
10/20/2018 16:15	6.371	27.71	7.117	10.55	29.25	0
10/20/2018 16:30	8.02	28.09	9.25	10.15	29.25	0
10/20/2018 16:45	9.53	29.41	7.872	9.96	29.25	0
10/20/2018 17:00	9.07	21.21	6.879	9.93	29.25	0
10/20/2018 17:15	9.78	25.41	6.496	9.78	29.25	0
10/20/2018 17:30	10.38	25.6	7.806	9.55	29.25	0
10/20/2018 17:45	9.79	26.44	6.096	9.46	29.25	0
10/20/2018 18:00	8.26	27.87	6.107	9.32	29.25	0
10/20/2018 18:15	8.53	33.15	6.178	9.12	29.25	0
10/20/2018 18:30	6.548	31.38	7.76	8.84	29.25	0
10/20/2018 18:45	5.619	35.8	5.856	8.48	29.25	0
10/20/2018 19:00	5.308	39.24	6.675	8.23	29.24	0
10/20/2018 19:15	4.95	32.72	5.687	8.14	29.24	0
10/20/2018 19:30	4.401	38.88	6.513	8.04	29.24	0
10/20/2018 19:45	3.867	43.09	5.491	7.61	29.24	0
10/20/2018 20:00	4.555	29.57	8.56	7.082	29.23	0
10/20/2018 20:15	4.556	22.87	5.908	6.82	29.23	0
10/20/2018 20:30	5.156	22.35	4.239	6.859	29.23	0
10/20/2018 20:45	5.283	16.12	3.83	7.271	29.23	0
10/20/2018 21:00	4.318	14.67	7.019	7.352	29.21	0
10/20/2018 21:15	3.293	15.72	6.979	7.421	29.21	0
10/20/2018 21:30	3.594	27.01	11.07	6.861	29.21	0
10/20/2018 21:45	3.997	42.86	6.062	6.497	29.21	0
10/20/2018 22:00	4.955	33.64	5.923	6.371	29.22	0
10/20/2018 22:15	4.934	47.54	6.153	6.308	29.22	0
10/20/2018 22:30	4.316	54.46	9.61	6.113	29.22	0
10/20/2018 22:45	3.187	39.63	15.14	6.078	29.22	0
10/20/2018 23:00	3.623	22.45	4.472	6.225	29.23	0
10/20/2018 23:15	2.889	31.32	2.583	6.289	29.23	0
10/20/2018 23:30	1.43	55.84	27.83	6.383	29.23	0
10/20/2018 23:45	2.598	184.3	10.17	7.296	29.23	0.01
10/21/2018 0:00	0.793	213	2.234	7.296	29.22	0
10/21/2018 0:15	0.008	212.3	0	7.116	29.22	0

10/21/2018 0:30	0.495	212.3	0.111	6.851	29.22	0
10/21/2018 0:45	0.719	212	0.153	7.165	29.22	0
10/21/2018 1:00	1.238	112.6	53.27	6.828	29.21	0
10/21/2018 1:15	2.476	47.01	6.639	5.675	29.21	0
10/21/2018 1:30	4.557	30.01	12.68	5.186	29.21	0
10/21/2018 1:45	5.371	34.02	4.047	4.016	29.21	0
10/21/2018 2:00	5.424	28.98	5.568	4.65	29.21	0
10/21/2018 2:15	4.357	33.28	5.271	4.438	29.21	0
10/21/2018 2:30	4.652	35.46	3.097	4.656	29.21	0
10/21/2018 2:45	4.089	31.09	2.412	4.445	29.21	0
10/21/2018 3:00	4.373	36.32	5.018	5.21	29.2	0
10/21/2018 3:15	3.225	51.17	16.06	5.571	29.2	0
10/21/2018 3:30	3.476	29.71	6.075	5.103	29.2	0
10/21/2018 3:45	2.837	52.54	3.123	4.99	29.2	0
10/21/2018 4:00	1.674	42.3	2.541	5.569	29.2	0
10/21/2018 4:15	0.562	42.21	0.097	5.147	29.2	0
10/21/2018 4:30	0.194	42.24	0.025	5.204	29.2	0
10/21/2018 4:45	0.092	51.12	0.822	4.688	29.2	0
10/21/2018 5:00	0.189	55.89	0.027	4.746	29.2	0
10/21/2018 5:15	0.432	60.7	2.188	5.01	29.2	0
10/21/2018 5:30	0.082	63.76	0.024	5.523	29.2	0
10/21/2018 5:45	0.109	37.63	8.56	6.317	29.2	0
10/21/2018 6:00	0.499	9	0.59	4.94	29.2	0
10/21/2018 6:15	0.011	10.28	0.006	4.705	29.2	0
10/21/2018 6:30	0.116	16.62	0.889	5.256	29.2	0
10/21/2018 6:45	0.292	15.9	1.162	4.863	29.2	0
10/21/2018 7:00	0.037	19.77	0.015	4.814	29.18	0
10/21/2018 7:15	0	0	0	5.072	29.18	0
10/21/2018 7:30	0.531	38.34	2.398	4.395	29.18	0
10/21/2018 7:45	0.761	39.43	0.17	5.41	29.18	0.01
10/21/2018 8:00	0.099	127.2	2.58	5.817	29.19	0
10/21/2018 8:15	0.379	91.6	5.653	5.967	29.19	0
10/21/2018 8:30	0.448	157.5	55.17	5.531	29.19	0
10/21/2018 8:45	0.324	112.8	60.69	5.492	29.19	0
10/21/2018 9:00	0.638	95.2	77.2	5.924	29.2	0
10/21/2018 9:15	0.114	82.5	0.182	6.357	29.2	0
10/21/2018 9:30	0.947	85.4	66.81	7.027	29.2	0
10/21/2018 9:45	2.472	243.1	8.4	6.594	29.2	0
10/21/2018 10:00	1.895	243.8	14.06	7.089	29.19	0
10/21/2018 10:15	2.186	232.1	9.82	7.233	29.19	0
10/21/2018 10:30	2.068	245.5	10.36	7.675	29.19	0
10/21/2018 10:45	1.992	310.7	60.14	8.25	29.19	0
10/21/2018 11:00	1.059	350.2	24	8.61	29.21	0
10/21/2018 11:15	4.141	204.4	14.54	8.83	29.21	0
10/21/2018 11:30	3.715	228.7	17.86	8.92	29.21	0
10/21/2018 11:45	3.164	259.1	16.24	9.11	29.21	0
10/21/2018 12:00	3.484	245.4	16.39	9.22	29.19	0

10/21/2018 12:15	4.114	254	13.99	9.2	29.19	0
10/21/2018 12:30	3.096	245.9	11.02	9.7	29.19	0
10/21/2018 12:45	1.84	257.2	22.93	10.56	29.19	0
10/21/2018 13:00	2.58	252.1	30.9	11.19	29.18	0
10/21/2018 13:15	3.754	271.3	14.32	10.81	29.18	0
10/21/2018 13:30	4.586	269.9	11.6	10.7	29.18	0
10/21/2018 13:45	4.318	269.5	9.73	10.96	29.18	0
10/21/2018 14:00	3.376	271.5	17.61	11.33	29.18	0
10/21/2018 14:15	3.448	269.3	14.86	11.37	29.18	0
10/21/2018 14:30	2.177	267.9	17.29	11.93	29.18	0
10/21/2018 14:45	2.533	277.4	24.53	12.25	29.18	0
10/21/2018 15:00	2.83	277.3	14.79	12.07	29.18	0
10/21/2018 15:15	2.627	263.1	11.45	12.38	29.18	0
10/21/2018 15:30	2.511	284.1	10.24	12.62	29.18	0
10/21/2018 15:45	1.62	299.8	5.551	12.69	29.18	0
10/21/2018 16:00	0.709	300.1	4.459	13.06	29.15	0
10/21/2018 16:15	0.574	303.2	0.089	12.9	29.15	0
10/21/2018 16:30	1.848	302.7	0.967	12.52	29.15	0
10/21/2018 16:45	1.841	303.4	2.616	12.06	29.15	0
10/21/2018 17:00	2.106	357.3	22.05	11.04	29.15	0
10/21/2018 17:15	2.365	11.57	0.02	10.63	29.15	0
10/21/2018 17:30	2.222	12.35	1.868	10.55	29.15	0
10/21/2018 17:45	2.056	24.94	3.566	10.37	29.15	0
10/21/2018 18:00	0.755	28.1	0.621	10.16	29.15	0
10/21/2018 18:15	2.275	22.33	3.661	10.08	29.15	0
10/21/2018 18:30	2.738	15.77	0.259	10.04	29.15	0
10/21/2018 18:45	2.634	21.08	1.243	9.81	29.15	0
10/21/2018 19:00	1.647	23.89	1.313	9.69	29.15	0
10/21/2018 19:15	0.347	25.24	0.022	9.82	29.15	0
10/21/2018 19:30	0.726	38.33	8.21	9.79	29.15	0
10/21/2018 19:45	1.951	25.09	9	9.84	29.15	0
10/21/2018 20:00	0.769	26.93	1.708	9.4	29.17	0
10/21/2018 20:15	1.544	37.63	2.361	9.26	29.17	0
10/21/2018 20:30	1.431	49.18	6.84	8.92	29.17	0
10/21/2018 20:45	0.903	55.5	0.119	8.68	29.17	0
10/21/2018 21:00	0.683	55.51	0.12	8.74	29.15	0
10/21/2018 21:15	0.076	55.39	0.026	9.33	29.15	0
10/21/2018 21:30	1.141	261.6	44.75	8.97	29.15	0
10/21/2018 21:45	2.132	222.2	23.2	8.8	29.15	0
10/21/2018 22:00	2.932	186	3.938	8.82	29.17	0
10/21/2018 22:15	3.584	198.5	3.322	8.52	29.17	0
10/21/2018 22:30	3.358	196.9	2.847	8.95	29.17	0
10/21/2018 22:45	3.221	201.7	6.835	8.6	29.17	0
10/21/2018 23:00	2.963	229.4	5.44	8.55	29.15	0
10/21/2018 23:15	2.441	265.8	17.55	8.94	29.15	0
10/21/2018 23:30	2.309	259.4	6.119	8.57	29.15	0
10/21/2018 23:45	1.372	286.2	15.36	8.24	29.15	0

10/22/2018 0:00	0.154	296.1	0.029	8.44	29.17	0
10/22/2018 0:15	0.565	359	7.465	8.26	29.17	0
10/22/2018 0:30	0.908	2.454	0.124	8.18	29.17	0
10/22/2018 0:45	0.296	1.61	2.014	8.45	29.17	0
10/22/2018 1:00	0.623	349.2	0.516	8.43	29.16	0
10/22/2018 1:15	0	0	0	7.901	29.16	0
10/22/2018 1:30	0	0	0	8.05	29.16	0
10/22/2018 1:45	0	0	0	8.25	29.16	0
10/22/2018 2:00	0.088	352	0.024	8.03	29.17	0
10/22/2018 2:15	0.174	352.1	0.058	7.951	29.17	0
10/22/2018 2:30	0.062	352.1	0.035	7.848	29.17	0
10/22/2018 2:45	0.249	351.9	0.068	7.942	29.17	0
10/22/2018 3:00	0	0	0	7.965	29.18	0
10/22/2018 3:15	0.056	352	0.014	7.956	29.18	0
10/22/2018 3:30	0.475	352.1	0.079	7.999	29.18	0
10/22/2018 3:45	0.244	352.1	0.029	7.828	29.18	0
10/22/2018 4:00	1.438	351.8	0.138	8.08	29.16	0
10/22/2018 4:15	2.08	349.8	2.405	8.06	29.16	0
10/22/2018 4:30	2.455	3.003	8.54	7.185	29.16	0
10/22/2018 4:45	1.783	12.18	2.949	6.622	29.16	0
10/22/2018 5:00	1.245	23.27	0.863	5.659	29.15	0
10/22/2018 5:15	2.741	14.98	4.985	6.102	29.15	0
10/22/2018 5:30	2.675	11.99	4.777	6.596	29.15	0
10/22/2018 5:45	1.875	19.74	6.908	6.613	29.15	0
10/22/2018 6:00	1.934	28.28	3.953	6.338	29.14	0
10/22/2018 6:15	1.322	33.19	2.683	6.301	29.14	0
10/22/2018 6:30	1.879	15.56	3.666	6.163	29.14	0
10/22/2018 6:45	1.457	17.88	0.085	5.373	29.14	0
10/22/2018 7:00	1.751	16.28	2.648	5.158	29.14	0
10/22/2018 7:15	1.624	31.61	4.669	5.512	29.14	0.01
10/22/2018 7:30	2.384	32.72	3.703	5.658	29.14	0
10/22/2018 7:45	2.557	18.57	6.449	5.794	29.14	0
10/22/2018 8:00	2.479	21.4	11.6	6.535	29.14	0
10/22/2018 8:15	2.807	26.81	6.254	6.611	29.14	0
10/22/2018 8:30	0.618	21.48	5.907	7.084	29.14	0
10/22/2018 8:45	0.209	43.02	0.338	7.613	29.14	0
10/22/2018 9:00	1.512	182.7	64.29	7.114	29.16	0
10/22/2018 9:15	2.315	270.4	28.86	7.06	29.16	0
10/22/2018 9:30	0.675	6.651	39.03	8.13	29.16	0
10/22/2018 9:45	2.648	257.1	28.79	7.887	29.16	0
10/22/2018 10:00	3.759	244.7	7.734	7.756	29.15	0
10/22/2018 10:15	2.355	281.3	19.56	8.64	29.15	0
10/22/2018 10:30	1.189	287.8	43.41	9.83	29.15	0
10/22/2018 10:45	1.407	337.8	26.17	10.24	29.15	0
10/22/2018 11:00	1.362	112.5	55.5	10.82	29.15	0
10/22/2018 11:15	2.469	219.7	78.19	10.87	29.15	0
10/22/2018 11:30	3.004	213.3	12.76	11	29.15	0

10/22/2018 11:45	3.052	210.5	13.62	11.37	29.15	0
10/22/2018 12:00	2.278	215.8	29.71	12.51	29.13	0
10/22/2018 12:15	2.72	228.2	21.53	12.78	29.13	0
10/22/2018 12:30	2.491	262.7	38.86	13.14	29.13	0
10/22/2018 12:45	2.004	282.4	55.94	13.99	29.13	0
10/22/2018 13:00	2.38	288.1	42.78	14.08	29.11	0
10/22/2018 13:15	1.898	315.1	21.26	14.43	29.11	0
10/22/2018 13:30	2.812	290.9	13.57	14.58	29.11	0
10/22/2018 13:45	3.841	294.1	9.42	14.16	29.11	0
10/22/2018 14:00	2.649	317.3	20.65	14.32	29.1	0
10/22/2018 14:15	1.227	6.96	14.17	14.9	29.1	0
10/22/2018 14:30	0.705	54.14	34.83	15.88	29.1	0
10/22/2018 14:45	1.724	345	14.73	15.71	29.1	0
10/22/2018 15:00	4.074	290.8	7.135	15.03	29.08	0
10/22/2018 15:15	4.282	290.8	6.731	14.63	29.08	0
10/22/2018 15:30	4.712	292.1	4.513	14.14	29.08	0
10/22/2018 15:45	4.073	293.7	4.327	13.91	29.08	0
10/22/2018 16:00	3.552	297.6	3.484	13.71	29.08	0
10/22/2018 16:15	3.246	303.1	4.213	13.33	29.08	0
10/22/2018 16:30	2.034	300	5.061	13.06	29.08	0
10/22/2018 16:45	0.044	297.3	0.114	13.2	29.08	0
10/22/2018 17:00	0	0	0	13.06	29.06	0
10/22/2018 17:15	0.335	342.9	0.238	12.39	29.06	0
10/22/2018 17:30	1.91	30.94	8.25	11.95	29.06	0
10/22/2018 17:45	1.225	27.36	0.158	11.77	29.06	0
10/22/2018 18:00	0.08	25.56	0.144	11.84	29.06	0
10/22/2018 18:15	1.566	25.44	0.214	11.76	29.06	0
10/22/2018 18:30	1.892	25.4	0.164	11.49	29.06	0
10/22/2018 18:45	1.892	32.3	6.468	11.49	29.06	0
10/22/2018 19:00	1.122	40.87	0.108	11.48	29.06	0
10/22/2018 19:15	1.01	41.04	0.071	11.59	29.06	0
10/22/2018 19:30	1.435	42.53	2.095	11.39	29.06	0
10/22/2018 19:45	0.336	45.92	0.104	11.37	29.06	0
10/22/2018 20:00	0.395	45.91	0.096	11.52	29.06	0
10/22/2018 20:15	2.517	42.77	4.863	11.81	29.06	0
10/22/2018 20:30	3.354	25.12	3.575	11.57	29.06	0
10/22/2018 20:45	4.079	23.47	4.508	11.21	29.06	0
10/22/2018 21:00	4.832	28.34	8.06	10.8	29.05	0
10/22/2018 21:15	5.076	9.5	4.418	10.74	29.05	0
10/22/2018 21:30	4.026	353.2	27.53	10.8	29.05	0
10/22/2018 21:45	3.111	302.7	7.892	11.04	29.05	0
10/22/2018 22:00	3.928	303.7	4.083	10.02	29.04	0
10/22/2018 22:15	6.173	310.7	2.461	9.95	29.04	0
10/22/2018 22:30	2.917	351.7	41.12	9.67	29.04	0
10/22/2018 22:45	1.863	46.46	2.169	8.46	29.04	0
10/22/2018 23:00	2.771	37.79	6.611	7.904	29.05	0
10/22/2018 23:15	3.272	38.55	7.476	7.535	29.05	0

10/22/2018 23:30	1.361	46.65	0.033	8.64	29.05	0
10/22/2018 23:45	0.072	72.52	2.368	9.03	29.05	0
10/23/2018 0:00	1.238	109.9	11.87	8.88	29.05	0
10/23/2018 0:15	2.353	188.7	12.3	9.52	29.05	0
10/23/2018 0:30	3.144	203.6	35.83	9.89	29.05	0
10/23/2018 0:45	1.569	114.5	72.45	10.05	29.05	0
10/23/2018 1:00	2.479	177.1	4.048	10.49	29.03	0
10/23/2018 1:15	2.225	150.6	12.8	10.64	29.03	0
10/23/2018 1:30	2.028	133.9	5.218	10.62	29.03	0
10/23/2018 1:45	1.753	132.1	9.71	10.82	29.03	0
10/23/2018 2:00	1.691	118.3	1.841	11.37	29.04	0
10/23/2018 2:15	2.089	175.4	18.41	11.29	29.04	0
10/23/2018 2:30	5.432	205.5	12.28	10.53	29.04	0
10/23/2018 2:45	3.915	220.3	29.5	9.62	29.04	0
10/23/2018 3:00	0.15	24.7	9.08	9.57	29.04	0
10/23/2018 3:15	0.048	140.2	3.51	10.11	29.04	0
10/23/2018 3:30	3.813	180.3	8.19	9.64	29.04	0
10/23/2018 3:45	5.582	172.4	7.06	8.71	29.04	0
10/23/2018 4:00	4.833	137.7	7.228	8.8	29.02	0
10/23/2018 4:15	5.666	157.4	12.21	9.25	29.02	0
10/23/2018 4:30	7.508	173.8	4.139	9.73	29.02	0
10/23/2018 4:45	7.125	171	4.065	9.83	29.02	0
10/23/2018 5:00	7.394	183.5	7.245	9.8	29.05	0
10/23/2018 5:15	6.639	178.3	4.857	9.35	29.05	0
10/23/2018 5:30	7.595	193.2	5.479	9.65	29.05	0
10/23/2018 5:45	7.868	198.2	10.36	9.22	29.05	0
10/23/2018 6:00	5.531	169.3	4.279	9.12	29.05	0
10/23/2018 6:15	6.245	165.4	3.989	9.58	29.05	0
10/23/2018 6:30	6.201	164.7	6.265	9.87	29.05	0
10/23/2018 6:45	4.661	177.5	13.91	9.89	29.05	0
10/23/2018 7:00	6.799	203.5	5.685	9.85	29.05	0
10/23/2018 7:15	6.175	225.4	10.47	9.64	29.05	0
10/23/2018 7:30	5.259	232.3	5.942	9.02	29.05	0
10/23/2018 7:45	1.86	220.2	9.06	8.43	29.05	0
10/23/2018 8:00	6.791	194.3	5.175	6.686	29.09	0
10/23/2018 8:15	6.621	184.4	4.858	5.468	29.09	0
10/23/2018 8:30	7.975	199.5	6.237	5.047	29.09	0
10/23/2018 8:45	6.568	195.1	4.631	4.881	29.09	0
10/23/2018 9:00	7.186	203.2	4.482	5.052	29.09	0
10/23/2018 9:15	8.02	201.6	6.982	5.255	29.09	0
10/23/2018 9:30	7.924	205.6	6.387	5.55	29.09	0
10/23/2018 9:45	8.23	213.8	6.288	6.02	29.09	0
10/23/2018 10:00	4.746	159.1	24.9	6.233	29.13	0
10/23/2018 10:15	4.283	117.6	7.855	6.574	29.13	0
10/23/2018 10:30	5.234	126.2	7.367	6.901	29.13	0
10/23/2018 10:45	5.396	132.7	9.5	7.26	29.13	0
10/23/2018 11:00	5.39	129.9	10.46	7.484	29.13	0

10/23/2018 11:15	5.801	132.7	9.32	7.682	29.13	0
10/23/2018 11:30	5.73	145.2	11.7	7.982	29.13	0
10/23/2018 11:45	5.551	153.5	8.83	8.01	29.13	0
10/23/2018 12:00	6.474	143.6	12.3	8.34	29.15	0
10/23/2018 12:15	7.32	128.2	8.83	8.61	29.15	0
10/23/2018 12:30	7.319	134.9	9.62	8.98	29.15	0
10/23/2018 12:45	7.22	148.7	10.56	9.12	29.15	0
10/23/2018 13:00	7.366	146.2	17.65	9.34	29.16	0
10/23/2018 13:15	8.92	121.6	14.31	9.6	29.16	0
10/23/2018 13:30	10.05	111	9.15	9.71	29.16	0
10/23/2018 13:45	10.24	108.7	10.01	10.02	29.16	0
10/23/2018 14:00	8.05	103.4	8.71	10.56	29.11	0
10/23/2018 14:15	4.78	110.9	31.79	11.45	29.11	0
10/23/2018 14:30	5.275	242.1	15.53	11.81	29.11	0
10/23/2018 14:45	5.561	263	11.51	11.71	29.11	0
10/23/2018 15:00	1.735	279.3	53.51	11.55	29.11	0
10/23/2018 15:15	2.954	289	17.18	12.03	29.11	0
10/23/2018 15:30	2.981	244.2	24.74	11.97	29.11	0
10/23/2018 15:45	1.6	261	10.34	11.92	29.11	0
10/23/2018 16:00	6.131	230.1	21.33	11.85	29.17	0
10/23/2018 16:15	5.972	202.3	10.63	11.65	29.17	0
10/23/2018 16:30	3.511	162.9	29.17	11.52	29.17	0
10/23/2018 16:45	5.239	126.4	8.49	11.4	29.17	0
10/23/2018 17:00	5.295	141.2	8.74	11.31	29.16	0
10/23/2018 17:15	6.072	143.5	11.25	11.33	29.16	0
10/23/2018 17:30	5.16	138.2	21.88	11.08	29.16	0
10/23/2018 17:45	5.03	187.4	15.61	11.3	29.16	0
10/23/2018 18:00	3.953	171.9	20.4	11.21	29.17	0.01
10/23/2018 18:15	5.41	142.1	5.474	11.11	29.17	0
10/23/2018 18:30	5.798	147.3	6.294	11.16	29.17	0
10/23/2018 18:45	5.918	143.1	7.633	10.98	29.17	0.01
10/23/2018 19:00	5.756	140.5	6.988	10.67	29.19	0.04
10/23/2018 19:15	5.806	142.2	8.05	10.64	29.19	0
10/23/2018 19:30	6.226	138	8.49	10.7	29.19	0
10/23/2018 19:45	6.597	145	7.879	10.9	29.19	0
10/23/2018 20:00	5.113	142.7	6.712	10.85	29.21	0
10/23/2018 20:15	5.123	152	9.93	10.82	29.21	0
10/23/2018 20:30	5.49	150.2	6.349	10.8	29.21	0
10/23/2018 20:45	7.068	155.6	6.371	10.93	29.21	0
10/23/2018 21:00	7.369	155.4	6.264	10.88	29.23	0
10/23/2018 21:15	4.991	142.2	10.1	10.74	29.23	0
10/23/2018 21:30	6.532	143.3	8.36	10.85	29.23	0
10/23/2018 21:45	5.828	141.2	9.25	10.76	29.23	0
10/23/2018 22:00	6.886	149	7.92	10.91	29.23	0
10/23/2018 22:15	5.71	151.3	8.04	10.97	29.23	0
10/23/2018 22:30	5.088	149.2	6.985	11.16	29.23	0
10/23/2018 22:45	5.738	150.2	8.48	11.05	29.23	0

10/23/2018 23:00	5.86	154.7	7.453	11.11	29.23	0
10/23/2018 23:15	5.157	170.2	6.878	11.15	29.23	0
10/23/2018 23:30	3.922	154.5	9.31	10.96	29.23	0
10/23/2018 23:45	4.764	161.7	10.72	10.79	29.23	0
10/24/2018 0:00	3.977	143.5	9.69	10.65	29.22	0
10/24/2018 0:15	3.971	142.4	7.192	10.73	29.22	0
10/24/2018 0:30	3.772	132.8	6.669	10.69	29.22	0
10/24/2018 0:45	3.929	147.5	9.51	10.93	29.22	0
10/24/2018 1:00	3.638	144	11.29	10.84	29.23	0
10/24/2018 1:15	4.107	149.8	9.48	10.95	29.23	0
10/24/2018 1:30	4.012	166.9	10.39	10.83	29.23	0
10/24/2018 1:45	4.445	150.3	8.49	10.75	29.23	0
10/24/2018 2:00	2.994	150.7	15.19	10.54	29.22	0
10/24/2018 2:15	2.385	174.2	14.17	10.67	29.22	0
10/24/2018 2:30	3.714	170	11.27	10.62	29.22	0
10/24/2018 2:45	4.325	174.2	11.91	10.81	29.22	0
10/24/2018 3:00	2.788	160.3	15.95	10.75	29.23	0
10/24/2018 3:15	2.989	150.5	13.45	10.54	29.23	0
10/24/2018 3:30	2.933	178.2	11.35	10.3	29.23	0
10/24/2018 3:45	3.571	164.5	6.564	10.27	29.23	0
10/24/2018 4:00	1.978	168.2	8.51	10.16	29.24	0
10/24/2018 4:15	3.374	179.5	10	10.28	29.24	0
10/24/2018 4:30	3.56	172.2	7.919	10.38	29.24	0
10/24/2018 4:45	2.614	155.2	9.62	10.35	29.24	0
10/24/2018 5:00	3.251	171.5	23.56	10.23	29.24	0
10/24/2018 5:15	2.429	180.5	8.76	10.37	29.24	0
10/24/2018 5:30	2.691	166.3	13.11	10.3	29.24	0
10/24/2018 5:45	2.18	149.8	17.09	10.41	29.24	0
10/24/2018 6:00	1.812	141.4	26.6	10.46	29.23	0
10/24/2018 6:15	2.401	135.2	13.8	10.39	29.23	0
10/24/2018 6:30	2.169	152.3	14.84	10.35	29.23	0
10/24/2018 6:45	2.374	131.3	2.517	10.41	29.23	0
10/24/2018 7:00	3.016	139.9	8.14	10.47	29.22	0
10/24/2018 7:15	2.824	125.6	3.578	10.24	29.22	0
10/24/2018 7:30	0.977	131.5	3.193	10.26	29.22	0
10/24/2018 7:45	1.48	173.1	19.61	10.62	29.22	0
10/24/2018 8:00	1.218	143.3	10.44	10.77	29.22	0
10/24/2018 8:15	2.23	114.1	6.22	10.88	29.22	0
10/24/2018 8:30	2.053	108	6.411	10.99	29.22	0
10/24/2018 8:45	3.332	90.6	11.31	11.18	29.22	0
10/24/2018 9:00	2.164	68.78	3.04	11.45	29.22	0
10/24/2018 9:15	0.426	73.02	17.17	11.82	29.22	0
10/24/2018 9:30	1.092	197.5	33.23	11.94	29.22	0
10/24/2018 9:45	1.972	236.4	14.65	11.89	29.22	0
10/24/2018 10:00	3.096	214.7	8.33	11.89	29.25	0
10/24/2018 10:15	4.729	225.6	7.327	11.75	29.25	0
10/24/2018 10:30	4.381	235	10.94	11.82	29.25	0

10/24/2018 10:45	3.349	220.1	15.87	11.9	29.25	0
10/24/2018 11:00	3.726	225.7	9.28	11.77	29.23	0
10/24/2018 11:15	2.691	215.4	8.73	11.99	29.23	0
10/24/2018 11:30	4.208	204.5	17.07	12.4	29.23	0
10/24/2018 11:45	3.914	203.5	21.77	12.38	29.23	0
10/24/2018 12:00	2.699	188.8	23.55	12.52	29.21	0
10/24/2018 12:15	2.595	151.3	20.13	13.24	29.21	0
10/24/2018 12:30	2.92	188.9	26	12.98	29.21	0
10/24/2018 12:45	3.752	207	8.84	12.83	29.21	0
10/24/2018 13:00	4.205	220.6	18.07	12.82	29.21	0
10/24/2018 13:15	4.841	225.9	8.96	12.8	29.21	0
10/24/2018 13:30	4.353	237.9	11.76	12.72	29.21	0
10/24/2018 13:45	4.091	248	17.19	13.15	29.21	0
10/24/2018 14:00	2.646	203.9	30.24	14.02	29.22	0
10/24/2018 14:15	1.679	236.9	30.9	14.49	29.22	0
10/24/2018 14:30	2.512	197.2	60.03	14.86	29.22	0
10/24/2018 14:45	4.442	182.3	39.78	14.88	29.22	0
10/24/2018 15:00	4.885	209.9	9.3	14.48	29.23	0
10/24/2018 15:15	3.818	200.5	16.85	14.52	29.23	0
10/24/2018 15:30	4.62	201.2	14.67	14.4	29.23	0
10/24/2018 15:45	5.324	202.1	9.03	14.26	29.23	0
10/24/2018 16:00	4.827	201.4	3.926	14.02	29.22	0
10/24/2018 16:15	3.707	182.6	21.99	13.71	29.22	0
10/24/2018 16:30	3.468	168.1	8.32	13.4	29.22	0
10/24/2018 16:45	4.879	195.5	7.101	13.48	29.22	0
10/24/2018 17:00	5.42	168.3	15.89	13.16	29.2	0
10/24/2018 17:15	5.733	203.4	7.372	13.06	29.2	0
10/24/2018 17:30	5.608	213.3	5.479	13	29.2	0
10/24/2018 17:45	4.013	186.8	13.27	12.82	29.2	0
10/24/2018 18:00	2.711	162.1	28.88	12.83	29.21	0
10/24/2018 18:15	1.109	123.1	9.61	12.48	29.21	0
10/24/2018 18:30	2.456	160.5	11.94	12.8	29.21	0
10/24/2018 18:45	2.472	148.9	18.8	12.46	29.21	0
10/24/2018 19:00	3.084	129.3	14.53	12.43	29.21	0
10/24/2018 19:15	3.831	129.1	4.174	12.34	29.21	0
10/24/2018 19:30	3.367	153.5	8.81	12.43	29.21	0
10/24/2018 19:45	4.238	169.3	7.619	12.5	29.21	0
10/24/2018 20:00	4.302	172.2	9.72	12.43	29.25	0
10/24/2018 20:15	4.148	180.3	9.55	12.37	29.25	0
10/24/2018 20:30	4.728	185.3	9.78	12.05	29.25	0
10/24/2018 20:45	4.095	177.1	16.55	11.78	29.25	0
10/24/2018 21:00	3.893	188.4	13.91	11.76	29.25	0
10/24/2018 21:15	3.473	148	19.2	11.63	29.25	0.02
10/24/2018 21:30	3.757	141.3	15.68	11.79	29.25	0
10/24/2018 21:45	3.834	164.4	9.08	11.98	29.25	0
10/24/2018 22:00	2.968	125.5	12.05	12.15	29.26	0
10/24/2018 22:15	3.58	115.3	7.957	11.96	29.26	0

10/24/2018 22:30	3.761	147.7	15.09	12.43	29.26	0
10/24/2018 22:45	4.336	185.7	10.15	12.43	29.26	0
10/24/2018 23:00	4.173	172	16.82	12.05	29.25	0
10/24/2018 23:15	4.148	173	12.59	11.88	29.25	0
10/24/2018 23:30	4.485	169.6	11.4	11.87	29.25	0
10/24/2018 23:45	4.208	154.5	8.8	11.95	29.25	0
10/25/2018 0:00	3.387	146.7	6.44	11.72	29.27	0
10/25/2018 0:15	4.272	129.4	7.67	11.99	29.27	0
10/25/2018 0:30	5.896	137.7	8.6	12.19	29.27	0
10/25/2018 0:45	5.396	162.9	8.19	12.33	29.27	0
10/25/2018 1:00	3.995	144.9	15.42	12.35	29.27	0
10/25/2018 1:15	4.876	128.2	7.18	12.46	29.27	0
10/25/2018 1:30	5.883	133.4	6.933	12.8	29.27	0
10/25/2018 1:45	5.908	132.3	9.25	13.14	29.27	0
10/25/2018 2:00	5.228	146.1	6.044	12.94	29.26	0
10/25/2018 2:15	4.856	132.7	7.366	13.2	29.26	0
10/25/2018 2:30	6.052	137.9	10.31	13.27	29.26	0
10/25/2018 2:45	5.658	157.1	19.59	12.63	29.26	0
10/25/2018 3:00	4.571	154.1	7.435	12.92	29.25	0
10/25/2018 3:15	4.313	162	7.713	12.93	29.25	0
10/25/2018 3:30	7.467	168.5	12.62	12.99	29.25	0
10/25/2018 3:45	4.433	177.2	15.03	12.77	29.25	0
10/25/2018 4:00	3.078	146.4	18.31	13.03	29.25	0
10/25/2018 4:15	5.149	117.4	5.977	13.1	29.25	0
10/25/2018 4:30	4.657	122.1	8.2	13.31	29.25	0
10/25/2018 4:45	4.286	148.3	21.6	13.48	29.25	0
10/25/2018 5:00	4.057	172.6	21.25	12.81	29.23	0
10/25/2018 5:15	3.877	174.2	23.66	13.04	29.23	0
10/25/2018 5:30	4.186	216.8	11.62	12.15	29.23	0
10/25/2018 5:45	6.129	221.5	19.52	12.08	29.23	0
10/25/2018 6:00	7.652	198.6	12.67	12.77	29.25	0
10/25/2018 6:15	6.301	174.8	12.6	12.09	29.25	0
10/25/2018 6:30	6.251	84.3	13.88	10.82	29.25	0
10/25/2018 6:45	4.201	73.38	10.26	11.17	29.25	0
10/25/2018 7:00	1.8	83.6	28.6	11.59	29.22	0
10/25/2018 7:15	4.543	148.6	20.69	11.68	29.22	0
10/25/2018 7:30	3.211	190.1	26.67	11.2	29.22	0
10/25/2018 7:45	2.677	174.3	49.37	11.12	29.22	0
10/25/2018 8:00	4.725	195.6	17.33	10.84	29.26	0
10/25/2018 8:15	4.42	120.6	42.27	10.25	29.26	0
10/25/2018 8:30	4.819	100.3	15.17	10.35	29.26	0
10/25/2018 8:45	6.943	127.6	9.69	10.72	29.26	0
10/25/2018 9:00	6.221	127.9	16.79	10.89	29.24	0
10/25/2018 9:15	9.91	136.8	10.73	11.42	29.24	0
10/25/2018 9:30	11.13	130.1	9.84	11.94	29.24	0
10/25/2018 9:45	10.62	126.3	10.26	12.25	29.24	0
10/25/2018 10:00	8.34	142.9	12.4	12.3	29.23	0

10/25/2018 10:15	7.472	165.4	17.31	12.06	29.23	0
10/25/2018 10:30	6.508	162.6	11.67	12.09	29.23	0
10/25/2018 10:45	5.083	160.8	19.23	11.93	29.23	0
10/25/2018 11:00	5.329	132.9	10.7	12.11	29.26	0
10/25/2018 11:15	3.329	143.7	13.83	12.11	29.26	0
10/25/2018 11:30	4.008	176	15.84	11.91	29.26	0.01
10/25/2018 11:45	5.337	154.3	23.65	11.78	29.26	0
10/25/2018 12:00	7.481	123.9	10.8	11.86	29.23	0
10/25/2018 12:15	6.912	119.6	8.7	11.97	29.23	0
10/25/2018 12:30	6.146	132.3	9.02	12.08	29.23	0
10/25/2018 12:45	7.549	144.8	9.55	12.32	29.23	0
10/25/2018 13:00	6.831	130.7	9.09	12.62	29.24	0
10/25/2018 13:15	7.399	127.7	9.97	12.97	29.24	0
10/25/2018 13:30	6.233	141.4	10.46	13.25	29.24	0
10/25/2018 13:45	3.529	148.9	12.47	13.39	29.24	0
10/25/2018 14:00	2.585	149.2	14.22	13.59	29.21	0
10/25/2018 14:15	3.126	156.3	23.14	13.72	29.21	0
10/25/2018 14:30	4.857	192.4	10.15	13.63	29.21	0
10/25/2018 14:45	4.217	190.4	14.62	13.18	29.21	0
10/25/2018 15:00	3.204	164.8	19.77	13.2	29.19	0
10/25/2018 15:15	3.241	138.4	16.92	13.05	29.19	0
10/25/2018 15:30	3.858	171.5	7.021	13.18	29.19	0
10/25/2018 15:45	3.084	207.7	17.34	12.99	29.19	0
10/25/2018 16:00	3.451	206	9.06	12.94	29.23	0
10/25/2018 16:15	2.424	154.1	24.78	12.81	29.23	0
10/25/2018 16:30	1.526	150.4	25.69	12.71	29.23	0
10/25/2018 16:45	2.242	164.2	35.11	12.69	29.23	0
10/25/2018 17:00	2.971	136.7	38.34	12.54	29.2	0
10/25/2018 17:15	5.016	131	7.766	12.57	29.2	0
10/25/2018 17:30	4.633	131	7.292	12.8	29.2	0
10/25/2018 17:45	3.738	117	8.44	12.69	29.2	0
10/25/2018 18:00	3.469	116.8	9.93	12.92	29.17	0
10/25/2018 18:15	3.613	103.6	13.4	12.83	29.17	0
10/25/2018 18:30	3.303	108.4	10.5	12.94	29.17	0
10/25/2018 18:45	2.783	50.67	26.58	12.61	29.17	0
10/25/2018 19:00	3.04	22.79	15.06	12.73	29.17	0
10/25/2018 19:15	3.217	21.57	15.59	13.09	29.17	0
10/25/2018 19:30	2.495	28.78	11.94	13.32	29.17	0.01
10/25/2018 19:45	3.102	50.41	12.5	12.46	29.17	0
10/25/2018 20:00	3.69	32.3	5.197	12.25	29.15	0
10/25/2018 20:15	4.474	26.49	4.5	12.21	29.15	0
10/25/2018 20:30	5.138	29.68	6.658	12.19	29.15	0
10/25/2018 20:45	3.872	23.19	6.99	12.28	29.15	0
10/25/2018 21:00	3.383	29.22	4.447	12.28	29.13	0
10/25/2018 21:15	2.755	234.8	36.19	12.33	29.13	0
10/25/2018 21:30	8.45	242.2	11.86	12.22	29.13	0
10/25/2018 21:45	4.12	252.8	3.645	12.21	29.13	0

10/25/2018 22:00	0.846	33.32	7.361	12.17	29.16	0
10/25/2018 22:15	3.193	219.2	30.15	12.19	29.16	0
10/25/2018 22:30	5.256	197.6	4.542	12.09	29.16	0
10/25/2018 22:45	3.297	168.4	13.79	11.9	29.16	0.01
10/25/2018 23:00	5.547	158.5	11.3	11.84	29.11	0
10/25/2018 23:15	5.629	156.2	11.98	11.83	29.11	0
10/25/2018 23:30	6.047	163.2	9.84	11.85	29.11	0.01
10/25/2018 23:45	5.637	153.2	10.59	11.92	29.11	0
10/26/2018 0:00	4.859	129.4	10.71	11.98	29.12	0
10/26/2018 0:15	6.004	134.3	9.44	12.05	29.12	0
10/26/2018 0:30	8.82	141.8	9.74	12.11	29.12	0
10/26/2018 0:45	10.61	133	8.66	12.44	29.12	0
10/26/2018 1:00	8.8	130.8	9.32	12.79	29.07	0.01
10/26/2018 1:15	8.3	126.9	8.37	13.02	29.07	0
10/26/2018 1:30	4.608	133	11.18	13.14	29.07	0
10/26/2018 1:45	5.168	134.3	9.34	13.17	29.07	0
10/26/2018 2:00	6.915	143.3	7.73	13.16	29.09	0
10/26/2018 2:15	8.86	158.6	13.51	13.31	29.09	0.01
10/26/2018 2:30	8.82	167.9	8.27	13.32	29.09	0
10/26/2018 2:45	7.632	151.8	7.116	13.06	29.09	0
10/26/2018 3:00	6.297	129.6	10.43	13.02	29.11	0
10/26/2018 3:15	6.538	117.1	7.725	13.14	29.11	0
10/26/2018 3:30	6.935	128.7	9.01	13.38	29.11	0
10/26/2018 3:45	5.937	134.8	7.185	13.58	29.11	0
10/26/2018 4:00	5.75	140.6	11.35	13.64	29.12	0
10/26/2018 4:15	7.321	150.8	9.74	13.78	29.12	0
10/26/2018 4:30	8.48	153.9	8.17	13.84	29.12	0
10/26/2018 4:45	10.53	170.1	11.41	14.02	29.12	0
10/26/2018 5:00	11.46	173.7	9.1	13.85	29.12	0
10/26/2018 5:15	10.14	159.8	5.949	13.8	29.12	0
10/26/2018 5:30	9.03	154.4	6.608	13.95	29.12	0
10/26/2018 5:45	11.53	158.4	6.539	14.14	29.12	0
10/26/2018 6:00	10.79	159.1	8.95	14.19	29.12	0
10/26/2018 6:15	9.92	172.3	8.37	14.41	29.12	0
10/26/2018 6:30	12.72	177.2	8.61	14.65	29.12	0
10/26/2018 6:45	12.79	182.5	8.14	14.58	29.12	0
10/26/2018 7:00	14.67	189.9	7.827	14.6	29.13	0
10/26/2018 7:15	12.68	189	7.712	14.38	29.13	0
10/26/2018 7:30	11.51	180	9.79	14.41	29.13	0
10/26/2018 7:45	13.09	184.9	8.33	14.61	29.13	0
10/26/2018 8:00	12.33	187.2	8.25	14.77	29.15	0
10/26/2018 8:15	11.97	186.4	7.378	14.82	29.15	0
10/26/2018 8:30	11.93	186.3	8.66	14.9	29.15	0
10/26/2018 8:45	11.69	187.1	9.45	14.93	29.15	0
10/26/2018 9:00	13.16	193.5	9.32	14.96	29.18	0
10/26/2018 9:15	15	209	9.08	14.31	29.18	0
10/26/2018 9:30	13.32	209.3	9.36	13.99	29.18	0

10/26/2018 9:45	13.29	210.6	9.29	14.02	29.18	0
10/26/2018 10:00	13.13	218.5	7.534	14.01	29.2	0
10/26/2018 10:15	9.7	202.9	14.46	14.06	29.2	0
10/26/2018 10:30	7.333	186.5	12.77	14.01	29.2	0
10/26/2018 10:45	7.97	192.7	10.61	14.01	29.2	0
10/26/2018 11:00	9.36	198.5	9.61	14.25	29.22	0
10/26/2018 11:15	9.75	203.7	12.03	14.33	29.22	0
10/26/2018 11:30	10.1	209.6	13.35	14.5	29.22	0
10/26/2018 11:45	10.67	207.5	12.51	14.71	29.22	0
10/26/2018 12:00	9.6	210.3	10.12	14.73	29.25	0
10/26/2018 12:15	6.285	179.1	18.86	14.55	29.25	0
10/26/2018 12:30	7.411	169.7	11.62	14.36	29.25	0
10/26/2018 12:45	7.812	158.3	9.86	14.36	29.25	0
10/26/2018 13:00	8.33	157.9	7.802	14.33	29.23	0
10/26/2018 13:15	10.04	166.5	13.43	14.49	29.23	0
10/26/2018 13:30	12.08	156.9	7.379	14.59	29.23	0
10/26/2018 13:45	10.71	160	9.4	14.37	29.23	0
10/26/2018 14:00	8.09	187.2	9.44	14.23	29.22	0
10/26/2018 14:15	6.852	218.8	18.83	14.18	29.22	0
10/26/2018 14:30	11.35	213	8.58	13.86	29.22	0
10/26/2018 14:45	15.47	220.9	9.48	13.48	29.22	0
10/26/2018 15:00	11.73	210.6	9.81	13.35	29.24	0
10/26/2018 15:15	9.27	189.2	10.9	13.14	29.24	0
10/26/2018 15:30	7.987	181.9	9.16	13.07	29.24	0
10/26/2018 15:45	4.181	136.9	58.18	12.94	29.24	0
10/26/2018 16:00	1.602	120.9	42.96	12.69	29.26	0
10/26/2018 16:15	2.72	142.2	37.19	12.76	29.26	0
10/26/2018 16:30	1.251	98.8	68.34	12.26	29.26	0
10/26/2018 16:45	5.474	219.8	7.576	13.1	29.26	0
10/26/2018 17:00	6.577	216.4	10.08	13.23	29.27	0
10/26/2018 17:15	7.782	209.9	15.63	13.12	29.27	0
10/26/2018 17:30	2.34	167.4	18.72	12.51	29.27	0
10/26/2018 17:45	1.654	181.3	19.39	12.26	29.27	0
10/26/2018 18:00	6.166	202.5	5.627	12.51	29.25	0
10/26/2018 18:15	3.926	193.5	10.77	12.2	29.25	0
10/26/2018 18:30	0.909	195.1	5.299	11.96	29.25	0
10/26/2018 18:45	5.607	198.7	13.81	12.3	29.25	0
10/26/2018 19:00	7.534	213.5	7.919	12.48	29.29	0
10/26/2018 19:15	2.835	67.09	87.4	11.63	29.29	0
10/26/2018 19:30	3.449	21.76	5.14	11.07	29.29	0
10/26/2018 19:45	5.118	28.55	6.939	10.99	29.29	0
10/26/2018 20:00	4.38	29.7	6.697	10.7	29.28	0
10/26/2018 20:15	2.263	35.16	4.419	10.67	29.28	0
10/26/2018 20:30	3.164	37.46	8.72	10.72	29.28	0
10/26/2018 20:45	2.603	25.34	11.33	10.7	29.28	0
10/26/2018 21:00	3.151	32.71	3.772	10.74	29.28	0
10/26/2018 21:15	1.343	40.58	1.635	10.64	29.28	0

10/26/2018 21:30	1.473	36.23	1.346	10.78	29.28	0
10/26/2018 21:45	0.354	42.51	2.091	10.81	29.28	0
10/26/2018 22:00	1.628	114.4	31.29	10.44	29.27	0
10/26/2018 22:15	1.327	84.1	15.28	10.41	29.27	0
10/26/2018 22:30	3.089	9.63	33.88	10.06	29.27	0
10/26/2018 22:45	3.021	328.5	1.361	10.09	29.27	0
10/26/2018 23:00	3.675	4.971	16.76	10.2	29.31	0
10/26/2018 23:15	3.772	23.66	7.008	9.91	29.31	0
10/26/2018 23:30	4.995	32.48	7.162	9.94	29.31	0
10/26/2018 23:45	3.54	34.72	5.498	9.94	29.31	0
10/27/2018 0:00	4.304	25.52	11.18	9.58	29.3	0
10/27/2018 0:15	3.829	42.62	11.67	9.43	29.3	0
10/27/2018 0:30	4.727	39.3	7.086	8.99	29.3	0
10/27/2018 0:45	5.934	38.31	5.89	8.5	29.3	0
10/27/2018 1:00	5.967	50	5.453	8.72	29.32	0
10/27/2018 1:15	5.115	60.37	5.367	9.52	29.32	0
10/27/2018 1:30	3.959	65.96	8.04	9.94	29.32	0
10/27/2018 1:45	4.446	52.08	8.55	9.66	29.32	0
10/27/2018 2:00	5.849	46.29	10.17	9.21	29.3	0
10/27/2018 2:15	6.157	45.89	6.63	8.79	29.3	0
10/27/2018 2:30	4.682	63.99	19.19	8.5	29.3	0
10/27/2018 2:45	3.454	100	16.04	8.35	29.3	0
10/27/2018 3:00	3.696	122.4	11.67	8.64	29.31	0
10/27/2018 3:15	4.691	132.6	13.64	8.85	29.31	0
10/27/2018 3:30	4.567	159.4	6.487	8.61	29.31	0
10/27/2018 3:45	3.954	141.4	16.03	7.947	29.31	0
10/27/2018 4:00	5.655	139.1	7.195	8.27	29.27	0
10/27/2018 4:15	5.432	133	7.754	8.26	29.27	0
10/27/2018 4:30	3.984	138.3	7.737	8.26	29.27	0
10/27/2018 4:45	2.76	161.3	22.21	7.385	29.27	0
10/27/2018 5:00	5.638	170.8	11.62	7.851	29.3	0
10/27/2018 5:15	5.852	129.5	12.63	7.615	29.3	0
10/27/2018 5:30	2.396	120.5	13.1	7.478	29.3	0
10/27/2018 5:45	1.173	43.13	4.252	7.022	29.3	0
10/27/2018 6:00	2.237	4.867	16.98	6.987	29.3	0
10/27/2018 6:15	1.312	322.6	36.07	6.771	29.3	0
10/27/2018 6:30	2.404	339.6	27.24	6.853	29.3	0
10/27/2018 6:45	3.297	19.24	4.718	6.495	29.3	0
10/27/2018 7:00	3.013	18.09	8.64	6.069	29.29	0
10/27/2018 7:15	2.536	41.88	9.14	6.116	29.29	0
10/27/2018 7:30	3.968	26.04	14.04	5.616	29.29	0
10/27/2018 7:45	5.565	11.15	7.799	6.003	29.29	0
10/27/2018 8:00	3.292	30.37	8.88	5.962	29.26	0
10/27/2018 8:15	2.923	68.3	10.5	5.734	29.26	0
10/27/2018 8:30	3.388	46.42	20.67	5.834	29.26	0
10/27/2018 8:45	2.354	157.7	51.93	6.83	29.26	0
10/27/2018 9:00	1.967	253.6	82.5	8.66	29.27	0

10/27/2018 9:15	2.123	25.14	13.24	7.923	29.27	0
10/27/2018 9:30	0.364	31.25	0.181	9.43	29.27	0
10/27/2018 9:45	0.948	36.62	2.924	9.9	29.27	0
10/27/2018 10:00	2.52	41.19	7.068	8.91	29.23	0
10/27/2018 10:15	1.696	30.78	22.31	9.34	29.23	0
10/27/2018 10:30	2.294	23.22	20.83	10.15	29.23	0.03
10/27/2018 10:45	1.696	48.49	10.56	9.78	29.23	0
10/27/2018 11:00	1.603	14.08	13.71	11.31	29.23	0
10/27/2018 11:15	1.477	324.3	63.31	12.34	29.23	0
10/27/2018 11:30	2.611	21.53	23.65	11.58	29.23	0
10/27/2018 11:45	2.625	8.95	17.62	12.4	29.23	0
10/27/2018 12:00	2.445	42.06	15.01	12.48	29.2	0
10/27/2018 12:15	4.351	40.31	8.35	12.79	29.2	0
10/27/2018 12:30	4.058	25.37	9.83	12.97	29.2	0
10/27/2018 12:45	4.161	24.97	4.607	12.84	29.2	0
10/27/2018 13:00	3.623	1.517	21.09	13.05	29.13	0
10/27/2018 13:15	4.129	332.8	19.56	13.54	29.13	0
10/27/2018 13:30	4.928	336.9	20.43	13.88	29.13	0
10/27/2018 13:45	4.572	26.39	4.636	12.72	29.13	0
10/27/2018 14:00	2.237	15.3	18.18	13.12	29.12	0
10/27/2018 14:15	0.297	304.7	27.47	13.6	29.12	0
10/27/2018 14:30	4.61	69.94	10.37	12.43	29.12	0
10/27/2018 14:45	7.096	114.7	13.27	13.74	29.12	0
10/27/2018 15:00	9.53	118.7	9.61	14.62	29.06	0
10/27/2018 15:15	11.12	111.7	10.91	14.5	29.06	0
10/27/2018 15:30	8.2	113.3	11.52	14.43	29.06	0
10/27/2018 15:45	9.51	130.2	9.9	14.67	29.06	0
10/27/2018 16:00	10.33	136.7	10.16	14.37	29	0
10/27/2018 16:15	12.74	138.8	8.42	14.19	29	0
10/27/2018 16:30	15.81	134.1	9.03	13.58	29	0
10/27/2018 16:45	16.42	130	8.36	12.65	29	0
10/27/2018 17:00	16.33	129.1	9.16	12.09	28.98	0
10/27/2018 17:15	20.05	132.5	9.14	11.91	28.98	0
10/27/2018 17:30	19.86	133.6	9.66	11.74	28.98	0.01
10/27/2018 17:45	22.3	132.5	8.89	12.03	28.98	0
10/27/2018 18:00	21.21	131.8	9.16	12.17	28.92	0
10/27/2018 18:15	18.95	131.5	10.22	12.17	28.92	0
10/27/2018 18:30	16.94	133.6	10.01	11.84	28.92	0
10/27/2018 18:45	15.16	138.7	9.94	11.75	28.92	0
10/27/2018 19:00	13.4	131.8	10.97	11.52	28.96	0
10/27/2018 19:15	17.17	127.1	10.44	11.61	28.96	0.01
10/27/2018 19:30	20.14	127.4	10.1	11.88	28.96	0
10/27/2018 19:45	20.15	126.5	10.38	11.97	28.96	0.01
10/27/2018 20:00	19.83	127	10.36	12.24	28.92	0
10/27/2018 20:15	20.2	133.6	10.26	12.03	28.92	0.01
10/27/2018 20:30	17.64	136.7	11.25	11.77	28.92	0
10/27/2018 20:45	17.73	136.7	9.65	11.52	28.92	0

10/27/2018 21:00	18.03	130.6	9.45	11.39	28.92	0
10/27/2018 21:15	16.83	134.1	10.84	11.57	28.92	0
10/27/2018 21:30	15.83	138.5	10.77	11.26	28.92	0.01
10/27/2018 21:45	15.59	132.6	9.73	11.34	28.92	0
10/27/2018 22:00	17.33	130.3	10.16	11.5	28.93	0
10/27/2018 22:15	13.74	144.8	12.36	11.61	28.93	0
10/27/2018 22:30	11.48	152.1	12.54	11.79	28.93	0
10/27/2018 22:45	12.09	141.2	10.32	11.67	28.93	0
10/27/2018 23:00	12.9	155.9	16.01	11.36	28.97	0
10/27/2018 23:15	12.24	133.8	10.36	11.16	28.97	0.01
10/27/2018 23:30	11.02	134.1	20.69	11.28	28.97	0
10/27/2018 23:45	11.24	124.4	14.05	11.58	28.97	0
10/28/2018 0:00	8.69	156.5	69.14	11.48	28.95	0
10/28/2018 0:15	5.325	179	53.36	11.24	28.95	0.01
10/28/2018 0:30	7.719	152.3	31.69	11.3	28.95	0
10/28/2018 0:45	7.574	161.3	22.53	10.87	28.95	0.01
10/28/2018 1:00	6.08	164.2	19.28	10.87	28.95	0
10/28/2018 1:15	8.86	136.6	8.34	11.18	28.95	0
10/28/2018 1:30	6.631	134.1	9.12	11.29	28.95	0
10/28/2018 1:45	6.157	147.1	9.66	11.3	28.95	0
10/28/2018 2:00	5.533	141.4	11.2	11.34	28.98	0
10/28/2018 2:15	8.37	148.6	9.5	11.51	28.98	0
10/28/2018 2:30	10.44	159	8.64	11.69	28.98	0
10/28/2018 2:45	9.47	172.6	8.26	11.93	28.98	0
10/28/2018 3:00	16.47	201.8	14.27	12	29.01	0
10/28/2018 3:15	12.84	211	12.21	11.28	29.01	0
10/28/2018 3:30	10.02	227.9	10.86	10.78	29.01	0.01
10/28/2018 3:45	5.332	195.9	15.23	10.55	29.01	0
10/28/2018 4:00	2.787	183.5	74.46	10.43	29.01	0
10/28/2018 4:15	9.29	185.8	25.63	10.58	29.01	0
10/28/2018 4:30	14.41	183.6	10.28	10.94	29.01	0
10/28/2018 4:45	12.65	190	10.82	10.62	29.01	0
10/28/2018 5:00	9.28	188.1	10.05	10.35	29.01	0
10/28/2018 5:15	8.92	182.8	12.32	10.15	29.01	0
10/28/2018 5:30	6.236	149.4	9.79	9.7	29.01	0
10/28/2018 5:45	6.857	148.8	5.549	9.6	29.01	0
10/28/2018 6:00	7.546	164.5	7.884	10.24	29.04	0
10/28/2018 6:15	7.914	182	9.66	10.87	29.04	0
10/28/2018 6:30	12.89	253.5	38.26	9.94	29.04	0.01
10/28/2018 6:45	6.836	208.8	17.96	9.15	29.04	0
10/28/2018 7:00	6.222	148.6	17.87	8.66	29.07	0
10/28/2018 7:15	6.116	136.9	7.081	8.46	29.07	0
10/28/2018 7:30	5.167	139.6	12.44	8.54	29.07	0
10/28/2018 7:45	6.562	143.6	11.71	8.8	29.07	0
10/28/2018 8:00	6.294	136.7	7.404	8.78	29.09	0
10/28/2018 8:15	6.518	141.3	7.445	9.38	29.09	0
10/28/2018 8:30	6.482	145.7	6.16	9.38	29.09	0

10/28/2018 8:45	6.451	145.6	12.24	9.41	29.09	0
10/28/2018 9:00	8.04	156	12.02	9.87	29.11	0
10/28/2018 9:15	9.97	176.8	11.78	10.12	29.11	0
10/28/2018 9:30	6.944	163.7	16.55	9.85	29.11	0
10/28/2018 9:45	7.4	148	10.49	9.68	29.11	0
10/28/2018 10:00	9.44	149	8.75	9.91	29.14	0
10/28/2018 10:15	9.99	156	8.47	9.73	29.14	0
10/28/2018 10:30	9.96	152.4	9.03	9.65	29.14	0
10/28/2018 10:45	8.54	147.3	9.96	9.57	29.14	0
10/28/2018 11:00	2.617	175.5	33.97	9.59	29.16	0
10/28/2018 11:15	7.916	147.3	8.4	9.69	29.16	0
10/28/2018 11:30	10.99	144.8	13.62	10.07	29.16	0
10/28/2018 11:45	11.6	160	8.77	10.28	29.16	0
10/28/2018 12:00	13.56	164.5	7.748	10.27	29.15	0
10/28/2018 12:15	12.88	164.2	9.97	10.3	29.15	0
10/28/2018 12:30	10.47	174.8	13.3	10.33	29.15	0
10/28/2018 12:45	10.49	161.4	9.52	10.43	29.15	0
10/28/2018 13:00	12.08	156.4	8.41	10.52	29.15	0
10/28/2018 13:15	11.63	162.9	10.02	10.99	29.15	0
10/28/2018 13:30	11.85	169.7	11.5	11.4	29.15	0
10/28/2018 13:45	10.76	165.4	14.66	11.43	29.15	0
10/28/2018 14:00	11.46	162.5	9.9	11.88	29.17	0
10/28/2018 14:15	10.46	161.3	13.51	10.96	29.17	0
10/28/2018 14:30	6.146	163.2	13.35	10.48	29.17	0
10/28/2018 14:45	1.198	137	18.17	10.09	29.17	0
10/28/2018 15:00	2.488	54.99	31.13	9.69	29.15	0
10/28/2018 15:15	1.838	75.96	34.02	9.76	29.15	0
10/28/2018 15:30	2.901	22.87	12.5	9.61	29.15	0
10/28/2018 15:45	2.595	23.39	20.91	9.08	29.15	0.01
10/28/2018 16:00	2.838	351.8	69.79	9.07	29.15	0
10/28/2018 16:15	1.719	107	33.39	9.4	29.15	0
10/28/2018 16:30	3.287	110.6	19.28	8.95	29.15	0
10/28/2018 16:45	7.091	143.4	7.745	9.31	29.15	0
10/28/2018 17:00	8.08	133	9.62	9.38	29.16	0
10/28/2018 17:15	9.23	133.3	8.24	9.28	29.16	0
10/28/2018 17:30	6.933	154.1	15.94	9.33	29.16	0
10/28/2018 17:45	5.682	210.6	15.56	9	29.16	0
10/28/2018 18:00	8.12	247.2	24.84	8.6	29.19	0
10/28/2018 18:15	7.047	181	17.63	8.44	29.19	0
10/28/2018 18:30	6.008	151.3	10.29	8.07	29.19	0
10/28/2018 18:45	8.87	142.4	13.42	7.961	29.19	0.01
10/28/2018 19:00	9.58	142.5	11.54	8	29.18	0
10/28/2018 19:15	9.7	144	8.24	8.01	29.18	0
10/28/2018 19:30	7.323	129.3	9.59	7.957	29.18	0
10/28/2018 19:45	7.895	131.6	10.66	7.884	29.18	0
10/28/2018 20:00	8.28	129.4	9.92	7.891	29.17	0
10/28/2018 20:15	6.973	119.8	9.15	7.931	29.17	0

10/28/2018 20:30	8.65	121.8	8.34	8.21	29.17	0
10/28/2018 20:45	8.57	130.1	10.75	8.44	29.17	0
10/28/2018 21:00	8.18	133.9	7.099	8.54	29.19	0
10/28/2018 21:15	7.259	135.2	7.954	8.69	29.19	0
10/28/2018 21:30	7.754	139.2	10.26	8.8	29.19	0
10/28/2018 21:45	6.971	155.6	12.27	8.87	29.19	0
10/28/2018 22:00	6.564	158.4	6.961	8.71	29.18	0
10/28/2018 22:15	6.965	162.5	9.21	8.8	29.18	0
10/28/2018 22:30	4.975	165.6	16.35	8.78	29.18	0
10/28/2018 22:45	5.547	173.3	13.11	8.81	29.18	0
10/28/2018 23:00	6.624	158.1	4.813	8.42	29.17	0
10/28/2018 23:15	7.363	154	7.295	8.23	29.17	0
10/28/2018 23:30	9.71	165.3	13.26	8.47	29.17	0
10/28/2018 23:45	11.57	181	7.193	8.4	29.17	0
10/29/2018 0:00	7.609	165.8	10.04	8.06	29.21	0
10/29/2018 0:15	6.569	174.2	10.76	7.894	29.21	0
10/29/2018 0:30	6.119	141.5	9.54	7.776	29.21	0
10/29/2018 0:45	7.456	144.6	8.42	7.824	29.21	0
10/29/2018 1:00	8.06	149.6	7.268	7.781	29.2	0
10/29/2018 1:15	7.426	141	8.61	7.759	29.2	0
10/29/2018 1:30	7.066	138.3	7.736	7.651	29.2	0
10/29/2018 1:45	8.71	145.7	8.37	7.666	29.2	0
10/29/2018 2:00	8.78	154.3	6.524	7.621	29.22	0
10/29/2018 2:15	8.51	152.8	5.051	7.412	29.22	0
10/29/2018 2:30	7.415	150	6.227	7.516	29.22	0
10/29/2018 2:45	8.86	154	8.18	7.568	29.22	0
10/29/2018 3:00	9.04	162.9	8.14	7.636	29.22	0
10/29/2018 3:15	5.463	160.9	13.96	7.484	29.22	0
10/29/2018 3:30	3.926	143.1	14.62	7.538	29.22	0
10/29/2018 3:45	6.772	161.9	11.17	7.956	29.22	0
10/29/2018 4:00	5.561	161.2	15.01	7.666	29.25	0
10/29/2018 4:15	4.182	136.6	6.041	7.818	29.25	0
10/29/2018 4:30	5.007	144.9	4.956	8.02	29.25	0
10/29/2018 4:45	5.432	144.9	5.711	8.26	29.25	0
10/29/2018 5:00	4.693	145.3	5.83	8.29	29.24	0
10/29/2018 5:15	4.155	136.2	10.46	8.37	29.24	0
10/29/2018 5:30	3.474	128.7	5.482	8.46	29.24	0
10/29/2018 5:45	4.537	137.9	5.559	8.41	29.24	0
10/29/2018 6:00	2.927	111.8	14.04	8.58	29.27	0
10/29/2018 6:15	3.083	110.8	8.51	8.51	29.27	0
10/29/2018 6:30	3.46	131.6	10.13	8.99	29.27	0
10/29/2018 6:45	3.673	132.8	12.42	9.03	29.27	0
10/29/2018 7:00	4.488	122	14.68	9.01	29.27	0
10/29/2018 7:15	3.994	126.2	18.76	9.07	29.27	0
10/29/2018 7:30	1.093	124	4.938	9.18	29.27	0
10/29/2018 7:45	1.276	132.1	23.51	9.15	29.27	0
10/29/2018 8:00	1.456	149.5	11.13	9.09	29.29	0

10/29/2018 8:15	1.144	143	3.149	8.69	29.29	0
10/29/2018 8:30	0.658	88	6.31	8.91	29.29	0
10/29/2018 8:45	1.881	65.92	5.039	9.71	29.29	0
10/29/2018 9:00	3.459	166.6	43.07	10.33	29.33	0
10/29/2018 9:15	5.136	175.6	16.61	10.11	29.33	0
10/29/2018 9:30	5.211	181.8	14.26	10.34	29.33	0
10/29/2018 9:45	5.727	185.4	9.96	10.29	29.33	0
10/29/2018 10:00	6.148	190.2	11.87	10.16	29.33	0
10/29/2018 10:15	6.031	192.2	9.87	9.99	29.33	0
10/29/2018 10:30	4.972	199.7	9.49	9.9	29.33	0
10/29/2018 10:45	8.02	221.2	10.16	9.77	29.33	0
10/29/2018 11:00	9.46	224.5	10.02	9.28	29.36	0
10/29/2018 11:15	6.452	205.2	14.3	9.3	29.36	0
10/29/2018 11:30	5.476	178.5	9.88	9.36	29.36	0
10/29/2018 11:45	6.222	178.5	12.9	9.52	29.36	0
10/29/2018 12:00	8.55	189.8	10.83	9.85	29.37	0
10/29/2018 12:15	9.41	192.6	12.68	10.13	29.37	0
10/29/2018 12:30	9.11	186.2	9.81	9.98	29.37	0
10/29/2018 12:45	9.35	184	9.01	10.05	29.37	0
10/29/2018 13:00	6.821	181.5	8.62	10.13	29.38	0
10/29/2018 13:15	8.22	185.4	12.19	10.09	29.38	0
10/29/2018 13:30	6.328	172	15.61	10.39	29.38	0
10/29/2018 13:45	6.971	183.3	9.67	10.13	29.38	0
10/29/2018 14:00	8.09	184.4	10.46	10.37	29.38	0
10/29/2018 14:15	8.23	183.5	7.145	10.36	29.38	0
10/29/2018 14:30	7.554	185.5	10.97	10.4	29.38	0
10/29/2018 14:45	6.899	183.1	8.48	10.47	29.38	0
10/29/2018 15:00	6.198	166.2	15.83	10.58	29.38	0
10/29/2018 15:15	7.502	178.3	10.84	10.35	29.38	0
10/29/2018 15:30	7.727	184.4	7.706	10.3	29.38	0
10/29/2018 15:45	7.693	179	7.407	10.35	29.38	0
10/29/2018 16:00	6.383	189.4	14.89	10.41	29.38	0
10/29/2018 16:15	6.438	203.4	6.636	10.41	29.38	0
10/29/2018 16:30	4.268	173.4	18.66	10.2	29.38	0
10/29/2018 16:45	3.902	211.3	16.44	10.22	29.38	0
10/29/2018 17:00	5.333	188.5	9.99	10.19	29.39	0
10/29/2018 17:15	6.346	177.7	4.948	10.08	29.39	0
10/29/2018 17:30	5.878	174	7	10.04	29.39	0
10/29/2018 17:45	4.892	177.8	4.433	9.97	29.39	0
10/29/2018 18:00	2.854	169.5	8.61	9.82	29.41	0
10/29/2018 18:15	3.157	177.6	10.79	9.93	29.41	0
10/29/2018 18:30	2.564	169.7	16.66	9.87	29.41	0
10/29/2018 18:45	4.228	184.9	10.34	9.96	29.41	0
10/29/2018 19:00	2.801	156.2	14.58	9.79	29.42	0
10/29/2018 19:15	3.28	157.4	17.61	9.82	29.42	0
10/29/2018 19:30	4.881	177.8	8.38	9.87	29.42	0
10/29/2018 19:45	4.972	191.9	5.289	9.93	29.42	0

10/29/2018 20:00	2.748	162.6	13.39	9.7	29.42	0
10/29/2018 20:15	0.828	130.1	2.931	9.52	29.42	0
10/29/2018 20:30	1.869	163.9	13.58	9.66	29.42	0
10/29/2018 20:45	3.165	168.1	7.959	9.74	29.42	0
10/29/2018 21:00	2.56	158	11	9.67	29.43	0
10/29/2018 21:15	2.927	159.5	19.24	9.7	29.43	0
10/29/2018 21:30	2.633	152.6	9.52	9.55	29.43	0
10/29/2018 21:45	2.321	167.4	16.19	9.31	29.43	0
10/29/2018 22:00	5.165	172.2	8.22	9.22	29.45	0
10/29/2018 22:15	4.657	174.4	12.7	9.34	29.45	0
10/29/2018 22:30	5.556	176.2	8.47	9.52	29.45	0
10/29/2018 22:45	6.03	189.4	7.069	9.35	29.45	0
10/29/2018 23:00	4.289	193.1	5.741	9.11	29.47	0
10/29/2018 23:15	2.519	186.1	9.11	9.13	29.47	0
10/29/2018 23:30	1.596	174.3	28.25	9.13	29.47	0
10/29/2018 23:45	1.645	106.5	4.462	8.97	29.47	0
10/30/2018 0:00	1.815	98.4	9.85	9	29.46	0
10/30/2018 0:15	1.269	91.9	17.65	9.03	29.46	0
10/30/2018 0:30	1.549	125.7	37.95	9.19	29.46	0
10/30/2018 0:45	1.816	159.8	20.4	9.25	29.46	0
10/30/2018 1:00	2.37	154.8	11.91	9.32	29.45	0
10/30/2018 1:15	2.144	163	20.46	9.35	29.45	0
10/30/2018 1:30	1.002	139.3	10	9.37	29.45	0
10/30/2018 1:45	0.708	120.8	0.977	9.09	29.45	0
10/30/2018 2:00	1.218	92.3	18.91	8.96	29.49	0
10/30/2018 2:15	1.624	81.1	1.399	8.99	29.49	0
10/30/2018 2:30	1.213	86	0.165	9.23	29.49	0
10/30/2018 2:45	0.312	85.9	0.012	9.48	29.49	0
10/30/2018 3:00	1.265	134.1	10.42	9.66	29.48	0
10/30/2018 3:15	2.562	117.4	9.52	9.41	29.48	0
10/30/2018 3:30	2.097	124.5	20.97	9.4	29.48	0
10/30/2018 3:45	2.56	174.4	16.56	9.58	29.48	0
10/30/2018 4:00	3.294	186.6	18.39	9.41	29.46	0
10/30/2018 4:15	1.087	140.3	64.25	9.12	29.46	0
10/30/2018 4:30	1.134	154.5	26.74	8.96	29.46	0
10/30/2018 4:45	1.062	143.7	7.754	9.3	29.46	0
10/30/2018 5:00	0.512	112.7	4.689	9.11	29.47	0
10/30/2018 5:15	3.363	136.8	9.31	8.93	29.47	0
10/30/2018 5:30	3.876	165.9	13.33	8.98	29.47	0
10/30/2018 5:45	4.655	192	9.23	9	29.47	0
10/30/2018 6:00	5.322	185.9	9.97	8.88	29.49	0
10/30/2018 6:15	4.167	179.4	12.23	8.83	29.49	0
10/30/2018 6:30	4.043	192.7	11.96	8.88	29.49	0
10/30/2018 6:45	1.988	157.8	8.39	8.75	29.49	0
10/30/2018 7:00	1.475	156.2	20.48	8.98	29.5	0
10/30/2018 7:15	0.019	161.1	0.004	9.09	29.5	0
10/30/2018 7:30	1.041	162.1	24.83	9.21	29.5	0

10/30/2018 7:45	0.873	122	13.98	9.3	29.5	0
10/30/2018 8:00	1.606	146	18.39	9.58	29.49	0
10/30/2018 8:15	1.763	115.8	52.84	9.7	29.49	0
10/30/2018 8:30	1.63	148.2	30.94	9.78	29.49	0
10/30/2018 8:45	0.358	265	14.81	9.63	29.49	0
10/30/2018 9:00	0.712	65.67	71.32	9.87	29.5	0
10/30/2018 9:15	2.315	218.7	16.16	9.78	29.5	0
10/30/2018 9:30	1.815	174.2	19.36	9.91	29.5	0
10/30/2018 9:45	2.365	155.9	12.82	10.14	29.5	0
10/30/2018 10:00	3.914	199.2	11.25	10.28	29.5	0
10/30/2018 10:15	3.762	189.7	22.39	10.5	29.5	0
10/30/2018 10:30	3.237	175.4	24.14	10.66	29.5	0
10/30/2018 10:45	3.397	192.3	17.65	10.91	29.5	0
10/30/2018 11:00	3.92	201.2	12.67	10.95	29.52	0
10/30/2018 11:15	4.401	220.5	11.18	10.94	29.52	0
10/30/2018 11:30	5.494	227.8	17.49	11	29.52	0
10/30/2018 11:45	7.175	232.7	11.02	11.04	29.52	0
10/30/2018 12:00	6.699	228.3	15.62	11.26	29.49	0
10/30/2018 12:15	6.989	241.7	12.97	11.62	29.49	0
10/30/2018 12:30	7.394	231.4	18.11	11.87	29.49	0
10/30/2018 12:45	8.18	226.4	10.1	11.64	29.49	0
10/30/2018 13:00	7.859	224.4	11.79	11.81	29.47	0
10/30/2018 13:15	7.534	221.7	11.27	11.94	29.47	0
10/30/2018 13:30	5.355	245	10.61	12.1	29.47	0
10/30/2018 13:45	4.603	234	24.02	12.47	29.47	0
10/30/2018 14:00	6.516	223.8	16.73	12.62	29.46	0
10/30/2018 14:15	7.448	209.2	14.42	12.53	29.46	0
10/30/2018 14:30	8.59	221.3	8.89	12.48	29.46	0
10/30/2018 14:45	7.245	231.2	10.25	12.53	29.46	0
10/30/2018 15:00	6.134	228.3	14.44	12.56	29.45	0
10/30/2018 15:15	3.786	219.4	17.93	12.32	29.45	0
10/30/2018 15:30	2.894	222.8	14.08	12.28	29.45	0
10/30/2018 15:45	2.017	213	16.08	12.18	29.45	0
10/30/2018 16:00	2.535	229	11.77	12.09	29.45	0
10/30/2018 16:15	1.728	147.1	18.19	11.78	29.45	0
10/30/2018 16:30	1.683	140.8	4.563	11.57	29.45	0
10/30/2018 16:45	1.474	169.4	19.49	11.52	29.45	0
10/30/2018 17:00	2.72	186.5	19.34	11.45	29.4	0
10/30/2018 17:15	2.357	172.1	5.451	11.33	29.4	0
10/30/2018 17:30	3.621	144.5	5.717	10.97	29.4	0
10/30/2018 17:45	3.87	148.7	7.843	10.78	29.4	0
10/30/2018 18:00	3.855	138.7	5.242	10.44	29.4	0
10/30/2018 18:15	5.252	148.4	5.716	10.4	29.4	0
10/30/2018 18:30	6.252	144.1	5.895	10.43	29.4	0
10/30/2018 18:45	5.536	150.2	7.59	10.32	29.4	0
10/30/2018 19:00	5.372	146.5	6.866	10.26	29.4	0
10/30/2018 19:15	5.607	147	6.369	10.26	29.4	0

10/30/2018 19:30	6.458	146.7	7.9	10.2	29.4	0
10/30/2018 19:45	7.309	140.8	7.262	10.24	29.4	0
10/30/2018 20:00	6.843	141.7	6.855	10.04	29.38	0
10/30/2018 20:15	7.555	136.9	7.945	9.97	29.38	0
10/30/2018 20:30	7.149	132.4	5.938	9.86	29.38	0
10/30/2018 20:45	5.749	134	8.84	9.7	29.38	0
10/30/2018 21:00	6.016	135.5	9.59	9.58	29.36	0
10/30/2018 21:15	5.571	125.7	8.57	9.44	29.36	0
10/30/2018 21:30	6.125	112.6	10.16	9.28	29.36	0
10/30/2018 21:45	6.803	111	9.35	9.25	29.36	0
10/30/2018 22:00	7.727	129.2	10.48	9.64	29.34	0
10/30/2018 22:15	8.57	124	9.9	9.64	29.34	0
10/30/2018 22:30	8.95	121.6	9.15	9.55	29.34	0
10/30/2018 22:45	8.12	117.9	11.54	9.39	29.34	0
10/30/2018 23:00	9.25	127.6	8.84	9.53	29.31	0
10/30/2018 23:15	7.161	174.4	33.53	9.35	29.31	0
10/30/2018 23:30	9.23	195.4	15.81	8.91	29.31	0
10/30/2018 23:45	8.78	168.9	16.67	8.76	29.31	0
10/31/2018 0:00	5.952	153.9	8.37	8.62	29.3	0
10/31/2018 0:15	6.974	139.2	8.58	8.76	29.3	0
10/31/2018 0:30	7.863	143.6	7.603	8.92	29.3	0
10/31/2018 0:45	6.313	152.4	8.03	8.94	29.3	0
10/31/2018 1:00	5.351	162	9.46	8.82	29.29	0
10/31/2018 1:15	5.394	139.7	17.32	8.63	29.29	0
10/31/2018 1:30	6.026	133	10.38	8.87	29.29	0
10/31/2018 1:45	5.915	140.5	7.84	8.78	29.29	0
10/31/2018 2:00	6.434	134.8	10.66	8.72	29.27	0
10/31/2018 2:15	8.6	128.1	8.69	8.53	29.27	0
10/31/2018 2:30	8.99	132.5	8.66	8.05	29.27	0
10/31/2018 2:45	8.28	134.3	8.4	7.747	29.27	0
10/31/2018 3:00	8.46	130.8	8.3	7.698	29.24	0
10/31/2018 3:15	9.59	132.4	8.73	7.751	29.24	0
10/31/2018 3:30	8.57	131.9	9.7	7.88	29.24	0
10/31/2018 3:45	7.254	126	7.684	8.12	29.24	0
10/31/2018 4:00	6.842	129.8	22.21	8.37	29.24	0
10/31/2018 4:15	4.908	153.3	23.33	8.68	29.24	0
10/31/2018 4:30	3.805	156.3	29.75	8.84	29.24	0
10/31/2018 4:45	4.216	147.9	18.55	8.98	29.24	0
10/31/2018 5:00	5.034	146.9	16.05	9.05	29.24	0
10/31/2018 5:15	4.495	128.9	14.56	9.43	29.24	0
10/31/2018 5:30	4.542	132.9	14.8	9.66	29.24	0
10/31/2018 5:45	6.862	140.5	9.88	9.95	29.24	0
10/31/2018 6:00	6.212	129.4	12.44	9.94	29.22	0
10/31/2018 6:15	6.009	131	7.471	10.27	29.22	0
10/31/2018 6:30	6.861	137.3	9.23	10.55	29.22	0
10/31/2018 6:45	7.257	129.5	7.906	10.89	29.22	0
10/31/2018 7:00	7.376	125	6.044	11.09	29.23	0

10/31/2018 7:15	7.345	126.3	7.428	11.46	29.23	0
10/31/2018 7:30	7.726	135.5	8.93	11.7	29.23	0
10/31/2018 7:45	8.15	142.8	9.9	11.88	29.23	0
10/31/2018 8:00	8.81	152.6	9.99	12.05	29.24	0
10/31/2018 8:15	9.25	165.2	9.8	12.05	29.24	0
10/31/2018 8:30	9.51	175.6	12.25	12.04	29.24	0
10/31/2018 8:45	8.52	167.9	11.16	11.89	29.24	0
10/31/2018 9:00	8.68	157.8	11.19	11.9	29.22	0
10/31/2018 9:15	7.838	155.8	9.62	11.89	29.22	0
10/31/2018 9:30	7.343	166.2	14.47	11.98	29.22	0
10/31/2018 9:45	7.056	179.8	11.29	12.07	29.22	0
10/31/2018 10:00	6.774	164.3	12.84	12.13	29.24	0
10/31/2018 10:15	6.137	165	15.67	12.27	29.24	0
10/31/2018 10:30	5.872	179	16.54	12.38	29.24	0
10/31/2018 10:45	8.24	181.5	11.3	12.52	29.24	0
10/31/2018 11:00	8.7	190	11.66	12.55	29.23	0
10/31/2018 11:15	7.937	201.1	9.62	12.58	29.23	0
10/31/2018 11:30	6.398	191.7	13.68	12.64	29.23	0
10/31/2018 11:45	5.581	191.6	13.24	12.66	29.23	0
10/31/2018 12:00	7.865	194.1	8.54	12.68	29.27	0
10/31/2018 12:15	6.839	191.4	15.61	12.77	29.27	0
10/31/2018 12:30	6.387	185.6	17.87	12.81	29.27	0
10/31/2018 12:45	5.688	175.3	22.61	12.76	29.27	0
10/31/2018 13:00	5.628	142.1	17.32	12.64	29.26	0
10/31/2018 13:15	8.66	165.7	11.71	12.81	29.26	0
10/31/2018 13:30	6.457	168	13.77	12.74	29.26	0
10/31/2018 13:45	5.825	144.7	8.49	12.54	29.26	0
10/31/2018 14:00	7.764	165.8	11.27	12.72	29.25	0
10/31/2018 14:15	7.611	176.3	7.899	13.11	29.25	0
10/31/2018 14:30	7.691	177.1	7.937	13.35	29.25	0
10/31/2018 14:45	4.628	166.9	12.94	13.25	29.25	0
10/31/2018 15:00	5.767	173	10.76	13.45	29.27	0
10/31/2018 15:15	5.028	175.2	15.01	13.49	29.27	0
10/31/2018 15:30	5.784	188	13	13.57	29.27	0
10/31/2018 15:45	5.332	192.4	8.88	13.6	29.27	0
10/31/2018 16:00	4.563	197.8	8.49	13.51	29.28	0
10/31/2018 16:15	5.466	206.3	8.82	13.38	29.28	0
10/31/2018 16:30	4.648	203.1	9.15	13.06	29.28	0
10/31/2018 16:45	5.142	194.7	9.23	13.09	29.28	0
10/31/2018 17:00	6.472	201.4	7.984	13.26	29.26	0
10/31/2018 17:15	6.85	205.4	8.32	13.25	29.26	0
10/31/2018 17:30	6.063	204.4	9.38	13.19	29.26	0
10/31/2018 17:45	6.31	194.9	7.002	13.16	29.26	0
10/31/2018 18:00	7.617	183.3	8.92	13.23	29.27	0
10/31/2018 18:15	6.801	187.6	10.55	13.18	29.27	0
10/31/2018 18:30	6.399	194.3	9.95	13.13	29.27	0
10/31/2018 18:45	8.99	199.2	8.66	13.15	29.27	0

10/31/2018 19:00	7.367	209.9	8.03	13.16	29.31	0
10/31/2018 19:15	8.18	198.8	8.79	13.16	29.31	0
10/31/2018 19:30	9.71	192.6	8.95	13.07	29.31	0
10/31/2018 19:45	7.587	191.1	9.82	12.94	29.31	0
10/31/2018 20:00	6.323	202.2	13.83	12.92	29.32	0
10/31/2018 20:15	5.558	223.1	17.52	12.95	29.32	0
10/31/2018 20:30	5.84	200	14.78	12.95	29.32	0
10/31/2018 20:45	4.48	207.1	31.79	12.89	29.32	0
10/31/2018 21:00	4.016	151.4	20.85	12.79	29.3	0
10/31/2018 21:15	1.833	136.5	11.09	12.71	29.3	0
10/31/2018 21:30	4.126	174.2	12.29	12.75	29.3	0
10/31/2018 21:45	5.177	176.1	14.18	12.88	29.3	0
10/31/2018 22:00	4.528	178.5	16.08	12.9	29.33	0
10/31/2018 22:15	5.256	169.1	23.37	12.92	29.33	0
10/31/2018 22:30	5.045	157.6	12.08	12.83	29.33	0
10/31/2018 22:45	4.368	175.3	15.21	12.83	29.33	0
10/31/2018 23:00	6.006	182.9	12.06	12.88	29.33	0
10/31/2018 23:15	6.463	183.5	8.33	12.86	29.33	0
10/31/2018 23:30	5.679	187.5	11.62	12.84	29.33	0
10/31/2018 23:45	5.847	186	9.87	12.81	29.33	0
11/1/2018 0:00	7.049	180.4	10.6	12.8	29.31	0
11/1/2018 0:15	7.304	178.8	7.406	12.79	29.31	0
11/1/2018 0:30	8.11	181.2	7.642	12.8	29.31	0
11/1/2018 0:45	9.33	182.6	7.744	12.76	29.31	0
11/1/2018 1:00	8.94	191.6	7.264	12.74	29.33	0
11/1/2018 1:15	9.27	192	7.387	12.77	29.33	0
11/1/2018 1:30	8.7	187	10.67	12.81	29.33	0
11/1/2018 1:45	7.272	174.7	10.44	12.86	29.33	0
11/1/2018 2:00	8.45	171.2	10.83	12.91	29.34	0
11/1/2018 2:15	8	173.8	14.42	12.97	29.34	0
11/1/2018 2:30	8.16	178.5	7.831	12.97	29.34	0
11/1/2018 2:45	8.61	183.3	8.05	12.91	29.34	0
11/1/2018 3:00	9.17	183.8	7.371	12.9	29.31	0
11/1/2018 3:15	9.22	182.6	9.05	12.92	29.31	0
11/1/2018 3:30	9.26	185.6	7.244	12.93	29.31	0
11/1/2018 3:45	8.92	181.4	8.28	12.99	29.31	0
11/1/2018 4:00	8.58	188.8	7.576	13.03	29.28	0
11/1/2018 4:15	8.36	177.9	9.07	13.04	29.28	0
11/1/2018 4:30	7.703	192	11.25	13.12	29.28	0
11/1/2018 4:45	8.75	204	9.17	13.2	29.28	0
11/1/2018 5:00	9.09	196.7	8.87	13.29	29.3	0
11/1/2018 5:15	9.63	191.3	8.63	13.19	29.3	0
11/1/2018 5:30	8.54	184	10.49	13.2	29.3	0
11/1/2018 5:45	8.88	180.1	7.395	13.41	29.3	0
11/1/2018 6:00	8.98	177.3	10.23	13.63	29.31	0
11/1/2018 6:15	10.02	178.4	9.03	13.74	29.31	0
11/1/2018 6:30	9.55	191.5	7.959	13.87	29.31	0

11/1/2018 6:45	9.85	186.7	10.4	14.08	29.31	0
11/1/2018 7:00	11.38	192.8	9.38	14.19	29.29	0
11/1/2018 7:15	9.61	193.6	7.68	14.19	29.29	0
11/1/2018 7:30	10.3	182.5	10.61	14.31	29.29	0
11/1/2018 7:45	8.83	180.5	10.14	14.4	29.29	0
11/1/2018 8:00	10.43	188.9	12.74	14.46	29.3	0
11/1/2018 8:15	10.72	194.8	11.67	14.41	29.3	0
11/1/2018 8:30	12.49	195.5	14.34	14.37	29.3	0
11/1/2018 8:45	17.4	203.4	11.12	14.49	29.3	0
11/1/2018 9:00	16.3	201.2	9.13	14.47	29.31	0.01
11/1/2018 9:15	14.82	204.2	7.541	14.34	29.31	0
11/1/2018 9:30	13.37	198.7	9.67	14.23	29.31	0
11/1/2018 9:45	14.81	193.1	8.07	14.19	29.31	0
11/1/2018 10:00	15.59	197.3	9.13	14.15	29.32	0
11/1/2018 10:15	16.38	202.8	6.65	14.15	29.32	0
11/1/2018 10:30	13.76	193	8.34	14.07	29.32	0
11/1/2018 10:45	11.88	190.5	8.17	14.03	29.32	0
11/1/2018 11:00	11.66	187.9	8.49	13.96	29.31	0
11/1/2018 11:15	12.61	181.6	8.34	14.08	29.31	0
11/1/2018 11:30	12.44	188.3	9.99	14.09	29.31	0
11/1/2018 11:45	12.5	194.3	9.02	13.99	29.31	0
11/1/2018 12:00	12.99	194.7	9.03	13.77	29.31	0
11/1/2018 12:15	10.32	181.9	11.11	13.77	29.31	0
11/1/2018 12:30	12.33	182	13.76	14.01	29.31	0
11/1/2018 12:45	13.06	192.8	9.23	14.21	29.31	0
11/1/2018 13:00	13.14	197.1	7.94	14.36	29.3	0
11/1/2018 13:15	12.35	200.2	7.763	14.32	29.3	0
11/1/2018 13:30	13.59	199	6.5	14.34	29.3	0
11/1/2018 13:45	11.64	193	6.893	14.33	29.3	0
11/1/2018 14:00	12.6	194.1	7.69	14.47	29.3	0
11/1/2018 14:15	11.75	186.8	7.63	14.57	29.3	0
11/1/2018 14:30	11.39	183	7.382	14.76	29.3	0
11/1/2018 14:45	13.38	191.1	10.28	14.79	29.3	0
11/1/2018 15:00	11.98	189.6	7.86	14.9	29.3	0
11/1/2018 15:15	13.37	186.8	8.33	14.99	29.3	0
11/1/2018 15:30	13.48	187.2	8.33	15.02	29.3	0
11/1/2018 15:45	14.9	188.8	9.16	15.08	29.3	0
11/1/2018 16:00	14.25	192.1	7.639	15.07	29.3	0
11/1/2018 16:15	14.02	195.1	7.598	15.08	29.3	0
11/1/2018 16:30	14.48	200.4	7.917	15.03	29.3	0
11/1/2018 16:45	16.24	201.5	7.969	15.04	29.3	0
11/1/2018 17:00	14.11	196.3	11.01	15.04	29.29	0
11/1/2018 17:15	13.35	190.2	8.12	14.92	29.29	0
11/1/2018 17:30	12.1	176	10.95	14.81	29.29	0
11/1/2018 17:45	13	171	8.86	14.77	29.29	0
11/1/2018 18:00	12.62	173.1	9.82	14.68	29.27	0
11/1/2018 18:15	11.62	174.4	11.01	14.65	29.27	0

11/1/2018 18:30	13.73	179.2	10.28	14.63	29.27	0
11/1/2018 18:45	13.21	182.5	11.62	14.59	29.27	0
11/1/2018 19:00	12.82	184.4	8.96	14.58	29.27	0
11/1/2018 19:15	12.65	193.7	8.76	14.55	29.27	0
11/1/2018 19:30	12.83	197.4	10.11	14.52	29.27	0
11/1/2018 19:45	14.99	187.5	9.52	14.56	29.27	0
11/1/2018 20:00	14.86	185.6	10.89	14.49	29.26	0
11/1/2018 20:15	17.8	192	9.13	14.5	29.26	0
11/1/2018 20:30	20.01	191.4	8.09	14.48	29.26	0
11/1/2018 20:45	17	188.2	8.23	14.34	29.26	0
11/1/2018 21:00	15.64	190.9	9.31	14.22	29.25	0
11/1/2018 21:15	15.28	189.8	8.17	14.18	29.25	0
11/1/2018 21:30	15.77	191.7	7.924	14.15	29.25	0
11/1/2018 21:45	15.44	198.9	7.79	14.1	29.25	0
11/1/2018 22:00	16.46	196.9	9.57	14.23	29.23	0
11/1/2018 22:15	17.59	192.9	10.56	14.27	29.23	0
11/1/2018 22:30	19.46	193.4	9.28	14.11	29.23	0
11/1/2018 22:45	20.58	190.2	8.58	13.97	29.23	0
11/1/2018 23:00	18.57	191.3	8.94	14.2	29.21	0
11/1/2018 23:15	16.85	189.8	9.52	14.31	29.21	0
11/1/2018 23:30	15.49	193.1	9.21	14.03	29.21	0
11/1/2018 23:45	17.15	199.9	11.2	13.22	29.21	0
11/2/2018 0:00	14.59	198	8.41	12.34	29.2	0
11/2/2018 0:15	11.51	179.7	8.81	11.92	29.2	0
11/2/2018 0:30	10.12	182.9	9.19	11.7	29.2	0.01
11/2/2018 0:45	11.36	158.7	10.19	11.61	29.2	0
11/2/2018 1:00	10.21	149.8	10.84	11.57	29.17	0
11/2/2018 1:15	9.03	145.7	12.02	11.65	29.17	0
11/2/2018 1:30	12.24	161.8	24.85	11.87	29.17	0
11/2/2018 1:45	10.54	151.8	11.27	11.98	29.17	0
11/2/2018 2:00	7.622	165.4	23.47	12	29.14	0
11/2/2018 2:15	12.35	183.8	11.11	12.16	29.14	0
11/2/2018 2:30	17.08	186.3	7.828	12.04	29.14	0
11/2/2018 2:45	19.11	184.6	8.4	12.19	29.14	0
11/2/2018 3:00	16.18	191.7	9.49	12.26	29.15	0
11/2/2018 3:15	14.41	197.6	11.48	12.25	29.15	0
11/2/2018 3:30	15.94	180.3	11.63	12.34	29.15	0.01
11/2/2018 3:45	10.04	176.8	21.39	12.36	29.15	0
11/2/2018 4:00	15.48	189.9	17.86	12.39	29.11	0
11/2/2018 4:15	17.04	193.8	10.89	12.42	29.11	0
11/2/2018 4:30	12.89	203.2	12.11	12.47	29.11	0
11/2/2018 4:45	15.75	195.4	12.9	12.61	29.11	0
11/2/2018 5:00	15.2	197.3	12.93	12.75	29.15	0
11/2/2018 5:15	14.37	193.3	11.13	12.79	29.15	0
11/2/2018 5:30	16.31	194.1	11.75	12.94	29.15	0
11/2/2018 5:45	14.34	200.2	11.5	12.99	29.15	0
11/2/2018 6:00	16.64	200.2	9.03	13.16	29.15	0

11/2/2018 6:15	17.57	209.5	9.75	13.31	29.15	0
11/2/2018 6:30	16.16	208.4	10.22	13.32	29.15	0
11/2/2018 6:45	14.15	213.2	12.42	13.32	29.15	0
11/2/2018 7:00	11.05	217.4	14.92	13.35	29.16	0
11/2/2018 7:15	13.16	221.3	10.58	13.29	29.16	0
11/2/2018 7:30	13.91	205.9	11.11	13.21	29.16	0
11/2/2018 7:45	13.08	212.4	12.55	13.19	29.16	0
11/2/2018 8:00	15.15	212.9	10.49	13.15	29.19	0
11/2/2018 8:15	15.03	209.5	13.17	13.02	29.19	0
11/2/2018 8:30	13.75	210.6	10.27	12.76	29.19	0
11/2/2018 8:45	15.76	213	11.08	12.55	29.19	0
11/2/2018 9:00	16.34	217.1	8.33	12.36	29.25	0
11/2/2018 9:15	13.46	213.9	9.85	12.27	29.25	0
11/2/2018 9:30	12.25	214.9	13.05	12.34	29.25	0
11/2/2018 9:45	13.01	205.2	10.85	12.38	29.25	0
11/2/2018 10:00	12.63	204.9	9.85	12.5	29.29	0
11/2/2018 10:15	15.28	203.5	8.28	12.47	29.29	0
11/2/2018 10:30	11.89	206.4	12.86	12.45	29.29	0
11/2/2018 10:45	4.656	209.4	27.01	11.93	29.29	0
11/2/2018 11:00	2.945	105.6	53.98	11.64	29.31	0
11/2/2018 11:15	1.559	79.75	7.496	11.35	29.31	0
11/2/2018 11:30	1.194	72.46	22.88	11.49	29.31	0
11/2/2018 11:45	5.478	206.8	25.21	12.31	29.31	0
11/2/2018 12:00	12.54	217.4	8.95	12.88	29.33	0
11/2/2018 12:15	10.19	202.6	8.41	12.91	29.33	0
11/2/2018 12:30	8.75	203.6	9.85	12.94	29.33	0
11/2/2018 12:45	9.03	207.9	13.28	13.12	29.33	0
11/2/2018 13:00	8.61	200.3	14.38	13.35	29.33	0
11/2/2018 13:15	10.17	194.1	8.59	13.29	29.33	0
11/2/2018 13:30	8.47	200.4	10.86	13.23	29.33	0
11/2/2018 13:45	8.72	208.4	8.96	13.37	29.33	0
11/2/2018 14:00	11.18	218.3	11.09	13.63	29.35	0
11/2/2018 14:15	12.5	218.4	12.21	13.74	29.35	0
11/2/2018 14:30	11.86	222.7	8.67	13.89	29.35	0
11/2/2018 14:45	11.86	217.7	9.55	14.02	29.35	0
11/2/2018 15:00	11	220.9	9.86	14.17	29.36	0
11/2/2018 15:15	14.67	219.8	9.48	14.13	29.36	0
11/2/2018 15:30	16.8	225	8.72	14.05	29.36	0
11/2/2018 15:45	17.99	227.1	8.42	13.78	29.36	0
11/2/2018 16:00	19.42	229.8	10.15	13.67	29.38	0
11/2/2018 16:15	17.16	224.6	8.39	13.49	29.38	0
11/2/2018 16:30	17.05	220.6	8.87	13.33	29.38	0
11/2/2018 16:45	12.84	219.9	11.06	13.1	29.38	0
11/2/2018 17:00	12.84	213	8.12	12.94	29.39	0
11/2/2018 17:15	11.15	217	9.22	12.87	29.39	0
11/2/2018 17:30	8.84	200.7	10.83	12.77	29.39	0
11/2/2018 17:45	9.59	205.2	8.7	12.67	29.39	0

11/2/2018 18:00	8.11	186.7	10.16	12.52	29.44	0
11/2/2018 18:15	8.33	195.7	10.9	12.42	29.44	0
11/2/2018 18:30	7.494	207.4	8.69	12.31	29.44	0
11/2/2018 18:45	5.25	203	10.04	12.28	29.44	0
11/2/2018 19:00	5.396	215.5	12.82	12.18	29.43	0
11/2/2018 19:15	6.036	212.1	11.85	12.11	29.43	0
11/2/2018 19:30	5.089	210.2	12.45	12.02	29.43	0
11/2/2018 19:45	4.232	201.8	9.1	11.96	29.43	0
11/2/2018 20:00	5.341	198.9	6.21	11.93	29.44	0
11/2/2018 20:15	4.774	202.1	13.51	11.86	29.44	0
11/2/2018 20:30	4.425	200.7	6.367	11.76	29.44	0
11/2/2018 20:45	4.235	190.3	9.48	11.73	29.44	0
11/2/2018 21:00	4.326	183	8.71	11.65	29.44	0
11/2/2018 21:15	4.941	186.1	7.586	11.59	29.44	0
11/2/2018 21:30	4.563	190.5	6.362	11.55	29.44	0
11/2/2018 21:45	4.802	197.1	8.36	11.49	29.44	0
11/2/2018 22:00	4.101	188.6	6.181	11.42	29.46	0
11/2/2018 22:15	3.929	188.3	11.66	11.4	29.46	0
11/2/2018 22:30	3.889	180.1	12.37	11.34	29.46	0
11/2/2018 22:45	2.862	145.1	42.92	11.16	29.46	0
11/2/2018 23:00	2.188	49.67	23.23	10.71	29.44	0
11/2/2018 23:15	0.889	46.13	10.6	10.52	29.44	0
11/2/2018 23:30	1.961	147.6	16.88	10.79	29.44	0
11/2/2018 23:45	2.967	171.4	19.29	11.02	29.44	0
11/3/2018 0:00	2.356	140	56.16	10.81	29.47	0
11/3/2018 0:15	5.084	186.1	20.18	11.06	29.47	0
11/3/2018 0:30	6.704	199	11.8	11.11	29.47	0
11/3/2018 0:45	6.715	195.3	8.57	11.09	29.47	0
11/3/2018 1:00	7.034	190	7.063	11.05	29.45	0
11/3/2018 1:15	6.794	187.4	6.068	11.03	29.45	0
11/3/2018 1:30	5.039	161.7	18.43	10.93	29.45	0
11/3/2018 1:45	4.328	158	9.77	10.87	29.45	0
11/3/2018 2:00	4.718	162.4	15.48	10.92	29.44	0
11/3/2018 2:15	5.517	185.8	6.883	11.08	29.44	0
11/3/2018 2:30	4.389	180	8.36	11.02	29.44	0
11/3/2018 2:45	3.557	197.1	17.11	11	29.44	0
11/3/2018 3:00	4.871	198.3	12.66	11.03	29.46	0
11/3/2018 3:15	6.144	190.7	11.31	11.03	29.46	0
11/3/2018 3:30	7.241	192.3	9.72	10.99	29.46	0
11/3/2018 3:45	7.779	203.5	7.623	10.93	29.46	0
11/3/2018 4:00	7.276	192.6	9.18	10.95	29.45	0
11/3/2018 4:15	6.345	186.4	8.41	10.99	29.45	0
11/3/2018 4:30	8.1	187.5	7.086	10.97	29.45	0
11/3/2018 4:45	8.73	189.2	6.996	10.98	29.45	0
11/3/2018 5:00	7.606	186.4	7.584	10.97	29.44	0
11/3/2018 5:15	6.136	189.7	15.1	11.07	29.44	0
11/3/2018 5:30	5.044	188.3	11.34	11.07	29.44	0

11/3/2018 5:45	7.261	192.7	13.36	11.06	29.44	0
11/3/2018 6:00	7.784	196.6	8.59	11.03	29.47	0
11/3/2018 6:15	7.944	195.2	9.05	10.98	29.47	0
11/3/2018 6:30	8.52	198.5	9.61	11.01	29.47	0
11/3/2018 6:45	7.811	192.9	7.696	10.99	29.47	0
11/3/2018 7:00	6.61	193	9.06	10.97	29.48	0
11/3/2018 7:15	8.57	193.9	12.08	10.92	29.48	0
11/3/2018 7:30	6.69	192	9.33	10.87	29.48	0
11/3/2018 7:45	7.139	192.6	10.16	10.87	29.48	0
11/3/2018 8:00	8.26	176.5	11.17	10.84	29.46	0
11/3/2018 8:15	7.852	184	10.56	10.78	29.46	0
11/3/2018 8:30	8.95	186.2	8.31	10.71	29.46	0
11/3/2018 8:45	9.15	182.9	8.61	10.62	29.46	0
11/3/2018 9:00	8.54	156.9	6.557	10.57	29.45	0
11/3/2018 9:15	8.46	152.6	7.054	10.58	29.45	0
11/3/2018 9:30	9.21	152.7	8.63	10.65	29.45	0
11/3/2018 9:45	7.703	149.4	9.68	10.76	29.45	0
11/3/2018 10:00	6.718	159.1	9.56	10.81	29.46	0
11/3/2018 10:15	6.048	156.6	13.21	10.85	29.46	0
11/3/2018 10:30	5.488	155.5	10.47	10.92	29.46	0
11/3/2018 10:45	5.256	163.1	15	11.01	29.46	0
11/3/2018 11:00	6.146	174.3	11.97	11.05	29.45	0
11/3/2018 11:15	4.821	157.6	9.62	11.04	29.45	0
11/3/2018 11:30	5.832	149.8	8.06	10.98	29.45	0
11/3/2018 11:45	6.202	142.7	6.751	11.01	29.45	0
11/3/2018 12:00	6.222	143	7.774	11.03	29.4	0
11/3/2018 12:15	5.857	140.3	7.872	11.21	29.4	0
11/3/2018 12:30	6.476	142.9	11.72	11.17	29.4	0
11/3/2018 12:45	7.608	148.9	7.182	11.2	29.4	0
11/3/2018 13:00	6.823	147.6	7.411	11.09	29.4	0
11/3/2018 13:15	7.066	152.2	7.15	10.99	29.4	0
11/3/2018 13:30	8.21	148.7	7.702	10.86	29.4	0
11/3/2018 13:45	8.49	152.7	8.25	10.76	29.4	0.01
11/3/2018 14:00	7.499	154.8	11.35	10.67	29.4	0
11/3/2018 14:15	8.08	153.3	7.573	10.63	29.4	0
11/3/2018 14:30	8.32	152.8	7.626	10.52	29.4	0
11/3/2018 14:45	8.36	178.9	11.17	10.55	29.4	0
11/3/2018 15:00	9.07	159.4	9.72	10.44	29.38	0
11/3/2018 15:15	10.02	155.1	7.931	10.37	29.38	0
11/3/2018 15:30	7.816	166.6	12.58	10.42	29.38	0
11/3/2018 15:45	8.29	177.1	8.44	10.57	29.38	0
11/3/2018 16:00	11.91	183.5	9.02	10.65	29.35	0
11/3/2018 16:15	12.48	183.7	7.682	10.55	29.35	0
11/3/2018 16:30	12.03	184.1	8.64	10.35	29.35	0
11/3/2018 16:45	11.15	178.1	8.51	10.37	29.35	0
11/3/2018 17:00	9.66	175.9	8.54	10.44	29.31	0
11/3/2018 17:15	9.34	179.4	7.682	10.52	29.31	0

11/3/2018 17:30	9.1	178.4	7.982	10.64	29.31	0
11/3/2018 17:45	9.41	177.1	7.128	10.63	29.31	0
11/3/2018 18:00	10.21	178.3	6.754	10.62	29.28	0
11/3/2018 18:15	10.26	176.2	7.164	10.59	29.28	0
11/3/2018 18:30	9.88	163.7	8.09	10.28	29.28	0
11/3/2018 18:45	10.13	168.2	9.64	10.16	29.28	0
11/3/2018 19:00	10.86	175.2	8.5	10.17	29.27	0.01
11/3/2018 19:15	12.52	158.7	7.373	10.01	29.27	0
11/3/2018 19:30	13.77	164	6.556	10.07	29.27	0
11/3/2018 19:45	11.85	168.7	8.2	10.16	29.27	0
11/3/2018 20:00	11.4	158.9	7.284	10.09	29.22	0
11/3/2018 20:15	8.16	156.2	10.04	9.93	29.22	0
11/3/2018 20:30	4.584	127.9	9.85	9.88	29.22	0
11/3/2018 20:45	7.121	130.3	8.46	9.91	29.22	0
11/3/2018 21:00	7.417	126	8.49	10.24	29.18	0
11/3/2018 21:15	6.925	156	22.6	10.43	29.18	0
11/3/2018 21:30	9.45	182	7.912	10.23	29.18	0
11/3/2018 21:45	10.32	181.1	9.7	10.69	29.18	0
11/3/2018 22:00	12.02	178.2	6.553	11.01	29.17	0
11/3/2018 22:15	11.12	176.8	7.467	11.03	29.17	0
11/3/2018 22:30	12.52	177.1	7.844	10.71	29.17	0
11/3/2018 22:45	13.99	190.8	8.78	10.75	29.17	0
11/3/2018 23:00	14.03	181.8	9.84	10.72	29.14	0
11/3/2018 23:15	14.37	172	7.757	10.49	29.14	0
11/3/2018 23:30	13.31	170	9.6	10.35	29.14	0
11/3/2018 23:45	13.16	157	6.847	10.05	29.14	0
11/4/2018 0:00	14.05	145.4	8.06	10.06	29.12	0
11/4/2018 0:15	16.48	154.2	9.15	10.2	29.12	0
11/4/2018 0:30	15.83	155.8	7.875	10.06	29.12	0
11/4/2018 0:45	15.5	160.5	11.47	9.99	29.12	0.01
11/4/2018 1:00	14.94	173.5	7.949	10.14	29.06	0
11/4/2018 1:15	12.4	163.8	8.75	10.14	29.06	0
11/4/2018 1:30	12.86	154.5	6.422	10.17	29.06	0
11/4/2018 1:45	13.03	161.4	8.04	10.3	29.06	0
11/4/2018 2:00	12.99	160.4	11.15	10.63	29.03	0
11/4/2018 2:15	10.25	161.1	11.43	10.71	29.03	0
11/4/2018 2:30	9.95	153.7	10.12	10.72	29.03	0
11/4/2018 2:45	9.18	150.3	9.95	10.92	29.03	0
11/4/2018 3:00	8.24	158	16.23	11.04	29.01	0
11/4/2018 3:15	10.39	168.7	16.32	11.15	29.01	0
11/4/2018 3:30	11.42	184.6	20.22	11.14	29.01	0
11/4/2018 3:45	10.82	206.9	23.07	11.13	29.01	0
11/4/2018 4:00	13.5	201.7	16.11	11.3	28.98	0
11/4/2018 4:15	12.97	209.4	15.89	11.43	28.98	0
11/4/2018 4:30	9.44	210.1	17.29	11.62	28.98	0
11/4/2018 4:45	8.03	212.4	20.78	11.83	28.98	0
11/4/2018 5:00	7.256	215.9	19.21	11.88	29	0

11/4/2018 5:15	3.218	172.7	30.32	11.9	29	0
11/4/2018 5:30	2.545	62.4	15.11	11.54	29	0
11/4/2018 5:45	3.209	271.6	61.26	11.91	29	0
11/4/2018 6:00	2.085	28.78	56.17	11.74	29.04	0
11/4/2018 6:15	2.832	105.8	43.35	11.73	29.04	0
11/4/2018 6:30	5.529	220	22.89	11.75	29.04	0
11/4/2018 6:45	5.077	213.8	8.51	11.73	29.04	0
11/4/2018 7:00	2.662	39.65	46.25	11.46	29.03	0
11/4/2018 7:15	3.831	24.37	15.03	11.31	29.03	0
11/4/2018 7:30	7.852	28.58	19.7	11.22	29.03	0.01
11/4/2018 7:45	1.355	50.44	5.742	11.12	29.03	0
11/4/2018 8:00	3.128	190.6	45.01	11.04	29.07	0.01
11/4/2018 8:15	4.401	210.4	17.33	10.81	29.07	0
11/4/2018 8:30	6.222	189.5	8.42	10.53	29.07	0
11/4/2018 8:45	5.878	191.6	8.07	10.38	29.07	0
11/4/2018 9:00	7.003	171.4	9.59	10.25	29.11	0
11/4/2018 9:15	7.619	174.9	11.82	10.27	29.11	0
11/4/2018 9:30	5.759	158.3	12.14	10.11	29.11	0.01
11/4/2018 9:45	3.408	104.9	16.3	10.08	29.11	0
11/4/2018 10:00	3.708	77.16	36.86	10.13	29.13	0
11/4/2018 10:15	1.822	73.06	20.69	10.29	29.13	0
11/4/2018 10:30	1.601	97.8	27.88	10.22	29.13	0
11/4/2018 10:45	3.67	152.5	20.95	10.81	29.13	0
11/4/2018 11:00	2.982	139.6	23.16	11.4	29.13	0
11/4/2018 11:15	5.329	193.6	16.65	11.46	29.13	0
11/4/2018 11:30	9.18	218.7	9.84	11.54	29.13	0
11/4/2018 11:45	7.085	208.3	7.232	11.63	29.13	0
11/4/2018 12:00	5.16	188	15.25	11.72	29.16	0
11/4/2018 12:15	3.446	193.4	13.87	11.79	29.16	0
11/4/2018 12:30	3.519	174.2	18.6	12.18	29.16	0
11/4/2018 12:45	2.831	140.3	39.44	12.27	29.16	0
11/4/2018 13:00	1.78	92	39.75	12.09	29.15	0
11/4/2018 13:15	2.236	73.43	12.49	11.64	29.15	0
11/4/2018 13:30	1.958	67.74	10.36	12.25	29.15	0
11/4/2018 13:45	3.388	196	38.81	13.41	29.15	0
11/4/2018 14:00	8.33	220.5	11.13	13.32	29.16	0
11/4/2018 14:15	10.78	225.2	8.23	13.53	29.16	0
11/4/2018 14:30	12.27	229.7	8.75	13.65	29.16	0
11/4/2018 14:45	10.31	221.2	10.76	13.85	29.16	0
11/4/2018 15:00	9.29	223.6	11.84	13.94	29.17	0
11/4/2018 15:15	9.91	227.3	10.05	13.79	29.17	0
11/4/2018 15:30	9.55	222.8	12.49	13.62	29.17	0
11/4/2018 15:45	10.07	215.8	8.54	13.38	29.17	0
11/4/2018 16:00	11.4	222.2	8.76	12.93	29.2	0
11/4/2018 16:15	13.69	222.8	7.968	12.6	29.2	0
11/4/2018 16:30	14.03	225.2	8.52	12.36	29.2	0
11/4/2018 16:45	16.03	226.7	7.682	12.14	29.2	0

11/4/2018 17:00	14.48	221.5	7.642	11.86	29.19	0
11/4/2018 17:15	12.15	221.1	8.24	11.63	29.19	0
11/4/2018 17:30	10.5	212.1	9.53	11.46	29.19	0
11/4/2018 17:45	9.29	204.3	9.13	11.4	29.19	0
11/4/2018 18:00	8.61	182.9	8.44	11.29	29.21	0
11/4/2018 18:15	8.24	177.4	9.76	11.17	29.21	0
11/4/2018 18:30	8.05	180.5	8.73	11.03	29.21	0
11/4/2018 18:45	7.755	181.2	8.51	10.96	29.21	0
11/4/2018 19:00	9.09	181.6	8	10.9	29.2	0
11/4/2018 19:15	9.54	189.4	7.332	10.87	29.2	0
11/4/2018 19:30	8.49	188	10.02	10.93	29.2	0
11/4/2018 19:45	9.14	189.8	8.24	10.89	29.2	0
11/4/2018 20:00	9.85	184.3	9.61	10.85	29.21	0
11/4/2018 20:15	9.74	184.4	9.5	10.83	29.21	0
11/4/2018 20:30	10.93	192	9.97	10.77	29.21	0
11/4/2018 20:45	11.94	192.5	13	10.68	29.21	0
11/4/2018 21:00	12.33	191.7	8.74	10.59	29.24	0
11/4/2018 21:15	13.3	191.3	9.2	10.51	29.24	0
11/4/2018 21:30	13.06	195.8	7.706	10.46	29.24	0
11/4/2018 21:45	11.9	194.6	8.94	10.43	29.24	0
11/4/2018 22:00	12.08	193.6	8.18	10.41	29.23	0
11/4/2018 22:15	13.26	193.6	9.58	10.43	29.23	0
11/4/2018 22:30	12.44	194.8	10.15	10.41	29.23	0
11/4/2018 22:45	11.61	192.9	8.88	10.34	29.23	0
11/4/2018 23:00	10.14	197.9	8.3	10.27	29.21	0
11/4/2018 23:15	9.96	193.2	8.94	10.23	29.21	0
11/4/2018 23:30	9.75	189.6	9	10.17	29.21	0
11/4/2018 23:45	8.67	186.8	9.04	10.08	29.21	0
11/5/2018 0:00	10.39	196.4	8.83	10	29.22	0
11/5/2018 0:15	9.21	195.3	9.57	9.93	29.22	0
11/5/2018 0:30	8.95	218.1	20.23	9.96	29.22	0
11/5/2018 0:45	10.41	190.6	14.44	9.91	29.22	0
11/5/2018 1:00	9.89	195.1	10.06	9.91	29.23	0
11/5/2018 1:15	10.53	192.6	8.77	9.93	29.23	0
11/5/2018 1:30	10.76	194.7	8.46	9.92	29.23	0
11/5/2018 1:45	9.51	193.3	7.435	9.94	29.23	0
11/5/2018 2:00	8.21	194.8	9.06	9.92	29.23	0
11/5/2018 2:15	10.5	195.1	16.77	10.03	29.23	0
11/5/2018 2:30	10.55	191.4	8.32	9.97	29.23	0
11/5/2018 2:45	9.33	192.7	11.15	9.95	29.23	0
11/5/2018 3:00	9.6	189.1	7.477	9.9	29.23	0
11/5/2018 3:15	8.25	212.8	19.84	9.87	29.23	0
11/5/2018 3:30	9.57	205.4	12.49	9.86	29.23	0
11/5/2018 3:45	8.41	193.5	10.13	9.79	29.23	0
11/5/2018 4:00	9.7	198.9	14.24	9.84	29.22	0
11/5/2018 4:15	9.18	199.7	10.47	9.82	29.22	0
11/5/2018 4:30	9.8	196.8	10.28	9.82	29.22	0

11/5/2018 4:45	9.13	201.3	9.11	9.75	29.22	0
11/5/2018 5:00	7.827	196.6	11.97	9.68	29.22	0
11/5/2018 5:15	7.492	176.6	12.25	9.7	29.22	0
11/5/2018 5:30	6.524	174.9	20.41	9.72	29.22	0
11/5/2018 5:45	7.411	196.7	11.01	9.79	29.22	0
11/5/2018 6:00	7.013	215.4	11.39	9.78	29.2	0
11/5/2018 6:15	8.86	210.1	7.637	9.69	29.2	0
11/5/2018 6:30	11.45	205.4	8.09	9.62	29.2	0
11/5/2018 6:45	11.28	196.4	8.82	9.53	29.2	0
11/5/2018 7:00	10.65	198.1	9.92	9.45	29.23	0
11/5/2018 7:15	10.72	198.2	8.47	9.41	29.23	0
11/5/2018 7:30	10.05	191.1	7.995	9.38	29.23	0
11/5/2018 7:45	10.41	194.7	7.306	9.33	29.23	0
11/5/2018 8:00	10.4	187.8	7.913	9.27	29.23	0
11/5/2018 8:15	11.14	187.8	8.34	9.31	29.23	0
11/5/2018 8:30	7.949	183.5	12.42	9.37	29.23	0
11/5/2018 8:45	9.4	185.3	11.98	9.41	29.23	0
11/5/2018 9:00	10.65	189.3	8.7	9.41	29.23	0
11/5/2018 9:15	10.1	191.7	10.4	9.51	29.23	0
11/5/2018 9:30	10.75	188.8	10.75	9.74	29.23	0
11/5/2018 9:45	10.3	194.2	8.33	9.78	29.23	0
11/5/2018 10:00	8.74	198.4	10.33	9.86	29.24	0
11/5/2018 10:15	8.8	193.5	9.46	9.9	29.24	0
11/5/2018 10:30	9.35	192.7	11.4	9.94	29.24	0
11/5/2018 10:45	7.757	210.4	10.87	10.11	29.24	0
11/5/2018 11:00	11.06	201.2	9.19	10.24	29.25	0
11/5/2018 11:15	8.31	212.8	10.59	10.39	29.25	0
11/5/2018 11:30	10.02	215.6	10.09	10.57	29.25	0
11/5/2018 11:45	8.97	214	9.56	10.78	29.25	0
11/5/2018 12:00	7.074	210.9	12.5	11.01	29.24	0
11/5/2018 12:15	13.14	218.5	9.87	11.01	29.24	0
11/5/2018 12:30	13.93	217.2	11.84	11.22	29.24	0
11/5/2018 12:45	11.25	216.1	8.62	10.98	29.24	0
11/5/2018 13:00	9.26	209.1	9.52	10.92	29.22	0
11/5/2018 13:15	7.997	204.4	8.08	10.88	29.22	0
11/5/2018 13:30	6.532	201.3	9.8	10.86	29.22	0
11/5/2018 13:45	4.823	189.5	9.81	10.88	29.22	0
11/5/2018 14:00	4.783	190.4	8.61	10.66	29.23	0
11/5/2018 14:15	5.018	198.6	8.92	10.8	29.23	0
11/5/2018 14:30	7.864	218.7	9.04	10.93	29.23	0
11/5/2018 14:45	8.65	224.1	8.32	10.98	29.23	0
11/5/2018 15:00	8.43	208.4	7.758	10.91	29.23	0
11/5/2018 15:15	9.33	208.8	7.375	10.91	29.23	0
11/5/2018 15:30	8.22	215.3	8.78	11.02	29.23	0
11/5/2018 15:45	7.739	219.3	5.886	11.02	29.23	0
11/5/2018 16:00	9.75	219.1	10.09	10.97	29.22	0
11/5/2018 16:15	9.7	210.2	8.13	10.83	29.22	0

11/5/2018 16:30	9	207.9	9.03	10.65	29.22	0
11/5/2018 16:45	10.03	203.1	7.008	10.6	29.22	0
11/5/2018 17:00	9.12	200.9	6.433	10.51	29.21	0
11/5/2018 17:15	8.49	201.1	9.9	10.47	29.21	0
11/5/2018 17:30	7.993	215.5	9.26	10.47	29.21	0
11/5/2018 17:45	6	188.7	10.97	10.32	29.21	0
11/5/2018 18:00	6.875	184.4	8.36	10.19	29.21	0
11/5/2018 18:15	7.744	189.2	7.041	10.11	29.21	0
11/5/2018 18:30	8.58	184.4	7.177	10.04	29.21	0
11/5/2018 18:45	10.06	180.7	7.955	9.98	29.21	0
11/5/2018 19:00	8.33	181.2	9.27	9.88	29.23	0
11/5/2018 19:15	7.456	180.7	8.03	9.83	29.23	0
11/5/2018 19:30	5.624	179.5	9.83	9.71	29.23	0
11/5/2018 19:45	4.386	169.1	13.02	9.71	29.23	0
11/5/2018 20:00	7.637	179.3	11.04	9.69	29.24	0
11/5/2018 20:15	8.1	199.3	7.713	9.55	29.24	0
11/5/2018 20:30	8.1	193.7	8.59	9.57	29.24	0
11/5/2018 20:45	7.462	200.8	5.863	9.45	29.24	0
11/5/2018 21:00	8.76	199	7.541	9.35	29.25	0
11/5/2018 21:15	8	199.8	9.1	9.28	29.25	0
11/5/2018 21:30	9.26	202.3	8.35	9.23	29.25	0
11/5/2018 21:45	8.88	201.6	7.581	9.23	29.25	0
11/5/2018 22:00	8.26	203.2	7.655	9.18	29.26	0
11/5/2018 22:15	8.02	197.1	5.98	9.06	29.26	0
11/5/2018 22:30	7.129	191	9.45	8.94	29.26	0
11/5/2018 22:45	8.21	188.3	5.269	8.91	29.26	0
11/5/2018 23:00	9.26	184.4	8.02	8.92	29.27	0
11/5/2018 23:15	9.06	197.3	8.19	8.84	29.27	0
11/5/2018 23:30	8.1	202	5.793	8.79	29.27	0
11/5/2018 23:45	7.872	192.6	8.83	8.77	29.27	0
11/6/2018 0:00	7.495	188.3	9.5	8.74	29.29	0
11/6/2018 0:15	7.452	187.1	8.4	8.76	29.29	0
11/6/2018 0:30	6.406	187.3	9.59	8.78	29.29	0
11/6/2018 0:45	7.021	184.5	7.551	8.79	29.29	0
11/6/2018 1:00	6.391	189.8	9.28	8.78	29.32	0
11/6/2018 1:15	6.653	189	9.24	8.77	29.32	0
11/6/2018 1:30	5.822	198.4	6.048	8.74	29.32	0
11/6/2018 1:45	3.673	191.5	16.63	8.71	29.32	0
11/6/2018 2:00	2.261	183.8	10.15	8.68	29.34	0
11/6/2018 2:15	3.207	183.8	12.16	8.73	29.34	0
11/6/2018 2:30	5.204	154.8	11.74	8.5	29.34	0
11/6/2018 2:45	4.838	159.5	11.19	8.26	29.34	0
11/6/2018 3:00	5.337	155.3	12.53	8.3	29.32	0
11/6/2018 3:15	5.093	176.8	16.04	8.4	29.32	0
11/6/2018 3:30	5.78	186.5	6.046	8.41	29.32	0
11/6/2018 3:45	7.573	187.2	4.766	8.23	29.32	0
11/6/2018 4:00	5.984	197.6	7.86	8.33	29.33	0

11/6/2018 4:15	4.301	192.6	9.12	8.37	29.33	0
11/6/2018 4:30	4.476	164.7	15.72	8.2	29.33	0
11/6/2018 4:45	7.545	190.4	6.074	8.25	29.33	0
11/6/2018 5:00	7.766	188.3	5.781	8.23	29.36	0
11/6/2018 5:15	6.577	177	7.421	8.03	29.36	0
11/6/2018 5:30	5.94	150.5	7.678	7.813	29.36	0
11/6/2018 5:45	7.994	150.5	5.733	7.919	29.36	0
11/6/2018 6:00	6.141	148.4	5.756	7.971	29.35	0
11/6/2018 6:15	5.958	145.8	7.761	8.03	29.35	0
11/6/2018 6:30	5.732	144.3	6.322	7.988	29.35	0
11/6/2018 6:45	5.283	140.3	7.582	8	29.35	0
11/6/2018 7:00	4.601	132.4	6.04	7.985	29.35	0
11/6/2018 7:15	3.866	130.3	8.97	7.959	29.35	0
11/6/2018 7:30	4.429	133	6.201	7.978	29.35	0
11/6/2018 7:45	4.281	135.4	5.582	7.989	29.35	0
11/6/2018 8:00	4.804	136.6	6.829	8.04	29.39	0
11/6/2018 8:15	5.455	140.1	6.976	8.12	29.39	0
11/6/2018 8:30	6.205	146.7	8.38	8.22	29.39	0
11/6/2018 8:45	6.592	146.2	8.47	8.27	29.39	0
11/6/2018 9:00	5.445	145.7	10.02	8.36	29.38	0
11/6/2018 9:15	5.169	155.1	13.2	8.47	29.38	0
11/6/2018 9:30	3.695	167.4	22.65	8.65	29.38	0
11/6/2018 9:45	5.267	150.9	11.13	8.65	29.38	0
11/6/2018 10:00	6.233	177.7	20.39	8.69	29.38	0
11/6/2018 10:15	6.297	203.7	9.18	8.7	29.38	0
11/6/2018 10:30	6.989	194.2	7.137	8.85	29.38	0
11/6/2018 10:45	5.633	189	8.7	8.95	29.38	0
11/6/2018 11:00	5.624	190.3	9.72	9.04	29.39	0
11/6/2018 11:15	5.199	173.2	21.66	9.25	29.39	0
11/6/2018 11:30	4.83	157.9	18.67	9.6	29.39	0
11/6/2018 11:45	6.152	173.3	19.08	9.79	29.39	0
11/6/2018 12:00	6.511	189.3	21.71	9.92	29.38	0
11/6/2018 12:15	4.655	180.4	16.97	10.45	29.38	0
11/6/2018 12:30	6.736	174.9	19.06	10.99	29.38	0
11/6/2018 12:45	7.764	197.9	12.62	10.34	29.38	0
11/6/2018 13:00	6.882	196.5	10.98	10.46	29.4	0
11/6/2018 13:15	5.183	194.5	19.55	10.2	29.4	0
11/6/2018 13:30	5.921	161.6	17.93	10.22	29.4	0
11/6/2018 13:45	4.712	179.2	17.64	10.39	29.4	0
11/6/2018 14:00	3.1	191.5	21.95	10.52	29.37	0
11/6/2018 14:15	2.196	182.3	24.37	10.62	29.37	0
11/6/2018 14:30	2.674	260.5	25.09	11.17	29.37	0
11/6/2018 14:45	6.01	211.3	18.91	11.54	29.37	0
11/6/2018 15:00	6.47	226.3	23.17	11.5	29.38	0
11/6/2018 15:15	3.321	245.5	25.28	11.92	29.38	0
11/6/2018 15:30	7.43	240.7	34.88	11.44	29.38	0
11/6/2018 15:45	6.823	217.3	6.674	11.06	29.38	0

11/6/2018 16:00	4.152	219.5	7.632	10.98	29.36	0
11/6/2018 16:15	1.242	212.2	2.472	10.95	29.36	0
11/6/2018 16:30	2.691	95.4	12.98	10.53	29.36	0
11/6/2018 16:45	1.322	56.49	3.7	10.26	29.36	0
11/6/2018 17:00	0.534	55.12	0.139	10.29	29.38	0
11/6/2018 17:15	1.222	338.1	7.088	9.87	29.38	0
11/6/2018 17:30	1.764	310.5	32.77	9.79	29.38	0
11/6/2018 17:45	2.099	69.9	74.18	9.64	29.38	0
11/6/2018 18:00	2.114	56.31	16.4	9.26	29.38	0
11/6/2018 18:15	2.373	25.19	16.47	8.9	29.38	0
11/6/2018 18:30	3.673	67.64	17.87	8.4	29.38	0
11/6/2018 18:45	6.402	43.08	13.61	7.995	29.38	0
11/6/2018 19:00	8.62	53.23	16.7	7.72	29.38	0
11/6/2018 19:15	7.795	37.73	13.05	7.416	29.38	0
11/6/2018 19:30	8.3	38.66	13.47	7.145	29.38	0
11/6/2018 19:45	8.22	27.11	5.849	6.808	29.38	0
11/6/2018 20:00	6.051	55.15	13.78	6.767	29.39	0
11/6/2018 20:15	6.129	115.3	22.85	6.621	29.39	0
11/6/2018 20:30	5.166	132.5	12.14	6.596	29.39	0
11/6/2018 20:45	4.555	142.3	22.88	6.662	29.39	0
11/6/2018 21:00	4.231	158.5	21.93	6.563	29.4	0.01
11/6/2018 21:15	4.556	127.9	7.95	6.575	29.4	0
11/6/2018 21:30	5.163	141.5	7.307	6.445	29.4	0
11/6/2018 21:45	4.176	157.1	10.39	6.358	29.4	0
11/6/2018 22:00	4.515	163.1	10.46	6.394	29.43	0
11/6/2018 22:15	3.401	183.7	14.54	6.409	29.43	0
11/6/2018 22:30	3.675	225.6	18.67	6.421	29.43	0
11/6/2018 22:45	3.5	208	7.651	6.348	29.43	0
11/6/2018 23:00	5.429	210.1	8.27	6.3	29.42	0
11/6/2018 23:15	5.114	207.7	11.46	6.279	29.42	0
11/6/2018 23:30	5.382	204.5	5.468	6.212	29.42	0
11/6/2018 23:45	5.114	194.2	10.99	6.136	29.42	0
11/7/2018 0:00	3.706	144.8	17.04	5.902	29.44	0
11/7/2018 0:15	4.607	152.9	4.819	5.769	29.44	0
11/7/2018 0:30	4.582	151.4	5.178	5.861	29.44	0
11/7/2018 0:45	2.639	105.2	57.48	5.941	29.44	0
11/7/2018 1:00	1.434	146.1	13.4	5.886	29.46	0
11/7/2018 1:15	1.305	108.6	11.9	5.77	29.46	0
11/7/2018 1:30	0.779	135.7	2.236	5.705	29.46	0
11/7/2018 1:45	0.326	134.1	0.315	6.009	29.46	0
11/7/2018 2:00	0.186	133.7	0.028	5.831	29.46	0
11/7/2018 2:15	1.087	182.9	8.82	6.103	29.46	0
11/7/2018 2:30	1.091	339.9	76.93	5.771	29.46	0
11/7/2018 2:45	1.967	234	2.346	5.914	29.46	0
11/7/2018 3:00	0.865	127.5	39.79	5.56	29.46	0
11/7/2018 3:15	1.359	228.7	52.31	5.627	29.46	0
11/7/2018 3:30	0.544	82.6	0.305	5.49	29.46	0

11/7/2018 3:45	0.351	82.3	0.094	5.442	29.46	0
11/7/2018 4:00	2.104	249.6	46.51	5.644	29.46	0
11/7/2018 4:15	0.578	230	12.85	5.694	29.46	0
11/7/2018 4:30	0.764	223.7	9.67	5.784	29.46	0
11/7/2018 4:45	2.189	233.9	7.479	5.656	29.46	0
11/7/2018 5:00	2.869	215	33.74	5.445	29.49	0
11/7/2018 5:15	3.493	190.8	9.44	5.349	29.49	0
11/7/2018 5:30	0.886	66.88	44.07	5.267	29.49	0
11/7/2018 5:45	0.229	57.65	2.381	5.516	29.49	0
11/7/2018 6:00	0.943	60.11	0.116	5.273	29.51	0
11/7/2018 6:15	0.267	60.06	0.02	5.242	29.51	0
11/7/2018 6:30	0.827	84.2	4.02	5.492	29.51	0
11/7/2018 6:45	0.653	90.4	0.068	5.536	29.51	0
11/7/2018 7:00	0.837	174.7	6.722	5.66	29.52	0
11/7/2018 7:15	1.465	174.9	8.69	5.852	29.52	0
11/7/2018 7:30	1.651	250.4	19.56	5.914	29.52	0
11/7/2018 7:45	0.214	16.62	8.76	5.913	29.52	0
11/7/2018 8:00	1.937	167.7	79.34	5.725	29.53	0
11/7/2018 8:15	0.638	185.8	12.75	5.931	29.53	0
11/7/2018 8:30	0.19	148.4	0.322	6.258	29.53	0
11/7/2018 8:45	1.132	141.7	1.262	6.273	29.53	0
11/7/2018 9:00	2.195	183.3	28.07	6.293	29.53	0
11/7/2018 9:15	4.574	237.1	6.525	5.978	29.53	0
11/7/2018 9:30	2.655	219.4	25.7	6.128	29.53	0
11/7/2018 9:45	2.375	218.9	14.88	6.491	29.53	0
11/7/2018 10:00	1.253	227.6	23.12	7.182	29.56	0
11/7/2018 10:15	1.843	325.6	17.94	7.486	29.56	0
11/7/2018 10:30	2.333	19.99	19.03	7.437	29.56	0
11/7/2018 10:45	2.745	51.15	14.31	7.31	29.56	0
11/7/2018 11:00	2.295	31.3	15.11	7.477	29.57	0
11/7/2018 11:15	2.505	37.76	19.35	7.555	29.57	0
11/7/2018 11:30	2.472	351.8	22.15	7.898	29.57	0
11/7/2018 11:45	3.589	6.429	11.97	7.997	29.57	0
11/7/2018 12:00	4.534	25.9	8.11	8.03	29.57	0
11/7/2018 12:15	4.5	16.33	13.41	8.27	29.57	0
11/7/2018 12:30	2.975	25.2	12.77	8.52	29.57	0
11/7/2018 12:45	2.628	13.94	13.6	8.96	29.57	0
11/7/2018 13:00	5.072	314.9	17.4	8.84	29.57	0
11/7/2018 13:15	4.878	323.6	17.98	9.16	29.57	0
11/7/2018 13:30	5.971	37.13	14.46	8.97	29.57	0
11/7/2018 13:45	4.676	34.53	7.836	8.39	29.57	0
11/7/2018 14:00	3.751	18	15.88	8.59	29.6	0
11/7/2018 14:15	4.042	16.74	14.99	8.74	29.6	0
11/7/2018 14:30	5.596	309.2	12.28	8.88	29.6	0
11/7/2018 14:45	4.176	319.5	12.64	9.13	29.6	0
11/7/2018 15:00	4.936	321.3	19.1	9.24	29.58	0
11/7/2018 15:15	3.598	333.1	12.9	9.14	29.58	0

11/7/2018 15:30	3.699	328.9	13.43	9.1	29.58	0
11/7/2018 15:45	2.478	339.8	16.22	8.95	29.58	0
11/7/2018 16:00	3.94	324.7	7.411	8.53	29.6	0
11/7/2018 16:15	4.42	321	6.499	8.1	29.6	0
11/7/2018 16:30	6.405	324.6	5.142	7.5	29.6	0
11/7/2018 16:45	7.016	318.9	3.927	7.1	29.6	0
11/7/2018 17:00	5.544	320.8	5.072	7.129	29.59	0
11/7/2018 17:15	4.051	339.4	14.08	7.304	29.59	0
11/7/2018 17:30	3.833	357.3	17.83	7.042	29.59	0
11/7/2018 17:45	4.119	22.9	6.61	6.397	29.59	0
11/7/2018 18:00	3.608	31.12	8.56	5.895	29.6	0
11/7/2018 18:15	1.576	43.7	14.88	5.132	29.6	0
11/7/2018 18:30	4.057	44.64	6.47	4.95	29.6	0
11/7/2018 18:45	4.311	44.23	6.146	5.37	29.6	0
11/7/2018 19:00	3.249	52.53	13.69	5.462	29.62	0
11/7/2018 19:15	3.48	63.42	15.77	5.673	29.62	0
11/7/2018 19:30	2.309	57.33	9.02	5.388	29.62	0
11/7/2018 19:45	2.624	65.08	10.85	5.29	29.62	0
11/7/2018 20:00	2.999	58.73	7.121	5.181	29.61	0
11/7/2018 20:15	4.111	44.76	10.43	5.056	29.61	0
11/7/2018 20:30	4.286	47.34	7.575	4.71	29.61	0
11/7/2018 20:45	2.621	40.35	7.931	4.85	29.61	0
11/7/2018 21:00	2.799	51.03	8.74	4.938	29.63	0
11/7/2018 21:15	2.551	51.3	5.304	4.778	29.63	0
11/7/2018 21:30	3.446	35.23	7.037	4.543	29.63	0
11/7/2018 21:45	2.586	53.58	11.22	3.797	29.63	0
11/7/2018 22:00	1.573	88.4	15.68	3.814	29.66	0
11/7/2018 22:15	1.853	112.3	16.35	3.43	29.66	0
11/7/2018 22:30	0.604	98.2	19.09	3.426	29.66	0
11/7/2018 22:45	1.757	90.7	2.861	4.11	29.66	0
11/7/2018 23:00	0.863	96.8	0.619	3.818	29.67	0
11/7/2018 23:15	0.195	110.2	3.324	3.784	29.67	0
11/7/2018 23:30	0.802	132.5	3.885	3.675	29.67	0
11/7/2018 23:45	0.454	144.6	5.702	3.495	29.67	0
11/8/2018 0:00	0.847	148.1	0.354	3.522	29.66	0
11/8/2018 0:15	2.232	166.2	23.16	3.221	29.66	0
11/8/2018 0:30	1.118	213.8	7.611	2.717	29.66	0
11/8/2018 0:45	1.757	163.9	8.12	3.2	29.66	0
11/8/2018 1:00	1.436	162.1	0.259	3.402	29.69	0
11/8/2018 1:15	0.259	162.1	0.033	3.271	29.69	0
11/8/2018 1:30	0.783	148.6	12.53	2.693	29.69	0
11/8/2018 1:45	1.456	129.5	0.221	2.906	29.69	0
11/8/2018 2:00	0.941	129.3	0.503	3.287	29.68	0
11/8/2018 2:15	1.55	111.9	14.28	2.685	29.68	0
11/8/2018 2:30	2.145	74.29	3.6	2.69	29.68	0
11/8/2018 2:45	1.019	71.39	0.067	2.712	29.68	0
11/8/2018 3:00	1.701	71.67	0.507	2.386	29.7	0

11/8/2018 3:15	2.712	75.33	2.108	2.106	29.7	0
11/8/2018 3:30	1.052	77.43	0.19	1.965	29.7	0
11/8/2018 3:45	0	0	0	2.187	29.7	0
11/8/2018 4:00	1.19	191.8	21.84	2.179	29.68	0
11/8/2018 4:15	2.438	203.4	25.88	2.284	29.68	0
11/8/2018 4:30	1.776	124.2	7.549	2.416	29.68	0
11/8/2018 4:45	1.123	110.7	6.03	2.152	29.68	0
11/8/2018 5:00	0.38	106.5	0.101	2.226	29.7	0
11/8/2018 5:15	1.169	87.3	9.56	1.903	29.7	0
11/8/2018 5:30	2.2	89	9.23	1.371	29.7	0
11/8/2018 5:45	1.745	96.6	0.163	1.422	29.7	0
11/8/2018 6:00	1.036	96.6	0.169	1.33	29.7	0
11/8/2018 6:15	2.66	98.9	0.977	1.146	29.7	0
11/8/2018 6:30	1.354	105.7	5.163	1.197	29.7	0
11/8/2018 6:45	2.131	294.5	35.37	1.253	29.7	0
11/8/2018 7:00	2.624	343.1	15.9	1.472	29.69	0
11/8/2018 7:15	3.883	328.9	2.488	1.439	29.69	0
11/8/2018 7:30	3.345	304.8	15.85	1.24	29.69	0
11/8/2018 7:45	4.034	295.4	4.824	1.128	29.69	0
11/8/2018 8:00	1.622	287.5	3.928	0.651	29.72	0
11/8/2018 8:15	0.973	320.4	4.885	0.809	29.72	0
11/8/2018 8:30	3.841	312.3	6.64	0.878	29.72	0
11/8/2018 8:45	3.408	352.7	31.6	0.822	29.72	0
11/8/2018 9:00	1.804	24.1	16.14	0.296	29.7	0
11/8/2018 9:15	0.113	1.682	26.59	1.343	29.7	0
11/8/2018 9:30	1.932	290.3	48.21	2.073	29.7	0
11/8/2018 9:45	3.288	330.8	11.59	1.924	29.7	0
11/8/2018 10:00	1.768	15.48	18.54	2.065	29.73	0
11/8/2018 10:15	2.265	331.8	21.19	2.473	29.73	0
11/8/2018 10:30	2.787	336.7	20.62	3.076	29.73	0
11/8/2018 10:45	3.401	319.9	9.71	3.354	29.73	0
11/8/2018 11:00	4.807	324.9	7.418	3.058	29.73	0
11/8/2018 11:15	3.57	324.9	10.63	3.427	29.73	0
11/8/2018 11:30	4.273	329.6	11.31	3.617	29.73	0
11/8/2018 11:45	3.811	349.7	14.19	3.982	29.73	0
11/8/2018 12:00	2.087	2.562	17.49	4.388	29.7	0
11/8/2018 12:15	2.278	25.31	16.42	4.624	29.7	0
11/8/2018 12:30	1.896	28.54	14.42	4.836	29.7	0
11/8/2018 12:45	4.148	338	8.4	5.066	29.7	0
11/8/2018 13:00	3.684	345	14.78	5.447	29.69	0
11/8/2018 13:15	3.171	358.4	17.3	5.806	29.69	0
11/8/2018 13:30	2.336	5.863	13.8	6.491	29.69	0
11/8/2018 13:45	3.448	348.1	14.09	7.004	29.69	0
11/8/2018 14:00	3.797	31.69	8.71	6.183	29.69	0
11/8/2018 14:15	3.008	31.25	4.427	6.312	29.69	0
11/8/2018 14:30	3.435	31.01	5.339	6.577	29.69	0
11/8/2018 14:45	3.72	31.61	4.954	6.602	29.69	0

11/8/2018 15:00	4.867	30.53	6.755	6.538	29.67	0
11/8/2018 15:15	4.828	31.29	7.109	6.43	29.67	0
11/8/2018 15:30	5.46	32.72	7.587	6.311	29.67	0
11/8/2018 15:45	3.12	14.44	7.279	6.661	29.67	0
11/8/2018 16:00	3.041	31.95	8.9	6.615	29.69	0
11/8/2018 16:15	2.857	36.19	11.75	6.462	29.69	0
11/8/2018 16:30	2.803	28.35	10.06	6.139	29.69	0
11/8/2018 16:45	3.692	29.2	7.089	5.589	29.69	0
11/8/2018 17:00	6.479	25.42	6.825	5.296	29.66	0
11/8/2018 17:15	5.61	32.14	5.589	4.835	29.66	0
11/8/2018 17:30	6.158	33.01	5.287	4.843	29.66	0
11/8/2018 17:45	4.937	36.92	5.162	4.511	29.66	0
11/8/2018 18:00	5.414	27.38	6.738	4.244	29.66	0
11/8/2018 18:15	5.561	28.16	7.411	3.984	29.66	0
11/8/2018 18:30	5.788	34.26	6.429	3.958	29.66	0
11/8/2018 18:45	6.191	29.15	5.635	3.815	29.66	0
11/8/2018 19:00	4.248	44.18	6.022	3.662	29.67	0
11/8/2018 19:15	4.806	39.29	4.31	3.519	29.67	0
11/8/2018 19:30	5.085	46.64	8.43	3.521	29.67	0
11/8/2018 19:45	3.879	58.83	7.638	3.647	29.67	0
11/8/2018 20:00	2.768	57.62	9.16	3.735	29.66	0
11/8/2018 20:15	1.864	65.12	7.112	4.231	29.66	0
11/8/2018 20:30	2.171	54.99	1.128	4.424	29.66	0
11/8/2018 20:45	3.691	59.13	7.29	4.06	29.66	0
11/8/2018 21:00	2.606	55.29	4.806	3.86	29.62	0
11/8/2018 21:15	1.058	51.78	0.145	4.092	29.62	0
11/8/2018 21:30	1.311	74.82	17.37	2.871	29.62	0
11/8/2018 21:45	1.936	59.89	22.47	3.695	29.62	0
11/8/2018 22:00	2.889	40.28	0.091	4.066	29.64	0
11/8/2018 22:15	1.724	46.7	3.335	3.386	29.64	0
11/8/2018 22:30	2.351	23.76	18.36	3.198	29.64	0
11/8/2018 22:45	3.724	30.71	19.03	3.366	29.64	0
11/8/2018 23:00	2.802	96.7	22.21	2.564	29.61	0
11/8/2018 23:15	2.017	117.2	3.489	3.185	29.61	0
11/8/2018 23:30	1.76	48.39	47.3	3.541	29.61	0
11/8/2018 23:45	1.795	36.32	14.4	2.814	29.61	0
11/9/2018 0:00	2.377	97.5	23.13	2.154	29.6	0
11/9/2018 0:15	2.176	109.8	12.68	2.912	29.6	0
11/9/2018 0:30	1.412	156.7	46.62	3.02	29.6	0
11/9/2018 0:45	1.114	194.2	11.99	3.742	29.6	0
11/9/2018 1:00	1.859	70.74	52.04	3.231	29.57	0
11/9/2018 1:15	1.773	44.33	16.18	2.677	29.57	0
11/9/2018 1:30	0.45	9.75	0.063	3.539	29.57	0
11/9/2018 1:45	1.333	10.1	1.183	3.033	29.57	0
11/9/2018 2:00	1.472	24.9	4.172	2.135	29.57	0
11/9/2018 2:15	2.052	62.77	31.69	2.274	29.57	0
11/9/2018 2:30	3.936	139.3	14.18	2.793	29.57	0

11/9/2018 2:45	3.234	154.4	11.42	3.026	29.57	0
11/9/2018 3:00	2.073	120	1.413	3.39	29.53	0
11/9/2018 3:15	0.685	129.2	6.218	2.667	29.53	0
11/9/2018 3:30	4.411	157.5	11.29	3.529	29.53	0
11/9/2018 3:45	3.807	161.9	5.148	3.281	29.53	0
11/9/2018 4:00	5.678	167.1	5.014	2.853	29.53	0
11/9/2018 4:15	5.303	174	7.585	2.726	29.53	0
11/9/2018 4:30	4.169	153.9	9.73	2.049	29.53	0
11/9/2018 4:45	4.355	122.4	5.63	2.416	29.53	0
11/9/2018 5:00	4.252	136.3	5.227	3.066	29.48	0
11/9/2018 5:15	1.388	46.91	76.02	2.594	29.48	0
11/9/2018 5:30	1.56	351.5	12.81	2.947	29.48	0
11/9/2018 5:45	0.646	0.13	3.623	3.023	29.48	0
11/9/2018 6:00	0.227	10.75	14.01	2.72	29.49	0
11/9/2018 6:15	1.159	262.7	22.81	3.738	29.49	0
11/9/2018 6:30	1.172	110.2	47.29	2.235	29.49	0
11/9/2018 6:45	2.981	143	11.78	2.154	29.49	0
11/9/2018 7:00	3.225	120.1	5.307	2.534	29.44	0
11/9/2018 7:15	3.9	164.7	30.75	3.333	29.44	0
11/9/2018 7:30	2.918	185.1	23.69	3.33	29.44	0
11/9/2018 7:45	4.409	162.6	5.366	3.746	29.44	0
11/9/2018 8:00	4.888	167.5	22.51	2.711	29.46	0
11/9/2018 8:15	7.14	199.7	5.819	2.812	29.46	0
11/9/2018 8:30	5.728	198.8	5.605	3.09	29.46	0
11/9/2018 8:45	5.854	203.2	4.196	3.038	29.46	0
11/9/2018 9:00	4.402	197.1	14.2	3.32	29.45	0
11/9/2018 9:15	1.54	64.34	38.37	2.672	29.45	0
11/9/2018 9:30	3.5	20.06	7.821	1.946	29.45	0
11/9/2018 9:45	3.539	20.71	7.631	2.395	29.45	0
11/9/2018 10:00	4.125	30.48	7.204	2.214	29.43	0
11/9/2018 10:15	3.769	36.04	11.1	2.31	29.43	0
11/9/2018 10:30	3.251	25.19	16.32	2.395	29.43	0
11/9/2018 10:45	6.141	21.24	10.46	2.532	29.43	0
11/9/2018 11:00	6.146	21.39	12.27	2.596	29.47	0
11/9/2018 11:15	8.01	17.82	11.86	3.292	29.47	0
11/9/2018 11:30	9.45	24.36	15.17	3.099	29.47	0
11/9/2018 11:45	9.1	88.8	45.29	2.581	29.47	0
11/9/2018 12:00	5.191	129.1	13.99	2.958	29.45	0
11/9/2018 12:15	7.831	127.9	11.39	3.12	29.45	0
11/9/2018 12:30	5.785	145.4	10.51	3.476	29.45	0
11/9/2018 12:45	4.23	154.3	12.57	3.808	29.45	0
11/9/2018 13:00	4.327	133.6	9.54	3.913	29.43	0
11/9/2018 13:15	4.545	143.4	16.82	3.939	29.43	0
11/9/2018 13:30	2.646	169.2	43.75	4.236	29.43	0
11/9/2018 13:45	2.729	164.3	18.61	4.565	29.43	0
11/9/2018 14:00	1.03	153.9	24.55	4.661	29.43	0
11/9/2018 14:15	3.051	150.8	14.18	4.724	29.43	0

11/9/2018 14:30	1.45	111.9	7.748	4.857	29.43	0
11/9/2018 14:45	2.352	148.1	20.15	4.846	29.43	0
11/9/2018 15:00	2.508	160.6	18.13	4.807	29.43	0
11/9/2018 15:15	4.049	157.6	15.06	5.054	29.43	0
11/9/2018 15:30	2.995	156.6	9.6	5.266	29.43	0
11/9/2018 15:45	3.386	153.4	6.855	5.302	29.43	0
11/9/2018 16:00	2.831	139.8	6.149	5.315	29.43	0
11/9/2018 16:15	1.598	103	18.68	5.42	29.43	0
11/9/2018 16:30	3.444	31.05	8.02	4.608	29.43	0
11/9/2018 16:45	3.209	11.93	4.12	4.331	29.43	0
11/9/2018 17:00	1.689	14.52	15.41	4.323	29.43	0
11/9/2018 17:15	0.209	0.847	0.042	4.345	29.43	0
11/9/2018 17:30	1.756	337.2	28.33	4.569	29.43	0
11/9/2018 17:45	4.78	313.1	6.963	4.59	29.43	0
11/9/2018 18:00	3.393	29.85	38.6	4.38	29.44	0
11/9/2018 18:15	2.217	20.18	15.33	4.231	29.44	0
11/9/2018 18:30	2.531	18.81	13.54	4.214	29.44	0
11/9/2018 18:45	2.589	26.48	7.893	4.225	29.44	0
11/9/2018 19:00	1.516	27.46	2.989	4.278	29.45	0
11/9/2018 19:15	2.113	247.5	16.78	4.413	29.45	0
11/9/2018 19:30	1.525	260.6	3.361	4.453	29.45	0
11/9/2018 19:45	2.536	40.92	36.54	4.194	29.45	0
11/9/2018 20:00	2.676	20.11	63.62	3.901	29.46	0
11/9/2018 20:15	1.794	287.4	20.18	3.889	29.46	0
11/9/2018 20:30	1.034	280	27.32	3.956	29.46	0
11/9/2018 20:45	1.513	311.1	24.01	3.622	29.46	0
11/9/2018 21:00	1.066	246.6	19.09	3.643	29.49	0
11/9/2018 21:15	1.002	259	1.585	3.768	29.49	0
11/9/2018 21:30	0.343	272.6	4.294	3.833	29.49	0
11/9/2018 21:45	1.117	234.5	42.66	3.789	29.49	0
11/9/2018 22:00	2.336	173.4	25.98	3.466	29.49	0
11/9/2018 22:15	0.878	128.4	0.982	3.461	29.49	0
11/9/2018 22:30	0.71	115.8	36.8	3.421	29.49	0
11/9/2018 22:45	2.193	204.9	8.3	3.063	29.49	0
11/9/2018 23:00	1.781	181.6	10.15	2.622	29.48	0
11/9/2018 23:15	2.585	166.5	9.55	2.578	29.48	0
11/9/2018 23:30	2.691	196	21.1	2.754	29.48	0
11/9/2018 23:45	1.695	164.4	20.69	2.744	29.48	0
11/10/2018 0:00	1.989	143.2	4.017	3.004	29.48	0
11/10/2018 0:15	0.486	123.2	2.805	2.937	29.48	0
11/10/2018 0:30	0.271	118	0.495	2.979	29.48	0
11/10/2018 0:45	1.593	129.6	9.73	2.885	29.48	0
11/10/2018 1:00	2.571	164.1	7.71	2.676	29.5	0
11/10/2018 1:15	2.747	152.1	9.96	2.826	29.5	0
11/10/2018 1:30	3.157	196.5	13.42	2.842	29.5	0
11/10/2018 1:45	3.206	179.8	6.012	2.923	29.5	0
11/10/2018 2:00	2.999	172.7	7.206	2.98	29.49	0

11/10/2018 2:15	2.643	155.9	5.391	2.977	29.49	0
11/10/2018 2:30	1.953	144.1	7.529	3.018	29.49	0
11/10/2018 2:45	0.702	185.2	4.298	3.215	29.49	0
11/10/2018 3:00	0.296	186	0.07	3.223	29.48	0
11/10/2018 3:15	0.469	64.2	9.94	3.034	29.48	0
11/10/2018 3:30	0.548	60.43	0.125	3.123	29.48	0
11/10/2018 3:45	1.293	52.84	3.624	3.279	29.48	0
11/10/2018 4:00	1.98	33.59	11.75	3.244	29.49	0
11/10/2018 4:15	1.041	24.97	7.935	3.016	29.49	0
11/10/2018 4:30	3.141	17.94	17.92	2.781	29.49	0
11/10/2018 4:45	2.812	5.627	20.59	2.748	29.49	0
11/10/2018 5:00	2.959	36.11	8.31	2.524	29.51	0
11/10/2018 5:15	1.738	25.64	16.71	2.657	29.51	0
11/10/2018 5:30	2.897	23.16	20.46	3.072	29.51	0
11/10/2018 5:45	2.72	38.65	9.98	3.019	29.51	0
11/10/2018 6:00	3.324	32.1	7.396	3.008	29.49	0
11/10/2018 6:15	2.408	52.02	7.523	2.799	29.49	0
11/10/2018 6:30	2.267	52.18	10.62	2.663	29.49	0
11/10/2018 6:45	1.282	13.58	19.4	2.182	29.49	0
11/10/2018 7:00	3.345	8.6	11.6	2.176	29.51	0
11/10/2018 7:15	3.577	30.8	9.3	2.332	29.51	0
11/10/2018 7:30	5.03	25.84	8.57	2.628	29.51	0
11/10/2018 7:45	4.125	29.17	9.17	2.882	29.51	0
11/10/2018 8:00	2.685	34.66	9.08	2.91	29.54	0
11/10/2018 8:15	4.522	39.96	10.6	3.372	29.54	0
11/10/2018 8:30	5.695	27.49	9.2	3.333	29.54	0
11/10/2018 8:45	6.104	42.23	19.32	3.382	29.54	0
11/10/2018 9:00	4.714	45.25	15.01	3.333	29.54	0
11/10/2018 9:15	5.15	16.72	10.99	4.18	29.54	0
11/10/2018 9:30	3.897	25.95	11.5	4.13	29.54	0
11/10/2018 9:45	2.914	19.19	14	4.717	29.54	0
11/10/2018 10:00	1.403	262.9	43.15	5.297	29.55	0
11/10/2018 10:15	0.98	84.5	68.43	5.169	29.55	0
11/10/2018 10:30	3.082	43.3	6.371	5.103	29.55	0
11/10/2018 10:45	2.965	24.81	12.51	5.771	29.55	0
11/10/2018 11:00	2.113	14.66	42.06	6.35	29.56	0
11/10/2018 11:15	2.26	31.13	27.46	6.654	29.56	0
11/10/2018 11:30	3.222	36.65	10.89	6.657	29.56	0
11/10/2018 11:45	3.367	21.31	18.68	6.878	29.56	0
11/10/2018 12:00	4.669	26.07	17.89	7.195	29.55	0
11/10/2018 12:15	8.42	7.91	13.88	7.7	29.55	0
11/10/2018 12:30	9.57	18.64	12.37	7.454	29.55	0
11/10/2018 12:45	8.96	23.68	18.67	7.348	29.55	0
11/10/2018 13:00	8.32	10.88	14.53	7.309	29.55	0
11/10/2018 13:15	7.072	11.52	20.97	7.482	29.55	0
11/10/2018 13:30	8.47	29.46	13.71	7.429	29.55	0
11/10/2018 13:45	9.18	9.36	18.22	7.74	29.55	0

11/10/2018 14:00	8.22	334.5	29.76	7.956	29.55	0
11/10/2018 14:15	8.83	8.63	22.27	7.781	29.55	0
11/10/2018 14:30	9.37	17.46	14.36	7.625	29.55	0
11/10/2018 14:45	8.67	2.992	18.76	7.673	29.55	0
11/10/2018 15:00	8.96	28.27	16.39	7.308	29.54	0
11/10/2018 15:15	10.77	17.09	17.47	7.208	29.54	0
11/10/2018 15:30	10.15	24.02	13.61	6.979	29.54	0
11/10/2018 15:45	9.64	2.316	15.44	6.859	29.54	0
11/10/2018 16:00	6.536	3.072	15.15	6.514	29.56	0
11/10/2018 16:15	5.52	13.83	9.58	6.307	29.56	0
11/10/2018 16:30	6.91	15.8	10.29	5.791	29.56	0
11/10/2018 16:45	5.612	18.06	6.815	5.472	29.56	0
11/10/2018 17:00	5.643	20.88	7.077	5.088	29.52	0
11/10/2018 17:15	4.323	360	13.68	4.91	29.52	0
11/10/2018 17:30	3.774	345.3	11.78	4.968	29.52	0
11/10/2018 17:45	4.399	11.21	12.58	4.534	29.52	0
11/10/2018 18:00	6.755	23.1	9.75	4.661	29.55	0
11/10/2018 18:15	4.496	12.44	10.14	4.586	29.55	0
11/10/2018 18:30	2.606	350	13.89	4.841	29.55	0
11/10/2018 18:45	4.987	28.78	11.55	4.786	29.55	0
11/10/2018 19:00	5.904	21.54	7.939	4.375	29.58	0
11/10/2018 19:15	4.487	45.46	10.22	4.029	29.58	0
11/10/2018 19:30	4.226	53.53	11.49	4.148	29.58	0
11/10/2018 19:45	3.495	95.8	29.86	3.799	29.58	0
11/10/2018 20:00	4.363	129	17.68	3.867	29.59	0
11/10/2018 20:15	2.98	102.6	16.73	4.403	29.59	0
11/10/2018 20:30	3.134	84.2	8.04	4.704	29.59	0
11/10/2018 20:45	4.001	68.7	9.16	4.258	29.59	0
11/10/2018 21:00	4.227	50.79	4.922	3.579	29.58	0
11/10/2018 21:15	4.251	42.5	5.205	3.287	29.58	0
11/10/2018 21:30	4.398	28.55	7.874	2.858	29.58	0
11/10/2018 21:45	3.61	14.36	10.48	2.987	29.58	0
11/10/2018 22:00	4.549	7.486	10.76	3.166	29.6	0
11/10/2018 22:15	3.958	16.15	4.036	3.143	29.6	0
11/10/2018 22:30	3.212	29.38	5.833	3.127	29.6	0
11/10/2018 22:45	2.806	42.36	6.945	2.741	29.6	0
11/10/2018 23:00	1.947	64.82	12.63	2.264	29.61	0
11/10/2018 23:15	2.352	56.3	12.99	2.339	29.61	0
11/10/2018 23:30	4.019	54.39	5.921	2.221	29.61	0
11/10/2018 23:45	3.37	45.02	9.09	1.997	29.61	0
11/11/2018 0:00	4.36	36.29	8.82	1.939	29.6	0
11/11/2018 0:15	4.13	35.36	4.884	2.07	29.6	0
11/11/2018 0:30	3.973	60.29	9.37	2.33	29.6	0
11/11/2018 0:45	1.496	55.01	12.62	1.975	29.6	0
11/11/2018 1:00	1.718	61.87	13.1	2.645	29.61	0
11/11/2018 1:15	2.655	72.93	5.287	2.699	29.61	0
11/11/2018 1:30	2.794	62.48	11.35	2.376	29.61	0

11/11/2018 1:45	0.426	53.79	1.676	2.423	29.61	0
11/11/2018 2:00	1.215	30.15	10.28	2.311	29.59	0
11/11/2018 2:15	2.651	40.44	7.02	1.954	29.59	0
11/11/2018 2:30	3.006	15.91	8.86	2.439	29.59	0
11/11/2018 2:45	3.761	8.63	13.59	3.147	29.59	0
11/11/2018 3:00	3.831	25.47	5.209	2.332	29.58	0
11/11/2018 3:15	3.958	15.13	6.894	1.964	29.58	0
11/11/2018 3:30	4.1	19.22	6.544	1.502	29.58	0
11/11/2018 3:45	3.853	20.78	9.27	1.146	29.58	0
11/11/2018 4:00	3.623	31.34	13.9	0.333	29.58	0
11/11/2018 4:15	2.779	42.27	5.726	0.377	29.58	0
11/11/2018 4:30	3.433	47.96	5.67	1.249	29.58	0
11/11/2018 4:45	5.777	36.14	6.264	1.07	29.58	0
11/11/2018 5:00	4.737	27.57	9.4	0.117	29.57	0
11/11/2018 5:15	4.901	22.4	6.586	-0.453	29.57	0
11/11/2018 5:30	5.192	21.38	7.058	-0.113	29.57	0
11/11/2018 5:45	5.133	24.55	6.516	-0.104	29.57	0
11/11/2018 6:00	6.202	35.18	6.137	-0.157	29.59	0
11/11/2018 6:15	6.68	21.74	10.82	0.262	29.59	0
11/11/2018 6:30	5.665	19.24	8.26	0.677	29.59	0
11/11/2018 6:45	4.487	32.59	6.673	0.561	29.59	0
11/11/2018 7:00	5.351	24.66	8.91	0.512	29.59	0
11/11/2018 7:15	4.58	32.28	5.148	0.234	29.59	0
11/11/2018 7:30	3.962	39.36	4.177	-0.094	29.59	0
11/11/2018 7:45	4.638	34.4	8.38	-0.179	29.59	0
11/11/2018 8:00	5.161	27.33	7.327	-0.045	29.58	0
11/11/2018 8:15	5.134	1.16	13.44	-0.011	29.58	0
11/11/2018 8:30	5.202	15.96	7.785	0.992	29.58	0
11/11/2018 8:45	4.747	17	8.49	1.082	29.58	0.01
11/11/2018 9:00	4.684	0.894	13.25	1.524	29.62	0
11/11/2018 9:15	2.339	359.7	24.81	2.24	29.62	0
11/11/2018 9:30	4.528	28.16	9.56	1.996	29.62	0
11/11/2018 9:45	6.404	31	9.48	1.287	29.62	0
11/11/2018 10:00	5.811	37.78	8.75	0.633	29.6	0
11/11/2018 10:15	4.59	41.67	6.278	0.669	29.6	0
11/11/2018 10:30	5.176	30.13	11.6	1.516	29.6	0
11/11/2018 10:45	4.107	16.14	28.61	2.937	29.6	0
11/11/2018 11:00	7.06	22.5	10.47	4.158	29.6	0
11/11/2018 11:15	4.327	28.29	12.65	4.757	29.6	0
11/11/2018 11:30	3.116	30.22	19.63	5.493	29.6	0
11/11/2018 11:45	6.821	33.65	11.81	5.791	29.6	0
11/11/2018 12:00	8.13	20.83	10.61	6.215	29.58	0
11/11/2018 12:15	6.853	16.19	11.03	6.784	29.58	0
11/11/2018 12:30	6.38	25.92	8.01	7.387	29.58	0
11/11/2018 12:45	9.26	25.95	8.11	7.46	29.58	0
11/11/2018 13:00	10.86	24.44	8.63	7.297	29.58	0
11/11/2018 13:15	11.39	25.01	7.486	7.547	29.58	0

11/11/2018 13:30	11.4	23.97	10.57	7.721	29.58	0
11/11/2018 13:45	11.62	20.01	10.83	8.07	29.58	0
11/11/2018 14:00	12.75	17.46	8.93	8.17	29.59	0
11/11/2018 14:15	12.57	20.45	9.55	8.3	29.59	0
11/11/2018 14:30	10.98	20.38	11.97	8.52	29.59	0
11/11/2018 14:45	11.86	19.49	9.16	8.6	29.59	0
11/11/2018 15:00	12.22	17.05	8.75	8.5	29.57	0
11/11/2018 15:15	13.61	18.42	9.36	8.43	29.57	0
11/11/2018 15:30	12.17	22.69	8.86	8.29	29.57	0
11/11/2018 15:45	12.27	22.55	8.16	8.07	29.57	0
11/11/2018 16:00	11.29	14.82	9.23	7.948	29.58	0
11/11/2018 16:15	11.94	18.06	9.29	7.53	29.58	0
11/11/2018 16:30	12.52	25.99	8.51	7.029	29.58	0
11/11/2018 16:45	11.74	23.83	11.33	6.809	29.58	0
11/11/2018 17:00	11.43	24.71	9.88	6.908	29.56	0
11/11/2018 17:15	11.02	27.38	11.9	6.62	29.56	0
11/11/2018 17:30	11.1	28.38	10.74	6.332	29.56	0
11/11/2018 17:45	8.65	36.26	11.32	6.336	29.56	0
11/11/2018 18:00	8.97	25.58	9.47	6.321	29.57	0
11/11/2018 18:15	9.67	23.87	9.53	6.185	29.57	0
11/11/2018 18:30	7.814	27.27	8.58	6.139	29.57	0
11/11/2018 18:45	7.119	31.2	7.747	6.151	29.57	0
11/11/2018 19:00	7.576	28.37	6.194	5.677	29.6	0
11/11/2018 19:15	7.653	30.3	6.825	5.355	29.6	0
11/11/2018 19:30	6.681	29.59	7.71	5.125	29.6	0
11/11/2018 19:45	6.548	22.62	9.13	5.005	29.6	0
11/11/2018 20:00	6.383	27.11	9.74	4.79	29.59	0
11/11/2018 20:15	5.243	23.43	11.14	4.827	29.59	0
11/11/2018 20:30	5.602	23.78	8.1	4.964	29.59	0
11/11/2018 20:45	4.706	23.71	9.01	5.472	29.59	0
11/11/2018 21:00	4.075	20.01	11.09	6.192	29.59	0
11/11/2018 21:15	3.628	19.22	5.912	6.423	29.59	0
11/11/2018 21:30	2.341	12.35	12.78	6.805	29.59	0
11/11/2018 21:45	3.648	22.21	10.6	6.623	29.59	0
11/11/2018 22:00	4.502	21.17	8.99	6.192	29.6	0
11/11/2018 22:15	2.761	55.02	36.98	6.408	29.6	0
11/11/2018 22:30	1.653	114.1	15.65	8.19	29.6	0
11/11/2018 22:45	3.443	132.4	19.32	8.81	29.6	0
11/11/2018 23:00	0.643	48.99	20.51	8.02	29.61	0
11/11/2018 23:15	3.296	85.6	43.75	8.36	29.61	0
11/11/2018 23:30	2.285	86.8	31.43	8.13	29.61	0
11/11/2018 23:45	2.842	99.1	14.95	9.31	29.61	0
11/12/2018 0:00	3.445	120.9	23.95	9.34	29.6	0
11/12/2018 0:15	4.311	119.3	8.11	9.34	29.6	0
11/12/2018 0:30	3.902	113	14.97	8.78	29.6	0
11/12/2018 0:45	2.857	63.81	43.93	7.626	29.6	0
11/12/2018 1:00	4.361	114.7	21.03	8.87	29.58	0

11/12/2018 1:15	6.326	112.5	12.46	8.82	29.58	0
11/12/2018 1:30	3.535	117.9	23.29	8.63	29.58	0
11/12/2018 1:45	1.33	16.99	21.82	8.05	29.58	0
11/12/2018 2:00	4.081	127.2	11.31	9.01	29.58	0
11/12/2018 2:15	5.793	113.1	14.39	9.33	29.58	0
11/12/2018 2:30	3.616	115.8	22.52	8.95	29.58	0
11/12/2018 2:45	4.221	96.3	48.71	8.73	29.58	0
11/12/2018 3:00	1.905	37.52	29	7.954	29.59	0
11/12/2018 3:15	2.976	134.4	14.12	8.75	29.59	0
11/12/2018 3:30	4.837	135.8	12.57	8.98	29.59	0
11/12/2018 3:45	4.529	120.9	16.27	8.59	29.59	0
11/12/2018 4:00	5.671	145	12.63	8.71	29.58	0
11/12/2018 4:15	5.678	143	12.67	8.84	29.58	0
11/12/2018 4:30	6.455	140.4	11.26	8.64	29.58	0
11/12/2018 4:45	4.53	119	18.53	8.27	29.58	0
11/12/2018 5:00	3.777	80.7	29.66	8.25	29.56	0
11/12/2018 5:15	3.653	77.12	24.45	8.35	29.56	0
11/12/2018 5:30	3.59	77.34	17.8	7.931	29.56	0
11/12/2018 5:45	4.396	111.4	17.29	8.28	29.56	0
11/12/2018 6:00	4.584	105.8	19.56	8.55	29.56	0
11/12/2018 6:15	4.062	88.8	21.52	8.08	29.56	0
11/12/2018 6:30	5.863	115.7	10.54	8.25	29.56	0
11/12/2018 6:45	6.352	134.8	12.02	8.21	29.56	0
11/12/2018 7:00	7.4	150	9.69	8.35	29.57	0
11/12/2018 7:15	7.853	133.9	13.29	8.19	29.57	0
11/12/2018 7:30	5.739	112	22.07	7.955	29.57	0
11/12/2018 7:45	7.09	114.2	14.64	7.854	29.57	0
11/12/2018 8:00	7.814	120.8	11.84	8.05	29.59	0
11/12/2018 8:15	8.09	121.2	10.08	8.45	29.59	0
11/12/2018 8:30	11.43	131.2	11.21	9.35	29.59	0
11/12/2018 8:45	12.11	127.7	11.1	9.32	29.59	0
11/12/2018 9:00	11.81	127.2	12.35	9.6	29.58	0
11/12/2018 9:15	8.42	107.8	12.82	9.01	29.58	0
11/12/2018 9:30	8.19	110.1	13.74	8.89	29.58	0
11/12/2018 9:45	11.2	130.3	11.37	10.02	29.58	0
11/12/2018 10:00	14.89	136.3	11.05	10.35	29.55	0
11/12/2018 10:15	14.53	136.5	10.13	10.45	29.55	0
11/12/2018 10:30	13.09	131.5	11.18	10.84	29.55	0
11/12/2018 10:45	15.25	135.5	9.22	11.14	29.55	0
11/12/2018 11:00	13.83	133.9	11.6	11.17	29.56	0
11/12/2018 11:15	14.26	135	10.22	11.41	29.56	0
11/12/2018 11:30	10.56	127.5	10.4	11.92	29.56	0
11/12/2018 11:45	8.34	118.3	18.22	12.09	29.56	0
11/12/2018 12:00	5.194	84	21.46	11.9	29.55	0
11/12/2018 12:15	7.713	106.4	18.48	12.07	29.55	0
11/12/2018 12:30	10.75	125.6	13.29	12.68	29.55	0
11/12/2018 12:45	14.65	133.8	10.66	12.65	29.55	0

11/12/2018 13:00	15.76	137.4	9.63	12.66	29.55	0
11/12/2018 13:15	14.94	136.6	10.24	12.58	29.55	0
11/12/2018 13:30	15.62	132.4	10.25	12.96	29.55	0
11/12/2018 13:45	15.79	132.4	11.62	13.19	29.55	0
11/12/2018 14:00	17.87	137.5	9.91	13.14	29.54	0
11/12/2018 14:15	14.37	138.8	9.79	13.37	29.54	0
11/12/2018 14:30	14.9	136.2	9.98	13.4	29.54	0
11/12/2018 14:45	13.48	142.4	10.8	13.5	29.54	0
11/12/2018 15:00	12.46	140.8	10.9	13.45	29.52	0
11/12/2018 15:15	11.52	147.3	11.47	13.26	29.52	0
11/12/2018 15:30	11.3	146.3	10.03	13.01	29.52	0
11/12/2018 15:45	13	140.8	9.9	12.92	29.52	0
11/12/2018 16:00	12.17	139.4	10.56	12.61	29.54	0
11/12/2018 16:15	13.7	142.5	9.58	12.2	29.54	0
11/12/2018 16:30	13.61	137.8	10.19	11.86	29.54	0
11/12/2018 16:45	11.45	140.8	10.58	11.35	29.54	0
11/12/2018 17:00	12.11	142	10.34	10.99	29.51	0
11/12/2018 17:15	12.37	139.3	9.96	10.76	29.51	0
11/12/2018 17:30	13.33	136.5	9.63	10.57	29.51	0
11/12/2018 17:45	11.8	140.9	11.28	10.38	29.51	0
11/12/2018 18:00	9.94	149.1	11.01	10.14	29.52	0
11/12/2018 18:15	10.69	146.9	11.84	10.02	29.52	0
11/12/2018 18:30	11.46	145	9.7	10.02	29.52	0
11/12/2018 18:45	12.3	135.6	9.9	10.06	29.52	0
11/12/2018 19:00	9.09	133.7	14.02	9.97	29.51	0
11/12/2018 19:15	7.751	144.6	16.55	9.99	29.51	0
11/12/2018 19:30	10.63	139.1	11.23	9.62	29.51	0
11/12/2018 19:45	10.46	135.7	11.95	9.55	29.51	0
11/12/2018 20:00	11.9	141.8	9.84	9.76	29.52	0
11/12/2018 20:15	10.71	139.1	12.55	9.65	29.52	0
11/12/2018 20:30	10.07	130	11.79	9.59	29.52	0
11/12/2018 20:45	6.263	131.4	20.64	9.41	29.52	0
11/12/2018 21:00	7.229	120.5	18.55	9.46	29.52	0
11/12/2018 21:15	9.9	116	14.73	9.39	29.52	0
11/12/2018 21:30	7.972	137.3	15.34	9.61	29.52	0
11/12/2018 21:45	7.982	144.1	13.74	9.51	29.52	0
11/12/2018 22:00	9.38	161	12.52	9.52	29.53	0
11/12/2018 22:15	8.66	140.2	12.88	9.06	29.53	0
11/12/2018 22:30	10.09	134.6	9.57	8.77	29.53	0
11/12/2018 22:45	10.31	132.3	8.76	8.54	29.53	0
11/12/2018 23:00	12.14	131.5	10.26	9.09	29.52	0
11/12/2018 23:15	10.3	131	12.77	8.98	29.52	0
11/12/2018 23:30	6.731	132	15.95	8.91	29.52	0
11/12/2018 23:45	8.2	135.1	15.85	9.03	29.52	0
11/13/2018 0:00	9.79	132.2	16.59	9.15	29.53	0
11/13/2018 0:15	8.77	132.2	13.77	9.19	29.53	0
11/13/2018 0:30	9.81	131.3	14.25	9.23	29.53	0

11/13/2018 0:45	8.35	137.7	13.41	9.16	29.53	0
11/13/2018 1:00	7.497	131.7	13.47	8.98	29.5	0
11/13/2018 1:15	8.64	149.9	13.55	9.17	29.5	0
11/13/2018 1:30	10.55	145.3	13.03	9.31	29.5	0
11/13/2018 1:45	10.55	142.5	12.07	9.26	29.5	0
11/13/2018 2:00	9.15	147	15.47	9.35	29.51	0
11/13/2018 2:15	10.5	159.5	10.77	9.23	29.51	0
11/13/2018 2:30	10.02	142.6	13.83	9.11	29.51	0
11/13/2018 2:45	9.51	147.6	12.01	8.83	29.51	0
11/13/2018 3:00	12.27	153.4	11.2	9.06	29.51	0
11/13/2018 3:15	9.09	146.1	8.92	8.84	29.51	0
11/13/2018 3:30	9.01	137.6	10.45	8.63	29.51	0
11/13/2018 3:45	8.86	142.5	11.68	8.68	29.51	0
11/13/2018 4:00	12.08	157.4	11.15	9.22	29.49	0
11/13/2018 4:15	13.66	167.7	11.53	9.45	29.49	0
11/13/2018 4:30	13.72	165.7	11.46	9.11	29.49	0
11/13/2018 4:45	11.04	149.1	9.22	8.66	29.49	0
11/13/2018 5:00	9.57	148.7	8.34	8.23	29.5	0
11/13/2018 5:15	11.62	143.1	9.92	8.52	29.5	0
11/13/2018 5:30	9.88	151.7	12.28	8.95	29.5	0
11/13/2018 5:45	11.36	161.7	13.91	9.42	29.5	0
11/13/2018 6:00	11.69	159.9	12.65	9.51	29.51	0
11/13/2018 6:15	9.71	160.5	15.15	9.36	29.51	0
11/13/2018 6:30	9.86	165.6	12.92	8.94	29.51	0
11/13/2018 6:45	6.637	152.8	13.19	7.858	29.51	0
11/13/2018 7:00	7.762	152.2	5.91	7.848	29.5	0
11/13/2018 7:15	9.45	151.8	6.911	8.24	29.5	0
11/13/2018 7:30	10.54	167.8	10.06	8.88	29.5	0
11/13/2018 7:45	9.28	171.3	14.22	8.99	29.5	0
11/13/2018 8:00	9.9	202.5	11.11	7.968	29.53	0
11/13/2018 8:15	11.16	207.5	4.932	7.53	29.53	0
11/13/2018 8:30	11.15	225	9.39	7.548	29.53	0
11/13/2018 8:45	7.752	233.3	8.92	8.13	29.53	0
11/13/2018 9:00	5.79	194.3	17.12	8.7	29.52	0
11/13/2018 9:15	6.048	150.8	11.07	9.07	29.52	0
11/13/2018 9:30	4.284	187.7	43.14	9.58	29.52	0
11/13/2018 9:45	9	250.4	8.27	9.52	29.52	0
11/13/2018 10:00	9.97	261.4	9.03	9.42	29.53	0
11/13/2018 10:15	6.775	260.7	10.95	9.43	29.53	0
11/13/2018 10:30	3.627	236.3	16.4	10.09	29.53	0
11/13/2018 10:45	4.658	200.6	12.8	10.46	29.53	0
11/13/2018 11:00	6.128	208	10.06	10.79	29.53	0
11/13/2018 11:15	6.182	210.1	11.08	11.16	29.53	0
11/13/2018 11:30	7.595	209.5	13.55	11.18	29.53	0
11/13/2018 11:45	5.931	204.5	18.51	11.03	29.53	0
11/13/2018 12:00	4.377	207.4	9.56	11.09	29.53	0
11/13/2018 12:15	3.412	234.6	16.49	11.14	29.53	0

11/13/2018 12:30	5.284	234.7	14.39	11.11	29.53	0
11/13/2018 12:45	3.079	211.7	32.51	11.21	29.53	0
11/13/2018 13:00	1.871	167.9	16.66	11.43	29.52	0
11/13/2018 13:15	3.516	183.4	10.03	11.38	29.52	0
11/13/2018 13:30	4.356	174.9	16.85	11.37	29.52	0
11/13/2018 13:45	5.805	139.5	9.04	11.52	29.52	0
11/13/2018 14:00	5.868	185.9	27.89	11.88	29.52	0
11/13/2018 14:15	6.158	190.4	14.11	11.78	29.52	0
11/13/2018 14:30	5.01	194.5	12.58	11.79	29.52	0
11/13/2018 14:45	6.499	203.2	8.38	11.68	29.52	0
11/13/2018 15:00	5.6	204.4	8.79	11.32	29.51	0
11/13/2018 15:15	4.555	214.2	11.14	11.37	29.51	0
11/13/2018 15:30	1.626	191.4	28.4	11.6	29.51	0
11/13/2018 15:45	2.425	252.7	27.48	11.47	29.51	0
11/13/2018 16:00	1.995	302.5	16.26	10.91	29.49	0
11/13/2018 16:15	2.593	280.5	16.45	10.78	29.49	0
11/13/2018 16:30	3.347	252.6	6.376	10.37	29.49	0
11/13/2018 16:45	4.739	258.3	4.492	9.96	29.49	0
11/13/2018 17:00	4.582	279.3	6.275	9.45	29.48	0
11/13/2018 17:15	3.285	292.1	14.94	9.48	29.48	0
11/13/2018 17:30	2.107	34.22	38.76	9.08	29.48	0
11/13/2018 17:45	3.037	95	8.21	8.81	29.48	0
11/13/2018 18:00	4.034	130.7	14.94	8.73	29.47	0
11/13/2018 18:15	5.695	156.5	9.04	9.48	29.47	0
11/13/2018 18:30	7.02	154.3	7.244	9.33	29.47	0
11/13/2018 18:45	5.209	170.9	11.04	8.8	29.47	0
11/13/2018 19:00	5.009	171.9	11.55	8.08	29.46	0
11/13/2018 19:15	5.133	168.1	9.3	8.28	29.46	0
11/13/2018 19:30	3.897	166.8	6.49	8.44	29.46	0
11/13/2018 19:45	4.199	160.5	15.44	8.21	29.46	0
11/13/2018 20:00	2.275	128.7	15.01	8.83	29.47	0
11/13/2018 20:15	3.979	150.3	9.24	8.86	29.47	0
11/13/2018 20:30	1.497	212.6	47.59	8.1	29.47	0
11/13/2018 20:45	3.769	148.1	18.15	8.46	29.47	0
11/13/2018 21:00	5.626	133.1	19.37	7.73	29.46	0
11/13/2018 21:15	4.707	128.3	21.63	8.59	29.46	0
11/13/2018 21:30	6.006	158.6	15.51	8.87	29.46	0
11/13/2018 21:45	5.371	159.6	27.41	8.56	29.46	0
11/13/2018 22:00	5.47	159.6	24.59	9.26	29.46	0
11/13/2018 22:15	5.61	175.5	14.61	8.62	29.46	0
11/13/2018 22:30	3.845	159.7	14.5	9.02	29.46	0
11/13/2018 22:45	2.189	167.3	29.17	8.68	29.46	0
11/13/2018 23:00	5.044	185	13.31	8.74	29.45	0
11/13/2018 23:15	5.293	165.4	21.46	8.69	29.45	0
11/13/2018 23:30	5.089	128.7	25.62	9.54	29.45	0
11/13/2018 23:45	5.353	163.6	28.43	9.12	29.45	0
11/14/2018 0:00	11.07	257.6	14.64	7.626	29.48	0

11/14/2018 0:15	4.798	251.9	35.54	7.289	29.48	0
11/14/2018 0:30	2.856	179.9	37.65	7.575	29.48	0
11/14/2018 0:45	4.916	137.4	6.868	7.143	29.48	0
11/14/2018 1:00	5.063	115.8	13.58	8.14	29.46	0
11/14/2018 1:15	7.543	132.3	8.31	9.19	29.46	0
11/14/2018 1:30	8.07	136.2	8.57	9.84	29.46	0
11/14/2018 1:45	7.09	151.2	18.72	10.45	29.46	0
11/14/2018 2:00	6.944	151.8	9.41	10.99	29.44	0
11/14/2018 2:15	8.31	170.6	12.88	9.8	29.44	0
11/14/2018 2:30	8.37	155.9	15	9.77	29.44	0
11/14/2018 2:45	8.65	147.3	7.43	10.74	29.44	0
11/14/2018 3:00	7.462	140.7	8.46	11.05	29.41	0
11/14/2018 3:15	7.896	165.2	14.27	10.94	29.41	0
11/14/2018 3:30	6.219	152.5	8.51	10.93	29.41	0
11/14/2018 3:45	5.806	173.6	21.09	11.04	29.41	0
11/14/2018 4:00	7.106	187.4	15.79	10.17	29.41	0
11/14/2018 4:15	7.536	199.4	9.24	9.54	29.41	0
11/14/2018 4:30	7.899	199.6	10.91	9.22	29.41	0
11/14/2018 4:45	8.34	187.1	6.858	9.18	29.41	0
11/14/2018 5:00	6.682	185.1	8.37	9.19	29.41	0
11/14/2018 5:15	6.334	174.1	16.88	9.21	29.41	0
11/14/2018 5:30	3.972	155.2	18.95	9.21	29.41	0
11/14/2018 5:45	3.993	144.1	16.26	9.01	29.41	0
11/14/2018 6:00	5.018	144.4	10.82	9.03	29.41	0
11/14/2018 6:15	4.968	140.9	14.17	9.49	29.41	0
11/14/2018 6:30	5.311	186.6	21.54	10.33	29.41	0
11/14/2018 6:45	3.729	144.8	23.91	10.32	29.41	0
11/14/2018 7:00	2.083	148.1	31.75	10.36	29.42	0
11/14/2018 7:15	5.775	177.5	19.07	10.65	29.42	0
11/14/2018 7:30	5.317	170.8	14.84	10.47	29.42	0
11/14/2018 7:45	6.295	185.1	11.35	10.27	29.42	0
11/14/2018 8:00	7.985	167.4	9.83	10.12	29.42	0
11/14/2018 8:15	5.553	172.7	11.95	10.3	29.42	0
11/14/2018 8:30	4.03	165.9	22.39	9.59	29.42	0
11/14/2018 8:45	4.474	145.6	16.37	9.16	29.42	0
11/14/2018 9:00	8.59	174.4	13.62	9.21	29.44	0
11/14/2018 9:15	6.735	163.4	9.62	9.02	29.44	0
11/14/2018 9:30	5.527	164	21.9	9.1	29.44	0
11/14/2018 9:45	5.555	198.6	16.55	9.33	29.44	0
11/14/2018 10:00	7.933	181.1	9.44	8.93	29.46	0
11/14/2018 10:15	2.6	145.9	78.52	8.87	29.46	0
11/14/2018 10:30	3.288	273.6	39.99	8.93	29.46	0
11/14/2018 10:45	9.57	189.3	10.74	9.08	29.46	0
11/14/2018 11:00	10.1	168.4	10.01	9.53	29.48	0
11/14/2018 11:15	8.89	154.9	12.8	10.08	29.48	0
11/14/2018 11:30	12.29	167.3	10.16	10.51	29.48	0
11/14/2018 11:45	15.25	170.9	8.74	10.71	29.48	0

11/14/2018 12:00	15.44	174.2	10.12	11.2	29.48	0
11/14/2018 12:15	17.12	180	8.44	11.16	29.48	0
11/14/2018 12:30	16.99	178.6	8.73	11.17	29.48	0
11/14/2018 12:45	16.33	179.7	9.84	11.39	29.48	0
11/14/2018 13:00	15.57	179.4	11.07	11.41	29.47	0
11/14/2018 13:15	9.59	177.7	13.25	11.58	29.47	0
11/14/2018 13:30	8.68	161.8	21.65	11.97	29.47	0
11/14/2018 13:45	7.025	174.2	22.33	11.92	29.47	0
11/14/2018 14:00	7.482	162.9	28.8	12.01	29.49	0
11/14/2018 14:15	7.423	184.5	13.38	12.1	29.49	0
11/14/2018 14:30	8.11	202	12.14	12.14	29.49	0
11/14/2018 14:45	9.17	199	12.05	12.15	29.49	0
11/14/2018 15:00	7.433	220.4	12.06	12.13	29.49	0
11/14/2018 15:15	8.03	213.9	11.03	12.18	29.49	0
11/14/2018 15:30	5.559	210.6	9.72	12.19	29.49	0
11/14/2018 15:45	7.056	199.3	7.625	12.17	29.49	0
11/14/2018 16:00	7.988	202.8	7.808	12.17	29.51	0
11/14/2018 16:15	10.1	213.3	8.8	12.15	29.51	0
11/14/2018 16:30	6.93	206.8	8.56	12.07	29.51	0
11/14/2018 16:45	4.63	197.2	9.65	11.95	29.51	0
11/14/2018 17:00	4.535	197	9.89	11.91	29.5	0
11/14/2018 17:15	7.867	206.1	8.82	11.85	29.5	0
11/14/2018 17:30	8.57	205.8	9.15	11.74	29.5	0
11/14/2018 17:45	9.67	208.3	9.66	11.55	29.5	0
11/14/2018 18:00	8.61	213.2	8.06	11.38	29.52	0
11/14/2018 18:15	7.852	228.3	8.8	11.39	29.52	0
11/14/2018 18:30	5.773	226.2	9.83	11.27	29.52	0
11/14/2018 18:45	5.662	207.1	9.59	11.14	29.52	0
11/14/2018 19:00	7.691	199.8	6.494	11.08	29.52	0
11/14/2018 19:15	7.941	194.9	10.65	10.93	29.52	0
11/14/2018 19:30	8.75	201	6.541	10.8	29.52	0
11/14/2018 19:45	9.63	205.5	8.26	10.68	29.52	0
11/14/2018 20:00	7.817	208.4	6.449	10.62	29.51	0
11/14/2018 20:15	6.221	188.9	19.11	10.64	29.51	0
11/14/2018 20:30	4.912	205.2	12.81	10.61	29.51	0
11/14/2018 20:45	3.211	195.3	17.45	10.59	29.51	0
11/14/2018 21:00	4.326	200.5	19.27	10.64	29.54	0
11/14/2018 21:15	3.758	187.7	17.76	10.62	29.54	0
11/14/2018 21:30	5.368	209.4	13.17	10.6	29.54	0
11/14/2018 21:45	4.622	206.7	4.197	10.42	29.54	0
11/14/2018 22:00	4.933	230	10.03	10.42	29.56	0
11/14/2018 22:15	6.097	190.2	11.73	10.38	29.56	0
11/14/2018 22:30	7.055	180.9	8.87	10.37	29.56	0
11/14/2018 22:45	7.316	194.3	6.451	10.19	29.56	0
11/14/2018 23:00	5.812	191.2	5.959	10.15	29.56	0
11/14/2018 23:15	4.468	186.3	10.15	10.16	29.56	0
11/14/2018 23:30	5.028	194.2	10.17	10.18	29.56	0

11/14/2018 23:45	5.829	211	8.14	10.14	29.56	0
11/15/2018 0:00	5.549	207.1	8.3	10.07	29.57	0
11/15/2018 0:15	6.546	192.7	8.24	9.96	29.57	0
11/15/2018 0:30	5.967	185	8.44	9.79	29.57	0
11/15/2018 0:45	5.702	179.8	8.63	9.62	29.57	0
11/15/2018 1:00	4.193	189.8	8.19	9.54	29.56	0
11/15/2018 1:15	3.68	178.5	14.27	9.53	29.56	0
11/15/2018 1:30	4.616	174.1	15.31	9.5	29.56	0
11/15/2018 1:45	3.106	142.1	15.35	9.29	29.56	0
11/15/2018 2:00	3.232	160.7	13.96	9.41	29.56	0
11/15/2018 2:15	2.847	133.1	20.74	9.26	29.56	0
11/15/2018 2:30	3.863	129.5	10.82	9.21	29.56	0
11/15/2018 2:45	2.362	99	8.79	9.27	29.56	0
11/15/2018 3:00	1.414	89.4	6.612	9.14	29.56	0
11/15/2018 3:15	1.789	94.4	6.248	9.19	29.56	0
11/15/2018 3:30	3.023	142.7	34.03	9.21	29.56	0
11/15/2018 3:45	2.417	147.4	10.18	9.12	29.56	0
11/15/2018 4:00	3.228	136.1	4.985	9.14	29.53	0
11/15/2018 4:15	2.485	163.7	15.7	8.93	29.53	0
11/15/2018 4:30	0.775	138.3	13.94	8.82	29.53	0
11/15/2018 4:45	0.136	125	0.301	8.78	29.53	0
11/15/2018 5:00	0.927	102.7	4.804	8.69	29.53	0
11/15/2018 5:15	2.088	103.3	4.95	8.57	29.53	0
11/15/2018 5:30	3.604	124.7	7.341	8.57	29.53	0
11/15/2018 5:45	3.824	126.7	4.13	8.54	29.53	0
11/15/2018 6:00	3.618	120.8	9.14	8.49	29.54	0
11/15/2018 6:15	3.646	110.2	6.691	8.55	29.54	0
11/15/2018 6:30	3.433	112.8	10.5	8.56	29.54	0
11/15/2018 6:45	3.818	115.2	4.847	8.58	29.54	0
11/15/2018 7:00	4.635	122.4	7.35	8.6	29.52	0
11/15/2018 7:15	4.732	139.3	8.21	8.56	29.52	0
11/15/2018 7:30	4.431	150.1	7.517	8.52	29.52	0
11/15/2018 7:45	4.366	160.6	11.57	8.5	29.52	0
11/15/2018 8:00	4.666	148.4	3.638	8.44	29.51	0
11/15/2018 8:15	2.545	135.7	10.17	8.72	29.51	0
11/15/2018 8:30	3.315	136.2	11.14	9.03	29.51	0
11/15/2018 8:45	3.388	137.6	7.419	9.03	29.51	0
11/15/2018 9:00	2.843	175.3	13.98	9.63	29.5	0
11/15/2018 9:15	3.099	181.1	14.48	10.05	29.5	0
11/15/2018 9:30	3.177	198.1	15.03	9.76	29.5	0
11/15/2018 9:45	3.862	183.2	12.63	10.23	29.5	0
11/15/2018 10:00	4.369	202.5	10.46	10.24	29.49	0
11/15/2018 10:15	5.731	185.7	9.13	10.51	29.49	0
11/15/2018 10:30	5.622	188.2	11.19	10.43	29.49	0
11/15/2018 10:45	6.188	198.4	11.25	10.61	29.49	0
11/15/2018 11:00	5.904	207.5	15.29	10.87	29.5	0
11/15/2018 11:15	6.052	195.5	17.15	11.04	29.5	0

11/15/2018 11:30	6.069	197.2	18.8	11.36	29.5	0
11/15/2018 11:45	5.942	201	34.53	11.57	29.5	0
11/15/2018 12:00	5.337	207.9	24.56	11.33	29.47	0
11/15/2018 12:15	3.402	206.8	32.88	11.66	29.47	0
11/15/2018 12:30	4.368	247.2	11.41	11.38	29.47	0
11/15/2018 12:45	4.15	237.1	24.46	11.51	29.47	0
11/15/2018 13:00	4.024	235.2	25.14	11.52	29.45	0
11/15/2018 13:15	4.793	198.7	10.03	11.68	29.45	0
11/15/2018 13:30	3.921	184.1	24.05	11.64	29.45	0
11/15/2018 13:45	3.797	194.3	38.53	11.69	29.45	0
11/15/2018 14:00	2.681	217.5	25.51	11.91	29.44	0
11/15/2018 14:15	3.279	230.2	15	11.82	29.44	0
11/15/2018 14:30	4.52	206.9	10.8	11.73	29.44	0
11/15/2018 14:45	5.471	167.1	23.97	11.68	29.44	0
11/15/2018 15:00	6.583	159.2	5.197	11.62	29.44	0
11/15/2018 15:15	7.103	157.7	7.242	11.59	29.44	0
11/15/2018 15:30	7.614	166.7	9.98	11.52	29.44	0
11/15/2018 15:45	6.519	182.5	11.35	11.53	29.44	0
11/15/2018 16:00	5.783	182.9	10.19	11.46	29.41	0
11/15/2018 16:15	4.967	158.7	9.01	11.13	29.41	0
11/15/2018 16:30	5.708	148.3	7.464	11.04	29.41	0
11/15/2018 16:45	5.395	150.5	5.047	11	29.41	0
11/15/2018 17:00	6.104	148.3	4.012	10.91	29.42	0
11/15/2018 17:15	7.035	152.3	5.28	10.94	29.42	0
11/15/2018 17:30	6.97	154.5	5.35	10.92	29.42	0
11/15/2018 17:45	6.832	156.8	5.653	10.92	29.42	0
11/15/2018 18:00	7.758	156.2	5.577	10.85	29.42	0
11/15/2018 18:15	7.995	158.1	4.829	10.84	29.42	0
11/15/2018 18:30	7.726	161.2	9.88	10.75	29.42	0
11/15/2018 18:45	7.17	164.7	11.08	10.68	29.42	0
11/15/2018 19:00	8.22	161.9	7.267	10.55	29.38	0
11/15/2018 19:15	7.678	157.8	7.138	10.52	29.38	0
11/15/2018 19:30	7.354	157	6.289	10.45	29.38	0
11/15/2018 19:45	8.19	159.7	6.667	10.46	29.38	0
11/15/2018 20:00	7.651	149.5	6.64	10.39	29.38	0
11/15/2018 20:15	7.629	150.5	6.539	10.4	29.38	0
11/15/2018 20:30	7.543	144.9	6.784	10.5	29.38	0
11/15/2018 20:45	7.455	146.5	7.435	10.61	29.38	0
11/15/2018 21:00	7.895	148	9.46	10.75	29.39	0
11/15/2018 21:15	7.274	146.3	9.06	10.77	29.39	0
11/15/2018 21:30	8.24	155.4	9.37	10.66	29.39	0
11/15/2018 21:45	9.73	158.3	10.68	10.62	29.39	0
11/15/2018 22:00	8.33	155.3	9.54	10.51	29.38	0
11/15/2018 22:15	7.209	148.2	7.601	10.58	29.38	0
11/15/2018 22:30	4.71	163	13.71	10.59	29.38	0
11/15/2018 22:45	6.33	170.9	9.8	10.81	29.38	0
11/15/2018 23:00	4.981	160.1	13.1	10.79	29.39	0

11/15/2018 23:15	9.55	183	13.66	10.87	29.39	0
11/15/2018 23:30	9.27	196.4	9.35	10.35	29.39	0
11/15/2018 23:45	7.519	167.3	19.4	10	29.39	0
11/16/2018 0:00	6.659	138.5	8.69	9.76	29.38	0
11/16/2018 0:15	6.019	138.6	9.65	9.62	29.38	0
11/16/2018 0:30	4.063	107.7	18.08	9.43	29.38	0
11/16/2018 0:45	4.8	106.7	11.44	9.23	29.38	0
11/16/2018 1:00	5.83	115.3	13.31	9.25	29.39	0
11/16/2018 1:15	5.081	114.7	11.81	9.29	29.39	0
11/16/2018 1:30	4.025	108.7	13.45	9.32	29.39	0
11/16/2018 1:45	5.157	121.2	6.879	9.37	29.39	0
11/16/2018 2:00	4.735	121	7.01	9.39	29.38	0
11/16/2018 2:15	5.089	107.1	6.645	9.42	29.38	0
11/16/2018 2:30	3.995	97.9	10.47	9.45	29.38	0
11/16/2018 2:45	3.901	120	7.273	9.51	29.38	0
11/16/2018 3:00	3.452	123.3	7.652	9.53	29.38	0
11/16/2018 3:15	3.44	111.3	12.12	9.56	29.38	0
11/16/2018 3:30	3.799	99.6	14.79	9.59	29.38	0
11/16/2018 3:45	4.177	116.4	9.75	9.64	29.38	0
11/16/2018 4:00	3.213	115	14.88	9.69	29.38	0.01
11/16/2018 4:15	3.167	104.5	11.46	9.7	29.38	0
11/16/2018 4:30	3.719	107.9	14.35	9.74	29.38	0
11/16/2018 4:45	3.285	84.8	11.99	9.78	29.38	0
11/16/2018 5:00	3.39	76.86	28.86	9.82	29.38	0
11/16/2018 5:15	1.474	94.4	18.71	9.88	29.38	0
11/16/2018 5:30	1.706	86.7	28.12	9.93	29.38	0
11/16/2018 5:45	2.148	148	9.85	9.93	29.38	0
11/16/2018 6:00	0.915	112.8	6.294	9.93	29.38	0
11/16/2018 6:15	0.311	110.2	0.228	9.93	29.38	0
11/16/2018 6:30	0.524	105	5.894	9.93	29.38	0
11/16/2018 6:45	0.283	16.83	3.817	9.92	29.38	0
11/16/2018 7:00	0	0	0	9.93	29.38	0
11/16/2018 7:15	0.924	327.3	11.09	9.95	29.38	0
11/16/2018 7:30	2.476	303.2	4.592	9.96	29.38	0
11/16/2018 7:45	2.534	306.4	5.489	9.97	29.38	0
11/16/2018 8:00	1.408	359.7	22.3	9.94	29.39	0.01
11/16/2018 8:15	0.86	25.5	6.183	9.89	29.39	0
11/16/2018 8:30	1.349	6.209	7.18	9.95	29.39	0
11/16/2018 8:45	1.683	13.71	24.23	10.01	29.39	0
11/16/2018 9:00	1.916	349.7	3.139	10.07	29.4	0
11/16/2018 9:15	1.766	7.223	10.05	10.06	29.4	0
11/16/2018 9:30	2.422	4.068	14.3	10.22	29.4	0
11/16/2018 9:45	4.05	346	9.49	10.34	29.4	0
11/16/2018 10:00	5.223	3.378	13.49	10.42	29.39	0
11/16/2018 10:15	5.153	1.771	17.02	10.53	29.39	0
11/16/2018 10:30	7.625	0.469	16.8	10.82	29.39	0
11/16/2018 10:45	8.57	7.29	13.54	10.82	29.39	0

11/16/2018 11:00	7.084	350.3	13.65	11.11	29.41	0
11/16/2018 11:15	5.995	2.222	15.35	11.08	29.41	0
11/16/2018 11:30	7.685	5.202	13.69	11.03	29.41	0
11/16/2018 11:45	9.51	9.29	13.24	11.13	29.41	0
11/16/2018 12:00	9.17	5.871	13.14	10.83	29.38	0
11/16/2018 12:15	8.31	358.3	16.04	11.2	29.38	0
11/16/2018 12:30	9.7	7.166	14.53	11.34	29.38	0
11/16/2018 12:45	9.33	18.21	9.79	11.34	29.38	0
11/16/2018 13:00	7.431	29.09	13.01	11.15	29.38	0
11/16/2018 13:15	6.961	31.55	11.69	10.97	29.38	0
11/16/2018 13:30	5.928	20.75	12.92	10.92	29.38	0
11/16/2018 13:45	7.61	21.55	17.26	11	29.38	0
11/16/2018 14:00	7.583	10.29	17.48	10.9	29.39	0
11/16/2018 14:15	7.069	26.21	20.2	10.71	29.39	0
11/16/2018 14:30	4.044	18.45	30.25	11.19	29.39	0
11/16/2018 14:45	7.721	33.3	10.79	10.66	29.39	0
11/16/2018 15:00	8.26	25.39	14.87	10.38	29.37	0
11/16/2018 15:15	8.85	21.67	14.83	10.17	29.37	0
11/16/2018 15:30	8.58	7.745	13.41	9.88	29.37	0
11/16/2018 15:45	11.17	7.022	12.54	9.86	29.37	0
11/16/2018 16:00	5.987	23.73	17.56	9.59	29.38	0
11/16/2018 16:15	4.685	30.75	23.08	9.48	29.38	0
11/16/2018 16:30	5.592	52.12	16.89	9.21	29.38	0
11/16/2018 16:45	6.559	16.32	21.12	9.27	29.38	0
11/16/2018 17:00	5.275	38.21	19.67	9.13	29.38	0
11/16/2018 17:15	4.489	48.9	17.37	8.95	29.38	0
11/16/2018 17:30	4.055	46.11	15.82	8.98	29.38	0
11/16/2018 17:45	5.709	33.85	10.64	8.88	29.38	0
11/16/2018 18:00	7.842	12.38	13.64	9.04	29.37	0
11/16/2018 18:15	8.46	20.37	11.66	8.97	29.37	0
11/16/2018 18:30	9.54	19.98	10.06	8.93	29.37	0
11/16/2018 18:45	11.32	16.62	8.23	8.97	29.37	0
11/16/2018 19:00	11.17	13.5	10.67	8.96	29.38	0
11/16/2018 19:15	11.28	1.809	14.45	8.89	29.38	0
11/16/2018 19:30	11.4	6.124	11.42	8.81	29.38	0
11/16/2018 19:45	11.37	5.596	13.52	8.82	29.38	0
11/16/2018 20:00	12.83	1.342	15.54	8.71	29.41	0
11/16/2018 20:15	10.63	358.3	15.51	8.63	29.41	0
11/16/2018 20:30	9.12	4.092	17.49	8.68	29.41	0
11/16/2018 20:45	11.5	18.59	9.53	8.64	29.41	0
11/16/2018 21:00	11.17	20.37	8.8	8.58	29.41	0
11/16/2018 21:15	11.91	10.16	10.41	8.53	29.41	0
11/16/2018 21:30	11.68	7.483	12.9	8.46	29.41	0
11/16/2018 21:45	9.28	12.41	13.88	8.27	29.41	0
11/16/2018 22:00	9.27	28.01	12.3	8.08	29.4	0
11/16/2018 22:15	8.31	26.08	11.38	7.951	29.4	0
11/16/2018 22:30	8.96	21.72	10.05	7.818	29.4	0

11/16/2018 22:45	10.06	23.56	9.63	7.765	29.4	0
11/16/2018 23:00	10.07	23.27	8.86	7.726	29.43	0
11/16/2018 23:15	10.41	21.4	8.68	7.605	29.43	0
11/16/2018 23:30	7.901	27.05	10.47	7.456	29.43	0
11/16/2018 23:45	9.02	31.73	9.56	7.51	29.43	0
11/17/2018 0:00	7.307	23.31	10.73	7.336	29.43	0
11/17/2018 0:15	6.589	31.89	10.88	7.338	29.43	0
11/17/2018 0:30	9.09	19.08	10.05	7.285	29.43	0
11/17/2018 0:45	8.79	25.66	12.04	7.192	29.43	0
11/17/2018 1:00	10.1	24.76	10.23	6.993	29.42	0
11/17/2018 1:15	8.65	39	14.46	6.894	29.42	0
11/17/2018 1:30	9.1	39.51	13.37	6.876	29.42	0
11/17/2018 1:45	10.37	27.86	8.94	6.634	29.42	0
11/17/2018 2:00	10.43	30.07	9.82	6.556	29.45	0
11/17/2018 2:15	7.984	32.05	13.81	6.494	29.45	0
11/17/2018 2:30	8.5	32.35	16.94	6.26	29.45	0
11/17/2018 2:45	8.93	33.74	12.47	6.125	29.45	0
11/17/2018 3:00	6.258	42.07	20.82	6.03	29.46	0
11/17/2018 3:15	7.497	35.49	15.04	5.761	29.46	0
11/17/2018 3:30	9.98	23.96	9.86	5.677	29.46	0
11/17/2018 3:45	10.32	20.91	9.71	5.51	29.46	0
11/17/2018 4:00	10.82	22.93	10.96	5.564	29.45	0
11/17/2018 4:15	9.49	26.63	8.74	5.221	29.45	0
11/17/2018 4:30	9.35	27.71	9.46	5.203	29.45	0
11/17/2018 4:45	8.41	25.95	11.53	5.193	29.45	0
11/17/2018 5:00	9.84	24	10.51	5.204	29.46	0
11/17/2018 5:15	8.51	22.72	12.35	4.867	29.46	0
11/17/2018 5:30	5.945	19.36	15.91	4.65	29.46	0
11/17/2018 5:45	7.347	17.79	11.97	4.694	29.46	0
11/17/2018 6:00	7.83	25.48	10.91	4.493	29.47	0
11/17/2018 6:15	8.3	24.28	7.57	4.464	29.47	0
11/17/2018 6:30	7.283	32.54	11.18	5.033	29.47	0
11/17/2018 6:45	8.18	25.6	12.02	4.646	29.47	0
11/17/2018 7:00	8.93	28.4	12.95	4.318	29.45	0
11/17/2018 7:15	7.939	27.58	12.5	4.26	29.45	0
11/17/2018 7:30	7.901	29.81	11.62	4.12	29.45	0
11/17/2018 7:45	7.4	34.36	8.48	3.814	29.45	0
11/17/2018 8:00	6.932	32.34	6.782	4.008	29.45	0
11/17/2018 8:15	5.643	35.9	11.01	4.476	29.45	0
11/17/2018 8:30	6.236	31.66	13.86	4.656	29.45	0
11/17/2018 8:45	6.156	34.42	10.5	4.876	29.45	0
11/17/2018 9:00	6.165	33.7	10.09	5.007	29.46	0
11/17/2018 9:15	5.995	28.14	7.021	5.336	29.46	0
11/17/2018 9:30	5.762	22.53	9.07	5.784	29.46	0
11/17/2018 9:45	4.504	13.34	13.91	6.29	29.46	0
11/17/2018 10:00	4.942	24.95	10.5	6.766	29.48	0
11/17/2018 10:15	5.18	21.42	8.11	6.982	29.48	0

11/17/2018 10:30	4.342	21.52	10.74	7.414	29.48	0
11/17/2018 10:45	3.805	15.84	12.13	8.05	29.48	0
11/17/2018 11:00	3.208	15.68	16.74	8.55	29.47	0
11/17/2018 11:15	4.531	20.95	11.55	8.55	29.47	0
11/17/2018 11:30	4.159	12.73	8.56	9.26	29.47	0
11/17/2018 11:45	4.146	20.24	9.52	9.56	29.47	0
11/17/2018 12:00	5.187	16.42	7.919	9.66	29.44	0
11/17/2018 12:15	5.637	21.09	9.51	9.98	29.44	0
11/17/2018 12:30	5.736	18.47	10.63	10.43	29.44	0
11/17/2018 12:45	7.015	24.96	8.47	10.55	29.44	0
11/17/2018 13:00	8.14	24.59	12.73	10.51	29.44	0
11/17/2018 13:15	11.41	17.17	9.22	10.59	29.44	0
11/17/2018 13:30	12.16	15.66	10.7	10.74	29.44	0
11/17/2018 13:45	11.91	27.81	10.69	10.56	29.44	0
11/17/2018 14:00	10.87	28.56	13.53	10.5	29.44	0
11/17/2018 14:15	8.67	31.28	12.5	10.67	29.44	0
11/17/2018 14:30	9.45	27.8	17.33	10.66	29.44	0
11/17/2018 14:45	10.59	18.34	10.6	10.58	29.44	0
11/17/2018 15:00	8.11	31.56	14.84	10.34	29.41	0
11/17/2018 15:15	6.328	41.63	16.45	10.16	29.41	0
11/17/2018 15:30	8.53	33.8	10.54	10	29.41	0
11/17/2018 15:45	9.01	32.68	11.34	9.91	29.41	0
11/17/2018 16:00	8.87	29.3	8.82	9.72	29.41	0
11/17/2018 16:15	6.232	28.97	14.74	9.44	29.41	0
11/17/2018 16:30	5.095	23.2	10.55	8.59	29.41	0
11/17/2018 16:45	6.496	23.78	9.4	7.86	29.41	0
11/17/2018 17:00	8.27	21.88	9.35	7.435	29.41	0
11/17/2018 17:15	9.31	25.83	12.79	7.178	29.41	0
11/17/2018 17:30	10.88	20.13	12.03	7.1	29.41	0
11/17/2018 17:45	11.56	20.87	10.69	7.006	29.41	0
11/17/2018 18:00	12.57	18.29	9.8	6.908	29.4	0
11/17/2018 18:15	12.62	20.17	8.7	6.695	29.4	0
11/17/2018 18:30	9.93	25.2	14.5	6.443	29.4	0
11/17/2018 18:45	11.29	22.06	8.84	6.417	29.4	0
11/17/2018 19:00	8	26.43	11.11	6.174	29.39	0
11/17/2018 19:15	7.952	31.64	12.5	5.824	29.39	0
11/17/2018 19:30	8.21	22.15	7.253	5.609	29.39	0
11/17/2018 19:45	7.471	27.47	11.64	5.436	29.39	0
11/17/2018 20:00	6.172	28.96	9.89	5.285	29.38	0
11/17/2018 20:15	5.816	26.3	9.35	5.07	29.38	0
11/17/2018 20:30	5.716	25.56	8.68	4.95	29.38	0
11/17/2018 20:45	5.689	22.03	10.44	4.965	29.38	0
11/17/2018 21:00	5.247	20.17	7.723	4.802	29.38	0
11/17/2018 21:15	5.715	21.34	8.41	4.707	29.38	0
11/17/2018 21:30	5.652	14.28	8.54	4.596	29.38	0
11/17/2018 21:45	4.754	17.92	7.805	4.53	29.38	0
11/17/2018 22:00	4.428	13.44	10.3	4.612	29.4	0

11/17/2018 22:15	5.292	18.45	6.303	4.375	29.4	0
11/17/2018 22:30	6.198	16.88	9	3.734	29.4	0
11/17/2018 22:45	6.271	19.02	8.66	3.468	29.4	0
11/17/2018 23:00	5.904	22.12	8.22	3.343	29.39	0
11/17/2018 23:15	4.976	27.46	7.617	3.249	29.39	0
11/17/2018 23:30	5.369	23.69	6.252	3.137	29.39	0
11/17/2018 23:45	4.83	30.9	11.11	3.473	29.39	0
11/18/2018 0:00	3.836	49.54	21.3	3.764	29.37	0
11/18/2018 0:15	4.111	61.26	29.9	4.051	29.37	0
11/18/2018 0:30	4.359	56.7	22.96	3.268	29.37	0
11/18/2018 0:45	3.827	73.68	29.09	4.017	29.37	0
11/18/2018 1:00	3.942	40.37	19.6	3.44	29.39	0
11/18/2018 1:15	4.204	33.9	8.72	3.171	29.39	0
11/18/2018 1:30	5.721	31.45	9.19	2.749	29.39	0
11/18/2018 1:45	5.322	22.89	11.67	2.715	29.39	0
11/18/2018 2:00	5.567	26.78	10.26	2.789	29.37	0
11/18/2018 2:15	4.692	31.75	8.56	3.107	29.37	0
11/18/2018 2:30	5.148	31.93	11	2.881	29.37	0
11/18/2018 2:45	5.508	30.03	9.47	2.707	29.37	0
11/18/2018 3:00	5.178	32.02	6.667	2.739	29.39	0
11/18/2018 3:15	4.987	32.83	6.248	2.753	29.39	0
11/18/2018 3:30	5.525	26.47	8.84	2.335	29.39	0
11/18/2018 3:45	4.697	35.25	10.14	2.22	29.39	0
11/18/2018 4:00	4.268	26.29	9.76	1.974	29.36	0
11/18/2018 4:15	5.42	28.39	10.22	2.227	29.36	0
11/18/2018 4:30	4.979	23.38	9.8	2.11	29.36	0
11/18/2018 4:45	5.264	17.44	7.335	2.436	29.36	0
11/18/2018 5:00	5.098	32.39	9.28	3.493	29.37	0
11/18/2018 5:15	4.205	34.99	10.76	3.083	29.37	0
11/18/2018 5:30	4.602	14.87	8	3.111	29.37	0
11/18/2018 5:45	4.932	26.75	8.27	2.537	29.37	0
11/18/2018 6:00	5.096	32.8	7.214	2.613	29.35	0
11/18/2018 6:15	4.886	20.39	8.06	2.954	29.35	0
11/18/2018 6:30	5.5	21.64	7.089	3.017	29.35	0
11/18/2018 6:45	5.391	19.14	5.752	2.808	29.35	0
11/18/2018 7:00	5.822	27.11	6.022	2.432	29.37	0
11/18/2018 7:15	5.237	23.32	7.214	2.307	29.37	0
11/18/2018 7:30	5.053	30.16	7.534	2.49	29.37	0
11/18/2018 7:45	5.446	26.08	6.601	3.11	29.37	0
11/18/2018 8:00	5.082	32.43	9.47	3.068	29.35	0
11/18/2018 8:15	4.569	39.41	13.91	3.486	29.35	0
11/18/2018 8:30	2.466	53.04	20.51	4.908	29.35	0
11/18/2018 8:45	1.102	70.74	24.55	6.387	29.35	0
11/18/2018 9:00	0.899	33.28	13.41	5.555	29.35	0
11/18/2018 9:15	2.341	55.62	22.45	5.723	29.35	0
11/18/2018 9:30	1.1	47.92	5.675	7.215	29.35	0
11/18/2018 9:45	2.788	74.88	32.45	7.109	29.35	0

11/18/2018 10:00	2.871	12.01	18.8	6.437	29.37	0
11/18/2018 10:15	2.072	324.2	10.62	7.801	29.37	0
11/18/2018 10:30	1.471	2.574	13.15	8.9	29.37	0
11/18/2018 10:45	1.755	351	20.72	8.62	29.37	0
11/18/2018 11:00	3.113	329.7	5.356	8.54	29.37	0
11/18/2018 11:15	3.037	340	9.48	8.57	29.37	0
11/18/2018 11:30	2.588	345.7	13.67	9.34	29.37	0
11/18/2018 11:45	2.537	13.54	11.32	9.53	29.37	0
11/18/2018 12:00	2.602	24.98	14.8	9.58	29.34	0
11/18/2018 12:15	2.896	32.39	11.65	9.52	29.34	0
11/18/2018 12:30	2.582	33.69	11.12	9.94	29.34	0
11/18/2018 12:45	2.376	20.56	11.97	10.33	29.34	0
11/18/2018 13:00	1.545	12.5	9.58	11.02	29.33	0
11/18/2018 13:15	2.081	14.91	15.89	11.46	29.33	0
11/18/2018 13:30	2.076	26.53	8.05	11.2	29.33	0
11/18/2018 13:45	2.539	32.48	12.59	11.01	29.33	0
11/18/2018 14:00	3.463	29.33	5.12	10.99	29.34	0
11/18/2018 14:15	3.912	23.64	9.58	10.94	29.34	0
11/18/2018 14:30	3.918	28	4.095	10.95	29.34	0
11/18/2018 14:45	3.843	26.61	8.76	10.95	29.34	0
11/18/2018 15:00	2.654	25.62	2.552	11.09	29.33	0
11/18/2018 15:15	2.838	31.67	8.47	11.05	29.33	0
11/18/2018 15:30	3.503	29.33	5.206	10.71	29.33	0
11/18/2018 15:45	3.347	23.43	7.129	10.44	29.33	0
11/18/2018 16:00	2.663	23.94	7.467	10.37	29.32	0
11/18/2018 16:15	2.737	22.65	7.949	10.09	29.32	0
11/18/2018 16:30	1.239	309.7	63.86	9.68	29.32	0
11/18/2018 16:45	2.341	211.4	59.17	9.96	29.32	0
11/18/2018 17:00	3.762	55.95	44.44	8.94	29.31	0
11/18/2018 17:15	3.077	40.16	21.36	8.58	29.31	0
11/18/2018 17:30	3.534	31.73	11.37	8.32	29.31	0
11/18/2018 17:45	3.382	26.56	13.58	8.5	29.31	0
11/18/2018 18:00	2.557	46.43	19.7	8.35	29.31	0
11/18/2018 18:15	2.428	48.39	48.56	7.977	29.31	0
11/18/2018 18:30	1.642	31.88	19.8	7.992	29.31	0
11/18/2018 18:45	2.032	48.71	23.49	7.289	29.31	0
11/18/2018 19:00	1.816	31.18	26.14	6.962	29.29	0
11/18/2018 19:15	1.139	44.9	32.42	7.621	29.29	0
11/18/2018 19:30	2.126	59.77	21	6.73	29.29	0
11/18/2018 19:45	2.831	6.316	16.52	6.795	29.29	0
11/18/2018 20:00	2.188	343.8	24.75	7.619	29.3	0
11/18/2018 20:15	3.208	12.13	18.19	6.914	29.3	0
11/18/2018 20:30	4.23	17.58	7.861	6.117	29.3	0
11/18/2018 20:45	5.04	17.06	6.609	5.64	29.3	0
11/18/2018 21:00	5.812	12.74	9.88	5.419	29.3	0
11/18/2018 21:15	3.843	22.64	18.04	5.167	29.3	0
11/18/2018 21:30	3.189	17.13	6.839	5.217	29.3	0

11/18/2018 21:45	3.885	17.1	9.02	5.789	29.3	0
11/18/2018 22:00	3.357	13.29	6.008	5.902	29.3	0
11/18/2018 22:15	3.047	349.4	24.02	6.499	29.3	0
11/18/2018 22:30	2.491	347.8	18.28	7.237	29.3	0
11/18/2018 22:45	2.464	9.18	28.02	5.912	29.3	0
11/18/2018 23:00	1.614	10.03	22.12	5.74	29.31	0
11/18/2018 23:15	0.748	350.9	21.06	6.254	29.31	0
11/18/2018 23:30	0.719	202.9	54.9	7.3	29.31	0
11/18/2018 23:45	1.77	28.18	44.89	7.134	29.31	0
11/19/2018 0:00	2.211	355.6	17.58	6.462	29.33	0
11/19/2018 0:15	1.326	9.86	13.63	6.297	29.33	0
11/19/2018 0:30	2.177	52.66	16.22	5.19	29.33	0
11/19/2018 0:45	1.033	50.73	31.32	5.427	29.33	0
11/19/2018 1:00	0.786	61.7	42.74	6.472	29.33	0
11/19/2018 1:15	0.836	41.06	10.41	5.847	29.33	0
11/19/2018 1:30	1.994	17.55	9.44	5.695	29.33	0
11/19/2018 1:45	1.943	14.54	5.577	5.862	29.33	0
11/19/2018 2:00	1.274	34.87	6.574	5.372	29.32	0
11/19/2018 2:15	1.169	351.4	19.36	5.398	29.32	0
11/19/2018 2:30	1.898	350.1	14.39	6.359	29.32	0
11/19/2018 2:45	2.616	21.23	9.73	5.806	29.32	0
11/19/2018 3:00	2.863	36.65	11.07	5.014	29.3	0
11/19/2018 3:15	3.873	28.48	14.44	3.335	29.3	0
11/19/2018 3:30	4.016	20.77	10.52	3.813	29.3	0
11/19/2018 3:45	3.538	29.35	6.321	3.95	29.3	0
11/19/2018 4:00	3.747	34.4	7.823	3.887	29.3	0
11/19/2018 4:15	3.612	26.3	11.92	3.846	29.3	0
11/19/2018 4:30	3.558	49.13	5.602	3.349	29.3	0
11/19/2018 4:45	3.074	13.95	13.04	3.923	29.3	0
11/19/2018 5:00	3.19	21.39	7.398	4.622	29.31	0
11/19/2018 5:15	4.259	27.83	5.97	5.09	29.31	0
11/19/2018 5:30	4.492	35.1	7.289	4.5	29.31	0
11/19/2018 5:45	3.224	43.17	11.49	3.713	29.31	0
11/19/2018 6:00	4.178	31.52	8.46	4.065	29.28	0
11/19/2018 6:15	5.093	30	5.63	4.174	29.28	0
11/19/2018 6:30	4.999	33.39	6.911	4.642	29.28	0
11/19/2018 6:45	3.959	19.9	8.18	4.067	29.28	0
11/19/2018 7:00	2.416	349.3	33.42	5.032	29.3	0
11/19/2018 7:15	4.315	334.8	24.2	5.965	29.3	0
11/19/2018 7:30	4.271	333.3	16.2	5.876	29.3	0
11/19/2018 7:45	3.423	1.107	17.69	5.59	29.3	0
11/19/2018 8:00	2.462	346.9	20.58	6.175	29.31	0
11/19/2018 8:15	2.32	328.6	14.34	6.882	29.31	0
11/19/2018 8:30	2.555	319.3	15.32	7.637	29.31	0
11/19/2018 8:45	1.18	344.5	51.49	7.503	29.31	0
11/19/2018 9:00	1.012	52.9	44.27	8.16	29.32	0
11/19/2018 9:15	2.058	43.95	30.24	7.686	29.32	0

11/19/2018 9:30	1.089	55.54	15.09	8.31	29.32	0
11/19/2018 9:45	1.328	166.4	65.45	8.9	29.32	0
11/19/2018 10:00	4.311	231	6.094	7.819	29.33	0
11/19/2018 10:15	1.351	353.6	69.85	8.41	29.33	0
11/19/2018 10:30	1.397	285.9	34.62	8.8	29.33	0
11/19/2018 10:45	1.484	336.7	33.29	9.2	29.33	0
11/19/2018 11:00	1.654	333.3	16.67	9.72	29.31	0
11/19/2018 11:15	2.83	300.5	19.25	9.87	29.31	0
11/19/2018 11:30	2.193	314.2	30.65	10.71	29.31	0
11/19/2018 11:45	2.935	10.09	20.91	10.37	29.31	0
11/19/2018 12:00	3.77	18.53	9.87	9.81	29.29	0
11/19/2018 12:15	2.924	14.37	18.03	10.37	29.29	0
11/19/2018 12:30	2.942	14.79	9.18	10.77	29.29	0
11/19/2018 12:45	1.788	51.52	58.14	12.6	29.29	0
11/19/2018 13:00	0.955	48.71	56.34	12.58	29.26	0
11/19/2018 13:15	1.708	325.3	28.43	13.78	29.26	0
11/19/2018 13:30	3.014	343.5	16.97	13.25	29.26	0
11/19/2018 13:45	4.552	316.4	19.54	13.27	29.26	0
11/19/2018 14:00	2.731	329.5	32.16	13.15	29.26	0
11/19/2018 14:15	2.939	6.029	17.53	12.18	29.26	0
11/19/2018 14:30	2.969	328.7	15.83	12.66	29.26	0
11/19/2018 14:45	2.925	323.4	16.1	13.01	29.26	0
11/19/2018 15:00	2.224	325.8	38.85	12.94	29.23	0
11/19/2018 15:15	2.305	308.5	19.87	12.78	29.23	0
11/19/2018 15:30	1.582	326.7	40.39	12.76	29.23	0
11/19/2018 15:45	1.768	14.67	34.82	11.85	29.23	0
11/19/2018 16:00	2.25	118.3	27.03	12.07	29.23	0
11/19/2018 16:15	2.751	140.2	19.44	12.48	29.23	0
11/19/2018 16:30	4.24	99.9	16.23	11.87	29.23	0
11/19/2018 16:45	6.526	114	14.65	11.49	29.23	0
11/19/2018 17:00	9.86	136.6	10.07	12.29	29.23	0
11/19/2018 17:15	9.48	137.8	8.98	12.29	29.23	0
11/19/2018 17:30	9.29	138.4	10.53	11.93	29.23	0
11/19/2018 17:45	9.07	132.3	9.48	11.86	29.23	0
11/19/2018 18:00	8.8	130.5	9.34	11.47	29.24	0
11/19/2018 18:15	8.76	126.4	9.68	11.19	29.24	0
11/19/2018 18:30	8.39	124.2	9.13	10.92	29.24	0
11/19/2018 18:45	7.946	123.6	9.83	10.74	29.24	0
11/19/2018 19:00	4.715	116.6	16.6	10.6	29.24	0
11/19/2018 19:15	5.367	148.3	12.43	10.53	29.24	0
11/19/2018 19:30	4.409	113.8	28.59	9.7	29.24	0
11/19/2018 19:45	4.922	95.6	15.61	8.6	29.24	0
11/19/2018 20:00	5.798	107.6	9.83	9.72	29.22	0
11/19/2018 20:15	8.12	113.6	8.36	10.01	29.22	0
11/19/2018 20:30	8.03	119.1	9.19	9.74	29.22	0
11/19/2018 20:45	8.81	129.8	7.284	9.79	29.22	0
11/19/2018 21:00	9.08	136.8	9.35	9.91	29.2	0

11/19/2018 21:15	8.81	139.2	7.224	10.15	29.2	0
11/19/2018 21:30	10.06	134.4	7.766	10.03	29.2	0
11/19/2018 21:45	11.18	133.4	9.43	10.03	29.2	0
11/19/2018 22:00	10.32	130.9	9.02	10.05	29.21	0
11/19/2018 22:15	9.32	129.3	8.9	9.95	29.21	0
11/19/2018 22:30	9.16	131.9	8.65	9.72	29.21	0
11/19/2018 22:45	8.3	120.6	8.97	9.51	29.21	0
11/19/2018 23:00	5.266	106.7	10.93	8.91	29.21	0
11/19/2018 23:15	4.971	90.3	17.33	8.6	29.21	0
11/19/2018 23:30	6.361	99.6	16.51	9.01	29.21	0
11/19/2018 23:45	5.185	100	12.25	8.96	29.21	0
11/20/2018 0:00	5.104	108.5	13.71	8.87	29.2	0
11/20/2018 0:15	7.886	119.2	11.51	9.11	29.2	0
11/20/2018 0:30	9.29	121.9	8.82	8.96	29.2	0
11/20/2018 0:45	9.21	128	9.03	8.84	29.2	0
11/20/2018 1:00	8.89	136.1	8.46	9.02	29.21	0
11/20/2018 1:15	8.73	138.3	11.76	9.08	29.21	0
11/20/2018 1:30	8.06	136.3	12.11	9.22	29.21	0
11/20/2018 1:45	9.91	134.6	12.68	9.3	29.21	0
11/20/2018 2:00	9.11	136.7	13.53	9.3	29.19	0
11/20/2018 2:15	9.22	134.1	14.1	9.59	29.19	0
11/20/2018 2:30	9.83	116.7	12.97	9.1	29.19	0
11/20/2018 2:45	9.95	123.2	8.94	9.07	29.19	0
11/20/2018 3:00	6.822	99.1	29.79	8.1	29.19	0
11/20/2018 3:15	2.004	44.3	22.58	6.91	29.19	0
11/20/2018 3:30	3.012	112.5	27.01	8.43	29.19	0
11/20/2018 3:45	3.698	55.9	33.88	6.456	29.19	0
11/20/2018 4:00	4.767	44.49	6.229	5.366	29.19	0
11/20/2018 4:15	4.063	29.76	23.99	7.52	29.19	0
11/20/2018 4:30	2.433	23.19	30.76	7.437	29.19	0
11/20/2018 4:45	3.308	95.1	38.49	8.13	29.19	0
11/20/2018 5:00	4.576	125.7	10.77	8.3	29.18	0
11/20/2018 5:15	4.636	110.4	11.7	7.2	29.18	0
11/20/2018 5:30	3.823	106.4	20.05	6.847	29.18	0
11/20/2018 5:45	7.011	119.9	11.79	8.03	29.18	0
11/20/2018 6:00	6.297	112.5	10.32	7.718	29.14	0
11/20/2018 6:15	5.135	107.5	16.29	7.563	29.14	0
11/20/2018 6:30	2.786	75.01	23.37	7.561	29.14	0
11/20/2018 6:45	3.69	93.3	26.65	7.955	29.14	0
11/20/2018 7:00	2.376	101.7	22.67	7.853	29.14	0
11/20/2018 7:15	3.169	15.93	13.38	6.498	29.14	0
11/20/2018 7:30	4.32	14.44	8.71	5.925	29.14	0
11/20/2018 7:45	4.744	19.96	8.66	5.523	29.14	0
11/20/2018 8:00	5.107	20.36	10.32	5.579	29.14	0
11/20/2018 8:15	4.345	30.69	9.46	5.754	29.14	0
11/20/2018 8:30	4.795	59.02	37.64	7.259	29.14	0
11/20/2018 8:45	4.746	108.9	17.42	8.89	29.14	0

11/20/2018 9:00	4.957	107.8	19.26	9.02	29.15	0
11/20/2018 9:15	4.113	133.1	14.99	9.97	29.15	0
11/20/2018 9:30	6.375	121.6	11.32	10.27	29.15	0
11/20/2018 9:45	5.427	135	14.41	10.95	29.15	0
11/20/2018 10:00	3.873	148	37.54	11.42	29.15	0
11/20/2018 10:15	3.005	123.5	47.68	11.41	29.15	0
11/20/2018 10:30	3.445	126.5	29.53	11.66	29.15	0
11/20/2018 10:45	5.437	117.3	10.99	11.73	29.15	0
11/20/2018 11:00	3.764	107	21.4	12.05	29.12	0
11/20/2018 11:15	3.793	132.6	29.88	13.04	29.12	0
11/20/2018 11:30	5.901	126.4	19.52	13.76	29.12	0
11/20/2018 11:45	5.915	144.4	16.36	14.52	29.12	0
11/20/2018 12:00	6.622	118.2	25.98	14.2	29.12	0
11/20/2018 12:15	6.566	136.8	20.21	14.63	29.12	0
11/20/2018 12:30	11	146.6	12.29	14.93	29.12	0
11/20/2018 12:45	9.44	133	20.46	14.96	29.12	0
11/20/2018 13:00	6.496	158.2	28.19	14.62	29.1	0
11/20/2018 13:15	6.733	143.9	43.15	14.15	29.1	0
11/20/2018 13:30	9.54	157.1	20.34	14.81	29.1	0
11/20/2018 13:45	12.83	143.5	14.65	14.9	29.1	0
11/20/2018 14:00	12.42	167.9	14.66	14.96	29.09	0
11/20/2018 14:15	13.63	163.8	12.61	14.84	29.09	0
11/20/2018 14:30	13.9	155.8	9.55	14.61	29.09	0
11/20/2018 14:45	12.35	154.6	10.97	14.58	29.09	0
11/20/2018 15:00	13.17	140.1	11.9	14.51	29.08	0
11/20/2018 15:15	9.57	142.4	13.3	14.21	29.08	0
11/20/2018 15:30	12.36	151.8	11.43	13.91	29.08	0
11/20/2018 15:45	12.02	152.6	11.93	13.46	29.08	0
11/20/2018 16:00	6.248	122.3	17.26	13	29.07	0
11/20/2018 16:15	5.915	107.1	14.74	12.83	29.07	0
11/20/2018 16:30	6.952	121.1	20.71	12.48	29.07	0
11/20/2018 16:45	8.51	126.1	10.04	12.19	29.07	0
11/20/2018 17:00	8.5	130.4	14.17	12.02	29.08	0
11/20/2018 17:15	7.858	127.4	14.47	12.17	29.08	0
11/20/2018 17:30	8.59	113.4	12.75	11.98	29.08	0
11/20/2018 17:45	8.56	132.9	11.96	11.85	29.08	0
11/20/2018 18:00	9.2	134.3	13.68	11.68	29.04	0
11/20/2018 18:15	9.02	135.6	14.71	11.63	29.04	0
11/20/2018 18:30	9.72	135.9	11.85	11.58	29.04	0
11/20/2018 18:45	9.21	133.4	11.93	11.63	29.04	0
11/20/2018 19:00	8.09	132.9	13.46	11.53	29.02	0
11/20/2018 19:15	7.488	130.9	16.82	11.41	29.02	0
11/20/2018 19:30	7.304	141	17.77	11.53	29.02	0
11/20/2018 19:45	6.711	139.6	17.24	11.35	29.02	0
11/20/2018 20:00	6.561	147.2	13.94	11.36	29.04	0
11/20/2018 20:15	7.743	143	15.89	11.23	29.04	0
11/20/2018 20:30	7.711	148.3	17.62	11.46	29.04	0

11/20/2018 20:45	8.68	136.9	12.21	11.27	29.04	0
11/20/2018 21:00	8.56	144.8	12.29	11.19	29.03	0
11/20/2018 21:15	10.04	141.7	11.21	11.08	29.03	0
11/20/2018 21:30	10.02	136.5	10.43	10.88	29.03	0
11/20/2018 21:45	10.02	147	10.79	10.91	29.03	0
11/20/2018 22:00	9.76	143.6	11.94	10.77	29.04	0
11/20/2018 22:15	10.51	147.8	11.28	10.85	29.04	0
11/20/2018 22:30	10.91	154.8	9.84	10.81	29.04	0
11/20/2018 22:45	11.93	157.3	9.18	10.73	29.04	0
11/20/2018 23:00	12.7	161.1	8.98	10.68	29.04	0
11/20/2018 23:15	14.94	170	14.38	10.64	29.04	0
11/20/2018 23:30	8.85	182	14.89	9.95	29.04	0
11/20/2018 23:45	8.39	175.2	15.08	9.99	29.04	0
11/21/2018 0:00	7.739	194.3	7.827	9.68	29.06	0
11/21/2018 0:15	8.42	194.6	7.993	9.75	29.06	0
11/21/2018 0:30	9.05	164.4	8.53	9.71	29.06	0
11/21/2018 0:45	9.42	156	5.75	9.45	29.06	0
11/21/2018 1:00	11.34	151.1	9.94	9.86	29.07	0
11/21/2018 1:15	9.26	146.2	10.22	9.77	29.07	0
11/21/2018 1:30	7.537	138.9	9.81	9.69	29.07	0
11/21/2018 1:45	9.23	133.3	7.654	9.85	29.07	0
11/21/2018 2:00	8.81	131	8.22	10.09	29.06	0
11/21/2018 2:15	6.725	132.1	10.71	10.14	29.06	0
11/21/2018 2:30	9.22	127.5	10.98	10.25	29.06	0
11/21/2018 2:45	12.15	131.4	13.66	10.41	29.06	0
11/21/2018 3:00	13.62	146.7	12.66	10.16	29.04	0
11/21/2018 3:15	12.07	125.7	13.39	10.08	29.04	0
11/21/2018 3:30	8.27	133.4	15.18	10.14	29.04	0
11/21/2018 3:45	8.89	131.2	10.34	10.26	29.04	0
11/21/2018 4:00	8.47	130.5	12.7	10.37	28.99	0
11/21/2018 4:15	9.19	154.8	7.463	10.47	28.99	0
11/21/2018 4:30	8.04	162.4	13.04	10.72	28.99	0
11/21/2018 4:45	5.583	128.5	20.06	10.67	28.99	0
11/21/2018 5:00	3.722	101.7	37.45	10.53	28.98	0
11/21/2018 5:15	8.48	128.8	15.89	10.79	28.98	0
11/21/2018 5:30	10.19	112.5	16.9	10.92	28.98	0
11/21/2018 5:45	8.01	106.6	16.84	10.68	28.98	0
11/21/2018 6:00	11.26	119.5	16.37	11.12	28.97	0
11/21/2018 6:15	10.25	104.6	29.46	11.35	28.97	0
11/21/2018 6:30	6.582	93.5	25.91	10.26	28.97	0
11/21/2018 6:45	13.3	133.5	12.03	11.55	28.97	0
11/21/2018 7:00	13.29	129.5	12.12	11.57	28.96	0
11/21/2018 7:15	13.08	145.6	14.69	11.46	28.96	0
11/21/2018 7:30	12.94	151.9	15.38	11.48	28.96	0
11/21/2018 7:45	12.79	152.7	11.52	11.21	28.96	0
11/21/2018 8:00	11.87	128.2	11.23	11.51	28.94	0
11/21/2018 8:15	13.34	143.8	11.3	11.75	28.94	0

11/21/2018 8:30	15.95	140.5	10.27	11.74	28.94	0
11/21/2018 8:45	15.51	138	11.05	11.42	28.94	0
11/21/2018 9:00	13.88	132.6	11.38	11.19	28.95	0
11/21/2018 9:15	14.45	142.1	11.31	11.04	28.95	0
11/21/2018 9:30	16.04	136	10.23	11.01	28.95	0
11/21/2018 9:45	14.64	130	11.06	10.81	28.95	0
11/21/2018 10:00	13.31	127	13.38	10.79	28.96	0
11/21/2018 10:15	15.86	130.4	10.09	10.8	28.96	0
11/21/2018 10:30	15.65	128.8	10.71	10.83	28.96	0
11/21/2018 10:45	14.11	133.2	10.05	10.95	28.96	0
11/21/2018 11:00	13.31	136.7	10.79	11.12	28.95	0
11/21/2018 11:15	14.62	137.4	10.35	11.14	28.95	0
11/21/2018 11:30	12.96	145.5	15.5	10.98	28.95	0
11/21/2018 11:45	11.14	168	14.57	10.56	28.95	0
11/21/2018 12:00	10.13	156	16.62	10.31	28.95	0
11/21/2018 12:15	10.89	136.9	10.39	10.32	28.95	0
11/21/2018 12:30	12.72	134.6	9.84	10.16	28.95	0
11/21/2018 12:45	10.61	136.6	10.63	9.77	28.95	0
11/21/2018 13:00	12.39	133.2	11.18	9.54	28.93	0
11/21/2018 13:15	12.51	130.9	10.31	9.3	28.93	0
11/21/2018 13:30	12.03	143.6	10.42	9.34	28.93	0
11/21/2018 13:45	15.12	148.3	12.79	8.99	28.93	0
11/21/2018 14:00	14.42	127.1	11.66	9.21	28.92	0
11/21/2018 14:15	9.98	184.5	17.9	9.5	28.92	0
11/21/2018 14:30	10.67	151	10.85	9.42	28.92	0
11/21/2018 14:45	7.664	141.4	11.94	9.99	28.92	0
11/21/2018 15:00	8.69	145.4	13.55	9.92	28.93	0
11/21/2018 15:15	6.936	134.9	15.64	9.94	28.93	0
11/21/2018 15:30	6.94	138.2	14.67	9.67	28.93	0
11/21/2018 15:45	7.864	160.7	17.81	9.53	28.93	0
11/21/2018 16:00	6.869	146.3	11.56	9.47	28.93	0
11/21/2018 16:15	6.81	140.1	10.81	9.49	28.93	0
11/21/2018 16:30	7.788	130.8	13.86	9.7	28.93	0
11/21/2018 16:45	7.102	132	15.82	9.7	28.93	0
11/21/2018 17:00	9.05	136.5	13.83	9.93	28.91	0
11/21/2018 17:15	8.19	153.9	16.41	9.96	28.91	0
11/21/2018 17:30	7.669	181	16.59	9.85	28.91	0
11/21/2018 17:45	7.801	164.4	19.42	9.6	28.91	0
11/21/2018 18:00	7.398	145.8	10.02	9.67	28.92	0
11/21/2018 18:15	6.083	146.2	13.51	9.62	28.92	0
11/21/2018 18:30	4.753	126.5	23.93	9.61	28.92	0
11/21/2018 18:45	3.912	138.1	21.64	9.45	28.92	0
11/21/2018 19:00	4.226	136	18.87	9.3	28.91	0
11/21/2018 19:15	4.502	103.6	15.99	9.21	28.91	0
11/21/2018 19:30	2.263	97.5	19.2	8.65	28.91	0
11/21/2018 19:45	3.655	137.8	17.45	8.9	28.91	0
11/21/2018 20:00	3.3	117	36.31	9.18	28.9	0

11/21/2018 20:15	4.347	81.9	21.05	8.84	28.9	0
11/21/2018 20:30	3.605	112.8	22.57	8.77	28.9	0
11/21/2018 20:45	5.695	134.2	14.27	9.26	28.9	0
11/21/2018 21:00	8.06	131.4	14.05	9.6	28.86	0
11/21/2018 21:15	8.04	130.1	18.56	9.63	28.86	0
11/21/2018 21:30	9.47	129.6	13.13	9.34	28.86	0
11/21/2018 21:45	7.96	110.1	12.18	8.63	28.86	0
11/21/2018 22:00	9.22	128.2	11.3	8.87	28.86	0
11/21/2018 22:15	10.52	130.4	10.71	9.18	28.86	0
11/21/2018 22:30	12.49	139.5	11.12	9.12	28.86	0
11/21/2018 22:45	11.68	130	11.01	9.27	28.86	0
11/21/2018 23:00	8.83	154.8	13.02	8.98	28.86	0
11/21/2018 23:15	9	151.5	16.84	8.4	28.86	0
11/21/2018 23:30	9.78	122.8	10.86	8.49	28.86	0
11/21/2018 23:45	11.17	125.6	9.78	8.73	28.86	0
11/22/2018 0:00	12.91	129.2	10.04	9.09	28.84	0
11/22/2018 0:15	13.6	128	9.15	9.42	28.84	0
11/22/2018 0:30	13.71	139.7	10.47	9.47	28.84	0
11/22/2018 0:45	14.92	132	11	9.7	28.84	0
11/22/2018 1:00	13.69	128.8	7.535	9.83	28.81	0
11/22/2018 1:15	14.57	131.9	8.77	9.94	28.81	0
11/22/2018 1:30	11.53	148.4	21.72	9.68	28.81	0
11/22/2018 1:45	10.74	142.2	10.67	9.61	28.81	0
11/22/2018 2:00	11.02	143.4	9.56	9.41	28.81	0
11/22/2018 2:15	11.6	144.3	9.06	9.1	28.81	0
11/22/2018 2:30	10.76	143.6	10.03	8.84	28.81	0
11/22/2018 2:45	9.2	152.4	8.26	8.28	28.81	0
11/22/2018 3:00	7.107	160.8	11.6	8.11	28.85	0
11/22/2018 3:15	4.509	173.7	11.78	8.13	28.85	0
11/22/2018 3:30	7.011	162.6	17.49	7.853	28.85	0
11/22/2018 3:45	4.626	144.9	22.34	7.372	28.85	0
11/22/2018 4:00	3.417	154.8	20.67	7.125	28.84	0
11/22/2018 4:15	4.969	161.7	15.67	6.916	28.84	0
11/22/2018 4:30	5.745	146.6	8.99	6.76	28.84	0
11/22/2018 4:45	6.297	138.1	7.388	6.933	28.84	0.01
11/22/2018 5:00	9	138.8	9.62	6.837	28.86	0
11/22/2018 5:15	9.23	139.2	9.32	7.117	28.86	0
11/22/2018 5:30	8.67	137.9	7.792	6.936	28.86	0
11/22/2018 5:45	9.76	143.1	9.57	7.053	28.86	0
11/22/2018 6:00	8.36	143.6	10.44	7.07	28.85	0
11/22/2018 6:15	8.21	132.9	10.11	7.078	28.85	0
11/22/2018 6:30	8.82	132.5	10.89	7.102	28.85	0
11/22/2018 6:45	8.02	133.6	8.69	7.035	28.85	0
11/22/2018 7:00	10.17	129.6	8.42	6.903	28.87	0
11/22/2018 7:15	9.14	130.1	8.86	6.96	28.87	0
11/22/2018 7:30	8.14	139.1	10.22	7.015	28.87	0
11/22/2018 7:45	6.167	152.2	13.51	6.878	28.87	0

11/22/2018 8:00	7.431	136.9	10.72	6.915	28.86	0
11/22/2018 8:15	6.501	123.3	10.07	7.009	28.86	0
11/22/2018 8:30	6.535	144.8	29.1	7.3	28.86	0
11/22/2018 8:45	5.788	122.5	9.98	7.703	28.86	0
11/22/2018 9:00	6.052	125.1	10.89	8.49	28.85	0
11/22/2018 9:15	5.757	143.9	11.93	8.34	28.85	0
11/22/2018 9:30	5.127	133.8	10.63	8.72	28.85	0
11/22/2018 9:45	4.558	120.2	9.9	9.3	28.85	0
11/22/2018 10:00	4.662	150.5	25.77	9.51	28.81	0
11/22/2018 10:15	5.465	157.6	30.45	8.68	28.81	0
11/22/2018 10:30	3.481	125.7	23.98	9.28	28.81	0
11/22/2018 10:45	4.213	149.8	25.59	9.07	28.81	0
11/22/2018 11:00	3.687	133.6	18.39	8.94	28.79	0
11/22/2018 11:15	5.229	139.3	9.7	8.76	28.79	0
11/22/2018 11:30	5.524	152.4	13.82	9.03	28.79	0
11/22/2018 11:45	6.11	162.7	12.53	9.16	28.79	0
11/22/2018 12:00	6.546	152.5	27.82	8.87	28.73	0
11/22/2018 12:15	5.455	99.6	19.85	9.04	28.73	0
11/22/2018 12:30	4.824	127.9	16.68	9.29	28.73	0
11/22/2018 12:45	8.29	141	10.82	9.88	28.73	0
11/22/2018 13:00	4.672	112.9	23.75	9.52	28.68	0
11/22/2018 13:15	2.98	165.8	30.56	9.28	28.68	0
11/22/2018 13:30	3.389	111.1	28.07	9.1	28.68	0
11/22/2018 13:45	2.202	56.67	21.26	8.81	28.68	0
11/22/2018 14:00	3.555	81.6	26.42	8.81	28.63	0
11/22/2018 14:15	4.263	153.7	49.39	9.04	28.63	0
11/22/2018 14:30	6.19	214.7	28.82	8.71	28.63	0
11/22/2018 14:45	6.782	132	37.01	8.3	28.63	0
11/22/2018 15:00	5.112	63.94	17.67	7.768	28.68	0
11/22/2018 15:15	3.458	131.5	26.38	7.635	28.68	0
11/22/2018 15:30	2.893	179.2	27.79	7.62	28.68	0.01
11/22/2018 15:45	6.964	259.7	25.94	7.258	28.68	0
11/22/2018 16:00	4.762	262.3	14.39	7.079	28.71	0
11/22/2018 16:15	4.497	302.6	9.45	6.995	28.71	0
11/22/2018 16:30	1.077	47.88	36.63	6.945	28.71	0
11/22/2018 16:45	4.485	168.1	36.02	7.213	28.71	0
11/22/2018 17:00	3.317	136.3	20.42	6.989	28.76	0
11/22/2018 17:15	8.28	168.7	20.67	7.047	28.76	0.01
11/22/2018 17:30	17.97	200	9.2	7.104	28.76	0
11/22/2018 17:45	15.64	212.1	8.19	6.827	28.76	0
11/22/2018 18:00	13.86	209.1	7.889	6.652	28.78	0
11/22/2018 18:15	11.04	191.3	12.19	6.592	28.78	0
11/22/2018 18:30	10.33	179.4	8.34	6.56	28.78	0
11/22/2018 18:45	8.25	159.1	10.25	6.437	28.78	0
11/22/2018 19:00	10.17	157.5	5.444	6.387	28.82	0
11/22/2018 19:15	8.75	155	8.02	6.596	28.82	0
11/22/2018 19:30	9.2	165.5	14.48	6.756	28.82	0

11/22/2018 19:45	10.58	199.7	11.12	6.641	28.82	0
11/22/2018 20:00	11.67	192.2	9.09	6.703	28.83	0
11/22/2018 20:15	11.64	194.2	8.52	6.518	28.83	0
11/22/2018 20:30	12.1	189.2	7.488	6.366	28.83	0
11/22/2018 20:45	8.74	172.9	13.62	6.267	28.83	0
11/22/2018 21:00	8.84	156.6	8.02	6.073	28.84	0
11/22/2018 21:15	10.83	165.9	12.31	6.195	28.84	0
11/22/2018 21:30	8.29	145.2	13	5.997	28.84	0
11/22/2018 21:45	9.79	151.7	6.684	5.849	28.84	0
11/22/2018 22:00	11.76	159.7	8.51	6.137	28.88	0
11/22/2018 22:15	10.07	159.1	11.45	6.246	28.88	0
11/22/2018 22:30	6.142	145.5	16.86	6.134	28.88	0
11/22/2018 22:45	4.329	136.5	11.84	6.007	28.88	0
11/22/2018 23:00	9.61	171.2	16.16	6.398	28.89	0
11/22/2018 23:15	12.02	181.9	9.67	6.503	28.89	0
11/22/2018 23:30	9.05	178	7.896	6.438	28.89	0
11/22/2018 23:45	6.416	185.2	7.302	6.276	28.89	0
11/23/2018 0:00	4.95	155.1	12.53	5.949	28.89	0
11/23/2018 0:15	5.425	142.4	10.72	5.857	28.89	0
11/23/2018 0:30	7.939	155.7	8.35	6.161	28.89	0
11/23/2018 0:45	9.74	160.7	9.33	6.289	28.89	0
11/23/2018 1:00	9.49	152.9	6.756	6.116	28.89	0.01
11/23/2018 1:15	7.261	162.1	10.45	5.951	28.89	0
11/23/2018 1:30	8.8	161.8	8.4	5.984	28.89	0
11/23/2018 1:45	11.07	177.6	8.32	6.193	28.89	0
11/23/2018 2:00	10.19	175.4	8.42	6.22	28.93	0
11/23/2018 2:15	9.82	177.5	8.77	6.206	28.93	0
11/23/2018 2:30	9.33	174.4	8.42	6.156	28.93	0
11/23/2018 2:45	8.64	175.5	8.45	6.141	28.93	0
11/23/2018 3:00	5.558	161.7	14.76	6.01	28.93	0
11/23/2018 3:15	5.498	131.5	6.093	5.81	28.93	0
11/23/2018 3:30	9.87	145.3	11.13	5.911	28.93	0.01
11/23/2018 3:45	10.8	155.6	7.429	5.972	28.93	0
11/23/2018 4:00	9.01	146.1	7.555	5.862	28.9	0
11/23/2018 4:15	8.15	135.6	8.11	5.794	28.9	0
11/23/2018 4:30	8.07	132.6	8.77	5.819	28.9	0
11/23/2018 4:45	5.453	129.8	13.38	5.966	28.9	0
11/23/2018 5:00	6.921	143	8.76	6.024	28.89	0
11/23/2018 5:15	9.75	151.3	7.691	5.989	28.89	0
11/23/2018 5:30	9.82	159.6	8.54	6.097	28.89	0
11/23/2018 5:45	9.27	165.4	9.32	6.205	28.89	0
11/23/2018 6:00	8.98	172.8	9.95	6.26	28.9	0
11/23/2018 6:15	7.945	165.6	11	6.142	28.9	0
11/23/2018 6:30	10.16	168.4	9.81	6.261	28.9	0
11/23/2018 6:45	8.46	189.4	10.3	6.269	28.9	0
11/23/2018 7:00	5.584	189.2	9.35	6.141	28.9	0
11/23/2018 7:15	4.944	144.3	24.51	5.961	28.9	0

11/23/2018 7:30	6.482	131.4	8.79	5.926	28.9	0
11/23/2018 7:45	6.113	136	11.93	6.162	28.9	0
11/23/2018 8:00	6.748	140.2	7.017	6.28	28.86	0
11/23/2018 8:15	9.03	151.2	7.023	6.549	28.86	0
11/23/2018 8:30	7.681	167.8	13.34	6.58	28.86	0
11/23/2018 8:45	7.026	230.9	29.33	6.347	28.86	0.01
11/23/2018 9:00	7.086	216.8	16.84	6.101	28.87	0
11/23/2018 9:15	7.202	183.6	11.18	6.186	28.87	0
11/23/2018 9:30	5.167	143.7	15	6.131	28.87	0
11/23/2018 9:45	4.968	125	6.606	6.137	28.87	0
11/23/2018 10:00	4.525	127.5	6.105	6.179	28.87	0
11/23/2018 10:15	4.82	139.5	7.305	6.312	28.87	0
11/23/2018 10:30	7.805	153.3	6.454	6.567	28.87	0
11/23/2018 10:45	7.961	153.4	8.91	6.645	28.87	0
11/23/2018 11:00	7.906	149.5	9.62	6.701	28.85	0
11/23/2018 11:15	6.442	143.1	8.3	6.745	28.85	0
11/23/2018 11:30	7.01	141.6	8.5	6.878	28.85	0
11/23/2018 11:45	7.42	150.6	7.629	7.013	28.85	0
11/23/2018 12:00	5.951	154.1	10.07	6.912	28.83	0
11/23/2018 12:15	6.014	148.9	11.03	6.898	28.83	0
11/23/2018 12:30	6.739	151.2	6.888	6.875	28.83	0
11/23/2018 12:45	7.856	163.2	15.49	6.896	28.83	0
11/23/2018 13:00	9.41	182	10.55	7.19	28.83	0
11/23/2018 13:15	6.813	156	10.8	7.351	28.83	0
11/23/2018 13:30	8.77	175.3	9.61	7.416	28.83	0
11/23/2018 13:45	9.3	175.5	10.12	7.366	28.83	0
11/23/2018 14:00	8.87	182.2	8.34	7.218	28.81	0
11/23/2018 14:15	9.88	178.9	7.788	7.224	28.81	0
11/23/2018 14:30	9.11	174.8	11.76	7.208	28.81	0
11/23/2018 14:45	8.63	178.7	8.9	7.111	28.81	0
11/23/2018 15:00	8.89	195.9	9.02	7.046	28.83	0
11/23/2018 15:15	10.27	192.1	7.906	6.944	28.83	0
11/23/2018 15:30	6.418	266.2	34.92	6.864	28.83	0
11/23/2018 15:45	4.768	262.9	41.89	7.019	28.83	0
11/23/2018 16:00	9.24	30.73	22.64	5.488	28.83	0
11/23/2018 16:15	10.68	31.38	11.7	5.008	28.83	0
11/23/2018 16:30	13.01	20.26	11.73	4.484	28.83	0
11/23/2018 16:45	11.6	23.55	10.14	4.359	28.83	0
11/23/2018 17:00	8.56	39.9	16.92	4.042	28.87	0
11/23/2018 17:15	1.729	59.79	61.15	3.606	28.87	0.01
11/23/2018 17:30	3.503	63.6	8.97	3.938	28.87	0
11/23/2018 17:45	1.88	190.1	54.01	4.091	28.87	0
11/23/2018 18:00	2.485	305.2	47.93	4.748	28.9	0
11/23/2018 18:15	7.129	201.8	8.69	3.978	28.9	0
11/23/2018 18:30	5.202	168.1	16.01	3.84	28.9	0
11/23/2018 18:45	3.724	99	17.92	3.645	28.9	0
11/23/2018 19:00	4.755	117	17.14	3.394	28.93	0

11/23/2018 19:15	6.521	116.5	10.16	3.291	28.93	0
11/23/2018 19:30	7.185	120.2	13.35	3.317	28.93	0
11/23/2018 19:45	5.906	129.8	8.03	3.516	28.93	0
11/23/2018 20:00	3.253	121.7	11.05	3.612	28.95	0
11/23/2018 20:15	3.482	117.8	8.39	3.765	28.95	0
11/23/2018 20:30	3.92	118.4	7.815	3.89	28.95	0
11/23/2018 20:45	3.127	141.8	9.28	3.994	28.95	0
11/23/2018 21:00	3.252	138.4	7.144	3.878	28.98	0
11/23/2018 21:15	3.341	131.1	12.51	4.091	28.98	0
11/23/2018 21:30	2.184	73.07	24.4	3.901	28.98	0
11/23/2018 21:45	1.785	95.4	4.617	4.228	28.98	0
11/23/2018 22:00	2.624	116.6	10.38	4.499	29.02	0
11/23/2018 22:15	5.507	140.5	10.07	4.434	29.02	0.01
11/23/2018 22:30	3.887	127.5	33.31	4.432	29.02	0
11/23/2018 22:45	3.287	95.7	30.61	4.218	29.02	0
11/23/2018 23:00	4.557	130.3	8.36	4.563	29.06	0
11/23/2018 23:15	4.177	143.5	10.89	4.664	29.06	0
11/23/2018 23:30	4.258	141.1	8.18	4.621	29.06	0
11/23/2018 23:45	2.066	144.7	16.37	4.682	29.06	0
11/24/2018 0:00	0.804	86.6	21.34	4.633	29.1	0
11/24/2018 0:15	3.632	112.4	29.73	4.61	29.1	0
11/24/2018 0:30	2.768	121	10.72	4.748	29.1	0
11/24/2018 0:45	1.442	94.2	35.02	4.781	29.1	0
11/24/2018 1:00	3.402	155.3	37.12	4.898	29.13	0
11/24/2018 1:15	6.395	166.5	13.51	5.107	29.13	0
11/24/2018 1:30	5.4	182	12.09	4.807	29.13	0
11/24/2018 1:45	3.551	167.5	36.52	4.896	29.13	0
11/24/2018 2:00	1.362	124.7	25.04	4.706	29.17	0
11/24/2018 2:15	3.671	165.3	25.04	4.639	29.17	0
11/24/2018 2:30	2.261	90.9	7.993	4.547	29.17	0
11/24/2018 2:45	4.081	104.7	7.459	4.474	29.17	0
11/24/2018 3:00	4.287	112.4	6.866	4.617	29.2	0
11/24/2018 3:15	4.252	125	10.18	4.877	29.2	0
11/24/2018 3:30	4.337	103.9	9.48	4.754	29.2	0
11/24/2018 3:45	3.846	122.2	17.91	4.743	29.2	0
11/24/2018 4:00	3.691	99.8	23.55	4.621	29.21	0
11/24/2018 4:15	3.214	101.5	13	4.653	29.21	0
11/24/2018 4:30	3.036	125.2	10.48	4.827	29.21	0
11/24/2018 4:45	4.743	138.9	6.664	5.115	29.21	0
11/24/2018 5:00	3.384	130.2	10.39	4.93	29.24	0
11/24/2018 5:15	0.349	112.2	0.909	4.784	29.24	0
11/24/2018 5:30	1.793	148.3	13.5	4.787	29.24	0
11/24/2018 5:45	0.968	103.1	6.531	4.664	29.24	0
11/24/2018 6:00	0.243	101.4	0.052	4.9	29.26	0
11/24/2018 6:15	0.719	103	1.416	4.963	29.26	0
11/24/2018 6:30	2.931	116.9	5.138	4.821	29.26	0
11/24/2018 6:45	3.165	124	6.472	4.812	29.26	0

11/24/2018 7:00	3.618	141.2	7.752	4.859	29.28	0
11/24/2018 7:15	3.577	159.2	7.567	4.81	29.28	0
11/24/2018 7:30	3.279	160	15.25	5.003	29.28	0
11/24/2018 7:45	2.353	90.2	21.5	4.687	29.28	0
11/24/2018 8:00	2.838	87.7	3.238	4.543	29.29	0
11/24/2018 8:15	3.454	75.19	3.531	4.989	29.29	0
11/24/2018 8:30	2.981	83.1	13.92	5.575	29.29	0
11/24/2018 8:45	2.692	148.5	31.29	5.587	29.29	0
11/24/2018 9:00	1.994	109.7	6.362	6.249	29.32	0
11/24/2018 9:15	1.595	73.96	7.476	6.105	29.32	0
11/24/2018 9:30	2.555	115.3	7.426	6.594	29.32	0
11/24/2018 9:45	2.434	135.7	12.67	6.92	29.32	0
11/24/2018 10:00	2.501	128	19.33	7.309	29.32	0
11/24/2018 10:15	3.087	151.3	16.59	7.133	29.32	0
11/24/2018 10:30	3.51	171.5	13.85	6.568	29.32	0
11/24/2018 10:45	3.903	178.2	12.8	6.894	29.32	0
11/24/2018 11:00	4.565	189.7	9.95	6.979	29.35	0
11/24/2018 11:15	2.829	179.4	15.98	6.753	29.35	0
11/24/2018 11:30	3.916	149.6	9.59	7.207	29.35	0
11/24/2018 11:45	4.394	139.8	12.11	7.499	29.35	0
11/24/2018 12:00	3.7	147.6	16.91	7.47	29.34	0
11/24/2018 12:15	3.672	134	20.55	7.429	29.34	0
11/24/2018 12:30	3.92	134.7	11.4	7.545	29.34	0
11/24/2018 12:45	4.495	127	15.09	7.529	29.34	0
11/24/2018 13:00	4.555	135.7	16.19	7.616	29.3	0
11/24/2018 13:15	3.225	147.2	23.62	7.708	29.3	0
11/24/2018 13:30	3.123	145.9	20.03	7.862	29.3	0
11/24/2018 13:45	3.68	132.2	14.22	7.85	29.3	0
11/24/2018 14:00	4.59	142.7	9.9	7.788	29.32	0
11/24/2018 14:15	3.357	146.8	6.776	7.782	29.32	0
11/24/2018 14:30	2.717	188.9	19.86	7.884	29.32	0
11/24/2018 14:45	2.768	187.6	21.24	7.9	29.32	0
11/24/2018 15:00	2.479	145.8	27.92	7.806	29.34	0
11/24/2018 15:15	1.559	119.1	5.545	7.708	29.34	0
11/24/2018 15:30	0.265	137.5	0.057	7.761	29.34	0
11/24/2018 15:45	1.152	133.6	12.67	7.704	29.34	0
11/24/2018 16:00	0.553	106.4	0.622	7.425	29.34	0
11/24/2018 16:15	1.262	119.3	9.12	7.449	29.34	0
11/24/2018 16:30	1.777	85.4	19.57	7.156	29.34	0
11/24/2018 16:45	2.723	63.37	5.197	6.837	29.34	0
11/24/2018 17:00	3.138	87.7	7.772	6.835	29.36	0
11/24/2018 17:15	3.663	89.7	4.487	6.803	29.36	0
11/24/2018 17:30	3.575	80.9	4.418	6.411	29.36	0
11/24/2018 17:45	2.968	75.14	4.606	6.215	29.36	0
11/24/2018 18:00	2.263	39.52	13.04	6.256	29.34	0
11/24/2018 18:15	0.378	51.84	0.393	6.204	29.34	0
11/24/2018 18:30	0.812	84.9	7.779	6.21	29.34	0

11/24/2018 18:45	1.675	67.97	6.667	5.745	29.34	0
11/24/2018 19:00	1.143	60.02	0.663	5.376	29.34	0
11/24/2018 19:15	1.193	68.34	2.242	5.329	29.34	0
11/24/2018 19:30	0.251	69.13	0.074	5.636	29.34	0
11/24/2018 19:45	1.605	173.4	20.59	5.692	29.34	0
11/24/2018 20:00	2.104	176.3	6.589	5.423	29.34	0
11/24/2018 20:15	2.821	141	15.37	5.121	29.34	0
11/24/2018 20:30	3.235	136.8	9.74	5.292	29.34	0
11/24/2018 20:45	1.951	138.2	9.78	4.941	29.34	0
11/24/2018 21:00	2.229	115.6	6.566	5.034	29.36	0
11/24/2018 21:15	2.771	123.8	10.21	4.748	29.36	0
11/24/2018 21:30	3.226	128.2	10.95	4.99	29.36	0
11/24/2018 21:45	2.728	103.7	7.363	4.418	29.36	0
11/24/2018 22:00	2.569	115.7	8.14	4.528	29.37	0
11/24/2018 22:15	3.155	131.8	4.122	5.356	29.37	0
11/24/2018 22:30	2.281	137.5	11.86	4.984	29.37	0
11/24/2018 22:45	1.701	114.5	6.192	4.351	29.37	0
11/24/2018 23:00	2.611	124.9	6.738	4.588	29.35	0
11/24/2018 23:15	2.899	131.5	3.266	4.336	29.35	0
11/24/2018 23:30	4.022	138.7	3.568	4.547	29.35	0
11/24/2018 23:45	2.889	139.7	3.41	4.36	29.35	0
11/25/2018 0:00	2.727	130.4	12.02	4.272	29.34	0
11/25/2018 0:15	3.101	92	7.744	3.693	29.34	0
11/25/2018 0:30	2.535	88.9	8.11	3.736	29.34	0
11/25/2018 0:45	3.142	140.7	23.64	4.237	29.34	0
11/25/2018 1:00	3.373	154.4	7.025	4.25	29.34	0
11/25/2018 1:15	1.032	114.3	7.161	4.661	29.34	0
11/25/2018 1:30	1.445	189.3	46.79	4.439	29.34	0
11/25/2018 1:45	0.747	186.5	41.97	4.31	29.34	0
11/25/2018 2:00	1.862	44.38	18.79	3.219	29.34	0
11/25/2018 2:15	2.101	19.49	4.994	3.816	29.34	0
11/25/2018 2:30	2.859	45.46	7.224	3.487	29.34	0
11/25/2018 2:45	2.393	28.53	4.713	3.172	29.34	0
11/25/2018 3:00	1.884	5.791	19.8	3.994	29.33	0
11/25/2018 3:15	1.824	49.91	13.94	3.601	29.33	0
11/25/2018 3:30	1.811	75.55	46.06	4.955	29.33	0
11/25/2018 3:45	5.736	138.4	14.45	4.758	29.33	0
11/25/2018 4:00	5.438	138.7	12.03	4.563	29.33	0
11/25/2018 4:15	0.807	89	15.41	4.183	29.33	0
11/25/2018 4:30	1.516	85	8.58	4.109	29.33	0
11/25/2018 4:45	0.855	131.1	29.14	4.109	29.33	0
11/25/2018 5:00	3.156	203.1	20.46	4.003	29.33	0
11/25/2018 5:15	3.502	163.3	24.69	3.911	29.33	0
11/25/2018 5:30	3.646	124.9	6.618	3.809	29.33	0
11/25/2018 5:45	3.831	143.6	10.15	4.337	29.33	0
11/25/2018 6:00	3.173	123.8	21.11	4.045	29.31	0
11/25/2018 6:15	1.638	93.7	9.49	3.755	29.31	0

11/25/2018 6:30	4.181	141.3	12.23	4.419	29.31	0
11/25/2018 6:45	3.451	135.6	6.481	4.482	29.31	0
11/25/2018 7:00	1.794	29.37	25.11	4.032	29.33	0
11/25/2018 7:15	2.001	81.3	30.84	4.178	29.33	0
11/25/2018 7:30	2.274	16.84	13.34	3.428	29.33	0
11/25/2018 7:45	2.766	340.3	37.57	3.018	29.33	0
11/25/2018 8:00	3.415	296.1	9.39	3.982	29.32	0
11/25/2018 8:15	1.941	43.4	6.378	3.671	29.32	0
11/25/2018 8:30	3.947	17.62	7.632	3.817	29.32	0
11/25/2018 8:45	3.403	21.87	7.48	5.071	29.32	0
11/25/2018 9:00	2.634	43.16	13.54	5.276	29.31	0
11/25/2018 9:15	3.49	124.6	30.63	6.528	29.31	0
11/25/2018 9:30	7.915	159.2	10.28	7.347	29.31	0
11/25/2018 9:45	7.443	147.7	14.24	7.27	29.31	0
11/25/2018 10:00	6.385	142.7	11.08	7.905	29.31	0
11/25/2018 10:15	7.571	159.7	12.1	8.51	29.31	0
11/25/2018 10:30	8.02	161.3	12.25	8.94	29.31	0
11/25/2018 10:45	6.994	135.6	15.47	9.18	29.31	0
11/25/2018 11:00	6.016	121.6	12.7	8.89	29.31	0
11/25/2018 11:15	5.193	113	12.58	8.5	29.31	0
11/25/2018 11:30	4.322	133.3	16.14	9.4	29.31	0
11/25/2018 11:45	7.734	160.6	11.78	10	29.31	0
11/25/2018 12:00	6.441	150	13.97	10.21	29.31	0
11/25/2018 12:15	3.597	117.4	31.22	10.24	29.31	0
11/25/2018 12:30	2.607	121.5	31.71	10.17	29.31	0
11/25/2018 12:45	7.728	155.6	11.22	10.43	29.31	0
11/25/2018 13:00	7.368	151	12.86	10.52	29.28	0
11/25/2018 13:15	9.08	146.7	12.44	10.54	29.28	0
11/25/2018 13:30	9.07	153.4	10.9	10.71	29.28	0
11/25/2018 13:45	8.32	159.5	8.62	10.63	29.28	0
11/25/2018 14:00	8.37	145.3	14.46	10.54	29.28	0
11/25/2018 14:15	10.53	139.6	12.21	10.41	29.28	0
11/25/2018 14:30	8.84	144.1	13.25	10.42	29.28	0
11/25/2018 14:45	9.53	155.7	10.25	10.43	29.28	0
11/25/2018 15:00	10.24	144.1	14.42	10.38	29.29	0
11/25/2018 15:15	9.16	138	11.94	10.21	29.29	0
11/25/2018 15:30	10.81	139.9	13.85	10.15	29.29	0
11/25/2018 15:45	9.52	140.2	11.74	10.09	29.29	0
11/25/2018 16:00	6.982	149.9	14.95	9.94	29.3	0
11/25/2018 16:15	8.24	154	12.63	9.77	29.3	0
11/25/2018 16:30	9.61	159.6	11.24	9.77	29.3	0
11/25/2018 16:45	9.2	159.3	10.96	9.7	29.3	0
11/25/2018 17:00	9.87	154.3	9.82	9.51	29.31	0
11/25/2018 17:15	6.995	134.5	11.73	8.71	29.31	0
11/25/2018 17:30	7.356	141.6	10.68	8.87	29.31	0
11/25/2018 17:45	6.866	135.3	11.45	9.08	29.31	0
11/25/2018 18:00	6.729	141.8	11.27	9.06	29.29	0

11/25/2018 18:15	6.921	146.2	13.32	9.11	29.29	0
11/25/2018 18:30	9.87	155.1	11.54	9.38	29.29	0
11/25/2018 18:45	12.58	155.4	11.11	9.47	29.29	0
11/25/2018 19:00	11.7	149.2	11.25	9.41	29.28	0
11/25/2018 19:15	10.52	139.4	15.45	9.46	29.28	0
11/25/2018 19:30	7.275	148.9	21.03	9.54	29.28	0
11/25/2018 19:45	7.693	158.3	14.77	9.61	29.28	0
11/25/2018 20:00	7.854	139.1	13.43	9.61	29.29	0
11/25/2018 20:15	7.83	144	12.93	9.58	29.29	0
11/25/2018 20:30	8.05	142.7	15.26	9.73	29.29	0
11/25/2018 20:45	8.7	138.4	12.59	9.7	29.29	0
11/25/2018 21:00	10.69	132	11.02	9.73	29.29	0
11/25/2018 21:15	10.2	127.3	15.13	9.78	29.29	0
11/25/2018 21:30	9	129.1	14.05	9.73	29.29	0
11/25/2018 21:45	9.09	131.1	11.36	9.76	29.29	0
11/25/2018 22:00	9.95	129.2	14.48	9.66	29.27	0
11/25/2018 22:15	11.61	125.4	14.29	9.8	29.27	0
11/25/2018 22:30	9.72	127.8	14.43	9.89	29.27	0
11/25/2018 22:45	12.08	148	13.23	9.81	29.27	0
11/25/2018 23:00	13.23	134.9	11.24	9.69	29.26	0
11/25/2018 23:15	10.9	124.2	12.16	9.86	29.26	0
11/25/2018 23:30	7.541	118.7	15.21	9.82	29.26	0
11/25/2018 23:45	8.92	126.7	14.21	9.83	29.26	0
11/26/2018 0:00	4.818	115.6	24.14	9.75	29.27	0
11/26/2018 0:15	8.62	144.7	12.97	9.75	29.27	0
11/26/2018 0:30	8.41	124.7	17.84	9.28	29.27	0
11/26/2018 0:45	8.16	119.5	14.61	8.7	29.27	0
11/26/2018 1:00	10.51	130.9	11.97	9.57	29.22	0
11/26/2018 1:15	10.69	144.8	11.78	9.96	29.22	0
11/26/2018 1:30	10.29	142.4	10.8	10	29.22	0
11/26/2018 1:45	10.34	136.8	13.87	10.08	29.22	0
11/26/2018 2:00	9.52	136.3	12.97	10.46	29.2	0
11/26/2018 2:15	9.72	135.1	14.57	10.68	29.2	0
11/26/2018 2:30	10.07	141.4	13.27	10.77	29.2	0
11/26/2018 2:45	11.05	148.6	13.33	10.71	29.2	0
11/26/2018 3:00	11.46	156	11.01	10.54	29.19	0
11/26/2018 3:15	12.23	138.9	12.03	10.67	29.19	0
11/26/2018 3:30	10.89	140.9	11.5	10.87	29.19	0
11/26/2018 3:45	13.15	140.4	10.35	11.12	29.19	0
11/26/2018 4:00	12.85	152.2	10.78	10.96	29.19	0
11/26/2018 4:15	12.3	167.9	18.68	10.57	29.19	0
11/26/2018 4:30	11.25	171.7	14.82	9.55	29.19	0
11/26/2018 4:45	11.83	148.1	13.43	8.91	29.19	0
11/26/2018 5:00	10.84	137.1	10.48	8.72	29.17	0
11/26/2018 5:15	14.12	139.9	10.31	8.68	29.17	0
11/26/2018 5:30	15.91	136	10.14	8.7	29.17	0
11/26/2018 5:45	15.2	134.2	11.39	8.54	29.17	0

11/26/2018 6:00	16.39	132.6	9.46	8.78	29.12	0
11/26/2018 6:15	18.72	134.9	9.37	9.13	29.12	0
11/26/2018 6:30	19.1	138	10.07	9.27	29.12	0
11/26/2018 6:45	19.21	136.7	10.16	9.57	29.12	0
11/26/2018 7:00	17.91	139.3	10.53	9.78	29.13	0.01
11/26/2018 7:15	17.2	140.7	9.77	9.6	29.13	0
11/26/2018 7:30	17.24	136.5	10.83	9.54	29.13	0
11/26/2018 7:45	15.76	144.6	11.88	9.11	29.13	0
11/26/2018 8:00	17.83	134	12.62	9.18	29.1	0
11/26/2018 8:15	20.08	133	9.81	9.49	29.1	0
11/26/2018 8:30	19.13	134.1	9.3	9.24	29.1	0
11/26/2018 8:45	17.45	136.6	9.64	8.88	29.1	0
11/26/2018 9:00	17.78	136.4	9.9	8.93	29.11	0
11/26/2018 9:15	16.41	137.7	8.21	8.72	29.11	0
11/26/2018 9:30	15.28	139.5	10.77	8.57	29.11	0
11/26/2018 9:45	16.76	133.3	9.44	8.65	29.11	0
11/26/2018 10:00	17.45	131.3	8.71	8.81	29.12	0
11/26/2018 10:15	16.18	136.3	9.21	9.09	29.12	0
11/26/2018 10:30	16	132.9	8.42	9.26	29.12	0
11/26/2018 10:45	16.23	132.9	8.33	9.67	29.12	0
11/26/2018 11:00	15.51	135.1	8.91	9.86	29.09	0
11/26/2018 11:15	18.19	133.1	8.78	9.82	29.09	0
11/26/2018 11:30	18.54	133.5	8.35	10.04	29.09	0
11/26/2018 11:45	19.09	133.9	7.919	10.22	29.09	0
11/26/2018 12:00	17.69	134.3	8.78	10.52	29.05	0
11/26/2018 12:15	16.44	137.2	9.87	10.6	29.05	0
11/26/2018 12:30	16.01	137.9	8.66	10.48	29.05	0.01
11/26/2018 12:45	16.51	135.1	8.26	10.72	29.05	0
11/26/2018 13:00	15.79	138	8.86	10.82	29.03	0
11/26/2018 13:15	17.53	136.1	8.28	10.81	29.03	0
11/26/2018 13:30	17.22	136.3	8.95	10.76	29.03	0
11/26/2018 13:45	16.72	138.4	8.33	10.67	29.03	0
11/26/2018 14:00	15.99	136.7	8.46	10.62	29.01	0
11/26/2018 14:15	15.51	135.3	8.63	10.9	29.01	0
11/26/2018 14:30	13.48	145.9	9.67	10.73	29.01	0
11/26/2018 14:45	12.75	145.8	9.22	10.48	29.01	0
11/26/2018 15:00	13.77	136.1	7.65	10.52	28.99	0
11/26/2018 15:15	13.04	135.3	7.97	10.79	28.99	0
11/26/2018 15:30	12.26	141.1	9.07	10.92	28.99	0
11/26/2018 15:45	10.67	156.7	9.32	10.61	28.99	0
11/26/2018 16:00	10.68	147.3	11.1	10.32	28.99	0
11/26/2018 16:15	9.53	149.7	10.2	10.15	28.99	0
11/26/2018 16:30	10.96	138.8	9.95	10.41	28.99	0
11/26/2018 16:45	9.42	153.1	15.15	10.34	28.99	0
11/26/2018 17:00	7.797	156.1	21.2	10.29	28.99	0
11/26/2018 17:15	6.284	153.7	18.41	10.35	28.99	0
11/26/2018 17:30	6.9	148.8	18.58	10.23	28.99	0.01

11/26/2018 17:45	6.768	148.9	18.72	10.3	28.99	0
11/26/2018 18:00	6.549	165.1	19.37	10.1	28.98	0
11/26/2018 18:15	8.09	169.1	25.16	9.76	28.98	0
11/26/2018 18:30	8.27	157.4	21.46	9.55	28.98	0
11/26/2018 18:45	9.77	135.6	10.44	9.61	28.98	0
11/26/2018 19:00	10.48	146.9	18.02	9.62	28.97	0
11/26/2018 19:15	11.48	138.3	15.84	9.64	28.97	0
11/26/2018 19:30	10.4	141.5	18.72	9.59	28.97	0
11/26/2018 19:45	10.91	137.2	13.15	9.54	28.97	0
11/26/2018 20:00	11.29	135.6	9.97	9.44	28.95	0.01
11/26/2018 20:15	12.63	127.6	10.55	9.52	28.95	0
11/26/2018 20:30	15.16	138.2	9.75	9.56	28.95	0
11/26/2018 20:45	15.29	136.4	9.78	9.86	28.95	0
11/26/2018 21:00	17.47	131.8	9.08	10.11	28.9	0
11/26/2018 21:15	15.48	136.5	8.74	9.91	28.9	0
11/26/2018 21:30	14.39	135.5	9.26	9.56	28.9	0
11/26/2018 21:45	16.59	132.4	8.44	9.49	28.9	0.01
11/26/2018 22:00	15.15	134.8	8.67	9.41	28.86	0
11/26/2018 22:15	15.06	137	8.96	9.33	28.86	0
11/26/2018 22:30	15.17	133.3	7.999	9.48	28.86	0
11/26/2018 22:45	14.69	135.7	9.31	9.68	28.86	0
11/26/2018 23:00	13.42	137.6	8.65	9.61	28.84	0
11/26/2018 23:15	14.39	134.1	8.69	9.69	28.84	0
11/26/2018 23:30	13.45	134.6	8.84	9.76	28.84	0
11/26/2018 23:45	13.43	133.4	8.24	9.62	28.84	0
11/27/2018 0:00	13.51	137.5	8.44	9.61	28.85	0
11/27/2018 0:15	15.52	131.7	8.04	9.74	28.85	0
11/27/2018 0:30	15.29	133.3	8.36	9.91	28.85	0.01
11/27/2018 0:45	14.64	137.7	8.19	9.75	28.85	0
11/27/2018 1:00	15.64	135.7	8.31	9.53	28.82	0
11/27/2018 1:15	14.38	139.7	8.62	9.78	28.82	0
11/27/2018 1:30	12.68	151.7	7.965	9.35	28.82	0
11/27/2018 1:45	12.98	135.2	8.72	9.5	28.82	0.01
11/27/2018 2:00	9.81	177.1	23.76	9.34	28.83	0
11/27/2018 2:15	7.642	193.3	17.87	8.63	28.83	0
11/27/2018 2:30	10.48	140.7	12.35	8.8	28.83	0
11/27/2018 2:45	10.61	131.9	8.6	9.48	28.83	0
11/27/2018 3:00	9.61	147.2	9.24	9.58	28.84	0
11/27/2018 3:15	9.18	140.1	11.99	9.57	28.84	0
11/27/2018 3:30	12.25	134.7	8.43	10.09	28.84	0
11/27/2018 3:45	14.19	140.2	8.02	10.43	28.84	0
11/27/2018 4:00	16.12	146.3	8.11	10.74	28.8	0
11/27/2018 4:15	14.43	148.2	8.03	10.84	28.8	0
11/27/2018 4:30	12.64	153	9.17	10.75	28.8	0
11/27/2018 4:45	13.47	155.4	9.27	11.04	28.8	0
11/27/2018 5:00	11.95	151.3	7.935	11.35	28.81	0
11/27/2018 5:15	11.49	159.3	6.975	11.42	28.81	0

11/27/2018 5:30	8.19	153.9	8.61	11.17	28.81	0
11/27/2018 5:45	8.64	170.3	9.86	11.29	28.81	0
11/27/2018 6:00	6.801	148.9	18.44	10.85	28.82	0
11/27/2018 6:15	5.861	126.3	9.18	10.66	28.82	0
11/27/2018 6:30	8.44	156.5	11.97	10.64	28.82	0
11/27/2018 6:45	9.09	172.2	7.911	10.53	28.82	0
11/27/2018 7:00	7.028	157.8	10.5	10.27	28.86	0
11/27/2018 7:15	6.871	145.4	9.36	10.18	28.86	0
11/27/2018 7:30	8.56	158.4	10.17	10.27	28.86	0
11/27/2018 7:45	8.23	141	8.12	10.01	28.86	0
11/27/2018 8:00	9.03	140	9	9.99	28.86	0
11/27/2018 8:15	9.74	140.1	8.5	10.18	28.86	0
11/27/2018 8:30	10.64	153.9	8.81	10.33	28.86	0
11/27/2018 8:45	9.01	142.5	9.63	10.28	28.86	0
11/27/2018 9:00	7.645	140.5	8.08	10.41	28.88	0
11/27/2018 9:15	8.52	148.9	6.666	10.5	28.88	0
11/27/2018 9:30	8.66	152.1	6.827	10.73	28.88	0
11/27/2018 9:45	8.4	151.6	8.2	10.75	28.88	0
11/27/2018 10:00	9.17	150.8	7.124	10.8	28.89	0
11/27/2018 10:15	7.63	152.5	6.762	10.72	28.89	0.01
11/27/2018 10:30	3.647	127.1	30.95	10.82	28.89	0
11/27/2018 10:45	4.435	187.5	24.64	11.35	28.89	0
11/27/2018 11:00	7.252	153.2	12.26	11.91	28.9	0
11/27/2018 11:15	12.55	183.7	14.8	12.33	28.9	0
11/27/2018 11:30	13.33	203.1	8.83	12.77	28.9	0
11/27/2018 11:45	13.67	206.8	10.37	12.57	28.9	0
11/27/2018 12:00	12.43	210.7	7.872	12.52	28.9	0
11/27/2018 12:15	11	201.1	9.51	12.76	28.9	0
11/27/2018 12:30	13.25	201.4	10.89	13.21	28.9	0
11/27/2018 12:45	13.77	208.1	9.3	13.13	28.9	0
11/27/2018 13:00	11.73	213.6	8.96	12.99	28.9	0
11/27/2018 13:15	9.78	208.5	9.74	12.67	28.9	0
11/27/2018 13:30	7.703	215.8	8.42	12.57	28.9	0
11/27/2018 13:45	6.42	224.2	8.27	12.37	28.9	0
11/27/2018 14:00	11	233	13.53	11.37	28.91	0
11/27/2018 14:15	9.11	239.7	22.66	10.95	28.91	0
11/27/2018 14:30	2.271	311.5	21.89	10.62	28.91	0
11/27/2018 14:45	1.527	98	10.28	10.35	28.91	0
11/27/2018 15:00	2.204	140.4	23.94	10.12	28.91	0
11/27/2018 15:15	3.245	147.7	18.35	10.03	28.91	0
11/27/2018 15:30	3.652	128.8	5.843	9.87	28.91	0
11/27/2018 15:45	5.588	144.5	14.84	10.16	28.91	0
11/27/2018 16:00	6.557	177.9	14	10.66	28.91	0
11/27/2018 16:15	10.69	262.6	40.67	10.09	28.91	0
11/27/2018 16:30	4.232	199.6	45.09	9.39	28.91	0
11/27/2018 16:45	1.41	93.7	14.76	8.93	28.91	0
11/27/2018 17:00	2.249	140.8	19.8	9	28.92	0

11/27/2018 17:15	2.651	138.1	30.96	9.48	28.92	0
11/27/2018 17:30	1.003	88.5	13.15	9.42	28.92	0
11/27/2018 17:45	2.572	325.3	30.28	9.67	28.92	0
11/27/2018 18:00	1.065	132.2	68.71	10.23	28.92	0.01
11/27/2018 18:15	6.937	34.09	70.91	9.5	28.92	0
11/27/2018 18:30	7.921	268.1	15.86	8.97	28.92	0.01
11/27/2018 18:45	8.22	237.3	19.48	8.55	28.92	0
11/27/2018 19:00	3.394	118.4	47.24	8.29	28.92	0
11/27/2018 19:15	2.52	56.48	31.43	8.14	28.92	0
11/27/2018 19:30	3.527	48.33	34.06	8.13	28.92	0
11/27/2018 19:45	10.15	159.3	58.08	8.56	28.92	0.01
11/27/2018 20:00	7.322	247.1	28.11	9.04	28.92	0
11/27/2018 20:15	0.775	36.59	65.65	8.71	28.92	0
11/27/2018 20:30	3.486	257.5	41.64	8.81	28.92	0
11/27/2018 20:45	7.229	198	25.49	9.39	28.92	0
11/27/2018 21:00	4.843	173.5	30.61	8.7	28.93	0.01
11/27/2018 21:15	2.895	211.8	59.74	8.59	28.93	0
11/27/2018 21:30	4.186	173.2	23.47	8.62	28.93	0
11/27/2018 21:45	3.543	146.5	14.93	8.39	28.93	0
11/27/2018 22:00	5.237	139.1	15.99	8.54	28.96	0
11/27/2018 22:15	6.739	167.4	17.6	8.67	28.96	0
11/27/2018 22:30	6.581	140.6	11.19	8.43	28.96	0
11/27/2018 22:45	6.706	133.8	7.186	8.38	28.96	0
11/27/2018 23:00	6.025	135.7	7.719	8.32	28.94	0
11/27/2018 23:15	8.4	150.7	10.52	8.62	28.94	0
11/27/2018 23:30	7.508	148.6	7.078	8.41	28.94	0
11/27/2018 23:45	7.263	145.9	7.788	8.35	28.94	0
11/28/2018 0:00	8.01	152.7	7.484	8.37	28.95	0
11/28/2018 0:15	7.208	154.1	5.09	8.21	28.95	0
11/28/2018 0:30	7.922	154.6	6.981	8.36	28.95	0
11/28/2018 0:45	8.13	153	5.475	8.32	28.95	0
11/28/2018 1:00	7.984	150.7	6.24	8.36	28.97	0
11/28/2018 1:15	6.935	152.4	6.597	8.42	28.97	0
11/28/2018 1:30	6.583	151.4	7.371	8.36	28.97	0
11/28/2018 1:45	5.875	144.2	8.1	8.28	28.97	0
11/28/2018 2:00	4.885	131.8	7.728	8.17	28.96	0
11/28/2018 2:15	6.376	140.7	7.78	8.29	28.96	0
11/28/2018 2:30	7.143	144.9	7.362	8.33	28.96	0
11/28/2018 2:45	8.12	151.3	7.126	8.15	28.96	0
11/28/2018 3:00	8.46	151.9	6.41	7.978	28.97	0
11/28/2018 3:15	8.73	153	6.818	7.94	28.97	0
11/28/2018 3:30	7.836	150.6	7.808	7.88	28.97	0
11/28/2018 3:45	5.34	133.5	7.761	7.766	28.97	0
11/28/2018 4:00	6.51	134.4	7.414	7.651	28.98	0
11/28/2018 4:15	7.428	141.6	7.553	7.769	28.98	0
11/28/2018 4:30	8.14	139.7	7.637	7.879	28.98	0
11/28/2018 4:45	8.1	136.4	7.579	8.01	28.98	0

11/28/2018 5:00	8.69	139.7	7.926	7.956	28.95	0
11/28/2018 5:15	9.66	143.6	7.451	7.942	28.95	0
11/28/2018 5:30	9.45	143.6	9.34	7.911	28.95	0
11/28/2018 5:45	9.26	139.6	8.19	7.861	28.95	0
11/28/2018 6:00	8.42	136.3	7.174	7.623	28.97	0
11/28/2018 6:15	7.568	130.9	8.76	7.391	28.97	0
11/28/2018 6:30	7.117	120	10.52	7.2	28.97	0
11/28/2018 6:45	7.552	111.7	10.38	7.155	28.97	0
11/28/2018 7:00	6.501	124	11.85	7.3	28.93	0
11/28/2018 7:15	7.238	127.8	10.91	7.522	28.93	0
11/28/2018 7:30	5.913	116.7	12.87	7.525	28.93	0
11/28/2018 7:45	6.425	108.2	10.33	7.417	28.93	0
11/28/2018 8:00	6.787	107.6	9.8	7.59	28.94	0
11/28/2018 8:15	7.429	120.8	8.19	7.87	28.94	0
11/28/2018 8:30	5.756	109.5	10.26	7.969	28.94	0
11/28/2018 8:45	4.202	87.4	9.33	7.647	28.94	0
11/28/2018 9:00	3.525	73.85	9.66	7.585	28.91	0
11/28/2018 9:15	2.664	42.9	11.66	7.75	28.91	0
11/28/2018 9:30	1.161	114.1	11.85	8.12	28.91	0
11/28/2018 9:45	2.486	103.5	16.7	8.42	28.91	0
11/28/2018 10:00	2.533	93	19.9	8.44	28.91	0
11/28/2018 10:15	1.54	103.8	21.62	8.48	28.91	0
11/28/2018 10:30	0.939	130.6	41.76	8.71	28.91	0
11/28/2018 10:45	3.127	222.6	46.07	8.73	28.91	0
11/28/2018 11:00	3.94	238.6	21.53	8.68	28.92	0
11/28/2018 11:15	3.219	257.4	14.44	8.82	28.92	0
11/28/2018 11:30	3.726	255.9	13.06	9	28.92	0
11/28/2018 11:45	4.047	250.3	12.57	8.86	28.92	0
11/28/2018 12:00	2.376	220.5	19.15	8.87	28.91	0
11/28/2018 12:15	1.606	141.8	9.96	8.95	28.91	0
11/28/2018 12:30	1.427	142.5	8.03	8.88	28.91	0
11/28/2018 12:45	1.01	92.2	15.41	8.9	28.91	0
11/28/2018 13:00	1.398	63.84	7.212	8.63	28.9	0
11/28/2018 13:15	0.386	359.7	16.14	8.71	28.9	0
11/28/2018 13:30	1.844	21.96	3.578	8.56	28.9	0
11/28/2018 13:45	1.34	7.547	8.44	8.55	28.9	0
11/28/2018 14:00	0.842	360	2.979	8.61	28.89	0
11/28/2018 14:15	0.97	25.62	24.38	8.58	28.89	0
11/28/2018 14:30	0.26	43.94	0.191	8.43	28.89	0
11/28/2018 14:45	0	0	0	8.32	28.89	0
11/28/2018 15:00	0.159	176.2	3.167	8.29	28.86	0
11/28/2018 15:15	2.639	206.1	14.12	8.31	28.86	0
11/28/2018 15:30	2.471	197.4	4.804	8.13	28.86	0
11/28/2018 15:45	0.181	201.9	0.027	8.01	28.86	0
11/28/2018 16:00	0	0	0	8.03	28.87	0
11/28/2018 16:15	0.267	350.5	0.078	7.844	28.87	0
11/28/2018 16:30	0.537	350.4	0.138	7.787	28.87	0

11/28/2018 16:45	1.358	325.9	3.288	7.77	28.87	0
11/28/2018 17:00	2.19	351.1	15.08	7.665	28.88	0
11/28/2018 17:15	1.816	15.57	13.42	7.579	28.88	0
11/28/2018 17:30	1.709	34.09	1.692	7.49	28.88	0
11/28/2018 17:45	2.206	66.8	12.35	7.49	28.88	0
11/28/2018 18:00	2.466	61.07	10.03	7.475	28.87	0
11/28/2018 18:15	1.903	41.66	8.44	7.44	28.87	0
11/28/2018 18:30	0.56	106.4	38.75	7.459	28.87	0
11/28/2018 18:45	2.658	188.1	15.5	7.487	28.87	0
11/28/2018 19:00	2.37	136.7	43.3	7.477	28.88	0
11/28/2018 19:15	3.132	81.6	12.06	7.366	28.88	0
11/28/2018 19:30	3.951	85.1	8.16	7.303	28.88	0
11/28/2018 19:45	4.049	110.8	9.41	7.3	28.88	0
11/28/2018 20:00	4.553	144.8	13.63	7.269	28.86	0
11/28/2018 20:15	4.145	143.2	9.55	7.588	28.86	0
11/28/2018 20:30	3.587	131.7	8.94	7.648	28.86	0
11/28/2018 20:45	3.087	138.8	11.93	7.75	28.86	0
11/28/2018 21:00	0.541	91.9	1.292	7.699	28.89	0
11/28/2018 21:15	0.283	108.8	0.02	7.982	28.89	0
11/28/2018 21:30	0.44	118.9	4.571	7.99	28.89	0
11/28/2018 21:45	0.905	54.87	15.87	7.195	28.89	0
11/28/2018 22:00	2.988	30.62	6.684	7.041	28.86	0
11/28/2018 22:15	2.141	20.07	8.69	6.928	28.86	0
11/28/2018 22:30	2.438	326	20.06	6.983	28.86	0
11/28/2018 22:45	2.559	314.4	3.731	7.23	28.86	0
11/28/2018 23:00	3.658	306	5.542	7.086	28.89	0
11/28/2018 23:15	0.503	2.212	24.49	6.926	28.89	0
11/28/2018 23:30	0.987	349.9	0.81	6.846	28.89	0
11/28/2018 23:45	3.312	312	15.28	6.881	28.89	0
11/29/2018 0:00	3.177	320.5	10.76	6.91	28.89	0
11/29/2018 0:15	1.919	344.3	0.96	6.811	28.89	0
11/29/2018 0:30	2.542	339.7	6.374	6.811	28.89	0
11/29/2018 0:45	2.599	337.3	3.855	6.792	28.89	0
11/29/2018 1:00	0.185	348.1	10.3	6.816	28.88	0
11/29/2018 1:15	2.329	36.12	2.343	6.726	28.88	0.01
11/29/2018 1:30	2.525	50.55	3.62	6.695	28.88	0
11/29/2018 1:45	1.182	50.14	1.49	6.766	28.88	0
11/29/2018 2:00	1.148	46.54	0.117	6.904	28.85	0
11/29/2018 2:15	1.917	197.4	28.43	6.966	28.85	0
11/29/2018 2:30	1.587	157.6	40.88	6.907	28.85	0
11/29/2018 2:45	1.606	71.85	0.222	6.692	28.85	0
11/29/2018 3:00	2.154	92.4	12.81	6.574	28.85	0
11/29/2018 3:15	1.64	64.6	32.18	6.569	28.85	0
11/29/2018 3:30	1.977	16.57	2.139	6.644	28.85	0
11/29/2018 3:45	3.723	7.612	4.569	6.582	28.85	0
11/29/2018 4:00	2.807	348.1	9	6.472	28.85	0
11/29/2018 4:15	3.377	356.1	21.86	6.666	28.85	0

11/29/2018 4:30	2.495	32.27	4.393	6.248	28.85	0
11/29/2018 4:45	1.539	35.89	19.58	5.997	28.85	0
11/29/2018 5:00	1.262	50.14	10.09	6.214	28.84	0
11/29/2018 5:15	1.859	79.04	15.48	6.203	28.84	0
11/29/2018 5:30	5.964	31.88	21.19	6.044	28.84	0
11/29/2018 5:45	4.638	30.49	12.68	5.771	28.84	0
11/29/2018 6:00	4.903	46.3	10.86	6.026	28.82	0
11/29/2018 6:15	4.96	30.87	11.93	6.136	28.82	0
11/29/2018 6:30	7.195	25.65	8.1	6.068	28.82	0
11/29/2018 6:45	6.499	31.3	11.22	6.023	28.82	0
11/29/2018 7:00	5.696	39.56	8.36	5.802	28.83	0
11/29/2018 7:15	3.841	50.85	22.27	5.503	28.83	0
11/29/2018 7:30	3.072	84.2	10.65	5.261	28.83	0
11/29/2018 7:45	4.209	55.53	17.9	5.262	28.83	0
11/29/2018 8:00	5.021	9.28	13.56	5.225	28.84	0
11/29/2018 8:15	4.137	15.47	8.41	5.137	28.84	0
11/29/2018 8:30	5.914	11.95	7.757	5.064	28.84	0
11/29/2018 8:45	6.152	25.19	10.53	5.044	28.84	0
11/29/2018 9:00	4.323	52.29	12.82	5.009	28.83	0
11/29/2018 9:15	3.078	8.62	24.36	4.985	28.83	0
11/29/2018 9:30	3.428	42.76	11.04	4.954	28.83	0
11/29/2018 9:45	4.263	23.27	11.23	5.045	28.83	0
11/29/2018 10:00	4.729	32.23	7.482	5.018	28.81	0
11/29/2018 10:15	3.66	25.67	8.35	5.055	28.81	0
11/29/2018 10:30	4.186	22.4	9.87	5.277	28.81	0
11/29/2018 10:45	4.813	31.98	9.64	5.483	28.81	0
11/29/2018 11:00	6.363	30.43	9.91	5.755	28.82	0
11/29/2018 11:15	6.045	27.21	8.75	6.121	28.82	0
11/29/2018 11:30	5.426	23.66	10.98	6.285	28.82	0
11/29/2018 11:45	3.91	19.28	11.57	6.502	28.82	0
11/29/2018 12:00	3.864	29.21	6.855	6.596	28.81	0
11/29/2018 12:15	3.813	35	8.45	6.65	28.81	0
11/29/2018 12:30	6.275	29.49	8.95	6.758	28.81	0
11/29/2018 12:45	7.029	24.03	8.24	7.095	28.81	0
11/29/2018 13:00	7.622	19.68	6.999	7.137	28.83	0
11/29/2018 13:15	7.069	22.24	9.33	7.075	28.83	0
11/29/2018 13:30	7.823	19.02	11.12	6.756	28.83	0
11/29/2018 13:45	7.398	21.26	9.31	6.817	28.83	0
11/29/2018 14:00	7.56	23	9.33	7.007	28.81	0
11/29/2018 14:15	7.459	24.86	10.11	7.214	28.81	0
11/29/2018 14:30	6.364	23.53	9.28	7.219	28.81	0
11/29/2018 14:45	6.188	16.45	8.92	7.163	28.81	0
11/29/2018 15:00	5.828	17.97	8.33	6.994	28.8	0
11/29/2018 15:15	10.88	19.43	8.94	7.043	28.8	0
11/29/2018 15:30	11.21	16.39	9.06	7.005	28.8	0
11/29/2018 15:45	9.17	19.09	9.63	6.839	28.8	0
11/29/2018 16:00	11.37	18.06	13.44	6.68	28.82	0

11/29/2018 16:15	10.07	18.43	9.96	6.487	28.82	0
11/29/2018 16:30	10.08	26.57	9.55	6.333	28.82	0
11/29/2018 16:45	10.6	30.3	11	6.299	28.82	0
11/29/2018 17:00	9.84	25.08	13.41	6.289	28.81	0
11/29/2018 17:15	9.41	19.9	13.6	6.498	28.81	0
11/29/2018 17:30	8.92	29.53	13.54	6.474	28.81	0
11/29/2018 17:45	8.6	39.95	11.08	6.195	28.81	0
11/29/2018 18:00	7.368	46.8	11.47	6.189	28.82	0
11/29/2018 18:15	8.67	33.6	8.28	6.137	28.82	0
11/29/2018 18:30	8.92	33.41	9.36	6.257	28.82	0
11/29/2018 18:45	6.389	33.95	7.743	5.977	28.82	0
11/29/2018 19:00	4.919	41.77	10.5	5.943	28.84	0
11/29/2018 19:15	5.455	37.81	9.74	6.142	28.84	0
11/29/2018 19:30	5.152	26.85	6.696	5.72	28.84	0
11/29/2018 19:45	2.359	92.3	37.23	5.295	28.84	0
11/29/2018 20:00	1.02	101.6	14.42	5.527	28.85	0
11/29/2018 20:15	2.459	170.7	17.45	5.366	28.85	0
11/29/2018 20:30	2.05	159.6	10.09	5.279	28.85	0
11/29/2018 20:45	3.105	183.1	6.104	5.195	28.85	0
11/29/2018 21:00	3.276	182.2	20.22	5.105	28.86	0
11/29/2018 21:15	1.776	106.3	40.21	4.768	28.86	0
11/29/2018 21:30	1.745	65.05	10.11	4.444	28.86	0
11/29/2018 21:45	1.571	67.77	5.148	4.575	28.86	0
11/29/2018 22:00	0.819	60.44	7.799	4.872	28.87	0
11/29/2018 22:15	1.57	40.54	11.59	5.213	28.87	0
11/29/2018 22:30	1.635	10.12	7.924	5.08	28.87	0
11/29/2018 22:45	2.177	53.91	13.19	5.312	28.87	0
11/29/2018 23:00	0.603	171	31.4	5.317	28.88	0
11/29/2018 23:15	0.141	194.1	1.01	4.792	28.88	0
11/29/2018 23:30	2.125	191.7	4.835	5.545	28.88	0
11/29/2018 23:45	2.498	179.9	7.536	5.707	28.88	0
11/30/2018 0:00	2.763	162.1	16.84	5.052	28.89	0
11/30/2018 0:15	3.567	150	17.24	5.064	28.89	0
11/30/2018 0:30	3.236	136	6.576	5.351	28.89	0
11/30/2018 0:45	2.751	158.8	25.64	5.478	28.89	0
11/30/2018 1:00	2.877	168.4	9.5	5.793	28.89	0
11/30/2018 1:15	2.908	165.8	12.14	5.667	28.89	0
11/30/2018 1:30	2.583	158.4	16.6	5.597	28.89	0
11/30/2018 1:45	3.145	169.8	10.8	5.408	28.89	0
11/30/2018 2:00	4.602	181.6	5.825	5.435	28.88	0
11/30/2018 2:15	3.845	166.7	15.49	5.373	28.88	0
11/30/2018 2:30	2.462	118.9	7.803	5.262	28.88	0
11/30/2018 2:45	1.356	138.2	19.47	5.295	28.88	0
11/30/2018 3:00	2.411	150.4	12.1	5.434	28.88	0
11/30/2018 3:15	1.45	110.3	26.9	5.394	28.88	0
11/30/2018 3:30	0.435	104.1	35.28	5.318	28.88	0
11/30/2018 3:45	2.832	154.1	13.51	5.48	28.88	0

11/30/2018 4:00	3.818	165.1	9.1	5.591	28.89	0
11/30/2018 4:15	4.556	161.6	7.862	5.604	28.89	0
11/30/2018 4:30	5.341	170.3	9.51	5.687	28.89	0
11/30/2018 4:45	5.744	174.7	7.334	5.776	28.89	0
11/30/2018 5:00	7.302	174.2	7.928	5.85	28.91	0
11/30/2018 5:15	9.82	183.6	8.9	5.886	28.91	0
11/30/2018 5:30	9.94	197.1	7.841	5.893	28.91	0
11/30/2018 5:45	7.946	195	8.4	5.962	28.91	0
11/30/2018 6:00	7.355	182.2	7.112	5.975	28.92	0
11/30/2018 6:15	5.557	174.5	9.85	6.002	28.92	0
11/30/2018 6:30	4.391	161.8	8.24	5.693	28.92	0
11/30/2018 6:45	3.721	149.2	7.724	5.592	28.92	0
11/30/2018 7:00	3.405	150.3	10.68	5.732	28.93	0
11/30/2018 7:15	4.46	145.4	8.15	5.802	28.93	0
11/30/2018 7:30	4.686	139.5	7.182	5.855	28.93	0
11/30/2018 7:45	5.044	149.8	7.992	5.88	28.93	0
11/30/2018 8:00	7.474	170.3	11.88	6.065	28.92	0
11/30/2018 8:15	9.76	181.1	9.8	6.12	28.92	0
11/30/2018 8:30	10.19	181.1	8.96	5.951	28.92	0
11/30/2018 8:45	9.19	173.6	9.84	5.767	28.92	0
11/30/2018 9:00	9.44	160.7	7.844	5.635	28.94	0
11/30/2018 9:15	8.11	164.8	10.3	5.673	28.94	0
11/30/2018 9:30	9.28	158.4	6.989	5.665	28.94	0
11/30/2018 9:45	6.793	149.4	9.02	5.594	28.94	0
11/30/2018 10:00	6.6	145.2	7.353	5.741	28.97	0
11/30/2018 10:15	6.324	134	9.64	5.895	28.97	0
11/30/2018 10:30	6.382	144.4	11	5.935	28.97	0
11/30/2018 10:45	5.707	132.7	9.08	6.248	28.97	0
11/30/2018 11:00	6.271	146.2	10.65	6.504	28.96	0
11/30/2018 11:15	7.581	158.3	7.671	6.759	28.96	0
11/30/2018 11:30	7.984	155.8	8.17	7.094	28.96	0
11/30/2018 11:45	6.914	165.7	11.02	7.374	28.96	0
11/30/2018 12:00	7.588	168.5	16.16	7.429	28.95	0
11/30/2018 12:15	5.912	171.8	10.82	7.449	28.95	0
11/30/2018 12:30	6.234	150.3	7.734	7.345	28.95	0
11/30/2018 12:45	7.513	202.4	35.77	7.348	28.95	0
11/30/2018 13:00	9.18	246	7.854	6.716	28.95	0
11/30/2018 13:15	5.948	229.1	11.51	6.86	28.95	0
11/30/2018 13:30	4.956	196.2	10.99	7.122	28.95	0
11/30/2018 13:45	6.33	205.3	14.11	7.204	28.95	0
11/30/2018 14:00	7.223	189.4	9.36	7.562	28.92	0
11/30/2018 14:15	6.457	179.2	12.26	7.974	28.92	0
11/30/2018 14:30	8.37	181.1	10.82	8.1	28.92	0
11/30/2018 14:45	7.253	157	18.44	8.12	28.92	0
11/30/2018 15:00	7.124	153.4	11.99	8.11	28.91	0
11/30/2018 15:15	6.701	148.1	11.15	7.688	28.91	0
11/30/2018 15:30	6.525	166.3	9.57	7.349	28.91	0

11/30/2018 15:45	5.13	154.7	10.4	7.371	28.91	0
11/30/2018 16:00	4.998	148	5.618	7.23	28.92	0
11/30/2018 16:15	5.142	134.7	5.699	7.095	28.92	0
11/30/2018 16:30	4.743	122.1	14.46	7.013	28.92	0
11/30/2018 16:45	2.245	79.99	14.73	6.541	28.92	0
11/30/2018 17:00	2.603	36.8	12.69	6.235	28.92	0
11/30/2018 17:15	3.087	56.96	20.58	6.002	28.92	0
11/30/2018 17:30	3.261	60.72	12.24	5.685	28.92	0
11/30/2018 17:45	3.127	73.49	6.173	5.584	28.92	0
11/30/2018 18:00	3.101	66.27	10.01	5.636	28.89	0
11/30/2018 18:15	1.144	67.83	52.3	5.719	28.89	0
11/30/2018 18:30	6.049	206.9	24.61	6.533	28.89	0
11/30/2018 18:45	4.668	189.7	30.53	5.769	28.89	0
11/30/2018 19:00	3.604	130	7.914	5.765	28.88	0
11/30/2018 19:15	5.338	156.7	15.63	5.46	28.88	0
11/30/2018 19:30	6.196	155.9	15.09	5.48	28.88	0
11/30/2018 19:45	6.415	159.3	13.12	5.309	28.88	0
11/30/2018 20:00	6.142	142.4	8.62	5.101	28.91	0
11/30/2018 20:15	3.739	171.9	37.61	5.177	28.91	0
11/30/2018 20:30	6.16	233.6	4.979	5.236	28.91	0
11/30/2018 20:45	7.232	198.3	13.55	5.095	28.91	0
11/30/2018 21:00	7.748	190.5	6.73	4.906	28.94	0.01
11/30/2018 21:15	5.019	144.5	35.68	4.864	28.94	0
11/30/2018 21:30	4.716	95.7	7.74	4.71	28.94	0
11/30/2018 21:45	4.971	102.9	7.293	4.672	28.94	0
11/30/2018 22:00	4.86	118.1	10.87	4.793	28.95	0
11/30/2018 22:15	4.619	119.4	8.23	4.894	28.95	0
11/30/2018 22:30	3.912	125.5	9.58	4.917	28.95	0
11/30/2018 22:45	2.619	112.1	10.99	5.011	28.95	0
11/30/2018 23:00	2.383	101.4	9.51	4.965	28.95	0
11/30/2018 23:15	1.407	73.88	13.19	4.815	28.95	0
11/30/2018 23:30	0.609	88.6	10.21	4.822	28.95	0
11/30/2018 23:45	1.091	97.4	18.14	5.24	28.95	0
12/1/2018 0:00	1.76	50.78	5.54	4.612	28.96	0
12/1/2018 0:15	1.482	53.24	10.47	4.67	28.96	0
12/1/2018 0:30	2.391	34.68	6.793	4.783	28.96	0
12/1/2018 0:45	3.488	30.1	7.044	4.538	28.96	0
12/1/2018 1:00	2.98	25.83	5.765	4.344	28.96	0
12/1/2018 1:15	3.227	28.14	9.99	4.435	28.96	0
12/1/2018 1:30	3.45	20.04	2.831	4.358	28.96	0
12/1/2018 1:45	3.335	17.36	6.053	4.345	28.96	0
12/1/2018 2:00	3.29	35.07	6.217	4.275	28.95	0
12/1/2018 2:15	4.375	23.37	6.565	4.127	28.95	0
12/1/2018 2:30	3.822	29.34	7.579	4.124	28.95	0
12/1/2018 2:45	4.036	30.65	4.447	3.982	28.95	0
12/1/2018 3:00	3.595	32.89	7.052	3.86	28.95	0
12/1/2018 3:15	4.514	23.76	8.87	3.779	28.95	0

12/1/2018 3:30	3.667	21.46	7.549	3.777	28.95	0
12/1/2018 3:45	3.273	36.98	8.28	3.58	28.95	0
12/1/2018 4:00	2.461	28.09	12.85	3.538	28.95	0
12/1/2018 4:15	3.196	28.46	6.497	3.565	28.95	0
12/1/2018 4:30	3.633	21.53	4.047	3.559	28.95	0
12/1/2018 4:45	2.898	14.62	2.23	3.551	28.95	0
12/1/2018 5:00	2.001	17.39	3.138	3.573	28.96	0
12/1/2018 5:15	0.916	8.33	1.391	3.454	28.96	0
12/1/2018 5:30	2.613	10.63	1.63	3.482	28.96	0
12/1/2018 5:45	3.033	16.15	3.041	3.388	28.96	0
12/1/2018 6:00	1.731	4.982	15.3	3.28	28.98	0
12/1/2018 6:15	1.544	10.13	37.12	3.238	28.98	0
12/1/2018 6:30	1.914	41.91	1.201	2.512	28.98	0
12/1/2018 6:45	3.423	31.69	7.909	2.491	28.98	0
12/1/2018 7:00	3.599	33.36	8.77	2.679	28.99	0
12/1/2018 7:15	3.075	31.1	5.858	2.661	28.99	0
12/1/2018 7:30	3.509	49.46	9.43	2.703	28.99	0
12/1/2018 7:45	1.349	65.02	8.85	2.632	28.99	0
12/1/2018 8:00	0.176	76.59	0.07	2.623	29	0
12/1/2018 8:15	0.217	76.9	0.629	2.663	29	0
12/1/2018 8:30	1.108	246.9	15.61	2.606	29	0
12/1/2018 8:45	2.14	11.45	26.53	2.818	29	0
12/1/2018 9:00	2.594	34.78	8.3	2.731	29.01	0
12/1/2018 9:15	1.648	56.41	13.04	2.938	29.01	0
12/1/2018 9:30	2.421	75.15	13.89	3.119	29.01	0
12/1/2018 9:45	0.624	55.71	24.08	3.581	29.01	0
12/1/2018 10:00	2.435	271.9	25.67	3.987	29.04	0
12/1/2018 10:15	1.199	359	17.08	4.185	29.04	0
12/1/2018 10:30	1.13	345.6	12.01	4.481	29.04	0
12/1/2018 10:45	3.103	37.55	13.65	4.516	29.04	0
12/1/2018 11:00	4.454	36.64	7.773	4.503	29.04	0
12/1/2018 11:15	5.546	27.58	9.86	4.705	29.04	0
12/1/2018 11:30	5.846	26.39	5.233	4.848	29.04	0
12/1/2018 11:45	6.2	19.44	8.83	4.717	29.04	0
12/1/2018 12:00	5.12	12.21	11.09	4.901	29.03	0
12/1/2018 12:15	6.21	25.25	11.1	5.204	29.03	0
12/1/2018 12:30	6.865	22.68	9.27	5.305	29.03	0
12/1/2018 12:45	6.595	27.57	8.37	5.353	29.03	0
12/1/2018 13:00	5.85	29.48	8.32	5.43	29.03	0
12/1/2018 13:15	6.38	25.46	11.59	5.709	29.03	0
12/1/2018 13:30	5.979	24.59	8.85	5.752	29.03	0
12/1/2018 13:45	4.727	20.64	6.929	5.646	29.03	0
12/1/2018 14:00	1.62	13.87	10	5.752	29.06	0
12/1/2018 14:15	2.707	344.5	31.49	5.992	29.06	0
12/1/2018 14:30	4.724	313.4	6.347	5.848	29.06	0
12/1/2018 14:45	5.855	308.4	6.898	5.805	29.06	0
12/1/2018 15:00	5.458	300.1	7.35	5.757	29.04	0

12/1/2018 15:15	4.608	294.7	7.75	5.745	29.04	0
12/1/2018 15:30	3.098	299.2	11.27	5.687	29.04	0
12/1/2018 15:45	1.701	39.82	13.1	5.358	29.04	0
12/1/2018 16:00	0.913	25.1	2.393	5.334	29.06	0
12/1/2018 16:15	0.599	305.8	23.03	5.527	29.06	0
12/1/2018 16:30	2.944	283	3.09	5.424	29.06	0
12/1/2018 16:45	2.837	288.6	4.515	5.291	29.06	0
12/1/2018 17:00	2.562	305	4.848	5.16	29.08	0
12/1/2018 17:15	2.726	298.4	6.459	5.035	29.08	0
12/1/2018 17:30	2.73	307.4	13.34	5.043	29.08	0
12/1/2018 17:45	2.544	298.3	3.607	5.184	29.08	0
12/1/2018 18:00	2.635	281	9.22	5.272	29.1	0
12/1/2018 18:15	1.399	281.1	2.256	5.209	29.1	0
12/1/2018 18:30	1.704	163.5	53.24	4.596	29.1	0
12/1/2018 18:45	1.191	147.1	0.602	4.638	29.1	0
12/1/2018 19:00	0.3	146.9	0.115	4.664	29.11	0
12/1/2018 19:15	0.451	146.7	0.114	4.495	29.11	0
12/1/2018 19:30	0.794	146.6	0.094	4.334	29.11	0
12/1/2018 19:45	1.45	131.1	15.67	4.252	29.11	0
12/1/2018 20:00	1.08	115.1	0.251	4.279	29.12	0
12/1/2018 20:15	0.491	115.2	0.147	4.361	29.12	0
12/1/2018 20:30	0.729	115.2	0.085	4.243	29.12	0
12/1/2018 20:45	1.07	131.8	11.66	4.246	29.12	0
12/1/2018 21:00	0.981	145.9	0.183	4.316	29.14	0
12/1/2018 21:15	0.944	145.9	0.149	4.36	29.14	0
12/1/2018 21:30	1.232	134.4	9.27	4.135	29.14	0
12/1/2018 21:45	1.663	52.44	23.01	3.476	29.14	0
12/1/2018 22:00	0.445	73.92	32.45	3.791	29.14	0
12/1/2018 22:15	2.291	171.3	5.629	4.188	29.14	0
12/1/2018 22:30	3.208	156.3	10.45	3.965	29.14	0
12/1/2018 22:45	1.382	129.7	10	3.779	29.14	0
12/1/2018 23:00	1.975	131.5	23.74	3.82	29.15	0
12/1/2018 23:15	1.002	110.9	15.52	3.623	29.15	0
12/1/2018 23:30	1.34	99.6	7.417	3.84	29.15	0
12/1/2018 23:45	1.151	121.5	6.759	3.989	29.15	0
12/2/2018 0:00	1.174	141.3	7.258	4.265	29.16	0
12/2/2018 0:15	1.591	150.5	10.79	4.207	29.16	0
12/2/2018 0:30	2.147	123.3	10.03	4.16	29.16	0
12/2/2018 0:45	2.412	116.9	2.986	4.188	29.16	0
12/2/2018 1:00	1.955	113.8	9.18	4.212	29.17	0
12/2/2018 1:15	1.713	139.8	17.77	4.277	29.17	0
12/2/2018 1:30	2.214	151.5	11.72	4.388	29.17	0
12/2/2018 1:45	0.733	169.5	1.923	4.419	29.17	0
12/2/2018 2:00	0.308	147.3	7.215	4.35	29.18	0
12/2/2018 2:15	0.893	85.8	18.68	4.277	29.18	0
12/2/2018 2:30	1.041	65.31	1.536	4.153	29.18	0
12/2/2018 2:45	1.304	71.19	2.749	4.089	29.18	0

12/2/2018 3:00	2.431	101.8	16.43	4.115	29.19	0
12/2/2018 3:15	3.503	127.6	4.822	4.214	29.19	0
12/2/2018 3:30	3.894	143	12.26	4.171	29.19	0
12/2/2018 3:45	5.719	156.5	4.292	4.142	29.19	0
12/2/2018 4:00	3.133	128.3	13.9	4.02	29.2	0
12/2/2018 4:15	3.158	130.6	5.619	4.032	29.2	0
12/2/2018 4:30	2.9	114.4	8.86	3.99	29.2	0
12/2/2018 4:45	3.587	123.5	5.242	4.008	29.2	0
12/2/2018 5:00	3.141	115.3	3.61	4.012	29.22	0
12/2/2018 5:15	3.847	120.2	5.946	3.919	29.22	0
12/2/2018 5:30	3.023	122.4	5.754	3.927	29.22	0
12/2/2018 5:45	2.201	120.8	5.657	3.965	29.22	0
12/2/2018 6:00	1.693	106.1	14	3.988	29.24	0
12/2/2018 6:15	1.493	134.3	16.84	4.041	29.24	0
12/2/2018 6:30	1.654	176	21.62	4.252	29.24	0
12/2/2018 6:45	1.35	172.8	35.18	4.207	29.24	0
12/2/2018 7:00	0.312	106.9	0.134	3.893	29.25	0
12/2/2018 7:15	0.554	106.6	0.095	3.918	29.25	0
12/2/2018 7:30	1.042	95.8	8.83	3.834	29.25	0
12/2/2018 7:45	0.344	123.9	34.92	4.013	29.25	0
12/2/2018 8:00	1.266	172	9.69	4.324	29.27	0
12/2/2018 8:15	0.646	162.9	1.97	4.394	29.27	0
12/2/2018 8:30	0.4	169.9	12.53	4.495	29.27	0
12/2/2018 8:45	1.062	137	22.29	4.423	29.27	0
12/2/2018 9:00	0.912	120.9	1.514	4.341	29.28	0
12/2/2018 9:15	0.694	121.4	0.111	4.463	29.28	0
12/2/2018 9:30	1.953	140.3	17.74	4.55	29.28	0
12/2/2018 9:45	2.219	159.1	8.32	4.714	29.28	0
12/2/2018 10:00	1.545	174.1	10.55	4.868	29.3	0
12/2/2018 10:15	1.884	158.9	18.12	5.028	29.3	0
12/2/2018 10:30	1.727	167.8	11.77	5.157	29.3	0
12/2/2018 10:45	0.7	147.2	23.84	5.428	29.3	0
12/2/2018 11:00	1.737	54.59	6.16	5.753	29.31	0
12/2/2018 11:15	1.355	58.77	11.54	5.829	29.31	0
12/2/2018 11:30	1.342	58.12	11.05	5.929	29.31	0
12/2/2018 11:45	1.619	89.4	37.58	6.053	29.31	0
12/2/2018 12:00	2.556	81.5	18.91	5.844	29.3	0
12/2/2018 12:15	1.399	39.5	15.07	5.72	29.3	0
12/2/2018 12:30	0.212	4.456	20.2	6.013	29.3	0
12/2/2018 12:45	1.787	247.1	46.61	6.028	29.3	0
12/2/2018 13:00	2.442	299.5	21.41	5.968	29.33	0
12/2/2018 13:15	3.372	268.8	10.67	5.939	29.33	0
12/2/2018 13:30	3.836	295.7	11.05	5.985	29.33	0
12/2/2018 13:45	2.821	314.6	11.06	6.221	29.33	0
12/2/2018 14:00	1.818	333.5	8.79	6.227	29.31	0
12/2/2018 14:15	2.953	341.5	13.48	6.13	29.31	0
12/2/2018 14:30	3.173	20.96	15.47	5.955	29.31	0

12/2/2018 14:45	3.83	23.36	5.253	5.837	29.31	0
12/2/2018 15:00	3.678	27.7	5.134	5.777	29.34	0
12/2/2018 15:15	3.419	21.11	8.1	5.739	29.34	0
12/2/2018 15:30	3.413	26.41	4.927	5.699	29.34	0
12/2/2018 15:45	1.992	15.41	8.97	5.679	29.34	0
12/2/2018 16:00	1.44	0.724	10.33	5.746	29.36	0
12/2/2018 16:15	0	0	0	5.714	29.36	0
12/2/2018 16:30	0.579	6.654	11.38	5.462	29.36	0
12/2/2018 16:45	2.438	39.31	4.78	5.09	29.36	0
12/2/2018 17:00	1.982	43.4	4.921	4.887	29.36	0
12/2/2018 17:15	3.45	36.4	6.138	4.716	29.36	0
12/2/2018 17:30	2.64	53.93	12.42	4.55	29.36	0
12/2/2018 17:45	3.012	50.3	4.719	4.454	29.36	0
12/2/2018 18:00	2.307	44.83	5.954	4.439	29.37	0
12/2/2018 18:15	2.921	55.87	5.469	4.529	29.37	0
12/2/2018 18:30	2.253	46.35	7.427	4.48	29.37	0
12/2/2018 18:45	0.7	20.49	6.003	4.587	29.37	0
12/2/2018 19:00	0.946	18.21	5.712	4.715	29.38	0
12/2/2018 19:15	1.461	42.41	1.648	3.687	29.38	0
12/2/2018 19:30	1.796	44.3	2.29	3.302	29.38	0
12/2/2018 19:45	1.277	51.25	3.736	3.504	29.38	0
12/2/2018 20:00	0.001	54.03	0	3.664	29.39	0
12/2/2018 20:15	1.441	52.74	1.97	3.71	29.39	0
12/2/2018 20:30	2.751	46.74	4.701	3.421	29.39	0
12/2/2018 20:45	2.772	28.48	1.125	3.529	29.39	0
12/2/2018 21:00	3.085	33.21	6.188	3.25	29.38	0
12/2/2018 21:15	1.67	23.93	5.178	2.882	29.38	0
12/2/2018 21:30	0.459	18.05	10.16	2.689	29.38	0
12/2/2018 21:45	1.356	7.809	76.69	2.752	29.38	0
12/2/2018 22:00	1.058	85.1	34.55	2.577	29.42	0
12/2/2018 22:15	2.438	113.5	33.92	2.291	29.42	0
12/2/2018 22:30	1.266	141.1	66.03	1.787	29.42	0
12/2/2018 22:45	2.791	89.3	8.4	2.227	29.42	0
12/2/2018 23:00	0.946	113.9	26.85	2.491	29.42	0
12/2/2018 23:15	2.945	144.1	6.845	2.92	29.42	0
12/2/2018 23:30	3.121	162.1	5.598	2.79	29.42	0
12/2/2018 23:45	2.452	161.5	14.49	2.627	29.42	0
12/3/2018 0:00	1.985	157.7	22.75	2.31	29.44	0
12/3/2018 0:15	2.94	70.25	1.73	1.642	29.44	0
12/3/2018 0:30	2.872	66.71	8.36	1.355	29.44	0
12/3/2018 0:45	2.137	77.98	12.01	1.135	29.44	0
12/3/2018 1:00	0.75	58.77	1.6	1.637	29.43	0
12/3/2018 1:15	1.149	85.2	12.6	1.788	29.43	0
12/3/2018 1:30	1.091	98.6	0.248	1.9	29.43	0
12/3/2018 1:45	1.049	98.8	0.136	2.288	29.43	0
12/3/2018 2:00	1.455	98.4	0.581	1.799	29.45	0
12/3/2018 2:15	2.112	56.56	11.92	1.439	29.45	0

12/3/2018 2:30	1.637	51.84	0.298	1.415	29.45	0
12/3/2018 2:45	2.046	53.22	2.875	1.025	29.45	0
12/3/2018 3:00	3.233	44.2	11.47	0.757	29.44	0
12/3/2018 3:15	5.04	21.56	4.113	0.574	29.44	0
12/3/2018 3:30	3.336	27.76	3.518	0.634	29.44	0
12/3/2018 3:45	2.962	57.54	7.52	0.77	29.44	0
12/3/2018 4:00	1.813	47.95	3.861	-0.027	29.47	0
12/3/2018 4:15	1.536	48.13	3.52	0.124	29.47	0
12/3/2018 4:30	1.445	41.67	1.433	0.78	29.47	0
12/3/2018 4:45	0.261	40.2	0.033	0.794	29.47	0
12/3/2018 5:00	0.869	25.07	8.94	0.893	29.47	0
12/3/2018 5:15	1.591	15.6	0.143	0.763	29.47	0
12/3/2018 5:30	2.121	15.69	0.105	0.521	29.47	0
12/3/2018 5:45	1.625	15.54	0.179	0.646	29.47	0
12/3/2018 6:00	2.689	20.84	7.261	0.216	29.45	0
12/3/2018 6:15	2.241	26.45	6.864	-1.027	29.45	0
12/3/2018 6:30	3.621	38.28	10.05	-0.622	29.45	0
12/3/2018 6:45	4.498	28.6	9.08	-1.325	29.45	0
12/3/2018 7:00	4.669	17.39	7.694	-0.743	29.47	0
12/3/2018 7:15	3.294	37.3	10.7	-1.086	29.47	0
12/3/2018 7:30	4.148	31.9	5.693	-1.271	29.47	0
12/3/2018 7:45	3.586	32.97	7.184	-1.112	29.47	0
12/3/2018 8:00	1.609	37.13	4.061	-0.161	29.49	0
12/3/2018 8:15	1.246	40.36	0.426	0.169	29.49	0
12/3/2018 8:30	2.436	39.31	4.498	0.428	29.49	0
12/3/2018 8:45	2.73	27.29	3.986	0.635	29.49	0
12/3/2018 9:00	2.692	21.86	6.702	0.22	29.48	0
12/3/2018 9:15	2.759	23.63	7.688	-0.86	29.48	0
12/3/2018 9:30	2.714	24.84	10.73	-0.921	29.48	0
12/3/2018 9:45	3.029	27.23	8.47	-0.922	29.48	0
12/3/2018 10:00	2.728	23.97	6.276	-0.085	29.51	0
12/3/2018 10:15	3.058	23.9	7.569	0.464	29.51	0
12/3/2018 10:30	2.606	8.71	9.82	1.062	29.51	0
12/3/2018 10:45	2.502	359.4	13.14	1.303	29.51	0
12/3/2018 11:00	3.456	358.1	11.48	1.511	29.5	0
12/3/2018 11:15	2.474	312.1	19.57	2.399	29.5	0
12/3/2018 11:30	2.014	307.7	14.21	3.555	29.5	0
12/3/2018 11:45	1.857	343.3	30.37	3.438	29.5	0
12/3/2018 12:00	2.072	6.018	22.67	2.801	29.5	0
12/3/2018 12:15	2.279	25.6	11.25	2.767	29.5	0
12/3/2018 12:30	1.467	36.47	16.55	3.28	29.5	0
12/3/2018 12:45	2.697	47.47	6.294	3.624	29.5	0
12/3/2018 13:00	2.563	24.7	11.65	4.014	29.47	0
12/3/2018 13:15	3.235	19.4	6.281	4.399	29.47	0
12/3/2018 13:30	2.731	25.83	5.294	4.714	29.47	0
12/3/2018 13:45	3.57	25.3	7.752	4.874	29.47	0
12/3/2018 14:00	5.018	25.88	6.384	4.971	29.48	0

12/3/2018 14:15	5.875	22.69	7.816	5.033	29.48	0
12/3/2018 14:30	7.939	18.48	9.56	5.088	29.48	0
12/3/2018 14:45	8.34	23.89	7.967	5.054	29.48	0
12/3/2018 15:00	8.47	21.09	10.53	5.044	29.47	0
12/3/2018 15:15	7.676	15.67	8.97	4.981	29.47	0
12/3/2018 15:30	9.78	18.14	10.77	4.821	29.47	0
12/3/2018 15:45	11.22	20.54	11.05	4.55	29.47	0
12/3/2018 16:00	13.28	18.65	9.36	4.322	29.49	0
12/3/2018 16:15	10.63	23.06	10.86	3.973	29.49	0
12/3/2018 16:30	8.85	31.69	12.4	3.759	29.49	0
12/3/2018 16:45	10.59	22.87	10.94	3.489	29.49	0
12/3/2018 17:00	9.85	20.52	11.59	3.463	29.5	0
12/3/2018 17:15	7.364	35.73	13.28	3.166	29.5	0
12/3/2018 17:30	9.4	24.63	9.88	2.802	29.5	0
12/3/2018 17:45	7.498	32.1	18.05	2.68	29.5	0
12/3/2018 18:00	8.72	23.91	10.6	2.405	29.49	0
12/3/2018 18:15	8.62	25.11	10.87	2.295	29.49	0
12/3/2018 18:30	9.77	21.71	9.47	2.231	29.49	0
12/3/2018 18:45	6.259	36.45	16.95	2.12	29.49	0
12/3/2018 19:00	5.961	22.34	8.95	2.018	29.51	0
12/3/2018 19:15	5.471	28.29	11.54	1.797	29.51	0
12/3/2018 19:30	5.767	39.03	13.63	1.537	29.51	0
12/3/2018 19:45	5.295	32.74	12.22	1.478	29.51	0
12/3/2018 20:00	4.123	33.04	17.29	1.601	29.49	0
12/3/2018 20:15	5.006	29.54	8.83	1.76	29.49	0
12/3/2018 20:30	5.607	23.04	7.96	1.222	29.49	0
12/3/2018 20:45	5.864	26.61	11.81	1.009	29.49	0
12/3/2018 21:00	4.859	41.35	8.11	1.281	29.52	0
12/3/2018 21:15	5.056	43.11	15.96	1.798	29.52	0
12/3/2018 21:30	4.638	44.98	14.93	1.589	29.52	0
12/3/2018 21:45	4.585	64.44	14.6	2.849	29.52	0
12/3/2018 22:00	4.576	70.44	10.4	3.375	29.49	0
12/3/2018 22:15	1.913	67.77	9.34	2.938	29.49	0
12/3/2018 22:30	1.329	53.49	20.42	3.095	29.49	0
12/3/2018 22:45	4.218	28.96	9.19	1.807	29.49	0
12/3/2018 23:00	4.542	33.69	13.92	0.983	29.5	0
12/3/2018 23:15	5.537	40.79	11.74	1.304	29.5	0
12/3/2018 23:30	5.234	31.23	6.127	0.645	29.5	0
12/3/2018 23:45	5.521	28.82	5.493	0.374	29.5	0
12/4/2018 0:00	6.404	38.46	8.96	0.597	29.5	0
12/4/2018 0:15	6.308	30.01	8.19	0.763	29.5	0
12/4/2018 0:30	6.079	35.71	9.51	0.949	29.5	0
12/4/2018 0:45	5.717	28.8	8.16	0.455	29.5	0
12/4/2018 1:00	5.858	26.48	7.861	0.414	29.48	0
12/4/2018 1:15	7.403	21.98	9.97	0.268	29.48	0
12/4/2018 1:30	5.953	15.91	14.88	0.369	29.48	0
12/4/2018 1:45	3.954	17.2	15.73	0.721	29.48	0

12/4/2018 2:00	3.639	40.68	10.35	1.377	29.48	0
12/4/2018 2:15	3.763	26.65	8.04	1.132	29.48	0
12/4/2018 2:30	3.567	36.44	18.55	1.322	29.48	0
12/4/2018 2:45	2.721	28.77	15.44	1.792	29.48	0
12/4/2018 3:00	3.063	31.88	20.09	1.66	29.5	0
12/4/2018 3:15	3.362	24.99	17.23	1.248	29.5	0
12/4/2018 3:30	3.775	30.78	12.48	1.897	29.5	0
12/4/2018 3:45	3.914	27.93	14.93	0.875	29.5	0
12/4/2018 4:00	4.102	29.46	14.46	0.102	29.49	0
12/4/2018 4:15	5.314	16.95	9.17	0.081	29.49	0
12/4/2018 4:30	5.307	19.13	10.66	-0.263	29.49	0
12/4/2018 4:45	5.582	24.59	8.56	-0.528	29.49	0
12/4/2018 5:00	5.556	30.7	9.28	-0.716	29.49	0
12/4/2018 5:15	5.982	33.79	7.997	-0.632	29.49	0
12/4/2018 5:30	5.338	26.44	7.763	-0.554	29.49	0
12/4/2018 5:45	3.934	26.98	7.683	-0.16	29.49	0
12/4/2018 6:00	4.379	22.44	7.859	-0.688	29.49	0
12/4/2018 6:15	5.092	19.04	7.991	-0.209	29.49	0
12/4/2018 6:30	4.374	32.72	7.718	0.676	29.49	0
12/4/2018 6:45	4.503	24.04	7.412	0.672	29.49	0
12/4/2018 7:00	3.957	20.31	10.06	0.264	29.5	0
12/4/2018 7:15	4.522	22.64	8.35	0.514	29.5	0
12/4/2018 7:30	4.358	22.87	9.42	0.195	29.5	0
12/4/2018 7:45	4.843	30.4	10.36	-0.24	29.5	0
12/4/2018 8:00	4.559	29.49	12.24	-0.381	29.49	0
12/4/2018 8:15	3.523	30.44	13.06	0.334	29.49	0
12/4/2018 8:30	3.815	36.87	13.43	0.784	29.49	0
12/4/2018 8:45	3.893	29.82	16.4	0.436	29.49	0
12/4/2018 9:00	4.982	12.54	11.01	0.2	29.47	0
12/4/2018 9:15	3.642	20.49	10.62	0.797	29.47	0
12/4/2018 9:30	1.64	58.86	32.71	2.039	29.47	0
12/4/2018 9:45	2.464	28.18	14.27	1.485	29.47	0
12/4/2018 10:00	2.126	70.57	38.02	2.781	29.49	0
12/4/2018 10:15	1.726	52.55	36.77	2.51	29.49	0
12/4/2018 10:30	3.407	66.84	28.4	3.232	29.49	0
12/4/2018 10:45	4.598	68.24	33.67	3.781	29.49	0
12/4/2018 11:00	5.044	30.95	11.4	2.627	29.47	0
12/4/2018 11:15	4.361	30.71	21.03	2.939	29.47	0
12/4/2018 11:30	3.456	12.49	15.03	3.511	29.47	0
12/4/2018 11:45	2.649	357.7	20.68	4.493	29.47	0
12/4/2018 12:00	2.932	359.2	17.62	4.844	29.43	0
12/4/2018 12:15	3.157	4.464	17.65	4.908	29.43	0
12/4/2018 12:30	2.511	356	16.36	5.241	29.43	0
12/4/2018 12:45	2.129	351	15.72	5.92	29.43	0
12/4/2018 13:00	2.019	138.8	68.97	6.895	29.42	0
12/4/2018 13:15	1.986	52.49	64.84	6.832	29.42	0
12/4/2018 13:30	2.739	13.84	23.51	6.149	29.42	0

12/4/2018 13:45	2.124	18.59	14.74	6.103	29.42	0
12/4/2018 14:00	4.245	28.53	11.71	5.823	29.4	0
12/4/2018 14:15	4.542	24.07	9.07	5.731	29.4	0
12/4/2018 14:30	4.923	27.01	11.65	5.583	29.4	0
12/4/2018 14:45	5.667	21.63	9.38	5.546	29.4	0
12/4/2018 15:00	5.768	28.18	8.8	5.378	29.4	0
12/4/2018 15:15	4.038	33.29	13.51	5.344	29.4	0
12/4/2018 15:30	3.32	35.63	13.06	5.383	29.4	0
12/4/2018 15:45	4.473	33.16	11.53	4.929	29.4	0
12/4/2018 16:00	4.661	35.64	9.95	4.486	29.36	0
12/4/2018 16:15	3.316	45.37	10.27	4.221	29.36	0
12/4/2018 16:30	3.624	45.58	14.61	3.496	29.36	0
12/4/2018 16:45	3.48	41.85	15.24	2.952	29.36	0
12/4/2018 17:00	4.467	34.06	9.83	2.519	29.36	0
12/4/2018 17:15	5.85	31.29	8.24	1.99	29.36	0
12/4/2018 17:30	5.682	24.17	10.48	1.887	29.36	0
12/4/2018 17:45	5.972	36.69	8.63	1.752	29.36	0
12/4/2018 18:00	5.426	35.19	10.56	1.674	29.36	0
12/4/2018 18:15	6.324	24.34	10.56	1.237	29.36	0
12/4/2018 18:30	5.237	26.54	10.9	1.067	29.36	0
12/4/2018 18:45	7.43	19.82	9.31	0.921	29.36	0
12/4/2018 19:00	7.019	25.21	10.57	0.823	29.34	0
12/4/2018 19:15	7.465	21.59	8.26	0.78	29.34	0
12/4/2018 19:30	7.061	30.92	7.246	0.472	29.34	0
12/4/2018 19:45	7.456	31.86	8.36	0.518	29.34	0
12/4/2018 20:00	8.88	29.44	7.219	0.427	29.32	0
12/4/2018 20:15	6.219	34.59	16.51	0.379	29.32	0
12/4/2018 20:30	6.607	24.89	7.524	0.172	29.32	0
12/4/2018 20:45	6.46	26.25	7.229	-0.043	29.32	0
12/4/2018 21:00	5.799	25.33	7.674	-0.21	29.35	0
12/4/2018 21:15	5.887	26.29	7.192	-0.457	29.35	0
12/4/2018 21:30	5.316	20.12	7.096	-0.486	29.35	0
12/4/2018 21:45	4.712	25.3	9.02	-0.484	29.35	0
12/4/2018 22:00	5.195	23.26	7.432	-0.644	29.35	0
12/4/2018 22:15	5.103	18.5	8.08	-0.784	29.35	0
12/4/2018 22:30	5.062	15.1	9.19	-0.813	29.35	0
12/4/2018 22:45	5.699	19.59	10.1	-0.704	29.35	0
12/4/2018 23:00	5.485	22.11	7.715	-0.87	29.34	0
12/4/2018 23:15	4.352	24.1	7.487	-1.066	29.34	0
12/4/2018 23:30	5.135	24.72	6.257	-1.245	29.34	0
12/4/2018 23:45	6.605	22.97	9.65	-1.441	29.34	0
12/5/2018 0:00	5.495	17.5	15.99	-1.167	29.32	0
12/5/2018 0:15	5.166	21.02	15.69	-1.213	29.32	0
12/5/2018 0:30	5.189	17.62	10.46	-1.268	29.32	0
12/5/2018 0:45	4.431	28.4	8.93	-1.332	29.32	0
12/5/2018 1:00	5.278	22.75	6.289	-1.493	29.32	0
12/5/2018 1:15	5.673	18.5	8.28	-1.733	29.32	0

12/5/2018 1:30	5.026	23.2	7.983	-1.766	29.32	0
12/5/2018 1:45	5.35	24.75	8.94	-1.745	29.32	0
12/5/2018 2:00	5.96	17.31	9.72	-2.044	29.34	0
12/5/2018 2:15	6.172	16.29	10.28	-2.171	29.34	0
12/5/2018 2:30	5.773	16.31	11.69	-2.116	29.34	0
12/5/2018 2:45	6.437	19.66	9.29	-2.211	29.34	0
12/5/2018 3:00	6.774	19.08	10.27	-2.219	29.33	0
12/5/2018 3:15	5.927	21.53	9.79	-2.226	29.33	0
12/5/2018 3:30	6.771	22.56	8.24	-2.412	29.33	0
12/5/2018 3:45	7.171	21.44	8.76	-2.439	29.33	0
12/5/2018 4:00	7.576	26.74	9.35	-2.425	29.33	0
12/5/2018 4:15	6.629	24.65	8.8	-2.451	29.33	0
12/5/2018 4:30	5.314	22.7	9.47	-2.346	29.33	0
12/5/2018 4:45	5.934	24.62	10.28	-2.025	29.33	0
12/5/2018 5:00	5.489	22.45	7.914	-2.195	29.32	0
12/5/2018 5:15	4.931	10.69	8.27	-2.104	29.32	0
12/5/2018 5:30	5.949	17.12	4.924	-2.125	29.32	0
12/5/2018 5:45	5.796	16.83	9.28	-2.33	29.32	0
12/5/2018 6:00	5.535	17.47	8.68	-2.088	29.31	0
12/5/2018 6:15	5.996	23.28	9.17	-1.906	29.31	0
12/5/2018 6:30	5.521	20.76	9.26	-2.396	29.31	0
12/5/2018 6:45	7.552	19.96	9.87	-2.597	29.31	0
12/5/2018 7:00	7.276	23.12	11.84	-2.802	29.29	0
12/5/2018 7:15	8.59	30.15	11.56	-2.877	29.29	0
12/5/2018 7:30	8.96	25.55	9.99	-2.899	29.29	0
12/5/2018 7:45	8.72	23.94	8.99	-3.021	29.29	0
12/5/2018 8:00	11.02	28.32	8.07	-2.089	29.3	0
12/5/2018 8:15	11.36	26.02	6.047	-1.783	29.3	0
12/5/2018 8:30	12.4	25.67	7.388	-1.316	29.3	0
12/5/2018 8:45	12.8	26.81	7.866	-1.152	29.3	0
12/5/2018 9:00	10.68	27.73	7.707	-1.126	29.31	0
12/5/2018 9:15	8.84	26.78	7.477	-1.092	29.31	0
12/5/2018 9:30	8.88	27.18	8.45	-0.722	29.31	0
12/5/2018 9:45	8.95	25.78	7.488	-0.441	29.31	0
12/5/2018 10:00	7.01	27.94	8.07	-0.193	29.33	0
12/5/2018 10:15	5.505	30.44	9.09	0.206	29.33	0
12/5/2018 10:30	5.591	26.72	9.59	0.247	29.33	0
12/5/2018 10:45	3.511	12.07	20.65	0.724	29.33	0
12/5/2018 11:00	4.36	28.69	10.74	1.156	29.31	0
12/5/2018 11:15	3.253	21.04	13.4	1.858	29.31	0
12/5/2018 11:30	5.442	25.46	9.12	1.866	29.31	0
12/5/2018 11:45	6.214	27.73	6.295	2.089	29.31	0
12/5/2018 12:00	6.462	29.15	11.67	2.256	29.31	0
12/5/2018 12:15	6.227	26.27	10.65	2.623	29.31	0
12/5/2018 12:30	6.096	24.56	6.76	3.067	29.31	0
12/5/2018 12:45	6.146	26.44	13.16	3.14	29.31	0
12/5/2018 13:00	5.522	18.26	8.92	3.464	29.29	0

12/5/2018 13:15	4.089	23.68	9.83	3.894	29.29	0
12/5/2018 13:30	3.878	26.69	7.856	4.126	29.29	0
12/5/2018 13:45	3.849	27.06	9.28	4.172	29.29	0
12/5/2018 14:00	3.918	28.96	16.58	4.361	29.31	0
12/5/2018 14:15	4.11	29.5	12.03	4.405	29.31	0
12/5/2018 14:30	4.247	29.52	20.04	4.328	29.31	0
12/5/2018 14:45	3.653	31.29	6.733	4.263	29.31	0
12/5/2018 15:00	3.351	32.78	14.48	4.286	29.31	0
12/5/2018 15:15	3.728	70.14	33.39	4.566	29.31	0
12/5/2018 15:30	5.095	89.3	23.65	5.031	29.31	0
12/5/2018 15:45	4.563	79.94	16.5	4.665	29.31	0
12/5/2018 16:00	2.788	59.38	16.59	4.343	29.3	0
12/5/2018 16:15	3.31	86.8	16.84	4.484	29.3	0
12/5/2018 16:30	5.466	125.7	10.66	4.538	29.3	0
12/5/2018 16:45	6.984	127.3	7.852	4.35	29.3	0
12/5/2018 17:00	6.749	140.6	10.1	4.192	29.32	0
12/5/2018 17:15	6.499	143.7	7.83	3.918	29.32	0
12/5/2018 17:30	8.77	147	8.61	3.639	29.32	0
12/5/2018 17:45	8.71	139.3	8.25	3.518	29.32	0
12/5/2018 18:00	8.79	144.1	7.847	3.252	29.31	0
12/5/2018 18:15	6.128	143.3	11.29	3.096	29.31	0
12/5/2018 18:30	6.918	143.4	13.94	3.001	29.31	0
12/5/2018 18:45	6.032	139	9.48	2.92	29.31	0
12/5/2018 19:00	7.661	144.3	10.96	2.736	29.28	0
12/5/2018 19:15	7.855	146.7	8.42	2.575	29.28	0
12/5/2018 19:30	6.066	131.2	9.92	2.327	29.28	0
12/5/2018 19:45	7.73	120.6	12.72	2.475	29.28	0
12/5/2018 20:00	6.878	123.7	13.33	2.451	29.31	0
12/5/2018 20:15	7.261	124.7	11.77	2.357	29.31	0
12/5/2018 20:30	7.479	118.2	12.31	2.454	29.31	0
12/5/2018 20:45	6.392	105.1	13.9	2.228	29.31	0
12/5/2018 21:00	6.226	107.4	11.82	2.222	29.3	0
12/5/2018 21:15	5.832	102.1	11.3	2.12	29.3	0
12/5/2018 21:30	5.065	94.9	14.65	2.031	29.3	0
12/5/2018 21:45	4.139	113.7	15.65	1.783	29.3	0
12/5/2018 22:00	5.924	122.7	13.25	1.879	29.31	0
12/5/2018 22:15	7.059	130.1	11.7	1.842	29.31	0
12/5/2018 22:30	7.991	127.7	9.3	1.785	29.31	0
12/5/2018 22:45	8.9	133.4	7.92	1.866	29.31	0
12/5/2018 23:00	9.06	128.7	11.26	1.937	29.32	0
12/5/2018 23:15	12.51	133.3	9.33	2.005	29.32	0
12/5/2018 23:30	13.46	133.8	10.2	2.008	29.32	0
12/5/2018 23:45	12.78	134.2	11.14	1.999	29.32	0
12/6/2018 0:00	10.93	134.7	12.81	1.954	29.29	0
12/6/2018 0:15	12.25	139.5	12.3	1.963	29.29	0
12/6/2018 0:30	10.75	129.2	12.18	1.885	29.29	0
12/6/2018 0:45	11.2	120.2	11.18	1.802	29.29	0

12/6/2018 1:00	9.16	101.5	12.53	1.619	29.32	0
12/6/2018 1:15	8.49	97.3	11.17	1.337	29.32	0
12/6/2018 1:30	9.45	106	10.48	1.398	29.32	0
12/6/2018 1:45	9.21	111.5	16.66	1.657	29.32	0
12/6/2018 2:00	7.298	118	12.79	1.558	29.3	0
12/6/2018 2:15	6.434	115.6	12.23	1.482	29.3	0
12/6/2018 2:30	7.009	115.5	11.07	1.602	29.3	0
12/6/2018 2:45	3.858	106.8	14.5	1.56	29.3	0
12/6/2018 3:00	4.722	123.3	12.03	1.559	29.31	0
12/6/2018 3:15	6.926	122.6	12.92	1.529	29.31	0
12/6/2018 3:30	7.049	118.9	13.17	1.518	29.31	0
12/6/2018 3:45	6.886	114.5	14.76	1.388	29.31	0
12/6/2018 4:00	7.486	129.4	10.42	1.628	29.32	0
12/6/2018 4:15	6.59	125.4	14.08	1.551	29.32	0
12/6/2018 4:30	5.385	115.4	16.06	1.4	29.32	0
12/6/2018 4:45	4.032	99.5	16.48	1.351	29.32	0
12/6/2018 5:00	3.835	97.5	21.17	1.393	29.29	0
12/6/2018 5:15	3.543	99.1	28.51	1.169	29.29	0
12/6/2018 5:30	3.2	87.4	34.36	1.575	29.29	0
12/6/2018 5:45	3.682	90.7	31.04	1.44	29.29	0
12/6/2018 6:00	2.642	87.6	35.9	1.234	29.31	0
12/6/2018 6:15	3.767	79.76	24.08	0.779	29.31	0
12/6/2018 6:30	4.026	85.2	19.43	0.629	29.31	0
12/6/2018 6:45	3.645	57.57	18.09	0.354	29.31	0
12/6/2018 7:00	2.517	68.39	20.69	0.4	29.31	0
12/6/2018 7:15	2.798	83.7	27.43	0.979	29.31	0
12/6/2018 7:30	3.103	88.4	17.75	0.75	29.31	0
12/6/2018 7:45	2.168	59.92	20.39	0.36	29.31	0
12/6/2018 8:00	2.736	59.83	14.67	0.163	29.3	0
12/6/2018 8:15	3.02	62.92	10.74	-0.058	29.3	0
12/6/2018 8:30	5.029	104.3	19.12	1.221	29.3	0
12/6/2018 8:45	5.621	116	23.45	1.717	29.3	0
12/6/2018 9:00	5.762	110.3	19.14	1.743	29.27	0
12/6/2018 9:15	6.024	110.4	15.84	2.162	29.27	0
12/6/2018 9:30	6.057	116	15.48	2.484	29.27	0
12/6/2018 9:45	4.471	101.4	27.54	2.9	29.27	0
12/6/2018 10:00	4.834	109	15.72	3.238	29.3	0
12/6/2018 10:15	4.332	92.7	25.86	3.448	29.3	0
12/6/2018 10:30	3.64	75.34	24.09	3.601	29.3	0
12/6/2018 10:45	3.418	34.9	22.57	3.633	29.3	0
12/6/2018 11:00	3.622	30.69	12.11	3.634	29.3	0
12/6/2018 11:15	2.739	22.82	12.06	4.057	29.3	0
12/6/2018 11:30	3.371	31.78	9.9	4.24	29.3	0
12/6/2018 11:45	2.373	52.93	36.44	4.872	29.3	0
12/6/2018 12:00	2.509	94.5	42.35	5.412	29.27	0
12/6/2018 12:15	4.006	99	30.62	5.682	29.27	0
12/6/2018 12:30	2.434	82.3	48.17	6.009	29.27	0

12/6/2018 12:45	2.071	39.67	68	6.246	29.27	0
12/6/2018 13:00	3.241	82.4	45	6.323	29.27	0
12/6/2018 13:15	3.71	73.04	45.67	6.05	29.27	0
12/6/2018 13:30	6.631	99.4	34.63	5.928	29.27	0
12/6/2018 13:45	8.27	124.1	23.46	5.964	29.27	0
12/6/2018 14:00	9.89	136.4	12.1	5.958	29.28	0
12/6/2018 14:15	9.76	138.3	12.67	5.877	29.28	0
12/6/2018 14:30	10.15	131.5	12.71	5.694	29.28	0
12/6/2018 14:45	10.44	133.2	9.94	5.548	29.28	0
12/6/2018 15:00	9.54	135.8	11.79	5.41	29.25	0
12/6/2018 15:15	10.28	142.1	10.5	5.07	29.25	0
12/6/2018 15:30	11.15	139.9	9.84	4.725	29.25	0
12/6/2018 15:45	10.11	136.2	9.5	4.438	29.25	0
12/6/2018 16:00	10.18	139.1	9.84	4.195	29.25	0
12/6/2018 16:15	11.59	140.1	9.21	3.812	29.25	0
12/6/2018 16:30	10.71	146.7	10.07	3.529	29.25	0
12/6/2018 16:45	9.85	144.2	9.36	3.273	29.25	0
12/6/2018 17:00	10.9	141	9.47	3.058	29.25	0
12/6/2018 17:15	11.25	138.2	10.32	2.987	29.25	0
12/6/2018 17:30	14.9	133.5	8.4	3.071	29.25	0
12/6/2018 17:45	13.64	132.3	9.34	2.893	29.25	0
12/6/2018 18:00	13.72	136.1	10.54	2.807	29.25	0
12/6/2018 18:15	12.14	138.9	10.12	2.657	29.25	0
12/6/2018 18:30	11.73	135.1	10.71	2.681	29.25	0
12/6/2018 18:45	11.75	139.5	10.35	2.602	29.25	0
12/6/2018 19:00	13.7	142.8	10.78	2.616	29.27	0
12/6/2018 19:15	13.85	146.9	9.68	2.417	29.27	0
12/6/2018 19:30	13.41	141	10.07	2.438	29.27	0
12/6/2018 19:45	13.7	135.7	9.47	2.508	29.27	0
12/6/2018 20:00	12.89	131.6	11.14	2.366	29.25	0
12/6/2018 20:15	13.5	139	10.64	2.266	29.25	0
12/6/2018 20:30	13.07	136.5	10.06	2.221	29.25	0
12/6/2018 20:45	13.83	137.4	9.37	2.262	29.25	0
12/6/2018 21:00	12.22	136.3	10.93	2.268	29.26	0
12/6/2018 21:15	12.42	136.3	11.81	2.212	29.26	0
12/6/2018 21:30	12.12	138.6	11.18	2.164	29.26	0
12/6/2018 21:45	10.16	134.6	11.08	2.015	29.26	0
12/6/2018 22:00	10.75	129.9	11.48	2.022	29.24	0
12/6/2018 22:15	13.46	137.6	10.92	2.107	29.24	0
12/6/2018 22:30	14.43	135.3	10.58	2.125	29.24	0
12/6/2018 22:45	12.57	138.1	10.18	1.905	29.24	0
12/6/2018 23:00	12.6	132	10.36	1.954	29.25	0
12/6/2018 23:15	13.21	130.7	9.66	2.032	29.25	0
12/6/2018 23:30	12.35	135.7	11.49	2.049	29.25	0
12/6/2018 23:45	12.67	131.4	9.38	1.996	29.25	0
12/7/2018 0:00	12.33	134.2	11.6	1.976	29.24	0
12/7/2018 0:15	14.38	134.4	11.05	1.948	29.24	0

12/7/2018 0:30	13	131.9	11.58	1.852	29.24	0
12/7/2018 0:45	12.24	130.3	12.02	1.858	29.24	0
12/7/2018 1:00	11.59	130.4	12.96	1.793	29.25	0
12/7/2018 1:15	11.7	136.3	12.2	1.768	29.25	0
12/7/2018 1:30	9.74	131.7	12.23	1.735	29.25	0
12/7/2018 1:45	10.84	132.9	12.9	1.805	29.25	0
12/7/2018 2:00	9.94	129.3	13.19	1.681	29.26	0
12/7/2018 2:15	9.3	120.3	11.45	1.448	29.26	0
12/7/2018 2:30	7.946	116.4	11.06	1.138	29.26	0
12/7/2018 2:45	7.521	120.9	13.98	1.267	29.26	0
12/7/2018 3:00	8.81	126.9	11.97	1.309	29.25	0
12/7/2018 3:15	10.26	132.8	10.44	1.474	29.25	0
12/7/2018 3:30	11.83	133.9	11.68	1.647	29.25	0
12/7/2018 3:45	12.83	130.1	12.72	1.743	29.25	0
12/7/2018 4:00	12.93	131.5	14.12	1.761	29.25	0
12/7/2018 4:15	13.36	129.9	12.19	1.808	29.25	0
12/7/2018 4:30	12.65	127.1	14.47	1.739	29.25	0
12/7/2018 4:45	9.71	118.6	16.23	1.645	29.25	0
12/7/2018 5:00	8.91	117.1	17.69	1.439	29.24	0
12/7/2018 5:15	11.12	117.4	15.02	1.563	29.24	0
12/7/2018 5:30	11.93	124.6	13.4	1.691	29.24	0
12/7/2018 5:45	9.92	119.8	13.88	1.593	29.24	0
12/7/2018 6:00	9.43	121.1	15.55	1.529	29.27	0
12/7/2018 6:15	11.5	132.9	15.36	1.883	29.27	0
12/7/2018 6:30	15.23	137.2	12.45	2.084	29.27	0
12/7/2018 6:45	10.61	125.3	14.83	1.877	29.27	0
12/7/2018 7:00	11.92	128.4	14	1.888	29.25	0
12/7/2018 7:15	9.43	113.2	21.69	1.642	29.25	0
12/7/2018 7:30	8.2	116	15.29	1.557	29.25	0
12/7/2018 7:45	7.637	112.1	22.45	1.592	29.25	0
12/7/2018 8:00	9.28	113.6	18.79	1.698	29.29	0
12/7/2018 8:15	8.26	117.9	15.04	2.042	29.29	0
12/7/2018 8:30	6.519	103.9	16.65	1.837	29.29	0
12/7/2018 8:45	7.214	107.9	13.29	1.81	29.29	0
12/7/2018 9:00	7.232	127.3	14.08	2.098	29.27	0
12/7/2018 9:15	7.198	122.1	17.6	2.612	29.27	0
12/7/2018 9:30	6.588	123.1	15.99	3.088	29.27	0
12/7/2018 9:45	6.669	115.3	17.76	3.324	29.27	0
12/7/2018 10:00	6.423	106.7	19.75	3.417	29.3	0
12/7/2018 10:15	6.001	120.7	18.27	3.934	29.3	0
12/7/2018 10:30	5.995	120.8	19.15	4.301	29.3	0
12/7/2018 10:45	6.944	145.7	19.74	4.928	29.3	0
12/7/2018 11:00	9.28	126.7	29.56	4.804	29.29	0
12/7/2018 11:15	6.63	103	21.68	4.743	29.29	0
12/7/2018 11:30	7.159	129.2	22.49	5.288	29.29	0
12/7/2018 11:45	12.33	148.3	13.81	5.702	29.29	0
12/7/2018 12:00	9.13	125.3	15.7	5.681	29.27	0

12/7/2018 12:15	5.983	124.7	30.36	6.02	29.27	0
12/7/2018 12:30	9.76	139.7	14.58	6.12	29.27	0
12/7/2018 12:45	12.95	140.6	10.86	6.006	29.27	0
12/7/2018 13:00	13.44	142.2	11.04	5.718	29.28	0
12/7/2018 13:15	11.95	137.4	11.31	5.626	29.28	0
12/7/2018 13:30	10.62	141.6	11.43	5.613	29.28	0
12/7/2018 13:45	11.86	142.1	12.01	5.715	29.28	0
12/7/2018 14:00	11.12	138.7	11.23	5.606	29.27	0
12/7/2018 14:15	10.37	142.8	11.8	5.519	29.27	0
12/7/2018 14:30	9.72	142.9	10.5	5.281	29.27	0
12/7/2018 14:45	8.85	135.1	10.67	5.157	29.27	0
12/7/2018 15:00	8.06	141.3	10.59	5.078	29.29	0
12/7/2018 15:15	9.09	139.4	10.21	4.793	29.29	0
12/7/2018 15:30	7.142	135.3	11.32	4.471	29.29	0
12/7/2018 15:45	8.3	139.6	8.21	4.184	29.29	0
12/7/2018 16:00	9.37	138.9	9.36	3.831	29.31	0
12/7/2018 16:15	8.99	133.8	10.4	3.651	29.31	0
12/7/2018 16:30	10.45	130.9	9.89	3.45	29.31	0
12/7/2018 16:45	10.92	128.5	9.78	3.45	29.31	0
12/7/2018 17:00	11.23	143.7	11.42	3.44	29.3	0
12/7/2018 17:15	9.82	152.4	7.682	3.251	29.3	0
12/7/2018 17:30	9.31	154.7	8.87	3.024	29.3	0
12/7/2018 17:45	8.71	144.4	9.74	2.858	29.3	0
12/7/2018 18:00	7.869	138.5	8.73	2.83	29.31	0
12/7/2018 18:15	9.24	136.3	11.47	2.98	29.31	0
12/7/2018 18:30	13.19	138.6	10.35	3.429	29.31	0
12/7/2018 18:45	12.35	139.7	9.7	3.369	29.31	0
12/7/2018 19:00	11.23	137.2	9.63	3.362	29.32	0
12/7/2018 19:15	11.16	138.6	8.72	3.539	29.32	0
12/7/2018 19:30	11.34	136.7	9.47	3.59	29.32	0
12/7/2018 19:45	9.06	140.1	11.59	3.67	29.32	0
12/7/2018 20:00	10.54	144.4	12.86	3.768	29.33	0
12/7/2018 20:15	9.33	131.9	9.98	3.707	29.33	0
12/7/2018 20:30	11.11	144.5	9.34	3.74	29.33	0
12/7/2018 20:45	11.96	138.4	10.08	3.8	29.33	0
12/7/2018 21:00	12.98	147.3	8.53	3.742	29.33	0
12/7/2018 21:15	8.79	139.6	14.47	3.778	29.33	0
12/7/2018 21:30	7.302	132.8	16.55	3.716	29.33	0
12/7/2018 21:45	8.34	145.2	12	3.734	29.33	0
12/7/2018 22:00	8.25	132.7	12.4	3.714	29.33	0
12/7/2018 22:15	7.083	140.3	16.63	3.772	29.33	0
12/7/2018 22:30	6.464	145	17.85	3.754	29.33	0
12/7/2018 22:45	9.01	150.2	9.65	3.781	29.33	0
12/7/2018 23:00	9.49	148.7	15.05	3.916	29.37	0
12/7/2018 23:15	9.86	148.2	11.13	3.88	29.37	0
12/7/2018 23:30	9.12	143.9	12.2	3.857	29.37	0
12/7/2018 23:45	8.5	151	16.86	3.915	29.37	0

12/8/2018 0:00	7.834	132.9	11.7	3.711	29.38	0
12/8/2018 0:15	8.55	124.8	11	3.391	29.38	0
12/8/2018 0:30	10.33	137.6	12.42	3.417	29.38	0
12/8/2018 0:45	14.34	132.4	9.86	3.501	29.38	0
12/8/2018 1:00	13.26	133.4	8.6	3.648	29.38	0
12/8/2018 1:15	10.81	131.1	10.02	4.005	29.38	0
12/8/2018 1:30	9.23	141	13.92	3.924	29.38	0
12/8/2018 1:45	8.79	154	13.51	3.964	29.38	0
12/8/2018 2:00	5.95	146.7	16.21	4.013	29.39	0
12/8/2018 2:15	7.588	141.7	19.68	4.146	29.39	0
12/8/2018 2:30	7.481	125.4	18.26	4.232	29.39	0
12/8/2018 2:45	6.311	124.6	16	4.324	29.39	0
12/8/2018 3:00	6.043	127.4	15.83	4.379	29.41	0
12/8/2018 3:15	7.814	122.8	12.81	4.137	29.41	0
12/8/2018 3:30	5.669	145.2	19.26	4.227	29.41	0
12/8/2018 3:45	5.329	127	26.72	4.239	29.41	0
12/8/2018 4:00	9.2	140.3	18.02	4.222	29.42	0
12/8/2018 4:15	10.96	131.3	13.84	4.398	29.42	0
12/8/2018 4:30	10.99	128.2	12.61	4.55	29.42	0
12/8/2018 4:45	11.03	138.5	14.71	4.588	29.42	0
12/8/2018 5:00	11.01	128.3	15.18	4.561	29.43	0
12/8/2018 5:15	11.36	139.5	10.91	4.603	29.43	0
12/8/2018 5:30	4.202	115.8	26.59	4.502	29.43	0
12/8/2018 5:45	5.303	113.5	28.43	4.258	29.43	0
12/8/2018 6:00	5.216	122.3	21.55	4.283	29.45	0
12/8/2018 6:15	6.128	112.9	21.8	4.102	29.45	0
12/8/2018 6:30	6.597	118.7	20.29	3.659	29.45	0
12/8/2018 6:45	5.235	103.6	11.5	3.095	29.45	0
12/8/2018 7:00	7.888	112.3	9.77	3.186	29.44	0
12/8/2018 7:15	7.77	141	10.02	3.914	29.44	0
12/8/2018 7:30	7.038	161.1	13.42	4.01	29.44	0
12/8/2018 7:45	6.648	141.6	15.7	4.086	29.44	0
12/8/2018 8:00	5.723	128.6	9.04	3.902	29.44	0
12/8/2018 8:15	8.38	144	9.25	4.101	29.44	0
12/8/2018 8:30	8.67	131.9	11.49	4.297	29.44	0
12/8/2018 8:45	5.784	123.5	18.29	4.122	29.44	0
12/8/2018 9:00	6.268	128.8	19.5	4.297	29.47	0
12/8/2018 9:15	7.61	135.8	17	4.478	29.47	0
12/8/2018 9:30	8.85	135.9	11.26	4.09	29.47	0
12/8/2018 9:45	11.91	129.7	10.44	3.781	29.47	0
12/8/2018 10:00	11.15	139.3	13.25	3.631	29.49	0
12/8/2018 10:15	13.54	135.3	11.61	3.705	29.49	0
12/8/2018 10:30	13.42	129.4	11.11	3.995	29.49	0
12/8/2018 10:45	13.06	130.3	11.7	4.036	29.49	0
12/8/2018 11:00	13.54	130.5	10.88	4.094	29.51	0
12/8/2018 11:15	14.7	128.4	10.35	4.068	29.51	0
12/8/2018 11:30	11.22	125.8	12.33	4.216	29.51	0

12/8/2018 11:45	9.28	127	14.83	4.528	29.51	0
12/8/2018 12:00	8.94	125.7	14.49	4.942	29.51	0
12/8/2018 12:15	8.84	126.4	15.81	5.551	29.51	0
12/8/2018 12:30	8.74	137	14.43	5.953	29.51	0
12/8/2018 12:45	8.37	132	13.43	6.033	29.51	0
12/8/2018 13:00	7.019	134.5	17.52	6.366	29.49	0
12/8/2018 13:15	7.437	129.8	14.07	6.503	29.49	0
12/8/2018 13:30	9.2	131.8	11.89	6.639	29.49	0
12/8/2018 13:45	7.505	127.3	14.2	7.013	29.49	0
12/8/2018 14:00	8.48	119.4	15.39	7.234	29.48	0
12/8/2018 14:15	10.55	123	11.5	7.287	29.48	0
12/8/2018 14:30	9.27	131.9	13.83	7.18	29.48	0
12/8/2018 14:45	7.05	124.5	14.31	6.913	29.48	0
12/8/2018 15:00	7.939	123.8	11.54	6.721	29.49	0
12/8/2018 15:15	8.28	127.5	10.36	6.542	29.49	0
12/8/2018 15:30	9.05	131.7	11.43	6.48	29.49	0
12/8/2018 15:45	7.143	132.6	9.71	6.316	29.49	0
12/8/2018 16:00	8.8	134.2	8.51	6.12	29.46	0
12/8/2018 16:15	7.943	124.3	10.98	6.374	29.46	0
12/8/2018 16:30	8.91	131.5	12.96	6.429	29.46	0
12/8/2018 16:45	5.748	161.3	21.77	6.598	29.46	0
12/8/2018 17:00	5.1	147.2	21.47	6.32	29.46	0
12/8/2018 17:15	5.5	137.6	17.99	5.947	29.46	0
12/8/2018 17:30	5.298	132	22.48	5.973	29.46	0
12/8/2018 17:45	5.46	107.7	21.22	5.893	29.46	0
12/8/2018 18:00	7.572	128.1	17.11	5.719	29.46	0
12/8/2018 18:15	8.02	138.4	13.64	5.524	29.46	0
12/8/2018 18:30	7.728	141.8	16.42	5.601	29.46	0
12/8/2018 18:45	7.388	127.8	12.45	5.616	29.46	0
12/8/2018 19:00	7.257	121.8	15.52	5.899	29.46	0
12/8/2018 19:15	5.061	137.7	35.75	5.694	29.46	0
12/8/2018 19:30	2.701	114.7	36.76	5.659	29.46	0
12/8/2018 19:45	4.181	145.3	39.12	5.685	29.46	0
12/8/2018 20:00	4.442	118.9	34.43	5.612	29.46	0
12/8/2018 20:15	6.491	126	27.49	5.429	29.46	0
12/8/2018 20:30	8.95	118.1	18.04	5.479	29.46	0
12/8/2018 20:45	8.71	125.9	18.52	5.506	29.46	0
12/8/2018 21:00	10.94	124	14.61	5.551	29.44	0
12/8/2018 21:15	8.46	135.4	14.63	5.62	29.44	0
12/8/2018 21:30	9.58	150.5	10.93	5.452	29.44	0
12/8/2018 21:45	8.46	150.8	13.97	5.456	29.44	0
12/8/2018 22:00	5.975	119.1	22.31	5.545	29.43	0
12/8/2018 22:15	6.481	118.1	20.42	5.546	29.43	0
12/8/2018 22:30	6.222	133	24.3	5.603	29.43	0
12/8/2018 22:45	6.039	142.8	27.46	5.596	29.43	0
12/8/2018 23:00	8.88	119.1	18.09	5.606	29.43	0
12/8/2018 23:15	11.96	126.5	13.04	5.671	29.43	0

12/8/2018 23:30	9.26	123	16.32	5.781	29.43	0
12/8/2018 23:45	6.679	113.9	22.49	5.692	29.43	0
12/9/2018 0:00	8.72	126.6	19.03	6.082	29.4	0
12/9/2018 0:15	11.05	127.2	13.16	6.07	29.4	0
12/9/2018 0:30	14.52	128.3	12.07	6.393	29.4	0
12/9/2018 0:45	16.96	128.7	11.11	6.764	29.4	0
12/9/2018 1:00	17.54	130.1	11.48	6.746	29.35	0
12/9/2018 1:15	17.99	132.1	10.59	6.862	29.35	0
12/9/2018 1:30	21.23	133.8	9.22	6.924	29.35	0.01
12/9/2018 1:45	22.65	130.7	10.28	7.075	29.35	0
12/9/2018 2:00	18.88	133.7	9.73	7.331	29.34	0
12/9/2018 2:15	18.67	134.8	9.85	7.244	29.34	0
12/9/2018 2:30	19.27	135.4	10.04	7.156	29.34	0
12/9/2018 2:45	19.5	132.9	9.96	7.165	29.34	0
12/9/2018 3:00	19.19	133.2	10.42	7.106	29.35	0
12/9/2018 3:15	21.26	131.8	9.85	7.075	29.35	0
12/9/2018 3:30	17.95	134.2	9.21	6.956	29.35	0
12/9/2018 3:45	17.47	131.9	9.68	6.971	29.35	0
12/9/2018 4:00	18.08	133.3	10.65	7.013	29.31	0
12/9/2018 4:15	21.28	129.5	10.27	7.078	29.31	0
12/9/2018 4:30	22.04	130.9	10.43	7.014	29.31	0
12/9/2018 4:45	23.74	129.6	10.84	7.147	29.31	0
12/9/2018 5:00	22.6	132.5	9.93	7.347	29.26	0
12/9/2018 5:15	20.99	129.7	10.78	7.582	29.26	0
12/9/2018 5:30	18.53	129	11.67	7.87	29.26	0
12/9/2018 5:45	14.93	157.3	21.3	7.9	29.26	0
12/9/2018 6:00	17.06	148.2	15.97	7.715	29.31	0
12/9/2018 6:15	17.25	130.8	10.97	7.701	29.31	0
12/9/2018 6:30	16.07	143	14.35	7.656	29.31	0
12/9/2018 6:45	18.61	153.9	10.37	7.477	29.31	0
12/9/2018 7:00	15.93	141.1	12.01	7.288	29.28	0
12/9/2018 7:15	15.27	145.8	12.46	7.528	29.28	0
12/9/2018 7:30	15.15	148.9	10.24	7.657	29.28	0
12/9/2018 7:45	14.57	135.6	11.24	7.547	29.28	0
12/9/2018 8:00	15.29	141.6	10.52	7.306	29.3	0
12/9/2018 8:15	15.1	127.4	12.04	7.362	29.3	0
12/9/2018 8:30	14.56	130.1	14.15	7.409	29.3	0
12/9/2018 8:45	17.19	136.4	11.59	6.946	29.3	0
12/9/2018 9:00	16.77	135.3	11.67	6.739	29.29	0
12/9/2018 9:15	17.08	131.5	10.31	6.623	29.29	0
12/9/2018 9:30	15.73	134.9	10.94	6.785	29.29	0
12/9/2018 9:45	15.16	134.5	11.93	6.324	29.29	0
12/9/2018 10:00	18.34	135.2	10.28	6.015	29.31	0
12/9/2018 10:15	18.68	133.5	10.5	5.681	29.31	0
12/9/2018 10:30	18.45	137.8	11.29	5.434	29.31	0
12/9/2018 10:45	15.7	139.6	12.55	5.324	29.31	0
12/9/2018 11:00	9.09	157.2	19.87	5.065	29.33	0

12/9/2018 11:15	6.278	124.9	16.73	4.866	29.33	0
12/9/2018 11:30	7.636	115.1	13.01	4.862	29.33	0
12/9/2018 11:45	8.81	121.2	14.18	5.085	29.33	0
12/9/2018 12:00	7.797	115.4	15.63	4.983	29.3	0
12/9/2018 12:15	7.117	123.5	15.04	5.246	29.3	0
12/9/2018 12:30	4.755	140.7	21.48	5.386	29.3	0
12/9/2018 12:45	10.07	165.6	14.22	5.223	29.3	0
12/9/2018 13:00	12.47	146.5	11.89	4.967	29.31	0.01
12/9/2018 13:15	14.34	142.5	11.54	5.007	29.31	0
12/9/2018 13:30	15.36	142.8	11.77	4.92	29.31	0
12/9/2018 13:45	16.34	139.7	10.99	4.83	29.31	0
12/9/2018 14:00	17	133.5	9.34	4.784	29.29	0.01
12/9/2018 14:15	17.36	129.8	9.88	4.832	29.29	0
12/9/2018 14:30	15.27	125.2	10.2	4.707	29.29	0
12/9/2018 14:45	12.16	131.6	10.45	4.657	29.29	0
12/9/2018 15:00	14.84	133.9	11.3	4.756	29.27	0
12/9/2018 15:15	15.39	136.3	10.04	4.824	29.27	0
12/9/2018 15:30	16.09	134	9.24	5.116	29.27	0
12/9/2018 15:45	18.08	131.5	10.1	5.44	29.27	0
12/9/2018 16:00	17.95	133.8	8.64	5.381	29.24	0.01
12/9/2018 16:15	18.46	133.3	8.59	5.066	29.24	0
12/9/2018 16:30	18.7	135.2	10.56	5.091	29.24	0
12/9/2018 16:45	18.98	132.6	9.81	5.21	29.24	0
12/9/2018 17:00	21.37	134.8	9.71	5.013	29.25	0.01
12/9/2018 17:15	20.48	135.6	10.44	4.973	29.25	0
12/9/2018 17:30	21.28	133.5	9.33	4.751	29.25	0
12/9/2018 17:45	20.67	131.6	9.53	4.738	29.25	0
12/9/2018 18:00	20.76	131	8.6	4.63	29.26	0
12/9/2018 18:15	19.75	130.1	8.92	4.516	29.26	0
12/9/2018 18:30	18.32	128	8.87	4.378	29.26	0
12/9/2018 18:45	17.41	131.2	9.6	4.479	29.26	0
12/9/2018 19:00	15.4	131.1	9.23	4.465	29.28	0
12/9/2018 19:15	16.2	132	10.24	4.497	29.28	0
12/9/2018 19:30	16.93	135.6	9.79	4.583	29.28	0
12/9/2018 19:45	14.84	134.5	10.46	4.543	29.28	0
12/9/2018 20:00	12.1	143	12.84	4.309	29.3	0
12/9/2018 20:15	11.37	147.6	11.97	4.34	29.3	0
12/9/2018 20:30	10.79	142.6	11.1	4.25	29.3	0.01
12/9/2018 20:45	9.24	152.3	12.99	4.118	29.3	0
12/9/2018 21:00	9.7	140.8	10.96	4.128	29.31	0
12/9/2018 21:15	8.87	147.5	10.47	4.104	29.31	0
12/9/2018 21:30	9.77	142.6	10.81	4.247	29.31	0
12/9/2018 21:45	8.93	149.6	11.53	4.256	29.31	0
12/9/2018 22:00	9.07	144.8	11.26	4.276	29.31	0
12/9/2018 22:15	9.66	141.6	11.52	4.283	29.31	0
12/9/2018 22:30	8.76	146.2	12.62	4.351	29.31	0
12/9/2018 22:45	9.18	139.9	10.98	4.515	29.31	0

12/9/2018 23:00	9.38	144.5	10.54	4.544	29.32	0
12/9/2018 23:15	9.63	137.3	9.98	4.521	29.32	0
12/9/2018 23:30	9.28	138.6	9.12	4.581	29.32	0
12/9/2018 23:45	8.82	135.6	10.8	4.594	29.32	0
12/10/2018 0:00	10.26	132.2	8.88	4.769	29.32	0
12/10/2018 0:15	9.65	137.9	9.46	4.962	29.32	0
12/10/2018 0:30	10.09	139.8	11.55	5.21	29.32	0
12/10/2018 0:45	8.5	141	15.4	5.575	29.32	0
12/10/2018 1:00	7.813	159.7	14.09	5.531	29.32	0
12/10/2018 1:15	7.064	161.7	25	5.201	29.32	0
12/10/2018 1:30	7.504	155.9	16.99	5.039	29.32	0
12/10/2018 1:45	6.597	150	13.84	5.173	29.32	0
12/10/2018 2:00	6.078	163	10.98	4.797	29.32	0
12/10/2018 2:15	5.308	162.1	14.74	4.654	29.32	0
12/10/2018 2:30	6.17	141	14.67	4.737	29.32	0
12/10/2018 2:45	6.099	165.4	12.97	4.837	29.32	0
12/10/2018 3:00	7.627	147.6	7.744	4.928	29.33	0
12/10/2018 3:15	8.47	136	8.45	5.209	29.33	0
12/10/2018 3:30	8.23	147	9.62	5.144	29.33	0
12/10/2018 3:45	8.26	146.8	9.96	5.081	29.33	0
12/10/2018 4:00	7.26	142.5	8.16	5.292	29.35	0
12/10/2018 4:15	7.681	146	10.9	5.321	29.35	0
12/10/2018 4:30	8.83	152.4	8.42	5.695	29.35	0
12/10/2018 4:45	8.83	148.3	8.94	5.78	29.35	0
12/10/2018 5:00	7.743	147.5	8.32	5.511	29.36	0
12/10/2018 5:15	9.64	156.4	7.317	5.835	29.36	0
12/10/2018 5:30	8.66	156.1	6.654	5.802	29.36	0
12/10/2018 5:45	6.777	150.2	9.74	5.74	29.36	0
12/10/2018 6:00	5.287	135.4	9.5	5.717	29.37	0
12/10/2018 6:15	6.308	150.9	13.35	5.745	29.37	0
12/10/2018 6:30	7.581	156.4	9.67	5.624	29.37	0
12/10/2018 6:45	6.376	144.2	9.36	5.471	29.37	0
12/10/2018 7:00	7.653	142.9	9.31	5.618	29.39	0
12/10/2018 7:15	9.92	153.9	7.211	5.243	29.39	0
12/10/2018 7:30	7.396	149.1	7.073	4.915	29.39	0
12/10/2018 7:45	7.118	139.8	9.01	4.987	29.39	0
12/10/2018 8:00	6.577	130.3	8.47	4.894	29.41	0
12/10/2018 8:15	7.47	136.6	11.03	4.84	29.41	0
12/10/2018 8:30	8.14	151.8	9.71	5.124	29.41	0
12/10/2018 8:45	8.56	149.2	8.42	5.559	29.41	0
12/10/2018 9:00	6.977	149.7	8.93	5.743	29.42	0
12/10/2018 9:15	7.491	150.1	10.17	6.237	29.42	0
12/10/2018 9:30	6.726	146.7	12.83	6.669	29.42	0
12/10/2018 9:45	6.998	149.5	11.4	6.538	29.42	0
12/10/2018 10:00	7.131	155	9.67	6.357	29.43	0
12/10/2018 10:15	7.146	151.1	8.05	6.359	29.43	0
12/10/2018 10:30	7.378	150.1	9.02	6.5	29.43	0

12/10/2018 10:45	7.724	152.1	6.79	6.4	29.43	0
12/10/2018 11:00	7.014	156.1	8.05	6.73	29.41	0
12/10/2018 11:15	7.845	224.1	51.07	6.879	29.41	0
12/10/2018 11:30	7.55	240.1	17.64	6.576	29.41	0
12/10/2018 11:45	4.832	204.8	12.47	6.554	29.41	0
12/10/2018 12:00	5.932	181.5	11.06	7.452	29.43	0
12/10/2018 12:15	7.74	179.2	10.89	7.949	29.43	0
12/10/2018 12:30	8.54	188.8	13.13	7.652	29.43	0
12/10/2018 12:45	8.14	192.6	12.64	7.855	29.43	0
12/10/2018 13:00	8.13	185.3	11.79	7.62	29.43	0
12/10/2018 13:15	10.6	190.8	9.05	7.499	29.43	0
12/10/2018 13:30	9.1	182.7	11.07	7.394	29.43	0
12/10/2018 13:45	8.73	182.4	7.924	7.469	29.43	0
12/10/2018 14:00	9.1	163.9	10.87	7.345	29.4	0
12/10/2018 14:15	7.905	154.5	6.335	7.004	29.4	0
12/10/2018 14:30	7.002	148.7	5.857	6.893	29.4	0
12/10/2018 14:45	5.589	146.8	11.85	7.262	29.4	0
12/10/2018 15:00	6.215	147.7	7.308	6.889	29.42	0
12/10/2018 15:15	5.615	144.9	7.705	7.072	29.42	0
12/10/2018 15:30	6.57	143.2	8.56	6.922	29.42	0
12/10/2018 15:45	5.741	144.2	6.678	6.479	29.42	0
12/10/2018 16:00	6.021	139.8	7.082	6.336	29.4	0
12/10/2018 16:15	6.373	135.1	7.627	6.27	29.4	0
12/10/2018 16:30	8.04	132.4	7.018	6.283	29.4	0
12/10/2018 16:45	5.27	139.9	8.38	6.087	29.4	0
12/10/2018 17:00	6.068	134.1	6.906	5.98	29.41	0
12/10/2018 17:15	6.648	135.6	8.65	6.158	29.41	0
12/10/2018 17:30	6.595	145.3	9.92	6.159	29.41	0
12/10/2018 17:45	6.264	152.4	6.325	6.019	29.41	0
12/10/2018 18:00	6.238	151.1	7.33	6.302	29.41	0
12/10/2018 18:15	6.174	152.2	4.215	6.401	29.41	0
12/10/2018 18:30	6.447	147.7	5.61	6.351	29.41	0
12/10/2018 18:45	5.563	141.1	7.556	6.504	29.41	0
12/10/2018 19:00	6.393	164.1	12.05	6.706	29.39	0
12/10/2018 19:15	5.834	172.1	9.82	6.572	29.39	0
12/10/2018 19:30	5.707	152.9	6.031	6.308	29.39	0
12/10/2018 19:45	6.213	138.4	6.542	6.327	29.39	0
12/10/2018 20:00	6.614	135.9	7.466	6.499	29.38	0
12/10/2018 20:15	6.113	150.1	9.53	6.506	29.38	0
12/10/2018 20:30	6.098	147.3	7.507	6.551	29.38	0
12/10/2018 20:45	5.889	142.8	6.928	6.663	29.38	0
12/10/2018 21:00	6.9	146.9	7.028	6.661	29.35	0
12/10/2018 21:15	6.834	151.2	6.782	6.613	29.35	0
12/10/2018 21:30	6.814	153.1	5.733	6.428	29.35	0
12/10/2018 21:45	5.053	133.7	14.29	6.257	29.35	0
12/10/2018 22:00	5.955	132.4	14.17	6.242	29.36	0
12/10/2018 22:15	7.722	140.7	8.17	6.535	29.36	0

12/10/2018 22:30	8.29	146.3	7.907	6.426	29.36	0
12/10/2018 22:45	7.559	151.7	8.26	6.374	29.36	0
12/10/2018 23:00	7.692	143.5	10.35	6.527	29.36	0
12/10/2018 23:15	8.61	136.7	7.945	6.842	29.36	0
12/10/2018 23:30	8.8	138.8	7.614	6.947	29.36	0
12/10/2018 23:45	10.11	135.1	8.6	6.922	29.36	0
12/11/2018 0:00	10.23	142.9	11.52	7.005	29.31	0
12/11/2018 0:15	9.37	150.3	7.815	6.798	29.31	0
12/11/2018 0:30	9.64	140.5	8.7	6.924	29.31	0
12/11/2018 0:45	8.76	147.7	8.86	6.723	29.31	0
12/11/2018 1:00	9.34	140.4	11.14	6.86	29.29	0
12/11/2018 1:15	10.32	129.3	7.676	7.242	29.29	0
12/11/2018 1:30	10.33	137.1	9.69	7.328	29.29	0
12/11/2018 1:45	9.09	159.4	13.42	6.898	29.29	0
12/11/2018 2:00	8.6	162.8	11.46	6.628	29.28	0
12/11/2018 2:15	9.33	171	16.89	6.747	29.28	0
12/11/2018 2:30	9.17	179.6	10.84	6.792	29.28	0
12/11/2018 2:45	9.26	145.7	14.44	6.658	29.28	0
12/11/2018 3:00	11.13	135.8	9.17	6.279	29.24	0
12/11/2018 3:15	8.55	135.1	10.44	5.908	29.24	0
12/11/2018 3:30	10.07	123.6	12.09	5.836	29.24	0
12/11/2018 3:45	7.628	121.4	9.37	5.579	29.24	0
12/11/2018 4:00	8.84	122.8	12.44	5.579	29.19	0.01
12/11/2018 4:15	11.29	130.1	10.04	5.514	29.19	0
12/11/2018 4:30	12.33	135.7	10.35	5.423	29.19	0
12/11/2018 4:45	10.68	129.6	10.42	5.414	29.19	0
12/11/2018 5:00	9.15	132.4	9.65	5.447	29.15	0
12/11/2018 5:15	8.46	131.7	9.64	5.586	29.15	0
12/11/2018 5:30	9.25	134.4	11.12	5.633	29.15	0
12/11/2018 5:45	11.65	142.5	9.19	5.603	29.15	0
12/11/2018 6:00	12.31	133.1	8.16	5.62	29.12	0
12/11/2018 6:15	11.37	137.5	9.21	5.606	29.12	0
12/11/2018 6:30	10.72	134	9.95	5.614	29.12	0
12/11/2018 6:45	12.46	133.8	8.55	5.74	29.12	0
12/11/2018 7:00	10.99	141.2	8.85	5.718	29.08	0
12/11/2018 7:15	10.01	138.9	8.46	5.734	29.08	0
12/11/2018 7:30	9.96	133.6	9.1	5.919	29.08	0
12/11/2018 7:45	9.49	141.5	20.81	6.051	29.08	0
12/11/2018 8:00	9.04	134.4	11.9	6.482	29.06	0
12/11/2018 8:15	8.23	123.7	9.25	6.545	29.06	0
12/11/2018 8:30	6.76	126.1	10.73	6.618	29.06	0
12/11/2018 8:45	7.493	139.7	9.1	6.816	29.06	0
12/11/2018 9:00	8.56	147	9.15	6.786	29.06	0
12/11/2018 9:15	9.12	140.2	9.83	6.754	29.06	0
12/11/2018 9:30	10.04	141.1	9.52	6.793	29.06	0
12/11/2018 9:45	9.13	137.1	8.14	7.05	29.06	0
12/11/2018 10:00	9.05	146.4	9.97	6.971	29.02	0

12/11/2018 10:15	8.23	141.6	10.51	6.998	29.02	0
12/11/2018 10:30	8.7	135.3	8.85	7.172	29.02	0
12/11/2018 10:45	9.71	141.1	8.45	7.566	29.02	0
12/11/2018 11:00	10.41	142	9.06	8.03	28.96	0
12/11/2018 11:15	11.48	151.2	9.56	8.41	28.96	0
12/11/2018 11:30	11.19	154.2	8.08	8.52	28.96	0
12/11/2018 11:45	8.28	150	8.81	8.57	28.96	0
12/11/2018 12:00	6.157	157.2	13.02	8.74	28.93	0
12/11/2018 12:15	3.956	162.2	19.29	8.83	28.93	0.01
12/11/2018 12:30	5.615	171.9	22.7	9.1	28.93	0
12/11/2018 12:45	9.69	185.2	10.93	9.22	28.93	0
12/11/2018 13:00	12.74	186.1	10.67	9.29	28.9	0
12/11/2018 13:15	13.58	188.2	12.01	9.36	28.9	0
12/11/2018 13:30	14.48	193	8.1	9.35	28.9	0.01
12/11/2018 13:45	12.79	189.6	10.32	9.27	28.9	0
12/11/2018 14:00	16.1	181.5	10.19	9.3	28.85	0
12/11/2018 14:15	16.61	179.2	9.09	9.36	28.85	0
12/11/2018 14:30	15.57	181.2	9.04	9.37	28.85	0
12/11/2018 14:45	16.79	179.6	8.84	9.48	28.85	0
12/11/2018 15:00	16.47	178.9	10.62	9.44	28.82	0
12/11/2018 15:15	19.27	191.1	9.72	9.38	28.82	0
12/11/2018 15:30	19.68	193.6	7.836	9.15	28.82	0
12/11/2018 15:45	18.84	199.8	9.2	9.08	28.82	0
12/11/2018 16:00	18.94	208.6	8.52	9.05	28.86	0
12/11/2018 16:15	17.14	200	12.84	8.88	28.86	0
12/11/2018 16:30	15.65	185	10.37	8.67	28.86	0
12/11/2018 16:45	15.2	193.8	7.437	8.47	28.86	0
12/11/2018 17:00	17.42	192.5	9.26	8.34	28.86	0
12/11/2018 17:15	18.82	198.4	9.79	8.31	28.86	0
12/11/2018 17:30	14.63	187	8.86	8.14	28.86	0
12/11/2018 17:45	14.87	178.5	12.79	8.12	28.86	0
12/11/2018 18:00	11.84	189.5	29.18	8.07	28.83	0
12/11/2018 18:15	11.81	181.9	17.28	8.19	28.83	0.01
12/11/2018 18:30	10.32	232.4	23.14	8.15	28.83	0
12/11/2018 18:45	14.37	203.9	8.9	8.03	28.83	0
12/11/2018 19:00	11.89	189.2	12.86	7.937	28.87	0
12/11/2018 19:15	12.57	185.5	12.71	7.687	28.87	0
12/11/2018 19:30	7.786	178.1	19.35	7.522	28.87	0
12/11/2018 19:45	6.63	149.3	17.59	7.347	28.87	0
12/11/2018 20:00	8.71	164.6	17.56	7.233	28.88	0
12/11/2018 20:15	11.69	185.5	9.85	7.184	28.88	0
12/11/2018 20:30	13.17	201	7.291	7.123	28.88	0
12/11/2018 20:45	13.06	195.1	8	7.074	28.88	0
12/11/2018 21:00	11.84	195	11.76	7.017	28.94	0
12/11/2018 21:15	10.95	202.7	9.67	6.936	28.94	0
12/11/2018 21:30	10.13	207.2	5.884	6.923	28.94	0
12/11/2018 21:45	10.86	209.8	8.52	6.841	28.94	0

12/11/2018 22:00	11.18	206.9	6.469	6.782	28.97	0
12/11/2018 22:15	10.12	207	6.194	6.702	28.97	0
12/11/2018 22:30	8.51	202.2	7.926	6.578	28.97	0
12/11/2018 22:45	8.04	207.6	8.67	6.501	28.97	0
12/11/2018 23:00	7.339	195.5	8.94	6.385	29.03	0
12/11/2018 23:15	7.535	181.7	8.87	6.179	29.03	0
12/11/2018 23:30	8.85	165.3	10.81	5.974	29.03	0
12/11/2018 23:45	6.482	176.3	11.02	5.986	29.03	0
12/12/2018 0:00	7.183	174.6	10.79	5.891	29.07	0
12/12/2018 0:15	6.823	179.7	9.71	5.901	29.07	0
12/12/2018 0:30	7.283	170.8	10.49	5.801	29.07	0
12/12/2018 0:45	7.417	178.7	9.46	5.731	29.07	0
12/12/2018 1:00	7.549	172.7	13.18	5.57	29.1	0
12/12/2018 1:15	8.1	189.7	6.275	5.615	29.1	0
12/12/2018 1:30	6.77	198.4	10.46	5.586	29.1	0
12/12/2018 1:45	6.562	188.2	13.92	5.501	29.1	0
12/12/2018 2:00	5.36	170	17.13	5.348	29.15	0
12/12/2018 2:15	5.354	166.6	13.79	5.356	29.15	0
12/12/2018 2:30	6.361	171.8	14.65	5.455	29.15	0
12/12/2018 2:45	3.273	145.5	22.02	5.339	29.15	0
12/12/2018 3:00	5.643	180.7	10.39	5.448	29.21	0
12/12/2018 3:15	6.936	201.6	8.63	5.416	29.21	0
12/12/2018 3:30	7.213	201.8	10.89	5.421	29.21	0
12/12/2018 3:45	5.225	190.3	9.12	5.277	29.21	0
12/12/2018 4:00	5.72	189.4	9.59	5.365	29.24	0
12/12/2018 4:15	5.022	172.8	9.61	5.015	29.24	0
12/12/2018 4:30	7.638	180.6	7.337	4.892	29.24	0
12/12/2018 4:45	4.674	171.1	9.66	4.716	29.24	0
12/12/2018 5:00	3.579	180.1	38.54	4.895	29.29	0
12/12/2018 5:15	7.142	182	14.59	4.972	29.29	0
12/12/2018 5:30	4.683	145.9	25.82	4.67	29.29	0
12/12/2018 5:45	4.28	130.7	27.73	4.655	29.29	0
12/12/2018 6:00	5.418	125.1	17.69	4.82	29.33	0
12/12/2018 6:15	6.044	136.6	9.67	4.906	29.33	0
12/12/2018 6:30	6.084	135.3	7.433	4.948	29.33	0
12/12/2018 6:45	8.82	155.9	11.14	5.013	29.33	0
12/12/2018 7:00	8.25	154.7	7.352	4.868	29.38	0
12/12/2018 7:15	9.12	156.7	8.26	4.491	29.38	0
12/12/2018 7:30	7.956	147.3	9.55	4.332	29.38	0
12/12/2018 7:45	8.06	143.6	8.66	4.215	29.38	0
12/12/2018 8:00	9.03	135.6	8.87	4.269	29.43	0
12/12/2018 8:15	8.66	139.3	9.95	4.605	29.43	0
12/12/2018 8:30	7.848	135.1	9.15	4.801	29.43	0
12/12/2018 8:45	7.964	129.5	8.42	4.854	29.43	0
12/12/2018 9:00	9.01	131.8	8.48	5.003	29.45	0
12/12/2018 9:15	8.63	144.5	8.14	5.19	29.45	0
12/12/2018 9:30	9.32	155.9	8.67	5.464	29.45	0

12/12/2018 9:45	9.21	163.9	7.994	5.537	29.45	0
12/12/2018 10:00	8.67	169.6	8.7	5.657	29.47	0
12/12/2018 10:15	9.68	166.7	10.94	5.804	29.47	0
12/12/2018 10:30	9.68	174.2	9.96	5.9	29.47	0
12/12/2018 10:45	9.75	164.9	13.6	6.065	29.47	0
12/12/2018 11:00	7.816	171	13.63	6.165	29.46	0
12/12/2018 11:15	7.838	176.4	10.41	6.263	29.46	0
12/12/2018 11:30	6.945	161.6	11.94	6.306	29.46	0
12/12/2018 11:45	6.782	164	16.27	6.44	29.46	0
12/12/2018 12:00	8.66	174.2	11.98	6.674	29.42	0
12/12/2018 12:15	9.65	183.9	8.68	6.797	29.42	0
12/12/2018 12:30	9.4	178.8	9.06	7.039	29.42	0
12/12/2018 12:45	10.27	177.1	12.02	7.284	29.42	0
12/12/2018 13:00	10.01	175.1	12.47	7.592	29.43	0
12/12/2018 13:15	10.79	177.7	14.07	7.95	29.43	0
12/12/2018 13:30	9.87	188.1	9.29	7.891	29.43	0
12/12/2018 13:45	9.82	190.6	9.18	7.974	29.43	0
12/12/2018 14:00	10.46	191.8	9.89	7.997	29.39	0
12/12/2018 14:15	10.55	204	11.48	7.95	29.39	0
12/12/2018 14:30	11.55	202.5	10.26	7.79	29.39	0
12/12/2018 14:45	8.98	197	11.72	7.602	29.39	0
12/12/2018 15:00	8.25	169.2	11.24	7.578	29.4	0
12/12/2018 15:15	9.97	164.2	7.978	7.53	29.4	0
12/12/2018 15:30	9.9	163.7	11.36	7.586	29.4	0
12/12/2018 15:45	10.12	158.4	7.297	7.615	29.4	0
12/12/2018 16:00	9.91	157.6	7.456	7.615	29.38	0
12/12/2018 16:15	9.09	168	9.07	7.544	29.38	0
12/12/2018 16:30	15.76	180.6	7.275	7.737	29.38	0
12/12/2018 16:45	16.08	178.2	10.23	7.496	29.38	0
12/12/2018 17:00	17.08	179.5	9.89	7.002	29.39	0
12/12/2018 17:15	14.87	175.7	8.82	6.581	29.39	0
12/12/2018 17:30	13.19	165.7	11.47	6.416	29.39	0
12/12/2018 17:45	11.7	152.1	9.61	6.142	29.39	0
12/12/2018 18:00	10.76	147.8	10.08	6.007	29.35	0
12/12/2018 18:15	10.72	150.7	7.248	6.176	29.35	0
12/12/2018 18:30	12.23	157.2	10.45	6.371	29.35	0
12/12/2018 18:45	12.48	159	8.02	6.245	29.35	0
12/12/2018 19:00	9.92	151.5	7.042	6.03	29.35	0
12/12/2018 19:15	8.7	151.9	8.02	6.125	29.35	0
12/12/2018 19:30	9.35	155.4	6.827	6.157	29.35	0
12/12/2018 19:45	10.41	154.7	8.45	6.279	29.35	0
12/12/2018 20:00	8.09	147.7	8.04	6.124	29.35	0
12/12/2018 20:15	9.88	155.7	7.098	6.329	29.35	0
12/12/2018 20:30	12.13	154.8	6.162	6.386	29.35	0
12/12/2018 20:45	14.01	156.1	7.684	6.445	29.35	0
12/12/2018 21:00	13.89	165.7	6.905	6.501	29.35	0
12/12/2018 21:15	12.26	159.1	8.25	6.448	29.35	0

12/12/2018 21:30	9.27	148.7	7.052	6.179	29.35	0
12/12/2018 21:45	10.15	155.1	7.077	6.248	29.35	0
12/12/2018 22:00	8.88	144.9	10.5	5.986	29.33	0
12/12/2018 22:15	8.59	137.3	7.281	5.936	29.33	0
12/12/2018 22:30	8.18	145.2	10.54	5.823	29.33	0
12/12/2018 22:45	8.38	142	7.81	5.702	29.33	0
12/12/2018 23:00	8.82	150	7.814	5.723	29.3	0
12/12/2018 23:15	9.29	154.8	7.665	5.679	29.3	0
12/12/2018 23:30	9.24	153.2	7.156	5.687	29.3	0
12/12/2018 23:45	9.13	146.8	8.43	5.819	29.3	0
12/13/2018 0:00	11.82	147.2	7.326	6.17	29.27	0
12/13/2018 0:15	12.76	147.3	7.059	6.196	29.27	0
12/13/2018 0:30	13.94	148.5	8.35	6.303	29.27	0
12/13/2018 0:45	13.72	149	7.711	6.304	29.27	0
12/13/2018 1:00	12.7	148.1	8.44	6.295	29.25	0
12/13/2018 1:15	13.7	150.2	10.6	6.377	29.25	0
12/13/2018 1:30	13.2	150.9	9.32	6.319	29.25	0
12/13/2018 1:45	14.27	154.1	8.86	6.409	29.25	0.01
12/13/2018 2:00	14.91	155.7	9.09	6.38	29.25	0
12/13/2018 2:15	16.12	159	8.81	6.605	29.25	0
12/13/2018 2:30	16.44	160.3	7.975	6.813	29.25	0
12/13/2018 2:45	16.24	161.5	9.67	7.033	29.25	0
12/13/2018 3:00	17.88	167.6	10.35	7.293	29.25	0
12/13/2018 3:15	17.17	174.5	8.91	7.389	29.25	0
12/13/2018 3:30	17.43	168.1	10.43	7.326	29.25	0
12/13/2018 3:45	15.25	172.2	11.59	7.258	29.25	0
12/13/2018 4:00	13.73	167.7	10.91	7.202	29.21	0
12/13/2018 4:15	17.09	167.3	9.03	7.287	29.21	0
12/13/2018 4:30	15.16	163.3	8.75	7.148	29.21	0
12/13/2018 4:45	12.04	162.4	11.57	7.12	29.21	0
12/13/2018 5:00	11.19	153.1	9.4	7.147	29.22	0
12/13/2018 5:15	9.25	153	9.64	7.004	29.22	0
12/13/2018 5:30	8.79	145.3	9.86	7.065	29.22	0
12/13/2018 5:45	7.569	146.9	12.35	7.262	29.22	0
12/13/2018 6:00	7.923	143.9	11.24	7.623	29.24	0
12/13/2018 6:15	9.82	154.7	13.26	8.24	29.24	0
12/13/2018 6:30	10.47	158.1	10.95	8.49	29.24	0
12/13/2018 6:45	9.8	166.3	13.27	8.55	29.24	0
12/13/2018 7:00	12.9	181	10.33	8.77	29.23	0
12/13/2018 7:15	14.58	184.9	9.28	8.53	29.23	0
12/13/2018 7:30	11.9	174	14.91	8.11	29.23	0
12/13/2018 7:45	8.71	156.8	13.98	7.788	29.23	0
12/13/2018 8:00	10.08	167.1	13.7	8.2	29.24	0
12/13/2018 8:15	10.92	168.8	8.87	8.18	29.24	0
12/13/2018 8:30	10.62	168.4	8.91	7.951	29.24	0
12/13/2018 8:45	8.94	154.3	9.46	7.771	29.24	0
12/13/2018 9:00	5.453	141.8	8.51	7.822	29.25	0

12/13/2018 9:15	5.625	137.2	7.433	7.923	29.25	0
12/13/2018 9:30	5.417	137.5	8.26	7.971	29.25	0
12/13/2018 9:45	5.449	134.6	9.21	8.06	29.25	0
12/13/2018 10:00	5.875	151.1	13.79	8.27	29.25	0
12/13/2018 10:15	4.333	145.2	15.66	7.987	29.25	0
12/13/2018 10:30	3.856	128.6	13.03	7.865	29.25	0
12/13/2018 10:45	4.459	132.3	10.18	7.732	29.25	0
12/13/2018 11:00	5.186	137	9.12	7.728	29.25	0
12/13/2018 11:15	6.293	137.5	7.638	7.771	29.25	0
12/13/2018 11:30	7.829	140.4	7.831	8.15	29.25	0
12/13/2018 11:45	7.419	132.8	7.317	8.2	29.25	0
12/13/2018 12:00	9.03	131.1	8.15	8.37	29.2	0
12/13/2018 12:15	7.731	135.4	12.66	8.66	29.2	0
12/13/2018 12:30	6.797	129.8	10.06	8.55	29.2	0
12/13/2018 12:45	4.456	154.3	13.55	8.75	29.2	0
12/13/2018 13:00	5.814	154.4	17.19	8.76	29.19	0
12/13/2018 13:15	5.225	150.9	24.89	9.05	29.19	0
12/13/2018 13:30	5.083	157.7	41.72	9.42	29.19	0
12/13/2018 13:45	3.864	241.9	18.69	8.99	29.19	0
12/13/2018 14:00	3.863	196.5	43.22	9.12	29.22	0
12/13/2018 14:15	2.553	59.23	26.9	8.59	29.22	0
12/13/2018 14:30	3.578	38.59	8.66	8.61	29.22	0
12/13/2018 14:45	2.617	18.72	15.79	8.7	29.22	0
12/13/2018 15:00	4.27	52.94	13.55	8.49	29.18	0
12/13/2018 15:15	1.463	27.65	35.63	8.29	29.18	0
12/13/2018 15:30	2.505	25.91	66.63	8.01	29.18	0
12/13/2018 15:45	4.027	84.4	47.78	7.718	29.18	0
12/13/2018 16:00	5.564	72.29	9.4	7.466	29.17	0
12/13/2018 16:15	6.068	97.8	8.13	7.459	29.17	0
12/13/2018 16:30	5.508	89	12.67	7.799	29.17	0
12/13/2018 16:45	4.43	75.06	11.95	8.29	29.17	0
12/13/2018 17:00	3.626	60.96	6.46	7.702	29.16	0
12/13/2018 17:15	2.449	22.36	52.44	7.602	29.16	0
12/13/2018 17:30	3.615	42.29	20.01	7.508	29.16	0
12/13/2018 17:45	3.219	50.19	67.78	7.45	29.16	0
12/13/2018 18:00	5.609	62.53	11.97	7.385	29.13	0
12/13/2018 18:15	3.492	130.3	68.03	7.526	29.13	0
12/13/2018 18:30	5.237	139.8	18.44	8.09	29.13	0
12/13/2018 18:45	5.195	114.8	16.01	8.02	29.13	0
12/13/2018 19:00	4.947	137.4	11.7	8.23	29.15	0
12/13/2018 19:15	6.554	135.7	11.94	8.5	29.15	0
12/13/2018 19:30	6.845	133.3	9.33	8.62	29.15	0
12/13/2018 19:45	7.191	134.6	13.98	8.61	29.15	0
12/13/2018 20:00	7.281	138.6	18.76	8.84	29.11	0
12/13/2018 20:15	6.703	139.5	10.77	8.8	29.11	0
12/13/2018 20:30	10.13	130	9.85	9.05	29.11	0
12/13/2018 20:45	11.07	135.9	10.14	9.34	29.11	0

12/13/2018 21:00	11.8	135.5	8.74	9.35	29.1	0
12/13/2018 21:15	11.88	138.2	12.02	9.46	29.1	0
12/13/2018 21:30	10.25	146.4	9.5	8.86	29.1	0
12/13/2018 21:45	10.93	142	9.9	9.03	29.1	0
12/13/2018 22:00	9.08	150.9	10.71	9	29.1	0
12/13/2018 22:15	8.05	161.9	17.04	8.67	29.1	0
12/13/2018 22:30	9.02	153.5	11.2	8.58	29.1	0
12/13/2018 22:45	10.14	145.6	11.52	9	29.1	0
12/13/2018 23:00	9.73	150.3	11.24	9.19	29.06	0
12/13/2018 23:15	9.15	150.1	12.68	9.39	29.06	0
12/13/2018 23:30	10.28	152.4	18.44	10.21	29.06	0
12/13/2018 23:45	9.07	146.2	11.91	10.51	29.06	0
12/14/2018 0:00	10.61	145.5	9.4	10.71	29.03	0
12/14/2018 0:15	9.72	149.7	16.73	10.99	29.03	0
12/14/2018 0:30	8.68	149.8	10.06	10.36	29.03	0
12/14/2018 0:45	9.9	153.5	12.96	10.26	29.03	0
12/14/2018 1:00	11.33	147.2	10.34	10.4	29	0
12/14/2018 1:15	12.03	142.7	10.77	10.62	29	0
12/14/2018 1:30	11.97	139.6	10.69	10.93	29	0
12/14/2018 1:45	12.16	139.7	10.58	11	29	0
12/14/2018 2:00	12.13	139.5	10.44	11.34	28.98	0
12/14/2018 2:15	12.02	139.2	10.47	11.24	28.98	0
12/14/2018 2:30	11.5	143.6	8.45	11.25	28.98	0
12/14/2018 2:45	11.93	136.3	7.588	11.59	28.98	0
12/14/2018 3:00	12.68	138	8.85	11.95	28.95	0
12/14/2018 3:15	14.34	135.3	8.45	11.86	28.95	0
12/14/2018 3:30	14.01	134.2	9.45	11.66	28.95	0
12/14/2018 3:45	13.89	133.9	8.12	11.68	28.95	0
12/14/2018 4:00	12.72	138.2	9.69	11.67	28.92	0
12/14/2018 4:15	14.47	137.2	9.22	11.63	28.92	0
12/14/2018 4:30	15.19	134.2	8.83	11.76	28.92	0
12/14/2018 4:45	14.77	129.5	9.31	12.06	28.92	0
12/14/2018 5:00	14.89	130.2	10.07	12.21	28.9	0
12/14/2018 5:15	15.34	133.9	9.62	12.66	28.9	0
12/14/2018 5:30	12.12	132.9	10.96	12.56	28.9	0
12/14/2018 5:45	11.29	126.2	13.53	12.44	28.9	0
12/14/2018 6:00	9.1	123.4	13	12.38	28.87	0
12/14/2018 6:15	9.59	117.6	13.55	11.98	28.87	0
12/14/2018 6:30	11.6	128.6	12.82	12.06	28.87	0
12/14/2018 6:45	10.1	129.6	11.6	11.9	28.87	0
12/14/2018 7:00	10.2	136.3	11.99	11.62	28.82	0
12/14/2018 7:15	12.29	129.4	12.09	11.94	28.82	0
12/14/2018 7:30	13.04	136.4	10.67	12.03	28.82	0
12/14/2018 7:45	15.91	135.8	10.06	12	28.82	0
12/14/2018 8:00	15.46	131.4	10.97	12.2	28.81	0
12/14/2018 8:15	14.03	135.2	10.98	12.55	28.81	0
12/14/2018 8:30	11.97	138.6	12.39	12.55	28.81	0

12/14/2018 8:45	11.33	134.5	11.58	12.27	28.81	0
12/14/2018 9:00	12.67	130	10.78	12.27	28.79	0
12/14/2018 9:15	10.68	124	16.87	12.48	28.79	0
12/14/2018 9:30	16.04	131.6	10.42	12.76	28.79	0
12/14/2018 9:45	17.78	132.7	9.7	12.83	28.79	0
12/14/2018 10:00	18.88	136.3	10.01	12.99	28.74	0
12/14/2018 10:15	19.49	131.9	10.02	12.77	28.74	0
12/14/2018 10:30	19.64	135.6	10.11	12.88	28.74	0
12/14/2018 10:45	20.68	132.2	9.29	12.93	28.74	0
12/14/2018 11:00	22.32	132.3	9.31	12.62	28.74	0
12/14/2018 11:15	20.26	131	10.92	12.53	28.74	0
12/14/2018 11:30	22.89	133	9.39	12.45	28.74	0
12/14/2018 11:45	22.81	131.7	9.75	12.22	28.74	0
12/14/2018 12:00	20.43	131.5	11.08	12.53	28.71	0
12/14/2018 12:15	20.46	127.8	11.42	12.41	28.71	0
12/14/2018 12:30	19.76	131.2	10.26	12.53	28.71	0
12/14/2018 12:45	20.73	128.5	11.05	12.48	28.71	0
12/14/2018 13:00	20.86	125.2	12.12	12.18	28.67	0
12/14/2018 13:15	19.7	132.1	9.75	12.4	28.67	0
12/14/2018 13:30	17.11	130.7	10.26	12.62	28.67	0
12/14/2018 13:45	16.85	135.7	10.41	12.69	28.67	0
12/14/2018 14:00	17.25	139	11.58	12.22	28.66	0
12/14/2018 14:15	19.19	136.4	9.73	12.02	28.66	0
12/14/2018 14:30	15.53	135.5	11.06	12.13	28.66	0
12/14/2018 14:45	13.15	158.1	9.18	11.93	28.66	0
12/14/2018 15:00	9.9	165.7	13.9	11.79	28.67	0
12/14/2018 15:15	9.34	152.7	6.657	11.72	28.67	0
12/14/2018 15:30	9.56	188	43.01	11.56	28.67	0
12/14/2018 15:45	10.73	234	13.24	11.27	28.67	0
12/14/2018 16:00	10.22	205.1	9.22	11.19	28.69	0
12/14/2018 16:15	14.58	198.1	10.78	11.24	28.69	0
12/14/2018 16:30	15.12	194.3	8.15	10.99	28.69	0
12/14/2018 16:45	17.22	173.9	14.94	11.18	28.69	0
12/14/2018 17:00	20.29	176.8	11.4	11.62	28.73	0
12/14/2018 17:15	21.32	183.8	10.61	12.5	28.73	0
12/14/2018 17:30	24.5	181.7	12.53	12.54	28.73	0
12/14/2018 17:45	29.8	193.5	7.85	12.02	28.73	0
12/14/2018 18:00	27.73	193.6	8.12	11.29	28.76	0
12/14/2018 18:15	25.78	189.5	10.14	10.83	28.76	0
12/14/2018 18:30	29.6	193.1	8.55	9.87	28.76	0
12/14/2018 18:45	30.94	205.3	9.41	8.49	28.76	0
12/14/2018 19:00	30.02	205.4	8.96	8.12	28.86	0
12/14/2018 19:15	31.18	204.4	9.58	7.717	28.86	0
12/14/2018 19:30	23.82	202.9	8.95	7.442	28.86	0
12/14/2018 19:45	26.19	206.6	9.45	7.191	28.86	0
12/14/2018 20:00	24.86	201.2	9.95	6.893	28.93	0
12/14/2018 20:15	25.15	205.5	10.6	6.599	28.93	0

12/14/2018 20:30	24.38	206.5	8.52	6.305	28.93	0
12/14/2018 20:45	21.52	204.9	8.59	6.114	28.93	0
12/14/2018 21:00	17.2	207.6	9.5	5.97	29	0
12/14/2018 21:15	17.46	200.3	8.4	5.519	29	0
12/14/2018 21:30	16.72	183.7	10.25	5.505	29	0
12/14/2018 21:45	16.82	186.3	9.85	5.632	29	0
12/14/2018 22:00	17.08	189.2	9.14	5.66	29.04	0
12/14/2018 22:15	17.11	188.5	8.27	5.528	29.04	0
12/14/2018 22:30	16.42	193.3	9.33	5.452	29.04	0
12/14/2018 22:45	16.36	199.7	9.86	5.338	29.04	0
12/14/2018 23:00	17.09	199.9	7.131	5.165	29.1	0
12/14/2018 23:15	17.28	199.6	7.79	5.06	29.1	0
12/14/2018 23:30	17.57	198.4	7.435	4.977	29.1	0
12/14/2018 23:45	17.25	194.3	7.726	4.863	29.1	0
12/15/2018 0:00	14.71	201.6	8.91	4.746	29.15	0
12/15/2018 0:15	12.97	201.5	7.219	4.642	29.15	0
12/15/2018 0:30	15.4	204.5	7.417	4.572	29.15	0
12/15/2018 0:45	13.25	212	7.753	4.56	29.15	0
12/15/2018 1:00	11.53	202.3	7.782	4.548	29.16	0
12/15/2018 1:15	10.07	202.1	8.17	4.526	29.16	0
12/15/2018 1:30	11.14	199.1	7.34	4.503	29.16	0
12/15/2018 1:45	9.64	197.4	10.27	4.487	29.16	0
12/15/2018 2:00	9.14	183.7	8.45	4.576	29.18	0
12/15/2018 2:15	7.257	185.3	8.43	4.499	29.18	0
12/15/2018 2:30	7.096	197.9	9.5	4.377	29.18	0
12/15/2018 2:45	8.18	187.4	10.09	4.4	29.18	0
12/15/2018 3:00	9.48	179.3	8.04	4.435	29.19	0
12/15/2018 3:15	10.17	190	8.67	4.485	29.19	0
12/15/2018 3:30	9.28	181.9	7.759	4.539	29.19	0
12/15/2018 3:45	8.37	178.7	8.6	4.477	29.19	0
12/15/2018 4:00	7.963	170.7	10.88	4.432	29.2	0
12/15/2018 4:15	6.716	170.6	9.41	4.408	29.2	0
12/15/2018 4:30	5.218	144.1	21.87	4.427	29.2	0
12/15/2018 4:45	4.327	117.6	9.11	4.389	29.2	0
12/15/2018 5:00	6.477	131.5	5.78	4.411	29.21	0
12/15/2018 5:15	7.214	136.1	6.424	4.488	29.21	0
12/15/2018 5:30	7.271	149.1	8.35	4.512	29.21	0
12/15/2018 5:45	6.643	162.9	12.92	4.798	29.21	0
12/15/2018 6:00	5.612	142	9.77	4.803	29.2	0
12/15/2018 6:15	5.236	138.8	7.785	4.68	29.2	0
12/15/2018 6:30	5.738	135	7.81	4.899	29.2	0
12/15/2018 6:45	7.853	139.3	7.735	5.208	29.2	0
12/15/2018 7:00	8.14	137.3	7.613	5.609	29.18	0
12/15/2018 7:15	8.72	137.4	6.84	5.929	29.18	0
12/15/2018 7:30	9.21	133.5	8.74	5.898	29.18	0
12/15/2018 7:45	9	134.1	9.53	5.883	29.18	0
12/15/2018 8:00	8.43	143.4	9.27	6.057	29.21	0

12/15/2018 8:15	6.884	154.3	12.08	5.84	29.21	0
12/15/2018 8:30	7.013	140.8	9.08	5.912	29.21	0
12/15/2018 8:45	6.508	137.2	10.19	6.038	29.21	0
12/15/2018 9:00	8.18	135.1	12.77	6.108	29.22	0
12/15/2018 9:15	9.77	137.7	14.36	6.22	29.22	0
12/15/2018 9:30	5.954	172	38.47	5.941	29.22	0
12/15/2018 9:45	9.96	126.8	11.37	6.315	29.22	0
12/15/2018 10:00	10.46	125.1	11.01	6.574	29.19	0
12/15/2018 10:15	11.35	127.6	11.55	6.642	29.19	0
12/15/2018 10:30	9.56	126.2	10.34	7.265	29.19	0
12/15/2018 10:45	9.56	139	10.22	7.82	29.19	0
12/15/2018 11:00	9.34	136.9	8.78	7.362	29.18	0
12/15/2018 11:15	9.98	134.7	10.39	7.933	29.18	0
12/15/2018 11:30	10.2	134.4	9.72	7.975	29.18	0
12/15/2018 11:45	9.92	128.7	9.92	7.926	29.18	0
12/15/2018 12:00	5.952	105.6	15.11	8.01	29.16	0
12/15/2018 12:15	2.98	96.8	21.98	8.2	29.16	0
12/15/2018 12:30	3.943	75.58	16.23	8.23	29.16	0
12/15/2018 12:45	3.317	82.6	23.6	8.29	29.16	0
12/15/2018 13:00	5.141	110.2	24.06	8.62	29.09	0
12/15/2018 13:15	5.803	126.1	13.48	8.65	29.09	0
12/15/2018 13:30	5.369	150	18.06	8.37	29.09	0
12/15/2018 13:45	10.9	151.3	14.64	8.24	29.09	0
12/15/2018 14:00	12.59	125.8	13.24	8.29	29.09	0
12/15/2018 14:15	12.02	129.1	11.01	8.21	29.09	0
12/15/2018 14:30	12.59	132.1	10.7	8.22	29.09	0
12/15/2018 14:45	12.1	133.1	9.81	8.21	29.09	0
12/15/2018 15:00	10.54	129.2	13.71	8.07	29.1	0
12/15/2018 15:15	13.43	132.2	10.13	8.11	29.1	0
12/15/2018 15:30	14.88	131.9	9.03	8.11	29.1	0
12/15/2018 15:45	14.32	133.6	9.85	8.06	29.1	0
12/15/2018 16:00	14.91	133.1	10.47	8.02	29.07	0
12/15/2018 16:15	15.29	130.3	11.38	8	29.07	0
12/15/2018 16:30	14.51	127.9	10.68	8.09	29.07	0
12/15/2018 16:45	11.19	129.3	10.38	8.14	29.07	0
12/15/2018 17:00	10.75	133.6	11.4	8.2	29.09	0
12/15/2018 17:15	14.66	136.3	11.79	8.23	29.09	0
12/15/2018 17:30	14.89	137.6	19.04	8.43	29.09	0
12/15/2018 17:45	11.59	134.6	19.98	8.57	29.09	0
12/15/2018 18:00	14.41	113.3	12.16	8.95	29.04	0
12/15/2018 18:15	11.12	99.7	15.39	9.23	29.04	0
12/15/2018 18:30	10.51	103.9	14.41	8.94	29.04	0
12/15/2018 18:45	10.17	116.4	12.54	8.53	29.04	0
12/15/2018 19:00	14.21	130.2	12.78	8.48	29.02	0
12/15/2018 19:15	18.85	134.9	13.54	8.26	29.02	0
12/15/2018 19:30	17.5	129.4	10.77	8.23	29.02	0
12/15/2018 19:45	15.16	149.4	13.88	8.34	29.02	0

12/15/2018 20:00	12.7	149.6	13.28	8.55	29.07	0
12/15/2018 20:15	11.88	135.7	11.98	8.66	29.07	0
12/15/2018 20:30	14.24	130	11.13	8.81	29.07	0
12/15/2018 20:45	14.29	132.2	10	8.84	29.07	0
12/15/2018 21:00	11.87	120.9	16.52	8.81	29.08	0
12/15/2018 21:15	15.84	130.2	14.25	8.76	29.08	0
12/15/2018 21:30	14.72	121.2	12.07	8.59	29.08	0
12/15/2018 21:45	14.33	112	14.92	8.37	29.08	0
12/15/2018 22:00	14.53	113.3	13.72	7.926	29.04	0
12/15/2018 22:15	14.42	112	14.91	7.394	29.04	0
12/15/2018 22:30	16.34	120.8	11.76	7.044	29.04	0
12/15/2018 22:45	16.74	122.8	11.51	6.736	29.04	0
12/15/2018 23:00	16.95	121.5	10.45	6.611	29.03	0
12/15/2018 23:15	19.91	125.1	10.6	6.531	29.03	0
12/15/2018 23:30	18.31	127.2	9.73	6.288	29.03	0
12/15/2018 23:45	16.64	127.2	10.1	6.125	29.03	0
12/16/2018 0:00	17.05	123.6	10.87	6.321	29	0
12/16/2018 0:15	12.53	124	11.91	6.316	29	0
12/16/2018 0:30	13.07	127.2	10.5	6.331	29	0
12/16/2018 0:45	13.96	124.8	11.98	6.364	29	0
12/16/2018 1:00	18.36	127.1	11.89	6.757	28.96	0
12/16/2018 1:15	18.7	128.4	11.8	7.038	28.96	0
12/16/2018 1:30	17.76	131.1	11.38	7.251	28.96	0
12/16/2018 1:45	19.97	126.1	11.03	7.446	28.96	0
12/16/2018 2:00	20.53	126.5	12.01	7.346	28.93	0
12/16/2018 2:15	20.93	129.7	10.97	7.281	28.93	0
12/16/2018 2:30	19.41	133.1	9.07	7.434	28.93	0
12/16/2018 2:45	17.9	132	9.71	7.467	28.93	0
12/16/2018 3:00	19.63	130.3	10.11	7.562	28.94	0
12/16/2018 3:15	20.47	131.9	10.7	7.578	28.94	0.02
12/16/2018 3:30	20.18	127.7	10.28	7.573	28.94	0
12/16/2018 3:45	20.59	128.4	10.53	7.641	28.94	0
12/16/2018 4:00	17.53	122.6	10.13	8.3	28.92	0
12/16/2018 4:15	21.01	127.3	10.64	8.36	28.92	0
12/16/2018 4:30	19.91	123	10.82	8.56	28.92	0
12/16/2018 4:45	20.44	124	10.04	8.62	28.92	0
12/16/2018 5:00	23.8	125.8	11.23	8.87	28.84	0
12/16/2018 5:15	25.13	129.2	9.04	8.91	28.84	0
12/16/2018 5:30	25.33	126.2	10.83	8.83	28.84	0
12/16/2018 5:45	24.31	130.3	10.83	9.2	28.84	0
12/16/2018 6:00	22.02	129.6	11.19	9.03	28.85	0
12/16/2018 6:15	22.13	126.9	11.71	9.17	28.85	0
12/16/2018 6:30	21.85	130.7	10.22	9.52	28.85	0
12/16/2018 6:45	21.78	128.3	11.21	9.79	28.85	0
12/16/2018 7:00	20.66	128.1	11.85	9.86	28.86	0
12/16/2018 7:15	21.65	132.9	11.56	10.04	28.86	0
12/16/2018 7:30	20.85	132.7	10.17	10.06	28.86	0

12/16/2018 7:45	20.81	130.4	11.29	10.15	28.86	0
12/16/2018 8:00	19.85	130.6	9.91	10.12	28.86	0
12/16/2018 8:15	19.74	132.7	9.73	10.25	28.86	0
12/16/2018 8:30	19.5	132.2	10.06	10.42	28.86	0
12/16/2018 8:45	19.44	132.5	10.53	10.38	28.86	0
12/16/2018 9:00	20.36	130.6	10.33	10.48	28.85	0
12/16/2018 9:15	19.46	131.5	10.71	10.65	28.85	0
12/16/2018 9:30	20.48	129.2	9.81	10.75	28.85	0
12/16/2018 9:45	20.77	132.3	9.17	10.91	28.85	0
12/16/2018 10:00	20.21	129.6	9.4	11.02	28.85	0
12/16/2018 10:15	21.04	129.2	10.77	11.19	28.85	0
12/16/2018 10:30	21.15	131.1	9.69	11.3	28.85	0
12/16/2018 10:45	19.72	131.8	10.53	11.47	28.85	0
12/16/2018 11:00	21.63	130.3	10.48	11.54	28.84	0
12/16/2018 11:15	20.39	127.8	10.48	11.62	28.84	0
12/16/2018 11:30	21.33	131.2	8.81	11.88	28.84	0
12/16/2018 11:45	20.82	131.7	9.93	11.91	28.84	0
12/16/2018 12:00	20.18	131.1	10.3	11.94	28.8	0
12/16/2018 12:15	20.16	130	9.98	11.72	28.8	0
12/16/2018 12:30	20.35	126.4	11.07	11.92	28.8	0
12/16/2018 12:45	20.99	128.1	9.97	11.69	28.8	0
12/16/2018 13:00	19.74	127.2	11.79	11.3	28.77	0
12/16/2018 13:15	19.81	129.4	9.4	11.13	28.77	0
12/16/2018 13:30	20.43	130.8	10.68	11.19	28.77	0
12/16/2018 13:45	21.22	132.2	10.26	11.05	28.77	0
12/16/2018 14:00	18.68	131.2	11.09	10.81	28.79	0
12/16/2018 14:15	14.4	133.3	10.74	10.93	28.79	0
12/16/2018 14:30	18.29	133.5	9.4	10.96	28.79	0
12/16/2018 14:45	14.88	136.6	9.8	10.66	28.79	0
12/16/2018 15:00	12.84	140.8	10.47	10.87	28.8	0
12/16/2018 15:15	14.99	134.7	11.43	10.82	28.8	0
12/16/2018 15:30	14.34	137.7	11.13	10.29	28.8	0
12/16/2018 15:45	14.4	132.9	10.23	10.1	28.8	0
12/16/2018 16:00	14.61	131.7	8.87	9.71	28.85	0
12/16/2018 16:15	12.26	180.5	41.83	9.16	28.85	0
12/16/2018 16:30	11.29	141.2	11.3	8.98	28.85	0
12/16/2018 16:45	12.91	130	8.91	9.1	28.85	0
12/16/2018 17:00	11.82	124	11.21	9.4	28.86	0
12/16/2018 17:15	14.61	130.2	11.78	9.56	28.86	0
12/16/2018 17:30	15.04	153.9	10.38	9.09	28.86	0
12/16/2018 17:45	15.6	141.2	14.19	9.1	28.86	0
12/16/2018 18:00	10.46	138.7	10.79	8.98	28.9	0
12/16/2018 18:15	10.62	147.9	9.71	9.02	28.9	0
12/16/2018 18:30	8.61	168.6	16.18	8.96	28.9	0
12/16/2018 18:45	6.82	171.8	18.2	8.75	28.9	0
12/16/2018 19:00	8.46	152.2	19.48	8.91	28.93	0
12/16/2018 19:15	7.192	144.1	12.17	9.12	28.93	0

12/16/2018 19:30	5.977	146.5	18.31	9.51	28.93	0
12/16/2018 19:45	4.891	162.4	14.44	9.76	28.93	0
12/16/2018 20:00	4.99	158	13.67	9.96	28.95	0
12/16/2018 20:15	5.354	169.3	15.64	9.82	28.95	0
12/16/2018 20:30	5.306	177.9	12.08	9.47	28.95	0
12/16/2018 20:45	7.054	181.7	8.69	9.87	28.95	0
12/16/2018 21:00	6.653	177.2	11.97	9.73	28.98	0
12/16/2018 21:15	7.193	175	14.74	9.38	28.98	0
12/16/2018 21:30	9.98	160.5	9.79	9.07	28.98	0
12/16/2018 21:45	16.41	220.5	21.31	8.99	28.98	0
12/16/2018 22:00	16.57	210.9	10.27	8.74	29.04	0
12/16/2018 22:15	12.99	201.7	8.71	8.79	29.04	0
12/16/2018 22:30	12.26	195.4	10.78	8.92	29.04	0
12/16/2018 22:45	8.76	175.7	24.01	8.74	29.04	0
12/16/2018 23:00	4.416	115.3	13.32	8.03	29.07	0
12/16/2018 23:15	7.878	131.7	10.62	8.43	29.07	0
12/16/2018 23:30	7.828	147.9	10.63	8.47	29.07	0
12/16/2018 23:45	8.24	150.3	7.043	8.2	29.07	0
12/17/2018 0:00	8.62	145.5	6.99	8.13	29.07	0
12/17/2018 0:15	7.527	145.7	7.867	8.15	29.07	0
12/17/2018 0:30	8.04	146.5	7.883	8.01	29.07	0
12/17/2018 0:45	9.22	153.6	11.52	8.14	29.07	0
12/17/2018 1:00	9.12	158.9	8.61	8.05	29.1	0
12/17/2018 1:15	9.35	157	5.33	7.999	29.1	0
12/17/2018 1:30	9.06	165.5	7.155	7.949	29.1	0
12/17/2018 1:45	6.801	158	11.29	7.709	29.1	0
12/17/2018 2:00	3.572	158.7	13.29	7.648	29.09	0
12/17/2018 2:15	4.676	152.3	16.32	7.851	29.09	0
12/17/2018 2:30	4.438	154.7	19.16	8.05	29.09	0
12/17/2018 2:45	5.21	134.7	14.94	8.06	29.09	0
12/17/2018 3:00	6.973	145.1	10.99	8.03	29.12	0
12/17/2018 3:15	7.724	147.6	16.37	8.25	29.12	0
12/17/2018 3:30	7.677	148.4	16.07	8.05	29.12	0
12/17/2018 3:45	8.04	145.9	10.31	8.51	29.12	0
12/17/2018 4:00	8.1	147.4	5.698	8.54	29.11	0
12/17/2018 4:15	7.912	141.1	8.9	8.69	29.11	0
12/17/2018 4:30	6.64	134.1	12.46	8.91	29.11	0
12/17/2018 4:45	6.047	128.7	9.1	9	29.11	0
12/17/2018 5:00	5.763	132	10.16	9.09	29.12	0
12/17/2018 5:15	7.141	154.6	12.01	8.89	29.12	0
12/17/2018 5:30	6.309	169.8	14.19	8.15	29.12	0
12/17/2018 5:45	4.733	156.7	14.41	7.859	29.12	0
12/17/2018 6:00	3.699	145.8	7.78	8.07	29.11	0
12/17/2018 6:15	4.123	150.9	8.2	8.1	29.11	0
12/17/2018 6:30	5.786	174.2	9.06	7.519	29.11	0
12/17/2018 6:45	6.355	167.3	10.03	7.176	29.11	0
12/17/2018 7:00	5.899	153.2	14.34	7.061	29.13	0

12/17/2018 7:15	6.968	129.2	9.34	7.304	29.13	0
12/17/2018 7:30	6.97	135.9	8.06	7.375	29.13	0
12/17/2018 7:45	7.71	141	7.68	7.606	29.13	0
12/17/2018 8:00	9.4	141.7	8.07	7.628	29.1	0
12/17/2018 8:15	8.71	150.7	10.65	7.352	29.1	0
12/17/2018 8:30	8.97	143.6	9.2	7.476	29.1	0
12/17/2018 8:45	8.33	149.6	8.33	7.448	29.1	0
12/17/2018 9:00	9.28	155.9	7.662	7.518	29.13	0
12/17/2018 9:15	7.671	161.8	9.89	7.567	29.13	0
12/17/2018 9:30	8	167.4	12.58	7.859	29.13	0
12/17/2018 9:45	8.38	153.2	13.25	8.24	29.13	0
12/17/2018 10:00	7.159	146	8.67	8.65	29.12	0
12/17/2018 10:15	7.961	144.7	12.35	9.39	29.12	0
12/17/2018 10:30	6.903	145.3	10	9.84	29.12	0
12/17/2018 10:45	6.935	148.6	11.29	9.54	29.12	0
12/17/2018 11:00	6.311	152.8	9.58	9.65	29.11	0
12/17/2018 11:15	5.949	154	18.2	9.89	29.11	0
12/17/2018 11:30	5.943	171	18.33	9.95	29.11	0
12/17/2018 11:45	6.698	165.8	22.31	10.34	29.11	0
12/17/2018 12:00	6.902	146.3	11.26	10.27	29.11	0
12/17/2018 12:15	5.88	145.3	12.5	10.12	29.11	0
12/17/2018 12:30	6.893	157	14.92	10.18	29.11	0
12/17/2018 12:45	6.563	174.7	15.36	10.42	29.11	0
12/17/2018 13:00	7.561	190.9	14.12	10.92	29.1	0
12/17/2018 13:15	13.81	200.4	9.75	10.8	29.1	0
12/17/2018 13:30	13.31	202.8	9.93	10.67	29.1	0
12/17/2018 13:45	11.75	200.5	8.61	10.63	29.1	0
12/17/2018 14:00	11.91	194.5	12.06	10.59	29.07	0
12/17/2018 14:15	9.36	187.1	11.32	10.55	29.07	0
12/17/2018 14:30	6.653	141.7	12.16	10.38	29.07	0
12/17/2018 14:45	7.497	142.6	8.44	10.24	29.07	0
12/17/2018 15:00	7.546	148	9.66	10.08	29.02	0
12/17/2018 15:15	8.47	139.7	8.93	9.95	29.02	0
12/17/2018 15:30	8.77	143.1	8.97	9.85	29.02	0
12/17/2018 15:45	9.28	147.3	9.43	9.71	29.02	0
12/17/2018 16:00	9.18	148.6	7.387	9.57	28.99	0
12/17/2018 16:15	7.993	151.3	8.51	9.4	28.99	0
12/17/2018 16:30	7.159	172.3	19.28	9.23	28.99	0
12/17/2018 16:45	11.58	167.3	17.8	9.52	28.99	0
12/17/2018 17:00	16.13	176.7	12.58	9.56	28.99	0
12/17/2018 17:15	17.07	182.8	11.09	9.42	28.99	0
12/17/2018 17:30	16.63	172.6	13.52	8.88	28.99	0
12/17/2018 17:45	19.1	197	9.15	8.76	28.99	0
12/17/2018 18:00	17.37	184.9	17.13	8.16	28.97	0
12/17/2018 18:15	10.68	149.4	14.66	7.463	28.97	0
12/17/2018 18:30	10.91	127.5	11.65	7.133	28.97	0
12/17/2018 18:45	11.52	134.3	8.19	6.886	28.97	0

12/17/2018 19:00	11.3	129.1	10.31	6.687	28.94	0
12/17/2018 19:15	10.68	123	11.07	6.474	28.94	0.01
12/17/2018 19:30	11.08	118.2	10.74	6.478	28.94	0
12/17/2018 19:45	11.3	121	11.19	6.741	28.94	0
12/17/2018 20:00	13.32	134.2	9.2	7.081	28.87	0
12/17/2018 20:15	15.38	135.2	9.21	7.142	28.87	0
12/17/2018 20:30	14.69	135.3	10.15	6.978	28.87	0
12/17/2018 20:45	12.57	137.2	10.28	6.999	28.87	0
12/17/2018 21:00	13	134.5	8.53	7.226	28.89	0
12/17/2018 21:15	13.69	139.5	8.45	7.221	28.89	0
12/17/2018 21:30	14.23	138.2	8.93	7.221	28.89	0.01
12/17/2018 21:45	14.29	141.9	8.7	7.355	28.89	0
12/17/2018 22:00	13.63	150.8	9.37	7.293	28.88	0
12/17/2018 22:15	13.02	152.1	6.815	7.408	28.88	0
12/17/2018 22:30	12.36	151.5	6.419	7.502	28.88	0
12/17/2018 22:45	11.58	147.3	7.199	7.672	28.88	0
12/17/2018 23:00	10.54	145.2	8.89	8.19	28.85	0
12/17/2018 23:15	10.8	149	7.898	8.55	28.85	0
12/17/2018 23:30	10.29	147.6	11.74	8.71	28.85	0
12/17/2018 23:45	10.71	151	9.92	9.05	28.85	0
12/18/2018 0:00	8.72	169.8	10.15	9.05	28.86	0
12/18/2018 0:15	9.5	168.8	12.15	9.27	28.86	0
12/18/2018 0:30	9.63	180	8.87	9.31	28.86	0
12/18/2018 0:45	9.88	174.4	9.2	9.27	28.86	0
12/18/2018 1:00	11.39	179.1	8.71	9.24	28.86	0
12/18/2018 1:15	10.8	172.9	8.26	9.04	28.86	0
12/18/2018 1:30	13.31	164.9	8.5	9.09	28.86	0
12/18/2018 1:45	11.57	172.9	7.64	9.15	28.86	0
12/18/2018 2:00	9.28	166.5	10.9	8.84	28.81	0
12/18/2018 2:15	8.81	154.4	6.157	8.75	28.81	0
12/18/2018 2:30	9.75	156.8	6.95	8.75	28.81	0
12/18/2018 2:45	9.16	160.9	7.804	8.48	28.81	0
12/18/2018 3:00	8.36	151.2	8.12	8.27	28.84	0
12/18/2018 3:15	7.902	132.8	7.136	8.03	28.84	0
12/18/2018 3:30	8.94	135.6	7.229	8.08	28.84	0
12/18/2018 3:45	7.228	146.3	12.77	8.18	28.84	0.01
12/18/2018 4:00	8.28	142.5	16.54	8.02	28.78	0
12/18/2018 4:15	9.17	132	17.85	8.15	28.78	0
12/18/2018 4:30	9.34	144.8	9.31	8.24	28.78	0
12/18/2018 4:45	8.12	152.5	9.21	8.14	28.78	0
12/18/2018 5:00	7.277	171.5	14.63	7.94	28.78	0
12/18/2018 5:15	9.07	159.8	7.417	7.816	28.78	0.01
12/18/2018 5:30	9.21	151.2	9.4	7.714	28.78	0
12/18/2018 5:45	9.23	140.9	11.97	7.684	28.78	0
12/18/2018 6:00	8.2	156	24.27	7.592	28.82	0
12/18/2018 6:15	8.61	208.5	23.12	7.653	28.82	0
12/18/2018 6:30	6.621	201	28.64	7.68	28.82	0.01

12/18/2018 6:45	8.82	153.7	21.23	7.768	28.82	0
12/18/2018 7:00	8.14	137.8	8.18	7.626	28.79	0
12/18/2018 7:15	9.59	140.4	9.44	7.881	28.79	0
12/18/2018 7:30	10.71	146.8	7.661	8.16	28.79	0
12/18/2018 7:45	10.77	153.7	9.23	8.52	28.79	0
12/18/2018 8:00	10.25	165.3	8.87	8.63	28.84	0
12/18/2018 8:15	9.74	178.8	9.67	8.52	28.84	0
12/18/2018 8:30	9.58	182.2	8.34	8.39	28.84	0
12/18/2018 8:45	9.9	148.5	14.04	8.3	28.84	0.01
12/18/2018 9:00	14.29	194.3	14.17	8.7	28.85	0
12/18/2018 9:15	14.85	192.1	8.67	8.65	28.85	0
12/18/2018 9:30	15.47	188.7	9.27	8.72	28.85	0
12/18/2018 9:45	14.52	187.6	8.69	8.74	28.85	0
12/18/2018 10:00	13.03	191.4	8.38	8.69	28.88	0
12/18/2018 10:15	14.49	177.4	13.37	8.65	28.88	0
12/18/2018 10:30	15.15	180.7	11.05	8.54	28.88	0
12/18/2018 10:45	16.91	180.6	8.77	8.52	28.88	0
12/18/2018 11:00	15.3	178.7	9.62	8.53	28.92	0
12/18/2018 11:15	15.41	184.1	9.26	8.43	28.92	0
12/18/2018 11:30	14.38	179.6	8.06	8.36	28.92	0
12/18/2018 11:45	15.58	178	8.87	8.48	28.92	0
12/18/2018 12:00	15.59	183.7	9.68	8.64	28.95	0
12/18/2018 12:15	17.56	187.7	12.59	9.02	28.95	0
12/18/2018 12:30	17.07	196.9	10.36	9.15	28.95	0
12/18/2018 12:45	17.2	198.1	9.7	9.38	28.95	0
12/18/2018 13:00	16.34	199	7.788	9.71	28.97	0
12/18/2018 13:15	16.57	202.7	9.62	9.87	28.97	0
12/18/2018 13:30	20.62	207.4	10.35	9.9	28.97	0
12/18/2018 13:45	17.08	201	8.39	9.63	28.97	0
12/18/2018 14:00	18.38	202.1	8.93	9.36	28.99	0
12/18/2018 14:15	12.55	197.9	8.23	9.13	28.99	0
12/18/2018 14:30	15.35	211.4	14.73	9.03	28.99	0
12/18/2018 14:45	15.63	190.7	8.85	9.23	28.99	0
12/18/2018 15:00	15.91	191.1	9.49	8.97	29	0
12/18/2018 15:15	13.17	178.4	11.1	8.66	29	0
12/18/2018 15:30	13.03	161.6	13.41	8.36	29	0
12/18/2018 15:45	9.67	157.1	12.72	8.18	29	0
12/18/2018 16:00	9.63	174.7	13.11	8.24	29.02	0
12/18/2018 16:15	13.48	179.5	12.89	8.34	29.02	0
12/18/2018 16:30	12.24	182.2	9.94	8.11	29.02	0
12/18/2018 16:45	10.73	178.2	10.77	8.02	29.02	0
12/18/2018 17:00	10.01	156.6	11.23	7.714	29.05	0
12/18/2018 17:15	11.16	155.7	10.13	7.353	29.05	0
12/18/2018 17:30	9.39	165.2	13.11	7.239	29.05	0
12/18/2018 17:45	9.27	166.4	12.2	7.121	29.05	0
12/18/2018 18:00	10.73	158.2	9.62	6.794	29.05	0
12/18/2018 18:15	9.67	149	16.3	6.832	29.05	0

12/18/2018 18:30	16.46	221.6	31.57	6.957	29.05	0
12/18/2018 18:45	13.04	206	13.87	7.051	29.05	0
12/18/2018 19:00	8.45	161.7	14.51	6.756	29.12	0
12/18/2018 19:15	7.334	141.1	10.26	6.608	29.12	0
12/18/2018 19:30	6.327	146.5	9.64	6.562	29.12	0
12/18/2018 19:45	5.927	150.2	9.36	6.755	29.12	0
12/18/2018 20:00	8.22	175.6	12.01	7.022	29.14	0
12/18/2018 20:15	8.72	189.3	9.34	7.084	29.14	0
12/18/2018 20:30	10.33	190.8	7.325	7.284	29.14	0
12/18/2018 20:45	11.04	190.1	7.512	7.414	29.14	0
12/18/2018 21:00	11.15	182.7	7.831	7.432	29.2	0
12/18/2018 21:15	11.04	178.2	8.49	7.462	29.2	0
12/18/2018 21:30	7.715	162.4	14.98	7.299	29.2	0
12/18/2018 21:45	9.08	191.2	10.57	7.375	29.2	0
12/18/2018 22:00	10.18	195	9.8	7.375	29.21	0
12/18/2018 22:15	11.08	195.1	9.47	7.44	29.21	0
12/18/2018 22:30	10.15	189.5	14.66	7.424	29.21	0
12/18/2018 22:45	10.44	192.2	13.93	7.359	29.21	0
12/18/2018 23:00	9.59	182.1	17.06	7.184	29.25	0
12/18/2018 23:15	8.33	170.3	19.01	7.159	29.25	0
12/18/2018 23:30	3.506	149.5	25.26	6.943	29.25	0
12/18/2018 23:45	8.85	178.6	16.87	7.216	29.25	0
12/19/2018 0:00	10.31	184.1	11.16	7.294	29.28	0
12/19/2018 0:15	16.98	203.5	10.31	7.381	29.28	0
12/19/2018 0:30	18.5	209.8	11.46	7.319	29.28	0
12/19/2018 0:45	18.21	200.5	8.56	6.94	29.28	0
12/19/2018 1:00	18.06	201.2	8.46	6.681	29.28	0
12/19/2018 1:15	16.12	201.3	8.69	6.53	29.28	0
12/19/2018 1:30	16.57	207.2	7.571	6.319	29.28	0
12/19/2018 1:45	15.22	203.4	8.17	6.43	29.28	0
12/19/2018 2:00	11.1	188.4	12.4	6.406	29.33	0
12/19/2018 2:15	10.28	184.9	15.01	6.59	29.33	0
12/19/2018 2:30	7.608	177.4	16.17	6.647	29.33	0
12/19/2018 2:45	6.457	170.6	28.13	6.65	29.33	0
12/19/2018 3:00	6.37	147.9	11.35	6.305	29.36	0
12/19/2018 3:15	7.663	135.1	8.97	6.065	29.36	0
12/19/2018 3:30	7.85	146.3	10.18	5.927	29.36	0
12/19/2018 3:45	10.22	158.5	7.807	5.84	29.36	0
12/19/2018 4:00	10.41	163.7	12.3	5.836	29.37	0
12/19/2018 4:15	10.94	181.5	8.48	6.023	29.37	0
12/19/2018 4:30	11.97	184.9	8.82	6.129	29.37	0
12/19/2018 4:45	13.34	183.5	7.591	6.097	29.37	0
12/19/2018 5:00	13.39	186.9	8.43	6.204	29.4	0
12/19/2018 5:15	12.93	182.2	8.07	6.308	29.4	0
12/19/2018 5:30	13.66	182.3	7.968	6.382	29.4	0
12/19/2018 5:45	11.91	177.8	8.93	6.573	29.4	0
12/19/2018 6:00	12.76	182.1	8.4	6.686	29.42	0

12/19/2018 6:15	13.08	187	7.577	6.84	29.42	0
12/19/2018 6:30	13.91	183.6	6.798	6.792	29.42	0
12/19/2018 6:45	14.12	169.1	9.75	6.894	29.42	0
12/19/2018 7:00	13.79	167.1	9.41	6.799	29.42	0
12/19/2018 7:15	10.87	168.4	10.88	6.67	29.42	0
12/19/2018 7:30	9.23	162.3	12.55	6.471	29.42	0
12/19/2018 7:45	8.25	141.7	11.3	6.373	29.42	0
12/19/2018 8:00	8.67	137.7	9.27	6.224	29.44	0
12/19/2018 8:15	10.47	148.9	7.953	6.138	29.44	0
12/19/2018 8:30	11.18	151.2	9.21	6.059	29.44	0
12/19/2018 8:45	13.24	164.1	7.147	6.063	29.44	0
12/19/2018 9:00	11.73	154.7	7.239	5.996	29.47	0
12/19/2018 9:15	11.13	152.4	7.977	6.206	29.47	0
12/19/2018 9:30	11.04	148.7	6.996	6.295	29.47	0
12/19/2018 9:45	8.91	150.3	8.85	6.384	29.47	0
12/19/2018 10:00	7.549	144.1	9.4	6.422	29.46	0
12/19/2018 10:15	7.385	142	8.55	6.55	29.46	0
12/19/2018 10:30	7.758	147.7	8.7	7.03	29.46	0
12/19/2018 10:45	9.31	152.6	11.76	7.724	29.46	0
12/19/2018 11:00	10.65	164.5	10.78	8.04	29.45	0
12/19/2018 11:15	8.12	175.1	10.9	8.08	29.45	0
12/19/2018 11:30	6.668	173	12.29	8.09	29.45	0
12/19/2018 11:45	7.048	183.7	8.72	8.12	29.45	0
12/19/2018 12:00	5.862	156.7	15	8.14	29.44	0
12/19/2018 12:15	4.626	137.3	9.3	8.2	29.44	0
12/19/2018 12:30	3.952	134.6	10.61	8.27	29.44	0
12/19/2018 12:45	2.292	116.9	9.05	8.23	29.44	0
12/19/2018 13:00	3.378	126.4	7.236	8.46	29.43	0
12/19/2018 13:15	3.723	125.7	7.561	8.71	29.43	0
12/19/2018 13:30	4.117	130	6.389	8.88	29.43	0
12/19/2018 13:45	4.492	126.1	7.27	8.99	29.43	0
12/19/2018 14:00	4.895	127.7	8.95	9.11	29.38	0
12/19/2018 14:15	4.514	120.1	9.95	9.23	29.38	0
12/19/2018 14:30	4.116	111.7	6.132	9.17	29.38	0
12/19/2018 14:45	3.783	117.7	8.06	9.24	29.38	0
12/19/2018 15:00	4.465	120.6	5.492	9.2	29.36	0
12/19/2018 15:15	4.089	113.9	6.325	9.06	29.36	0
12/19/2018 15:30	4.009	120	8.25	9.02	29.36	0
12/19/2018 15:45	4.361	148.9	12.54	8.82	29.36	0
12/19/2018 16:00	5.101	148.1	12.52	8.54	29.36	0
12/19/2018 16:15	4.29	110.2	12.48	8.37	29.36	0
12/19/2018 16:30	6.138	108.9	11.35	8.34	29.36	0
12/19/2018 16:45	7.379	119.9	10.89	8.43	29.36	0
12/19/2018 17:00	8.42	121.5	10.12	8.49	29.32	0
12/19/2018 17:15	7.904	122.4	11.16	8.45	29.32	0
12/19/2018 17:30	7.877	125.9	10.54	8.55	29.32	0
12/19/2018 17:45	7.094	114.3	12.59	8.5	29.32	0

12/19/2018 18:00	6.213	109.7	15.15	8.19	29.28	0
12/19/2018 18:15	6.665	97.5	17.04	8.01	29.28	0
12/19/2018 18:30	6.982	115.7	14.39	8.19	29.28	0
12/19/2018 18:45	8.35	127.8	14.11	8.75	29.28	0
12/19/2018 19:00	7.901	115.5	13.95	8.51	29.26	0
12/19/2018 19:15	7.41	117.3	13.22	8.5	29.26	0
12/19/2018 19:30	14.58	129.1	11.78	8.9	29.26	0
12/19/2018 19:45	13.62	129	10.91	8.92	29.26	0
12/19/2018 20:00	15.85	132.5	9.65	9.11	29.21	0
12/19/2018 20:15	12.17	129.9	10.54	9.02	29.21	0
12/19/2018 20:30	13.32	128.8	12.61	9.25	29.21	0
12/19/2018 20:45	14.61	131.1	12.59	9.16	29.21	0
12/19/2018 21:00	16.02	132.3	10.2	9.39	29.17	0
12/19/2018 21:15	14.43	136.1	11.95	9.39	29.17	0
12/19/2018 21:30	15.93	132.8	10.23	9.44	29.17	0
12/19/2018 21:45	15.43	132.6	9.99	9.45	29.17	0
12/19/2018 22:00	16.04	133.8	11.53	9.39	29.14	0
12/19/2018 22:15	15.67	136.6	10.72	9.46	29.14	0
12/19/2018 22:30	14.65	136.7	10.93	9.48	29.14	0
12/19/2018 22:45	10.95	147.9	11.38	9.08	29.14	0
12/19/2018 23:00	10.27	127.9	13.46	8.81	29.14	0
12/19/2018 23:15	11.15	131.1	10.45	8.94	29.14	0
12/19/2018 23:30	12.3	126.4	11.89	8.82	29.14	0
12/19/2018 23:45	15.26	133.8	10.09	9.23	29.14	0
12/20/2018 0:00	16.73	133.1	10.36	9.25	29.11	0
12/20/2018 0:15	15.31	135.6	10.95	9.28	29.11	0
12/20/2018 0:30	13.84	131	9.59	9.13	29.11	0
12/20/2018 0:45	14.74	129.5	9.18	9.64	29.11	0
12/20/2018 1:00	12.89	132.7	9.71	9.75	29.06	0
12/20/2018 1:15	14.09	129	11.07	9.86	29.06	0
12/20/2018 1:30	14.96	130.3	10.04	10.04	29.06	0
12/20/2018 1:45	15.09	135.5	9.71	10.19	29.06	0
12/20/2018 2:00	14.14	131.1	11.23	9.77	29.03	0
12/20/2018 2:15	14.06	131	11.12	9.72	29.03	0
12/20/2018 2:30	15.05	132.4	9.79	9.69	29.03	0
12/20/2018 2:45	16.82	131.8	9.09	9.85	29.03	0
12/20/2018 3:00	13.66	130.6	11.46	9.83	28.99	0
12/20/2018 3:15	16.14	133.4	9.13	10.1	28.99	0
12/20/2018 3:30	18.44	131.2	8.98	10.15	28.99	0
12/20/2018 3:45	15.7	141.8	14.76	10.3	28.99	0
12/20/2018 4:00	14.78	145.9	11.42	10.35	28.93	0
12/20/2018 4:15	14.54	138.6	10.35	10.47	28.93	0
12/20/2018 4:30	15	133	9.31	10.59	28.93	0
12/20/2018 4:45	15.35	134.6	10.21	10.88	28.93	0
12/20/2018 5:00	16.45	133.4	9.23	11.02	28.87	0
12/20/2018 5:15	16.94	135.1	9.78	11.22	28.87	0
12/20/2018 5:30	15.74	137.4	8.78	11.33	28.87	0

12/20/2018 5:45	17.17	132.6	8.98	10.91	28.87	0
12/20/2018 6:00	14.41	141.7	10	10.15	28.85	0
12/20/2018 6:15	12.98	140.2	12.14	10.01	28.85	0
12/20/2018 6:30	13.55	133.1	10.66	10.21	28.85	0
12/20/2018 6:45	15.97	131.8	9.27	10.04	28.85	0
12/20/2018 7:00	13.68	138.5	11.43	9.99	28.81	0
12/20/2018 7:15	12.08	142.3	11.58	9.97	28.81	0
12/20/2018 7:30	12.7	144.9	8.97	10.04	28.81	0
12/20/2018 7:45	10.85	145.2	8.99	10.42	28.81	0
12/20/2018 8:00	10.2	136.6	8.76	10.54	28.8	0
12/20/2018 8:15	13.97	137.3	9.61	11.29	28.8	0
12/20/2018 8:30	12.74	141	7.592	11.22	28.8	0
12/20/2018 8:45	13.07	136.3	7.69	11.32	28.8	0
12/20/2018 9:00	11.75	141	9.05	11.75	28.78	0
12/20/2018 9:15	11.61	152.6	10.85	12.05	28.78	0
12/20/2018 9:30	11.12	169.6	10.21	11.98	28.78	0
12/20/2018 9:45	17.95	189	10.7	12.93	28.78	0
12/20/2018 10:00	23.38	200.9	9.3	14.07	28.79	0
12/20/2018 10:15	22.06	198.4	11.63	13.96	28.79	0
12/20/2018 10:30	23.17	196.1	9.25	13.5	28.79	0
12/20/2018 10:45	22.68	185.1	8.84	13.72	28.79	0
12/20/2018 11:00	23.78	187.6	9.48	13.65	28.82	0
12/20/2018 11:15	25.79	192.9	11.98	13.36	28.82	0
12/20/2018 11:30	29.89	202.3	8.89	13.4	28.82	0
12/20/2018 11:45	28.4	228.1	11.14	12.46	28.82	0
12/20/2018 12:00	30.56	233.1	10.1	11.4	28.88	0
12/20/2018 12:15	33.91	222	9.96	11	28.88	0
12/20/2018 12:30	30.03	217.8	10.05	10.78	28.88	0
12/20/2018 12:45	33.72	206.2	8.75	10.46	28.88	0
12/20/2018 13:00	30.96	211.6	9.98	10.16	28.96	0
12/20/2018 13:15	25.85	204	9.58	10.02	28.96	0
12/20/2018 13:30	24.58	203	9.87	9.78	28.96	0
12/20/2018 13:45	22.74	213.8	10.35	9.33	28.96	0
12/20/2018 14:00	17.35	207.4	11.18	9.25	29.01	0
12/20/2018 14:15	23.52	212.9	9.77	9.02	29.01	0
12/20/2018 14:30	23.05	217.6	9.31	8.62	29.01	0
12/20/2018 14:45	19.82	235.8	11.44	7.787	29.01	0
12/20/2018 15:00	16.79	229	14.11	7.147	29.03	0
12/20/2018 15:15	14.34	201.6	7.809	7.308	29.03	0
12/20/2018 15:30	15.34	204.2	11	7.338	29.03	0
12/20/2018 15:45	16.11	208.7	8.35	7.272	29.03	0
12/20/2018 16:00	13.74	203.6	10.22	7.286	29.03	0
12/20/2018 16:15	13.68	190.7	8.95	7.24	29.03	0
12/20/2018 16:30	12.45	216.7	35.16	7.135	29.03	0
12/20/2018 16:45	13.6	248	22.26	5.793	29.03	0
12/20/2018 17:00	14.41	224.1	15.66	5.783	29.06	0
12/20/2018 17:15	19.97	224.1	10.04	5.717	29.06	0

12/20/2018 17:30	22.31	229.5	9.1	5.351	29.06	0
12/20/2018 17:45	19.37	222.8	8.11	4.605	29.06	0
12/20/2018 18:00	16.41	218.2	9.27	4.727	29.08	0
12/20/2018 18:15	23.56	214.9	8.2	4.852	29.08	0
12/20/2018 18:30	18.33	209.3	9.05	4.795	29.08	0
12/20/2018 18:45	14.54	218.2	9.44	4.837	29.08	0
12/20/2018 19:00	14.64	203.6	12.3	4.751	29.1	0
12/20/2018 19:15	11.46	186.3	9.1	4.756	29.1	0
12/20/2018 19:30	11.51	188.3	9.05	4.799	29.1	0
12/20/2018 19:45	13.91	186.7	7.69	4.856	29.1	0
12/20/2018 20:00	14.47	187.5	7.983	4.885	29.11	0
12/20/2018 20:15	13.34	183.4	7.474	4.729	29.11	0
12/20/2018 20:30	15.17	184.7	8.28	4.567	29.11	0
12/20/2018 20:45	14.82	186.1	9.3	4.519	29.11	0
12/20/2018 21:00	14.03	187.3	8.62	4.405	29.12	0
12/20/2018 21:15	13.73	184.2	9.92	4.34	29.12	0
12/20/2018 21:30	11.13	185.5	10.14	4.358	29.12	0
12/20/2018 21:45	8.92	187.4	12	4.388	29.12	0
12/20/2018 22:00	8.68	192.5	18.94	4.518	29.16	0
12/20/2018 22:15	8.86	197.2	10.03	4.471	29.16	0
12/20/2018 22:30	8.71	197.8	12.39	4.308	29.16	0
12/20/2018 22:45	10.2	190.6	11.36	4.263	29.16	0
12/20/2018 23:00	10.35	197.8	9.26	4.231	29.19	0
12/20/2018 23:15	9.15	185.1	9.72	4.019	29.19	0
12/20/2018 23:30	9.83	181	9.04	3.878	29.19	0
12/20/2018 23:45	10.7	181.6	8.25	3.898	29.19	0
12/21/2018 0:00	7.45	183.3	13.37	3.478	29.2	0
12/21/2018 0:15	5.67	188.1	11.64	3.296	29.2	0
12/21/2018 0:30	5.538	178.2	10.28	3.114	29.2	0
12/21/2018 0:45	4.537	137.1	29.59	2.896	29.2	0
12/21/2018 1:00	5.12	128.3	9.89	2.554	29.2	0
12/21/2018 1:15	7.025	153.9	8.86	2.753	29.2	0
12/21/2018 1:30	6.718	150.3	13.68	2.959	29.2	0
12/21/2018 1:45	6.087	177.7	14.9	2.994	29.2	0
12/21/2018 2:00	7.614	175.6	8.47	2.773	29.25	0
12/21/2018 2:15	6.632	169	13.44	2.783	29.25	0
12/21/2018 2:30	6.613	152.1	7.142	2.553	29.25	0
12/21/2018 2:45	4.985	144.1	7.284	2.261	29.25	0
12/21/2018 3:00	6.268	136	6.071	2.854	29.28	0
12/21/2018 3:15	7.865	148.2	11.04	2.894	29.28	0
12/21/2018 3:30	6.322	151	10.07	2.654	29.28	0
12/21/2018 3:45	5.875	134.2	7.147	2.659	29.28	0
12/21/2018 4:00	5.744	137.6	6.301	2.602	29.26	0
12/21/2018 4:15	4.945	140.4	5.342	2.7	29.26	0
12/21/2018 4:30	6.928	138.7	5.68	2.678	29.26	0
12/21/2018 4:45	7.832	151.3	6.393	2.38	29.26	0
12/21/2018 5:00	7.596	155.3	5.713	2.23	29.29	0

12/21/2018 5:15	6.485	149.5	6.967	2.41	29.29	0
12/21/2018 5:30	7.781	159.6	12.84	2.531	29.29	0
12/21/2018 5:45	6.986	180.5	10.66	2.66	29.29	0
12/21/2018 6:00	6.755	161.7	13.96	2.46	29.31	0
12/21/2018 6:15	7.342	154.8	8.75	2.451	29.31	0
12/21/2018 6:30	7.732	150.6	6.835	2.398	29.31	0
12/21/2018 6:45	5.965	110.8	18.48	2.155	29.31	0
12/21/2018 7:00	7.198	155.5	6.748	2.316	29.3	0
12/21/2018 7:15	5.37	129.8	15.53	2.247	29.3	0
12/21/2018 7:30	4.227	114.6	10.02	2.151	29.3	0
12/21/2018 7:45	4.494	124.9	7.746	2.441	29.3	0
12/21/2018 8:00	4.266	131.3	6.27	2.507	29.36	0
12/21/2018 8:15	4.431	131.3	6.742	2.563	29.36	0
12/21/2018 8:30	4.552	131.9	7.505	2.464	29.36	0
12/21/2018 8:45	5.917	144.1	11.52	2.361	29.36	0
12/21/2018 9:00	6.711	149.2	5.75	2.345	29.37	0
12/21/2018 9:15	4.733	132.8	10.55	2.417	29.37	0
12/21/2018 9:30	4.918	136.2	6.542	2.596	29.37	0
12/21/2018 9:45	3.756	124.3	10.56	2.77	29.37	0
12/21/2018 10:00	1.456	146.4	19.02	2.788	29.39	0
12/21/2018 10:15	1.025	75.75	28.1	2.945	29.39	0
12/21/2018 10:30	3.392	96.6	11.6	2.898	29.39	0
12/21/2018 10:45	4.3	99.2	12.94	3.131	29.39	0
12/21/2018 11:00	5.319	80.8	17.5	2.906	29.36	0
12/21/2018 11:15	3.656	115.8	8.16	3.549	29.36	0
12/21/2018 11:30	4.038	126.2	9.23	3.758	29.36	0
12/21/2018 11:45	4.492	152.3	9.25	3.841	29.36	0
12/21/2018 12:00	4.118	190.9	19.9	3.761	29.36	0
12/21/2018 12:15	4.592	211.7	5.095	3.604	29.36	0
12/21/2018 12:30	3.225	214	14.16	3.781	29.36	0
12/21/2018 12:45	1.656	175.4	12.62	4.041	29.36	0
12/21/2018 13:00	1.066	176.4	44.25	4.279	29.34	0
12/21/2018 13:15	1.425	82.9	50.15	4.338	29.34	0
12/21/2018 13:30	2.85	163.6	25.74	4.354	29.34	0
12/21/2018 13:45	3.347	134.2	17.2	4.616	29.34	0
12/21/2018 14:00	3.564	151.1	20.34	4.776	29.35	0
12/21/2018 14:15	5.101	156.3	16.55	4.562	29.35	0
12/21/2018 14:30	4.151	172.6	22.24	4.663	29.35	0
12/21/2018 14:45	5.038	202	7.603	4.661	29.35	0
12/21/2018 15:00	5.161	198.6	9.6	4.632	29.37	0
12/21/2018 15:15	5.347	208	11.38	4.533	29.37	0
12/21/2018 15:30	4.204	198.3	24.92	4.312	29.37	0
12/21/2018 15:45	1.517	158.2	9.58	4.214	29.37	0
12/21/2018 16:00	3.835	131.4	8.13	4.105	29.39	0
12/21/2018 16:15	4.167	144.4	8.87	3.827	29.39	0
12/21/2018 16:30	3.893	160.8	17.71	3.933	29.39	0
12/21/2018 16:45	3.604	137.7	7.484	3.694	29.39	0

12/21/2018 17:00	4.618	130.3	3.246	3.926	29.38	0
12/21/2018 17:15	3.968	140.2	13.35	3.733	29.38	0
12/21/2018 17:30	3.254	157	10.79	3.438	29.38	0
12/21/2018 17:45	3.512	130.4	16.4	3.764	29.38	0
12/21/2018 18:00	2.829	102.9	9.34	3.025	29.39	0
12/21/2018 18:15	4.624	115.7	4.352	3.067	29.39	0
12/21/2018 18:30	5.615	127.2	6.891	3.737	29.39	0
12/21/2018 18:45	5.866	134	6.516	3.743	29.39	0
12/21/2018 19:00	5.282	141.7	8.99	3.479	29.39	0
12/21/2018 19:15	6.804	134.4	5.788	3.704	29.39	0
12/21/2018 19:30	5.567	141.6	6.79	3.841	29.39	0
12/21/2018 19:45	5.811	138.6	7.104	3.937	29.39	0
12/21/2018 20:00	5.724	129.8	6.178	4.022	29.37	0
12/21/2018 20:15	5.427	138.1	5.588	3.887	29.37	0
12/21/2018 20:30	5.206	152.8	6.564	3.695	29.37	0
12/21/2018 20:45	4.852	142.8	6.234	3.664	29.37	0
12/21/2018 21:00	4.691	138.9	6.981	3.685	29.38	0
12/21/2018 21:15	4.327	146	7.055	3.548	29.38	0
12/21/2018 21:30	3.797	145.9	5.905	3.404	29.38	0
12/21/2018 21:45	4.25	139.1	6.048	3.511	29.38	0
12/21/2018 22:00	3.849	130.1	6.491	3.562	29.4	0
12/21/2018 22:15	4.55	143.6	6.633	3.66	29.4	0
12/21/2018 22:30	4.655	143	8.89	3.691	29.4	0
12/21/2018 22:45	4.749	153.4	7.602	3.407	29.4	0
12/21/2018 23:00	4.605	148.1	9.87	3.543	29.39	0
12/21/2018 23:15	5.087	142.9	9.35	3.595	29.39	0
12/21/2018 23:30	5.615	128.4	5.977	3.629	29.39	0
12/21/2018 23:45	5.963	128.1	6.158	3.645	29.39	0
12/22/2018 0:00	5.689	145.7	9.34	3.763	29.38	0
12/22/2018 0:15	5.952	137.5	8.94	3.733	29.38	0
12/22/2018 0:30	5.284	159.9	13.19	3.548	29.38	0
12/22/2018 0:45	5.635	158.3	8.34	3.404	29.38	0
12/22/2018 1:00	5.502	158.3	8.3	3.283	29.4	0
12/22/2018 1:15	4.892	146.1	11.06	3.502	29.4	0
12/22/2018 1:30	6.6	128.1	8.44	3.787	29.4	0
12/22/2018 1:45	8	127.3	8.07	3.9	29.4	0
12/22/2018 2:00	7.949	128.2	10.22	4.061	29.39	0
12/22/2018 2:15	10.04	128.6	9.7	4.29	29.39	0
12/22/2018 2:30	9.89	128.3	11.06	4.343	29.39	0
12/22/2018 2:45	9.66	130.8	11.17	4.44	29.39	0
12/22/2018 3:00	7.641	147	12.45	4.173	29.38	0
12/22/2018 3:15	6.997	123.8	10.02	4.094	29.38	0
12/22/2018 3:30	7.436	123.8	11.39	3.959	29.38	0
12/22/2018 3:45	8.5	126.2	10.68	4.232	29.38	0
12/22/2018 4:00	7.907	121.7	10.67	4.132	29.35	0
12/22/2018 4:15	7.658	125.2	8.71	4.09	29.35	0
12/22/2018 4:30	6.405	130.4	11.61	4.29	29.35	0

12/22/2018 4:45	6.358	132.1	11.71	4.348	29.35	0
12/22/2018 5:00	5.847	127.2	13.38	4.407	29.34	0
12/22/2018 5:15	4.762	121.4	21.26	4.348	29.34	0
12/22/2018 5:30	4.523	145.3	21.92	4.404	29.34	0
12/22/2018 5:45	5.405	163.1	18.11	4.609	29.34	0
12/22/2018 6:00	5.481	169.1	16.94	4.802	29.34	0
12/22/2018 6:15	5.424	184.3	14.18	4.719	29.34	0
12/22/2018 6:30	6.092	186.8	14.63	4.449	29.34	0
12/22/2018 6:45	6.491	169.9	13.68	4.572	29.34	0
12/22/2018 7:00	6.009	172	12.15	4.484	29.32	0
12/22/2018 7:15	5.612	149.2	15.19	4.437	29.32	0
12/22/2018 7:30	4.074	107.7	22.52	3.934	29.32	0
12/22/2018 7:45	5.696	77.12	18.28	3.562	29.32	0
12/22/2018 8:00	4.18	50.8	14.6	3.311	29.31	0
12/22/2018 8:15	4.551	53.94	14.1	3.422	29.31	0
12/22/2018 8:30	6.011	81.6	25.05	4.275	29.31	0
12/22/2018 8:45	5.984	96.2	18.68	4.465	29.31	0
12/22/2018 9:00	6.21	93.5	20.65	4.698	29.31	0
12/22/2018 9:15	4.868	114.9	17.31	4.913	29.31	0
12/22/2018 9:30	7.065	130.5	15.58	5.387	29.31	0
12/22/2018 9:45	10.44	139.2	11.78	5.768	29.31	0
12/22/2018 10:00	12.31	128.6	12.87	5.959	29.29	0
12/22/2018 10:15	12.18	123.7	13.83	6.101	29.29	0
12/22/2018 10:30	15.57	130.5	11.26	6.344	29.29	0
12/22/2018 10:45	13.33	131	10.97	6.302	29.29	0
12/22/2018 11:00	11.56	129.3	12.73	6.428	29.24	0
12/22/2018 11:15	11.01	127.7	12.84	6.622	29.24	0
12/22/2018 11:30	11.02	138	13.19	6.907	29.24	0
12/22/2018 11:45	10.58	142.7	16.23	7.07	29.24	0
12/22/2018 12:00	8.7	135.7	13.61	7.212	29.23	0
12/22/2018 12:15	11.21	124.5	14.02	7.287	29.23	0
12/22/2018 12:30	14.29	129.2	11.06	7.374	29.23	0
12/22/2018 12:45	15.59	132.2	11.76	7.412	29.23	0
12/22/2018 13:00	16.14	130.2	11.36	7.427	29.2	0
12/22/2018 13:15	14.75	132.8	11.97	7.351	29.2	0
12/22/2018 13:30	14.71	136.9	10.45	7.35	29.2	0
12/22/2018 13:45	14.92	135.3	11.08	7.398	29.2	0
12/22/2018 14:00	16.5	133	11.34	7.462	29.15	0
12/22/2018 14:15	17.1	132.7	11.58	7.69	29.15	0
12/22/2018 14:30	17.1	142	10.26	7.917	29.15	0
12/22/2018 14:45	17.76	128.3	11.86	7.906	29.15	0
12/22/2018 15:00	18.31	128.7	11.09	8.03	29.11	0
12/22/2018 15:15	18.06	129.9	11.44	8.28	29.11	0
12/22/2018 15:30	17.54	138.9	11.55	8.6	29.11	0
12/22/2018 15:45	18.39	141.3	10.97	8.42	29.11	0
12/22/2018 16:00	18.75	137.9	10.72	8.21	29.12	0
12/22/2018 16:15	17.23	143.8	11.36	8.22	29.12	0

12/22/2018 16:30	16.04	152.2	11.64	8.08	29.12	0
12/22/2018 16:45	15.15	153.6	10.17	7.899	29.12	0
12/22/2018 17:00	14.42	144.8	13.99	7.89	29.12	0
12/22/2018 17:15	12.24	154.1	19.93	7.832	29.12	0
12/22/2018 17:30	9.97	146.2	17.65	7.707	29.12	0
12/22/2018 17:45	9.45	144.2	13.47	7.592	29.12	0
12/22/2018 18:00	10.63	149.1	15.34	7.121	29.15	0
12/22/2018 18:15	9.78	160.2	18.59	6.374	29.15	0
12/22/2018 18:30	8.96	158.4	7.267	5.856	29.15	0
12/22/2018 18:45	11.8	140.9	8.57	5.329	29.15	0
12/22/2018 19:00	12.59	125.7	10.94	4.75	29.14	0
12/22/2018 19:15	9.26	118.2	11.08	4.134	29.14	0
12/22/2018 19:30	11.17	130.7	9.85	3.825	29.14	0
12/22/2018 19:45	15.04	131.8	10.25	3.807	29.14	0
12/22/2018 20:00	14.88	131.8	9.09	3.579	29.11	0.01
12/22/2018 20:15	15.43	131.5	9.77	3.361	29.11	0
12/22/2018 20:30	17.29	130.8	9.58	3.428	29.11	0.01
12/22/2018 20:45	18.9	130.6	9.96	3.531	29.11	0
12/22/2018 21:00	17.65	125.7	11.33	3.466	29.1	0
12/22/2018 21:15	18.86	127.6	10.82	3.465	29.1	0.01
12/22/2018 21:30	21.81	133.6	9.23	3.764	29.1	0
12/22/2018 21:45	22.36	133.7	9.42	3.803	29.1	0.02
12/22/2018 22:00	21.31	132.3	10.33	4.113	29.07	0
12/22/2018 22:15	17.49	131.2	11.79	4.214	29.07	0
12/22/2018 22:30	18.49	128	9.75	4.787	29.07	0
12/22/2018 22:45	22.67	131	9.64	4.629	29.07	0
12/22/2018 23:00	19.73	133.1	10.24	4.549	29.04	0
12/22/2018 23:15	22.23	134.3	9.51	4.764	29.04	0
12/22/2018 23:30	20.05	132.9	9.34	4.6	29.04	0
12/22/2018 23:45	16.87	133.3	9.92	4.636	29.04	0
12/23/2018 0:00	14.05	146.4	11.97	4.657	29.08	0
12/23/2018 0:15	17.06	139.2	13.06	4.465	29.08	0
12/23/2018 0:30	16.56	130	8.61	4.363	29.08	0
12/23/2018 0:45	14.3	133.8	8.94	4.477	29.08	0
12/23/2018 1:00	15.03	133.1	9.24	4.57	29.08	0
12/23/2018 1:15	14.93	131.4	9.04	4.595	29.08	0
12/23/2018 1:30	14.79	133	9.64	4.707	29.08	0
12/23/2018 1:45	13.65	132.6	8.97	4.992	29.08	0
12/23/2018 2:00	15.07	133.3	8.74	5.264	29.07	0
12/23/2018 2:15	15.67	130.6	8.82	5.543	29.07	0
12/23/2018 2:30	14.76	134.6	8.3	5.433	29.07	0
12/23/2018 2:45	15.47	132.6	8.59	5.045	29.07	0
12/23/2018 3:00	16.42	133.3	9.07	5.034	29.07	0
12/23/2018 3:15	14.95	136.5	9.27	5.098	29.07	0
12/23/2018 3:30	14.24	138.7	8.06	5.193	29.07	0
12/23/2018 3:45	14.24	135.8	8.56	5.33	29.07	0
12/23/2018 4:00	12.18	135.8	9.86	5.44	29.07	0

12/23/2018 4:15	10.94	141.5	9.18	5.676	29.07	0
12/23/2018 4:30	11.92	137.1	7.326	5.718	29.07	0
12/23/2018 4:45	9.39	168.1	20.63	5.22	29.07	0
12/23/2018 5:00	8.81	149.3	13.64	4.911	29.08	0
12/23/2018 5:15	8.03	145.7	11.67	4.583	29.08	0
12/23/2018 5:30	8.12	155.6	11.56	4.694	29.08	0
12/23/2018 5:45	9.04	156.9	8.14	4.598	29.08	0
12/23/2018 6:00	9.29	144	7.458	4.642	29.09	0
12/23/2018 6:15	7.22	135.8	7.574	4.824	29.09	0
12/23/2018 6:30	7.143	138.4	7.85	4.781	29.09	0
12/23/2018 6:45	6.332	135.5	9.97	5.274	29.09	0
12/23/2018 7:00	7.135	138.5	8.47	5.428	29.1	0
12/23/2018 7:15	6.636	133.6	9.84	5.501	29.1	0
12/23/2018 7:30	8.36	141.4	7.682	5.838	29.1	0
12/23/2018 7:45	8.77	146.8	7.06	5.76	29.1	0
12/23/2018 8:00	9.25	146.7	7.883	5.865	29.1	0
12/23/2018 8:15	8.14	145.3	7.577	6.007	29.1	0
12/23/2018 8:30	8.17	159.1	10.77	6.075	29.1	0
12/23/2018 8:45	6.659	204.2	14.05	5.803	29.1	0.01
12/23/2018 9:00	4.179	191.8	12.46	5.631	29.15	0
12/23/2018 9:15	4.384	197	17.91	5.552	29.15	0
12/23/2018 9:30	9.58	221.4	13.8	5.948	29.15	0
12/23/2018 9:45	10.37	226.5	9.71	5.923	29.15	0.01
12/23/2018 10:00	9.77	211.4	12.03	5.821	29.17	0
12/23/2018 10:15	8.55	177.5	14.16	5.582	29.17	0
12/23/2018 10:30	6.179	145.6	9.18	5.51	29.17	0
12/23/2018 10:45	8.03	139.4	8.44	5.479	29.17	0
12/23/2018 11:00	8.03	140.5	9.86	5.528	29.16	0
12/23/2018 11:15	9.15	142.6	9.45	5.61	29.16	0
12/23/2018 11:30	10.44	148.6	7.995	5.642	29.16	0
12/23/2018 11:45	10.08	155.2	10.72	5.741	29.16	0
12/23/2018 12:00	10.21	152.9	9.3	5.955	29.15	0
12/23/2018 12:15	8.02	149.3	9.05	6.039	29.15	0
12/23/2018 12:30	8.55	153	10.38	6.123	29.15	0
12/23/2018 12:45	7.391	149.7	10.19	6.191	29.15	0
12/23/2018 13:00	8.31	140.3	10.59	6.553	29.15	0
12/23/2018 13:15	8.68	147.8	13.13	6.805	29.15	0
12/23/2018 13:30	8.3	146.7	9.9	6.601	29.15	0
12/23/2018 13:45	7.001	152.4	11.97	6.438	29.15	0
12/23/2018 14:00	3.216	162	15.6	6.409	29.16	0
12/23/2018 14:15	1.694	114.1	28.2	6.283	29.16	0
12/23/2018 14:30	4.491	3.737	70.07	5.992	29.16	0
12/23/2018 14:45	5.236	169.7	29.84	6.282	29.16	0
12/23/2018 15:00	6.501	189.6	14.02	6.525	29.15	0
12/23/2018 15:15	6.571	145.9	9.08	6.34	29.15	0
12/23/2018 15:30	7.758	163.3	10.41	6.385	29.15	0
12/23/2018 15:45	5.887	141.7	7.913	6.306	29.15	0

12/23/2018 16:00	7.136	147.4	8.21	6.183	29.18	0
12/23/2018 16:15	6.23	146.6	10.06	5.98	29.18	0
12/23/2018 16:30	5.519	136	11.74	5.764	29.18	0
12/23/2018 16:45	6.408	143	7.762	5.588	29.18	0
12/23/2018 17:00	6.147	143.2	9.11	5.494	29.19	0
12/23/2018 17:15	7.827	139.5	9.99	5.58	29.19	0
12/23/2018 17:30	8.23	134.5	8.64	5.693	29.19	0
12/23/2018 17:45	8.46	135.3	8.47	5.701	29.19	0
12/23/2018 18:00	6.892	141.7	10.46	5.583	29.19	0
12/23/2018 18:15	8.31	133.6	7.069	5.575	29.19	0
12/23/2018 18:30	8.12	128.7	10.67	5.385	29.19	0
12/23/2018 18:45	8.71	131.8	10.03	5.305	29.19	0.01
12/23/2018 19:00	8.31	132.7	8.64	5.396	29.18	0
12/23/2018 19:15	8.04	139.5	7.905	5.47	29.18	0
12/23/2018 19:30	8.92	139.5	8.37	5.29	29.18	0
12/23/2018 19:45	8.97	125.8	13.22	5.148	29.18	0
12/23/2018 20:00	6.134	120.3	11.57	5.073	29.16	0
12/23/2018 20:15	5.598	143.5	13.6	5.136	29.16	0
12/23/2018 20:30	6.044	153.5	7.264	5.038	29.16	0
12/23/2018 20:45	8.2	151.2	8.53	5.069	29.16	0
12/23/2018 21:00	7.543	138.9	7.923	5.247	29.17	0
12/23/2018 21:15	6.518	138.9	11.57	5.276	29.17	0
12/23/2018 21:30	6.658	151	8.12	5.195	29.17	0
12/23/2018 21:45	6.953	147.3	7.792	5.205	29.17	0
12/23/2018 22:00	7.472	157.5	6.866	5.091	29.19	0
12/23/2018 22:15	7.061	157.3	9.03	4.904	29.19	0
12/23/2018 22:30	6.476	142.6	9.35	4.795	29.19	0
12/23/2018 22:45	5.544	139.8	8.89	4.698	29.19	0
12/23/2018 23:00	4.777	132.6	12.74	4.7	29.2	0
12/23/2018 23:15	5.544	129.1	6.992	4.778	29.2	0
12/23/2018 23:30	5.98	130.4	11.29	5.007	29.2	0
12/23/2018 23:45	6.077	143.2	9.52	5.168	29.2	0
12/24/2018 0:00	6.889	144	9.28	5.116	29.2	0
12/24/2018 0:15	7.688	135.7	6.964	5.254	29.2	0
12/24/2018 0:30	7.563	138.7	8.57	5.369	29.2	0
12/24/2018 0:45	6.618	141.9	8.26	5.37	29.2	0
12/24/2018 1:00	6.858	141.1	10.07	5.428	29.21	0
12/24/2018 1:15	5.814	156.6	7.852	5.336	29.21	0
12/24/2018 1:30	6.674	149.6	12.57	5.34	29.21	0
12/24/2018 1:45	6.376	137.1	18.38	5.099	29.21	0
12/24/2018 2:00	6.246	128.4	9.79	5.087	29.22	0
12/24/2018 2:15	5.432	150.5	12.54	4.971	29.22	0
12/24/2018 2:30	4.269	149.3	11.88	5.086	29.22	0
12/24/2018 2:45	5.65	121.6	8.08	5.227	29.22	0
12/24/2018 3:00	5.095	133.1	11.9	5.349	29.23	0
12/24/2018 3:15	3.983	145.8	11.29	5.408	29.23	0
12/24/2018 3:30	4.34	118.8	9.93	5.461	29.23	0

12/24/2018 3:45	3.909	115.7	7.36	5.512	29.23	0
12/24/2018 4:00	3.295	120.2	6.044	5.552	29.23	0
12/24/2018 4:15	1.548	90.1	15.47	5.368	29.23	0
12/24/2018 4:30	1.062	72.63	0.161	4.912	29.23	0
12/24/2018 4:45	1.214	72.77	0.197	5.074	29.23	0
12/24/2018 5:00	1.142	112.1	53.42	4.956	29.21	0
12/24/2018 5:15	2.336	204.9	14.71	4.596	29.21	0
12/24/2018 5:30	2.013	151.1	35.47	4.816	29.21	0
12/24/2018 5:45	2.268	58.48	16.87	4.791	29.21	0
12/24/2018 6:00	3.118	42.02	7.684	4.36	29.2	0
12/24/2018 6:15	3.954	56.37	4.348	4.553	29.2	0
12/24/2018 6:30	2.781	42.35	3.504	4.726	29.2	0
12/24/2018 6:45	2.714	54.46	9.77	4.665	29.2	0
12/24/2018 7:00	3.406	54.03	3.07	4.565	29.19	0
12/24/2018 7:15	4.19	48.77	3.96	4.673	29.19	0
12/24/2018 7:30	4.052	56.95	6.171	4.717	29.19	0
12/24/2018 7:45	3.606	73.86	37.88	4.62	29.19	0
12/24/2018 8:00	1.728	81.6	43.83	4.615	29.18	0
12/24/2018 8:15	3.281	54.94	9.64	4.781	29.18	0
12/24/2018 8:30	3.902	49.83	11.5	5.057	29.18	0
12/24/2018 8:45	3.975	53.96	8.9	4.903	29.18	0
12/24/2018 9:00	4.475	45.67	4.88	5.054	29.18	0
12/24/2018 9:15	3.837	43.02	3.23	5.423	29.18	0
12/24/2018 9:30	3.828	28.87	8.82	5.837	29.18	0
12/24/2018 9:45	3.733	35.3	18.57	5.566	29.18	0
12/24/2018 10:00	3.928	49.6	15.7	5.416	29.18	0
12/24/2018 10:15	6.62	45.49	7.126	5.399	29.18	0
12/24/2018 10:30	4.878	39.56	8.44	5.721	29.18	0
12/24/2018 10:45	4.409	31.52	9.82	6.09	29.18	0
12/24/2018 11:00	4.416	29.25	8.61	6.692	29.15	0
12/24/2018 11:15	3.055	26.54	12.3	6.909	29.15	0
12/24/2018 11:30	2.587	42.91	11.37	7.081	29.15	0
12/24/2018 11:45	4.558	38.71	10.4	7.125	29.15	0
12/24/2018 12:00	6.79	24.23	8.81	7.287	29.13	0
12/24/2018 12:15	5.879	32.51	10.53	7.578	29.13	0
12/24/2018 12:30	6.428	24.26	14.25	7.798	29.13	0
12/24/2018 12:45	6.483	24.59	12.47	8.01	29.13	0
12/24/2018 13:00	8.21	22.12	12.3	8.09	29.13	0
12/24/2018 13:15	9.26	19.32	10.13	8.1	29.13	0
12/24/2018 13:30	9.31	26.18	10.53	8.04	29.13	0
12/24/2018 13:45	8.57	26.3	11.8	8.1	29.13	0
12/24/2018 14:00	10.09	23.54	9.51	8.01	29.13	0
12/24/2018 14:15	12.28	28.54	6.828	7.828	29.13	0
12/24/2018 14:30	9.93	35.86	11.12	7.793	29.13	0
12/24/2018 14:45	9.35	33.14	11.24	7.758	29.13	0
12/24/2018 15:00	7.684	36.28	10.7	7.658	29.15	0
12/24/2018 15:15	8.6	22.12	11.49	7.456	29.15	0

12/24/2018 15:30	8.99	16.04	8.92	7.397	29.15	0
12/24/2018 15:45	8.02	16.92	8.19	7.268	29.15	0
12/24/2018 16:00	7.314	21.22	11.18	7.053	29.16	0
12/24/2018 16:15	7.219	21.7	8.96	6.738	29.16	0
12/24/2018 16:30	8.8	26.91	7.173	6.372	29.16	0
12/24/2018 16:45	7.342	28.99	7.358	5.765	29.16	0
12/24/2018 17:00	8.3	25.95	17.34	5.902	29.16	0
12/24/2018 17:15	9.07	31.42	6.008	5.752	29.16	0
12/24/2018 17:30	7.394	37.92	6.371	5.556	29.16	0
12/24/2018 17:45	4.879	39.26	11.18	5.319	29.16	0
12/24/2018 18:00	5.543	42.87	14.91	5.371	29.15	0
12/24/2018 18:15	5.178	43.69	17.28	5.367	29.15	0
12/24/2018 18:30	7.344	36.9	16.29	5.177	29.15	0
12/24/2018 18:45	8.66	25.91	10.36	5.007	29.15	0
12/24/2018 19:00	9.66	24.2	14.08	5.229	29.17	0
12/24/2018 19:15	5.291	32.46	17.52	4.831	29.17	0
12/24/2018 19:30	6.534	24.63	17.81	4.999	29.17	0
12/24/2018 19:45	6.214	33.95	12.58	4.888	29.17	0
12/24/2018 20:00	8.12	25.51	10.3	4.822	29.2	0
12/24/2018 20:15	8.81	21.62	7.721	5.036	29.2	0
12/24/2018 20:30	8.53	32.02	11.58	5.001	29.2	0
12/24/2018 20:45	5.673	40.84	9.84	4.559	29.2	0
12/24/2018 21:00	6.131	41.1	10.58	4.393	29.23	0
12/24/2018 21:15	8.15	30.81	10.12	4.313	29.23	0
12/24/2018 21:30	7.694	29.6	8.53	4.255	29.23	0
12/24/2018 21:45	6.373	24.36	8.03	4.265	29.23	0
12/24/2018 22:00	6.29	34.62	9.22	4.245	29.25	0
12/24/2018 22:15	5.61	37.18	13.01	4.201	29.25	0
12/24/2018 22:30	6.815	29.48	13.56	4.213	29.25	0
12/24/2018 22:45	6.582	1.607	23.38	4.536	29.25	0
12/24/2018 23:00	6.582	35.08	20.06	4.037	29.27	0
12/24/2018 23:15	7.192	29.58	8.96	4.172	29.27	0
12/24/2018 23:30	5.433	19.24	20.33	4.349	29.27	0
12/24/2018 23:45	3.646	17.78	17.5	4.227	29.27	0
12/25/2018 0:00	3.323	36.95	21.18	3.833	29.28	0
12/25/2018 0:15	3.912	51.31	20.42	3.565	29.28	0
12/25/2018 0:30	4.605	59.44	9.88	3.811	29.28	0
12/25/2018 0:45	3.415	118	40.27	3.37	29.28	0
12/25/2018 1:00	1.506	138.6	19.96	3.262	29.29	0
12/25/2018 1:15	3.714	184.8	11.38	3.6	29.29	0
12/25/2018 1:30	4.837	230.3	13.93	3.826	29.29	0
12/25/2018 1:45	2.972	263.5	50.8	2.947	29.29	0
12/25/2018 2:00	4.248	200.6	34.86	2.498	29.29	0
12/25/2018 2:15	4.762	178.6	13.31	2.043	29.29	0
12/25/2018 2:30	2.579	157.7	15.3	2.143	29.29	0
12/25/2018 2:45	2.804	198.5	33.36	1.688	29.29	0
12/25/2018 3:00	5.102	248.1	15	1.017	29.32	0

12/25/2018 3:15	1.661	259.1	5.781	1.183	29.32	0
12/25/2018 3:30	2.339	231.6	18.65	1.515	29.32	0
12/25/2018 3:45	2.873	200.1	9.26	1.597	29.32	0
12/25/2018 4:00	3.155	221	6.731	1.3	29.31	0
12/25/2018 4:15	3.528	232.9	10.63	1.211	29.31	0
12/25/2018 4:30	4.971	224.9	5.031	1.005	29.31	0
12/25/2018 4:45	5.049	212.2	7.452	0.806	29.31	0
12/25/2018 5:00	2.581	170.3	21.67	0.984	29.35	0
12/25/2018 5:15	2.974	114.8	23.44	0.345	29.35	0
12/25/2018 5:30	2.636	98.9	11.9	0.152	29.35	0
12/25/2018 5:45	3.009	125	13.19	1.088	29.35	0
12/25/2018 6:00	2.851	159.8	19.83	1.174	29.34	0
12/25/2018 6:15	2.449	111.5	5.848	1.262	29.34	0
12/25/2018 6:30	4.145	131.2	6.918	1.424	29.34	0
12/25/2018 6:45	4.957	139.6	3.918	1.812	29.34	0
12/25/2018 7:00	4.434	147.9	3.887	2.007	29.38	0
12/25/2018 7:15	4.027	166.3	15.48	1.902	29.38	0
12/25/2018 7:30	2.564	158.7	13.03	1.662	29.38	0
12/25/2018 7:45	2.698	109.8	19.65	1.229	29.38	0
12/25/2018 8:00	2.932	140.9	13.53	1.848	29.36	0
12/25/2018 8:15	2.213	167.3	9.38	2.125	29.36	0
12/25/2018 8:30	0.853	96.1	33.64	2.113	29.36	0
12/25/2018 8:45	1.83	93.5	36.18	1.997	29.36	0
12/25/2018 9:00	2.754	117.8	14.64	2.395	29.4	0
12/25/2018 9:15	2.297	112.5	8.69	2.415	29.4	0
12/25/2018 9:30	1.839	129.3	12.97	2.62	29.4	0
12/25/2018 9:45	2.8	122.9	8.61	2.903	29.4	0
12/25/2018 10:00	4.199	133.7	10.01	3.125	29.4	0
12/25/2018 10:15	1.183	65.97	51.05	3.277	29.4	0
12/25/2018 10:30	4.457	174.9	23.48	3.496	29.4	0
12/25/2018 10:45	4.506	185.6	12.23	3.247	29.4	0
12/25/2018 11:00	4.421	162.7	7.925	3.598	29.39	0
12/25/2018 11:15	1.753	207.4	64.3	3.492	29.39	0
12/25/2018 11:30	1.843	287	8.32	3.466	29.39	0
12/25/2018 11:45	1.831	254.8	20.07	3.771	29.39	0
12/25/2018 12:00	1.635	213.9	19.48	3.912	29.38	0
12/25/2018 12:15	1.881	189.4	16.29	3.977	29.38	0
12/25/2018 12:30	1.412	159.6	31.53	4.209	29.38	0
12/25/2018 12:45	3.38	207.2	7.547	4.108	29.38	0
12/25/2018 13:00	1.804	187.4	13.12	4.185	29.4	0
12/25/2018 13:15	0.486	228.4	5.281	4.509	29.4	0
12/25/2018 13:30	0.806	234.3	22.11	4.741	29.4	0
12/25/2018 13:45	0.533	56.74	59.55	4.648	29.4	0
12/25/2018 14:00	0.529	14.98	23.51	4.845	29.37	0
12/25/2018 14:15	1.644	47.7	7.28	4.613	29.37	0
12/25/2018 14:30	1.314	16.58	30.79	4.677	29.37	0
12/25/2018 14:45	0.664	45.55	8.1	4.637	29.37	0

12/25/2018 15:00	0.753	54.28	0.114	4.636	29.39	0
12/25/2018 15:15	0.634	67.99	6.449	4.614	29.39	0
12/25/2018 15:30	0.325	67.68	4.652	4.611	29.39	0
12/25/2018 15:45	0.575	45.06	17.36	4.475	29.39	0
12/25/2018 16:00	2.079	301.6	7.717	4.506	29.4	0
12/25/2018 16:15	1.69	293.5	20.95	4.463	29.4	0
12/25/2018 16:30	0.041	330.5	0.022	4.433	29.4	0
12/25/2018 16:45	0.457	15.34	12.84	4.204	29.4	0
12/25/2018 17:00	2.02	34.8	1.549	4.006	29.39	0
12/25/2018 17:15	1.33	35.29	0.125	3.947	29.39	0
12/25/2018 17:30	1.521	35.24	0.144	4.064	29.39	0
12/25/2018 17:45	1.464	35.24	0.141	4.142	29.39	0
12/25/2018 18:00	1.338	35.36	0.18	3.93	29.38	0
12/25/2018 18:15	1.832	31.62	14.48	3.807	29.38	0
12/25/2018 18:30	1.302	21.22	14.53	3.881	29.38	0
12/25/2018 18:45	1.637	37.7	0.221	4.071	29.38	0
12/25/2018 19:00	2.173	37.85	0.89	3.65	29.37	0
12/25/2018 19:15	1.932	58.24	6.805	3.532	29.37	0
12/25/2018 19:30	2.897	77.73	6.451	3.557	29.37	0
12/25/2018 19:45	3.494	82	4.438	3.609	29.37	0
12/25/2018 20:00	4.228	93.7	4.658	3.867	29.34	0
12/25/2018 20:15	3.287	98.6	4.322	3.957	29.34	0
12/25/2018 20:30	3.261	113	8.37	4.203	29.34	0
12/25/2018 20:45	2.969	123	8.36	4.172	29.34	0
12/25/2018 21:00	2.027	84.6	13.1	3.677	29.33	0
12/25/2018 21:15	2.137	101.5	18.48	3.529	29.33	0
12/25/2018 21:30	4.064	208	14.47	3.518	29.33	0
12/25/2018 21:45	5.761	214.5	5.298	3.339	29.33	0
12/25/2018 22:00	6.568	191.5	22.14	3.552	29.34	0
12/25/2018 22:15	6.461	144.5	9	3.561	29.34	0
12/25/2018 22:30	5.775	147.4	6.445	3.59	29.34	0
12/25/2018 22:45	4.022	142.3	6.928	3.501	29.34	0
12/25/2018 23:00	3.713	108.7	7.715	3.184	29.34	0
12/25/2018 23:15	5.382	105.9	7.008	2.966	29.34	0
12/25/2018 23:30	5.588	107.3	6.083	2.872	29.34	0
12/25/2018 23:45	6.236	124.2	7.955	3.074	29.34	0
12/26/2018 0:00	6.013	133.5	7.867	3.52	29.33	0
12/26/2018 0:15	4.423	162.4	10.89	3.679	29.33	0
12/26/2018 0:30	4.206	161.9	11.69	3.711	29.33	0
12/26/2018 0:45	4.755	182.2	18.6	3.573	29.33	0
12/26/2018 1:00	4.979	199.9	10.38	3.074	29.32	0
12/26/2018 1:15	4.363	169.5	14.43	3.359	29.32	0
12/26/2018 1:30	4.316	133.6	6.083	3.047	29.32	0
12/26/2018 1:45	3.084	155.2	16.62	3.082	29.32	0
12/26/2018 2:00	4.011	157.9	12.32	3.347	29.31	0
12/26/2018 2:15	4.354	141.5	7.406	3.221	29.31	0
12/26/2018 2:30	4.936	142.2	7.449	3.361	29.31	0

12/26/2018 2:45	4.844	141.5	7.311	3.406	29.31	0
12/26/2018 3:00	6.206	127.9	6.679	3.364	29.31	0
12/26/2018 3:15	7.842	129.9	7.708	3.553	29.31	0
12/26/2018 3:30	8.04	127.3	9.47	3.666	29.31	0
12/26/2018 3:45	8.04	136.9	12.93	3.681	29.31	0
12/26/2018 4:00	9.54	150.8	9.81	3.406	29.26	0
12/26/2018 4:15	12.2	134.3	8.99	3.661	29.26	0
12/26/2018 4:30	11.56	140.8	8.81	3.705	29.26	0
12/26/2018 4:45	12.4	139.5	8.5	3.676	29.26	0
12/26/2018 5:00	13.24	138.3	8.96	3.706	29.22	0
12/26/2018 5:15	11.95	135.7	9.2	3.696	29.22	0
12/26/2018 5:30	11.21	130.2	10.26	3.869	29.22	0
12/26/2018 5:45	9.78	126.4	11.37	4.032	29.22	0
12/26/2018 6:00	9.55	132.5	10.69	4.268	29.2	0
12/26/2018 6:15	9.48	136.6	9.96	4.399	29.2	0
12/26/2018 6:30	8.71	130.9	13.75	4.406	29.2	0
12/26/2018 6:45	9.03	118	13.37	4.419	29.2	0
12/26/2018 7:00	9.69	144.7	16.96	4.639	29.2	0
12/26/2018 7:15	5.943	155.9	25.89	4.65	29.2	0
12/26/2018 7:30	9.36	123.1	11.59	4.683	29.2	0
12/26/2018 7:45	12.9	140.8	10.16	4.21	29.2	0
12/26/2018 8:00	13.1	158.5	16.48	3.832	29.21	0
12/26/2018 8:15	11.89	149.9	10.41	3.851	29.21	0
12/26/2018 8:30	9.79	145.5	9.18	3.637	29.21	0
12/26/2018 8:45	10.27	145	8.07	3.358	29.21	0
12/26/2018 9:00	10.26	134.8	9.74	2.821	29.21	0
12/26/2018 9:15	11.36	132.8	9.92	2.25	29.21	0
12/26/2018 9:30	12.09	142.6	9.75	2.059	29.21	0
12/26/2018 9:45	12.4	134.9	10.73	1.988	29.21	0
12/26/2018 10:00	13.85	138.3	9.46	1.994	29.2	0
12/26/2018 10:15	14.51	135.7	9.06	1.981	29.2	0
12/26/2018 10:30	12.73	139.3	12.04	2.038	29.2	0
12/26/2018 10:45	12.21	138	9.61	2.33	29.2	0
12/26/2018 11:00	9.51	140.9	10.26	2.508	29.19	0
12/26/2018 11:15	9.18	142.3	13	2.808	29.19	0
12/26/2018 11:30	8.8	136.8	9.66	3.056	29.19	0
12/26/2018 11:45	7.576	132.6	11.23	3.349	29.19	0
12/26/2018 12:00	5.725	158.4	19.73	3.445	29.18	0
12/26/2018 12:15	5.014	157.7	10.91	3.492	29.18	0
12/26/2018 12:30	5.395	163.1	9.81	3.547	29.18	0
12/26/2018 12:45	5.209	131.1	10.98	3.543	29.18	0
12/26/2018 13:00	4.362	135	12.82	3.683	29.19	0
12/26/2018 13:15	4.7	120.5	11.8	3.876	29.19	0
12/26/2018 13:30	5.107	129.7	8.27	4.045	29.19	0
12/26/2018 13:45	3.894	136.2	13.03	4.171	29.19	0
12/26/2018 14:00	4.342	140.8	11.34	4.24	29.19	0
12/26/2018 14:15	5.181	138.2	7.171	4.301	29.19	0

12/26/2018 14:30	3.882	121.9	13.53	4.415	29.19	0
12/26/2018 14:45	3.966	122.7	7.771	4.479	29.19	0
12/26/2018 15:00	4.295	136	6.424	4.55	29.2	0
12/26/2018 15:15	3.277	121.6	11.54	4.544	29.2	0
12/26/2018 15:30	3.925	100.6	6.993	4.506	29.2	0
12/26/2018 15:45	3.678	107.3	5.331	4.427	29.2	0
12/26/2018 16:00	2.858	161.3	31.67	4.282	29.21	0
12/26/2018 16:15	4.172	171.3	22.59	4.076	29.21	0
12/26/2018 16:30	4.792	193.4	21.09	3.969	29.21	0
12/26/2018 16:45	8.28	189.3	15.34	3.888	29.21	0.01
12/26/2018 17:00	8.74	199.9	7.89	3.73	29.24	0
12/26/2018 17:15	8.54	189.8	11.03	3.52	29.24	0
12/26/2018 17:30	7.887	175.3	12.07	3.337	29.24	0
12/26/2018 17:45	7.843	159.8	10.18	3.154	29.24	0
12/26/2018 18:00	8.35	151	10.72	2.948	29.25	0
12/26/2018 18:15	7.377	136.3	8.52	2.784	29.25	0
12/26/2018 18:30	6.743	123.4	8.96	2.611	29.25	0
12/26/2018 18:45	6.504	127.8	8.66	2.462	29.25	0
12/26/2018 19:00	4.956	133.3	19.36	2.371	29.25	0
12/26/2018 19:15	6.629	119.7	8.64	2.275	29.25	0
12/26/2018 19:30	7.221	119.4	7.831	2.284	29.25	0
12/26/2018 19:45	7.446	117	8.93	2.285	29.25	0
12/26/2018 20:00	6.465	111.7	9.06	2.312	29.28	0
12/26/2018 20:15	5.932	110.1	7.191	2.332	29.28	0
12/26/2018 20:30	5.624	112.1	9.67	2.393	29.28	0
12/26/2018 20:45	4.301	115.3	7.551	2.587	29.28	0
12/26/2018 21:00	3.317	110.5	6.598	2.79	29.3	0
12/26/2018 21:15	4.187	135.5	8.64	2.819	29.3	0
12/26/2018 21:30	4.86	129.2	6.476	2.944	29.3	0
12/26/2018 21:45	3.904	119.4	7.862	3.011	29.3	0
12/26/2018 22:00	4.576	121.8	4.607	3.021	29.32	0
12/26/2018 22:15	4.31	132.9	6.093	3.051	29.32	0
12/26/2018 22:30	3.11	145.1	14.33	3.215	29.32	0
12/26/2018 22:45	2.901	163.1	12.82	3.258	29.32	0
12/26/2018 23:00	1.797	146.5	17.53	3.215	29.32	0
12/26/2018 23:15	3.083	155.3	9.69	3.329	29.32	0
12/26/2018 23:30	1.576	183.2	24.34	3.337	29.32	0
12/26/2018 23:45	2.959	170.4	11.14	3.523	29.32	0
12/27/2018 0:00	2.582	142.5	14.25	3.123	29.33	0
12/27/2018 0:15	2.586	133.9	15.28	3.186	29.33	0
12/27/2018 0:30	3.16	133.4	10.96	3.314	29.33	0
12/27/2018 0:45	1.298	120	14.84	3.329	29.33	0
12/27/2018 1:00	1.44	177.2	18.47	3.44	29.37	0
12/27/2018 1:15	2.087	242.5	51.55	3.42	29.37	0
12/27/2018 1:30	1.518	275.8	70.84	3.334	29.37	0
12/27/2018 1:45	0.83	144.2	16.19	3.263	29.37	0
12/27/2018 2:00	2.421	109.7	5.333	3.263	29.4	0

12/27/2018 2:15	3.598	122	16.35	3.256	29.4	0
12/27/2018 2:30	3.819	169.9	16.55	3.338	29.4	0
12/27/2018 2:45	1.576	178.4	27.38	3.343	29.4	0
12/27/2018 3:00	2.909	260.2	20.9	3.348	29.42	0
12/27/2018 3:15	3.073	292.3	12.28	3.434	29.42	0
12/27/2018 3:30	2.982	282.4	12.18	3.612	29.42	0
12/27/2018 3:45	3.257	301.3	4.734	3.598	29.42	0
12/27/2018 4:00	1.101	295.3	4.045	3.442	29.43	0
12/27/2018 4:15	0.279	28.87	7.155	3.128	29.43	0
12/27/2018 4:30	0.333	69.21	0.06	3.169	29.43	0
12/27/2018 4:45	0.808	61.57	7.28	3.263	29.43	0
12/27/2018 5:00	1.47	30.48	10.55	3.375	29.43	0
12/27/2018 5:15	0.222	25.78	10.3	3.357	29.43	0
12/27/2018 5:30	0.001	36.89	0.002	3.298	29.43	0
12/27/2018 5:45	0.669	31.79	42.61	3.255	29.43	0
12/27/2018 6:00	2.515	218.2	7.56	3.109	29.45	0
12/27/2018 6:15	3.636	180.5	6.965	2.957	29.45	0
12/27/2018 6:30	3.178	201.1	10.61	2.989	29.45	0
12/27/2018 6:45	2.83	206.7	9.93	3.041	29.45	0
12/27/2018 7:00	2.059	220.6	32.56	2.981	29.49	0
12/27/2018 7:15	0.067	19.61	10.19	2.885	29.49	0
12/27/2018 7:30	0.117	75.31	0.017	2.928	29.49	0
12/27/2018 7:45	0.597	35.77	16.32	2.88	29.49	0
12/27/2018 8:00	0	0	0	2.964	29.51	0
12/27/2018 8:15	0.233	355	0.012	3.02	29.51	0
12/27/2018 8:30	0.746	355.7	5.214	2.976	29.51	0
12/27/2018 8:45	0.116	56.15	0.132	2.838	29.51	0
12/27/2018 9:00	0.26	58.08	1.401	2.867	29.52	0
12/27/2018 9:15	0.255	98.3	23.12	3.181	29.52	0
12/27/2018 9:30	2.286	162.4	9.75	3.23	29.52	0
12/27/2018 9:45	1.963	139.2	9.65	3.221	29.52	0
12/27/2018 10:00	1.887	158.1	16.88	3.292	29.52	0
12/27/2018 10:15	3.044	198.1	13.75	3.404	29.52	0
12/27/2018 10:30	1.925	147.9	26.79	3.709	29.52	0
12/27/2018 10:45	0.671	125.8	18.93	3.812	29.52	0
12/27/2018 11:00	0.435	115	2.987	4.033	29.54	0
12/27/2018 11:15	0.906	179.4	20.19	4.195	29.54	0
12/27/2018 11:30	2.017	225.7	17.09	4.211	29.54	0
12/27/2018 11:45	1.61	230.5	24.87	4.322	29.54	0
12/27/2018 12:00	0.791	64.51	52.8	4.461	29.51	0
12/27/2018 12:15	0.81	234.6	70.49	4.564	29.51	0
12/27/2018 12:30	1.313	44.73	3.885	4.469	29.51	0
12/27/2018 12:45	0.131	44.89	0.265	4.606	29.51	0
12/27/2018 13:00	0.966	34.89	51.13	4.718	29.52	0
12/27/2018 13:15	2.188	310.1	36.96	4.608	29.52	0
12/27/2018 13:30	4.814	36.51	8.33	4.195	29.52	0
12/27/2018 13:45	2.761	45.56	7.778	3.953	29.52	0

12/27/2018 14:00	3.132	62.95	10.56	4.664	29.53	0
12/27/2018 14:15	4.806	51.2	12.3	4.579	29.53	0
12/27/2018 14:30	4.492	66.98	9.28	4.664	29.53	0
12/27/2018 14:45	2.419	60.51	10.65	4.481	29.53	0
12/27/2018 15:00	2.85	51.51	6.591	4.44	29.55	0
12/27/2018 15:15	2.168	32.48	13.32	4.295	29.55	0
12/27/2018 15:30	2.04	26.24	12.96	4.219	29.55	0
12/27/2018 15:45	1.021	12.31	1.64	4.221	29.55	0
12/27/2018 16:00	1.603	326.4	12.51	4.201	29.54	0
12/27/2018 16:15	1.294	338.2	20.87	4.248	29.54	0
12/27/2018 16:30	1.078	359.2	6.28	4.105	29.54	0
12/27/2018 16:45	1.191	351.7	4.437	3.845	29.54	0
12/27/2018 17:00	2.471	13.54	7.73	3.773	29.56	0
12/27/2018 17:15	2.313	34.68	4.759	3.478	29.56	0
12/27/2018 17:30	1.496	66.29	23.06	3.223	29.56	0
12/27/2018 17:45	3.204	123.3	4.546	3.17	29.56	0
12/27/2018 18:00	2.248	131	3.91	3.476	29.56	0
12/27/2018 18:15	1.303	121.1	9.1	3.273	29.56	0
12/27/2018 18:30	0.784	104.5	1.636	3.045	29.56	0
12/27/2018 18:45	1.393	87.7	17.81	2.915	29.56	0
12/27/2018 19:00	1.791	73.01	9.22	2.723	29.56	0
12/27/2018 19:15	1.688	99.8	9.36	2.768	29.56	0
12/27/2018 19:30	0.72	113.6	0.119	3.192	29.56	0
12/27/2018 19:45	0.025	113.5	0.014	3.196	29.56	0
12/27/2018 20:00	0.475	113.3	0.042	3.096	29.55	0
12/27/2018 20:15	0.676	113.3	0.106	2.959	29.55	0
12/27/2018 20:30	1.812	113.4	0.18	2.77	29.55	0
12/27/2018 20:45	1.942	117.3	5.328	2.648	29.55	0
12/27/2018 21:00	2.428	155.5	19.71	2.795	29.57	0
12/27/2018 21:15	3.242	165	8.68	3.173	29.57	0
12/27/2018 21:30	2.294	147.6	7.781	3.182	29.57	0
12/27/2018 21:45	1.578	132.5	7.266	3.096	29.57	0
12/27/2018 22:00	1.772	149	32.09	2.934	29.57	0
12/27/2018 22:15	5.312	193.3	14.57	2.504	29.57	0
12/27/2018 22:30	4.894	162.7	7.043	2.627	29.57	0
12/27/2018 22:45	3.24	129.7	15.25	2.613	29.57	0
12/27/2018 23:00	1.505	79.31	8.1	2.386	29.57	0
12/27/2018 23:15	0.485	147.5	3.532	2.418	29.57	0
12/27/2018 23:30	3.758	155.8	3.849	2.863	29.57	0
12/27/2018 23:45	3.258	157.8	5.244	2.902	29.57	0
12/28/2018 0:00	2.657	171.5	11.18	2.824	29.54	0
12/28/2018 0:15	3.297	180.5	11.77	2.717	29.54	0
12/28/2018 0:30	4	172.2	13.38	2.844	29.54	0
12/28/2018 0:45	2.565	152.6	5.045	2.684	29.54	0
12/28/2018 1:00	3.055	145.2	7.589	2.891	29.56	0
12/28/2018 1:15	2.245	123.3	16.03	2.775	29.56	0
12/28/2018 1:30	3.012	122.1	8.04	2.597	29.56	0

12/28/2018 1:45	3.049	143.1	7.054	2.729	29.56	0
12/28/2018 2:00	3.684	136.2	6.987	3.12	29.55	0
12/28/2018 2:15	4.634	141.3	8.35	3.294	29.55	0
12/28/2018 2:30	4.333	150.5	16.47	3.218	29.55	0
12/28/2018 2:45	4.104	176.8	12.43	3.316	29.55	0
12/28/2018 3:00	3.597	172.3	12.65	3.274	29.54	0
12/28/2018 3:15	4.501	203.9	23.99	2.934	29.54	0
12/28/2018 3:30	5.847	214.3	9.13	2.674	29.54	0
12/28/2018 3:45	5.239	199	5.77	2.674	29.54	0
12/28/2018 4:00	4.135	180.8	13.3	2.717	29.54	0
12/28/2018 4:15	3.032	150.9	18.96	2.432	29.54	0
12/28/2018 4:30	2.555	109.8	5.458	2.313	29.54	0
12/28/2018 4:45	3.905	119.7	5.212	2.415	29.54	0
12/28/2018 5:00	3.021	134	11.39	2.691	29.53	0
12/28/2018 5:15	3.667	150.1	8.06	2.943	29.53	0
12/28/2018 5:30	3.61	153	7.193	3.036	29.53	0
12/28/2018 5:45	3.203	147.7	7.073	3.017	29.53	0
12/28/2018 6:00	3.512	137.7	7.448	3.129	29.52	0
12/28/2018 6:15	4.734	134	9.2	3.077	29.52	0
12/28/2018 6:30	5.243	126.9	6.222	3.111	29.52	0
12/28/2018 6:45	5.366	130.2	6.832	3.249	29.52	0
12/28/2018 7:00	5.294	125.2	5.992	3.296	29.5	0
12/28/2018 7:15	5.972	116.2	6.418	3.396	29.5	0
12/28/2018 7:30	6.485	114.7	5.28	3.421	29.5	0
12/28/2018 7:45	6.707	115.1	6.362	3.453	29.5	0
12/28/2018 8:00	5.311	127.5	9.7	3.56	29.5	0
12/28/2018 8:15	4.712	168.4	23.59	3.472	29.5	0
12/28/2018 8:30	5.107	168.4	10.97	3.421	29.5	0
12/28/2018 8:45	4.462	154.1	9.01	3.386	29.5	0
12/28/2018 9:00	4.649	148.3	8.51	3.43	29.51	0
12/28/2018 9:15	4.481	161	7.947	3.444	29.51	0
12/28/2018 9:30	5.303	163.1	11.49	3.33	29.51	0
12/28/2018 9:45	6.159	143.1	9.13	3.506	29.51	0
12/28/2018 10:00	6.447	137.2	6.46	3.744	29.52	0
12/28/2018 10:15	5.421	144.9	8.23	3.848	29.52	0
12/28/2018 10:30	5.867	146.4	8.43	3.871	29.52	0
12/28/2018 10:45	5.909	139.6	11.35	3.988	29.52	0.01
12/28/2018 11:00	6.64	133	9.14	4.11	29.5	0
12/28/2018 11:15	6.964	132.1	7.894	4.263	29.5	0
12/28/2018 11:30	7.634	133.8	8.45	4.387	29.5	0
12/28/2018 11:45	7.301	132.1	8.86	4.464	29.5	0
12/28/2018 12:00	7.359	134.2	8.75	4.512	29.47	0
12/28/2018 12:15	6.858	143.7	10.9	4.539	29.47	0
12/28/2018 12:30	6.922	146.4	10.71	4.52	29.47	0
12/28/2018 12:45	6.576	144.7	8.9	4.555	29.47	0
12/28/2018 13:00	6.987	140.5	9.89	4.614	29.45	0.01
12/28/2018 13:15	7.275	145.7	9.48	4.674	29.45	0

12/28/2018 13:30	9.28	144	8.72	4.843	29.45	0
12/28/2018 13:45	9.83	144	9.7	4.947	29.45	0
12/28/2018 14:00	10.44	149.1	9.61	5.089	29.43	0
12/28/2018 14:15	9.51	146.7	8.42	5.052	29.43	0
12/28/2018 14:30	9.47	144.8	8.84	5.096	29.43	0
12/28/2018 14:45	9.81	150.9	8.14	5.146	29.43	0
12/28/2018 15:00	9.66	147	9.19	5.128	29.44	0
12/28/2018 15:15	7.954	145.7	9.83	5.124	29.44	0
12/28/2018 15:30	7.524	142.1	8.8	5.075	29.44	0
12/28/2018 15:45	8.41	141.4	9.6	5.072	29.44	0.01
12/28/2018 16:00	8.52	142	8.74	5.093	29.4	0
12/28/2018 16:15	8.79	145.4	9.06	5.185	29.4	0
12/28/2018 16:30	8.77	138	9.81	5.326	29.4	0
12/28/2018 16:45	7.725	142.2	12.58	5.549	29.4	0
12/28/2018 17:00	9.18	145.8	14.8	5.944	29.41	0
12/28/2018 17:15	8.75	149.6	9.12	6.14	29.41	0
12/28/2018 17:30	8.59	144.2	9.17	6.257	29.41	0
12/28/2018 17:45	9.7	150.6	8.33	6.295	29.41	0
12/28/2018 18:00	9.82	152.8	8.53	6.37	29.39	0
12/28/2018 18:15	7.811	147.2	8.45	6.326	29.39	0
12/28/2018 18:30	7.587	148.6	7.511	6.298	29.39	0
12/28/2018 18:45	8.73	146.7	10.57	6.58	29.39	0
12/28/2018 19:00	9.16	147.1	9.31	6.986	29.36	0
12/28/2018 19:15	10.18	150.3	8.09	6.942	29.36	0
12/28/2018 19:30	10.8	154.5	7.574	6.951	29.36	0
12/28/2018 19:45	10.49	156.7	6.572	6.9	29.36	0
12/28/2018 20:00	9.23	148.3	7.722	7.045	29.34	0
12/28/2018 20:15	8.3	150.9	6.519	7.113	29.34	0
12/28/2018 20:30	8.93	152.2	7.59	7.057	29.34	0
12/28/2018 20:45	9.76	156	8.07	7.07	29.34	0
12/28/2018 21:00	8.41	151.8	8.34	7.049	29.35	0
12/28/2018 21:15	10.11	153.7	7.384	7.006	29.35	0.01
12/28/2018 21:30	12.14	157.2	7.333	7.195	29.35	0
12/28/2018 21:45	12.92	160.5	8.86	7.394	29.35	0
12/28/2018 22:00	11.54	157.3	8.15	7.374	29.33	0
12/28/2018 22:15	13.02	163.8	10.49	7.704	29.33	0
12/28/2018 22:30	12.33	169	8.78	7.895	29.33	0
12/28/2018 22:45	13.19	168	9.55	8.05	29.33	0
12/28/2018 23:00	11.38	166.7	9.44	8.04	29.34	0
12/28/2018 23:15	10.89	164.9	11.66	8.13	29.34	0
12/28/2018 23:30	10.87	164	11.31	8.31	29.34	0
12/28/2018 23:45	11.77	167.2	9.78	8.46	29.34	0
12/29/2018 0:00	12.95	172	12.15	8.68	29.32	0
12/29/2018 0:15	14.86	179.9	10.63	8.92	29.32	0
12/29/2018 0:30	14.12	183.6	9.82	8.93	29.32	0
12/29/2018 0:45	15.06	179.7	10.73	9.01	29.32	0
12/29/2018 1:00	15.66	178.7	9.06	9.11	29.34	0

12/29/2018 1:15	16.48	184.7	9.2	9.15	29.34	0
12/29/2018 1:30	18.12	186.9	9.86	9.21	29.34	0
12/29/2018 1:45	17.56	190.6	8.75	9.31	29.34	0
12/29/2018 2:00	17.94	189.2	9.14	9.41	29.34	0
12/29/2018 2:15	17.68	188.7	10.56	9.37	29.34	0
12/29/2018 2:30	18.29	189	8.28	9.28	29.34	0
12/29/2018 2:45	19.01	190	11.06	9.36	29.34	0
12/29/2018 3:00	16.35	186.5	10.31	9.5	29.35	0
12/29/2018 3:15	17.34	184.6	9.7	9.57	29.35	0
12/29/2018 3:30	15.86	183.2	10.71	9.49	29.35	0
12/29/2018 3:45	16.17	188.7	8.62	9.49	29.35	0
12/29/2018 4:00	16.22	193.8	8.99	9.49	29.34	0
12/29/2018 4:15	16.03	188.6	9.59	9.49	29.34	0
12/29/2018 4:30	15.86	192.7	12.78	9.44	29.34	0
12/29/2018 4:45	15.96	199.7	10.37	9.36	29.34	0
12/29/2018 5:00	12.92	191	9.7	9.37	29.33	0
12/29/2018 5:15	12.32	176.5	11.87	9.44	29.33	0
12/29/2018 5:30	13.14	176.7	10.75	9.44	29.33	0
12/29/2018 5:45	15.11	181.4	9.11	9.47	29.33	0
12/29/2018 6:00	14.79	185.4	8.77	9.42	29.31	0
12/29/2018 6:15	15.01	183.2	8.02	9.18	29.31	0
12/29/2018 6:30	13.8	183	9.85	8.96	29.31	0
12/29/2018 6:45	13.58	172.2	10.84	9.14	29.31	0
12/29/2018 7:00	13.76	189.2	11.14	9.2	29.3	0
12/29/2018 7:15	14.87	197.5	9.07	9.17	29.3	0
12/29/2018 7:30	15.25	198.6	11.15	9.06	29.3	0
12/29/2018 7:45	13.11	190.7	10.07	8.77	29.3	0
12/29/2018 8:00	15.19	200.4	7.976	8.88	29.32	0
12/29/2018 8:15	15.64	207.2	7.437	8.95	29.32	0
12/29/2018 8:30	12.69	198.4	8.12	9	29.32	0
12/29/2018 8:45	11.22	195	11.44	8.98	29.32	0
12/29/2018 9:00	13.54	189	10	8.99	29.33	0
12/29/2018 9:15	14.8	188.4	8.75	9.02	29.33	0
12/29/2018 9:30	14.49	179.2	11.32	9.05	29.33	0
12/29/2018 9:45	14.28	184.8	9.24	9.16	29.33	0
12/29/2018 10:00	15.22	186.2	9.07	9.26	29.31	0
12/29/2018 10:15	18.34	195.6	9.29	9.46	29.31	0
12/29/2018 10:30	20.41	195.9	7.434	9.7	29.31	0
12/29/2018 10:45	22.43	191.5	8.94	9.88	29.31	0
12/29/2018 11:00	21.89	199.4	8.94	9.81	29.25	0
12/29/2018 11:15	22.39	192.7	9.23	9.82	29.25	0
12/29/2018 11:30	20.59	196	11.47	9.86	29.25	0
12/29/2018 11:45	20.05	198.3	9.54	9.81	29.25	0
12/29/2018 12:00	19.49	198.3	9.86	9.97	29.21	0
12/29/2018 12:15	24.11	204	10.88	10.26	29.21	0
12/29/2018 12:30	23.29	210.2	9.56	10.11	29.21	0
12/29/2018 12:45	20.31	205.5	9.68	9.61	29.21	0

12/29/2018 13:00	20.35	206.2	8.82	9.44	29.18	0
12/29/2018 13:15	18.79	199.2	8.69	9.32	29.18	0
12/29/2018 13:30	18.45	197.1	9.35	9.21	29.18	0
12/29/2018 13:45	18.69	194.8	8.98	9.19	29.18	0
12/29/2018 14:00	18.35	194.5	8.94	9.1	29.16	0
12/29/2018 14:15	18.49	191.7	8.45	9.12	29.16	0
12/29/2018 14:30	19.7	188.2	8.85	9.08	29.16	0
12/29/2018 14:45	18.34	190.9	8.19	9.02	29.16	0
12/29/2018 15:00	19.18	192.3	7.81	9.02	29.14	0
12/29/2018 15:15	18.9	192	9.07	8.99	29.14	0
12/29/2018 15:30	20.14	192.5	7.616	8.98	29.14	0
12/29/2018 15:45	18.68	196.9	7.844	9	29.14	0
12/29/2018 16:00	15.94	198.6	8.97	8.95	29.12	0.01
12/29/2018 16:15	16.32	198	10.04	8.92	29.12	0
12/29/2018 16:30	16.66	201.2	9.83	8.96	29.12	0.01
12/29/2018 16:45	16.27	205.6	9.91	8.93	29.12	0
12/29/2018 17:00	15.33	223.2	10.68	9.06	29.13	0
12/29/2018 17:15	16.58	219.6	9.82	9.16	29.13	0
12/29/2018 17:30	18.35	213.3	11.8	9.19	29.13	0
12/29/2018 17:45	15.28	209.4	12.89	9.05	29.13	0
12/29/2018 18:00	10.21	230.2	12.52	8.9	29.12	0
12/29/2018 18:15	9.61	243.6	22.63	8.8	29.12	0
12/29/2018 18:30	7.278	260	17.97	8.57	29.12	0
12/29/2018 18:45	10.37	246.5	11.37	8.4	29.12	0
12/29/2018 19:00	10.38	253.4	13.93	8.12	29.13	0
12/29/2018 19:15	9.63	253	10.68	7.958	29.13	0
12/29/2018 19:30	9.46	252.8	10.73	7.861	29.13	0
12/29/2018 19:45	5.341	266.4	13.84	7.557	29.13	0
12/29/2018 20:00	4.971	289.4	14.92	7.237	29.15	0.01
12/29/2018 20:15	5.712	28.09	22.23	6.911	29.15	0
12/29/2018 20:30	9.96	24.26	13.78	6.5	29.15	0
12/29/2018 20:45	5.934	25.12	17.4	6.291	29.15	0
12/29/2018 21:00	4.097	47.38	29.28	6.152	29.17	0
12/29/2018 21:15	2.642	73.53	29.16	6.038	29.17	0
12/29/2018 21:30	3.482	143.6	25.53	5.913	29.17	0.01
12/29/2018 21:45	3.616	137.4	26.66	5.748	29.17	0
12/29/2018 22:00	3.165	154.7	29.54	5.75	29.18	0
12/29/2018 22:15	4.958	167.6	8.07	5.615	29.18	0
12/29/2018 22:30	6.926	159.3	13.08	5.254	29.18	0
12/29/2018 22:45	5.901	150.3	14.78	4.877	29.18	0
12/29/2018 23:00	5.72	164.6	5.07	4.674	29.19	0
12/29/2018 23:15	6.121	163.4	7.087	4.643	29.19	0
12/29/2018 23:30	4.208	140.9	7.728	4.552	29.19	0.01
12/29/2018 23:45	4.733	155.4	16.71	4.365	29.19	0
12/30/2018 0:00	5.767	147	21.94	4.055	29.19	0
12/30/2018 0:15	6.823	171.8	33.03	3.89	29.19	0
12/30/2018 0:30	7.454	176.8	11.59	3.706	29.19	0

12/30/2018 0:45	7.365	162.8	6.296	3.528	29.19	0
12/30/2018 1:00	5.825	139.8	16.28	3.63	29.2	0
12/30/2018 1:15	4.047	98.6	10.05	3.622	29.2	0
12/30/2018 1:30	5.731	111.3	8.13	3.571	29.2	0
12/30/2018 1:45	5.013	126.6	15.32	3.648	29.2	0
12/30/2018 2:00	4.596	134.1	20.61	3.726	29.21	0
12/30/2018 2:15	3.639	132.2	8.03	3.759	29.21	0
12/30/2018 2:30	4.429	147.1	11.94	3.809	29.21	0
12/30/2018 2:45	3.682	161.8	65.35	3.855	29.21	0
12/30/2018 3:00	3.604	327.7	75.04	3.917	29.24	0
12/30/2018 3:15	2.794	56.9	41.07	3.909	29.24	0
12/30/2018 3:30	2.3	185.4	47.12	4.338	29.24	0
12/30/2018 3:45	2.301	233.3	10.98	4.79	29.24	0
12/30/2018 4:00	1.08	29.11	26.89	4.281	29.26	0
12/30/2018 4:15	2.075	250.7	17.8	4.598	29.26	0
12/30/2018 4:30	0.725	58.93	32.51	4.282	29.26	0
12/30/2018 4:45	2.34	109.9	18.1	4.093	29.26	0
12/30/2018 5:00	1.521	148.8	19.76	4.158	29.25	0
12/30/2018 5:15	5.424	210.8	11.74	4.465	29.25	0
12/30/2018 5:30	4.884	205.7	9.97	4.415	29.25	0
12/30/2018 5:45	4.803	177.9	20.87	4.361	29.25	0
12/30/2018 6:00	3.201	164	17.86	3.904	29.27	0
12/30/2018 6:15	3.981	197.6	16.25	4.11	29.27	0
12/30/2018 6:30	2.07	109.6	46.95	3.804	29.27	0
12/30/2018 6:45	1.962	96	11.81	3.661	29.27	0
12/30/2018 7:00	3.039	118.3	10.18	3.757	29.31	0
12/30/2018 7:15	3.515	109.7	19.78	3.876	29.31	0
12/30/2018 7:30	3.763	130.8	17.07	3.907	29.31	0
12/30/2018 7:45	1.16	108.8	20.45	3.989	29.31	0
12/30/2018 8:00	0.003	185.1	1.972	3.942	29.33	0
12/30/2018 8:15	1.065	118.4	27.34	3.894	29.33	0
12/30/2018 8:30	4.414	154	18.82	3.89	29.33	0
12/30/2018 8:45	4.299	136.4	24.89	3.908	29.33	0
12/30/2018 9:00	4.692	139.1	8.32	3.886	29.35	0
12/30/2018 9:15	3.975	122.9	9.96	4.017	29.35	0
12/30/2018 9:30	5.924	125.7	7.409	4.091	29.35	0
12/30/2018 9:45	4.735	115.9	11.1	4.083	29.35	0
12/30/2018 10:00	4.868	111	12.86	4.121	29.36	0
12/30/2018 10:15	4.201	126.5	13.83	4.294	29.36	0
12/30/2018 10:30	5.038	144	12.71	4.459	29.36	0
12/30/2018 10:45	3.56	138.6	15.21	4.581	29.36	0
12/30/2018 11:00	3.464	112.9	18.87	4.618	29.38	0
12/30/2018 11:15	5.194	135.9	10.25	4.615	29.38	0
12/30/2018 11:30	4.719	128.4	11.3	4.691	29.38	0
12/30/2018 11:45	3.994	110.6	12.32	5.255	29.38	0
12/30/2018 12:00	4.742	111	20.24	5.206	29.36	0
12/30/2018 12:15	4.753	117	26.94	5.565	29.36	0

12/30/2018 12:30	5.643	146.1	15.38	5.612	29.36	0
12/30/2018 12:45	5.144	144.2	14.55	5.577	29.36	0
12/30/2018 13:00	3.732	135.3	27.26	5.725	29.34	0
12/30/2018 13:15	3.342	133.2	16.37	5.785	29.34	0
12/30/2018 13:30	2.53	168	18.99	5.774	29.34	0
12/30/2018 13:45	1.718	48.04	30.92	5.659	29.34	0
12/30/2018 14:00	2.77	39.62	2.526	5.425	29.32	0
12/30/2018 14:15	2.602	42	8.23	5.356	29.32	0
12/30/2018 14:30	1.835	28.58	11.4	5.406	29.32	0
12/30/2018 14:45	2.428	49.1	6.929	5.181	29.32	0
12/30/2018 15:00	1.474	55.74	0.765	5.655	29.36	0
12/30/2018 15:15	1.37	55.31	2.222	5.948	29.36	0
12/30/2018 15:30	0.224	62.81	1.406	6.348	29.36	0
12/30/2018 15:45	0.822	189.6	56.83	6.277	29.36	0
12/30/2018 16:00	2.937	271.2	18	5.476	29.35	0
12/30/2018 16:15	3.146	324.2	10.26	5.211	29.35	0
12/30/2018 16:30	5.937	336.6	30.33	4.89	29.35	0
12/30/2018 16:45	9.36	26.15	11.73	4.6	29.35	0
12/30/2018 17:00	7.254	9.74	22.5	4.452	29.38	0
12/30/2018 17:15	5.416	321.6	19.39	4.131	29.38	0
12/30/2018 17:30	4.64	14.8	13.38	4.199	29.38	0
12/30/2018 17:45	2.4	355.7	27.09	4.011	29.38	0
12/30/2018 18:00	1.426	331.3	9.93	3.897	29.39	0
12/30/2018 18:15	4.196	21.81	23.2	4.108	29.39	0
12/30/2018 18:30	2.609	20.85	17.46	4.009	29.39	0
12/30/2018 18:45	1.614	357.7	32.57	3.924	29.39	0
12/30/2018 19:00	2.285	355.8	10.83	4.053	29.41	0
12/30/2018 19:15	3.032	336.8	23.55	3.982	29.41	0
12/30/2018 19:30	2.896	356.7	52.98	3.799	29.41	0
12/30/2018 19:45	2.188	14.07	48.43	3.294	29.41	0
12/30/2018 20:00	3.579	248.9	38.96	3.122	29.45	0
12/30/2018 20:15	4.179	226.4	4.076	2.858	29.45	0
12/30/2018 20:30	3.456	230.7	5.615	2.871	29.45	0
12/30/2018 20:45	3.171	275	26.87	3.044	29.45	0
12/30/2018 21:00	2.486	338.5	21.55	2.603	29.46	0
12/30/2018 21:15	2.101	100.7	14.78	2.241	29.46	0
12/30/2018 21:30	2.997	97.8	7.985	1.968	29.46	0
12/30/2018 21:45	1.636	85.5	24.4	2.668	29.46	0
12/30/2018 22:00	0.982	49.34	10.17	3.145	29.45	0
12/30/2018 22:15	2.16	18.4	16.99	3.446	29.45	0
12/30/2018 22:30	3.872	12.16	4.592	3.804	29.45	0
12/30/2018 22:45	5.634	12.55	4.056	3.464	29.45	0
12/30/2018 23:00	5.05	353.9	18.69	2.431	29.47	0
12/30/2018 23:15	2.857	207.8	40.32	2.327	29.47	0
12/30/2018 23:30	2.303	112.6	16.82	2.024	29.47	0
12/30/2018 23:45	2.552	24.19	25.17	2.828	29.47	0
12/31/2018 0:00	2.512	20.99	16.29	1.649	29.49	0

12/31/2018 0:15	3.467	28.56	9.13	1.414	29.49	0
12/31/2018 0:30	2.571	20.67	12.16	1.399	29.49	0
12/31/2018 0:45	1.38	22.34	35.69	1.572	29.49	0
12/31/2018 1:00	2.574	34.96	9.41	1.48	29.5	0
12/31/2018 1:15	2.337	22.68	9.4	0.941	29.5	0
12/31/2018 1:30	1.645	6.769	16.7	0.898	29.5	0
12/31/2018 1:45	1.125	6.743	21.04	0.561	29.5	0
12/31/2018 2:00	2.191	131.9	78.43	0.45	29.52	0
12/31/2018 2:15	2.497	21.47	25.6	1.156	29.52	0
12/31/2018 2:30	3.705	73.9	9.72	0.531	29.52	0
12/31/2018 2:45	1.876	7.546	22.3	-0.317	29.52	0
12/31/2018 3:00	2.108	338.6	17.5	-0.166	29.57	0
12/31/2018 3:15	1.08	335.3	36.01	-0.267	29.57	0
12/31/2018 3:30	1.473	30.73	0.144	0.252	29.57	0
12/31/2018 3:45	1.252	90.8	14.63	0.675	29.57	0
12/31/2018 4:00	2.785	70.71	8.06	0.515	29.55	0
12/31/2018 4:15	2.867	41.23	8.04	0.316	29.55	0
12/31/2018 4:30	2.592	27.96	2.653	0.162	29.55	0
12/31/2018 4:45	0.342	30.19	0.077	-0.432	29.55	0
12/31/2018 5:00	1.647	32.6	5.178	-0.559	29.54	0
12/31/2018 5:15	0.535	38.61	0.159	-0.262	29.54	0
12/31/2018 5:30	1.069	45.43	4.894	-0.255	29.54	0
12/31/2018 5:45	2.409	32.68	15.53	-0.497	29.54	0
12/31/2018 6:00	3.478	28.12	10.18	-0.715	29.58	0
12/31/2018 6:15	3.523	31.21	8.18	-0.977	29.58	0
12/31/2018 6:30	5.534	40	7.466	-0.336	29.58	0
12/31/2018 6:45	5.456	30.96	9.29	-0.087	29.58	0
12/31/2018 7:00	4.349	31.4	8.63	-0.052	29.58	0
12/31/2018 7:15	4.927	25.12	9.53	0	29.58	0
12/31/2018 7:30	4.488	28.63	7.077	0.071	29.58	0
12/31/2018 7:45	3.568	31.02	9.97	0.089	29.58	0
12/31/2018 8:00	3.529	42.27	8.95	0.076	29.61	0
12/31/2018 8:15	3.112	31.81	7.06	0.009	29.61	0
12/31/2018 8:30	4.025	56.21	10.47	-0.174	29.61	0
12/31/2018 8:45	3.284	48.66	22.94	-0.229	29.61	0
12/31/2018 9:00	1.195	170	60.76	-0.115	29.59	0
12/31/2018 9:15	0.817	48.45	23.48	-0.336	29.59	0
12/31/2018 9:30	0.883	33.05	43.79	-0.262	29.59	0
12/31/2018 9:45	1.19	159.4	63.18	0.327	29.59	0
12/31/2018 10:00	0.433	21.18	21.45	0.541	29.62	0
12/31/2018 10:15	1.395	351.1	20.79	0.606	29.62	0
12/31/2018 10:30	3.068	346.6	15.9	0.585	29.62	0
12/31/2018 10:45	3.337	18.12	15.76	0.369	29.62	0
12/31/2018 11:00	3.788	1.389	11.64	0.546	29.63	0
12/31/2018 11:15	3.339	22.42	10.67	0.844	29.63	0
12/31/2018 11:30	2.986	4.551	13.03	1.03	29.63	0
12/31/2018 11:45	3.754	5.92	13.66	1.288	29.63	0

12/31/2018 12:00	2.915	5.405	14.73	1.387	29.62	0
12/31/2018 12:15	1.326	335.8	22.48	1.483	29.62	0
12/31/2018 12:30	1.027	273.3	75.07	2.093	29.62	0
12/31/2018 12:45	1.558	133.9	28.76	2.167	29.62	0
12/31/2018 13:00	1.891	109.7	19.29	1.79	29.6	0
12/31/2018 13:15	1.093	75.17	36.48	1.7	29.6	0
12/31/2018 13:30	0.554	7.528	12.72	2.156	29.6	0
12/31/2018 13:45	2.334	333.4	22.48	2.734	29.6	0
12/31/2018 14:00	3.325	331.6	6.779	2.576	29.62	0
12/31/2018 14:15	3.433	329.9	4.604	2.54	29.62	0
12/31/2018 14:30	2.74	342.2	14.71	2.632	29.62	0
12/31/2018 14:45	3.406	340.5	14.34	2.827	29.62	0
12/31/2018 15:00	0.83	348.4	7.264	2.816	29.64	0
12/31/2018 15:15	1.058	357.6	10.13	2.787	29.64	0
12/31/2018 15:30	3.126	19.08	8.2	2.82	29.64	0
12/31/2018 15:45	3.172	15.92	6.045	2.708	29.64	0
12/31/2018 16:00	3.153	26.99	7.167	2.565	29.64	0
12/31/2018 16:15	1.313	29.65	1.854	2.41	29.64	0
12/31/2018 16:30	0.047	29.28	0.024	2.051	29.64	0
12/31/2018 16:45	2.793	232.1	28.45	1.95	29.64	0
12/31/2018 17:00	3.424	243.5	6.99	2.16	29.63	0
12/31/2018 17:15	2.597	265.3	11.46	2.259	29.63	0
12/31/2018 17:30	0.077	296.2	11.92	1.62	29.63	0
12/31/2018 17:45	2.528	31	4.576	1.298	29.63	0
12/31/2018 18:00	3.62	33.19	4.104	1.276	29.64	0
12/31/2018 18:15	3.378	40.66	1.969	1.075	29.64	0
12/31/2018 18:30	2.861	39.72	3.03	1.067	29.64	0
12/31/2018 18:45	2.747	47.31	3.88	1.098	29.64	0
12/31/2018 19:00	3.174	36.5	6.178	0.941	29.61	0
12/31/2018 19:15	4.112	39.61	6.374	0.617	29.61	0
12/31/2018 19:30	3.508	26.67	10.12	0.305	29.61	0
12/31/2018 19:45	3.945	26.07	5.922	0.528	29.61	0
12/31/2018 20:00	3.412	37.91	6.092	0.457	29.62	0
12/31/2018 20:15	1.268	57.86	10.88	0.426	29.62	0
12/31/2018 20:30	1.424	88.4	5.03	0.639	29.62	0
12/31/2018 20:45	2.643	136.8	20.74	0.904	29.62	0
12/31/2018 21:00	3.088	162.1	13.9	0.967	29.59	0
12/31/2018 21:15	3.206	177.9	5.01	1.048	29.59	0
12/31/2018 21:30	3.29	185.5	10.34	0.635	29.59	0
12/31/2018 21:45	3.593	162.1	8.89	0.288	29.59	0
12/31/2018 22:00	4.91	138.2	6.626	0.325	29.58	0
12/31/2018 22:15	4.629	142.8	9.56	0.734	29.58	0
12/31/2018 22:30	4.269	168.6	9.74	0.83	29.58	0
12/31/2018 22:45	3.028	165.7	13.76	0.624	29.58	0
12/31/2018 23:00	1.871	133.1	7.098	0.603	29.61	0
12/31/2018 23:15	2.24	153.2	6.281	0.492	29.61	0
12/31/2018 23:30	3.801	155.8	3.965	0.313	29.61	0

12/31/2018 23:45	3.859	143.8	7.517	0.031	29.61	0
43466	3.106	137.5	6.589	-0.08	29.57	0

APPENDIX D

Area 5 Top Deck Report

CEDAR HILLS REGIONAL LANDFILL
AREA 5 TOP DECK
MONITORING REPORT

Fourth Quarter 2018

King County

Department of Natural Resources and Parks
Solid Waste Division

March 2019
Printed on recycled paper

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AREA 5 TOP DECK MONITORING
QUARTERLY REPORT

FOURTH QUARTER 2018

I. REPORT OVERVIEW

This report provides the quarterly performance analysis of the interim soil cover system over Area 5 in the Cedar Hills Regional Landfill (CHRLF). The intent of the report is to demonstrate that the top deck cover system is functioning to limit infiltration of rainwater, protect surface water quality, and control landfill gas emissions. Monitoring of surface emissions, leachate quantity, and stormwater quality is conducted, and results are presented in this report.

II. LEACHATE MONITORING

Leachate monitoring is performed to demonstrate that the landfill cover system is effectively limiting rainwater infiltration and therefore leachate production.

King County Solid Waste Division (KCSWD) is no longer able to monitor leachate volume from Area 5. KCSWD staff continues to evaluate leachate volumes collected throughout the landfill. Table 1 presents a historical account of leachate generation at the site since 1986. The evaluation accounts for variations in rainfall by normalizing the leachate flows in terms of gallons discharged per inch of rainfall. The flow has also been normalized relative to pounds of waste in-place. These normalized values for the entire site are also included in Table 1.

TABLE 1
CEDAR HILLS REGIONAL LANDFILL LEACHATE PRODUCTION for FOURTH QUARTER of 2018

Year	Leachate	Surface Area of Refuse	Refuse In Place	Precipitation	Flow			
	(MG/yr)	(Acres)	(lbs)	(in/yr)	(gal/Acre/yr)	(gal/Acre/in)	(gal/lb/yr)	(gal/lb/in)
1986	163.03	138.5	11,328,841,100	54.79	1,177,112	21,484	0.0144	0.00026
1987	139.53	138.5	12,927,926,300	39.6	1,007,422	25,440	0.0108	0.00027
1988	169.67	161.9	14,525,504,000	48.63	1,048,009	21,551	0.0117	0.00024
1989	176	161.9	16,203,204,000	44.12	1,087,110	24,640	0.0109	0.00025
1990	294.75	161.9	17,965,254,000	71.6	1,820,594	25,427	0.0164	0.00023
1991	224.27	221.4	19,778,412,000	45.85	1,012,967	22,093	0.0113	0.00025
1992	156.46	221.4	21,454,600,000	38.64	706,694	18,289	0.0073	0.00019
1993	150.83	221.4	23,051,348,000	35.01	681,264	19,459	0.0065	0.00019
1994	159.8	221.4	24,657,528,000	38.55	721,764	18,723	0.0065	0.00017
1995	201.11	221.4	26,294,654,000	48.4	908,376	18,768	0.0076	0.00016
1996	243.03	221.4	27,946,704,000	57.08	1,097,714	19,231	0.0087	0.00015
1997	239.23	221.4	29,665,380,000	57.24	1,080,511	18,877	0.0081	0.00014
1998	202.8	221.4	31,432,828,000	42.82	916,006	21,392	0.0065	0.00015
1999	219.15	283.42	33,273,828,000	45.9	773,229	16,848	0.0066	0.00014
2000	148.82	283.42	35,167,828,000	33.15	525,102	15,840	0.0042	0.00013
2001	174.08	283.42	37,041,828,000	47.28	614,194	12,991	0.0047	0.0001
2002	133.4	283.42	38,919,828,000	35.13	470,690	13,399	0.0034	0.0001
2003	181.6	283.42	40,877,828,000	46.39	640,761	13,812	0.0044	0.0001
2004	185.72	328.72	42,889,828,000	34.08	564,983	16,578	0.0043	0.00013
2005	175.31	328.72	44,867,538,000	40.75	533,313	13,087	0.0039	0.0001
2006	264.95	328.72	46,820,938,000	52.94	806,009	15,225	0.0057	0.00011
2007	161.48	328.72	47,129,756,000	38.68	491,239	16,143	0.0034	0.000112
2008	126.02	328.72	48,990,990,000	42.32	383,366	9,059	0.0026	0.00006
2009	172.16	328.72	49,414,219,997	42.42	523,741	12,347	0.0035	0.00008
2010	199.4	335.72	51,076,043,997	49.25	593,959	12,060	0.0039	0.00008
2011	180.2	353.12*	52,701,411,694	51.05	510,308	9,996	0.0034	0.00007
2012	202.3	353.12*	54,315,239,773	58.16	572,972	9,852	0.0037	0.00006
2013	156.4	353.12*	55,933,569,773	47.77	442,923	9,272	0.0028	0.00006
2014	189.14	353.12*	57,638,062,970	64.07	535,631	8,360	0.0033	0.00005
2015	176.26	353.12*	59,401,111,988	51.39	499,159	9,713	0.0030	0.00006
2016	180.32	353.12*	61,277,452,914	51.43	510,659	9,929	0.0029	0.00006
2017	218.18	353.12*	63,183,738,844	57.54	617,853	10,738	0.0035	0.00006
2018	175.71	353.12*	65,090,024,774	33.83	497,597	14,709	0.0027	0.00008

2018: Precipitation, leachate and refuse in place through 4th Quarter of 2018
* The 353.12 acre value was a plan view area calculated by AUTOCAD, using the area inquiry feature of a closed polyline.

III. SURFACE MONITORING

KCSWD's plan for monitoring the surface of the Area 5 Top Deck is comprised of three (3) components:

1. Landfill gas inspections and surface emissions monitoring;
2. Top Deck Surface Inspections; and,
3. Settlement monitoring.

The purpose of this monitoring is to detect any conditions affecting the cover system that may permit landfill gas emissions, leachate seeps, or excessive or differential settlement.

Landfill Gas Inspections

Each quarter, monthly inspections of the gas system, stormwater system, and cover system of Area 5 are performed by the KCSWD staff. During the fourth quarter of 2018 all inspections and maintenance work was performed by KCSWD staff as planned. A summary of this work can be found in Appendix A: Inspection Reports.

Also throughout the fourth quarter of 2018, KCSWD staff performed monthly Landfill Facility Site Inspections. These inspections are also included in Appendix A. During the fourth quarter, erosion control measures continued to be implemented and/or maintained to mitigate runoff effects from on-going construction activities at the landfill.

Air Quality Criteria

Each quarter, surface emission monitoring is conducted across the Area 5 Top Deck and its side slopes to verify that methane gas emissions are below regulatory criteria. The third quarter of 2018 surface emission monitoring was conducted from December 17 through December 31, 2018. There were no exceedances of regulatory criteria observed during the Serpentine Walk.

The results from the fourth quarter of 2018 surface emission monitoring can be found in Appendix B: Gas Monitoring Reports, along with a plot of GPS generated track lines.

Top Deck Surface Inspections

Visual inspections for indications of leachate seeps are conducted each quarter by KCSWD personnel in conjunction with the surface emissions monitoring and monthly inspections. No indications of leachate seeps were recorded during the fourth quarter of 2018 by KCSWD staff, or by PHSKC personnel.

Settlement Monitoring

Settlement of Area 5 is evaluated both through visual inspections and through topographic surveys at control points on the top deck. Due to the preparation work for the closure of Area 7 and the opening on Area 8, all previously surveyed control points in Area 5 have now been covered. New locations are currently being evaluated as survey control points in order to continue settlement monitoring within Area 5.

Tables 2 and 3 at the conclusion of this report show historical monitoring point elevations and settlement estimates for Area 5, respectively.

TABLE 2

CEDAR HILLS REGIONAL LANDFILL AREA 5 SURFACE SURVEY DATA for 3rd QUARTER of 2018

A5SM-1 [a]		A5SM-2 [b]		A5SM-3 [c]		PMX20074 [d]	
Date	Elevation	Date	Elevation	Date	Elevation	Date	Elevation
10/4/2005	699.18	10/4/2005	785.17	--	--	--	--
2/1/2006	697.7	2/1/2006	782.52	--	--	--	--
6/27/2006	696.51	6/27/2006	780.48	--	--	--	--
2/14/2007	694.53	--	--	2/14/2007	786.4	--	--
--	--	4/20/2007	776.95	4/20/2007	786.25	--	--
7/24/2007	693.34	7/24/2007	775.63	7/24/2007	785.68	8/16/2007	781.56
2/29/2008	691.77	2/29/2008	773.44	2/29/2008	784.87	2/29/2008	780.1
7/29/2008	691.26	7/29/2008	772.2	7/29/2008	784.31	7/29/2008	779.13
11/24/2008	690.61	11/24/2008	771.29	11/24/2008	783.76	11/24/2008	778.21
4/6/2009	690.16	4/6/2009	770.35	4/6/2009	783.35	4/6/2009	777.41
7/9/2009	689.77	7/9/2009	769.79	7/9/2009	783.05	7/9/2009	776.99
12/22/2009	689.13	12/22/2009	768.6	12/22/2009	782.44	12/22/2009	776.1
3/1/2010	688.77	3/1/2010	768.05	3/1/2010	782.08	3/1/2010	775.81
8/2/2010	688.6	8/2/2010	767.28	8/2/2010	781.78	8/2/2010	775.29
12/21/2010	688.1	12/21/2010	766.53	12/21/2010	781.25	12/21/2010	774.79
4/6/2011	687.83	4/6/2011	765.86	4/6/2011	780.94	4/6/2011	774.42
8/8/2011	687.46	8/8/2011	765.34	8/8/2011	780.66	8/8/2011	774.19
1/23/2012	687.19	1/23/2012	764.53	1/23/2012	780.26	1/23/2012	773.79
5/18/2012	686.78	5/18/2012	763.99	5/18/2012	779.9	5/18/2012	773.41
7/12/2012	686.69	7/12/2012	763.83	7/12/2012	779.69	7/12/2012	773.26
11/2/2012	686.55	11/6/2012	763.35	11/2/2012	779.56	--	--
5/22/2013	686.09	5/22/2013	762.77	5/22/2013	779.09	--	--
--	--	8/8/2013	762.53	9/5/2013	779.66	--	--
--	--	2/19/2014	762.06	2/19/2014	777.68	--	--
--	--	2/9/2015	761.09	2/9/2015	777.63	--	--
--	--	4/6/2015	761.11	4/6/2015	777.51	--	--
--	--	7/2/2015	760.96	7/2/2015	777.38	--	--
--	--	10/27/2015	760.62	10/27/2015	777.12	--	--
--	--	2/3/2016	760.35	2/3/2016	776.83	--	--
--	--	4/12/2016	760.35	4/12/2016	776.87	--	--
--	--	7/11/2016	760.15	7/11/2016	776.68	--	--
--	--	12/21/2016	759.85	12/21/2016	776.43	--	--
--	--	5/31/2017	759.56	5/31/2017	776.23	--	--
--	--	8/28/2017	759.38	--	--	--	--
--	--	11/27/2017	759.28	--	--	--	--
--	--	2/15/2018	759.10	--	--	--	--

[a] A5SM-1 was destroyed by filling Area 7 during Lift 4.
[b] A5SM-2 Destroyed by Area 8 excavation stockpile spring of 2018.
[c] A5SM-3 NEW as of 2/14/2007. Destroyed by Area 8 excavation stockpile in 08/2017.
[d] PMX20074 was destroyed during Phase 3 of Area 6.

TABLE 3

CEDAR HILLS REGIONAL LANDFILL AREA 5 SETTLEMENT for 3rd QUARTER of 2018

Settlement Monitoring Locations	Units	SETTLEMENT DATE RANGE (MM/YYYY)											
		06/2006 - 07/2007	07/2007 - 07/2008	07/2008 - 07/2009	07/2009 - 08/2010	08/2010 - 08/2011	08/2011 - 07/2012	07/2012- 05/2013	05/2013- 02/2014	02/2014- 02/2015	02/2015- 02/2016	02/2016- 05/2017	05/2017- 02/2018
A5SM-1	**Feet**	3.17	2.08	1.49	1.17	1.14	0.77	0.60	N/A	N/A	N/A	N/A	N/A
A5SM-2	**Feet**	4.85	3.43	2.41	2.51	1.94	1.51	1.06	0.71	0.97	0.74	0.79	0.46
A5SM-3	**Feet**	N/A	1.37	1.26	1.27	1.12	0.97	0.60	1.41	0.05	0.8	0.6	N/A
PMX2007-4	**Feet**	N/A	2.43	2.14	1.7	1.1	0.93	N/A	N/A	N/A	N/A	N/A	N/A
Average Settlement for Area 5	**Feet/Date Range**	4.01	2.33	1.83	1.66	1.33	1.05	0.75	1.06	0.51	0.77	0.70	0.46
	Feet/Month	0.33	0.19	0.15	0.14	0.11	0.09	0.06	0.09	0.04	0.06	0.06	0.04

IV. STORMWATER SAMPLING

Collection of Samples

One sample was collected in the fourth quarter from the Area 5 Top Deck stormwater monitoring station SW-TD1; monitoring stations SW-TD2, SW-TD4, and SW-TD6 were not sampled. This was due to a multiple factors including low precipitation throughout the fourth quarter and sampling stations being destroyed or inaccessible during construction. Comparison leachate samples were taken at location LS-API each month of the quarter. Fourth Quarter 2018 comparison stormwater samples were not taken, as monthly monitoring of surface water sites was discontinued as of January 1st, 2016 per the new Sampling & Analysis Plan (SAP) for the CHRLF. To address this lack of comparative data, the decision was made that the most recent full-year (2015) data available from surface water site SW-S1 would be averaged and used as the comparison basis.

All samples were collected and analyzed in accordance with the Area 5 Top Deck Stormwater Runoff Monitoring Plan. Figure 2 shows the locations of the Area 5 sampling stations.

Stormwater Sample Evaluation

Stormwater runoff monitoring locations, field measurements, and laboratory analyses evaluated in this report are intended to assess whether the stormwater runoff from the top deck has been contaminated by the underlying waste. Stormwater was collected either during or following significant storm events from four locations on or near the top deck of Area 5. These data are compared to surface water data collected from a location upstream of waste placement activities (monitoring location SW-S1 2015 averaged data).

Stormwater quality is also compared to the leachate quality as collected from the inflow into the aeration ponds (LAPI).

The analytes for the top deck stormwater runoff are iron, sulfate, chemical oxygen demand, total organic carbon, alkalinity, and chloride. The stormwater quality results are screened against existing surface water quality criteria (WAC 173-201A) and Benchmarks for the Washington State Industrial Stormwater General Permit. Applicable criteria/benchmarks are listed in Table 4. **TABLE 4**

Water Quality Criteria/Benchmarks For Applicable Parameters

Parameter	Numerical Criterion	Source
pH	6.5 to 8.5	WAC 173-201A-200
	5 to 9	Industrial Stormwater General Permit
Turbidity	Less than 10 NTU above background if background turbidity is 50 NTU or less, or a 10% increase in turbidity when the background is > 50 NTU.	WAC 173-201A-200
	25 NTU	Industrial Stormwater General Permit
Temperature	20°C	WAC 173-201A-200
Iron	1.0 mg/L	EPA 440/5-86-001 Quality Criteria for Water 1986

A. RESULTS DISCUSSION

Field measurements and analytical results from the stormwater sampling and analyses performed as part of this monitoring plan are summarized in Tables 5 and 6. Leachate results are presented in Table 7.

The following is a parameter by parameter discussion of the top deck monitoring results. For each parameter, its importance in evaluating surface water, comparison to other onsite surface water, and comparison to representative leachate is discussed.

pH **-** pH levels in surface water can be affected by many factors, especially photosynthetic activity and the respiration of waterborne flora. This process can potentially decrease the night-time pH level to 4.5 and during peak daytime activity can drive the pH levels above 10.

The benchmark range for pH is 6.5 to 8.5 standard pH Units.

- pH results were within the acceptable range per the applicable water quality criteria.

Specific Conductance - Specific Conductance is the ability of water to conduct electrical current. This property is related to dissolved ion concentration, charge, ion mobility, and water temperature. Specific conductance measurements can provide indications of water contamination by a non-specific measure of increased ionic solute load.

There are no benchmarks or criteria for specific conductance.

Temperature - Water temperature criteria are established for the protection of aquatic life, and vary between bodies of water based on use categories designated.

Temperature criteria are established for the protection of aquatic life, and vary between bodies of water based on use categories designated, per WAC 173-201A-200.

- Temperature results for all locations were below the designated limit per the applicable water quality criteria.

Turbidity - Turbidity is one of the indicators used to assess the environmental health of water bodies. Turbidity is caused by the presence of suspended and dissolved matter, such as clay, silt, finely divided organic matter, plankton and other microscopic organisms.

Turbidity criteria are established for the protection of aquatic life, and vary between bodies of water based on use categories designated, per WAC 173-201A-200.

The Industrial Stormwater General Permit (ISGP) benchmark for turbidity is 25 NTU.

- Turbidity was measured below the designated water quality critera.

Chemical Oxygen Demand - Chemical Oxygen Demand (COD) is used to indirectly measure the amount of organic compounds in water.

There are no benchmarks or criteria for COD.

Total Organic Carbon - Total organic carbon (TOC) is the amount of carbon bound in an organic compound and is often used as a non-specific indicator of water quality. While COD is the measurement of all substances in the water that can be oxidized, TOC is the measurement of organically bound carbon.

There are no benchmarks or criteria for TOC.

Alkalinity - Alkalinity is the measure of the capacity of water to neutralize acids (aka buffer capacity). The alkalinity of natural waters is controlled primarily by the equilibria of the carbonate system. It is produced by dissolved CO_2 acting upon alkaline materials in the soil to produce bicarbonate (HCO_3^-) and carbonate (CO_3^{2-}). The source(s) of CO_2 can vary, including: atmospheric; respiration of water borne organisms or decay of organic matter; or contribution from landfill gas. Increased turbidity can also potentially increase alkalinity.

There are no benchmarks or criteria for alkalinity.

Chloride - Chloride is a conservative anion; that is, processes of adsorption, ion exchange, or biological uptake do generally not retard transport of chloride. Chloride is the best indicator for determining impacts from leachate. Chloride is one of the major anions to be found in water and sewage. Potable water should not exceed 250 mg/L of chloride.

There are no benchmarks or criteria for chloride.

Sulfate - Sulfate (SO_4^{2-}) can be found in almost all natural water and is one of the major dissolved components of rain. It is formed by the oxidation of sulfite ores and is a component in industrial and domestic waste waters. There are few elements that will form insoluble salts with sulfate, thus; once in solution, it remains so unless it is anaerobically reduced to sulfide.

There are no benchmarks or criteria for sulfate.

Iron - Iron is the fourth most abundant element in the earth's crust and the most abundant heavy metal. It is present in the environment mainly as Fe(II) or Fe(III). Iron is more soluble in the reduced state than it is in the oxidized state, where it often occurs as an iron oxide mineral (Fe_2O_3). At a pH above 7, iron exists mostly as insoluble salts which settle out or are adsorbed onto surfaces. The concentration of iron in well-aerated waters is seldom high. Under reducing conditions, which are most commonly caused by oxidation reactions involving organic matter, water will have higher concentrations of dissolved iron.

- Total Iron measurements were recorded below applicable water quality standards.

B. RESULTS COMPARISON

The Top Deck stormwater runoff exhibited higher than average values versus historical surface water samples for most parameters in the fourth quarter of 2018.

All parameters are likely elevated from recent erosion control issues related to the stockpiling of soils on top of Area 5. Upon comparison with surface water and leachate samples, overall the runoff from the Top Deck more closely resembles surface water than leachate.

Also considered during evaluation is the possible impact of landfill gas on water quality. Elevated alkalinity (i.e. over 150 mg/L) can indicate a landfill gas contribution to the sample (due to the dissolution of carbon dioxide in water). The alkalinity at SW-TD1 was slightly higher than this screening criteria during the first quarter of 2018. The serpentine monitoring for LFG emissions did not show any detections in this area. KCSWD will continue to monitor for any continuance of elevated alkalinity. Generally, analysis of the data indicates that landfill gas and leachate are not contributing to increases in parameters; however, continuing exposed soil runoff is likely impacting water quality.

TABLE 5

Area 5 Top Deck - 4Q2018 Stormwater Monitoring Results

Location	Date	Sample ID	Specific Conductance	pH units	Temp	Turbidity	Alkalinity	Chemical Oxygen Demand	Chloride	Dissolved Iron	Total Iron	Sulfate	Total Organic Carbon
			µmhos/cm	pH units	deg °C	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
SW-TD1	12/27/2018	STD1181227-	261.9	7.04	4.27	18.2	79.4	14 T	2.93	0.0216	0.789	42.8	5.81
SW-TD2	--	--	--	--	--	--	--	--	--	--	--	--	--
SW-TD4	--	--	--	--	--	--	--	--	--	--	--	--	--
SW-TD6	--	--	--	--	--	--	--	--	--	--	--	--	--
		Average Value =	262	7.0	4.3	18	79.4	14.0	2.9	0.02	0.8	42.8	5.8

U = UNDETECTED, ANALYTE CONCENTRATION <MDL

TABLE 6

SW-S1 - 2015 Stormwater Comparison Monitoring Results

Location	Date	Sample ID	Specific Conductance (Field)	pH units (Field)	Temp (Field)	Turbidity (Field)	Alkalinity	Chemical Oxygen Demand	Chloride	Dissolved Iron	Total Iron	Sulfate	Total Organic Carbon
			µmhos/cm	pH units	deg °C	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
SW-S1	1/20/2015	SS1-150120Q	55	7.32	6.7	1.07	11.3	5	2.28	0.012	0.02	2.15	3.27
SW-S1	2/23/2015	SS1-150223M	52	7.31	5.4	0.6	13.4	6.1	2.32	0.01	0.023	2.24	2.2
SW-S1	3/16/2015	SS1-150316M	49	7.13	8.8	2.14	11.9	8.4	1.7	0.027	0.05	1.86	3
SW-S1	4/22/2015	SS1-150422Q	49	6.83	9.4	3.16	17.5	5.7	2.18	0.014	0.029	1.85	2.78
SW-S1	5/19/2015	SS1-150519M	53	6.71	12.4	2.08	19.7	5.5	2.2	0.036	0.0582	0.919	3.34
SW-S1	11/18/2015	SS1-151118Q	65	6.44	8.1	0.42	8.11	9.2	2.69	0.014	0.018	3.32	4.47
SW-S1	12/14/2015	SS1-151214M	53	6.47	7	0.58	7.44	8.6	2.6	0.012	0.017	2.43	3.74
		Average Value =	54	6.9	8.3	1.4	12.8	6.9	2.3	0.018	0.03	2.1	3.3

U = UNDETECTED, ANALYTE CONCENTRATION <MDL

TABLE 7

Leachate Pond Inflow - 4Q2018 Monitoring Results

Location	Date	Sample ID	Specific Conductance (Field)	pH units (Field)	Temp (Field)	Turbidity (Field)	Alkalinity	Chemical Oxygen Demand	Chloride	Dissolved Iron	Total Iron	Sulfate	Total Organic Carbon
			µmhos/cm	pH units	deg °C	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LS-API	10/1/2018	LAPI181001M	5800	8.36	18	--	8290	6170 S	2100	2.66	8.26	27.1	2190 S
LS-API	11/6/2018	LAPI181106M	8000	7.65	18.2	--	2580 S	1830	653 S	2.06	4.31	26.1 S	480 ST
LS-API	12/10/2018	LAPI181210M	3200	8.17	12	--	6080	4260 S	1720	3.43	4.42	19.7	1390 S
		Average Value =	5667	8.1	16.1	0.0	7185	10480	1910	2.7	5.7	23.4	3527

S = INDICATES A SAMPLE HANDLING OR HOLD TIME ERROR

NOTE: LEACHATE IS NOT TYPICALLY ANALYZED (NA) FOR TURBIDITY

V. CONCLUSION

Stormwater samples for the Area 5 Top Deck were unable to be collected during the third quarter of 2018 due to a lack of sufficient precipitation during the quarter. This observation was in line with historical regional precipitation levels for the summer months. Therefore, no determinations can be made regarding Area 5's third quarter 2018 stormwater runoff with respect to exceedances of water quality criteria or benchmarks, nor can comparisons be made with background surface water flow (from SW-S1), and leachate effluent (from LS-API).

The inspection reports for the third quarter of 2018 showed no issues with the interim cover system for Area 5 and no indication of LFG presence.

Due to survey control points being covered, there is no settlement survey data for third quarter of 2018. New survey points will be assessed for future monitoring.

The recent compliant historical performance trend for Area 5, coupled with ongoing inspection results verifying the integrity of the cover all provides evidence that the Area 5 Top Deck Interim Cover System continues to function to prevent interaction between refuse and storm water runoff from the Top Deck of Area 5.

Figures



LEGEND:

○ ACTIVE MONITORING STATION

AERIAL FLOWN SEPTEMBER 2014

DATE	REVISION	BY

KING COUNTY DEPARTMENT OF
NATURAL RESOURCES AND PARKS
SOLID WASTE DIVISION

CEDAR HILLS REGIONAL LANDFILL
SETTLEMENT MONITORING LOCATIONS

APPROVED VOO DATE Feb 2014
RECOMMENDED _____ DATE _____
DESIGNED _____ DRAWN _____
PROJECT NO. _____ SURVEY NO. _____ SHEET 1 OF 1

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SCALE IN FEET

AREA 5 TOP DECK STORMWATER MONITORING STATION

STATION NUMBER	STATION DESCRIPTION
SW–A5TD1	NORTHEAST PORTION OF AREA 5 TOP DECK WHERE RUNOFF FROM THE TOP DECK EXITS AN 18–INCH CULVERT. SAMPLING TO BE PERFORMED AT THE OUTLET OF THE CULVERT.
SW–A5TD2	NORTH SLOPE OF AREA 5 WHERE RUNOFF, FROM THE NORTH SLOPE FLOWING IN A ROADSIDE DITCH, DRAINS INTO A 12–INCH CULVERT. SAMPLING TO BE PERFORMED AT THE OUTLET OF THE CULVERT.
SW–A5TD3*	WEST OF THE AREA 5 TOP DECK, WITHIN THE SCRAPER ROAD 5 ROADSIDE DITCH AT THE OUTLET END OF A TEMPORARY 12–INCH PIPE. THE TEMPORARY 12–INCH PIPE IS IN PLACE, BECAUSE THE WEST SIDESLOPE GEOMEMBRANE DOES NOT CURRENTLY HAVE COVER SOIL. ONCE THE COVER SOIL IS IN PLACE, THE PIPE WILL BE REMOVED AND THE SAMPLE LOCATION WILL NO LONGER BE SAMPLED.
SW–A5TD4	CENTER OF THE WEST PORTION OF AREA 5 TOP DECK WHERE RUNOFF FROM THE TOP DECK DRAINS INTO THE "VALLEY" RUNNING EAST TO WEST. SAMPLING TO BE PERFORMED AT THE INLET OF THE "VALLEY" DITCH.
SW–A5TD5*	THE OUTLET END OF A TEMPORARY 12–INCH HDPE PIPE THAT CONVEYS RUNOFF FROM THE SOUTHWEST CORNER OF THE AREA 5 TOP DECK. THE TEMPORARY 12–INCH PIPE IS IN PLACE, BECAUSE THE SOUTH SIDESLOPE GEOMEMBRANE DOES NOT CURRENTLY HAVE COVER SOIL. ONCE THE COVER SOIL IS IN PLACE, THE PIPE WILL BE REMOVED AND THE SAMPLE LOCATION WILL NO LONGER BE SAMPLED, BECAUSE FLOW IN THE ROADSIDE DITCH AT THIS LOCATION WILL NO LONGER CONTAIN RUNOFF FROM THE AREA 5 TOP DECK.
SW–A5TD6	WEST OF THE AREA 5 TOP DECK, WITHIN THE SCRAPER ROAD 5 ROADSIDE DITCH. THIS SAMPLE POINT RECEIVES TOP DECK FLOW FROM TWO SIDESLOPE DITCHES THAT INTERSECT AT THE SAMPLE LOCATION.

*STATIONS SW–A5TD3 AND SW–A5TD5 WERE TEMPORARY STORMWATER MONITORING STATIONS THAT CEASED TO EXIST AS OF JULY 16, 2007.

LEGEND:

STORMWATER MONITORING STATION

P:\ACAD\PROJECT\King County\Area Expansion Proposal\CARLA WORK\ Figure 1.dwg Aug 01, 2007 - 3:18pm

Figure 1

Area 5 Top Deck Stormwater Monitoring Stations

Cedar Hills Regional Landfill
Area 5 Stage 4 Final Closure
King County, Washington

Appendix A:
Inspection Reports

SOLID WASTE DIVISION

Landfill Facility Site Inspections

Type – Permit Compliance

Inspected By: Stevn Larry Date: 10/22/18

Location: CEDAR HILLS Ambient Temperature (°F) 40 Weather Condition: Foggy

ACTION CODES

A. Gas System	OK	Not OK
1. Pipe Penetrations	X	
2. Collection Piping	X	
3. Gas Extraction Wells	X	
4. Valve Stations	X	
5. Odor		X
6. Flare Stations	X	
7. Air Compressors	X	
8. Noise Control	X	

D. Stormwater System		
1. Ponds	X	
2. CB / Control Structures	X	
3. Pipes / Culverts		X
4. Trash Racks	X	
5. Ditches		X
6. Runoff Control Berms	X	
7. Discharge Points	X	
8. General	X	

G. Operations		
1. Records Obtain / Review	X	

B. Leachate System	OK	Not OK
1. Pump Stations	X	
2. Aeration Lagoons / Basins	X	
3. Aerators		
4. Weeps (strip drains)	X	
5. Collection System	X	
a. Collection Pipes	X	
b. Forcemains	X	
c. Manholes	X	
d. Cleanouts	X	
6. Generators		X
7. Extraction Wells	X	
8. Valve / Cleanout	X	
9. Groundwater Extraction Wells		X

E. Roadway System		
1. Road Sweeping	X	
2. Access Roads	X	
3. Road Erosion		
4. Road Pavement		X
5. Lane Striping	X	

C. Landfill Operations	OK	Not OK
1. Fueling Stations	X	
2. Vehicle Wash Stations	X	
3. Equipment	X	
4. Perimeter Fences	X	
5. Vegetation		X
6. Landfill Cover	X	
7. Drain Rock	X	
9. Air Quality		X
10. Stockpiles	X	
11. Vectors	X	
12. Litter		X
13. Dust control	X	
14. Other	X	

Cover System / ESC		
F. Vegetation	X	
1. Refuse	X	
2. Cover Erosion	X	
3. Silt Fences/Filter Fabric	X	

Item No.	Action Code(s)	Area Code(s) (See below or over for map) Area	Map	Status G	F	P	State Reason if "Fair or Poor"	Date Corrective Action Implemented
1	A5		E(3,4)		X		Odor in the air along the West Haul road. We are currently filling along that side. The Odor Boss is down for mechanical issues.	
2	D3		(E&F)-2		X		Accumulating garbage in the stormwater ditch along the West Haul road of Area 7. We are still having issues with the CSW drainage off of Area 7 in the culvert and litter in the ditch is adding to the problem of keeping the stormwater clean.	
3	D5		F-2		X		Same as above	

4	B9		E-6		X		There may be a broken underground waterline running from the fire tank to the adjacent fire hydrant. The area is water soaked for no apparent reason and the ground is water logged and surface water is beginning to flow into the nearby electrical control structures. (This issue will be identified for a CAMP investigation and repair item).	
5	B6		G-5		X		Dirty oil spill towels need removing from under the generators located behind the Engineering trailer. The blackberry vines in the fenced area need cutting for better access.	
6	E4		G(4&5)		X		The pavement around the trailer hosteling area across from the Front Office and by the Truck Wash and surrounding stormwater drop inlets are beginning to break up and pot holes are beginning to form. The nothing but rain down the drain signs need replacing. (This issue will be identified for a CAMP investigation and repair item).	
7	C5		G5		X		The vegetation around Wade's old office, by the Utility Crew loading dock and by the Diver's Trailer needs blackberry vines cut/ removed from being a tripping hazard.	
8					X		Multiple road signs are down and need erecting. 1 along the road by BEW headed toward the Water Tower, 1 by non-potable well 1 & 3.	

AREA CODES (for Cedar Hills) G = Good F = Fair P = Poor

East Main Hill = EMH
Southwest Main Hill = SWMH
Southeast Pit Area = SEPA
Central Pit = CP

Area 2/3 = A2/3
Area 4 = A4
Stockpile = SP

Aeration Ponds = AP
So. Solid Waste Area = SSWA
North Flare Station = NFS

Area 5 = A5
Area 6 = A6
Area 7 = A7

State the needs of the repairs in the suggested remedy box.

1. *Regulatory Priority* - permit, regulations & code & compliance driven.
2. *Safety Priority* – potential to adversely affect the safety of workers or the related environment.
3. *Maintenance Priority* – Ensures continuation of existing level of facility operations to ensure proper efficiency without interruption. This priority has the following four potential levels
   a. *Emergency* - stops the continuing operation of the facility
   b. *Urgent* – While not completely prohibiting continuing use of the facility, may threaten use of entire facility or continuing use may results in significant & extensive repair of facility.
   c. *Routine* – need to be completed & not necessarily. May be completed under existing operations preventative programs.
   d. *Deferred* – desirable but not required to maintain status quo operations (e.g., planting or wild life enhancement projects etc.)

Overall site description day of site inspection: There are areas of improvement that are needed, by overall the site appears well maintained. 1) The Odor Boss is down for repairs and SWD is currently filling along the West side of Area 7 and there is a strong odor present. 2) The stormwater ditch along the West Haul Road across from the energy dissipater has accumulated trash along its entire length that needs to be removed. 3) The generators located behind the Engineering trailer has spill recovery towels that are oil soaked and need to be removed. 4) The blackberry vines around Wade's office trailer, the loading dock and the Driver Trailer steps need removing.

Photos and their description taken during the site inspection can be located at: P:\SWPublic\CHL_Public\CH Monthly Site Inspections\SW Inspections\SW Inspection 18\10 Oct

Category number:	Action to be Completed. Suggested Remedy:
Category number:	Action to be Completed. Suggested Remedy:
Category number:	Action to be Completed. Suggested Remedy:
Category number:	Action to be Completed. Suggested Remedy:

SWPPP Modifications Necessary? (circle **Y** or **N**) Potential Pollutant Sources **Y / N** Site Map **Y / N**
If **Y**, *log changes in Appendix I of SWPPP.*

INSPECTION REPORT SIGNATURE PAGE

INSPECTOR / QUALIFIED PERSONNEL

Based on professional judgment, which of the following statements is true: (select one)

X *The site is in compliance with the terms and conditions of the SWPPP and the ISGP.*

___ *The site is NOT in compliance with the terms and conditions of the SWPPP and the ISGP*.*

* Immediately notify Environmental Compliance Coordinator

I certify that this report is true, accurate and complete, to the best of my knowledge and belief.

Printed name: Stevn Larry, Engineer II

Signature: _____ Date: 10/22/18

DULY AUTHORIZED REPRESENTATIVE

Based on professional judgment, which of the following statements is true: (select one)

___ *The site is in compliance with the terms and conditions of the SWPPP and the ISGP.*

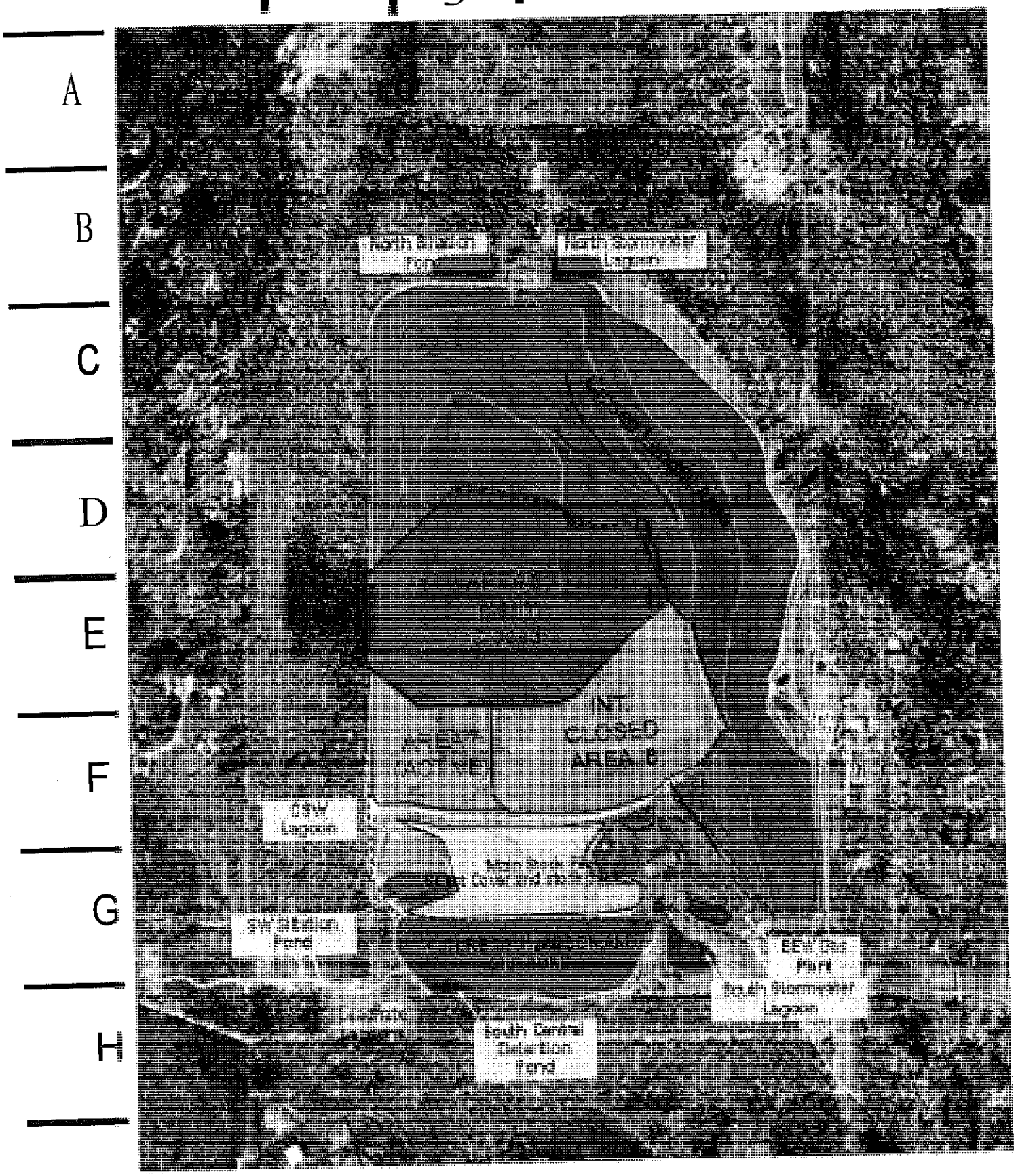
___ *The site is NOT in compliance with the terms and conditions of the SWPPP and the ISGP*.*

* Immediately notify Environmental Compliance Coordinator

I certify under penalty of law that this SWPPP and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate information to determine compliance with the Industrial Stormwater General Permit. Based on my inquiry of the person or persons who are responsible for stormwater management at my facility, this SWPPP is, to the best of my knowledge and belief, true, accurate, and complete, and in full compliance with Permit Conditions S3 and S8, including the correct Best Management Practices from the applicable Stormwater Management Manual. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Printed name: Bill Berni, Operations Manager

Signature: _____ Date: 10/25/18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G
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North Stormwater Lagoon
INT. CLOSED AREA 8
CSW Lagoon
SW Siltation Pond
South Central Detention Pond
South Stormwater Lagoon

SOLID WASTE DIVISION

Landfill Facility Site Inspections

Type – Permit Compliance

Inspected By: Stevn Larry Date: 11/26/18

Location: CEDAR HILLS Ambient Temperature (°F) 40 Weather Condition: Rain, heavy most of the time

ACTION CODES

A. Gas System	OK	Not OK	B. Leachate System	OK	Not OK	C. Landfill Operations	OK	Not OK
1. Pipe Penetrations	X		1. Pump Stations	X		1. Fueling Stations	X	
2. Collection Piping	X		2. Aeration Lagoons / Basins	X		2. Vehicle Wash Stations	X	
3. Gas Extraction Wells	X		3. Aerators	X		3. Equipment	X	
4. Valve Stations	X		4. Weeps (strip drains)	X		4. Perimeter Fences	X	
5. Odor	X		5. Collection System	X		5. Vegetation	X	
6. Flare Stations	X		a. Collection Pipes	X		6. Landfill Cover	X	
7. Air Compressors	X		b. Forcemains	X		7. Drain Rock	X	
8. Noise Control	X		c. Manholes	X		9. Air Quality	X	
			d. Cleanouts	X		10. Stockpiles	X	
D. Stormwater System			6. Generators	X		11. Vectors	X	
1. Ponds		X	7. Extraction Wells	X		12. Litter		X
2. CB / Control Structures		X	8. Valve / Cleanout	X		13. Dust control	X	
3. Pipes / Culverts		X	9. Groundwater Extraction Wells	X		14. Other	X	
4. Trash Racks		X						
5. Ditches			**E. Roadway System**			**Cover System / ESC**		
6. Runoff Control Berms		X	1. Road Sweeping		X	**F.** Vegetation	X	
7. Discharge Points		X	2. Access Roads	X		1. Refuse		X
8. General		X	3. Road Erosion	X		2. Cover Erosion	X	
			4. Road Pavement		X	3. Silt Fences/Filter Fabric	X	
G. Operations			5. Lane Striping	X				
1. Records Obtain / Review	X							

Item No.	Action Code(s)	Area Code(s) (See below or over for map) Area	Map	Status G	F	P	State Reason if "Fair or Poor"	Date Corrective Action Implemented
1	D1	B3 & G5				X	Cedar Hills has experienced several large storms that dumped over an 1"+ of rain within a 24 hour period. During this site inspection, sediment and erosion control combined with accumulated windblown litter were the items most needing attention. Erosion from Area 7 construction and from the Area 6W soil stock piles are causing surface water channels and ponds to turn brown. The Area 6W surface water flows going to the South Stormwater Lagoon is loading the pond with turbid water.	

1	D1	B3 & G5				X	The South Stormwater Lagoon outlet structure has been closed to increase flow retention time and reduced the sediment load before being released. The Area 7 construction erosion flows begin at the construction between Area 7 and Area 5 flows are directed north to the North Stormwater Pond. The flows start off sediment laden, but clear before reaching the N-pond. The N-pond is chocolate brown from sediment collected from earlier storms that was not removed during the dry season.	
2	E1	(D,E,F)-2				X	Truck drivers are by-passing the wheel wash on their way out. Sediment drag out from the haul trucks leaves the road surfaces, from the fill site all along the haul road ending close to the Area 8 down to construction site, dirty with mud and rock. Operations has directed the installation of ecology blocks to funnel all truck traffic through the wheel wash when leaving the fill area. Operations Waste Water will now increase the number of wheel wash cleaning out cycles to a minimum of 2 a week. Scarsella is operating sweeper trucks along the haul road to removed road sediment from drag out.	
3		C-12 & F-1			X		There is accumulating windblown litter in the stormwater conveyance ditches between Area 7 and Area 5 just east of Scrapper Road 5. This is the same area where the erosion scour source that is feeding turbid water to the N-stormwater pond.	

AREA CODES (for Cedar Hills) G = Good F = Fair P = Poor

East Main Hill = EMH
Southwest Main Hill = SWMH
Southeast Pit Area = SEPA
Central Pit = CP
Area 2/3 = A2/3
Area 4 = A4
Stockpile = SP
Aeration Ponds = AP
So. Solid Waste Area = SSWA
North Flare Station = NFS
Area 5 = A5
Area 6 = A6
Area 7 = A7

State the needs of the repairs in the suggested remedy box.

1. *Regulatory Priority* - permit, regulations & code & compliance driven.
2. *Safety Priority* – potential to adversely affect the safety of workers or the related environment.
3. *Maintenance Priority* – Ensures continuation of existing level of facility operations to ensure proper efficiency without interruption. This priority has the following four potential levels
   a. *Emergency* - stops the continuing operation of the facility
   b. *Urgent* – While not completely prohibiting continuing use of the facility, may threaten use of entire facility or continuing use may results in significant & extensive repair of facility.
   c. *Routine* – need to be completed & not necessarily. May be completed under existing operations preventative programs.
   d. *Deferred* – desirable but not required to maintain status quo operations (e.g., planting or wild life enhancement projects etc.)

Overall site description day of site inspection: The site appears clean and maintained, but the road surfaces are dirty from vehicle track out that originates from the face of the fill, southward to Area 8. BMP's are needed to be increased to reduce stormwater laden soils in the stormwater ditches that are currently flowing silty. Additional road sweepings have been scheduled and the vehicle wheel wash has been modified to funnel all truck traffic through the wheel wash to reduce track out causing the dirty road surfaces.

Photos and their description taken during the site inspection can be located at: P:\SWPublic\CHL_Public\CH Monthly Site Inspections\SW Inspections\SW Inspection 18\11 Nov

Category number:	Action to be Completed. Suggested Remedy:
Category number:	Action to be Completed. Suggested Remedy:
Category number:	Action to be Completed. Suggested Remedy:
Category number:	Action to be Completed. Suggested Remedy:

SWPPP Modifications Necessary? (circle **Y** or **N**) Potential Pollutant Sources **Y / N** Site Map **Y / N**
If **Y**, *log changes in Appendix I of SWPPP.*

INSPECTION REPORT SIGNATURE PAGE

INSPECTOR / QUALIFIED PERSONNEL

Based on professional judgment, which of the following statements is true: (select one)

X *The site is in compliance with the terms and conditions of the SWPPP and the ISGP.*

___ *The site is NOT in compliance with the terms and conditions of the SWPPP and the ISGP*.*

* Immediately notify Environmental Compliance Coordinator

I certify that this report is true, accurate and complete, to the best of my knowledge and belief.

Printed name: Steve Larry, Engineer II

Signature: Steve Larry Date: 11/26/18

DULY AUTHORIZED REPRESENTATIVE

Based on professional judgment, which of the following statements is true: (select one)

___ *The site is in compliance with the terms and conditions of the SWPPP and the ISGP.*

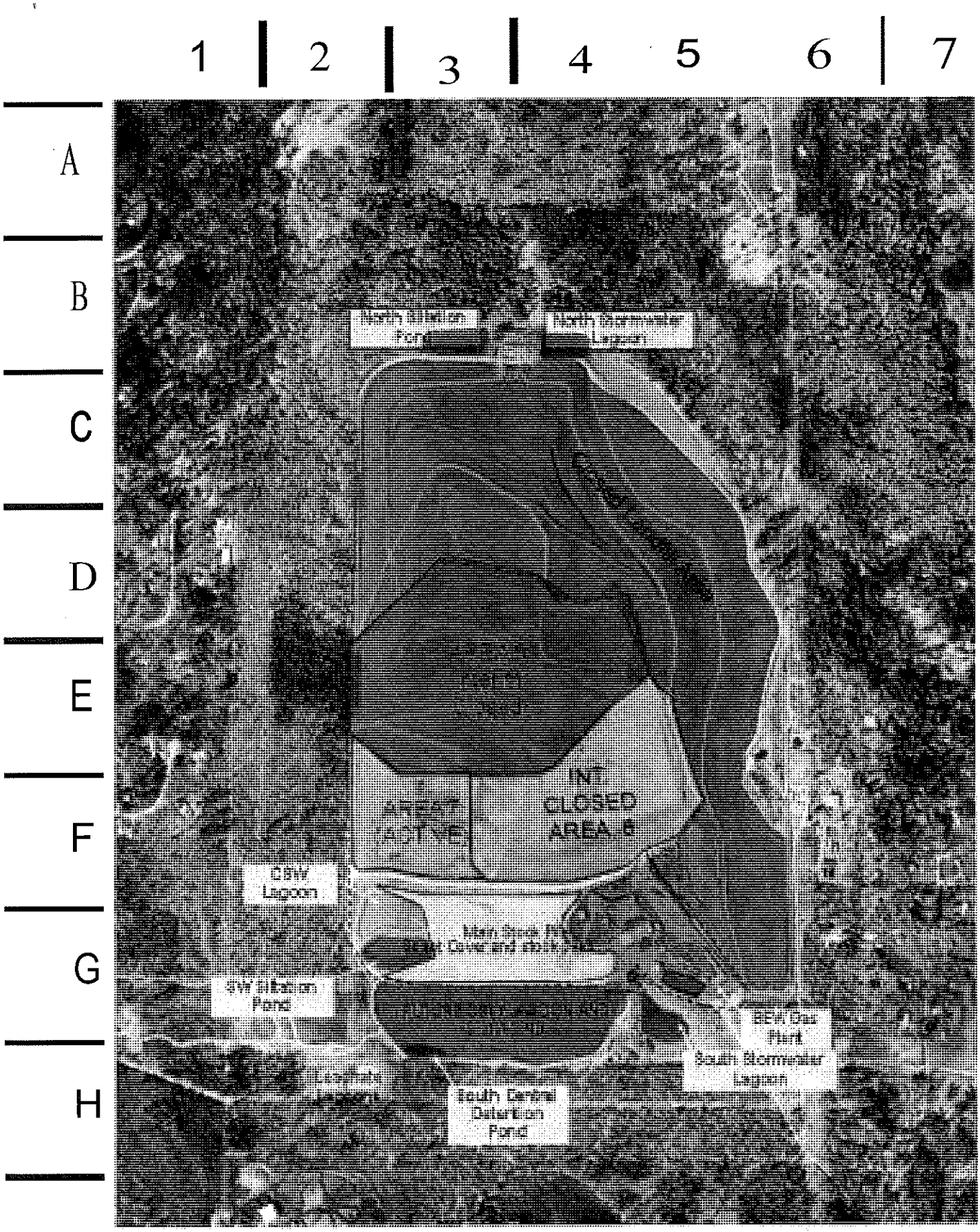
___ *The site is NOT in compliance with the terms and conditions of the SWPPP and the ISGP*.*

* Immediately notify Environmental Compliance Coordinator

I certify under penalty of law that this SWPPP and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate information to determine compliance with the Industrial Stormwater General Permit. Based on my inquiry of the person or persons who are responsible for stormwater management at my facility, this SWPPP is, to the best of my knowledge and belief, true, accurate, and complete, and in full compliance with Permit Conditions S3 and S8, including the correct Best Management Practices from the applicable Stormwater Management Manual. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Printed name: Bill Berni, Operations Manager

Signature: Bill Berni Date: 11/28/18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G
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North Retention Pond
North Stormwater Lagoon
INT. CLOSED AREA 5
SW Lagoon
SW Retention Pond
BEW Gas Plant
South Stormwater Lagoon
South Central Detention Pond

SOLID WASTE DIVISION

Landfill Facility Site Inspections

Type – Permit Compliance

Inspected By: Stevn Larry Date: 12/14/18

Location: CEDAR HILLS Ambient Temperature (°F) 40 Weather Condition: Cloudy

ACTION CODES

A. Gas System	OK	Not OK	B. Leachate System	OK	Not OK	C. Landfill Operations	OK	Not OK
1. Pipe Penetrations	X		1. Pump Stations	X		1. Fueling Stations	X	
2. Collection Piping	X		2. Aeration Lagoons / Basins	X		2. Vehicle Wash Stations	X	
3. Gas Extraction Wells	X		3. Aerators	X		3. Equipment	X	
4. Valve Stations	X		4. Weeps (strip drains)	X		4. Perimeter Fences	X	
5. Odor	X		5. Collection System	X		5. Vegetation	X	
6. Flare Stations	X		a. Collection Pipes	X		6. Landfill Cover	X	
7. Air Compressors	X		b. Forcemains	X		7. Drain Rock	X	
8. Noise Control	X		c. Manholes	X		9. Air Quality	X	
			d. Cleanouts	X		10. Stockpiles	X	
D. Stormwater System			6. Generators	X		11. Vectors	X	
1. Ponds		X	7. Extraction Wells	X		12. Litter		X
2. CB / Control Structures		X	8. Valve / Cleanout	X		13. Dust control	X	
3. Pipes / Culverts		X	9. Groundwater Extraction Wells	X		14. Other	X	
4. Trash Racks		X						
5. Ditches			**E. Roadway System**			**Cover System / ESC**		
6. Runoff Control Berms		X	1. Road Sweeping	X		**F.** Vegetation	X	
7. Discharge Points		X	2. Access Roads	X		1. Refuse		X
8. General		X	3. Road Erosion	X		2. Cover Erosion	X	
			4. Road Pavement	X		3. Silt Fences/Filter Fabric	X	
G. Operations			5. Lane Striping	X				
1. Records Obtain / Review	X							

Item No.	Action Code(s)	Area Code(s) (See below or over for map) Area	Map	Status G	F	P	State Reason if "Fair or Poor"	Date Corrective Action Implemented
1	D1	B3 & G5				X	Cedar Hills has experienced several large storms that dumped over an 1"+ of rain **again** within a 24 hour period. During this site inspection, sediment and erosion control combined with accumulated windblown litter were the items most needing attention. Erosion from Area 7 construction and from the Area 6W soil stock piles are causing surface water channels and ponds to turn brown. The Area 6W surface water flows going to the South Stormwater Lagoon is loading the pond with turbid water.	

INSPECTION REPORT SIGNATURE PAGE

INSPECTOR / QUALIFIED PERSONNEL

Based on professional judgment, which of the following statements is true: (select one)

✓ *The site is in compliance with the terms and conditions of the SWPPP and the ISGP.*

___ *The site is NOT in compliance with the terms and conditions of the SWPPP and the ISGP*.*

* Immediately notify Environmental Compliance Coordinator

I certify that this report is true, accurate and complete, to the best of my knowledge and belief.

Printed name: Stevn Larry, Engineer II

Signature: _____ Date: 12/20/18

DULY AUTHORIZED REPRESENTATIVE

Based on professional judgment, which of the following statements is true: (select one)

✓ *The site is in compliance with the terms and conditions of the SWPPP and the ISGP.*

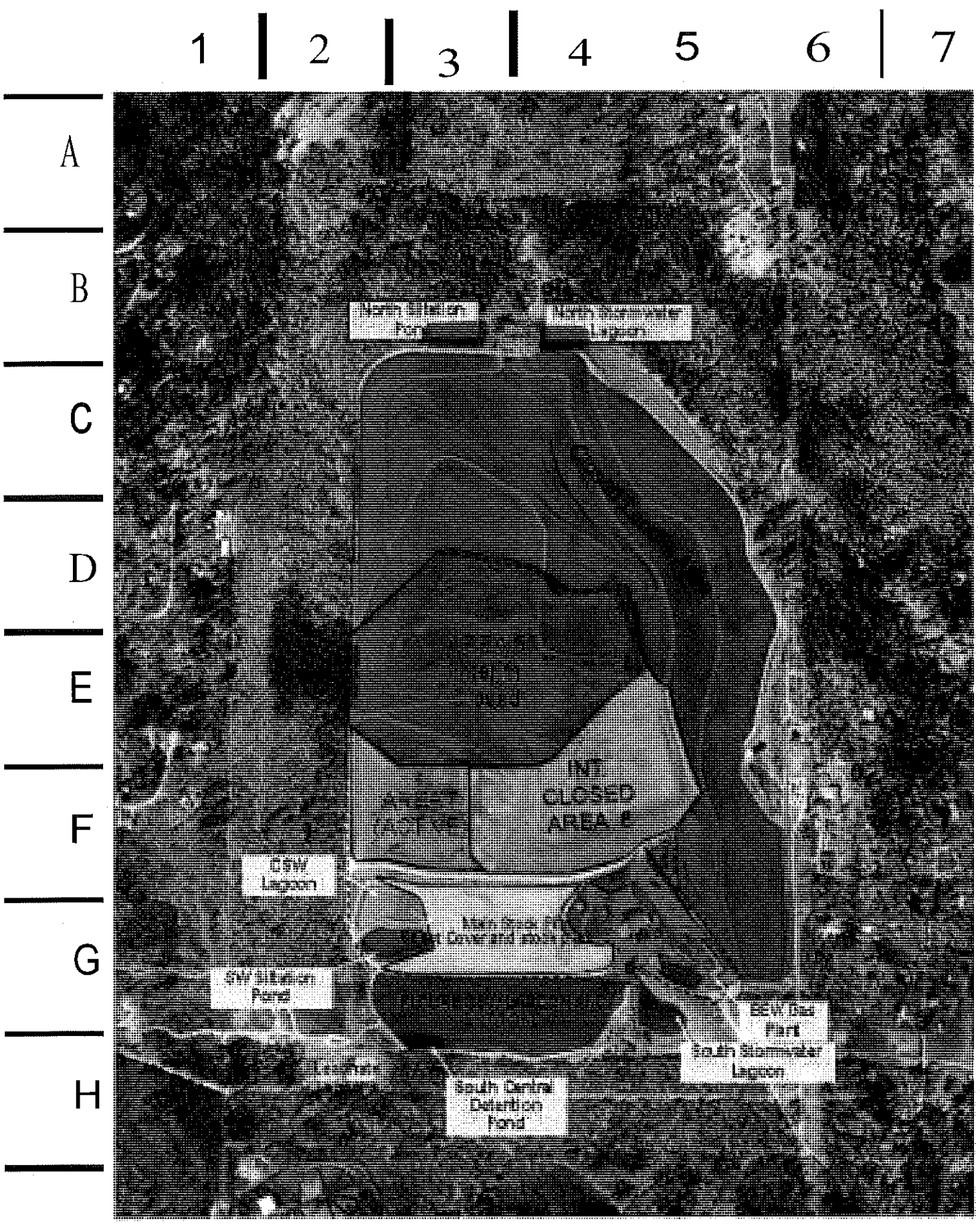
___ *The site is NOT in compliance with the terms and conditions of the SWPPP and the ISGP*.*

* Immediately notify Environmental Compliance Coordinator

I certify under penalty of law that this SWPPP and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate information to determine compliance with the Industrial Stormwater General Permit. Based on my inquiry of the person or persons who are responsible for stormwater management at my facility, this SWPPP is, to the best of my knowledge and belief, true, accurate, and complete, and in full compliance with Permit Conditions S3 and S8, including the correct Best Management Practices from the applicable Stormwater Management Manual. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Printed name: Bill Berni, Operations Manager

Signature: _____ Date: 12/20/18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Lagoon

Cedar Hills Area 5 Maintenance

for the period 10/01/2018 *to* 12/31/2018

Click the blue 'Y' to see notes

Item	Location	Work Order Number	Work Order Status	PM/Repair Type	Completion Date	Work Order Has Notes
Area 5						
	CHAREA5	0000020169	CLOSED	Monthy Gas System PM	10/18/2018	N
	CHAREA5	0000020169	CLOSED	Monthly Stormwater PM	10/18/2018	N
	CHAREA5	0000020169	CLOSED	Monthly Cover System PM	10/18/2018	N
	CHAREA5	0000020247	CLOSED	Monthy Gas System PM	11/15/2018	N
	CHAREA5	0000020247	CLOSED	Monthly Stormwater PM	11/15/2018	N
	CHAREA5	0000020247	CLOSED	Monthly Cover System PM	11/15/2018	N
	CHAREA5	0000020391	CLOSED	Monthy Gas System PM	12/27/2018	N
	CHAREA5	0000020391	CLOSED	Monthly Stormwater PM	12/27/2018	N
	CHAREA5	0000020391	CLOSED	Monthly Cover System PM	12/27/2018	N
	CHAREA5E	0000020070	CLOSED	Monthly Header PM	10/03/2018	N
	CHAREA5E	0000020197	CLOSED	Monthly Header PM	11/13/2018	N
	CHAREA5E	0000020376	CLOSED	Monthly Header PM	12/11/2018	N
	CHAREA5W	0000020069	CLOSED	Monthly Header PM	10/03/2018	N
	CHAREA5W	0000020196	CLOSED	Monthly Header PM	11/13/2018	N
	CHAREA5W	0000020375	CLOSED	Monthly Header PM	12/11/2018	N

Cedar Hills Landfill Storm Water Pollution Prevention Plan Maintenance

for the period 10/01/2018 *to* 12/31/2018

Click the blue 'Y' to see notes

Item	Location	Work Order Number	Work Order Status	PM/Repair Type	Completion Date	Work Order Has Notes
Catch Basins						
	Cedar Hills	0000040672	CLOSED	PMM	10/04/2018	N
	Cedar Hills	0000040967	CLOSED	PMM	11/05/2018	N
	Cedar Hills	0000041243	CLOSED	PMM	12/04/2018	N
Control Structures						
	Cedar Hills	0000040660	CLOSED	PMS	10/04/2018	N
Trash Racks						
	Cedar Hills	0000040671	CLOSED	PMW	10/04/2018	N
	Cedar Hills	0000040738	CLOSED	PMW	10/10/2018	N
	Cedar Hills	0000040772	CLOSED	PMW	10/15/2018	N
	Cedar Hills	0000040872	CLOSED	PMW	10/25/2018	N
	Cedar Hills	0000040894	CLOSED	PMW	10/31/2018	N
	Cedar Hills	0000040966	CLOSED	PMW	11/05/2018	N
	Cedar Hills	0000041059	CLOSED	PMW	11/14/2018	N
	Cedar Hills	0000041097	CLOSED	PMW	11/19/2018	N
	Cedar Hills	0000041146	CLOSED	PMW	11/27/2018	N
	Cedar Hills	0000041242	CLOSED	PMW	12/04/2018	N
	Cedar Hills	0000041332	CLOSED	PMW	12/10/2018	N
	Cedar Hills	0000041365	CLOSED	PMW	12/20/2018	N
	Cedar Hills	0000041431	CLOSED	PMW	12/24/2018	N
	Cedar Hills	0000041438	CLOSED	PMW	12/31/2018	N
Ditches						
	Cedar Hills	0000040657	CLOSED	PMI	10/04/2018	N
	Cedar Hills	0000040659	CLOSED	PMQ	10/04/2018	N
	Cedar Hills	0000040671	CLOSED	PMW	10/04/2018	N
	Cedar Hills	0000040672	CLOSED	PMM	10/04/2018	N
	Cedar Hills	0000040738	CLOSED	PMW	10/10/2018	N
	Cedar Hills	0000040772	CLOSED	PMW	10/15/2018	N

Item	Location	Work Order Number	Work Order Status	PM/Repair Type	Completion Date	Work Order Has Notes
	Cedar Hills	0000040872	CLOSED	PMW	10/25/2018	N
	Cedar Hills	0000040894	CLOSED	PMW	10/31/2018	N
	Cedar Hills	0000040966	CLOSED	PMW	11/05/2018	N
	Cedar Hills	0000040967	CLOSED	PMM	11/05/2018	N
	Cedar Hills	0000041059	CLOSED	PMW	11/14/2018	N
	Cedar Hills	0000041097	CLOSED	PMW	11/19/2018	N
	Cedar Hills	0000041146	CLOSED	PMW	11/27/2018	N
	Cedar Hills	0000041242	CLOSED	PMW	12/04/2018	N
	Cedar Hills	0000041243	CLOSED	PMM	12/04/2018	N
	Cedar Hills	0000041332	CLOSED	PMW	12/10/2018	N
	Cedar Hills	0000041365	CLOSED	PMW	12/20/2018	N
	Cedar Hills	0000041431	CLOSED	PMW	12/24/2018	N
	Cedar Hills	0000041438	CLOSED	PMW	12/31/2018	N
Pipes/Culverts						
	Cedar Hills	0000040657	CLOSED	PMI	10/04/2018	N
	Cedar Hills	0000040659	CLOSED	PMQ	10/04/2018	N
Ponds/Lagoons						
	Cedar Hills	0000040657	CLOSED	PMI	10/04/2018	N
	Cedar Hills	0000040659	CLOSED	PMQ	10/04/2018	N
	Cedar Hills	0000040660	CLOSED	PMS	10/04/2018	N
	Cedar Hills	0000040671	CLOSED	PMW	10/04/2018	N
	Cedar Hills	0000040738	CLOSED	PMW	10/10/2018	N
	Cedar Hills	0000040772	CLOSED	PMW	10/15/2018	N
	Cedar Hills	0000040872	CLOSED	PMW	10/25/2018	N
	Cedar Hills	0000040894	CLOSED	PMW	10/31/2018	N
	Cedar Hills	0000040966	CLOSED	PMW	11/05/2018	N
	Cedar Hills	0000041059	CLOSED	PMW	11/14/2018	N
	Cedar Hills	0000041097	CLOSED	PMW	11/19/2018	N
	Cedar Hills	0000041146	CLOSED	PMW	11/27/2018	N
	Cedar Hills	0000041242	CLOSED	PMW	12/04/2018	N
	Cedar Hills	0000041332	CLOSED	PMW	12/10/2018	N
	Cedar Hills	0000041365	CLOSED	PMW	12/20/2018	N
	Cedar Hills	0000041431	CLOSED	PMW	12/24/2018	N

Item	Location	Work Order Number	Work Order Status	PM/Repair Type	Completion Date	Work Order Has Notes
	Cedar Hills	0000041438	CLOSED	PMW	12/31/2018	N
General						
	Cedar Hills	0000040659	CLOSED	PMQ	10/04/2018	N
	Cedar Hills	0000040671	CLOSED	PMW	10/04/2018	N
	Cedar Hills	0000040738	CLOSED	PMW	10/10/2018	N
	Cedar Hills	0000040772	CLOSED	PMW	10/15/2018	N
	Cedar Hills	0000040872	CLOSED	PMW	10/25/2018	N
	Cedar Hills	0000040894	CLOSED	PMW	10/31/2018	N
	Cedar Hills	0000040966	CLOSED	PMW	11/05/2018	N
	Cedar Hills	0000041059	CLOSED	PMW	11/14/2018	N
	Cedar Hills	0000041097	CLOSED	PMW	11/19/2018	N
	Cedar Hills	0000041146	CLOSED	PMW	11/27/2018	N
	Cedar Hills	0000041242	CLOSED	PMW	12/04/2018	N
	Cedar Hills	0000041332	CLOSED	PMW	12/10/2018	N
	Cedar Hills	0000041365	CLOSED	PMW	12/20/2018	N
	Cedar Hills	0000041431	CLOSED	PMW	12/24/2018	N
	Cedar Hills	0000041438	CLOSED	PMW	12/31/2018	N
Leachate System						
	Cedar Hills	0000040659	CLOSED	PMQ	10/04/2018	N
	CHPS1	0000040639	CLOSED	PMW	10/03/2018	N
	CHPS1	0000040748	CLOSED	PMW	10/09/2018	N
	CHPS1	0000040788	CLOSED	PMW	10/17/2018	N
	CHPS1	0000040860	CLOSED	PMW	10/23/2018	N
	CHPS1	0000040909	CLOSED	PMW	10/30/2018	N
	CHPS1	0000040982	CLOSED	PMW	11/06/2018	N
	CHPS1	0000041050	CLOSED	PMW	11/14/2018	N
	CHPS1	0000041093	CLOSED	PMW	11/18/2018	N
	CHPS1	0000041168	CLOSED	PMW	11/28/2018	N
	CHPS1	0000041214	CLOSED	PMW	12/04/2018	N
	CHPS1	0000041310	CLOSED	PMW	12/11/2018	N
	CHPS1	0000041381	CLOSED	PMW	12/18/2018	N
	CHPS1	0000041422	CLOSED	PMW	12/26/2018	N

Item	Location	Work Order Number	Work Order Status	PM/Repair Type	Completion Date	Work Order Has Notes
	CHPS2	0000040641	CLOSED	PMW	10/03/2018	N
	CHPS2	0000040749	CLOSED	PMW	10/09/2018	N
	CHPS2	0000040787	CLOSED	PMW	10/17/2018	N
	CHPS2	0000040859	CLOSED	PMW	10/23/2018	N
	CHPS2	0000040910	CLOSED	PMW	10/30/2018	N
	CHPS2	0000040983	CLOSED	PMW	11/06/2018	N
	CHPS2	0000041058	CLOSED	PMW	11/14/2018	N
	CHPS2	0000041090	CLOSED	PMW	11/18/2018	N
	CHPS2	0000041167	CLOSED	PMW	11/29/2018	N
	CHPS2	0000041215	CLOSED	PMW	12/04/2018	N
	CHPS2	0000041313	CLOSED	PMW	12/11/2018	N
	CHPS2	0000041380	CLOSED	PMW	12/18/2018	N
	CHPS2	0000041421	CLOSED	PMW	12/26/2018	N
	CHPS3	0000040635	CLOSED	PMW	10/03/2018	N
	CHPS3	0000040692	CLOSED	PMW	10/15/2018	N
	CHPS3	0000040751	CLOSED	PMW	10/09/2018	N
	CHPS3	0000040792	CLOSED	PMW	10/17/2018	N
	CHPS3	0000040857	CLOSED	PMW	10/23/2018	N
	CHPS3	0000040912	CLOSED	PMW	10/30/2018	N
	CHPS3	0000040979	CLOSED	PMW	11/06/2018	N
	CHPS3	0000041056	CLOSED	PMW	11/14/2018	N
	CHPS3	0000041089	CLOSED	PMW	11/18/2018	N
	CHPS3	0000041165	CLOSED	PMW	11/28/2018	N
	CHPS3	0000041217	CLOSED	PMW	12/04/2018	N
	CHPS3	0000041315	CLOSED	PMW	12/11/2018	N
	CHPS3	0000041377	CLOSED	PMW	12/18/2018	N
	CHPS3	0000041419	CLOSED	PMW	12/26/2018	N
	CHPS4	0000040649	CLOSED	PMW	10/03/2018	N
	CHPS4	0000040752	CLOSED	PMW	10/09/2018	Y
	CHPS4	0000040789	CLOSED	PMW	10/17/2018	Y
	CHPS4	0000040856	CLOSED	PMW	10/23/2018	Y
	CHPS4	0000040907	CLOSED	PMW	10/30/2018	N
	CHPS4	0000040978	CLOSED	PMW	11/06/2018	N
	CHPS4	0000041055	CLOSED	PMW	11/14/2018	N
	CHPS4	0000041088	CLOSED	PMW	11/18/2018	Y

Item	Location	Work Order Number	Work Order Status	PM/Repair Type	Completion Date	Work Order Has Notes
	CHPS4	0000041164	CLOSED	PMW	11/28/2018	Y
	CHPS4	0000041209	CLOSED	PMW	12/04/2018	N
	CHPS4	0000041316	CLOSED	PMW	12/11/2018	N
	CHPS4	0000041383	CLOSED	PMW	12/18/2018	N
	CHPS4	0000041418	CLOSED	PMW	12/26/2018	N
	LEPS	0000040651	CLOSED	PMW	10/03/2018	N
	LEPS	0000040653	CLOSED	PMM	10/03/2018	Y
	LEPS	0000040753	CLOSED	PMW	10/09/2018	N
	LEPS	0000040754	CLOSED	PMW	10/09/2018	N
	LEPS	0000040786	CLOSED	PMW	10/17/2018	N
	LEPS	0000040786	CLOSED	PMW	10/23/2018	N
	LEPS	0000040790	CLOSED	PMW	10/17/2018	Y
	LEPS	0000040915	CLOSED	PMW	10/30/2018	N
	LEPS	0000040975	CLOSED	PMW	11/06/2018	N
	LEPS	0000040984	CLOSED	PMM	11/06/2018	Y
	LEPS	0000041053	CLOSED	PMW	11/14/2018	N
	LEPS	0000041054	CLOSED	PMW	11/14/2018	N
	LEPS	0000041085	CLOSED	PMW	11/18/2018	Y
	LEPS	0000041161	CLOSED	PMW	11/28/2018	N
	LEPS	0000041162	CLOSED	PMW	11/28/2018	N
	LEPS	0000041212	CLOSED	PMW	12/04/2018	N
	LEPS	0000041218	CLOSED	PMM	12/04/2018	Y
	LEPS	0000041311	CLOSED	PMW	12/11/2018	N
	LEPS	0000041375	CLOSED	PMW	12/18/2018	Y
	LEPS	0000041376	CLOSED	PMW	12/18/2018	N
	LEPS	0000041415	CLOSED	PMW	12/26/2018	N
	LEPS	0000041416	CLOSED	PMW	12/26/2018	N
Landfill Cover						
	CHAPONDS	0000020167	CLOSED	PMV	10/18/2018	N
	CHAPONDS	0000020245	CLOSED	PMV	11/15/2018	N
	CHAPONDS	0000020389	CLOSED	PMV	12/27/2018	N
	CHAREA4	0000020168	CLOSED	PMV	10/18/2018	N
	CHAREA4	0000020246	CLOSED	PMV	11/15/2018	N
	CHAREA4	0000020390	CLOSED	PMV	12/27/2018	N

Item	Location	Work Order Number	Work Order Status	PM/Repair Type	Completion Date	Work Order Has Notes
	CHAREA5	0000020169	CLOSED	PMV	10/18/2018	N
	CHAREA5	0000020247	CLOSED	PMV	11/15/2018	N
	CHAREA5	0000020391	CLOSED	PMV	12/27/2018	N
	CHAREA6	0000020170	CLOSED	PMV	10/18/2018	N
	CHAREA6	0000020248	CLOSED	PMV	11/15/2018	N
	CHAREA6	0000020392	CLOSED	PMV	12/27/2018	N
	CHAREAS23	0000020172	CLOSED	PMV	10/18/2018	N
	CHAREAS23	0000020250	CLOSED	PMV	11/15/2018	N
	CHAREAS23	0000020394	CLOSED	PMV	12/27/2018	N
	CHCENTRALPIT	0000020173	CLOSED	PMV	10/18/2018	N
	CHCENTRALPIT	0000020251	CLOSED	PMV	11/15/2018	N
	CHCENTRALPIT	0000020395	CLOSED	PMV	12/27/2018	N
	CHEMH	0000020174	CLOSED	PMV	10/18/2018	N
	CHEMH	0000020252	CLOSED	PMV	11/15/2018	N
	CHEMH	0000020396	CLOSED	PMV	12/27/2018	N
	CHNFLARESTN	0000020178	CLOSED	PMV	10/18/2018	N
	CHNFLARESTN	0000020256	CLOSED	PMV	11/15/2018	N
	CHNFLARESTN	0000020400	CLOSED	PMV	12/27/2018	N
	CHSEPA	0000020175	CLOSED	PMV	10/18/2018	N
	CHSEPA	0000020253	CLOSED	PMV	11/15/2018	N
	CHSEPA	0000020397	CLOSED	PMV	12/27/2018	N
	CHSSWA	0000020176	CLOSED	PMV	10/18/2018	N
	CHSSWA	0000020254	CLOSED	PMV	11/15/2018	N
	CHSSWA	0000020398	CLOSED	PMV	12/27/2018	N
	CHSTOCKPILE	0000020166	CLOSED	PMV	10/18/2018	N
	CHSTOCKPILE	0000020244	CLOSED	PMV	11/15/2018	N
	CHSTOCKPILE	0000020388	CLOSED	PMV	12/27/2018	N
	CHSWMH	0000020177	CLOSED	PMV	10/18/2018	N
	CHSWMH	0000020255	CLOSED	PMV	11/15/2018	N
	CHSWMH	0000020399	CLOSED	PMV	12/27/2018	N
Landfill Gas						
	CHAREA5E	0000020104	CLOSED	PMW	10/02/2018	N
	CHAREA5E	0000020150	CLOSED	PMW	10/15/2018	N
	CHAREA5E	0000020258	CLOSED	PMW	11/02/2018	N

Item	Location	Work Order Number	Work Order Status	PM/Repair Type	Completion Date	Work Order Has Notes
	CHAREA5E	0000020306	CLOSED	PMW	11/17/2018	N
	CHAREA5E	0000020320	CLOSED	PMW	12/04/2018	N
	CHAREA5E	0000020404	CLOSED	PMW	12/18/2018	N
	CHAREA5W	0000020105	CLOSED	PMW	10/03/2018	N
	CHAREA5W	0000020151	CLOSED	PMW	10/15/2018	N
	CHAREA5W	0000020259	CLOSED	PMW	11/01/2018	N
	CHAREA5W	0000020307	CLOSED	PMW	11/16/2018	N
	CHAREA5W	0000020321	CLOSED	PMW	12/04/2018	N
	CHAREA5W	0000020405	CLOSED	PMW	12/18/2018	N
	CHAREA6	0000020048	CLOSED	PMW	10/10/2018	N
	CHAREA6	0000020117	CLOSED	PMW	10/23/2018	N
	CHAREA6	0000020193	CLOSED	PMW	11/02/2018	N
	CHAREA6	0000020271	CLOSED	PMW	11/14/2018	N
	CHAREA6	0000020372	CLOSED	PMW	12/07/2018	N
	CHAREA6	0000020428	CLOSED	PMW	12/18/2018	N
	CHAREAS23	0000020051	CLOSED	PMW	10/01/2018	N
	CHAREAS23	0000020115	CLOSED	PMW	10/18/2018	N
	CHAREAS23	0000020207	CLOSED	PMW	11/14/2018	N
	CHAREAS23	0000020272	CLOSED	PMW	11/29/2018	N
	CHAREAS23	0000020325	CLOSED	PMW	12/14/2018	N
	CHAREAS23	0000020411	CLOSED	PMW	12/24/2018	N
	CHCMH	0000020109	CLOSED	PMW	10/03/2018	N
	CHCMH	0000020109	CLOSED	PMW	10/04/2018	N
	CHCMH	0000020109	CLOSED	PMW	10/10/2018	N
	CHCMH	0000020152	CLOSED	PMW	10/18/2018	N
	CHCMH	0000020152	CLOSED	PMW	10/20/2018	N
	CHCMH	0000020152	CLOSED	PMW	10/25/2018	N
	CHCMH	0000020265	CLOSED	PMW	11/07/2018	N
	CHCMH	0000020265	CLOSED	PMW	11/14/2018	N
	CHCMH	0000020308	CLOSED	PMW	11/19/2018	N
	CHCMH	0000020308	CLOSED	PMW	11/26/2018	N
	CHCMH	0000020308	CLOSED	PMW	11/28/2018	N
	CHCMH	0000020312	CLOSED	PMW	12/05/2018	N
	CHCMH	0000020312	CLOSED	PMW	12/06/2018	N
	CHCMH	0000020312	CLOSED	PMW	12/13/2018	N

Item	Location	Work Order Number	Work Order Status	PM/Repair Type	Completion Date	Work Order Has Notes
	CHCMH	0000020406	CLOSED	PMW	12/21/2018	N
	CHCMH	0000020406	CLOSED	PMW	12/28/2018	N
	CHCMH	0000020406	CLOSED	PMW	12/29/2018	N
	CHEMH	0000020103	CLOSED	PMW	10/10/2018	N
	CHEMH	0000020149	CLOSED	PMW	10/29/2018	N
	CHEMH	0000020257	CLOSED	PMW	11/07/2018	N
	CHEMH	0000020305	CLOSED	PMW	11/28/2018	N
	CHEMH	0000020319	CLOSED	PMW	12/11/2018	N
	CHEMH	0000020403	CLOSED	PMW	12/25/2018	N
	CHSEPA	0000020058	CLOSED	PMW	10/11/2018	N
	CHSEPA	0000020118	CLOSED	PMW	10/26/2018	N
	CHSEPA	0000020181	CLOSED	PMW	11/01/2018	N
	CHSEPA	0000020277	CLOSED	PMW	11/28/2018	N
	CHSEPA	0000020354	CLOSED	PMW	12/04/2018	N
	CHSEPA	0000020426	CLOSED	PMW	12/18/2018	N
Landfill Roads						
	CHACTIVEAREA	0000020157	CLOSED	PMR	11/02/2018	N
	CHACTIVEAREA	0000020235	CLOSED	PMR	11/15/2018	N
	CHACTIVEAREA	0000020379	CLOSED	PMR	12/27/2018	N
	CHMAINGATE	0000020158	CLOSED	PMR	10/18/2018	N
	CHMAINGATE	0000020236	CLOSED	PMR	11/15/2018	N
	CHMAINGATE	0000020380	CLOSED	PMR	12/27/2018	N
	CHPSR	0000020159	CLOSED	PMR	10/18/2018	N
	CHPSR	0000020237	CLOSED	PMR	11/15/2018	N
	CHPSR	0000020381	CLOSED	PMR	12/27/2018	N
	CHSTOCKPILE	0000020166	CLOSED	PMR	10/18/2018	N
	CHSTOCKPILE	0000020244	CLOSED	PMR	11/15/2018	N
	CHSTOCKPILE	0000020388	CLOSED	PMR	12/27/2018	N

Item	Location	Work Order Number	Work Order Status	PM/Repair Type	Completion Date	Work Order Has Notes
Landfill Roads						
	Sweeper	0	see Equipment Operator Spreadsheet	NA	0	N

Equipment *Click the word 'Equipment' to see Work Order Numbers*

Appendix B:
Gas Monitoring Reports

Cedar Hills Regional Landfill

Quarterly Surface Emission Monitoring
Plot of GPS Generated Track Lines

DECEMBER 2018

Scale 1"=800'

KING COUNTY DEPARTMENT OF NATURAL RESOURCES AND PARKS
Christie True, Director
SOLID WASTE DIVISION

CEDAR HILLS QUARTERLY
GAS EMMISIONS MONITORING

APPROVED — DATE 01-07-18
RECOMMENDED — DATE —
DESIGNED PJM DRAWN PJM
PROJECT NO. SURVEY NO. SHEET 1 OF 1

DATE	REVISION	BY



KING COUNTY SOLID WASTE
201 S JACKSON ST. SUITE 701
SEATTLE, WA. 98104-3855

KING COUNTY SOLID WASTE

CEDAR HILLS REGIONAL LANDFILL
SCALE: 1" = 800'
CONTOUR INTERVAL: 5FT.
DATE OF PHOTOGRAPHY : 01-17-00

PHOTOGRAMMETRY BY:
3 D I, LLC
3400 WEST 11TH AVE.
EUGENE, OR. 97402
(541)343-8877

JOB NO. 99-101
SHEET 1
1

Work Order Report - WO# 0000020391

12/3/2018 9:45:51 AM

WO Company: Gas King County Landfill Gas
WO Department: 7572 Waste Water, LF Gas
WO Shop: Gas Landfill Gas

TECHNICIAN COPY

WO#: 0000020391
Date In: 12/03/2018 09:45
Date Promised: 12/04/2018 09:45
Date Out: 00:00
WO Status: A Last WO#:0000020247
WO Priority: Last WO Date: 11/07/2018
Track DownTime: Y Operator: jd

Equipment: charea5 License: na

Location: 20
Year: 2006
Make: UD
Model: UD
Class: ZZZZZZZZGS: Landfill Gas - not classified

Color:
Serial: na
Engine:

Tire Size 1:
Tire Size 2:
Transmission:
Fuel Type1:
Fuel Type2:
Fuel Type3:
Oil Capacity: 0.000
Fuel Cap1: 0.000
Fuel Cap2: 0.000

GVW: 0
EAC: 24
Department: 7572:Waste Water, LF Gas
Company: Gas King County Landfill Gas
Site: 20:20- Cedar Hills
Monitor Group:

Comments:
CH Area 5

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD

PM SERVICE

Type	Cycle	Next Due	Description
G	0 - MONTHS	01/03/2019	Gas System
T	0 - MONTHS	01/03/2019	Stormwater
V	0 - MONTHS	01/03/2019	Cover System

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description

REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMG BS	PM Service | PM Gas System | Billable | Scheduled, Target	0	750 RB	0.00000	Gas
PMT BS	PM Service | PM Stormwater | Billable | Scheduled, Target	0	750 RB	0.00000	Gas
PMV BS	PM Service | PM Cover System | Billable | Scheduled, Target	0	750 RB	0.00000	Gas

NOTES

For CHAREA4, CHAREA5, CHAREA6, CHAREA7, CHAREAS23, CHCENTRALPIT, CHEMH, CHSEPA, CHSSWA, CHSWMH (10)

PMG BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect collection system	✓				
Gas Visually inspect disposal system	✓				
Gas Verify daily odor log is current	✓				
Gas Note any deficiencies	✓				

PMT BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect ponds					
Gas Visually inspect lagoons					
Gas Visually inspect catch basins	✓				
Gas Visually inspect control structures	✓				
Gas Visually inspect conveyance pipes	✓				
Gas Note any deficiencies	✓				

PMV BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect vegetation	✓				
Gas Visually inspect refuse					
Gas Visually inspect cover	✓				
Gas Visually inspect erosion	✓				
Gas Note any deficiencies	✓				

DATE: 12/27/18

Work Order Report - WO# 0000020392

12/3/2018 9:46:42 AM

WO Company: Gas King County Landfill Gas
WO Department: 7572 Waste Water, LF Gas
WO Shop: Gas Landfill Gas

TECHNICIAN COPY

WO#: 0000020392
Date In: 12/03/2018 09:46
Date Promised: 12/04/2018 09:46
Date Out: 00:00
WO Status: A Last WO#:0000020374
WO Priority: Last WO Date: 12/03/2018
Track DownTime: Y Operator: jd

Equipment: charea6 License: na

Location: 20
Year: 2006
Make: UD
Model: UD
Class: ZZZZZZZZGS: Landfill Gas - not classified

Color:
Serial: na
Engine:

Tire Size 1:
Tire Size 2:
Transmission:
Fuel Type1:
Fuel Type2:
Fuel Type3:
Oil Capacity: 0.000
Fuel Cap1: 0.000
Fuel Cap2: 0.000

GVW: 0
EAC: 24
Department: 7572:Waste Water, LF Gas
Company: Gas King County Landfill Gas
Site: 20:20- Cedar Hills
Monitor Group:

Comments:
CH Area 6

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD

PM SERVICE

Type	Cycle	Next Due	Description
G	0 - MONTHS	12/10/2018	Gas System
S	0 - MONTHS	12/28/2018	Scheduled Inspection
T	0 - MONTHS	12/10/2018	Stormwater
V	0 - MONTHS	12/10/2018	Cover System
W	W - WEEKS	12/01/2018	Weekly Inspection

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description

REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMG BS	PM Service | PM Gas System | Billable | Scheduled, Target	0	750 RB	0.00000	Gas
PMT BS	PM Service | PM Stormwater | Billable | Scheduled, Target	0	750 RB	0.00000	Gas
PMV BS	PM Service | PM Cover System | Billable | Scheduled, Target	0	750 RB	0.00000	Gas

NOTES

For CHAREA4, CHAREA5, CHAREA6, CHAREA7, CHAREAS23, CHCENTRALPIT, CHEMH, CHSEPA, CHSSWA, CHSWMH (10)

PMG BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect collection system	✓				
Gas Visually inspect disposal system	✓				
Gas Verify daily odor log is current	✓				
Gas Note any deficiencies	✓				

PMT BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect ponds					
Gas Visually inspect lagoons					
Gas Visually inspect catch basins	✓				
Gas Visually inspect control structures	✓				
Gas Visually inspect conveyance pipes	✓				
Gas Note any deficiencies	✓				

PMV BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect vegetation	✓				
Gas Visually inspect refuse					
Gas Visually inspect cover	✓				
Gas Visually inspect erosion	✓				
Gas Note any deficiencies	✓				

DATE: 12/27/18

WO Company: Gas King County Landfill Gas
WO Department: 7572 Waste Water, LF Gas
WO Shop: Gas Landfill Gas

TECHNICIAN COPY

WO#: 0000020377
Date In: 12/03/2018 09:13
Date Promised: 12/04/2018 09:13
Date Out: 00:00
WO Status: A Last WO#:0000020198
WO Priority: Last WO Date: 11/07/2018
Track DownTime: Y Operator: jd

Equipment: charea6td License: na

Location: 20 Color:
Year: 2010 Serial: na
Make: UD Engine:
Model: UD
Class: ZZZZZZZZGS: Landfill Gas - not classified

Tire Size 1:
Tire Size 2:
Transmission:
Fuel Type1:
Fuel Type2:
Fuel Type3:
Oil Capacity: 0.000
Fuel Cap1: 0.000
Fuel Cap2: 0.000

GVW: 0
EAC: 24
Department: 7572:Waste Water, LF Gas
Company: Gas King County Landfill Gas
Site: 20:20- Cedar Hills
Monitor Group:

Comments:
CH Area 6

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD

PM SERVICE

Type	Cycle	Next Due	Description
V	0 - MONTHS	12/10/2018	Cover System

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description

REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMV BS	PM Service | PM Cover System | Billable | Scheduled, Target	0	763	0.00000	Gas

NOTES

Work Order Task List

Repair Code: PMV BS
Equipment: charea6td
Work Order: 0000020377

Complete?	Step	Tasks	OK	Adjust	Repair	Replace	Comments
	1	Gas- Visually inspect Header	✓				
	2	Gas- Ck for damage @ flare station inlet	✓				
	3	Gas- Ck collection field pipe integrity	✓				
	4	Gas- Ck collection field pipe alignment	✓				
	5	Gas- Ck for damage @ possible stress pts	✓				
	6	Gas- Ck for damage at vertical pipes	✓				
	7	Gas- Ck for damage at well heads	✓				
	8	Gas- Ck for gas leaks with TVA 1000					
	9	Gas- Ck for settlement/ponding	✓				
12/14	10	Gas- Ck surface water conveyance system	✓				
	11	Gas- Ck and open vault covers					
	12	Gas- Exercise field and header valves					
	13	Gas- Ck flex hoses and connections	✓				
	14	Gas- Ck for erosion	✓				
	15	Gas- Ck for vegetation	✓				
	16	Gas- Ck cover system	✓				
	17	Gas- Ck for refuse/litter	✓				
	18	Gas- Note any deficiencies					

25m

Work Order Report - WO# 0000020338

FW

11/30/2018 1:16:51 PM

WO Company: Gas King County Landfill Gas
WO Department: 7572 Waste Water, LF Gas
WO Shop: Gas Landfill Gas

TECHNICIAN COPY

WO#: 0000020338
Date In: 11/30/2018 13:16
Date Promised: 12/01/2018 13:16
Date Out: 00:00

WO Status: A
WO Priority:
Track DownTime: Y
Last WO#:0000020211
Last WO Date: 11/07/2018
Operator: jd

Equipment: charea5td License: na

Location: 20
Year: 2010
Make: UD
Model: UD
Class: ZZZZZZZZGS: Landfill Gas - not classified

Color:
Serial: na
Engine:

Tire Size 1:
Tire Size 2:
Transmission:
Fuel Type1:
Fuel Type2:
Fuel Type3:
Oil Capacity: 0.000
Fuel Cap1: 0.000
Fuel Cap2: 0.000

GVW: 0
EAC: 24
Department: 7572:Waste Water, LF Gas
Company: Gas King County Landfill Gas
Site: 20:20- Cedar Hills
Monitor Group:

Comments:
CH Area 5

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD

PM SERVICE

Type	Cycle	Next Due	Description
V	0 - MONTHS	12/10/2018	Cover System

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description

REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMV BS	PM Service | PM Cover System | Billable | Scheduled, Target	0	750 RB	0.00000	Gas

NOTES

Work Order Task List

Repair Code: PMV BS
Equipment: charea5td
Work Order: 0000020338

Complete?	Step	Tasks	OK	Adjust	Repair	Replace	Comments
	1	Gas- Visually inspect Header	✓				
	2	Gas- Ck for damage @ flare station inlet	✓				
	3	Gas- Ck collection field pipe integrity	✓				
	4	Gas- Ck collection field pipe alignment	✓				
	5	Gas- Ck for damage @ possible stress pts	✓				
	6	Gas- Ck for damage at vertical pipes	✓				
	7	Gas- Ck for damage at well heads	✓				
	8	Gas- Ck for gas leaks with TVA 1000					
	9	Gas- Ck for settlement/ponding	✓				
	10	Gas- Ck surface water conveyance system	✓				
	11	Gas- Ck and open vault covers	✓				
	12	Gas- Exercise field and header valves	✓				
	13	Gas- Ck flex hoses and connections	✓				
	14	Gas- Ck for erosion	✓				
	15	Gas- Ck for vegetation	✓				
	16	Gas- Ck cover system	✓				
	17	Gas- Ck for refuse/litter	✓				
	18	Gas- Note any deficiencies	✓				

12/21/18 - 30 min.

Work Order Report - WO# 0000020211

11/7/2018 8:43:30 AM

WO Company: Gas King County Landfill Gas
WO Department: 7572 Waste Water, LF Gas
WO Shop: Gas Landfill Gas

TECHNICIAN COPY

WO#: 0000020211
Date In: 11/07/2018 08:42
Date Promised: 11/08/2018 08:42
Date Out: 00:00
WO Status: A Last WO#:0000020211
WO Priority: Last WO Date: 11/07/2018
Track DownTime: Y Operator: WG

Equipment: CHAREA5TD License: na

Location: 20
Year: 2010
Make: UD
Model: UD
Class: ZZZZZZZZGS: Landfill Gas - not classified

Color:
Serial: na
Engine:

Tire Size 1:
Tire Size 2:
Transmission:
Fuel Type1:
Fuel Type2:
Fuel Type3:
Oil Capacity: 0.000
Fuel Cap1: 0.000
Fuel Cap2: 0.000

GVW: 0
EAC: 24
Department: 7572:Waste Water, LF Gas
Company: Gas King County Landfill Gas
Site: 20:20- Cedar Hills
Monitor Group:

Comments:
CH Area 5

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD

PM SERVICE

Type	Cycle	Next Due	Description
V	0 - MONTHS	12/10/2018	Cover System

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description

REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMV BS	PM Service | PM Cover System | Billable | Scheduled, Target	0	763	0.00000	Gas

NOTES

Work Order Task List

Repair Code: PMV BS
Equipment: CHAREA5TD
Work Order: 0000020211

Complete?	Step	Tasks	OK	Adjust	Repair	Replace	Comments
	1	Gas- Visually inspect Header	✓				
	2	Gas- Ck for damage @ flare station inlet	✓				
	3	Gas- Ck collection field pipe integrity	✓				
	4	Gas- Ck collection field pipe alignment	✓				
	5	Gas- Ck for damage @ possible stress pts	✓				
	6	Gas- Ck for damage at vertical pipes	✓				
	7	Gas- Ck for damage at well heads	✓				
	8	Gas- Ck for gas leaks with TVA 1000					
	9	Gas- Ck for settlement/ponding	✓				
	10	Gas- Ck surface water conveyance system	✓				
11/14	11	Gas- Ck and open vault covers					
	12	Gas- Exercise field and header valves					
	13	Gas- Ck flex hoses and connections	✓				
	14	Gas- Ck for erosion	✓				
	15	Gas- Ck for vegetation	✓				
	16	Gas- Ck cover system	✓				
	17	Gas- Ck for refuse/litter	✓				
	18	Gas- Note any deficiencies					

30m

WO Company: Gas King County Landfill Gas
WO Department: 7572 Waste Water, LF Gas
WO Shop: Gas Landfill Gas

TECHNICIAN COPY

WO#: 0000020198
Date In: 11/07/2018 08:23
Date Promised: 11/08/2018 08:23
Date Out: 00:00
WO Status: A Last WO#:0000020050
WO Priority: Last WO Date: 09/26/2018
Track DownTime: Y Operator: WG

Equipment: charea6td License: na

Location: 20 Color:
Year: 2010 Serial: na
Make: UD Engine:
Model: UD
Class: ZZZZZZZZGS: Landfill Gas - not classified

Tire Size 1:
Tire Size 2:
Transmission:
Fuel Type1:
Fuel Type2:
Fuel Type3:
Oil Capacity: 0.000
Fuel Cap1: 0.000
Fuel Cap2: 0.000

GVW: 0
EAC: 24
Department: 7572:Waste Water, LF Gas
Company: Gas King County Landfill Gas
Site: 20:20- Cedar Hills
Monitor Group:
Comments:
CH Area 6

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD

PM SERVICE

Type	Cycle	Next Due	Description
V	0 - MONTHS	11/10/2018	Cover System

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description

REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMV BS	PM Service | PM Cover System | Billable | Scheduled, Target	0	750 RB	0.00000	Gas

NOTES

Work Order Task List

Repair Code: PMV BS
Equipment: charea6td
Work Order: 0000020198

Complete?	Step	Tasks	OK	Adjust	Repair	Replace	Comments
	1	Gas- Visually inspect Header	✓				
	2	Gas- Ck for damage @ flare station inlet	✓				
	3	Gas- Ck collection field pipe integrity	✓				
	4	Gas- Ck collection field pipe alignment	✓				
	5	Gas- Ck for damage @ possible stress pts	✓				
	6	Gas- Ck for damage at vertical pipes	✓				
	7	Gas- Ck for damage at well heads	✓				
	8	Gas- Ck for gas leaks with TVA 1000	✓				
	9	Gas- Ck for settlement/ponding	✓				
	10	Gas- Ck surface water conveyance system	✓				
	11	Gas- Ck and open vault covers	✓				
	12	Gas- Exercise field and header valves	✓				
	13	Gas- Ck flex hoses and connections	✓				
	14	Gas- Ck for erosion	✓				
	15	Gas- Ck for vegetation	✓				
	16	Gas- Ck cover system	✓				
	17	Gas- Ck for refuse/litter	✓				
	18	Gas- Note any deficiencies	✓				

11/13/18

45 min.

Work Order Report - WO# 0000020247

11/7/2018 9:30:05 AM

WO Company: Gas King County Landfill Gas
WO Department: 7572 Waste Water, LF Gas
WO Shop: Gas Landfill Gas

TECHNICIAN COPY

WO#: 0000020247
Date In: 11/07/2018 09:29
Date Promised: 11/08/2018 09:29
Date Out: 00:00
WO Status: A Last WO#:0000020169
WO Priority: Last WO Date: 09/28/2018
Track DownTime: Y Operator: WG

Equipment: charea5 License: na

Location: 20
Year: 2006
Make: UD
Model: UD
Class: ZZZZZZZZGS: Landfill Gas - not classified

Color:
Serial: na
Engine:

Tire Size 1:
Tire Size 2:
Transmission:
Fuel Type1:
Fuel Type2:
Fuel Type3:
Oil Capacity: 0.000
Fuel Cap1: 0.000
Fuel Cap2: 0.000

GVW: 0
EAC: 24
Department: 7572:Waste Water, LF Gas
Company: Gas King County Landfill Gas
Site: 20:20- Cedar Hills
Monitor Group:

Comments:
CH Area 5

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD

PM SERVICE

Type	Cycle	Next Due	Description
G	0 - MONTHS	11/10/2018	Gas System
T	0 - MONTHS	11/10/2018	Stormwater
V	0 - MONTHS	11/10/2018	Cover System

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description

REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMG BS	PM Service | PM Gas System | Billable | Scheduled, Target	0	750 RB	0.00000	Gas
PMT BS	PM Service | PM Stormwater | Billable | Scheduled, Target	0	750 RB	0.00000	Gas
PMV BS	PM Service | PM Cover System | Billable | Scheduled, Target	0	750 RB	0.00000	Gas

NOTES

For CHAREA4, CHAREA5, CHAREA6, CHAREA7, CHAREAS23, CHCENTRALPIT, CHEMH, CHSEPA, CHSSWA, CHSWMH (10)

PMG BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect collection system	✓				
Gas Visually inspect disposal system	✓				
Gas Verify daily odor log is current	✓				
Gas Note any deficiencies	✓				

PMT BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect ponds					
Gas Visually inspect lagoons					
Gas Visually inspect catch basins	✓				
Gas Visually inspect control structures	✓				
Gas Visually inspect conveyance pipes	✓				
Gas Note any deficiencies	✓				

PMV BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect vegetation	✓				
Gas Visually inspect refuse					
Gas Visually inspect cover	✓				
Gas Visually inspect erosion	✓				
Gas Note any deficiencies	✓				

DATE: 11/15/18

Work Order Report - WO# 0000020248

11/7/2018 9:31:06 AM

WO Company: Gas King County Landfill Gas
WO Department: 7572 Waste Water, LF Gas
WO Shop: Gas Landfill Gas

TECHNICIAN COPY

WO#: 0000020248
Date In: 11/07/2018 09:30
Date Promised: 11/08/2018 09:30
Date Out: 00:00
WO Status: A Last WO#:0000020195
WO Priority: Last WO Date: 11/07/2018
Track DownTime: Y Operator: WG

Equipment: charea6 License: na

Location: 20
Year: 2006
Make: UD
Model: UD
Class: ZZZZZZZZGS: Landfill Gas - not classified

Color:
Serial: na
Engine:

Tire Size 1:
Tire Size 2:
Transmission:
Fuel Type1:
Fuel Type2:
Fuel Type3:
Oil Capacity: 0.000
Fuel Cap1: 0.000
Fuel Cap2: 0.000

GVW: 0
EAC: 24
Department: 7572:Waste Water, LF Gas
Company: Gas King County Landfill Gas
Site: 20:20- Cedar Hills
Monitor Group:

Comments:
CH Area 6

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD

PM SERVICE

Type	Cycle	Next Due	Description
G	0 - MONTHS	11/10/2018	Gas System
S	0 - MONTHS	11/28/2018	Scheduled Inspection
T	0 - MONTHS	11/10/2018	Stormwater
V	0 - MONTHS	11/10/2018	Cover System
W	W - WEEKS	11/03/2018	Weekly Inspection

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description

REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMG BS	PM Service | PM Gas System | Billable | Scheduled, Target	0	750 RB	0.00000	Gas
PMT BS	PM Service | PM Stormwater | Billable | Scheduled, Target	0	750 RB	0.00000	Gas
PMV BS	PM Service | PM Cover System | Billable | Scheduled, Target	0	750 RB	0.00000	Gas

NOTES

For CHAREA4, CHAREA5, CHAREA6, CHAREA7, CHAREAS23, CHCENTRALPIT, CHEMH, CHSEPA, CHSSWA, CHSWMH (10)

PMG BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect collection system	✓				
Gas Visually inspect disposal system	✓				
Gas Verify daily odor log is current	✓				
Gas Note any deficiencies	✓				

PMT BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect ponds					
Gas Visually inspect lagoons					
Gas Visually inspect catch basins	✓				
Gas Visually inspect control structures	✓				
Gas Visually inspect conveyance pipes	✓				
Gas Note any deficiencies	✓				

PMV BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect vegetation	✓				
Gas Visually inspect refuse					
Gas Visually inspect cover	✓				
Gas Visually inspect erosion	✓				
Gas Note any deficiencies	✓				

DATE: 11/15/18

Work Order Report - WO# 0000020050

9/26/2018 10:32:12 AM

WO Company: Gas King County Landfill Gas
WO Department: 7572 Waste Water, LF Gas
WO Shop: Gas Landfill Gas

TECHNICIAN COPY

WO#: 0000020050
Date In: 09/26/2018 10:31
Date Promised: 09/27/2018 10:31
Date Out: 00:00
WO Status: A Last WO#:0000019961
WO Priority: Last WO Date: 08/29/2018
Track DownTime: Y Operator: WG

Equipment: CHAREA6TD License: na

Location: 20
Year: 2010
Make: UD
Model: UD
Class: ZZZZZZZZGS: Landfill Gas - not classified
Color:
Serial: na
Engine:

Tire Size 1:
Tire Size 2:
Transmission:
Fuel Type1:
Fuel Type2:
Fuel Type3:
Oil Capacity: 0.000
Fuel Cap1: 0.000
Fuel Cap2: 0.000

GVW: 0
EAC: 24
Department: 7572:Waste Water, LF Gas
Company: Gas King County Landfill Gas
Site: 20:20- Cedar Hills
Monitor Group:
Comments:
CH Area 6

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD

PM SERVICE

Type	Cycle	Next Due	Description
V	0 - MONTHS	09/10/2018	Cover System

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description

REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMV BS	PM Service | PM Cover System | Billable | Scheduled, Target	0	762 JD	0.00000	Gas

NOTES

Work Order Task List

Repair Code: PMV BS
Equipment: CHAREA6TD
Work Order: 0000020050

Complete?	Step	Tasks	OK	Adjust	Repair	Replace	Comments
	1	Gas- Visually inspect Header	✓				
	2	Gas- Ck for damage @ flare station inlet	✓				
	3	Gas- Ck collection field pipe integrity	✓				
	4	Gas- Ck collection field pipe alignment	✓				
	5	Gas- Ck for damage @ possible stress pts	✓				
	6	Gas- Ck for damage at vertical pipes	✓				
	7	Gas- Ck for damage at well heads	✓				
10-16	8	Gas- Ck for gas leaks with TVA 1000					
	9	Gas- Ck for settlement/ponding	✓				
	10	Gas- Ck surface water conveyance system	✓				
	11	Gas- Ck and open vault covers	✓				
	12	Gas- Exercise field and header valves	✓				
	13	Gas- Ck flex hoses and connections	✓				
	14	Gas- Ck for erosion	✓				
	15	Gas- Ck for vegetation	✓				
	16	Gas- Ck cover system	✓				
	17	Gas- Ck for refuse/litter	✓				
	18	Gas- Note any deficiencies	✓				

1 hr

Work Order Report - WO# 0000020078

FW

9/26/2018 11:19:22 AM

WO Company: Gas King County Landfill Gas
WO Department: 7572 Waste Water, LF Gas
WO Shop: Gas Landfill Gas

TECHNICIAN COPY

WO#: 0000020078
Date In: 09/26/2018 11:18
Date Promised: 09/27/2018 11:18
Date Out: 00:00
WO Status: A Last WO#:0000019942
WO Priority: Last WO Date: 08/29/2018
Track DownTime: Y Operator: WG

Equipment: CHAREA5TD License: na

Location: 20
Year: 2010
Make: UD
Model: UD
Class: ZZZZZZZZGS: Landfill Gas - not classified

Color:
Serial: na
Engine:

Tire Size 1:
Tire Size 2:
Transmission:
Fuel Type1:
Fuel Type2:
Fuel Type3:
Oil Capacity: 0.000
Fuel Cap1: 0.000
Fuel Cap2: 0.000

GVW: 0
EAC: 24
Department: 7572:Waste Water, LF Gas
Company: Gas King County Landfill Gas
Site: 20:20- Cedar Hills
Monitor Group:

Comments:
CH Area 5

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD

PM SERVICE

Type	Cycle	Next Due	Description
V	0 - MONTHS	10/10/2018	Cover System

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description

REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMV BS	PM Service | PM Cover System | Billable | Scheduled, Target	0	750 RB	0.00000	Gas

NOTES

Work Order Task List

Repair Code: PMV BS
Equipment: CHAREA5TD
Work Order: 0000020078

Complete?	Step	Tasks	OK	Adjust	Repair	Replace	Comments
	1	Gas- Visually inspect Header	✓				
	2	Gas- Ck for damage @ flare station inlet	✓				
	3	Gas- Ck collection field pipe integrity	✓				
	4	Gas- Ck collection field pipe alignment	✓				
	5	Gas- Ck for damage @ possible stress pts	✓				
	6	Gas- Ck for damage at vertical pipes	✓				
	7	Gas- Ck for damage at well heads	✓				
	8	Gas- Ck for gas leaks with TVA 1000	✓				
	9	Gas- Ck for settlement/ponding	✓				
	10	Gas- Ck surface water conveyance system	✓				
	11	Gas- Ck and open vault covers	✓				
	12	Gas- Exercise field and header valves	✓				
	13	Gas- Ck flex hoses and connections	✓				
	14	Gas- Ck for erosion	✓				
	15	Gas- Ck for vegetation	✓				
	16	Gas- Ck cover system	✓				
	17	Gas- Ck for refuse/litter	✓				
	18	Gas- Note any deficiencies	✓				

10/3/18 1 hr.

Work Order Report - WO# 0000020169

9/28/2018 11:26:38 AM

WO Company: Gas King County Landfill Gas
WO Department: 7572 Waste Water, LF Gas
WO Shop: Gas Landfill Gas

TECHNICIAN COPY

WO#: 0000020169
Date In: 09/28/2018 11:25
Date Promised: 09/29/2018 11:25
Date Out: 00:00
WO Status: A Last WO#:0000020036
WO Priority: Last WO Date: 08/29/2018
Track DownTime: Y Operator: WG

Equipment: CHAREA5 License: na

Location: 20 Color:
Year: 2006 Serial: na
Make: UD Engine:
Model: UD
Class: ZZZZZZZZGS: Landfill Gas - not classified

Tire Size 1:
Tire Size 2:
Transmission:
Fuel Type1:
Fuel Type2:
Fuel Type3:
Oil Capacity: 0.000
Fuel Cap1: 0.000
Fuel Cap2: 0.000

GVW: 0
EAC: 24
Department: 7572:Waste Water, LF Gas
Company: Gas King County Landfill Gas
Site: 20:20- Cedar Hills
Monitor Group:

Comments:
CH Area 5

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD

PM SERVICE

Type	Cycle	Next Due	Description
G	0 - MONTHS	09/10/2018	Gas System
T	0 - MONTHS	09/10/2018	Stormwater
V	0 - MONTHS	09/10/2018	Cover System

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description

REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMG BS	PM Service | PM Gas System | Billable | Scheduled, Target	0	762	0.00000	Gas
PMT BS	PM Service | PM Stormwater | Billable | Scheduled, Target	0	762	0.00000	Gas
PMV BS	PM Service | PM Cover System | Billable | Scheduled, Target	0	762	0.00000	Gas

NOTES

For CHAREA4, CHAREA5, CHAREA6, CHAREA7, CHAREAS23, CHCENTRALPIT, CHEMH, CHSEPA, CHSSWA, CHSWMH (10)

PMG BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect collection system	✓				
Gas Visually inspect disposal system	✓				
Gas Verify daily odor log is current	✓				
Gas Note any deficiencies	✓				

PMT BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect ponds	✓				
Gas Visually inspect lagoons	✓				
Gas Visually inspect catch basins	✓				
Gas Visually inspect control structures	✓				
Gas Visually inspect conveyance pipes	✓				
Gas Note any deficiencies	✓				

PMV BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect vegetation	✓				
Gas Visually inspect refuse	✓				
Gas Visually inspect cover	✓				
Gas Visually inspect erosion	✓				
Gas Note any deficiencies	✓				

DATE: 10-18-18

Work Order Report - WO# 0000020170

9/28/2018 11:27:33 AM

WO Company: Gas King County Landfill Gas
WO Department: 7572 Waste Water, LF Gas
WO Shop: Gas Landfill Gas

TECHNICIAN COPY

WO#: 0000020170
Date In: 09/28/2018 11:26
Date Promised: 09/29/2018 11:26
Date Out: 00:00
WO Status: A Last WO#:0000020117
WO Priority: Last WO Date: 09/28/2018
Track DownTime: Y Operator: WG

Equipment: CHAREA6 License: na

Location: 20
Year: 2006
Make: UD
Model: UD
Class: ZZZZZZZZGS: Landfill Gas - not classified
Color:
Serial: na
Engine:

Tire Size 1:
Tire Size 2:
Transmission:
Fuel Type1:
Fuel Type2:
Fuel Type3:
Oil Capacity: 0.000
Fuel Cap1: 0.000
Fuel Cap2: 0.000

GVW: 0
EAC: 24
Department: 7572:Waste Water, LF Gas
Company: Gas King County Landfill Gas
Site: 20:20- Cedar Hills
Monitor Group:

Comments:
CH Area 6

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD

PM SERVICE

Type	Cycle	Next Due	Description
G	0 - MONTHS	09/10/2018	Gas System
S	0 - MONTHS	09/28/2018	Scheduled Inspection
T	0 - MONTHS	09/10/2018	Stormwater
V	0 - MONTHS	09/10/2018	Cover System
W	W - WEEKS	09/22/2018	Weekly Inspection

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description

REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMG BS	PM Service | PM Gas System | Billable | Scheduled, Target	0	762	0.00000	Gas
PMT BS	PM Service | PM Stormwater | Billable | Scheduled, Target	0	762	0.00000	Gas
PMV BS	PM Service | PM Cover System | Billable | Scheduled, Target	0	762	0.00000	Gas

NOTES

For CHAREA4, CHAREA5, CHAREA6, CHAREA7, CHAREAS23, CHCENTRALPIT, CHEMH, CHSEPA, CHSSWA, CHSWMH (10)

PMG BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect collection system	✓				
Gas Visually inspect disposal system	✓				
Gas Verify daily odor log is current	✓				
Gas Note any deficiencies	✓				

PMT BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect ponds	✓				
Gas Visually inspect lagoons	✓				
Gas Visually inspect catch basins	✓				
Gas Visually inspect control structures	✓				
Gas Visually inspect conveyance pipes	✓				
Gas Note any deficiencies	✓				

PMV BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect vegetation	✓				
Gas Visually inspect refuse	✓				
Gas Visually inspect cover	✓				
Gas Visually inspect erosion	✓				
Gas Note any deficiencies	✓				

DATE: 10-18-18

WO Company: Gas King County Landfill Gas
WO Department: 7572 Waste Water, LF Gas
WO Shop: Gas Landfill Gas

TECHNICIAN COPY

WO#: 0000020330
Date In: 11/30/2018 13:04
Date Promised: 12/01/2018 13:04
Date Out: 00:00

WO Status: A Last WO#:0000020234
WO Priority: Last WO Date: 11/07/2018
Track DownTime: Y Operator: jd

Equipment: cedar hills License: na

Location: 20 Color:
Year: 2006 Serial: na
Make: UD Engine:
Model: UD
Class: ZZZZZZZZGS: Landfill Gas - not classified

Tire Size 1:
Tire Size 2:
Transmission:
Fuel Type1:
Fuel Type2:
Fuel Type3:
Oil Capacity: 0.000
Fuel Cap1: 0.000
Fuel Cap2: 0.000

GVW: 0
EAC: 24
Department: 7572:Waste Water, LF Gas
Company: Gas King County Landfill Gas
Site: 20:20- Cedar Hills
Monitor Group:

Comments:
Cedar Hills

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD

PM SERVICE

Type	Cycle	Next Due	Description
I	A - SET AN ANNUAL DATE	07/15/2019	Annual Inspection
Q	0 - MONTHS	12/30/2018	Quarterly Inspection
S	0 - MONTHS	01/15/2019	Scheduled Inspection
X	0 - MONTHS	12/10/2018	Prohibited Activities

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description

REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMQ BS	PM Service | PMQ per list | Billable | Scheduled, Target	0	750 RB	0.00000	Gas
PMQ BS	PM Service | PMQ per list | Billable | Scheduled, Target	0	763 MP	0.00000	Gas

NOTES

Work Order Task List

Repair Code: PMQ BS
Equipment: cedar hills
Work Order: 0000020330

Complete?	Step	Tasks	OK	Adjust	Repair	Replace	Comments
	1	Gas- Ck liner integrity- Serpentine walk	✓				
	1	Gas- Ck liner integrity- Serpentine walk	✓				

R.B.
12-17-18 - 8 hrs
12-18-18 - 9 hrs.
12-19-18 - 8 hrs.
12-21-18 - 4 hrs.

JP
12-26-18 - 8hrs
12-31-18 - 6hrs

DNRP / King County Solid Waste
Serpentine Surface Monitoring Data

Landfill Site: Cedar Hills

Date: 12-12-18

Cal. Time: 8:00 pm

Calibration :

Technician: BL

Test Instrument used: TVA-1000

Surveyor PJ

Cal. Gas Lot No: 20328

Cal Gas Used:

CH_4 496 ppm

O_2

Barometric Pressure		Time
Start	30.10	8:20 pm
Stop	30.02	1:10 am

90% response time in seconds:

1 4 seconds

2 4 seconds

3 4 seconds

avg. 4 seconds

Weather Conditions: Drizzle

Wind Speed &

Direction (out of): 6 - South

Northing (UTM #)	Easting (10 T #)	Time	Comments
No	Exceedences	detected	

DNRP / King County Solid Waste
Serpentine Surface Monitoring Data

Landfill Site: Cedar Hills

Date: 12-17-18

Cal. Time: 6:55 am

Technician: RB

Surveyor P.J.

Calibration :

Test Instrument used: TVA 1000

Cal. Gas Lot No: 20328

Cal Gas Used:

CH_4 496 PPM

O_2 Zero Gas

Barometric Pressure	Time
Start 29.89	6:50 am
Stop 29.84	12:45 pm

90% response time in seconds:

1 4 seconds

2 4 seconds

3 4 seconds

avg. 4 seconds

Weather Conditions: partly cloudy

Wind Speed & Direction (out of): 4 mph S

Northing (UTM #)	Easting (10 T #)	Time	Comments

DNRP / King County Solid Waste
Serpentine Surface Monitoring Data

Landfill Site: Cedar Hills

Date: 12-17-18

Cal. Time: 1:00pm

Technician: RB

Surveyor P.J.

Calibration :

Test Instrument used: TVA1000

Cal. Gas Lot No: 20328

Cal Gas Used:

CH_4 496 ppm

O_2 Zero Gas

Barometric Pressure	Time
Start 29.84	12:57pm
Stop 29.82	3:00pm

90% response time in seconds:

1 4 seconds

2 5 seconds

3 4 seconds

avg. 4 seconds

Weather Conditions: mostly cloudy

Wind Speed & Direction (out of): 4 mph SW

Northing (UTM #)	Easting (10 T #)	Time	Comments

DNRP / King County Solid Waste
Serpentine Surface Monitoring Data

Landfill Site: Cedar Hills

Date: 12-18-18

Cal. Time: 6:48am

Technician: RB

Surveyor PJ

Calibration :

Test Instrument used: TVA 1000

Cal. Gas Lot No: 20328

Cal Gas Used:

CH_4 496 PPM

O_2 Zero Gas

Barometric Pressure	Time
Start 29.62	6:40am
Stop 29.74	~~6:40am~~

90% response time in seconds:

1 5 seconds

2 4 seconds

3 5 seconds

avg. 5 seconds

Weather Conditions: Rain

Wind Speed & Direction (out of): 9 mph SE

Northing (UTM #)	Easting (10 T #)	Time	Comments

DNRP / King County Solid Waste
Serpentine Surface Monitoring Data

Landfill Site: Cedar Hills

Date: 12-18-18

Cal. Time: 11:45am

Calibration :

Technician: RB

Test Instrument used: TVA 1000

Surveyor PJ

Cal. Gas Lot No: 20328

Cal Gas Used:

CH_4 496ppm

O_2 Zero Gas

Barometric Pressure	Time
Start 29.74	11:43am
Stop 29.82	3:40pm

90% response time in seconds:

1 4 seconds

2 4 seconds

3 4 seconds

avg. 4 seconds

Weather Conditions: Rain

Wind Speed &

Direction (out of): 9mph S

Northing (UTM #)	Easting (10 T #)	Time	Comments

DNRP / King County Solid Waste
Serpentine Surface Monitoring Data

Landfill Site: Cedar Hills

Date: 12-19-18

Cal. Time: 6:53am

Calibration :

Technician: RB

Test Instrument used: TVA 1000

Surveyor PJ

Cal. Gas Lot No: 20328

Cal Gas Used:

CH_4 496 Ppm

O_2 Zero Gas

Barometric Pressure	Time
Start 30.12	6:48am
Stop 30.14	12:30pm

90% response time in seconds:

1 5 seconds

2 4 seconds

3 4 seconds

avg. 4 seconds

Weather Conditions: Mostly cloudy

Wind Speed & Direction (out of): 4mph, S

Northing (UTM #)	Easting (10 T #)	Time	Comments

DNRP / King County Solid Waste
Serpentine Surface Monitoring Data

Landfill Site: Cedar Hills

Date: 12-19-18

Cal. Time: 12:55pm

Technician: RB

Surveyor PJ

Calibration :

Test Instrument used: JVA1000

Cal. Gas Lot No: 20328

Cal Gas Used:

CH_4 4.96 ppm

O_2 Zero Gas

Barometric Pressure	Time
Start 30.14	12:50pm
Stop 30.10	3:15pm

90% response time in seconds:

1 4 seconds

2 4 seconds

3 4 seconds

avg. 4 seconds

Weather Conditions: Mostly cloudy

Wind Speed & Direction (out of): 2 mph SE

Northing (UTM #)	Easting (10 T #)	Time	Comments

DNRP / King County Solid Waste
Serpentine Surface Monitoring Data

Landfill Site: Cedar Hills

Date: 12-21-18

Cal. Time: 7:15 am

Calibration :

Technician: RB

Test Instrument used: TVA1000

Surveyor PJ

Cal. Gas Lot No: 20328

Cal Gas Used:

CH_4 4/96 ppm

O_2 Zero Gas

Barometric Pressure	Time
Start 30.06	7:10 am
Stop 30.13	10:00 am

90% response time in seconds:

1 5 seconds

2 5 seconds

3 4 seconds

avg. 5 seconds

Weather Conditions: mostly cloudy

Wind Speed & Direction (out of): 3 mph, SE

Northing (UTM #)	Easting (10 T #)	Time	Comments

DNRP / King County Solid Waste
Serpentine Surface Monitoring Data

Landfill Site: Cedar Hills

Date: 12/26/10

Cal. Time: 600 Am

Technician: J Parker

Surveyor PJ

Calibration :

Test Instrument used: TVa 1000

Cal. Gas Lot No: 20328

Cal Gas Used:

CH_4 496 ppm

O_2 Zero

Barometric Pressure	Time
Start 29.98	600 AM
Stop 29.98	1200 pm

90% response time in seconds:

1 4 seconds

2 4 seconds

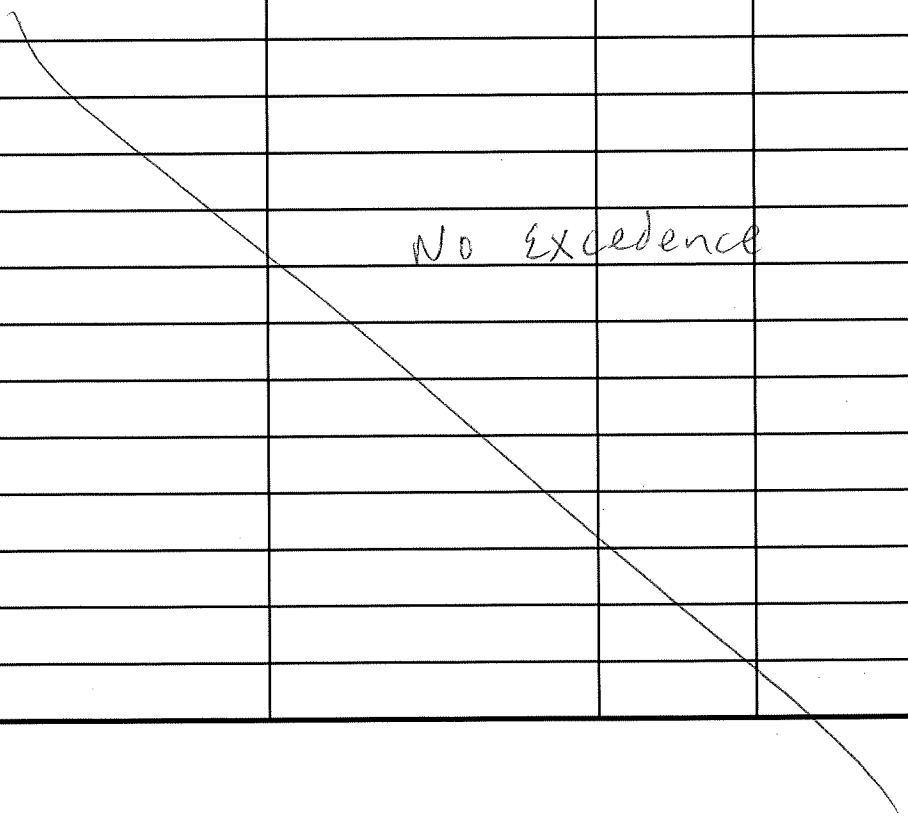
3 4 seconds

avg. 4 seconds

Weather Conditions: Overcast, rain

Wind Speed & Direction (out of): 9 mph SE

Northing (UTM #)	Easting (10 T #)	Time	Comments
	No Exceedence		



DNRP / King County Solid Waste
Serpentine Surface Monitoring Data

Landfill Site: Cedar Hills

Date: 12/26/10

Cal. Time: 1200 PM

Technician: J. Parker

Surveyor PJ

Calibration :

Test Instrument used: TVA 1000

Cal. Gas Lot No: 20320

Cal Gas Used:

CH_4 496 ppm

O_2 zero

Barometric Pressure		Time
Start	29.98	1200pm
Stop	29.90	300pm

90% response time in seconds:

1 4 seconds

2 4 seconds

3 4 seconds

avg. 4 seconds

Weather Conditions: overcast, rain

Wind Speed &

Direction (out of): 3mph SE

Northing (UTM #)	Easting (10 T #)	Time	Comments
	NO	excedence	

DNRP / King County Solid Waste
Serpentine Surface Monitoring Data

Landfill Site: Cedar Hills

Date: 12/31/10

Cal. Time: 1030Am

Technician: J. Parker

Surveyor PJ

Calibration :

Test Instrument used: TVA 1000

Cal. Gas Lot No: 20320

Cal Gas Used:

CH_4 496ppm

O_2 Zero

Barometric Pressure	Time
Start	1030Am
Stop 30.32	300pm

90% response time in seconds:

1 4 seconds

2 4 seconds

3 4 seconds

avg. 4 seconds

Weather Conditions: Sunny, Fog

Wind Speed &

Direction (out of): 2mph N.E.

Northing (UTM #)	Easting (10 T #)	Time	Comments
	NO Exceedence		

