

CEDAR HILLS REGIONAL LANDFILL QUARTERLY ENVIRONMENTAL MONITORING REPORT

Fourth Quarter 2017



King County

Department of
Natural Resources and Parks
Solid Waste Division

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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.

1 st — 2 nd — 3 rd — 4 th — YEAR 2017	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)	<input type="checkbox"/>	
Statistical tests	420, (2)	<input checked="" type="checkbox"/>	3
Notification of statistical increase (if applicable)	420, (4)	<input checked="" type="checkbox"/>	3
Notification of concentrations above Chapter 173-200 WAC criteria (if any)	430, (4)	<input checked="" type="checkbox"/>	21
Static water level readings	415, (2)	<input checked="" type="checkbox"/>	App B
Potentiometric surface elevation maps depicting flow direction	415, (2)	<input checked="" type="checkbox"/>	App A
Flow rate – calculated	415, (2)	<input checked="" type="checkbox"/>	App A
Cation-anion balances	430, (5a)	<input checked="" type="checkbox"/>	29
Explanation of greater than 5% (or 10%) difference if needed	430, (5a)	<input type="checkbox"/>	
Trilinear diagrams	430, (5b)	<input checked="" type="checkbox"/>	35, 36
Leachate analyses (if sampled and tested)	415, (2)	<input checked="" type="checkbox"/>	App B
Data entered into EIM database (date entered:)	415, (3)	<input type="checkbox"/>	
Complete copy of the lab report with chain of custody record.		<input type="checkbox"/>	
Annual Groundwater Reports: 173-351-415 (1) YEAR			
Summary of statistical results and trends	415, (1)	<input type="checkbox"/>	
Summary of groundwater flow rate and direction for the year	415, (1)	<input type="checkbox"/>	
Copy of all potentiometric maps for the year	415, (1)	<input type="checkbox"/>	
Summary geochemical evaluation	415, (1)	<input type="checkbox"/>	
For Quarterly and Annual Reports			
Stamped by a licensed professional	RCW 18.220	<input checked="" type="checkbox"/>	

Thomas A. Hens
 Signature of Report Author

February 28, 2018
 Date


Cedar Hills Regional Landfill
 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.

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EXPIRES 8/10/2019

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

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Cedar Hills Regional Landfill Summary of Quarterly Environmental Monitoring Fourth Quarter of 2017

This summary contains a discussion of quarterly environmental monitoring results for groundwater, storm water 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 monitoring results and how they compare to previously collected data at the site.

1.1 Groundwater

Groundwater monitoring well details, locations and monitoring status are presented in Table 1 and Figure 1. Monitoring activities for the second 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).

Note: For discussion and graphical presentation, monitoring wells are grouped together according to the flow path analysis for the regional aquifer.

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 up-gradient 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 new 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 or Semi-Annual (i.e. the second and fourth quarters of the year). This quarter both wells marked as Quarterly and Semi-Annual in Table 1 were monitored.

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 for a number of analytes. Further information on the transition to the LLOQ is available in Section 2.4.1: Laboratory Data Quality - LLOQ. Results can be viewed in Appendix B: Field and Analytical Test Results, and a discussion of exceedances is below.

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

	Upgradient and Crossgradient	Downgradient
Quarterly Sampled Wells	MW-59, MW-66, MW-81, MW-83, MW-84, MW-93, MW-94	MW-68, MW-69, MW-72, MW-74, MW-75, MW-80, MW-85, MW-87
Semi-Annually 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 follows:

	Upgradient and Crossgradient	Downgradient
Quarterly Sampled Wells	MW-59	MW-68, MW-69, MW-72, MW-75, MW-80, MW-87
Semi-Annually Sampled Wells	MW-21, MW-24, MW-65	MW-86, MW-89, MW-100

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

	Upgradient and Crossgradient	Downgradient
Quarterly Sampled Wells	MW-59, MW-93	MW-68, MW-69, MW-72, MW-75, MW-80, MW-87
Semi-Annually Sampled Wells	MW-21, MW-24, MW-56, MW-64, MW-65, MW-95	MW-67, MW-89, MW-100

Primary and secondary exceedances of regulatory standards are tabulated and presented in Table 3. This result set contains more exceedances for 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 (Figures 5 and 6) indicate water quality type (hydrochemical facie) based on dissolved ion distribution. The diagrams are useful to recognize spatial variability, potential analytical error or change in hydrochemical facie over time. 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 in regional aquifer samples as all samples are within 10% on the ion balance.

Intra-well upper prediction limits (UPLs) are calculated annually and have been updated with data collected through the end of 2016. Calculated prediction limits and analytical results for Appendix I parameters are presented in Table 5 and summarized below.

Result values greater than UPLs for Appendix I parameters this quarter include:

	Upgradient and Crossgradient	Downgradient
Quarterly Sampled Wells	MW-83 (Barium, Copper, Nitrate) MW-93 (Barium)	--
Semi-Annually Sampled Wells	MW-65 (Arsenic, Barium) MW-82 (Nickel)	MW-100 (Nickel)

These results will be entered into the re-testing protocol described in the *Environmental Monitoring Sampling and Analysis Plan for Cedar Hills Regional Landfill (Dec, 2013)*.

Volatile Organic Compound (VOC) detections in regional aquifer wells this quarter are presented in Table 6. There have been regularly occurring detections of chlorinated VOCs and their breakdown products associated with the upgradient Queen City Farms (QCF) site. VOCs detected in quarterly monitored wells were trichloroethene (TCE) in quarterly sampled monitoring wells MW-83 and MW-94, and in semi-annually sampled monitoring wells MW-76 and MW-82. *Cis*-1,2-dichloroethene was detected in quarterly sampled MW-59 and in semi-annually sampled wells MW-24, MW-56 and MW-76. Vinyl Chloride was detected in semi-annually sampled wells MW-24 and MW-65. These upgradient well detections are consistent with past data and continuing migration from QCF.

Carbon disulfide was detected in upgradient quarterly monitoring wells MW-84 and MW-93, upgradient semi-annual monitoring wells MW-21 and MW-24, and downgradient quarterly monitoring well MW-72. This compound has not been detected frequently in the CHRLF monitoring program. Detections are likely due to implementation of LLOQ procedures, which allows for quantification at lower concentrations when acceptable performance criteria are met. Previous analytical results for carbon disulfide had been reported at a higher detection limit, which precluded quantification and reporting at the levels currently being reported. Evaluation is ongoing to assess if the source of these detections are from presence in native samples, or due to a possible field sampling or lab contamination.

Acetone was detected in downgradient well MW-67. This analyte is frequently detected in both field and method blanks and likely a result of laboratory contamination.

1.1.2 Perched Zones

The East Main Hill perched zones (EPZ) are localized areas of shallow subsurface saturation that appear laterally and vertically discontinuous, predominantly within till and lacustrine silts.

In the South Solid Waste Area perched zone (SSWA), perched groundwater occurs in pockets within 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 three EPZ monitoring wells (MW-30A, MW-47, and MW-62), one groundwater extraction well (EW-25), and surface water station SW-E1, which is believed to receive discharge from the EPZ. MW-101 near the former SSWA was also sampled. Groundwater quality data from perched zones wells collected during the fourth quarter of 2017 are consistent with previous samples.

Additionally, EPZ wells MW-30A, MW-47 MW-62 and surface water station SW-E1 were analyzed for the extended analyte list in WAC 173-351-990 Appendix III per the SAP under the Voluntary Cleanup Program (VCP) in accordance with WAC 173-340. One analyte, Bis-2-ethyl hexyl phthalate (DEHP), was detected in all EPZ groundwater samples, including exceedances of the Primary Ground Water Quality Criteria in MW-30A and MW-47. Future sampling and evaluation for DEHP will be conducted per the recommendations of the on-going Remedial Investigation/Feasibility Study (RI/FS) being conducted under the VCP.

MW-105 was installed on the south side of the east leachate lagoon to provide 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 $\mu\text{mhos/cm}$ 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 was monitored for specific conductance per the SAP and was found to be consistent with previous characterizations (160 $\mu\text{mhos/cm}$).

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 plots for perched zones samples are all within the calcium-magnesium-bicarbonate hydrochemical facie, as in past samples (Table 8 and Figures 7 and 8). Cation/Anion balances indicate no potential analytical error (greater than 10% ion imbalance) in any perched wells.

As with the regional data, perched zone prediction limits are derived from cumulative data through the end of 2016. Calculated prediction limits for Appendix I parameters

along with analytical results are presented in Table 9.

MW-30A again had a nitrate UPL exceedance occurred this quarter; however, a historical review of the data at that monitoring location indicates that there is a long-term history of similar nitrate concentrations as seen during the current. Upon consideration of the fact that the EPZ is already under current investigation, MW-30A will not enter into a retesting protocol for nitrate at this time. Future results will continue to be monitored and testing for UPL exceedances will occur quarterly.

VOC detections in the perched zones are presented in Table 10. Multiple detections that are listed in the table are due to switch to LLOQ methodology, which lowered the detection limit for a variety of VOCs. These data points are qualified 'JT' in Table 10, 'JT' qualified results are only reported as qualitative, i.e. 'present but unquantified'. All other analytes are consistent with past analyses and known impacts.

1.2 Storm Water

Cedar Hills Regional Landfill is covered by an Industrial Stormwater General Permit (ISGWP) issued by the Washington State Department of Ecology. The permit defines discharge Benchmarks, applicable to all facilities, and Effluent Limits, applicable specifically to landfills. These values are reproduced in Table 15. Stations SW-N4, SW-SL3 and SW-GS1 are the designated points for comparison to permit benchmarks and effluent limits.

Monitoring activities are listed in Table 11. Samples were obtained from all the designated compliance stations SW-GS1, SW-SL3 and SW-N4.

Total suspended solids exceeded permit limits this quarter at station SW-SL3. ISWG Permit Discharge Monitoring Reports (DMRs) 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. Location of the compliance probes can be viewed in Figure 4 and in Appendix B.

No compliance probe methane detections occurred during the fourth quarter of 2017.

1.3.2 Interior Probe Network

Additional probes on the landfill site, located interior to the compliance probes and outside of the waste footprint are monitored. These probes are monitored by the LFG crew monthly primarily to monitor system performance and as an early warning for LFG migration. Location of the interior probes can be viewed in Appendix B.

Previously, the results for interior gas probes had not been included in the quarterly compliance reporting for the landfill, as they do not represent points of compliance for the site. At the request of the regulatory agencies, these results are being reported although they do not represent compliance points. Results can be view 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 on a quarterly for methane. No methane was detected this quarter. The location map and monitoring results 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 13 borings targeting the potential zone of LFG migration in the native sediments. Eight borings serve as LFG extraction wells and five as monitoring probes. The extraction wells and migration probes are currently monitored twice a month, and methane has not been detected in these probes this quarter.

Data indicate the system has been effective in controlling LFG migration to the perimeter probes.

Location map and supplemental Monitoring Probe results are included in Appendix B.

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 ISWGP. 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 Washington State Groundwater Quality Criteria, WAC 173-200 (Table 14). Stormwater monitoring results are compared to the ISWGP Benchmark Criteria, or WAC 173-201A Water Quality Standards for Surface Waters of the State of Washington.

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. These 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.

At CHRLE, intra-well comparisons present a more conservative approach to determining if a statistically significant release has occurred and is the recommended approach 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.

The calculated prediction limits are based entirely on intra-well comparisons. All of the prediction limits are one-sided UPLs.

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 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. 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 to be the most conservative. UPLs for background data sets with less than 50 percent non-detects are evaluated for normality, as non-parametric data sets are based on the highest detected concentration for the respective data set.

UPLs for either normally distributed or transformed data sets with 0 percent non-detects are calculated based on the following equations used to calculate parametric prediction limits with retesting (*EPA Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities – Unified Guidance*, 2009):

Normal Distribution

$$\text{UPL} = x + \kappa s$$

or

Transformed Distribution:

$$\text{UPL} = y + \kappa s_y$$

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

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 the respective analytical parameter at the respective location is required in order to determine if the exceedance is representative of 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 to be 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 Method Detection Limit (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-486.

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.

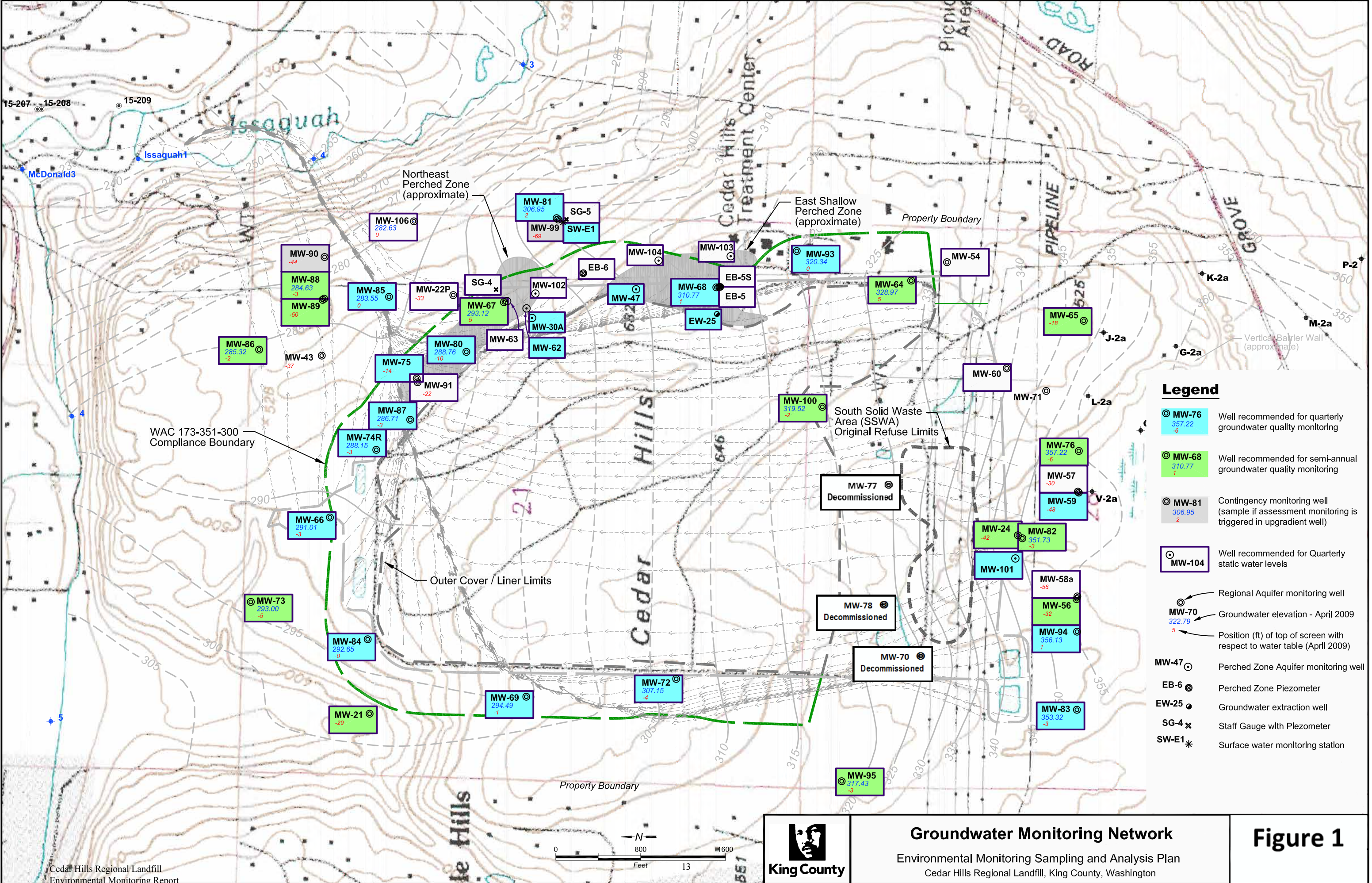
During the second quarter of 2017, the transition to using the LLOQ methodology resulted in revised reporting limits for a number of analytes. Quantitation limits for all trace metals (i.e. non-major cationic species metals), and a subset of the VOCs analyzed for regularly are lower than past analyses, while some VOCs have higher or the same limits as before. As a result of these changes, previously unobserved trace metals and VOCs in a number of wells are now reportable at concentrations lower than previous methodologies could detect. This does not invalidate past analytical data reported at the MDL as non-detects, but serves to confirm that some analytes can be present below detection limits due to instrumentation and/or analytical methodology limitations.

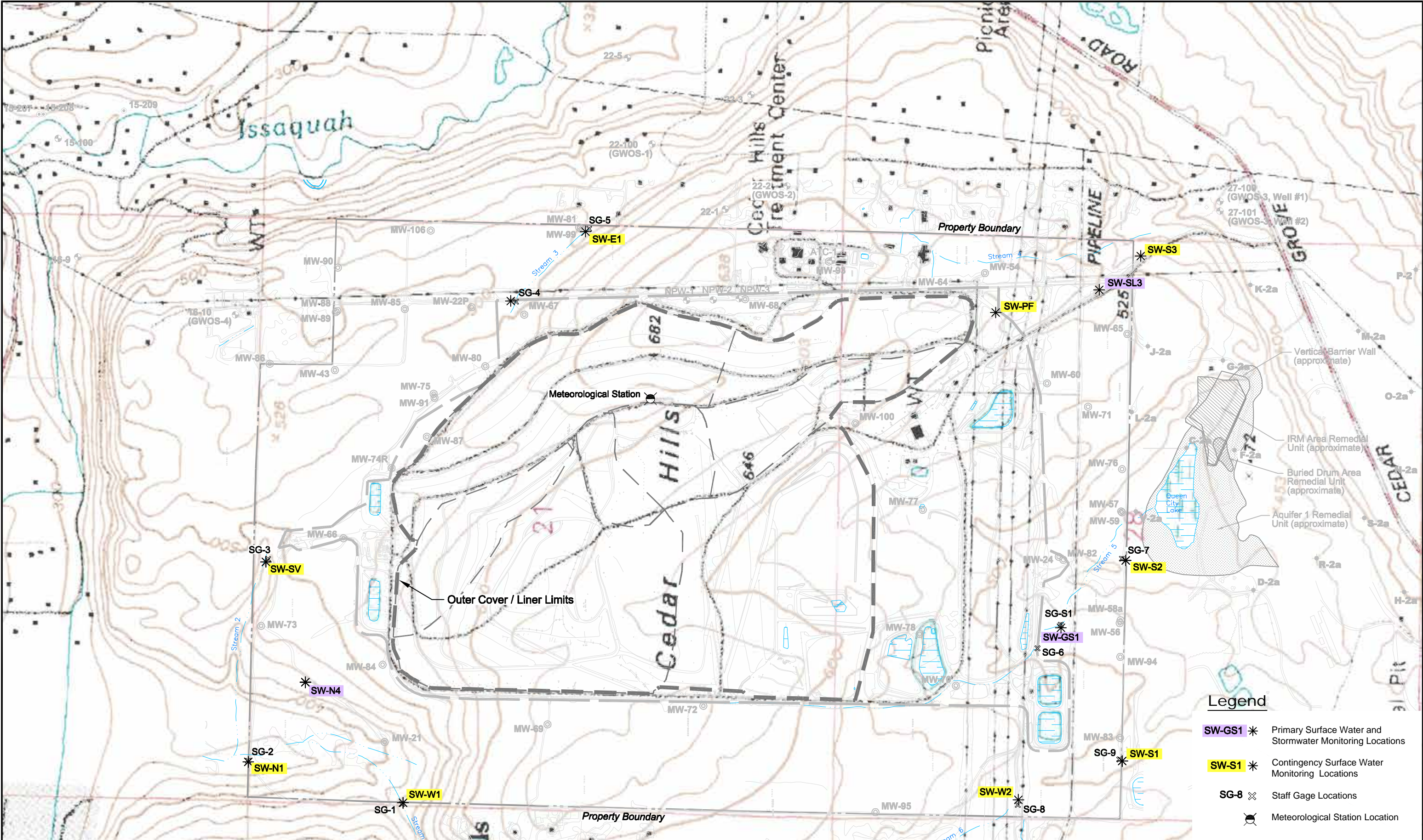
The change to LLOQ does increase the need for continually assessing and evaluating whether analytes detected that had been previously not detected are due to a confirmed presence in the native sample, or result from either field sampling or laboratory contamination.

Due to the change to the LLOQ methodology change, 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.

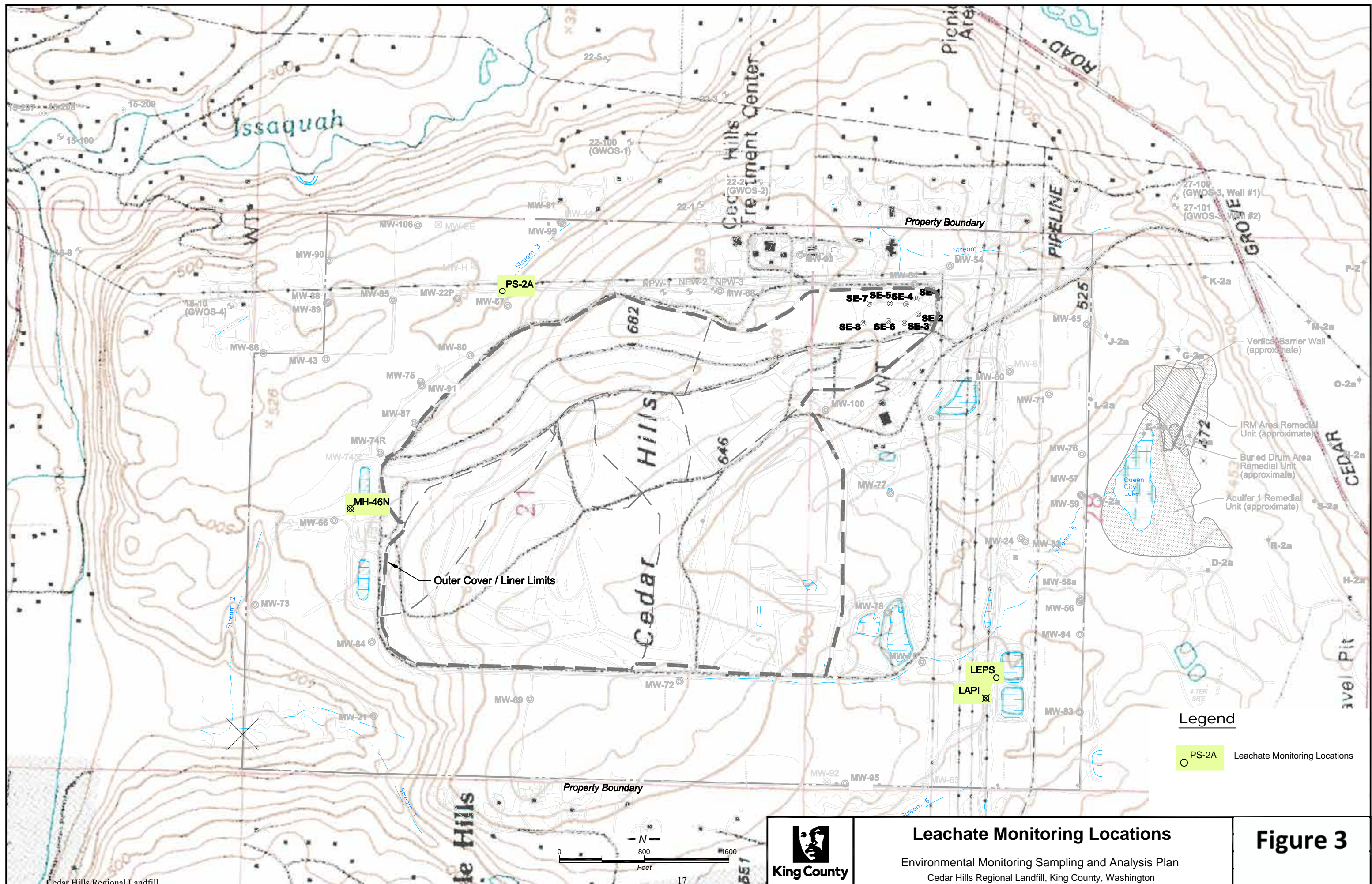
2.4.2 Analytical Uncertainty and Data Review

An important consideration when reviewing analytical test data is to examine the uncertainty associated with the measurement of each analyte. In some cases, this uncertainty can be greater than the degree of confidence a prediction limit spans due to the ‘noise’ that is intrinsic to analytical testing methods. When a UPL and reporting limit are close in magnitude, the uncertainty around whether an exceedance did or did not occur increases. Arsenic exceedances in groundwater are an example of such a case. Both the UPL and detection limit for arsenic are typically quite low (parts per billion), which cause the result to be subject to both the uncertainty within the calculation of the UPL, and the noise inherent to analytical method used to detect at a low target detection/quantitation limit. Therefore the inherent uncertainty in both of these methodologies needs to be considered during a statistical evaluation of data.





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.



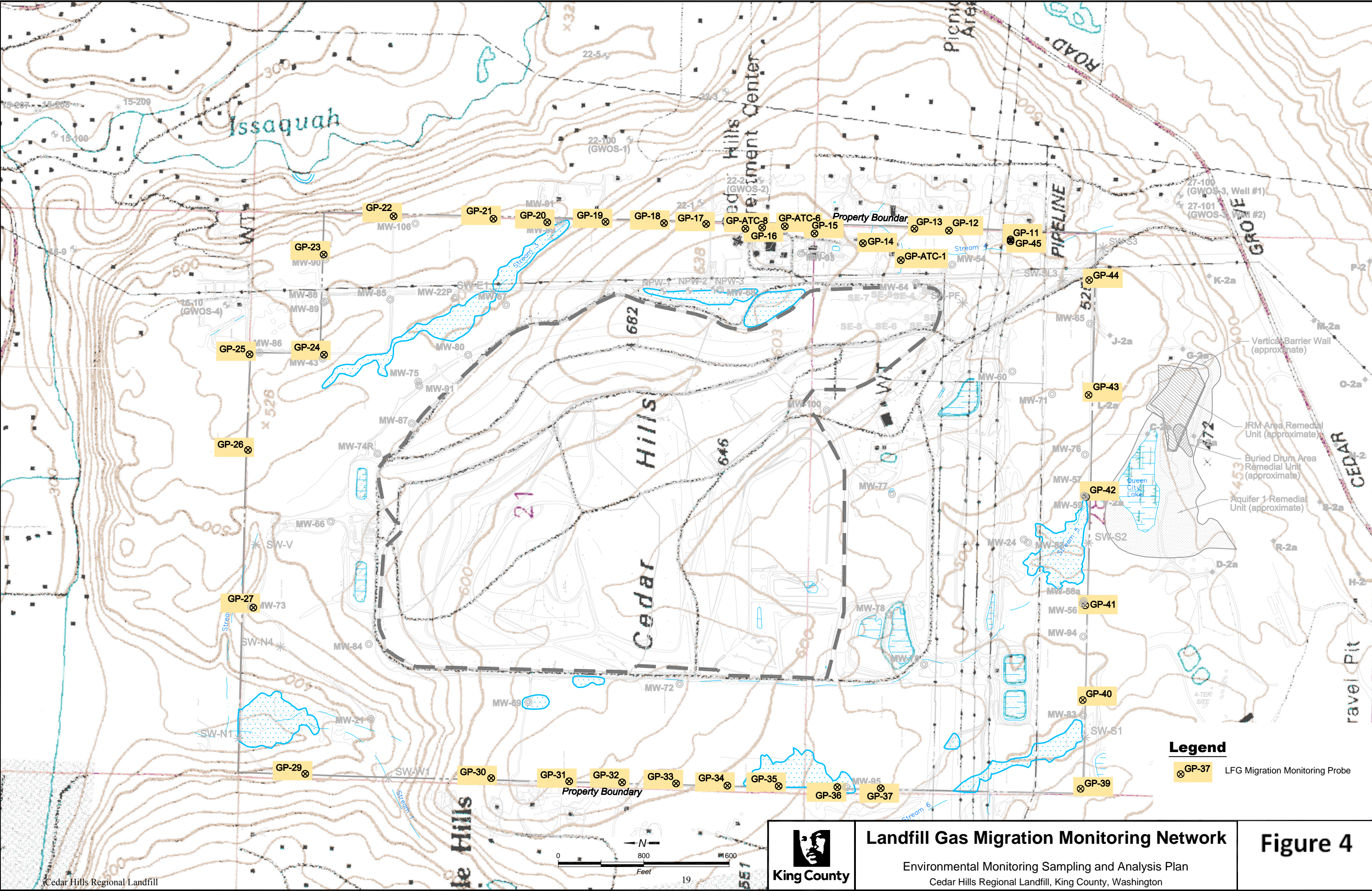


Table 1
CEDAR HILLS REGIONAL LANDFILL GROUNDWATER MONITORING WELLS

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 is estimated at 2.5 ft indicating any releases would be detected with 6 month sample interval. Comparison quarterly and semiannual statistics indicates semiannual sampling does not have significant effect on trend analysis. Monitor SWLs to define deeper Regional Aquifer flow paths.
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/Downgradient)	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 this area. Travel distance for 180 days is estimated at 2.5 ft indicating any releases would be detected with 6 month sample interval. Comparison of annual and semiannual statistics indicates semiannual sampling does not have significant effect on trend analysis. Additional demonstration for reduction in water quality sampling frequency is presented in Appendix F.

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-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 east side.
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 area. Travel distance for 180 days is estimated at 2.5 ft indicating any releases would be detected with 6 month sample interval. Comparison quarterly and semiannual statistics indicates semiannual sampling does not have significant effect on trend analysis. Monitor SWLs to define deeper Regional Aquifer flow paths.
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 channel.
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.
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 significant effect on intrawell statistics.
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 is presented in Appendix F.
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 quality sampling frequency is presented in Appendix F.
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 frequency is presented in Appendix F.
MW-106 (Cross gradient)	4	203	2/19/09	Water Table	Detection	WL only	Quarterly	None	Defines east side flow paths.

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
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 3
GROUNDWATER CONCENTRATIONS ABOVE WAC 173-200-040 CRITERIA
WATER QUALITY STANDARDS FOR GROUND WATERS OF THE STATE OF WASHINGTON

CEDAR HILLS REGIONAL LANDFILL REGIONAL AQUIFER

(Data Collected from October 1, 2017 to December 31, 2017)

Parameter	Units	Well ID	Sample Date	Sample ID	Sample Value
Upgradient and Crossgradient Wells					
pH (Field)	pH Units	MW-76	11/6/2017	W76-171106-	6.41
Arsenic (Total)	(mg/L)	MW-21	10/16/2017	W21-171016-	0.001
		MW-24	11/2/2017	W24-171102-	0.0005
		MW-56	11/8/2017	W56-171108-	0.0001
		MW-59	10/9/2017	W59-171009-	0.0005
		MW-64	11/6/2017	W64-171106-	0.0015
		MW-65	11/6/2017	W65-171106-	0.0019
		MW-66	10/9/2017	W66-171009-	0.0007
		MW-73	11/6/2017	W73-171106-	0.0007
		MW-76	11/6/2017	W76-171106-	0.0002
		MW-81	10/18/2017	W81-171018-	0.0005
		MW-82	11/2/2017	W82-171102-	0.0003
		MW-83	10/31/2017	W83-171031-	0.0004
		MW-84	10/31/2017	W84-171031-	0.0003
		MW-93	10/18/2017	W93-171018-	0.0013
		MW-94	10/16/2017	W94-171016-	0.0002
		MW-95	12/28/2017	W95-171228-	0.0010
Iron (Dissolved)	(mg/L)	MW-21	10/16/2017	W21-171016-	1.9
		MW-24	11/2/2017	W24-171102-	3.26
		MW-59	10/9/2017	W59-171009-	3.82
		MW-65	11/6/2017	W65-171106-	3.23
Manganese (Dissolved)	(mg/L)	MW-21	10/16/2017	W21-171016-	0.0896
		MW-24	11/2/2017	W24-171102-	0.116 D
		MW-56	11/8/2017	W56-171108-	0.333
		MW-59	10/9/2017	W59-171009-	0.125
		MW-64	11/6/2017	W64-171106-	0.0491
		MW-65	11/6/2017	W65-171106-	0.15
		MW-93	10/18/2017	W93-171018-	0.221
		MW-95	12/28/2017	W95-171228-	0.162
Trichloroethene	(µg/L)	MW-76	11/6/2017	W76-171106-	9.44
		MW-82	11/2/2017	W82-171102-	5.14
Vinyl Chloride	(mg/L)	MW-65	11/6/2017	W65-171106-	0.032

Table 3
GROUNDWATER CONCENTRATIONS ABOVE WAC 173-200-040 CRITERIA
WATER QUALITY STANDARDS FOR GROUND WATERS OF THE STATE OF WASHINGTON

CEDAR HILLS REGIONAL LANDFILL REGIONAL AQUIFER

(Data Collected from October 1, 2017 to December 31, 2017)

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	11/3/2017	W100171103-	0.00657
		MW-67	10/30/2017	W67-171030-	0.000627
		MW-68	12/28/2017	W68-171228-	0.0137
		MW-69	10/18/2017	W69-171018-	0.00226
		MW-72	10/16/2017	W72-171016-	0.000112
		MW-74	10/9/2017	W74R171009-	0.000571
		MW-75	10/18/2017	W75-171018-	0.000536
		MW-80	10/9/2017	W80-171009-	0.00422
		MW-85	10/30/2017	W85-171030-	0.000707
		MW-86	11/3/2017	W86-171103-	0.0048
		MW-87	10/16/2017	W87-171016-	0.00761
		MW-88	10/27/2017	W88-171027-	0.00101
		MW-89	10/27/2017	W89-171027-	0.00324
Iron (Dissolved)	(mg/L)	MW-100	11/3/2017	W100171103-	0.695
		MW-68	12/28/2017	W68-171228-	0.596
		MW-69	10/18/2017	W69-171018-	1.03
		MW-72	10/16/2017	W72-171016-	2.44
		MW-75	10/18/2017	W75-171018-	1.89
		MW-80	10/9/2017	W80-171009-	1.99
		MW-86	11/3/2017	W86-171103-	0.324
		MW-87	10/16/2017	W87-171016-	4.7
		MW-89	10/27/2017	W89-171027-	0.727
Manganese (Dissolved)	(mg/L)	MW-100	11/3/2017	W100171103-	0.165 D
		MW-67	10/30/2017	W67-171030-	0.158 D
		MW-68	12/28/2017	W68-171228-	0.301
		MW-69	10/18/2017	W69-171018-	0.254
		MW-72	10/16/2017	W72-171016-	0.362
		MW-75	10/18/2017	W75-171018-	0.169
		MW-80	10/9/2017	W80-171009-	0.325
		MW-87	10/16/2017	W87-171016-	0.524
		MW-89	10/27/2017	W89-171027-	0.194

TABLE 2
GROUNDWATER MONITORING ACTIVITIES 4th QUARTER 2017

Well ID	Zone	Date	Planned Activity	Sample ID	Comment
EW-25	Perched	11/1/17	Quarterly Groundwater Sampling	EW25171101-	
MW-21	Regional	10/3/17	Groundwater Elevation Measurement	NA	
MW-21	Regional	10/16/17	Semi-annual Groundwater Sampling	W21-171016-	
MW-22	Regional	10/3/17	Groundwater Elevation Measurement	NA	
MW-24	Regional	10/3/17	Groundwater Elevation Measurement	NA	
MW-24	Regional	11/2/17	Semi-annual Groundwater Sampling	W24-171102-	
MW-25	Perched	10/3/17	Groundwater Elevation Measurement	NA	
MW-27A	Perched	10/3/17	Groundwater Elevation Measurement	NA	
MW-28	Perched	10/3/17	Groundwater Elevation Measurement	NA	
MW-29	Perched	10/3/17	Groundwater Elevation Measurement	NA	
MW-30A	Perched	10/3/17	Groundwater Elevation Measurement	NA	
MW-30A	Perched	12/11/17	Quarterly Groundwater Sampling	W30A171211-	
MW-41D	Perched	10/3/17	Groundwater Elevation Measurement	NA	
MW-41S	Perched	10/3/17	Groundwater Elevation Measurement	NA	
MW-43	Regional	10/3/17	Groundwater Elevation Measurement	NA	
MW-45	Perched	10/3/17	Groundwater Elevation Measurement	NA	
MW-47	Perched	10/3/17	Groundwater Elevation Measurement	NA	
MW-47	Perched	12/11/17	Quarterly Groundwater Sampling	W47-171211-	
MW-50	Perched	10/3/17	Groundwater Elevation Measurement	NA	
MW-55	Perched	10/3/17	Groundwater Elevation Measurement	NA	
MW-56	Regional	10/3/17	Groundwater Elevation Measurement	NA	
MW-56	Regional	11/8/17	Semi-annual Groundwater Sampling	W56-171108-	
MW-57	Perched	10/3/17	Groundwater Elevation Measurement	NA	
MW-58A	Regional	10/3/17	Groundwater Elevation Measurement	NA	
MW-59	Regional	10/3/17	Groundwater Elevation Measurement	NA	
MW-59	Regional	10/9/17	Quarterly Groundwater Sampling	W59-171009-	
MW-60	Regional	10/3/17	Groundwater Elevation Measurement	NA	
MW-62	Regional	10/3/17	Groundwater Elevation Measurement	NA	
MW-62	Perched	12/12/17	Quarterly Groundwater Sampling	W62-171212-	
MW-63	Regional	10/3/17	Groundwater Elevation Measurement	NA	
MW-64	Perched	10/3/17	Groundwater Elevation Measurement	NA	
MW-64	Regional	11/6/17	Semi-annual Groundwater Sampling	W64-171106-	
MW-65	Perched	10/3/17	Groundwater Elevation Measurement	NA	
MW-65	Regional	11/6/17	QA/QC Sample	W65-171106D	Field Duplicate
MW-65	Regional	11/6/17	Semi-annual Groundwater Sampling	W65-171106-	
MW-66	Regional	10/3/17	Groundwater Elevation Measurement	NA	
MW-66	Regional	10/9/17	Quarterly Groundwater Sampling	W66-171009-	
MW-67	Regional	10/3/17	Groundwater Elevation Measurement	NA	
MW-67	Regional	10/30/17	Semi-annual Groundwater Sampling	W67-171030-	
MW-68	Regional	10/3/17	Groundwater Elevation Measurement	NA	
MW-68	Regional	12/28/17	Quarterly Groundwater Sampling	W68-171228-	
MW-69	Regional	10/3/17	Groundwater Elevation Measurement	NA	
MW-69	Regional	10/18/17	Quarterly Groundwater Sampling	W69-171018-	
MW-72	Regional	10/16/17	Quarterly Groundwater Sampling	W72-171016-	
MW-73	Regional	10/3/17	Groundwater Elevation Measurement	NA	
MW-73	Regional	11/6/17	Semi-annual Groundwater Sampling	W73-171106-	
MW-74	Regional	10/3/17	Groundwater Elevation Measurement	NA	
MW-74	Regional	10/9/17	QA/QC Sample	W74R171009D	Field Duplicate
MW-74	Regional	10/9/17	Quarterly Groundwater Sampling	W74R171009-	
MW-75	Regional	10/3/17	Groundwater Elevation Measurement	NA	
MW-75	Regional	10/18/17	Quarterly Groundwater Sampling	W75-171018-	
MW-76	Regional	10/3/17	Groundwater Elevation Measurement	NA	
MW-76	Regional	11/6/17	Semi-annual Groundwater Sampling	W76-171106-	
MW-79	Regional	10/3/17	Groundwater Elevation Measurement	NA	Damaged
MW-80	Regional	10/3/17	Groundwater Elevation Measurement	NA	

TABLE 2
GROUNDWATER MONITORING ACTIVITIES 4th QUARTER 2017

Well ID	Zone	Date	Planned Activity	Sample ID	Comment
MW-80	Regional	10/9/17	Quarterly Groundwater Sampling	W80-171009-	
MW-81	Regional	10/3/17	Groundwater Elevation Measurement	NA	
MW-81	Regional	10/18/17	Quarterly Groundwater Sampling	W81-171018-	
MW-82	Perched	10/3/17	Groundwater Elevation Measurement	NA	
MW-82	Regional	11/2/17	Semi-annual Groundwater Sampling	W82-171102-	
MW-83	Regional	10/3/17	Groundwater Elevation Measurement	NA	
MW-83	Regional	10/31/17	Quarterly Groundwater Sampling	W83-171031-	
MW-84	Regional	10/3/17	Groundwater Elevation Measurement	NA	
MW-84	Regional	10/31/17	Quarterly Groundwater Sampling	W84-171031-	
MW-85	Regional	10/3/17	Groundwater Elevation Measurement	NA	
MW-85	Regional	10/30/17	Quarterly Groundwater Sampling	W85-171030-	
MW-86	Regional	10/3/17	Groundwater Elevation Measurement	NA	
MW-86	Regional	11/3/17	Semi-annual Groundwater Sampling	W86-171103-	
MW-87	Regional	10/3/17	Groundwater Elevation Measurement	NA	
MW-87	Regional	10/16/17	Quarterly Groundwater Sampling	W87-171016-	
MW-88	Regional	10/3/17	Groundwater Elevation Measurement	NA	
MW-88	Regional	10/27/17	Semi-annual Groundwater Sampling	W88-171027-	
MW-89	Regional	10/3/17	Groundwater Elevation Measurement	NA	
MW-89	Regional	10/27/17	Semi-annual Groundwater Sampling	W89-171027-	
MW-90	Regional	10/3/17	Groundwater Elevation Measurement	NA	
MW-91	Regional	10/3/17	Groundwater Elevation Measurement	NA	
MW-93	Regional	10/18/17	Quarterly Groundwater Sampling	W93-171018-	
MW-94	Regional	10/3/17	Groundwater Elevation Measurement	NA	
MW-94	Regional	10/16/17	Quarterly Groundwater Sampling	W94-171016-	
MW-95	Regional	10/3/17	Groundwater Elevation Measurement	NA	
MW-95	Regional	12/28/17	Semi-annual Groundwater Sampling	W95-171228-	
MW-98	Regional	10/3/17	Groundwater Elevation Measurement	NA	
MW-99	Regional	10/3/17	Groundwater Elevation Measurement	NA	
MW-100	Regional	10/3/17	Groundwater Elevation Measurement	NA	
MW-100	Regional	11/3/17	Semi-annual Groundwater Sampling	W100171103-	
MW-101	Perched	10/3/17	Groundwater Elevation Measurement	NA	
MW-101	Perched	10/6/17	Quarterly Groundwater Sampling	W101171006-	
MW-102	Perched	10/3/17	Groundwater Elevation Measurement	NA	
MW-103	Perched	10/3/17	Groundwater Elevation Measurement	NA	
MW-104	Perched	10/3/17	Groundwater Elevation Measurement	NA	
MW-105	Regional	10/3/17	Groundwater Elevation Measurement	NA	
MW-105	Perched	10/6/17	Leachate Lagoon Monitoring	NA	Conductivity only
MW-106	Regional	10/3/17	Groundwater Elevation Measurement	NA	
MW-EB5	Perched	10/3/17	Groundwater Elevation Measurement	NA	
MW-EB5S	Perched	10/3/17	Groundwater Elevation Measurement	NA	
MW-EB6	Perched	10/3/17	Groundwater Elevation Measurement	NA	
WS-NPW-1	Regional	10/3/17	Groundwater Elevation Measurement	NA	
WS-NPW-3	Regional	10/3/17	Groundwater Elevation Measurement	NA	
Equipment Blank	NA	11/1/17	QA/QC Sample	EW25171101F	
Field Blank	NA	11/8/17	QA/QC Sample	W56-171108F	

NA = No sample ID assigned, No sample collected.

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

Data Collected from October 1, 2017 to December 31, 2017

Site ID			Upgradient and Crossgradient																	
			MW-21 10/16/17			MW-24 11/2/17			MW-56 11/8/17			MW-59 10/9/17			MW-64 11/6/17			MW-65 11/6/17		
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)
Calcium	40.1	2	10.9	0.54391	38.9	13.5	0.67365	37.8	16.4	0.81836	43.0	15.3	0.76347	38.2	18.7	0.93313	36.6	11.4	0.56886	37.7
Magnesium	24.3	2	6.2	0.50936	36.4	8.8	0.72331	40.6	9.7	0.79984	42.0	9.6	0.79243	39.7	15.1	1.24254	48.7	6.9	0.56614	37.6
Potassium	39.1	1	1.0	0.02634	1.9	0.9	0.02279	1.3	1.2	0.02992	1.6	1.1	0.02788	1.4	1.7	0.04425	1.7	0.9	0.02269	1.5
Sodium	23.0	1	5.7	0.24794	17.7	5.5	0.2388	13.4	5.5	0.23924	12.6	6.2	0.27143	13.6	7.5	0.3271	12.8	5.2	0.22793	15.1
Iron	55.8	2	1.90	0.06804	4.9	3.26	0.11675	6.6	0.09	0.0033	0.2	3.82	0.1368	6.9	0.05	0.00177	0.1	3.23	0.11567	7.7
Manganese	54.9	2	0.09	0.00326	0.2	0.12	0.00422	0.2	0.33	0.01212	0.6	0.13	0.00455	0.2	0.05	0.00179	0.1	0.15	0.00546	0.4
Ammonia-N	14.0	1	0.01	0.00074	0.1	0.04	0.00267	0.1	0.01	0.00049	0.0	0.01	0.00036	0.0	0.02	0.00127	0.0	0.00	0.00023	0.0
Total Cations (meq/L)			1.4			1.8			1.9			2.0			2.6			1.5		
Anions																				
Alkalinity, Total			56			66			59			64			99			53		
Carbonate	60.0	2	0.21079	0.00703	0.5	0.04679	0.00156	0.1	0.01828	0.00061	0.0	0.0484	0.00161	0.1	0.05176	0.00173	0.1	0.02343	0.00078	0.1
Bicarbonate	61.0	1	67.77	1.11081	85.5	80.79	1.32424	77.6	72.31	1.18521	64.1	77.98	1.27819	71.7	120.55	1.97598	77.0	64.12	1.05106	76.3
Chloride	35.5	1	2.7	0.07616	5.9	4.6	0.12862	7.5	17.2	0.48515	26.3	5.8	0.16331	9.2	3.6	0.1007	3.9	3.5	0.09788	7.1
Nitrate-N	14.0	1	0.01	0.00071	0.1	0.02	0.00121	0.1	0.03	0.002	0.1	0.02	0.00121	0.1	0.02	0.00164	0.1	0.02	0.00107	0.1
Sulfate	96.1	2	5.0	0.10452	8.0	12.0	0.24985	14.6	8.4	0.1751	9.5	16.2	0.3373	18.9	23.4	0.48721	19.0	10.9	0.22695	16.5
Total Anions (meq/L)			1.3			1.7			1.8			1.8			2.6			1.4		
Total Ions (meq/L)			2.7			3.5			3.8			3.8			5.1			2.9		
Cation/Anion Ratio			1.08			1.04			1.03			1.12			0.99			1.09		
Percent Difference			3.7			2.2			1.5			5.7			-0.3			4.5		
Trilinear Diagram Data																				
sum (Ca, Mg, Na+K)			1.33			1.66			1.89			1.86			2.55			1.39		
Calcium					40.97			40.62			43.36			41.15			36.64			41.05
Magnesium					38.37			43.61			42.38			42.71			48.78			40.86
Sodium + Potassium					20.66			15.77			14.26			16.13			14.58			18.09
														100.0						
sum (SO ₄ , Cl, HCO ₃ +CO ₃)			1.30			1.70			1.85			1.78			2.57			1.38		
Sulfate					8.049			14.660			9.485			18.945			18.990			16.485
Chloride					5.865			7.547			26.280			9.173			3.925			7.110
Bicarbonate + Carbonate					86.086			77.793			64.235			71.882			77.085			76.405
														100.0						

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

Data Collected from October 1, 2017 to December 31, 2017

Upgradient and Crossgradient																			
Site ID		MW-76 11/6/17			MW-82 11/2/17			MW-83 10/31/17			MW-94 10/16/17			MW-73 11/6/17			MW-81 10/18/17		
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)
Calcium	40.1 2	19.7	0.98303	45.0	27.4	1.36727	44.0	67.9	3.38822	53.0	25.1	1.2525	49.2	11.6	0.57884	43.9	13.2	0.65868	42.5
Magnesium	24.3 2	9.3	0.76116	34.9	16.4	1.34952	43.4	27.9	2.29582	35.9	10.5	0.86402	34.0	5.8	0.47809	36.3	7.2	0.59494	38.4
Potassium	39.1 1	1.4	0.03478	1.6	1.8	0.04681	1.5	3.6	0.09233	1.4	2.0	0.05115	2.0	0.8	0.0198	1.5	0.8	0.02046	1.3
Sodium	23.0 1	9.3	0.40279	18.5	7.9	0.3432	11.0	14.1	0.61332	9.6	8.6	0.37408	14.7	5.5	0.24054	18.3	6.4	0.27621	17.8
Iron	55.8 2	0.01	0.00036	0.0	0.01	0.00036	0.0	0.01	0.00036	0.0	0.06	0.00218	0.1	0.01	0.00036	0.0	0.01	0.00036	0.0
Manganese	54.9 2	0.00	3.6E-06	0.0	0.00	3.6E-06	0.0	0.00	3.4E-05	0.0	0.00	6.4E-05	0.0	0.00	3.6E-06	0.0	0.00	3.6E-06	0.0
Ammonia-N	14.0 1	0.00	0.00014	0.0	0.00	0.00014	0.0	0.00	0.00019	0.0	0.00	0.00014	0.0	0.00	0.00014	0.0	0.00	0.00014	0.0
Total Cations (meq/L)			2.2			3.1			6.4			2.5			1.3			1.6	
Anions																			
Alkalinity, Total	60				121			190			80			50			55		
Carbonate	60.0 2	0.00924	0.00031	0.0	0.04283	0.00143	0.0	0.05221	0.00174	0.0	0.0448	0.00149	0.1	0.02406	0.0008	0.1	0.04623	0.00154	0.1
Bicarbonate	61.0 1	72.94	1.19551	56.6	147.53	2.41821	78.2	231.69	3.79769	57.9	97.39	1.59627	64.4	61.44	1.00705	76.7	66.40	1.08829	71.6
Chloride	35.5 1	13.8	0.38925	18.4	10.4	0.29335	9.5	81.0	2.28471	34.8	20.9	0.58951	23.8	2.3	0.06431	4.9	5.0	0.14075	9.3
Nitrate-N	14.0 1	0.93	0.06668	3.2	0.80	0.05704	1.8	3.79	0.27058	4.1	1.93	0.13779	5.6	0.97	0.06939	5.3	1.33	0.09495	6.2
Sulfate	96.1 2	22.1	0.46014	21.8	15.5	0.32272	10.4	9.9	0.20633	3.1	7.3	0.15178	6.1	8.2	0.17115	13.0	9.4	0.19467	12.8
Total Anions (meq/L)			2.1			3.1			6.6			2.5			1.3			1.5	
Total Ions (meq/L)			4.3			6.2			13.0			5.0			2.6			3.1	
Cation/Anion Ratio			1.03			1.00			0.97			1.03			1.00			1.02	
Percent Difference			1.6			0.2			-1.3			1.3			0.2			1.0	
Trilinear Diagram Data																			
sum (Ca, Mg, Na+K)			2.18			3.11			6.39			2.54			1.32			1.55	
Calcium				45.06			44.01			53.03			49.28			43.94			42.49
Magnesium				34.89			43.44			35.93			33.99			36.29			38.38
Sodium + Potassium				20.06			12.55			11.04			16.73			19.76			19.14
										100.0									100.0
sum (SO ₄ , Cl, HCO ₃ +CO ₃)			2.05			3.04			6.29			2.34			1.24			1.43	
Sulfate				22.498			10.631			3.280			6.489			13.766			13.659
Chloride				19.032			9.663			36.320			25.203			5.173			9.875
Bicarbonate + Carbonate				58.469			79.706			60.400			68.308			81.062			76.466
										100.0									

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

Data Collected from October 1, 2017 to December 31, 2017

Site ID			Upgradient and Crossgradient									Downgradient to Waste Cells and North End Facilities								
			MW-84 10/31/17			MW-66 10/9/17			MW-93 10/18/17			MW-68 12/28/17			MW-67 10/30/17			MW-69 10/18/17		
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)
Calcium	40.1	2	12.0	0.5988	36.0	18.7	0.93313	36.3	31.2	1.55689	45.8	27.1	1.3523	43.8	33.5	1.67166	45.2	32.2	1.60679	49.4
Magnesium	24.3	2	9.3	0.76774	46.2	15.2	1.25077	48.7	16.8	1.38243	40.6	15.5	1.27546	41.3	19.4	1.59638	43.1	14.6	1.2014	36.9
Potassium	39.1	1	1.0	0.02558	1.5	1.2	0.03069	1.2	1.5	0.03785	1.1	1.6	0.04092	1.3	1.6	0.04195	1.1	1.6	0.04195	1.3
Sodium	23.0	1	6.2	0.26882	16.2	8.2	0.35451	13.8	9.5	0.41149	12.1	8.9	0.38669	12.5	8.7	0.37799	10.2	8.2	0.35799	11.0
Iron	55.8	2	0.01	0.00036	0.0	0.01	0.00036	0.0	0.01	0.00036	0.0	0.60	0.02134	0.7	0.21	0.00734	0.2	1.03	0.03689	1.1
Manganese	54.9	2	0.00	2.6E-05	0.0	0.00	4.2E-06	0.0	0.22	0.00805	0.2	0.30	0.01096	0.4	0.16	0.00575	0.2	0.25	0.00925	0.3
Ammonia-N	14.0	1	0.00	0.00014	0.0	0.00	0.00014	0.0	0.06	0.00416	0.1	0.02	0.00129	0.0	0.01	0.00046	0.0	0.01	0.00102	0.0
Total Cations (meq/L)				1.7			2.6			3.4			3.1			3.7			3.3	
Anions																				
Alkalinity, Total			64			96			122			126			148			134		
Carbonate	60.0	2	0.03518	0.00117	0.1	0.08726	0.00291	0.1	0.13328	0.00444	0.1	0.05361	0.00179	0.1	0.07065	0.00235	0.1	0.14638	0.00488	0.1
Bicarbonate	61.0	1	78.25	1.28263	77.8	116.94	1.9168	79.9	148.57	2.43519	71.9	153.61	2.51783	86.5	180.42	2.9572	78.4	163.18	2.67472	81.1
Chloride	35.5	1	3.3	0.09336	5.7	5.3	0.14837	6.2	3.2	0.08885	2.6	2.7	0.07616	2.6	5.1	0.14442	3.8	4.1	0.11424	3.5
Nitrate-N	14.0	1	0.15	0.01049	0.6	0.60	0.04262	1.8	0.01	0.00071	0.0	0.01	0.00071	0.0	0.13	0.00914	0.2	0.01	0.00071	0.0
Sulfate	96.1	2	12.5	0.26026	15.8	13.8	0.28733	12.0	41.1	0.85574	25.3	15.1	0.31439	10.8	31.7	0.66002	17.5	24.1	0.50178	15.2
Total Anions (meq/L)				1.6			2.4			3.4			2.9			3.8			3.3	
Total Ions (meq/L)				3.3			5.0			6.8			6.0			7.5			6.6	
Cation/Anion Ratio				1.01			1.07			1.00			1.06			0.98			0.99	
Percent Difference				0.4			3.5			0.2			3.0			-1.0			-0.6	
Trilinear Diagram Data																				
sum (Ca, Mg, Na+K)				1.66			2.57			3.39			3.06			3.69			3.21	
Calcium					36.05			36.32			45.94			44.26			45.33			50.09
Magnesium					46.22			48.69			40.80			41.74			43.29			37.45
Sodium + Potassium					17.72			14.99			13.26			14.00			11.39			12.47
					100.0			100.0												
sum (SO ₄ , Cl, HCO ₃ +CO ₃)				1.64			2.36			3.38			2.91			3.76			3.30	
Sulfate					15.894			12.199			25.286			10.803			17.535			15.226
Chloride					5.702			6.299			2.625			2.617			3.837			3.466
Bicarbonate + Carbonate					78.404			81.502			72.088			86.580			78.628			81.308

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

Data Collected from October 1, 2017 to December 31, 2017

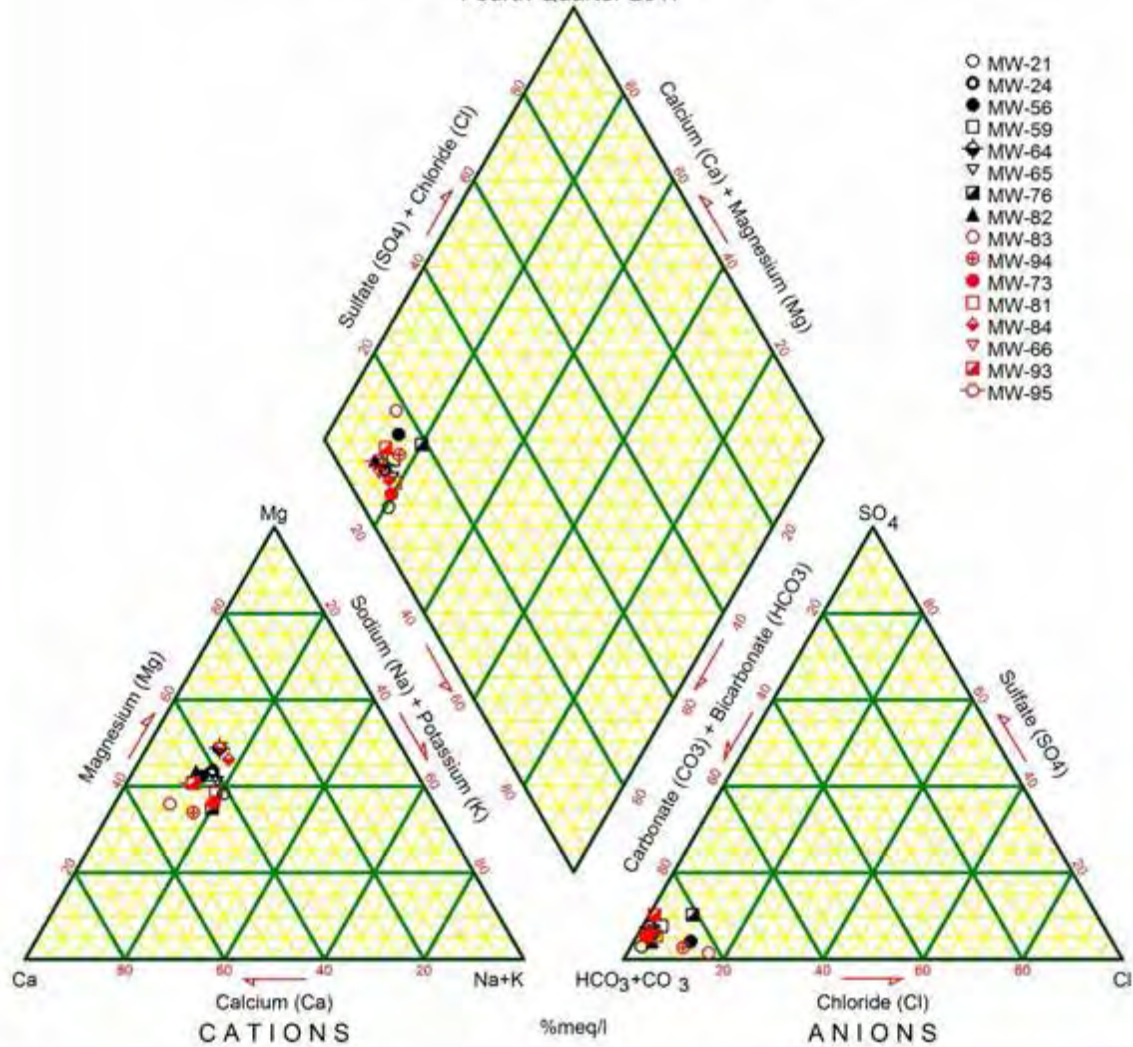
Site ID			Downgradient to Waste Cells and North End Facilities																	
			MW-72 10/16/17			MW-74 10/9/17			MW-75 10/18/17			MW-80 10/9/17			MW-85 10/30/17			MW-86 11/3/17		
Cations	MW	n	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)
Calcium	40.1	2	30.9	1.54192	42.4	49.0	2.44511	40.2	28.5	1.42216	39.1	29.7	1.48204	45.7	29.9	1.49202	43.8	14.4	0.71856	38.7
Magnesium	24.3	2	19.2	1.57992	43.5	36.8	3.02818	49.7	20.8	1.71158	47.1	15.6	1.28369	39.6	18.2	1.49763	44.0	9.8	0.80642	43.4
Potassium	39.1	1	1.9	0.0486	1.3	2.2	0.05627	0.9	1.8	0.04629	1.3	1.6	0.04195	1.3	1.5	0.03939	1.2	1.2	0.02992	1.6
Sodium	23.0	1	8.3	0.36147	9.9	12.8	0.55677	9.1	8.7	0.37843	10.4	8.0	0.34798	10.7	8.7	0.37712	11.1	6.7	0.291	15.7
Iron	55.8	2	2.44	0.08738	2.4	0.01	0.00036	0.0	1.89	0.06768	1.9	1.99	0.07127	2.2	0.01	0.00036	0.0	0.32	0.0116	0.6
Manganese	54.9	2	0.36	0.01318	0.4	0.00	3.6E-06	0.0	0.17	0.00615	0.2	0.33	0.01183	0.4	0.00	3.6E-06	0.0	0.01	0.00045	0.0
Ammonia-N	14.0	1	0.02	0.00109	0.0	0.00	0.00014	0.0	0.01	0.00054	0.0	0.01	0.00073	0.0	0.00	0.00014	0.0	0.00	0.00014	0.0
Total Cations (meq/L)			3.6			6.1			3.6			3.2			3.4			1.9		
Anions																				
Alkalinity, Total			124			228			105			109			121			66		
Carbonate	60.0	2	0.1028	0.00343	0.1	0.14018	0.00467	0.1	0.08314	0.00277	0.1	0.10615	0.00354	0.1	0.06943	0.00231	0.1	0.02224	0.00074	0.0
Bicarbonate	61.0	1	151.07	2.4762	71.9	277.87	4.55464	75.8	127.93	2.09691	58.7	132.76	2.17613	71.5	147.48	2.41732	70.8	80.23	1.31506	71.5
Chloride	35.5	1	6.2	0.17403	5.1	26.9	0.75875	12.6	10.5	0.29617	8.3	4.8	0.13652	4.5	9.8	0.27586	8.1	4.6	0.1289	7.0
Nitrate-N	14.0	1	0.01	0.00071	0.0	0.30	0.02156	0.4	0.01	0.00071	0.0	0.01	0.00071	0.0	0.12	0.0085	0.2	0.17	0.01207	0.7
Sulfate	96.1	2	38.0	0.79119	23.0	32.2	0.67043	11.2	56.4	1.1743	32.9	34.9	0.72665	23.9	34.0	0.70791	20.7	18.4	0.3831	20.8
Total Anions (meq/L)			3.4			6.0			3.6			3.0			3.4			1.8		
Total Ions (meq/L)			7.1			12.1			7.2			6.3			6.8			3.7		
Cation/Anion Ratio			1.05			1.01			1.02			1.06			1.00			1.01		
Percent Difference			2.7			0.6			0.9			3.1			-0.1			0.5		
Trilinear Diagram Data																				
sum (Ca, Mg, Na+K)			3.53			6.09			3.56			3.16			3.41			1.85		
Calcium					43.66			40.17			39.97			46.96			43.80			38.93
Magnesium					44.73			49.75			48.10			40.68			43.97			43.69
Sodium + Potassium					11.61			10.07			11.94			12.36			12.23			17.39
														100.0						
sum (SO ₄ , Cl, HCO ₃ +CO ₃)			3.44			5.99			3.57			3.04			3.40			1.83		
Sulfate					22.967			11.195			32.892			23.881			20.800			20.960
Chloride					5.052			12.670			8.296			4.487			8.105			7.052
Bicarbonate + Carbonate					71.981			76.135			58.812			71.633			71.095			71.988
														100.0						

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

Data Collected from October 1, 2017 to December 31, 2017

Site ID		Downgradient to Waste Cells and North End Facilities											
		MW-87 10/16/17			MW-88 10/27/17			MW-89 10/27/17			MW-100 11/3/17		
Cations	MW n	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)
Calcium	40.1 2	44.6	2.22555	40.9	9.1	0.45559	34.6	14.0	0.6986	34.0	28.1	1.4022	44.0
Magnesium	24.3 2	30.4	2.50154	45.9	7.1	0.5826	44.3	10.4	0.85579	41.7	15.9	1.30837	41.1
Potassium	39.1 1	2.4	0.0601	1.1	0.8	0.02084	1.6	1.5	0.0376	1.8	1.7	0.0445	1.4
Sodium	23.0 1	10.8	0.46977	8.6	5.9	0.25577	19.4	9.8	0.42628	20.8	9.2	0.39974	12.5
Iron	55.8 2	4.70	0.16832	3.1	0.01	0.00036	0.0	0.73	0.02604	1.3	0.70	0.02489	0.8
Manganese	54.9 2	0.52	0.01908	0.4	0.00	1.1E-05	0.0	0.19	0.00706	0.3	0.17	0.00601	0.2
Ammonia-N	14.0 1	0.02	0.00126	0.0	0.00	0.00019	0.0	0.02	0.00124	0.1	0.01	0.00089	0.0
Total Cations (meq/L)			5.4			1.3			2.1			3.2	
Anions													
Alkalinity, Total		96			50			71			135		
Carbonate	60.0 2	0.04367	0.00146	0.0	0.02181	0.00073	0.1	0.08144	0.00271	0.1	0.06154	0.00205	0.1
Bicarbonate	61.0 1	116.79	1.91426	36.7	61.08	1.00112	82.2	86.70	1.42107	71.7	164.57	2.69754	85.5
Chloride	35.5 1	11.3	0.31873	6.1	1.9	0.05275	4.3	9.2	0.25893	13.1	2.9	0.08123	2.6
Nitrate-N	14.0 1	0.01	0.00079	0.0	0.64	0.04541	3.7	0.01	0.00071	0.0	0.01	0.00071	0.0
Sulfate	96.1 2	143.0	2.97738	57.1	5.7	0.11805	9.7	14.4	0.29982	15.1	18.0	0.37478	11.9
Total Anions (meq/L)			5.2			1.2			2.0			3.2	
Total Ions (meq/L)			10.7			2.5			4.0			6.3	
Cation/Anion Ratio			1.04			1.08			1.03			1.01	
Percent Difference			2.2			3.8			1.7			0.5	
Trilinear Diagram Data													
sum (Ca, Mg, Na+K)			5.26			1.31			2.02			3.15	
Calcium				42.34			34.65			34.61			44.45
Magnesium				47.59			44.31			42.40			41.47
Sodium + Potassium				10.08			21.04			22.98			14.08
sum (SO ₄ , Cl, HCO ₃ +CO ₃)			5.21			1.17			1.98			3.16	
Sulfate				57.127			10.067			15.123			11.876
Chloride				6.116			4.498			13.061			2.574
Bicarbonate + Carbonate				36.757			85.435			71.816			85.549

Cedar Hills Regional Landfill
Figure 5. Regional Aquifer Upgradient Wells
Fourth Quarter 2017



Cedar Hills Regional Landfill
Figure 6. Regional Aquifer Downgradient Wells
Fourth Quarter 2017

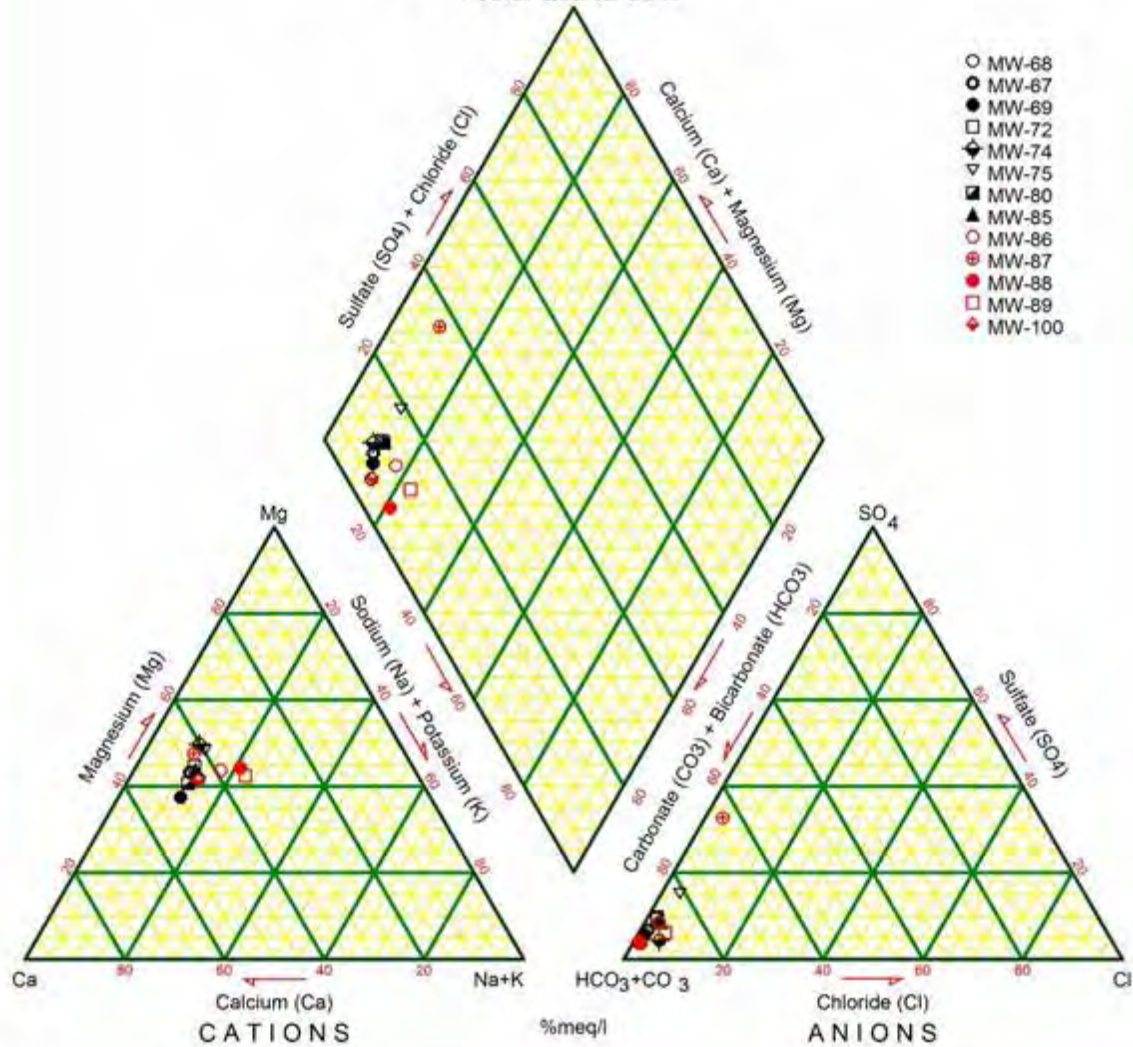


TABLE 5
CEDAR HILLS REGIONAL LANDFILL REGIONAL AQUIFER QUARTERLY MONITORING WELLS
SUMMARY OF WAC 173-351 APPENDIX I INTRAWELL PREDICTION LIMIT VALUES
(Data Collected from October 1, 2017 to December 31, 2017)

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	0.001	0.0053	0.001	0.002	0.005	0.003	0.002	0.001	0.001	0.001	0.003	0.001	0.002	0.004	0.019	0.2	0.2	0.2	0.02
	Result	<0.0003	0.001	0.00442	<0.0001	<0.00005	<0.0002	<0.00005	<0.0002	<0.0001	0.00028	<0.0005	<0.00004	<0.0001	<0.000075	<0.0005	<0.01	<0.1	<0.1	<0.1	<0.01
MW-24	Limit	0.001	0.001	0.0021	0.001	0.002	0.005	0.003	0.002	0.001	0.001	0.001	0.003	0.001	0.002	0.004	0.03	0.39	0.2	0.2	0.02
	Result	<0.0003	0.001	0.00186	<0.0001	<0.00005	<0.0002	<0.00005	<0.0002	<0.0001	<0.0001	<0.0005	<0.00004	<0.0001	<0.000075	0.000553	0.017	0.14	<0.1	<0.1	0.02
MW-56	Limit	0.001	0.003	0.0478	0.001	0.002	0.00755	0.00389	0.0154	0.0033	0.001	0.001	0.00694	0.001	0.018	0.0235	2.78	1.84	0.2	0.2	0.02
	Result	<0.0003	0.000	0.0034	<0.0001	<0.00005	<0.0002	0.000193	<0.0002	<0.0001	0.000664	<0.0005	<0.00004	<0.0001	0.0001	0.000931	0.028	1.37	<0.1	<0.1	<0.01
MW-59	Limit	0.001	0.001	0.0044	0.001	0.002	0.005	0.003	0.002	0.001	0.01	0.001	0.003	0.001	0.002	0.00423	0.29	1.19	0.2	0.45	0.02
	Result	<0.0003	0.000468	0.00399	<0.0001	<0.00005	0.000465	<0.00005	0.000645	0.000151	0.000322	<0.0005	<0.00004	<0.0001	<0.000075	0.00286	0.017	1.13	<0.1	<0.1	<0.01
MW-64	Limit	0.001	0.010	0.0161	0.001	0.002	0.005	0.00347	0.00512	0.001	0.0153	0.001	0.003	0.001	0.006	0.0385	0.1	0.2	0.2	0.2	0.02
	Result	<0.0003	0.0015	0.0147	<0.0001	0.000174	0.000282	0.00133	0.000485	<0.0001	0.00532	0.000526	<0.00004	<0.0001	0.0005	0.00172	0.023	<0.1	<0.1	<0.1	<0.01
MW-65	Limit	0.001	0.001	0.00796	0.001	0.002	0.005	0.003	0.002	0.001	0.001	0.001	0.003	0.001	0.002	0.004	0.031	0.2	0.2	0.2	0.14
	Result	<0.0003	0.00191	0.00797	<0.0001	<0.00005	<0.0002	0.0000615	<0.0002	<0.0001	0.000227	<0.0005	<0.00004	<0.0001	<0.000075	0.00116	0.015	<0.1	<0.1	<0.1	0.03
MW-66	Limit	0.001	0.001	0.0065	0.001	0.002	0.005	0.003	0.002	0.001	0.01	0.00101	0.003	0.001	0.002	0.004	0.765	0.2	0.2	0.32	0.02
	Result	<0.0003	0.000669	0.0053	<0.0001	<0.00005	<0.0002	<0.00005	<0.0002	<0.0001	0.00025	0.000949	<0.00004	<0.0001	0.000669	0.00169	0.597	<0.1	<0.1	<0.1	<0.01
MW-73	Limit	0.001	0.001	0.0065	0.001	0.002	0.005	0.003	0.00363	0.001	0.001	0.001	0.003	0.001	0.002	0.004	2.1	0.2	0.2	0.2	0.02
	Result	<0.0003	0.00068	0.0031	<0.0001	<0.00005	0.000296	<0.00005	0.000286	<0.0001	0.000269	<0.0005	<0.00004	<0.0001	0.0011	<0.0005	0.972	<0.1	<0.1	<0.1	<0.01
MW-76	Limit	0.001	0.001	0.0046	0.001	0.002	0.005	0.003	0.002	0.001	0.001	0.001	0.003	0.001	0.002	0.004	6.00	0.96	0.71	15.4	0.02
	Result	<0.0003	0.000	0.0037	<0.0001	<0.00005	0.000623	<0.00005	0.000535	<0.0001	0.000383	<0.0005	<0.00004	<0.0001	0.0006	<0.0005	0.934	0.294	0.437	9.44	<0.01
MW-81	Limit	0.001	0.001	0.0030	0.001	0.002	0.005	0.003	0.002	0.001	0.01	0.00104	0.003	0.001	0.002	0.00425	1.8	0.2	0.2	0.2	0.02
	Result	<0.0003	0.000518	0.0028	<0.0001	<0.00005	<0.0002	<0.00005	<0.0002	<0.0001	0.000109	0.000874	<0.00004	<0.0001	0.00158	0.000814	1.33	<0.1	<0.1	<0.1	<0.01
MW-82	Limit	0.001	0.001	0.0054	0.001	0.002	0.005	0.003	0.002	0.001	0.001	0.001	0.003	0.001	0.002	0.004	1.53	0.2	0.31	8.9	0.02
	Result	<0.0003	0.000	0.0016	<0.0001	<0.00005	0.00121	<0.00005	0.000216	<0.0001	0.00232	<0.0005	<0.00004	<0.0001	0.0013	0.00104	0.799	<0.1	<0.1	5.14	<0.01
MW-83	Limit	0.001	0.001	0.0102	0.001	0.002	0.005	0.003	0.0033	0.001	0.01	0.001	0.003	0.001	0.002	0.004	2.22	0.2	0.2	3.17	0.02
	Result	<0.0003	0.000447	0.0104	<0.0001	<0.00005	0.000216	0.000339	0.00549	<0.0001	0.00269	<0.0005	<0.00004	<0.0001	0.000857	0.000906	3.79	<0.1	<0.1	2	<0.01
MW-84	Limit	0.001	0.001	0.0040	0.001	0.002	0.005	0.003	0.002	0.001	0.01	0.001	0.003	0.001	0.002	0.004	0.68	0.2	0.2	0.2	0.02
	Result	<0.0003	0.000328	0.00394	<0.0001	<0.00005	<0.0002	<0.00005	<0.0002	<0.0001	0.000266	0.000656	<0.00004	<0.0001	0.000458	<0.0005	0.147	<0.1	<0.1	<0.1	<0.01
MW-93	Limit	0.001	0.0014	0.0014	0.001	0.002	0.005	0.003	0.002	0.001	0.01	0.001	0.003	0.001	0.00272	0.0141	0.21	0.2	0.2	0.2	0.02
	Result	<0.0003	0.0013	0.00799	<0.0001	<0.00005	<0.0002	0.000111	<0.0002	<0.0001	0.000354	<0.0005	<0.00004	<0.0001	0.002	0.0011	<0.01	<0.1	<0.1	<0.1	<0.01
MW-94	Limit	0.001	0.001	0.0040	0.001	0.002	0.005	0.003	0.00231	0.001	0.01	0.001	0.003	0.001	0.002	0.004	2.13	0.2	0.2	5.16	0.02
	Result	<0.0003	0.000167	0.0026	<0.0001	<0.00005	0.00238	0.00013	0.000965	<0.0001	0.000633	<0.0005	<0.00004	<0.0001	0.00108	0.00077	1.93	<0.1	<0.1	2.02	<0.01
MW-95	Limit	0.001	0.00109	0.0045	0.001	0.002	0.005	0.003	0.002	0.001	0.001	0.001	0.003	0.001	0.002	0.004	0.015	0.2	0.2	0.2	0.02
	Result	<0.0003	0.0010	0.0042	<0.0001	<0.00005	<0.0002	0.0000708	<0.0002	<0.0001	0.000212	<0.0005	<0.00004	<0.0001	0.000275	<0.0005	<0.01	<0.1	<0.1	<0.1	<0.01
Results greater than Limit Value in RED Bold																					

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, 2017 to December 31, 2017)

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
Downgradient Wells																					
MW-100	Limit	0.001	0.022	0.0121	0.001	0.002	0.005	0.003	0.00226	0.001	0.001	0.001	0.003	0.001	0.002	0.00922	0.01	0.2	0.2	0.2	0.02
	Result	<0.0003	0.00657	0.00931	<0.0001	<0.00005	0.000218	0.000591	0.000461	0.000146	0.00112	<0.0005	<0.00004	<0.0001	0.0002	0.0046	<0.01	<0.1	<0.1	<0.1	<0.01
MW-67	Limit	0.001	0.002	0.0152	0.001	0.002	0.005	0.003	0.002	0.001	0.001	0.001	0.003	0.001	0.002	0.004	3.4	0.2	0.2	0.2	0.02
	Result	<0.0003	0.001	0.0124	<0.0001	<0.00005	<0.0002	0.00014	<0.0002	<0.0001	0.00029	<0.0005	<0.00004	<0.0001	0.0003	<0.0005	0.128	<0.1	<0.1	<0.1	<0.01
MW-68	Limit	0.001	0.488	0.0199	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	0.0137	0.0119	<0.0001	<0.00005	<0.0002	0.000255	0.0004	<0.0001	0.000684	<0.0005	<0.00004	<0.0001	0.000258	0.00152	<0.01	<0.1	<0.1	<0.1	<0.01
MW-69	Limit	0.001	0.005	0.0148	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	0.00226	0.0116	<0.0001	<0.00005	<0.0002	<0.00005	<0.0002	<0.0001	0.000164	<0.0005	<0.00004	<0.0001	<0.000075	0.000964	<0.01	<0.1	<0.1	<0.1	<0.01
MW-72	Limit	0.001	0.001	0.0176	0.001	0.002	0.005	0.003	0.00331	0.00104	0.01	0.001	0.003	0.001	0.002	0.0201	0.089	0.2	0.2	0.2	0.02
	Result	<0.0003	0.000	0.0117	<0.0001	<0.00005	<0.0002	<0.00005	0.0004	0.000135	0.000143	<0.0005	<0.00004	<0.0001	0.0001	0.0029	<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	1.4	0.2	0.2	0.2	0.02
	Result	<0.0003	0.001	0.0134	<0.0001	<0.00005	<0.0002	<0.00005	0.000264	<0.0001	0.00106	0.000724	<0.00004	<0.0001	0.0006	0.000594	0.302	<0.1	<0.1	<0.1	<0.01
MW-75	Limit	0.001	0.001	0.0131	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	0.26	0.2	0.2	0.07
	Result	<0.0003	0.001	0.0127	<0.0001	<0.00005	<0.0002	<0.00005	<0.0002	<0.0001	<0.0001	<0.0005	<0.00004	<0.0001	<0.000075	0.000822	<0.01	<0.1	<0.1	<0.1	<0.01
MW-80	Limit	0.001	0.039	0.0230	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	0.00422	0.0138	<0.0001	<0.00005	<0.0002	<0.00005	<0.0002	<0.0001	0.000168	<0.0005	<0.00004	<0.0001	<0.000075	0.000965	<0.01	<0.1	<0.1	<0.1	<0.01
MW-85	Limit	0.001	0.001	0.0069	0.001	0.002	0.005	0.003	0.002	0.001	0.01	0.0013701	0.003	0.001	0.002	0.004	0.193	0.2	0.2	0.2	0.02
	Result	<0.0003	0.001	0.00638	<0.0001	<0.00005	<0.0002	<0.00005	<0.0002	<0.0001	0.000187	0.00106	<0.00004	<0.0001	0.0008	0.000915	0.119	<0.1	<0.1	<0.1	<0.01
MW-86	Limit	0.001	0.010	0.0063	0.001	0.002	0.005	0.003	0.002	0.001	0.001	0.0018389	0.003	0.001	0.002	0.004	1.4	0.2	0.2	0.2	0.02
	Result	<0.0003	0.0048	0.00567	<0.0001	<0.00005	<0.0002	<0.00005	<0.0002	<0.0001	0.000154	0.000761	<0.00004	<0.0001	0.0007	0.000518	0.169	<0.1	<0.1	<0.1	<0.01
MW-87	Limit	0.001	0.031	0.0424	0.001	0.002	0.005	0.003	0.00347	0.001	0.01	0.001	0.003	0.001	0.006	0.004	0.24	0.2	0.2	0.2	0.08
	Result	<0.0003	0.00761	0.0277	<0.0001	<0.00005	0.000263	0.000144	0.000501	0.000146	0.000269	<0.0005	<0.00004	<0.0001	0.00171	0.00105	0.011	<0.1	<0.1	<0.1	<0.01
MW-88	Limit	0.001	0.001	0.0025	0.001	0.002	0.005	0.003	0.002	0.001	0.001	0.001	0.003	0.001	0.003	0.004	1.7	0.2	0.2	0.2	0.02
	Result	<0.0003	0.00101	0.00216	<0.0001	<0.00005	0.000661	<0.00005	<0.0002	<0.0001	<0.0001	0.000685	<0.00004	<0.0001	0.0028	0.000847	0.636	<0.1	<0.1	<0.1	<0.01
MW-89	Limit	0.001	0.021	0.0184	0.001	0.002	0.005	0.003	0.002	0.001	0.001	0.001	0.003	0.001	0.002	0.0303	0.025	0.2	0.2	0.2	0.04
	Result	<0.0003	0.00324	0.00766	<0.0001	<0.00005	<0.0002	<0.00005	<0.0002	<0.0001	0.000154	<0.0005	<0.00004	<0.0001	0.0001	0.00516	<0.01	<0.1	<0.1	<0.1	<0.01
Results greater than Limit Value in RED Bold																					

TABLE 6
CEDAR HILLS REGIONAL LANDFILL
VOLATILE ORGANIC COMPOUND DETECTIONS IN REGIONAL AQUIFER WELLS
(Data Collected from October 1, 2017 to December 31, 2017)

Analyte	Site ID	Date	Sample ID	Sample Value (ug/L)
Upgradient and Crossgradient Wells				
Carbon Disulfide	MW-21	10/16/17	W21-171016-	0.297
	MW-24	11/02/17	W24-171102-	0.15 JT
	MW-84	10/31/17	W84-171031-	0.16 JT
	MW-93	10/18/17	W93-171018-	0.14 JT
<i>cis</i> -1,2-Dichloroethene	MW-24	11/2/2017	W24-171102-	0.14 JT
	MW-56	11/8/2017	W56-171108-	1.37
	MW-59	10/09/17	W59-171009-	1.13
	MW-76	11/06/17	W76-171106-	0.294
Tetrachloroethene	MW-76	11/6/2017	W76-171106-	0.437
Trichloroethene	MW-76	11/6/2017	W76-171106-	9.44
	MW-82	11/2/2017	W82-171102-	5.14
	MW-83	10/31/2017	W83-171031-	2
	MW-94	10/16/2017	W94-171016-	2.02
Vinyl Chloride	MW-24	11/2/2017	W24-171102-	0.016 JT
	MW-65	11/06/17	W65-171106-	0.032
Wells Downgradient to Waste Cells and North end Facilities				
Acetone	MW-67	10/30/17	W67-171030-	3.6 JT
Carbon Disulfide	MW-72	10/16/17	W72-171016-	0.11 JT

TABLE 7
SUMMARY OF EXCEEDANCES OF WAC 173-200-040
WATER QUALITY STANDARDS FOR GROUND WATERS OF THE STATE OF WASHINGTON

CEDAR HILLS REGIONAL LANDFILL PERCHED ZONES
(Data Collected from October 1, 2017 to December 31, 2017)

Parameter	Units	Well ID	Sample Date	Sample ID	Sample Value
East Perched Zone Wells					
pH	Std. Units	MW-30A	12/11/2017	W30A171211-	6.46
1,1-Dichloroethane	(ug/L)	MW-30A	12/11/2017	W30A171211-	1.46
		MW-62	12/12/2017	W62-171212-	1.04
Arsenic (Total)	(mg/L)	MW-30A	12/11/2017	W30A171211-	0.00048
		MW-47	12/11/2017	W47-171211-	0.0053
		MW-62	12/12/2017	W62-171212-	0.000589
Bis (2-Ethylhexyl) Phthalate	(ug/L)	MW-30A	12/11/2017	W30A171211-	57.7 DJ
		MW-47	12/11/2017	W47-171211-	11.9 DJ
Iron (Dissolved)	(mg/L)	MW-47	12/11/2017	W47-171211-	4.75
Manganese (Dissolved)	(mg/L)	MW-47	12/11/2017	W47-171211-	2.47
Total Dissolved Solids	(mg/L)	MW-47	12/11/2017	W47-171211-	711
Vinyl Chloride	(ug/L)	MW-47	12/11/2017	W47-171211-	6.17
South Solid Waste Area Perched Wells					
Arsenic (Total)	(mg/L)	MW-101	10/6/2017	W101171006-	0.00949
Iron (Dissolved)	(mg/L)	MW-101	10/6/2017	W101171006-	1.07
Manganese (Dissolved)	(mg/L)	MW-101	10/6/2017	W101171006-	1.14
Vinyl Chloride	(ug/L)	MW-101	10/6/2017	W101171006-	0.378

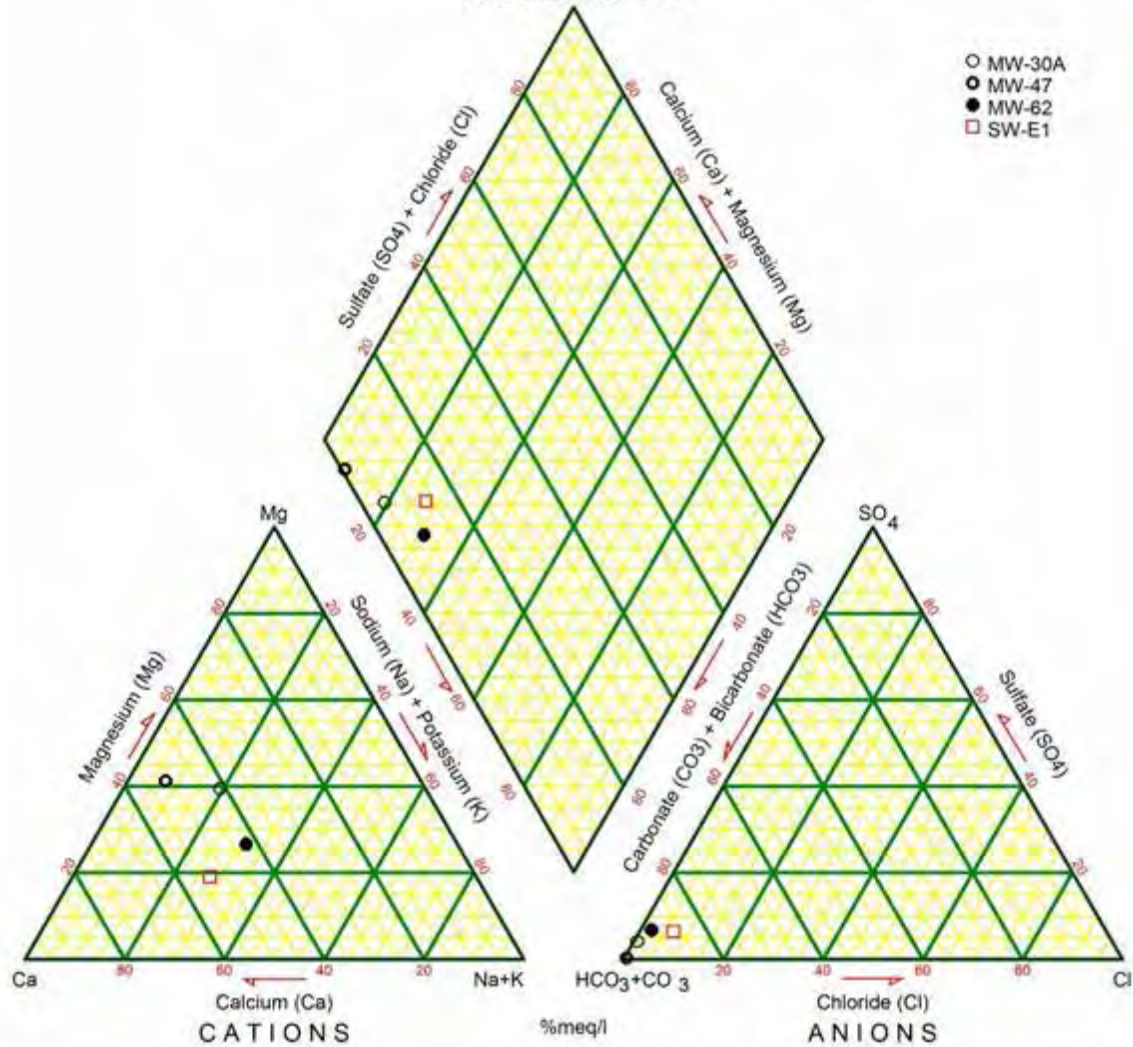
See Data Qualifier List for Qualifier Information.

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

Data Collected from October 1, 2017 to December 31, 2017

Site ID Date Molecular Weight	East Perched Zone												SSWA		
	MW-30A 12/11/17			MW-47 12/11/17			MW-62 12/12/17			SW-E1 12/11/17			MW-101 10/6/17		
	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)
Cations															
pH	6.5			6.8			6.8			5.8			6.8		
Conductance	220			890			195			41			445		
TDSobs	209			711			143			47			343		
Calcium 40.1	22.2	1.10778	41.2	137.0	6.83633	50.2	16.8	0.83832	42.4	4.3	0.21357	53.0	54.8	2.73453	43.3
Magnesium 24.3	12.9	1.06151	39.5	67.0	5.51327	40.5	6.4	0.52664	26.6	0.9	0.07636	19.0	32.6	2.68258	42.5
Potassium 39.1	1.5	0.03734	1.4	5.2	0.13172	1.0	1.0	0.02609	1.3	0.4	0.00969	2.4	2.7	0.06829	1.1
Sodium 23.0	11.1	0.48282	17.9	20.1	0.8743	6.4	13.5	0.58722	29.7	2.3	0.10004	24.8	17.1	0.74381	11.8
Iron 55.8	0.0	0.00036	0.0	4.8	0.17011	1.2	0.0	0.00036	0.0	0.0	0.0011	0.3	1.1	0.03832	0.6
Manganese 54.9	0.0	9.6E-06	0.0	2.5	0.08992	0.7	0.0	3.6E-06	0.0	0.0	0.00181	0.4	1.1	0.0415	0.7
Ammonia-N 14.0	0.0	0.00014	0.0	0.1	0.00603	0.0	0.0	0.00014	0.0	0.0	0.00034	0.1	0.0	0.00122	0.0
Total Cations (meq/L)		2.7		13.6			2.0			0.4			6.3		
Anions															
Alkalinity, Total	87.6			650			67.4			11.4			296		
Carbonate 60.0	0.01519	0.00051	0.0	0.27027	0.00901	0.1	0.02498	0.00083	0.0	0.00047	1.6E-05	0.0	0.11754	0.00392	0.1
Bicarbonate 61.0	106.84	1.75123	66.1	792.45	12.989	97.8	82.18	1.34696	68.7	13.91	0.22795	66.7	360.88	5.91519	97.1
Chloride 35.5	1.3	0.03639	1.4	6.0	0.16952	1.3	3.6	0.10013	5.1	1.9	0.05416	15.9	3.0	0.08575	1.4
Nitrate-N 14.0	8.8	0.62897	23.7	0.0	0.00071	0.0	2.9	0.20775	10.6	0.1	0.00828	2.4	0.0	0.00086	0.0
Sulfate 96.1	11.2	0.23319	8.8	5.7	0.11951	0.9	14.6	0.30398	15.5	2.5	0.05122	15.0	4.2	0.08724	1.4
Total Anions (meq/L)		2.7		13.3			2.0			0.3			6.1		
Total Ions (meq/L)		5.3		26.9			3.9			0.7			12.4		
Cation/Anion Ratio		1.01		1.03			1.01			1.18			1.04		
Percent Difference		0.7		1.2			0.5			8.2			2		
TRILINEAR DIAGRAM DATA															
sum (Ca, Mg, Na+K)		2.69			13.36			1.98			0.40			6.23	
Calcium			41.2			51.2			42.38			53.44			43.90
Magnesium			39.5			41.3			26.62			19.11			43.06
Sodium + Potassium			19.3			7.5			31.00			27.46			13.04
									100.0			100.0			
sum (SO ₄ , Cl, HCO ₃ +CO ₃)		2.02			13.29			1.75			0.33			6.09	
Sulfate			11.5			0.9			17.4			15.4			1.4
Chloride			1.8			1.3			5.7			16.2			1.4
Bicarbonate + Carbonate			86.7			97.8			76.9			68.4			97.2
									100.0			100.0			

Cedar Hills Regional Landfill
Figure 7. East Perched Zone Wells and Surface Water
Fourth Quarter 2017



Cedar Hills Regional Landfill
Figure 8. South Perched Zone Wells
Fourth Quarter 2017

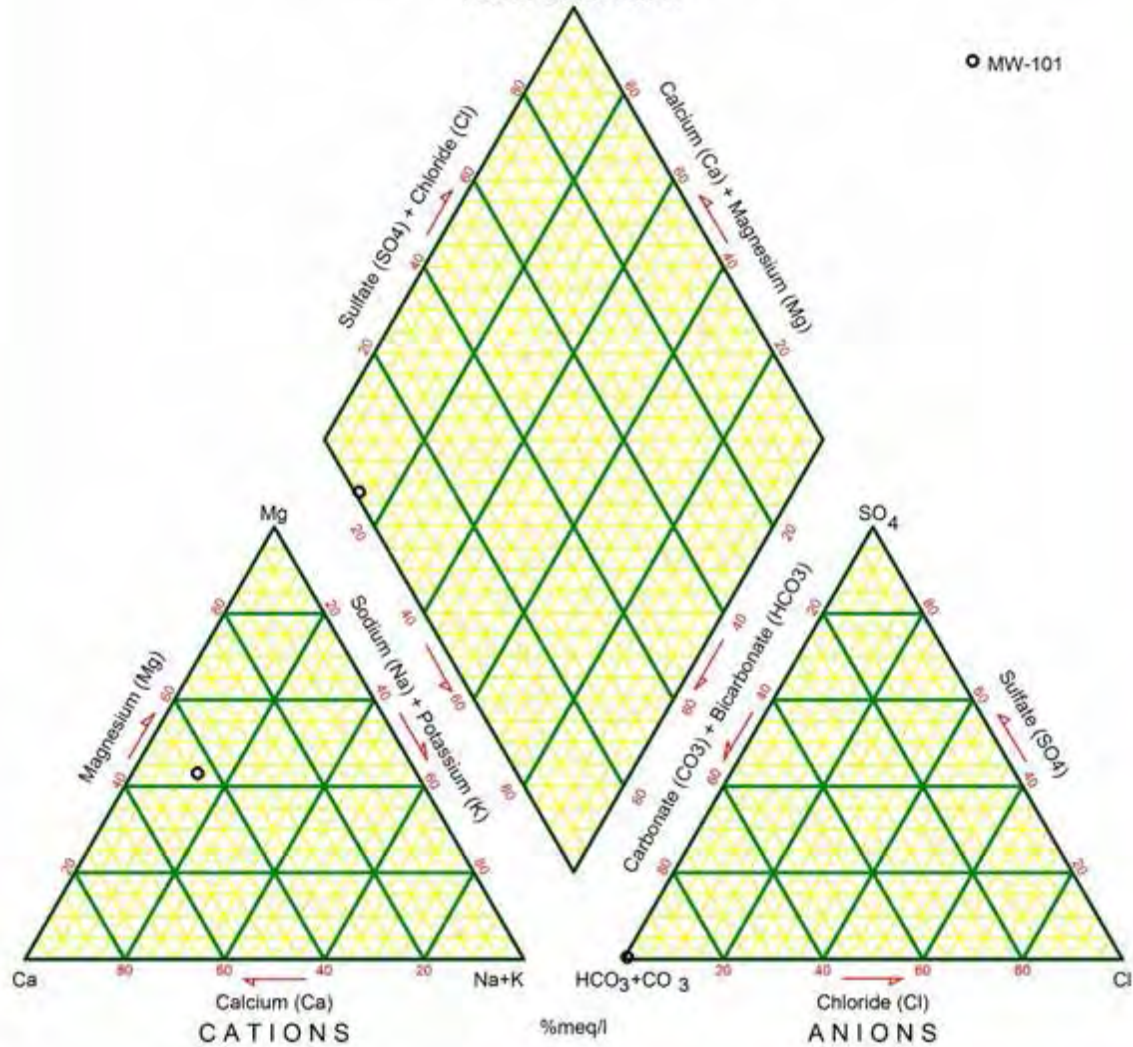


TABLE 9
CEDAR HILLS REGIONAL LANDFILL PERCHED ZONES MONITORING WELLS
SUMMARY OF WAC 173-351 APPENDIX I INTRAWELL PREDICTION LIMIT VALUES
(Data Collected from October 1, 2017 to December 31, 2017)

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	1,1-Dichloroethane	1,1-Dichloroethene	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	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	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	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	0.00233	0.00572	7.2	8.2	0.2	0.34	19.84	0.45	1.74	0.25
	Result	<0.0003	0.00048	0.0048	<0.0001	<0.00005	0.000943	0.000085	0.000785	0.000118	0.00134	<0.0005	<0.00004	<0.0001	0.00199	0.00169	8.81	1.46	<0.1	<0.1	3.60	0.1	0.676	<0.01
MW-47	Limit	0.001	0.00202	0.0470	0.001	0.002	0.005	0.003	0.002	0.001	0.01	0.001	0.003	0.001	0.002	0.004	0.013	0.74	0.2	0.2	4.1	0.2	0.2	7.96
	Result	<0.0003	0.00530	0.0409	<0.0001	<0.00005	<0.0002	0.000371	<0.0002	<0.0001	0.00242	<0.0005	<0.00004	<0.0001	0.000298	0.00172	<0.01	0.646	<0.1	<0.1	2.23	<0.1	<0.1	6.17
MW-62	Limit	0.001	0.001	0.0034	0.001	0.002	0.005	0.003	0.002	0.001	0.01	0.001	0.003	0.001	0.002	0.004	8.4	14.1	6.1	0.2	17.7	0.21	0.47	0.23
	Result	<0.0003	0.000589	0.002	<0.0001	<0.00005	0.000484	0.000126	0.000692	0.000132	0.000573	<0.0005	<0.00004	<0.0001	0.00212	0.00147	2.91	1.04	<0.1	<0.1	2.85	<0.1	<0.1	<0.01
South Solid Waste Area Wells																								
MW-101	Limit	0.001	0.021	0.0439	0.001	0.002	0.005	0.003	0.00416	0.00109	0.01	0.001	0.003	0.001	0.0039	0.00729	0.0593	0.21	0.2	0.2	0.2	0.2	0.2	1.00
	Result	<0.0003	0.009	0.0224	<0.0001	<0.00005	0.000334	0.00037	<0.0002	<0.0001	0.00408	<0.0005	<0.00004	<0.0001	0.000195	0.000744	0.012	<0.1	<0.1	0.19	0.206	<0.1	<0.1	0.38
Results greater than Limit Value in RED Bold																								

TABLE 10
CEDAR HILLS REGIONAL LANDFILL
VOLATILE ORGANIC COMPOUND DETECTIONS IN PERCHED ZONE WELLS
(Data Collected from October 1, 2017 to December 31, 2017)

Analyte	Site ID	Date	Sample ID	Sample Value (ug/L)
East Perched Zone Wells				
1,1-Dichloroethane	EW-25	11/1/2017	EW25171101-	0.18 JT
	MW-30A	12/11/2017	W30A171211-	1.46
	MW-47	12/11/2017	W47-171211-	0.646
	MW-62	12/12/2017	W62-171212-	1.04
2-Butanone	EW-25	11/1/2017	EW25171101-	4.5 JT
Acetone	EW-25	11/1/2017	EW25171101-	203 D
	MW-30A	12/11/2017	W30A171211-	3.7 JT
Chloroethane	MW-47	12/11/2017	W47-171211-	0.236
cis-1,2-Dichloroethene	EW-25	11/1/2017	EW25171101-	5.78
	MW-30A	12/11/2017	W30A171211-	3.6
	MW-47	12/11/2017	W47-171211-	2.23
	MW-62	12/12/2017	W62-171212-	2.85
Dichlorodifluoromethane	MW-47	12/11/2017	W47-171211-	4.64
Tetrachloroethene	EW-25	11/1/2017	EW25171101-	0.649
trans-1,2-Dichloroethene	MW-30A	12/11/2017	W30A171211-	0.1 JT
Trichloroethene	EW-25	11/1/2017	EW25171101-	3.6
	MW-30A	12/11/2017	W30A171211-	0.676
Vinyl Chloride	MW-47	12/11/2017	W47-171211-	6.17
South Solid Waste Area Perched Wells				
1,2-Dichloroethane	MW-101	10/6/2017	W101171006-	0.19 JT
Chloroethane	MW-101	10/6/2017	W101171006-	0.223
cis-1,2-Dichloroethene	MW-101	10/6/2017	W101171006-	0.206
Vinyl Chloride	MW-101	10/6/2017	W101171006-	0.378

See Data Qualifier List for Qualifier Information.

Table 11
Storm & Surface Water Monitoring Activities 4th Quarter 2017

Station ID	Date	Planned Activity	Sample ID	Comment
SW-GS1	10/19/2017	NPDES Permit Sample	SGS1171019P	
SW-SL3	10/19/2017	NPDES Permit Sample	SSL3171017P	
SW-N4	10/20/2017	NPDES Permit Sample	SN4-171020P	
SW-TD1	10/19/2017	Area 5 Top Deck Monitoring	STD1171019-	No flow, no sample taken.
SW-TD2 ¹	10/19/2017	Area 5 Top Deck Monitoring	--	
SW-TD4	10/19/2017	Area 5 Top Deck Monitoring	STD4171019-	
SW-TD6	10/19/2017	Area 5 Top Deck Monitoring	STD6171019-	
SW-E1	12/11/2017	East Perched Zone SW Monitoring	SE1-171211Q	Appendix III analyte list.
Stream Gauges	10/3/2017	Monthly Stream Gauge Level Measurement	--	
Stream Gauges	11/8/2017	Monthly Stream Gauge Level Measurement	--	
Stream Gauges	12/27/2017	Monthly Stream Gauge Level Measurement	--	

¹ No sample ID assigned, No sample collected.

TABLE 12
CEDAR HILLS LANDFILL
SUMMARY OF ISGP* STORMWATER PERMIT EXCEEDANCES
(Data Collected from October 1, 2017 to December 31, 2017)

Parameter	Units	Sampling Location	Date	Value	Regulatory Limit	Type
Total Suspended Solids	mg/L	SW-SL3	10/19/17	205	88	Permit Limit
					27	Monthly Average

*ISGP - Industrial General Stormwater Permit

TABLE 13
CEDAR HILLS REGIONAL LANDFILL
VOLATILE ORGANIC COMPOUND DETECTIONS IN BLANKS
(Data Collected from October 1, 2017 to December 31, 2017)

Analyte	Site ID	Date	Sample ID	Sample Value (ug/L)
2-Butanone	EQUIPMENT BLANK	11/01/17	EW25171101F	2 JT
	FIELD BLANK	11/08/17	W56-171108F	6.4
Acetone	EQUIPMENT BLANK	11/01/17	EW25171101F	25
	VOA TRIP BLANK	10/30/17	VTRP171102X	2.7 JT
Carbon Disulfide	FIELD BLANK	11/08/17	W56-171108F	0.15 JT
Toluene	FIELD BLANK	11/08/17	W56-171108F	0.266

See Data Qualifier List for Qualifier Information.

Table 14
Groundwater Quality Criteria

		Ground Water		
	Analyte	CAS No.	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	0.000006	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-nitroaniline	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 aniline	95-69-2	0.1	ug/L
	4-Chloro-2-methyl aniline 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
Groundwater Quality Criteria

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
Benzotrithloride	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 sulfate	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-methylethylamine	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 LANDFILL
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)

TABLE 16
CEDAR HILLS REGIONAL LANDFILL
LABORATORY DATA REVIEW - SUSPECT DATA ALL MATRICES
(Data Collected from October 1, 2017 to December 31, 2017)

Parameter	Units	Well ID	Sample Date	Sample ID	Sample Value	Cause of Unuseability
NO UNUSABLE DATA IDENTIFIED THIS QUARTER						

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 20, 2018

TO: Tom Theno, Engineer II, Engineering Services Section, 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 2017 Results
Cedar Hills 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 2017 for the Cedar Hills Landfill (landfill), in accordance with the *Proposal for Potentiometric Groundwater Surface Maps & Groundwater Velocity Calculations* (WLR Division, 2015). King County Solid Waste Division (SWD) personnel measured groundwater elevations at the landfill on October 3, 2017. These measurements were received by the WLR Division on December 15, 2017 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 groundwater conditions since the report submitted for the third quarter of the 2017 monitoring event.

Groundwater Elevation Data

SWD attempted groundwater level measurements at 39 monitoring wells during the fourth quarter of 2017. 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 1 lists the well identifications, locations, well details, measured groundwater levels, and calculated groundwater elevations for the regional aquifer. Wells with screened intervals within ten feet of the water table were used for potentiometric surface mapping purposes. A total of 23 wells with water levels within ten feet of the top of screen were selected.

Figure 1 shows well locations, groundwater elevations at the 23 selected wells, groundwater potentiometric surface contours, and interpreted groundwater flow direction in the regional aquifer for the October 3, 2017 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, 2017 measurements. Groundwater elevations indicate that groundwater in the regional aquifer generally flowed north beneath the southern and central portions of the landfill with minor components of flow to the north-northwest and north-northeast. At the northern end of the landfill, groundwater generally flowed to the north and north-northeast.

Groundwater Parameters

Horizontal groundwater velocity was calculated using the following formula:

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

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

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 2017 data. The hydraulic gradient was greatest under the southern portion of the landfill and smallest under the northern portion. On October 3, 2017, 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 2.1 ft/d under the northern and 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.

King County Water and Land Resources Division (WLR Division). 2017. *Proposal for Potentiometric Groundwater Surface Maps & Groundwater Velocity Calculations*. Unpublished. December.

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 1: Groundwater Elevations - Fourth Quarter 2017
- Table 2: Groundwater Parameters - Fourth Quarter 2017
- Figure 1: Groundwater Potentiometric Surface Map – Fourth Quarter 2017 – Regional Aquifer

Table 1: Groundwater Elevations – Fourth Quarter 2017

Cedar Hills Regional Landfill
King County, Washington

							October 3, 2017	
	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	226.30	340.85
	MW-64	1701980.27	168772.19	596.55	334.03	320.23	265.14	331.41
	MW-66	1699750.19	174250.32	531.28	294.39	280.59	238.62	292.66
	MW-67	1701776.69	172610.65	516.43	297.80	284.00	220.40	296.03
	MW-68	1701917.32	170609.35	647.07	311.29	292.29	331.84	315.23
	MW-69	1698061.86	172400.20	653.69	293.57	279.97	356.03	297.66
	MW-72	1698229.92	170987.71	671.87	303.63	294.03	360.98	310.89
	MW-73	1698954.95	174995.59	485.70	288.11	278.81	191.25	294.45
	MW-74R	1700386.85	173813.79	531.26	289.90	280.40	239.82	291.44
	MW-76	1700376.23	167193.13	491.71	351.06	341.56	139.89	351.82
	MW-81	1702568.87	172113.99	493.66	309.19	300.19	184.00	309.66
	MW-82	1699553.72	167725.31	474.85	348.88	339.38	123.47	351.38
	MW-83	1697939.89	167212.27	496.81	350.19	340.69	143.82	352.99
	MW-84	1698602.89	173894.54	530.80	292.46	282.96	235.91	294.89
	MW-85	1701828.95	173694.52	531.76	282.56	273.06	246.01	285.75
	MW-86	1701331.25	174917.90	536.04	283.43	274.63	249.47	286.57
	MW-87	1700670.27	173493.76	537.31	283.68	274.38	248.09	289.22
	MW-88	1701807.87	174303.06	513.68	281.52	272.22	226.93	286.75
	MW-93	1702259.35	169851.24	632.15	319.87	310.07	306.91	325.24
	MW-94	1698674.21	167210.22	495.51	357.22	348.52	142.12	353.39
Wells with water levels greater than 10 feet above the top of screen	MW-95	1697265.32	169426.92	571.54	314.60	305.90	255.77	315.77
	MW-100	1700791.72	169610.46	620.32	319.06	309.06	298.23	322.09
	MW-106	1702536.99	173461.69	475.47	280.04	270.04	190.52	284.95
	MW-21	1697901.86	173876.38	420.66	263.22	255.22	124.88	295.78
	MW-22P	1701844.34	173088.17	517.09	236.02	231.22	232.45	284.64
	MW-24	1699582.39	167767.76	475.99	286.76	281.76	145.25	330.74
	MW-43	1701274.23	174327.14	547.06	245.63	235.63	263.45	283.61
	MW-54	1702154.28	168435.53	580.43	250.25	228.25	279.09	301.34
	MW-56	1698980.77	167214.82	480.33	323.15	313.15	127.29	353.04
	MW-57	1699993.32	167201.99	456.64	326.65	311.65	104.40	352.24
	MW-58A	1699006.59	167207.16	479.27	270.05	260.05	148.17	331.10
	MW-59	1699983.91	167193.44	457.13	285.08	275.08	124.22	332.91
	MW-65	1701602.10	167146.55	545.83	317.71	308.91	209.44	336.39
	MW-75	1701059.70	173432.42	532.40	271.10	261.00	245.58	286.82
	MW-80	1701309.78	172964.99	530.41	279.17	269.67	238.90	291.51
	MW-89	1701799.57	174319.44	512.82	229.20	219.90	232.05	280.77
	MW-90	1702203.13	174300.67	502.22	235.16	226.16	221.70	280.52
	MW-91	1701023.09	173423.94	532.02	260.81	240.71	246.86	285.16
	MW-99	1702556.06	172098.73	493.64	221.77	212.77	200.55	293.09
	NPW-1	1701906.96	171138.99	646.33	299.87	284.87	NM	NM
	NPW-3	1701922.88	170663.28	645.81	284.87	276.87	NM	NM

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.

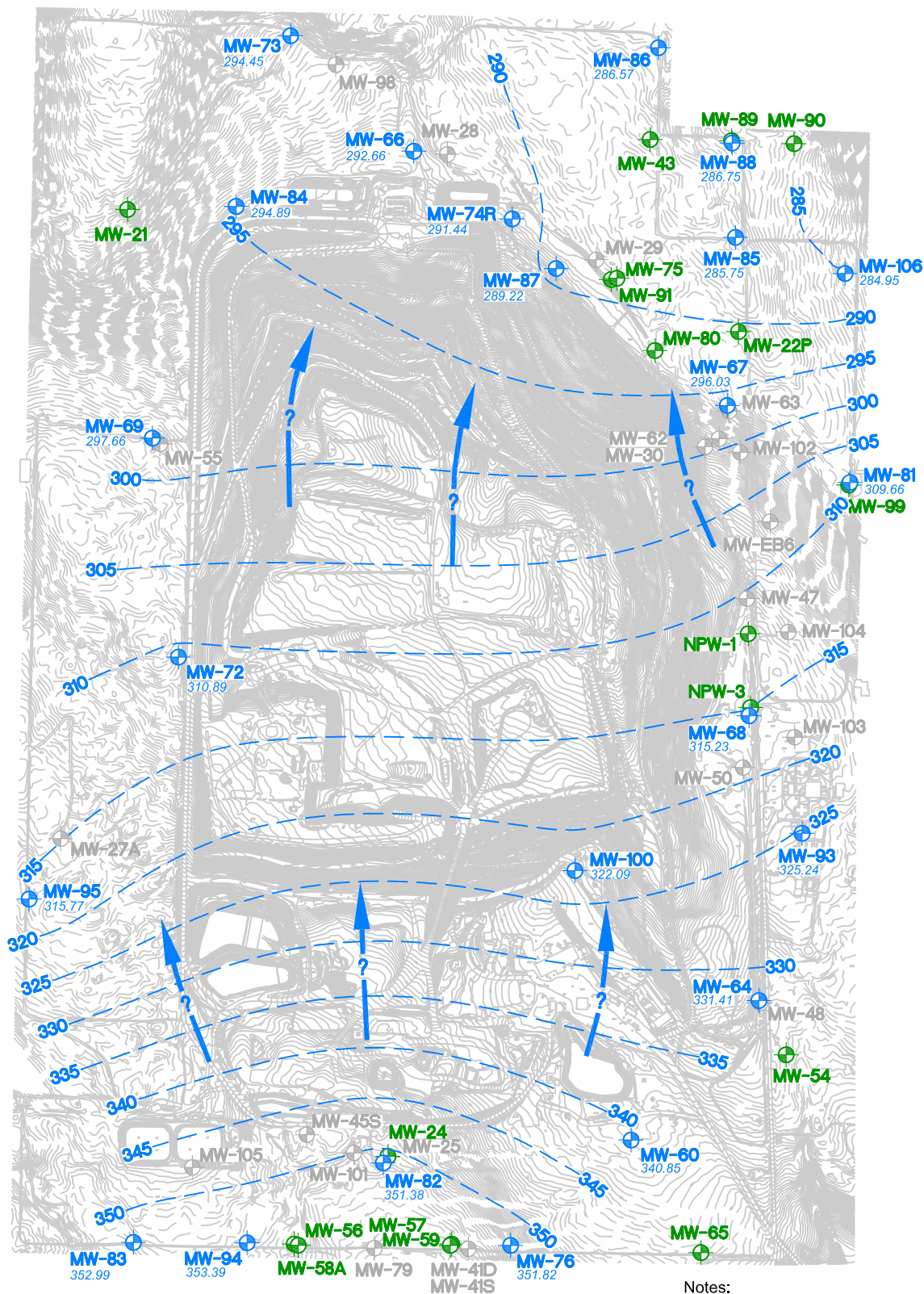
Table 2: Groundwater Parameters – Fourth Quarter 2017

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	0.008	24%	0.210	NNE, NE
	Maximum	4.20E-02	120	0.008	24%	4.21	
	Mean	2.10E-02	60	0.008	24%	2.10	
Central	Minimum	2.10E-03	6	0.008	24%	0.21	N, NNW
	Maximum	4.20E-02	120	0.008	24%	4.1	
	Mean	2.10E-02	60	0.008	24%	2.1	
Southern	Minimum	6.40E-06	0.018	0.0137	26%	0.0009	N, NNE, NNW
	Maximum	6.40E-04	1.8	0.0137	26%	0.09	
	Mean	6.40E-05	0.18	0.0137	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** Well completed in Regional Aquifer within 10 feet of the water table
- MW-X** Wells completed in Regional Aquifer more than 10 ft below water table
- MW-X** Wells screened in discontinuous Perched Zones

- 300** Regional Aquifer Groundwater Elevation Contour (feet MSL).
- Inferred Horizontal Groundwater Flow Path

0 1000 2000
Feet

Notes:

- Groundwater measurements made on October 3, 2017.
- Only wells completed in the Regional Aquifer within 10 feet of the water table were used for contouring.



Groundwater Potentiometric Surface Map Fourth Quarter 2017 - Regional Aquifer

Cedar Hills Landfill
King County, Washington

DATE: February 2018
DESIGNED BY: SB
DRAWN BY: KK
REVISED BY: SB

PROJECT NO.

1033379

FIGURE NO.

1

APPENDIX B

Field and Analytical Test Results

Groundwater Analytical Data

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017

Cedar Hills Landfill --- Groundwater Elevation Data

Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Reference Elevation (msl)	Depth to Water (feet)	Ground- Water Elevation (msl)	Comment
EW-25	10/3/2017	643.61	17.26	626.35	
EW-25	11/1/2017	643.61	13.69	629.92	
MW-21	10/3/2017	420.66	124.88	295.78	
MW-21	10/16/2017	420.66	124.72	295.94	
MW-22	10/3/2017	517.09	232.45	284.64	
MW-24	10/3/2017	475.99	145.25	330.74	
MW-24	11/2/2017	475.99	145.2	330.79	
MW-25	10/3/2017	474.41	17.49	456.92	
MW-27A	10/3/2017	584.23	55.2	529.03	
MW-28	10/3/2017	527.75	39.55	488.20	
MW-29	10/3/2017	532.92	17.31	515.61	
MW-30A	10/3/2017	568.43	31.76	536.67	
MW-30A	12/11/2017	568.43	30.73	537.70	
MW-41D	10/3/2017	462.32	31.69	430.63	
MW-41S	10/3/2017	462.44	14	448.44	
MW-43	10/3/2017	547.06	263.45	283.61	
MW-45	10/3/2017	488.4	19.17	469.23	
MW-47	10/3/2017	634.6	22.55	612.05	
MW-47	12/11/2017	634.6	14.32	620.28	
MW-48	10/3/2017	594.49	--	--	Dry
MW-50	10/3/2017	637.02	33.75	603.27	
MW-54	10/3/2017	580.43	279.09	301.34	
MW-55	10/3/2017	652.29	32.64	619.65	
MW-56	10/3/2017	480.33	127.29	353.04	
MW-56	11/8/2017	480.33	127.87	352.46	
MW-57	10/3/2017	456.64	104.4	352.24	
MW-58A	10/3/2017	479.27	148.17	331.10	
MW-59	10/3/2017	457.13	124.22	332.91	
MW-59	10/9/2017	457.13	124.31	332.82	
MW-60	10/3/2017	567.15	226.3	340.85	
MW-62	10/3/2017	556.21	--	--	Dry
MW-62	12/12/2017	566.21	49.55	516.66	
MW-63	10/3/2017	515.88	18.6	497.28	
MW-64	10/3/2017	596.55	265.14	331.41	
MW-64	11/6/2017	596.55	265.47	331.08	

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017

Cedar Hills Landfill --- Groundwater Elevation Data

Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Reference Elevation (msl)	Depth to Water (feet)	Ground- Water Elevation (msl)	Comment
MW-65	10/3/2017	545.83	209.44	336.39	
MW-65	11/6/2017	545.83	209.93	335.9	
MW-66	10/3/2017	531.28	238.62	292.66	
MW-66	10/9/2017	531.28	238.45	292.83	
MW-67	10/3/2017	516.43	220.4	296.03	
MW-67	10/30/2017	516.43	220.32	296.11	
MW-68	10/3/2017	647.07	331.84	315.23	
MW-68	12/28/2017	647.07	331.13	315.94	
MW-69	10/3/2017	653.69	356.03	297.66	
MW-69	10/18/2017	653.69	298.29	355.4	
MW-72	10/3/2017	671.87	360.98	310.89	
MW-72	10/16/2017	671.87	360.78	311.09	
MW-73	10/3/2017	485.7	191.25	294.45	
MW-73	11/6/2017	485.7	191.76	293.94	
MW-74	10/3/2017	531.26	239.82	291.44	
MW-74	10/9/2017	531.26	239.78	291.48	
MW-75	10/3/2017	532.4	245.58	286.82	
MW-75	10/18/2017	532.4	245.02	287.38	
MW-76	10/3/2017	491.71	139.89	351.82	
MW-76	11/6/2017	491.71	140.98	350.73	
MW-79	10/3/2017	459.17	--	--	Damaged
MW-80	10/3/2017	530.41	238.9	291.51	
MW-80	10/9/2017	530.41	238.87	291.54	
MW-81	10/3/2017	493.66	184	309.66	
MW-81	10/18/2017	493.66	183.31	310.35	
MW-82	10/3/2017	474.85	123.47	351.38	
MW-82	11/2/2017	474.85	124.21	350.64	
MW-83	10/3/2017	496.81	143.82	352.99	
MW-83	10/31/2017	496.81	144.17	352.64	
MW-84	10/3/2017	530.8	235.91	294.89	
MW-84	10/31/2017	530.8	235.85	294.95	
MW-85	10/3/2017	531.76	246.01	285.75	
MW-85	10/30/2017	531.76	246.09	285.67	
MW-86	10/3/2017	536.04	249.47	286.57	
MW-86	11/3/2017	536.04	249.6	286.44	

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017

Cedar Hills Landfill --- Groundwater Elevation Data

Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Reference Elevation (msl)	Depth to Water (feet)	Ground- Water Elevation (msl)	Comment
MW-87	10/3/2017	537.31	248.09	289.22	
MW-87	10/16/2017	537.31	247.8	289.51	
MW-88	10/3/2017	513.68	226.93	286.75	
MW-88	10/27/2017	513.68	226.96	286.72	
MW-89	10/3/2017	512.82	232.05	280.77	
MW-89	10/27/2017	512.82	232.04	280.78	
MW-90	10/3/2017	502.22	221.7	280.52	
MW-91	10/3/2017	532.02	246.86	285.16	
MW-93	10/3/2017	632.15	306.91	325.24	
MW-93	10/18/2017	632.15	307.31	324.84	
MW-94	10/3/2017	495.51	142.12	353.39	
MW-94	10/16/2017	495.51	142.27	353.24	
MW-95	10/3/2017	571.54	255.77	315.77	
MW-95	12/28/2017	571.54	250.64	320.90	
MW-98	10/3/2017	503.73	22.50	481.23	
MW-99	10/3/2017	493.64	200.55	293.09	
MW-100	10/3/2017	620.32	298.23	322.09	
MW-100	11/3/2017	620.32	297.18	323.14	
MW-101	10/3/2017	474.72	35.92	438.80	
MW-101	10/6/2017	474.72	35.76	438.96	
MW-102	10/3/2017	552.48	50.02	502.46	
MW-103	10/3/2017	639.08	22.04	617.04	
MW-104	10/3/2017	629.68	25.75	603.93	
MW-105	10/3/2017	521.23	23.08	498.15	
MW-105	10/6/2017	521.23	22.80	498.43	
MW-106	10/3/2017	475.47	190.52	284.95	
MW-EB5	10/3/2017	645.36	43.55	601.81	
MW-EB5S	10/3/2017	645.77	23.22	622.55	
MW-EB6	10/3/2017	589.61	--	--	Dry.
WS-NPW-1	10/3/2017	646.33	--	--	Pump removed. No reference point
WS-NPW-3	10/3/2017	645.81	--	--	Pump removed. No reference point

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017

Cedar Hills Landfill --- Groundwater Field Parameters

Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Sample ID	pH (Field)	Conductance (Field)	Temperature (°C)	Purge Volume (gal)	Dissolved Oxygen (mg/L)	Turbidity NTU
EW-25	11/1/2017	EW25171101-			12.3			
MW-21	10/16/2017	W21-171016-	7.8	135	9.48	2.2	0.83	2.63
MW-24	11/2/2017	W24-171102-	7.07	178.7	9.53	2.5	0.94	1.74
MW-47	12/11/2017	W47-171211-	6.84	890	11.6	20		1.84
MW-56	11/8/2017	W56-171108-	6.71	150	9.4	18.6		0.63
MW-59	10/9/2017	W59-171009-	7.1	188.4	9.89	2.5	2	3.15
MW-62	12/12/2017	W62-171212-	6.79	195	9.2	5		3.15
MW-64	11/6/2017	W64-171106-	6.94	260.4	11.73	4	1.29	8.24
MW-65	11/6/2017	W65-171106-	6.87	148.3	9.27	2.5	1.28	58.3
MW-66	10/9/2017	W66-171009-	7.18	242.1	10	3.5	5.52	0.87
MW-67	10/30/2017	W67-171030-	6.9	372.7	9.461	3.25	2.56	10.1
MW-68	12/28/2017	W68-171228-	6.85	285.1	10.01	3.2	0.9	1.84
MW-69	10/18/2017	W69-171018-	7.26	323.9	9.72	3.6	1.11	0.73
MW-72	10/16/2017	W72-171016-	7.14	346.3	10.95	3.5	1.62	11.7
MW-73	11/6/2017	W73-171106-	6.9	134.8	9.21	2.5	9.96	1.25
MW-74	10/9/2017	W74R171009-	7.01	580	10.26	4.2	4.54	1.82
MW-75	10/18/2017	W75-171018-	7.12	355.8	9.71	3.5	0.8	5.81
MW-76	11/6/2017	W76-171106-	6.41	227.2	9.66	2.4	7.26	0.3
MW-80	10/9/2017	W80-171009-	7.21	314.2	9.95	3	1.3	2.1
MW-81	10/18/2017	W81-171018-	7.15	157.4	9.92	1.8	6.3	0.67
MW-82	11/2/2017	W82-171102-	6.77	306.1	9.68	2.2	7.85	2.02
MW-83	10/31/2017	W83-171031-	6.66	683	10.4	3.25	1.7	0.27
MW-84	10/31/2017	W84-171031-	6.96	169	9.687	3	1.66	0.38
MW-85	10/30/2017	W85-171030-	6.98	344.5	9.648	2.75	3.63	0.26
MW-86	11/3/2017	W86-171103-	6.75	189.6	9.1	3.5	1.64	52.2
MW-87	10/16/2017	W87-171016-	6.88	526	10.9	3.25	0.74	41.6
MW-88	10/27/2017	W88-171027-	6.86	125.2	9.359	3	6.5	0.96
MW-89	10/27/2017	W89-171027-	7.28	205.4	10.048	1.5	5.46	26.7
MW-93	10/18/2017	W93-171018-	7.26	329	11.1	3.5	1.09	0.25
MW-94	10/16/2017	W94-171016-	6.97	260.3	9.83	2.75	8.34	0.43
MW-95	12/28/2017	W95-171228-	7.32	220	9.24	5	0.68	1.07
MW-100	11/3/2017	W100171103-	6.88	306.2	11.4	1.25	6.3	19.1
MW-101	10/6/2017	W101171006-	6.82	445	12.5	2.5		7.67
MW-105	10/6/2017	W105171006		160				
SW-E1	12/11/2017	SE1-171211Q	5.84	40.5	3.72		4.76	19.8

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017

Cedar Hills Landfill --- Groundwater Field Parameters

Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Sample ID	pH	Conductance	Temperature	Purge	Dissolved	Turbidity
			(Field)	(Field)		Volume	Oxygen	
			(std. Units)	(umhos/cm)	(° C)	(gal)	(mg/L)	NTU
EQUIPMENT BLANK	11/1/2017	EW25171101F			12.3			
FIELD BLANK	11/8/2017	W56-171108F	8.28	2	9.8			
WS-OS-1	10/5/2017	WOS1171005-	7.09	175	10.3	105		
WS-OS-2	10/5/2017	WOS2171005-	6.93	160	10.2	8		
WS-OS-3	10/4/2017	WOS3171004-	7.45	250	11.1	90		
WS-OS-4	10/4/2017	WOS4171004-	7.09	160	11.4	60		

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017

Cedar Hills Landfill --- Groundwater Conventionals Analytical Data

Contact Person: Sindy Jimenez (206) 477-5224

Site	Date	Sample ID	Alkalinity,	Ammonia,	Chloride	Cyanide	Nitrate-	Specific	Sulfate	Sulfide	Total	Total	Total	Suspended
			Total (CaCO ₃) (mg/L)	(NH ₃) (mg/L)	(mg/L)	mg/l	Nitrogen, (NO ₃ as N) (mg/L)	Conductance (umhos/cm)	(SO ₄) (mg/L)	(mg/L)	Dissolved Solids (mg/L)	Organic Carbon (mg/L)	Solids (mg/L)	Solids (mg/L)
MW-21	10/16/2017	W21-171016-	55.9	0.0103	2.7		< 0.01 U	131	5.02		82	< 0.5 U	90.7	< 0.5 U
MW-24	11/2/2017	W24-171102-	66.3	0.0374	4.56		0.017 T	177	12		107	< 0.5 U	119	< 0.5 U
MW-30A	12/11/2017	W30A171211-	87.6	< 0.002 U	1.29	< 0.002 U	8.81	263	11.2	0.26 T	209	1.02	211	0.7 T
MW-47	12/11/2017	W47-171211-	650	0.0845	6.01	< 0.002 U	< 0.01 U	1120	5.74	0.013 T	711	3.64	737	3.3
MW-56	11/8/2017	W56-171108-	59.3	0.0069 T	17.2		0.028 T	202	8.41		121	1.28	131	< 0.5 U
MW-59	10/9/2017	W59-171009-	64	0.005 T	5.79		0.017 T	179	16.2		117	0.78 T	124	3.8
MW-62	12/12/2017	W62-171212-	67.4	< 0.002 U	3.55	< 0.002 U	2.91	199	14.6	0.0419	143	0.84 T	141	1 T
MW-64	11/6/2017	W64-171106-	98.9	0.0178	3.57		0.023 T	256	23.4		147	< 0.5 U	156	4.6
MW-65	11/6/2017	W65-171106-	52.6	0.0032 T	3.47		0.015 T	142	10.9		92	0.62 T	117	38
MW-65 Duplicate	11/6/2017	W65-171106D	52.5	0.0033 T	3.39		0.016 T	143	10.7		91.3	< 0.5 U	102	19.6
MW-66	10/9/2017	W66-171009-	96	< 0.002 U	5.26		0.597	238	13.8		149	< 0.5 U	151	0.9 T
MW-67	10/30/2017	W67-171030-	148	0.0064 T	5.12		0.128	372	31.7		224	< 0.5 U	238	3.6
MW-68	12/28/2017	W68-171228-	126	0.0181	2.7		< 0.01 U	272	15.1		170	< 0.5 U	181	1.6
MW-69	10/18/2017	W69-171018-	134	0.0143	4.05		< 0.01 U	317	24.1		194	0.64 T	221	1
MW-72	10/16/2017	W72-171016-	124	0.0153	6.17		< 0.01 U	335	38		212	0.54 T	233	9.6
MW-73	11/6/2017	W73-171106-	50.4	< 0.002 U	2.28		0.972	136	8.22		94.7	< 0.5 U	95.3	3.1
MW-74	10/9/2017	W74R171009-	228	< 0.002 U	26.9		0.302	567	32.2		338	0.92 T	357	< 0.5 U
MW-74 Duplicate	10/9/2017	W74R171009D	228	< 0.002 U	27.4		0.3	564	32.5		326	0.82 T	350	< 0.5 U
MW-75	10/18/2017	W75-171018-	105	0.0075 T	10.5		< 0.01 U	350	56.4		226	< 0.5 U	250	2.8
MW-76	11/6/2017	W76-171106-	59.8	< 0.002 U	13.8		0.934	228	22.1		145	1.49	145	< 0.5 U
MW-80	10/9/2017	W80-171009-	109	0.0102	4.84		< 0.01 U	302	34.9		197	< 0.5 U	207	1.7
MW-81	10/18/2017	W81-171018-	54.5	< 0.002 U	4.99		1.33	157	9.35		106	< 0.5 U	110	< 1 U
MW-82	11/2/2017	W82-171102-	121	< 0.002 U	10.4		0.799	312	15.5		190	0.61 T	215	4.5
MW-83	10/31/2017	W83-171031-	190	0.0026 T	81		3.79	680	9.91		449	8.69	465	< 0.5 U
MW-84	10/31/2017	W84-171031-	64.2	< 0.002 U	3.31		0.147	172	12.5		101	< 0.5 U	109	< 0.5 U
MW-85	10/30/2017	W85-171030-	121	< 0.002 U	9.78		0.119	345	34		208	< 0.5 U	217	< 1 U
MW-86	11/3/2017	W86-171103-	65.8	< 0.002 U	4.57		0.169	188	18.4		119	< 0.5 U	129	12
MW-87	10/16/2017	W87-171016-	95.8	0.0176	11.3		0.011 T	508	143		367	0.51 T	404	18.4
MW-88	10/27/2017	W88-171027-	50.1	0.0027 T	1.87		0.636	128	5.67		85.3	< 0.5 U	85.3	< 0.5 U
MW-89	10/27/2017	W89-171027-	71.2	0.0173	9.18		< 0.01 U	206	14.4		127	< 0.5 U	143	4.6
MW-93	10/18/2017	W93-171018-	122	0.0583	3.15		< 0.01 U	327	41.1		209	< 0.5 U	217	< 0.5 U
MW-94	10/16/2017	W94-171016-	79.9	< 0.002 U	20.9		1.93	259	7.29		165	2.23	175	< 0.5 U
MW-95	12/28/2017	W95-171228-	87	0.0241	4.71		< 0.01 U	213	15.9		134	< 0.5 U	142	< 0.5 U
MW-100	11/3/2017	W100171103-	135	0.0125	2.88		< 0.01 U	308	18		177	< 0.5 U	187	6.6
MW-101	10/6/2017	W101171006-	296	0.0171	3.04		0.012 T	550	4.19		343	4.53	353	20.2
FIELD BLANK	11/8/2017	W56-171108F	< 1 U	< 0.002 U	< 0.05 U		< 0.01 U	1.2 T	< 0.1 U		< 10 U	< 0.5 U	< 10 U	< 0.5 U
WS-OS-1	10/5/2017	WOS1171005-	74.7	< 0.002 U	3.81		1.15	190	11.6		128	0.61 T	131	1 T
WS-OS-2	10/5/2017	WOS2171005-	69.1	0.0061 T	2.12		0.194	160	7.33		107	< 0.5 U	113	0.6 T

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017

Cedar Hills Landfill --- Groundwater Conventional Analytical 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)	Cyanide mg/l	Nitrate- Nitrogen, (NO ₃ as N) (mg/L)	Specific Conductance (umhos/cm)	Sulfate (SO ₄) (mg/L)	Sulfide (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)	Total Solids (mg/L)	Suspended Solids (mg/L)
WS-OS-3	10/4/2017	WOS3171004-	120	< 0.002 U	8.77		< 0.01 U	263	2.5		162	< 0.5 U	168	< 0.5 U
WS-OS-4	10/4/2017	WOS4171004-	61.3	< 0.002 U	3.46		0.817	162	10.6		98.9	< 0.5 U	107	< 0.54 U

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017
 Cedar Hills Landfill --- Groundwater Metals Analytical Data
 Contact Person: Sindy Jimenez (206) 477-5224

Site	Date	Sample ID	Aluminum, dissolved (mg/L)	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)
MW-21	10/16/2017	W21-171016-	< 0.0003 U	< 0.0003 U	0.00092	0.00088	0.00421	0.00442	< 0.0001 U	< 0.0001 U	< 0.00005 U	< 0.00005 U
MW-24	11/2/2017	W24-171102-	< 0.0003 U	< 0.0003 DU	0.000547	0.000523	0.00183	0.00186	< 0.0001 U	< 0.0001 DU	< 0.00005 U	< 0.00005 U
MW-30A	12/11/2017	W30A171211-	< 0.0003 U	< 0.0003 U	0.000404	0.00048	0.00388	0.00475	< 0.0001 U	< 0.0001 U	< 0.00005 U	< 0.00005 U
MW-47	12/11/2017	W47-171211-	< 0.0003 U	< 0.0003 U	0.00563	0.0053	0.0437	0.0409	< 0.0001 U	< 0.0001 U	< 0.00005 U	< 0.00005 U
MW-56	11/8/2017	W56-171108-	< 0.0003 U	< 0.0003 U	0.000076	0.0000812	0.00309	0.0034	< 0.0001 U	< 0.0001 U	< 0.00005 U	< 0.00005 U
MW-59	10/9/2017	W59-171009-	< 0.0003 U	< 0.0003 U	0.000402	0.000468	0.00334	0.00399	< 0.0001 U	< 0.0001 U	< 0.00005 U	< 0.00005 U
MW-62	12/12/2017	W62-171212-	< 0.0003 U	< 0.0003 U	0.000456	0.000589	0.00107	0.00203	< 0.0001 U	< 0.0001 U	< 0.00005 U	< 0.00005 U
MW-64	11/6/2017	W64-171106-	< 0.0003 U	< 0.0003 DU	0.000574	0.00153	0.00836	0.0147	< 0.0001 U	< 0.0001 DU	< 0.00005 U	0.000174
MW-65	11/6/2017	W65-171106-	< 0.0003 U	< 0.0003 DU	0.000351	0.00191	0.00569	0.00797	< 0.0001 U	< 0.0001 DU	< 0.00005 U	< 0.00005 U
MW-65 Duplicate	11/6/2017	W65-171106D	< 0.0003 U	< 0.0003 DU	0.000351	0.00187	0.00568	0.00739	< 0.0001 U	< 0.0001 DU	< 0.00005 U	< 0.00005 U
MW-66	10/9/2017	W66-171009-	< 0.0003 U	< 0.0003 U	0.000663	0.000669	0.00493	0.00533	< 0.0001 U	< 0.0001 U	< 0.00005 U	< 0.00005 U
MW-67	10/30/2017	W67-171030-	< 0.0003 U	< 0.0003 DU	0.000331	0.000627	0.0116	0.0124	< 0.0001 U	< 0.0001 DU	< 0.00005 U	< 0.00005 U
MW-68	12/28/2017	W68-171228-	< 0.0003 U	< 0.0003 U	0.0108	0.0137	0.0101	0.0119	< 0.0001 U	< 0.0001 U	< 0.00005 U	< 0.00005 U
MW-69	10/18/2017	W69-171018-	< 0.0003 U	< 0.0003 U	0.00217	0.00226	0.0113	0.0116	< 0.0001 U	< 0.0001 U	< 0.00005 U	< 0.00005 U
MW-72	10/16/2017	W72-171016-	< 0.0003 U	< 0.0003 U	0.0000723	0.000112	0.011	0.0117	< 0.0001 U	< 0.0001 U	< 0.00005 U	< 0.00005 U
MW-73	11/6/2017	W73-171106-	< 0.0003 U	< 0.0003 DU	0.000643	0.000675	0.00231	0.00312	< 0.0001 U	< 0.0001 DU	< 0.00005 U	< 0.00005 U
MW-74	10/9/2017	W74R171009-	< 0.0003 U	< 0.0003 U	0.000394	0.000571	0.013	0.0134	< 0.0001 U	< 0.0001 U	< 0.00005 U	< 0.00005 U
MW-74 Duplicate	10/9/2017	W74R171009D	< 0.0003 U	< 0.0003 U	0.000401	0.000571	0.0131	0.0136	< 0.0001 U	< 0.0001 U	< 0.00005 U	< 0.00005 U
MW-75	10/18/2017	W75-171018-	< 0.0003 U	< 0.0003 U	0.000465	0.000536	0.0107	0.0127	< 0.0001 U	< 0.0001 U	< 0.00005 U	< 0.00005 U
MW-76	11/6/2017	W76-171106-	< 0.0003 U	< 0.0003 DU	0.000191	0.000189	0.00345	0.00373	< 0.0001 U	< 0.0001 DU	< 0.00005 U	< 0.00005 U
MW-80	10/9/2017	W80-171009-	< 0.0003 U	< 0.0003 U	0.00404	0.00422	0.0134	0.0138	< 0.0001 U	< 0.0001 U	< 0.00005 U	< 0.00005 U
MW-81	10/18/2017	W81-171018-	< 0.0003 U	< 0.0003 U	0.000514	0.000518	0.00279	0.00282	< 0.0001 U	< 0.0001 U	< 0.00005 U	< 0.00005 U
MW-82	11/2/2017	W82-171102-	< 0.0003 U	< 0.0003 DU	0.00023	0.000253	0.00111	0.00158	< 0.0001 U	< 0.0001 DU	< 0.00005 U	< 0.00005 U
MW-83	10/31/2017	W83-171031-	< 0.0003 U	< 0.0003 DU	0.000467	0.000447	0.0106	0.0104	< 0.0001 U	< 0.0001 DU	< 0.00005 U	< 0.00005 U
MW-84	10/31/2017	W84-171031-	< 0.0003 U	< 0.0003 DU	0.000312	0.000328	0.00359	0.00394	< 0.0001 U	< 0.0001 DU	< 0.00005 U	< 0.00005 U
MW-85	10/30/2017	W85-171030-	< 0.0003 U	< 0.0003 DU	0.000685	0.000707	0.00606	0.00638	< 0.0001 U	< 0.0001 DU	< 0.00005 U	< 0.00005 U
MW-86	11/3/2017	W86-171103-	< 0.0003 U	< 0.0003 DU	0.000532	0.0048	0.00448	0.00567	< 0.0001 U	< 0.0001 DU	< 0.00005 U	< 0.00005 U
MW-87	10/16/2017	W87-171016-	< 0.0003 U	< 0.0003 U	0.000535	0.00761	0.0227	0.0277	< 0.0001 U	< 0.0001 U	< 0.00005 U	< 0.00005 U
MW-88	10/27/2017	W88-171027-	< 0.0003 DU	< 0.0003 DU	0.000981	0.00101	0.00215	0.00216	< 0.0001 DU	< 0.0001 DU	< 0.00005 U	< 0.00005 U
MW-89	10/27/2017	W89-171027-	< 0.0003 DU	< 0.0003 DU	0.000945	0.00324	0.00607	0.00766	< 0.0001 DU	< 0.0001 DU	< 0.00005 U	< 0.00005 U
MW-93	10/18/2017	W93-171018-	< 0.0003 U	< 0.0003 U	0.00127	0.00129	0.00735	0.00799	< 0.0001 U	< 0.0001 U	< 0.00005 U	< 0.00005 U
MW-94	10/16/2017	W94-171016-	< 0.0003 U	< 0.0003 U	0.000182	0.000167	0.00241	0.0026	< 0.0001 U	< 0.0001 U	< 0.00005 U	< 0.00005 U
MW-95	12/28/2017	W95-171228-	< 0.0003 U	< 0.0003 U	0.00102	0.00103	0.00386	0.00422	< 0.0001 U	< 0.0001 U	< 0.00005 U	< 0.00005 U
MW-100	11/3/2017	W100171103-	< 0.0003 U	< 0.0003 DU	0.000406	0.00657	0.00622	0.00931	< 0.0001 U	< 0.0001 DU	< 0.00005 U	< 0.00005 U
MW-101	10/6/2017	W101171006-	< 0.0003 U	< 0.0003 U	0.0106	0.00949	0.0192	0.0224	< 0.0001 U	< 0.0001 U	< 0.00005 U	< 0.00005 U
FIELD BLANK	11/8/2017	W56-171108F	< 0.0003 U	< 0.0003 U	< 0.00005 U	< 0.00005 U	< 0.0005 U	< 0.0005 U	< 0.0001 U	< 0.0001 U	< 0.00005 U	< 0.00005 U
WS-OS-1	10/5/2017	WOS1171005-		< 0.0003 U		0.000432		0.00267		< 0.0001 U		< 0.00005 U
WS-OS-2	10/5/2017	WOS2171005-		< 0.0003 U		0.000501		0.00268		< 0.0001 U		< 0.00005 U

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017
 Cedar Hills Landfill --- Groundwater Metals Analytical Data
 Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Aluminum, dissolved (mg/L)	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)
WS-OS-3	10/4/2017	WOS3171004-		< 0.0003 U		0.00434		0.006		< 0.0001 U		< 0.00005 U
WS-OS-4	10/4/2017	WOS4171004-		< 0.0003 U		0.000931		0.00185		< 0.0001 U		< 0.00005 U

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017
 Cedar Hills Landfill --- Groundwater Metals Analytical Data
 Contact Person: Sindy Jimenez (206) 477-5224

Site	Date	Sample ID	Cadmium, total (mg/L)	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)
MW-21	10/16/2017	W21-171016-	10.9	11.1 D	< 0.0002 U	< 0.0002 U	< 0.00005 U	< 0.00005 U	< 0.0002 U	< 0.0002 U	1.9	2.2
MW-24	11/2/2017	W24-171102-	13.5	13.6	< 0.0002 U	< 0.0002 U	< 0.00005 U	< 0.00005 DU	< 0.0002 U	< 0.0002 U	3.26	3.37
MW-30A	12/11/2017	W30A171211-	22.2	23	0.000562	0.000943	< 0.00005 DU	0.000085	0.00033	0.000785	< 0.01 U	0.207
MW-47	12/11/2017	W47-171211-	137	141	< 0.0002 U	< 0.0002 U	0.000381 D	3.71E-04	< 0.0002 U	< 0.0002 U	4.75	4.74
MW-56	11/8/2017	W56-171108-	16.4	16.2	< 0.0002 U	< 0.0002 U	0.000189	0.000193	< 0.0002 U	< 0.0002 U	0.0921	0.122
MW-59	10/9/2017	W59-171009-	15.3	15.4	< 0.0002 U	0.000465	< 0.00005 U	< 0.00005 U	< 0.0002 U	0.000645	3.82	4.29
MW-62	12/12/2017	W62-171212-	16.8	17.9	0.000249	0.000484	< 0.00005 DU	0.000126	0.000289	0.000692	< 0.01 U	0.235
MW-64	11/6/2017	W64-171106-	18.7	19.3	< 0.0002 U	0.000282	< 0.00005 U	0.00133 D	< 0.0002 U	0.000485	0.0495	0.533
MW-65	11/6/2017	W65-171106-	11.4	11.6	< 0.0002 U	< 0.0002 U	< 0.00005 U	0.0000615 D	< 0.0002 U	< 0.0002 U	3.23	7.7
MW-65 Duplicate	11/6/2017	W65-171106D	11.4	11.7	< 0.0002 U	0.000247	< 0.00005 U	0.0000607 D	< 0.0002 U	< 0.0002 U	3.2	7.53
MW-66	10/9/2017	W66-171009-	18.7	18.9	< 0.0002 U	< 0.0002 U	< 0.00005 U	< 0.00005 U	< 0.0002 U	< 0.0002 U	< 0.01 U	0.0394
MW-67	10/30/2017	W67-171030-	33.5	34.7	< 0.0002 U	< 0.0002 U	0.000105	0.00014 D	< 0.0002 U	< 0.0002 U	0.205	0.48
MW-68	12/28/2017	W68-171228-	27.1	28	< 0.0002 U	< 0.0002 U	0.000235	0.000255	< 0.0002 U	0.000386	0.596	0.725
MW-69	10/18/2017	W69-171018-	32.2	33.4 D	< 0.0002 U	< 0.0002 U	< 0.00005 U	< 0.00005 U	< 0.0002 U	< 0.0002 U	1.03	1.12
MW-72	10/16/2017	W72-171016-	30.9	31.1 D	< 0.0002 U	< 0.0002 U	< 0.00005 U	< 0.00005 U	< 0.0002 U	0.000359	2.44	3.13
MW-73	11/6/2017	W73-171106-	11.6	11.9	0.000218	0.000296	< 0.00005 U	< 0.00005 DU	0.000227	0.000286	< 0.01 U	0.0319
MW-74	10/9/2017	W74R171009-	49	48.5	< 0.0002 U	< 0.0002 U	< 0.00005 U	< 0.00005 U	< 0.0002 U	0.000264	< 0.01 U	0.152
MW-74 Duplicate	10/9/2017	W74R171009D	49.6	49.7	< 0.0002 U	< 0.0002 U	< 0.00005 U	< 0.00005 U	< 0.0002 U	0.000257	< 0.01 U	0.144
MW-75	10/18/2017	W75-171018-	28.5	28.5 D	< 0.0002 U	< 0.0002 U	< 0.00005 U	< 0.00005 U	< 0.0002 U	< 0.0002 U	1.89	2.15
MW-76	11/6/2017	W76-171106-	19.7	20.3	0.000369	0.000623	< 0.00005 U	< 0.00005 DU	0.0005	0.000535	< 0.01 U	< 0.01 U
MW-80	10/9/2017	W80-171009-	29.7	30.1	< 0.0002 U	< 0.0002 U	< 0.00005 U	< 0.00005 U	< 0.0002 U	< 0.0002 U	1.99	2.11
MW-81	10/18/2017	W81-171018-	13.2	13.3 D	< 0.0002 U	< 0.0002 U	< 0.00005 U	< 0.00005 U	< 0.0002 U	< 0.0002 U	< 0.01 U	< 0.01 U
MW-82	11/2/2017	W82-171102-	27.4	28.2	< 0.0002 U	0.00121	< 0.00005 U	< 0.00005 DU	< 0.0002 U	0.000216	< 0.01 U	0.0647
MW-83	10/31/2017	W83-171031-	67.9	69.5	< 0.0002 U	0.000216	0.000308	0.000339 D	0.00553	0.00549	< 0.01 U	< 0.01 U
MW-84	10/31/2017	W84-171031-	12	12.7	< 0.0002 U	< 0.0002 U	< 0.00005 U	< 0.00005 DU	< 0.0002 U	< 0.0002 U	< 0.01 U	< 0.01 U
MW-85	10/30/2017	W85-171030-	29.9	30.6	< 0.0002 U	< 0.0002 U	< 0.00005 U	< 0.00005 DU	< 0.0002 U	< 0.0002 U	< 0.01 U	< 0.01 U
MW-86	11/3/2017	W86-171103-	14.4	15.4	< 0.0002 U	< 0.0002 U	< 0.00005 U	< 0.00005 DU	< 0.0002 U	< 0.0002 U	0.324	3.14
MW-87	10/16/2017	W87-171016-	44.6	44.4 D	< 0.0002 U	0.000263	0.000118	0.000144	< 0.0002 U	0.000501	4.7	10.8
MW-88	10/27/2017	W88-171027-	9.13	9.07	0.000689	0.000661	< 0.00005 DU	< 0.00005 DU	< 0.0002 U	< 0.0002 U	< 0.01 U	< 0.01 U
MW-89	10/27/2017	W89-171027-	14	14.3	< 0.0002 U	< 0.0002 U	< 0.00005 DU	< 0.00005 DU	< 0.0002 U	< 0.0002 U	0.727	2.35
MW-93	10/18/2017	W93-171018-	31.2	32.5 D	< 0.0002 U	< 0.0002 U	0.0000884	0.000111	< 0.0002 U	< 0.0002 U	< 0.01 U	< 0.01 U
MW-94	10/16/2017	W94-171016-	25.1	25.4 D	0.00227	0.00238	0.000123	0.00013	0.000897	0.000965	0.061	0.067
MW-95	12/28/2017	W95-171228-	21.2	21.5	< 0.0002 U	< 0.0002 U	0.000064	0.0000708	< 0.0002 U	< 0.0002 U	< 0.01 U	< 0.01 U
MW-100	11/3/2017	W100171103-	28.1	28.5	< 0.0002 U	0.000218	0.000257	0.000591 D	< 0.0002 U	0.000461	0.695	7.87
MW-101	10/6/2017	W101171006-	54.8	55.8	< 0.0002 U	0.000334	0.000371	0.00037	< 0.0002 U	< 0.0002 U	1.07	1.16
FIELD BLANK	11/8/2017	W56-171108F	< 0.05 U	< 0.05 U	< 0.0002 U	< 0.0002 U	< 0.00005 U	< 0.00005 U	< 0.0002 U	< 0.0002 U	< 0.01 U	< 0.01 U
WS-OS-1	10/5/2017	WOS1171005-		19		< 0.0002 U		< 0.00005 U		0.0696		0.884
WS-OS-2	10/5/2017	WOS2171005-		15.1		< 0.0002 U		< 0.00005 U		0.00147		0.0698

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017
 Cedar Hills Landfill --- Groundwater Metals Analytical Data
 Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Cadmium, total (mg/L)	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)
WS-OS-3	10/4/2017	WOS3171004-		20.6		< 0.0002 U		< 0.00005 U		0.00199		0.0114
WS-OS-4	10/4/2017	WOS4171004-		13.5		< 0.0002 U		< 0.00005 U		0.00366		< 0.01 U

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017
 Cedar Hills Landfill --- Groundwater Metals Analytical Data
 Contact Person: Sindy Jimenez (206) 477-5224

Site	Date	Sample ID	Iron, total (mg/L)	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)
MW-21	10/16/2017	W21-171016-	< 0.0001 U	< 0.0001 U	6.19	6.28	0.0896	0.0967	< 0.00005 U	< 0.00005 U	0.000357	0.00028
MW-24	11/2/2017	W24-171102-	< 0.0001 U	< 0.0001 DU	8.79	9.24	0.116 D	0.117	< 0.00005 U	< 0.00005 U	< 0.0001 U	< 0.0001 U
MW-30A	12/11/2017	W30A171211-	< 0.0001 U	0.000118	12.9	12.7	0.000263	0.0022	< 0.00005 U	< 0.00005 U	0.00102	0.00134
MW-47	12/11/2017	W47-171211-	< 0.0001 U	< 0.0001 U	67	69.5	2.47	2.72	< 0.00005 U	< 0.00005 U	0.00227	0.00242
MW-56	11/8/2017	W56-171108-	< 0.0001 U	< 0.0001 U	9.72	9.47	0.333	0.328	< 0.00005 U	< 0.00005 U	0.000753	0.000664
MW-59	10/9/2017	W59-171009-	< 0.0001 U	0.000151	9.63	9.68	0.125	0.14 D	< 0.00005 U	< 0.00005 U	0.000173	0.000322
MW-62	12/12/2017	W62-171212-	< 0.0001 U	0.000132	6.4	6.76	< 0.0001 U	0.00536	< 0.00005 U	< 0.00005 U	0.000264 D	0.000573
MW-64	11/6/2017	W64-171106-	< 0.0001 U	< 0.0001 DU	15.1	15.8	0.0491	1.15	< 0.00005 U	< 0.00005 U	0.000495	0.00532
MW-65	11/6/2017	W65-171106-	< 0.0001 U	< 0.0001 DU	6.88	7.1	0.15	0.335	< 0.00005 U	< 0.00005 U	0.000114	0.000227
MW-65 Duplicate	11/6/2017	W65-171106D	< 0.0001 U	< 0.0001 DU	6.97	7.08	0.153	0.312	< 0.00005 U	< 0.00005 U	0.000138	0.000278
MW-66	10/9/2017	W66-171009-	< 0.0001 U	< 0.0001 U	15.2	15.2	0.000114	0.00116 D	< 0.00005 U	< 0.00005 U	0.000173	0.00025
MW-67	10/30/2017	W67-171030-	< 0.0001 U	< 0.0001 DU	19.4	20.6	0.158 D	0.182	< 0.00005 U	< 0.00005 U	0.000243	0.00029
MW-68	12/28/2017	W68-171228-	< 0.0001 U	< 0.0001 U	15.5	15.5	0.301	0.31	< 0.00005 U	< 0.00005 U	0.000545	0.000684 D
MW-69	10/18/2017	W69-171018-	< 0.0001 U	< 0.0001 U	14.6	15.8	0.254	0.262	< 0.00005 U	< 0.00005 U	0.000101	0.000164
MW-72	10/16/2017	W72-171016-	< 0.0001 U	0.000135	19.2	18.8	0.362	0.379	< 0.00005 U	< 0.00005 U	< 0.0001 U	0.000143
MW-73	11/6/2017	W73-171106-	< 0.0001 U	< 0.0001 DU	5.81	6.11	< 0.0001 DU	0.00109	< 0.00005 U	< 0.00005 U	0.00024	0.000269
MW-74	10/9/2017	W74R171009-	< 0.0001 U	< 0.0001 U	36.8	37.3	< 0.0001 U	0.00312 D	< 0.00005 U	< 0.00005 U	0.000999	0.00106
MW-74 Duplicate	10/9/2017	W74R171009D	< 0.0001 U	< 0.0001 U	37.8	38	< 0.0001 U	0.0031 D	< 0.00005 U	< 0.00005 U	0.00103	0.00106
MW-75	10/18/2017	W75-171018-	< 0.0001 U	< 0.0001 U	20.8	20.9	0.169	0.157	< 0.00005 U	< 0.00005 U	< 0.0001 U	< 0.0001 U
MW-76	11/6/2017	W76-171106-	< 0.0001 U	< 0.0001 DU	9.25	9.46	< 0.0001 U	0.000246	< 0.00005 U	< 0.00005 U	0.000318	0.000383
MW-80	10/9/2017	W80-171009-	< 0.0001 U	< 0.0001 U	15.6	15.9	0.325	0.334 D	< 0.00005 U	< 0.00005 U	0.00013	0.000168
MW-81	10/18/2017	W81-171018-	< 0.0001 U	< 0.0001 U	7.23	7.49	< 0.0001 U	0.000162	< 0.00005 U	< 0.00005 U	0.000105	0.000109
MW-82	11/2/2017	W82-171102-	< 0.0001 U	< 0.0001 DU	16.4	17.2	< 0.0001 DU	0.000775	< 0.00005 U	< 0.00005 U	0.000238	0.00232
MW-83	10/31/2017	W83-171031-	< 0.0001 U	< 0.0001 DU	27.9	28.8	0.000934 D	0.000959	< 0.00005 U	< 0.00005 U	0.00268	0.00269
MW-84	10/31/2017	W84-171031-	< 0.0001 U	< 0.0001 DU	9.33	9.83	0.000723 D	0.00135	< 0.00005 U	< 0.00005 U	0.000265	0.000266
MW-85	10/30/2017	W85-171030-	< 0.0001 U	< 0.0001 DU	18.2	19	< 0.0001 DU	< 0.0001 U	< 0.00005 U	< 0.00005 U	0.00016	0.000187
MW-86	11/3/2017	W86-171103-	< 0.0001 U	< 0.0001 DU	9.8	10.6	0.0123 D	0.0157	< 0.00005 U	< 0.00005 U	0.000118	0.000154
MW-87	10/16/2017	W87-171016-	< 0.0001 U	0.000146	30.4	29.6	0.524	0.553	< 0.00005 U	< 0.00005 U	0.000116	0.000269
MW-88	10/27/2017	W88-171027-	< 0.0001 DU	< 0.0001 DU	7.08	6.71	0.000302	0.000307	< 0.00005 U	< 0.00005 U	< 0.0001 U	< 0.0001 U
MW-89	10/27/2017	W89-171027-	< 0.0001 DU	< 0.0001 DU	10.4	10.1	0.194	0.219	< 0.00005 U	< 0.00005 U	0.000103	0.000154
MW-93	10/18/2017	W93-171018-	< 0.0001 U	< 0.0001 U	16.8	17.1	0.221	0.245	< 0.00005 U	< 0.00005 U	0.000195	0.000354
MW-94	10/16/2017	W94-171016-	< 0.0001 U	< 0.0001 U	10.5	10.6	0.00177	0.00202	< 0.00005 U	< 0.00005 U	0.000652	0.000633
MW-95	12/28/2017	W95-171228-	< 0.0001 U	< 0.0001 U	11.4	11.5	0.162	0.165	< 0.00005 U	< 0.00005 U	0.000248	0.000212 D
MW-100	11/3/2017	W100171103-	< 0.0001 U	0.000146 D	15.9	16.4	0.165 D	0.393	< 0.00005 U	< 0.00005 U	0.000639	0.00112
MW-101	10/6/2017	W101171006-	< 0.0001 U	< 0.0001 U	32.6	32.1	1.14	1.11	< 0.00005 U	< 0.00005 U	0.00406	0.00408
FIELD BLANK	11/8/2017	W56-171108F	< 0.0001 U	< 0.0001 U	< 0.05 U	< 0.05 U	< 0.0001 DU	< 0.0001 U	< 0.00005 U	< 0.00005 U	< 0.0001 U	< 0.0001 U
WS-OS-1	10/5/2017	WOS1171005-		0.000247		9.69		0.0145		< 0.00005 U		0.00022
WS-OS-2	10/5/2017	WOS2171005-		0.000272		7.84		0.0312		< 0.00005 U		0.000117

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017
 Cedar Hills Landfill --- Groundwater Metals Analytical Data
 Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Iron, total (mg/L)	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)
WS-OS-3	10/4/2017	WOS3171004-		0.000223		5.64		0.064		< 0.00005 U		< 0.0001 U
WS-OS-4	10/4/2017	WOS4171004-		0.000126		9.1		0.00034		< 0.00005 U		0.000145

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017
 Cedar Hills Landfill --- Groundwater Metals Analytical Data
 Contact Person: Sindy Jimenez (206) 477-5224

Site	Date	Sample ID	Nickel, total	Potassium, dissolved	Potassium, total	Selenium, dissolved	Selenium, total	Silver, dissolved	Silver, total	Sodium, dissolved	Sodium, total	Thallium, dissolved
			(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
MW-21	10/16/2017	W21-171016-	1.03	1.07	< 0.0005 U	< 0.0005 U	< 0.00004 U	< 0.00004 DU	5.7	5.81	< 0.0001 U	< 0.0001 U
MW-24	11/2/2017	W24-171102-	0.891	0.902	< 0.0005 U	< 0.0005 U	< 0.00004 U	< 0.00004 DU	5.49	5.69	< 0.0001 U	< 0.0001 U
MW-30A	12/11/2017	W30A171211-	1.46	1.5	< 0.0005 U	< 0.0005 U	< 0.00004 U	< 0.00004 U	11.1	10.8	< 0.0001 U	< 0.0001 U
MW-47	12/11/2017	W47-171211-	5.15	4.96	< 0.0005 U	< 0.0005 U	< 0.00004 U	< 0.00004 U	20.1	20.8	< 0.0001 U	< 0.0001 U
MW-56	11/8/2017	W56-171108-	1.17	1.21	< 0.0005 U	< 0.0005 U	< 0.00004 DU	< 0.00004 DU	5.5	5.5	< 0.0001 U	< 0.0001 U
MW-59	10/9/2017	W59-171009-	1.09	1.12	< 0.0005 U	< 0.0005 U	< 0.00004 U	< 0.00004 DU	6.24	6.13	< 0.0001 U	< 0.0001 U
MW-62	12/12/2017	W62-171212-	1.02	1.07	< 0.0005 U	< 0.0005 U	< 0.00004 U	< 0.00004 U	13.5	13.6	< 0.0001 U	< 0.0001 U
MW-64	11/6/2017	W64-171106-	1.73	1.77	< 0.0005 U	0.000526	< 0.00004 DU	< 0.00004 DU	7.52	7.97	< 0.0001 U	< 0.0001 U
MW-65	11/6/2017	W65-171106-	0.887	0.896	< 0.0005 U	< 0.0005 U	< 0.00004 DU	< 0.00004 DU	5.24	5.26	< 0.0001 U	< 0.0001 U
MW-65 Duplicate	11/6/2017	W65-171106D	0.887	0.899	< 0.0005 U	< 0.0005 U	< 0.00004 DU	< 0.00004 DU	5.25	5.25	< 0.0001 U	< 0.0001 U
MW-66	10/9/2017	W66-171009-	1.2	1.22	0.00101	0.000949	< 0.00004 U	< 0.00004 DU	8.15	8.06	< 0.0001 U	< 0.0001 U
MW-67	10/30/2017	W67-171030-	1.64	1.68	< 0.0005 U	< 0.0005 U	< 0.00004 U	< 0.00004 DU	8.69	9.42	< 0.0001 U	< 0.0001 U
MW-68	12/28/2017	W68-171228-	1.6	1.78	< 0.0005 U	< 0.0005 U	< 0.00004 U	< 0.00004 U	8.89	9.07	< 0.0001 U	< 0.0001 U
MW-69	10/18/2017	W69-171018-	1.64	1.78	< 0.0005 U	< 0.0005 U	< 0.00004 U	< 0.00004 DU	8.23	8.74	< 0.0001 U	< 0.0001 U
MW-72	10/16/2017	W72-171016-	1.9	1.92	< 0.0005 U	< 0.0005 U	< 0.00004 U	< 0.00004 DU	8.31	8.04	< 0.0001 U	< 0.0001 U
MW-73	11/6/2017	W73-171106-	0.774	0.783	0.000521	< 0.0005 U	< 0.00004 U	< 0.00004 DU	5.53	5.56	< 0.0001 U	< 0.0001 U
MW-74	10/9/2017	W74R171009-	2.2	2.2	0.000878	0.000724	< 0.00004 U	< 0.00004 DU	12.8	13.2	< 0.0001 U	< 0.0001 U
MW-74 Duplicate	10/9/2017	W74R171009D	2.23	2.23	0.000951	0.000698	< 0.00004 U	< 0.00004 DU	13.4	13.2	< 0.0001 U	< 0.0001 U
MW-75	10/18/2017	W75-171018-	1.81	1.88	< 0.0005 U	< 0.0005 U	< 0.00004 U	< 0.00004 DU	8.7	8.89	< 0.0001 U	< 0.0001 U
MW-76	11/6/2017	W76-171106-	1.36	1.35	< 0.0005 U	< 0.0005 U	< 0.00004 DU	< 0.00004 DU	9.26	9.37	< 0.0001 U	< 0.0001 U
MW-80	10/9/2017	W80-171009-	1.64	1.69	< 0.0005 U	< 0.0005 U	< 0.00004 U	< 0.00004 DU	8	8.06	< 0.0001 U	< 0.0001 U
MW-81	10/18/2017	W81-171018-	0.8	0.83	0.000864	0.000874	< 0.00004 U	< 0.00004 DU	6.35	6.52	< 0.0001 U	< 0.0001 U
MW-82	11/2/2017	W82-171102-	1.83	1.88	< 0.0005 U	< 0.0005 U	< 0.00004 U	< 0.00004 DU	7.89	8.2	< 0.0001 U	< 0.0001 U
MW-83	10/31/2017	W83-171031-	3.61	3.62	< 0.0005 U	< 0.0005 U	< 0.00004 U	< 0.00004 DU	14.1	14.1	< 0.0001 U	< 0.0001 U
MW-84	10/31/2017	W84-171031-	1	1.03	0.000638	0.000656	< 0.00004 U	< 0.00004 DU	6.18	6.44	< 0.0001 U	< 0.0001 U
MW-85	10/30/2017	W85-171030-	1.54	1.57	0.00109	0.00106	< 0.00004 U	< 0.00004 DU	8.67	9.36	< 0.0001 U	< 0.0001 U
MW-86	11/3/2017	W86-171103-	1.17	1.23	0.000847	0.000761	< 0.00004 U	< 0.00004 DU	6.69	6.91	< 0.0001 U	< 0.0001 U
MW-87	10/16/2017	W87-171016-	2.35	2.35	< 0.0005 U	< 0.0005 U	< 0.00004 U	< 0.00004 DU	10.8	10.5	< 0.0001 U	< 0.0001 U
MW-88	10/27/2017	W88-171027-	0.815	0.808	0.000665	0.000685	< 0.00004 DU	< 0.00004 DU	5.88	5.48	< 0.0001 U	< 0.0001 U
MW-89	10/27/2017	W89-171027-	1.47	1.5	< 0.0005 U	< 0.0005 U	< 0.00004 DU	< 0.00004 DU	9.8	9.62	< 0.0001 U	< 0.0001 U
MW-93	10/18/2017	W93-171018-	1.48	1.57	< 0.0005 U	< 0.0005 U	< 0.00004 U	< 0.00004 DU	9.46	9.79	< 0.0001 U	< 0.0001 U
MW-94	10/16/2017	W94-171016-	2	2.05	< 0.0005 U	< 0.0005 U	< 0.00004 U	< 0.00004 DU	8.6	8.38	< 0.0001 U	< 0.0001 U
MW-95	12/28/2017	W95-171228-	1.19	1.28	< 0.0005 U	< 0.0005 U	< 0.00004 U	< 0.00004 U	6.2	6.28	< 0.0001 U	< 0.0001 U
MW-100	11/3/2017	W100171103-	1.74	1.76	< 0.0005 U	< 0.0005 U	< 0.00004 U	< 0.00004 DU	9.19	9.41	< 0.0001 U	< 0.0001 U
MW-101	10/6/2017	W101171006-	2.67	2.79	< 0.0005 U	< 0.0005 U	< 0.00004 U	< 0.00004 U	17.1	17.2	< 0.0001 U	< 0.0001 U
FIELD BLANK	11/8/2017	W56-171108F	< 0.1 U	< 0.5 U	< 0.0005 U	< 0.0005 U	< 0.00004 U	< 0.00004 DU	< 0.1 U	< 0.1 U	< 0.0001 U	< 0.0001 U
WS-OS-1	10/5/2017	WOS1171005-		0.965		0.000779		< 0.00004 U		7.27		< 0.0001 U
WS-OS-2	10/5/2017	WOS2171005-		1.1		< 0.0005 U		< 0.00004 U		6.7		< 0.0001 U

Environmental Monitoring Data

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

Site	Date	Sample ID	Nickel, total (mg/L)	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)
WS-OS-3	10/4/2017	WOS3171004-		1.96		< 0.0005 U		< 0.00004 U		30.8		< 0.0001 U
WS-OS-4	10/4/2017	WOS4171004-		0.992		0.0013		< 0.00004 U		6.44		< 0.0001 U

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Site	Date	Sample ID	Thallium, total (mg/L)	Tin, dissolved (mg/L)	Vanadium, dissolved (mg/L)	Vanadium, total (mg/L)	Zinc, dissolved (mg/L)	Zinc, total (mg/L)
MW-21	10/16/2017	W21-171016-			< 0.000075 U	< 0.000075 U	< 0.0005 U	< 0.0005 DU
MW-24	11/2/2017	W24-171102-			< 0.000075 DU	< 0.000075 DU	< 0.0005 U	0.000553
MW-30A	12/11/2017	W30A171211-	< 0.0005 U	< 0.0005 U	0.00163	0.00199	0.00106	0.00169
MW-47	12/11/2017	W47-171211-	< 0.0005 U	< 0.0005 U	0.000255	0.000298	< 0.0005 U	0.00172
MW-56	11/8/2017	W56-171108-			0.000129	0.000148	0.000774	0.000931
MW-59	10/9/2017	W59-171009-			< 0.000075 U	< 0.000075 U	0.00126	0.00286 D
MW-62	12/12/2017	W62-171212-	< 0.0005 U	< 0.0005 U	0.0016	0.00212	< 0.0005 U	0.00147
MW-64	11/6/2017	W64-171106-			0.0000897	0.000506 D	< 0.0005 U	0.00172
MW-65	11/6/2017	W65-171106-			< 0.000075 U	< 0.000075 DU	< 0.0005 U	0.00116
MW-65 Duplicate	11/6/2017	W65-171106D			< 0.000075 U	< 0.000075 DU	< 0.0005 U	0.00108
MW-66	10/9/2017	W66-171009-			0.000622	0.000669	0.000698	0.00169 D
MW-67	10/30/2017	W67-171030-			0.000182 D	0.000337 D	< 0.0005 U	< 0.0005 U
MW-68	12/28/2017	W68-171228-			0.000183	0.000258	0.000976	0.00152
MW-69	10/18/2017	W69-171018-			< 0.000075 U	< 0.000075 U	< 0.0005 U	0.000964 D
MW-72	10/16/2017	W72-171016-			< 0.000075 U	0.0000825	0.00102	0.00289 D
MW-73	11/6/2017	W73-171106-			0.00107 D	0.00113 D	0.000508	< 0.0005 U
MW-74	10/9/2017	W74R171009-			0.000537	0.000642	0.000599	0.000594 D
MW-74 Duplicate	10/9/2017	W74R171009D			0.000565	0.000652	< 0.0005 U	0.000514 D
MW-75	10/18/2017	W75-171018-			< 0.000075 U	< 0.000075 U	< 0.0005 U	0.000822 D
MW-76	11/6/2017	W76-171106-			0.000535	0.000555 D	< 0.0005 U	< 0.0005 U
MW-80	10/9/2017	W80-171009-			< 0.000075 U	< 0.000075 U	0.000725	0.000965 D
MW-81	10/18/2017	W81-171018-			0.00161	0.00158	0.001	0.000814 D
MW-82	11/2/2017	W82-171102-			0.0012 D	0.00131 D	0.000601	0.00104
MW-83	10/31/2017	W83-171031-			0.000839 D	0.000857 D	0.000745	0.000906
MW-84	10/31/2017	W84-171031-			0.000419 D	0.000458 D	< 0.0005 U	< 0.0005 U
MW-85	10/30/2017	W85-171030-			0.000864 D	0.000832 D	< 0.0005 U	0.000915
MW-86	11/3/2017	W86-171103-			0.000135 D	0.000661 D	< 0.0005 U	0.000518
MW-87	10/16/2017	W87-171016-			< 0.000075 U	0.00171	< 0.0005 U	0.00105 D
MW-88	10/27/2017	W88-171027-			0.00272 D	0.00275 D	0.00082	0.000847
MW-89	10/27/2017	W89-171027-			< 0.000075 DU	0.00013 D	0.00155	0.00516
MW-93	10/18/2017	W93-171018-			0.00208	0.00223	0.000736	0.00105 D
MW-94	10/16/2017	W94-171016-			0.00105	0.00108	0.00112	0.00077 D
MW-95	12/28/2017	W95-171228-			0.000278	0.000275	< 0.0005 U	< 0.0005 U
MW-100	11/3/2017	W100171103-			< 0.000075 DU	0.000171 D	< 0.0005 U	0.00464
MW-101	10/6/2017	W101171006-			0.000152	0.000195	0.00113	0.000744 D
FIELD BLANK	11/8/2017	W56-171108F			< 0.000075 DU	< 0.000075 U	< 0.0005 U	< 0.0005 U
WS-OS-1	10/5/2017	WOS1171005-				0.00199		0.0274 D
WS-OS-2	10/5/2017	WOS2171005-				0.0021		0.0688 D

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017
 Cedar Hills Landfill --- Groundwater Metals Analytical Data
 Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Sample ID	Thallium,	Tin,	Vanadium,	Vanadium,	Zinc,	Zinc,
			total	dissolved	dissolved	total	dissolved	total
			(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
WS-OS-3	10/4/2017	WOS3171004-				< 0.000075 U		0.00217 D
WS-OS-4	10/4/2017	WOS4171004-				0.00131		0.075 D

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017
 Cedar Hills Landfill --- Groundwater VOAs Analytical Data
 Contact Person: Sindy Jimenez (206) 477-5224

Site	Date	Sample ID	1,1,1,2-Tetrachloro-ethane	1,1,1-Trichloro-ethane	1,1,2,2-Tetrachloro-ethane	1,1,2-Trichloro-ethane	1,1-Dichloro-ethane	1,1-Dichloro-ethene	1,2,3-Trichloro-propane	1,2-Dibromo-3-Chloropropane	1,2-Dibromo-ethane	1,2-Dichloro-benzene	1,2-Dichloro-ethane	1,2-Dichloro-propane
			630-20-6 (ug/L)	71-55-6 (ug/L)	79-34-5 (ug/L)	79-00-5 (ug/L)	75-34-3 (ug/L)	75-35-4 (ug/L)	96-18-4 (ug/L)	96-12-8 (ug/L)	106-93-4 (ug/L)	95-50-1 (ug/L)	107-06-2 (ug/L)	78-87-5 (ug/L)
EW-25	11/1/2017	EW25171101-	< 0.25 U	< 0.1 U	< 0.1 U	< 0.1 U	0.18 JT	< 0.1 U	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U
MW-21	10/16/2017	W21-171016-	< 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	< 0.1 U
MW-24	11/2/2017	W24-171102-	< 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	< 0.1 U
MW-30A	12/11/2017	W30A171211-	< 0.25 U	< 0.1 U	< 0.1 U	< 0.1 U	1.46	< 0.1 U	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U
MW-47	12/11/2017	W47-171211-	< 0.25 U	< 0.1 U	< 0.1 U	< 0.1 U	0.646	< 0.1 U	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U
MW-56	11/8/2017	W56-171108-	< 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	< 0.1 U
MW-59	10/9/2017	W59-171009-	< 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	< 0.1 U
MW-62	12/12/2017	W62-171212-	< 0.25 U	< 0.1 U	< 0.1 U	< 0.1 U	1.04	< 0.1 U	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U
MW-64	11/6/2017	W64-171106-	< 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	< 0.1 U
MW-65	11/6/2017	W65-171106-	< 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	< 0.1 U
MW-65	11/6/2017	W65-171106D	< 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	< 0.1 U
MW-66	10/9/2017	W66-171009-	< 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	< 0.1 U
MW-67	10/30/2017	W67-171030-	< 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	< 0.1 U
MW-68	12/28/2017	W68-171228-	< 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	< 0.1 U
MW-69	10/18/2017	W69-171018-	< 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	< 0.1 U
MW-72	10/16/2017	W72-171016-	< 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	< 0.1 U
MW-73	11/6/2017	W73-171106-	< 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	< 0.1 U
MW-74	10/9/2017	W74R171009-	< 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	< 0.1 U
MW-74	10/9/2017	W74R171009D	< 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	< 0.1 U
MW-75	10/18/2017	W75-171018-	< 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	< 0.1 U
MW-76	11/6/2017	W76-171106-	< 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	< 0.1 U
MW-80	10/9/2017	W80-171009-	< 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	< 0.1 U
MW-81	10/18/2017	W81-171018-	< 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	< 0.1 U
MW-82	11/2/2017	W82-171102-	< 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	< 0.1 U
MW-83	10/31/2017	W83-171031-	< 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	< 0.1 U
MW-84	10/31/2017	W84-171031-	< 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	< 0.1 U
MW-85	10/30/2017	W85-171030-	< 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	< 0.1 U
MW-86	11/3/2017	W86-171103-	< 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	< 0.1 U
MW-87	10/16/2017	W87-171016-	< 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	< 0.1 U
MW-88	10/27/2017	W88-171027-	< 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	< 0.1 U
MW-89	10/27/2017	W89-171027-	< 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	< 0.1 U
MW-93	10/18/2017	W93-171018-	< 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	< 0.1 U
MW-94	10/16/2017	W94-171016-	< 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	< 0.1 U
MW-95	12/28/2017	W95-171228-	< 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	< 0.1 U
MW-100	11/3/2017	W100171103-	< 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	< 0.1 U

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017
 Cedar Hills Landfill --- Groundwater VOAs Analytical Data
 Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	1,1,1,2-Tetrachloro-ethane	1,1,1-Trichloro-ethane	1,1,2,2-Tetrachloro-ethane	1,1,2-Trichloro-ethane	1,1-Dichloro-ethane	1,1-Dichloro-ethene	1,2,3-Trichloro-propane	1,2-Dibromo-3-Chloropropane	1,2-Dibromo-ethane	1,2-Dichloro-benzene	1,2-Dichloro-ethane	1,2-Dichloro-propane
			630-20-6 (ug/L)	71-55-6 (ug/L)	79-34-5 (ug/L)	79-00-5 (ug/L)	75-34-3 (ug/L)	75-35-4 (ug/L)	96-18-4 (ug/L)	96-12-8 (ug/L)	106-93-4 (ug/L)	95-50-1 (ug/L)	107-06-2 (ug/L)	78-87-5 (ug/L)
MW-101	10/6/2017	W101171006-	< 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	0.19 JT	< 0.1 U
EQUIPMENT BLANK	11/1/2017	EW25171101F	< 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	< 0.1 U
FIELD BLANK	11/8/2017	W56-171108F	< 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	< 0.1 U
VOA TRIP BLANK	10/2/2017	VTRP171004X	< 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	< 0.1 U
VOA TRIP BLANK	10/4/2017	VTRP171005X	< 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	< 0.1 U
VOA TRIP BLANK	10/2/2017	VTRP171006X	< 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	< 0.1 U
VOA TRIP BLANK	10/6/2017	VTRP171009X	< 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	< 0.1 U
VOA TRIP BLANK	10/6/2017	VTRP171009Y	< 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	< 0.1 U
VOA TRIP BLANK	10/9/2017	VTRP171016X	< 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	< 0.1 U
VOA TRIP BLANK	10/12/2017	VTRP171016Y	< 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	< 0.1 U
VOA TRIP BLANK	10/12/2017	VTRP171018X	< 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	< 0.1 U
VOA TRIP BLANK	10/16/2017	VTRP171018Y	< 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	< 0.1 U
VOA TRIP BLANK	10/26/2017	VTRP171027Y	< 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	< 0.1 U
VOA TRIP BLANK	10/26/2017	VTRP171030Y	< 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	< 0.1 U
VOA TRIP BLANK	10/30/2017	VTRP171031Y	< 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	< 0.1 U
VOA TRIP BLANK	10/31/2017	VTRP171101X	< 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	< 0.1 U
VOA TRIP BLANK	10/30/2017	VTRP171102X	< 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	< 0.1 U
VOA TRIP BLANK	10/31/2017	VTRP171103Y	< 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	< 0.1 U
VOA TRIP BLANK	11/2/2017	VTRP171106X	< 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	< 0.1 U
VOA TRIP BLANK	11/3/2017	VTRP171108Y	< 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	< 0.1 U
VOA TRIP BLANK	12/8/2017	VTRP171211X	< 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	< 0.1 U
VOA TRIP BLANK	12/8/2017	VTRP171211Y	< 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	< 0.1 U
VOA TRIP BLANK	12/11/2017	VTRP171212X	< 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	< 0.1 U
VOA TRIP BLANK	12/27/2017	VTRP171228Y	< 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	< 0.1 U
WS-OS-1	10/5/2017	WOS1171005-	< 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	< 0.1 U
WS-OS-2	10/5/2017	WOS2171005-	< 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	< 0.1 U
WS-OS-3	10/4/2017	WOS3171004-	< 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	< 0.1 U
WS-OS-4	10/4/2017	WOS4171004-	< 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	< 0.1 U

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017
Cedar Hills Landfill --- Groundwater VOAs Analytical Data
Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	1,4-Dichloro- benzene	2-Butanone	2-Hexanone	4-Methyl-2- Pentanone	Acetone	Acrylonitrile	Benzene	Bromo-chloro- methane	Bromo- dichloro- methane	Bromoform	Bromo- methane	Carbon Disulfide
			106-46-7 (ug/L)	78-93-3 (ug/L)	591-78-6 (ug/L)	108-10-1 (ug/L)	67-64-1 (ug/L)	107-13-1 (ug/L)	71-43-2 (ug/L)	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)
EW-25	11/1/2017	EW25171101-	< 0.1 U	4.5 JT	< 0.5 U	< 2.5 U	203 D	< 0.035 U	< 0.1 U	< 0.1 U	< 0.25 U	< 0.5 U	< 0.1 U	< 0.1 U
MW-21	10/16/2017	W21-171016-	< 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	0.297
MW-24	11/2/2017	W24-171102-	< 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	0.15 JT
MW-30A	12/11/2017	W30A171211-	< 0.1 U	< 0.25 U	< 0.5 U	< 2.5 U	3.7 JT	< 0.035 U	< 0.1 U	< 0.1 U	< 0.25 U	< 0.5 U	< 0.1 U	< 0.1 U
MW-47	12/11/2017	W47-171211-	< 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	< 0.1 U
MW-56	11/8/2017	W56-171108-	< 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	< 0.1 U
MW-59	10/9/2017	W59-171009-	< 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	< 0.1 U
MW-62	12/12/2017	W62-171212-	< 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	< 0.1 U
MW-64	11/6/2017	W64-171106-	< 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	< 0.1 U
MW-65	11/6/2017	W65-171106-	< 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	< 0.1 U
MW-65	11/6/2017	W65-171106D	< 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	< 0.1 U
MW-66	10/9/2017	W66-171009-	< 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	< 0.1 U
MW-67	10/30/2017	W67-171030-	< 0.1 U	< 1 U	< 0.5 U	< 2.5 U	3.6 JT	< 0.035 U	< 0.1 U	< 0.1 U	< 0.25 U	< 0.5 U	< 0.1 U	< 0.1 U
MW-68	12/28/2017	W68-171228-	< 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	< 0.1 U
MW-69	10/18/2017	W69-171018-	< 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	< 0.1 U
MW-72	10/16/2017	W72-171016-	< 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	0.11 JT
MW-73	11/6/2017	W73-171106-	< 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	< 0.1 U
MW-74	10/9/2017	W74R171009-	< 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	< 0.1 U
MW-74	10/9/2017	W74R171009D	< 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	< 0.1 U
MW-75	10/18/2017	W75-171018-	< 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	< 0.1 U
MW-76	11/6/2017	W76-171106-	< 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	< 0.1 U
MW-80	10/9/2017	W80-171009-	< 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	< 0.1 U
MW-81	10/18/2017	W81-171018-	< 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	< 0.1 U
MW-82	11/2/2017	W82-171102-	< 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	< 0.1 U
MW-83	10/31/2017	W83-171031-	< 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	< 0.1 U
MW-84	10/31/2017	W84-171031-	< 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	0.16 JT
MW-85	10/30/2017	W85-171030-	< 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	< 0.1 U
MW-86	11/3/2017	W86-171103-	< 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	< 0.1 U
MW-87	10/16/2017	W87-171016-	< 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	< 0.1 U
MW-88	10/27/2017	W88-171027-	< 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	< 0.1 U
MW-89	10/27/2017	W89-171027-	< 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	< 0.1 U
MW-93	10/18/2017	W93-171018-	< 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	0.14 JT
MW-94	10/16/2017	W94-171016-	< 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	< 0.1 U
MW-95	12/28/2017	W95-171228-	< 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	< 0.1 U
MW-100	11/3/2017	W100171103-	< 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	< 0.1 U

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017
 Cedar Hills Landfill --- Groundwater VOAs Analytical Data
 Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	1,4-Dichloro- benzene	2-Butanone	2-Hexanone	4-Methyl-2- Pentanone	Acetone	Acrylonitrile	Benzene	Bromo-chloro- methane	Bromo- dichloro- methane	Bromoform	Bromo- methane	Carbon Disulfide
			106-46-7 (ug/L)	78-93-3 (ug/L)	591-78-6 (ug/L)	108-10-1 (ug/L)	67-64-1 (ug/L)	107-13-1 (ug/L)	71-43-2 (ug/L)	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)
MW-101	10/6/2017	W101171006-	< 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	< 0.1 U
EQUIPMENT BLANK	11/1/2017	EW25171101F	< 0.1 U	2 JT	< 0.5 U	< 2.5 U	25	< 0.035 U	< 0.1 U	< 0.1 U	< 0.25 U	< 0.5 U	< 0.1 U	< 0.1 U
FIELD BLANK	11/8/2017	W56-171108F	< 0.1 U	6.4	< 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	0.15 JT
VOA TRIP BLANK	10/2/2017	VTRP171004X	< 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	< 0.1 U
VOA TRIP BLANK	10/4/2017	VTRP171005X	< 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	< 0.1 U
VOA TRIP BLANK	10/2/2017	VTRP171006X	< 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	< 0.1 U
VOA TRIP BLANK	10/6/2017	VTRP171009X	< 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	< 0.1 U
VOA TRIP BLANK	10/6/2017	VTRP171009Y	< 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	< 0.1 U
VOA TRIP BLANK	10/9/2017	VTRP171016X	< 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	< 0.1 U
VOA TRIP BLANK	10/12/2017	VTRP171016Y	< 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	< 0.1 U
VOA TRIP BLANK	10/12/2017	VTRP171018X	< 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	< 0.1 U
VOA TRIP BLANK	10/16/2017	VTRP171018Y	< 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	< 0.1 U
VOA TRIP BLANK	10/26/2017	VTRP171027Y	< 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	< 0.1 U
VOA TRIP BLANK	10/26/2017	VTRP171030Y	< 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	< 0.1 U
VOA TRIP BLANK	10/30/2017	VTRP171031Y	< 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	< 0.1 U
VOA TRIP BLANK	10/31/2017	VTRP171101X	< 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	< 0.1 U
VOA TRIP BLANK	10/30/2017	VTRP171102X	< 0.1 U	< 1 U	< 0.5 U	< 2.5 U	2.7 JT	< 0.035 U	< 0.1 U	< 0.1 U	< 0.25 U	< 0.5 U	< 0.1 U	< 0.1 U
VOA TRIP BLANK	10/31/2017	VTRP171103Y	< 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	< 0.1 U
VOA TRIP BLANK	11/2/2017	VTRP171106X	< 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	< 0.1 U
VOA TRIP BLANK	11/3/2017	VTRP171108Y	< 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	< 0.1 U
VOA TRIP BLANK	12/8/2017	VTRP171211X	< 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	< 0.1 U
VOA TRIP BLANK	12/8/2017	VTRP171211Y	< 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	< 0.1 U
VOA TRIP BLANK	12/11/2017	VTRP171212X	< 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	< 0.1 U
VOA TRIP BLANK	12/27/2017	VTRP171228Y	< 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	< 0.1 U
WS-OS-1	10/5/2017	WOS1171005-	< 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	< 0.1 U
WS-OS-2	10/5/2017	WOS2171005-	< 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	< 0.1 U
WS-OS-3	10/4/2017	WOS3171004-	< 0.1 U	< 0.25 U	< 0.5 U	< 2.5 U	< 2.5 U	< 0.035 U	< 0.1 U	< 0.1 U	1.4	< 0.5 U	< 0.1 U	< 0.1 U
WS-OS-4	10/4/2017	WOS4171004-	< 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	< 0.1 U

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017
 Cedar Hills Landfill --- Groundwater VOAs Analytical Data
 Contact Person: Sindy Jimenez (206) 477-5224

Site	Date	Sample ID	Carbon Tetra- chloride	Chloro- benzene	Chloro- dibromo- methane	Chloro- ethane	Chloroform	Chloro- methane	cis-1,2- Dichloro- ethene	cis-1,3- Dichloro- propene	Dibromo- methane	Dichloro- difluoro- methane	Ethyl- benzene	M & P Xylene
			56-23-5 (ug/L)	108-90-7 (ug/L)	124-48-1 (ug/L)	75-00-3 (ug/L)	67-66-3 (ug/L)	74-87-3 (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)	(ug/L)
EW-25	11/1/2017	EW25171101-	< 0.25 U	< 0.1 U	< 0.5 U	< 0.1 U	< 0.1 U	< 0.25 U	5.78	< 0.25 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U
MW-21	10/16/2017	W21-171016-	< 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	< 0.1 U
MW-24	11/2/2017	W24-171102-	< 0.25 U	< 0.1 U	< 0.5 U	< 0.1 U	< 0.1 U	< 0.25 U	0.14 JT	< 0.25 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U
MW-30A	12/11/2017	W30A171211-	< 0.25 U	< 0.1 U	< 0.5 U	< 0.1 U	< 0.1 U	< 0.25 U	3.6	< 0.25 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U
MW-47	12/11/2017	W47-171211-	< 0.25 U	< 0.1 U	< 0.5 U	0.236	< 0.1 U	< 0.25 U	2.23	< 0.25 U	< 0.1 U	4.64	< 0.1 U	< 0.1 U
MW-56	11/8/2017	W56-171108-	< 0.25 U	< 0.1 U	< 0.5 U	< 0.1 U	< 0.1 U	< 0.25 U	1.37	< 0.25 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U
MW-59	10/9/2017	W59-171009-	< 0.25 U	< 0.1 U	< 0.5 U	< 0.1 U	< 0.1 U	< 0.25 U	1.13	< 0.25 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U
MW-62	12/12/2017	W62-171212-	< 0.25 U	< 0.1 U	< 0.5 U	< 0.1 U	< 0.1 U	< 0.25 U	2.85	< 0.25 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U
MW-64	11/6/2017	W64-171106-	< 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	< 0.1 U
MW-65	11/6/2017	W65-171106-	< 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	< 0.1 U
MW-65	11/6/2017	W65-171106D	< 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	< 0.1 U
MW-66	10/9/2017	W66-171009-	< 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	< 0.1 U
MW-67	10/30/2017	W67-171030-	< 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	< 0.1 U
MW-68	12/28/2017	W68-171228-	< 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	< 0.1 U
MW-69	10/18/2017	W69-171018-	< 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	< 0.1 U
MW-72	10/16/2017	W72-171016-	< 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	< 0.1 U
MW-73	11/6/2017	W73-171106-	< 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	< 0.1 U
MW-74	10/9/2017	W74R171009-	< 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	< 0.1 U
MW-74	10/9/2017	W74R171009D	< 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	< 0.1 U
MW-75	10/18/2017	W75-171018-	< 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	< 0.1 U
MW-76	11/6/2017	W76-171106-	< 0.25 U	< 0.1 U	< 0.5 U	< 0.1 U	< 0.1 U	< 0.25 U	0.294	< 0.25 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U
MW-80	10/9/2017	W80-171009-	< 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	< 0.1 U
MW-81	10/18/2017	W81-171018-	< 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	< 0.1 U
MW-82	11/2/2017	W82-171102-	< 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	< 0.1 U
MW-83	10/31/2017	W83-171031-	< 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	< 0.1 U
MW-84	10/31/2017	W84-171031-	< 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	< 0.1 U
MW-85	10/30/2017	W85-171030-	< 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	< 0.1 U
MW-86	11/3/2017	W86-171103-	< 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	< 0.1 U
MW-87	10/16/2017	W87-171016-	< 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	< 0.1 U
MW-88	10/27/2017	W88-171027-	< 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	< 0.1 U
MW-89	10/27/2017	W89-171027-	< 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	< 0.1 U
MW-93	10/18/2017	W93-171018-	< 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	< 0.1 U
MW-94	10/16/2017	W94-171016-	< 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	< 0.1 U
MW-95	12/28/2017	W95-171228-	< 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	< 0.1 U
MW-100	11/3/2017	W100171103-	< 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	< 0.1 U

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017
 Cedar Hills Landfill --- Groundwater VOAs Analytical Data
 Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Carbon Tetra- chloride	Chloro- benzene	Chloro- dibromo- methane	Chloro- ethane	Chloroform	Chloro- methane	cis-1,2- Dichloro- ethene	cis-1,3- Dichloro- propene	Dibromo- methane	Dichloro- difluoro- methane	Ethyl- benzene	M & P Xylene
			56-23-5 (ug/L)	108-90-7 (ug/L)	124-48-1 (ug/L)	75-00-3 (ug/L)	67-66-3 (ug/L)	74-87-3 (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)	(ug/L)
MW-101	10/6/2017	W101171006-	< 0.25 U	< 0.1 U	< 0.5 U	0.223	< 0.1 U	< 0.25 U	0.206	< 0.25 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U
EQUIPMENT BLANK	11/1/2017	EW25171101F	< 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	< 0.1 U
FIELD BLANK	11/8/2017	W56-171108F	< 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	< 0.1 U
VOA TRIP BLANK	10/2/2017	VTRP171004X	< 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	< 0.1 U
VOA TRIP BLANK	10/4/2017	VTRP171005X	< 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	< 0.1 U
VOA TRIP BLANK	10/2/2017	VTRP171006X	< 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	< 0.1 U
VOA TRIP BLANK	10/6/2017	VTRP171009X	< 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	< 0.1 U
VOA TRIP BLANK	10/6/2017	VTRP171009Y	< 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	< 0.1 U
VOA TRIP BLANK	10/9/2017	VTRP171016X	< 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	< 0.1 U
VOA TRIP BLANK	10/12/2017	VTRP171016Y	< 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	< 0.1 U
VOA TRIP BLANK	10/12/2017	VTRP171018X	< 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	< 0.1 U
VOA TRIP BLANK	10/16/2017	VTRP171018Y	< 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	< 0.1 U
VOA TRIP BLANK	10/26/2017	VTRP171027Y	< 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	< 0.1 U
VOA TRIP BLANK	10/26/2017	VTRP171030Y	< 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	< 0.1 U
VOA TRIP BLANK	10/30/2017	VTRP171031Y	< 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	< 0.1 U
VOA TRIP BLANK	10/31/2017	VTRP171101X	< 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	< 0.1 U
VOA TRIP BLANK	10/30/2017	VTRP171102X	< 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	< 0.1 U
VOA TRIP BLANK	10/31/2017	VTRP171103Y	< 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	< 0.1 U
VOA TRIP BLANK	11/2/2017	VTRP171106X	< 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	< 0.1 U
VOA TRIP BLANK	11/3/2017	VTRP171108Y	< 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	< 0.1 U
VOA TRIP BLANK	12/8/2017	VTRP171211X	< 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	< 0.1 U
VOA TRIP BLANK	12/8/2017	VTRP171211Y	< 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	< 0.1 U
VOA TRIP BLANK	12/11/2017	VTRP171212X	< 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	< 0.1 U
VOA TRIP BLANK	12/27/2017	VTRP171228Y	< 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	< 0.1 U
WS-OS-1	10/5/2017	WOS1171005-	< 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	< 0.1 U
WS-OS-2	10/5/2017	WOS2171005-	< 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	< 0.1 U
WS-OS-3	10/4/2017	WOS3171004-	< 0.25 U	< 0.1 U	< 0.5 U	< 0.1 U	4.45	< 0.25 U	< 0.1 U	< 0.25 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U
WS-OS-4	10/4/2017	WOS4171004-	< 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	< 0.1 U

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017
 Cedar Hills Landfill --- Groundwater VOAs Analytical Data
 Contact Person: Sindy Jimenez (206) 477-5224

Site	Date	Sample ID	Methyl Iodide 74-88-4 (ug/L)	Methylene Chloride 75-09-2 (ug/L)	O-Xylene 95-47-6 (ug/L)	Styrene 100-42-5 (ug/L)	Tetra-chloro ethene 127-18-4 (ug/L)	Toluene 108-88-3 (ug/L)	<i>trans</i> -1,2- Dichloro- ethene 156-60-5 (ug/L)	<i>trans</i> -1,3- Dichloro- propene 10061-02-6 (ug/L)	<i>trans</i> -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)
EW-25	11/1/2017	EW25171101-	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	0.649	< 0.1 U	< 0.1 U	< 0.5 U	< 5 U	3.6	< 0.1 U	< 0.1 U	< 0.01 U
MW-21	10/16/2017	W21-171016-	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
MW-24	11/2/2017	W24-171102-	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 5 U	< 0.1 U	< 0.1 U	< 0.1 U	0.016 JT
MW-30A	12/11/2017	W30A171211-	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	0.1 JT	< 0.5 U	< 0.5 U	0.676	< 0.1 U	< 0.1 U	< 0.01 U
MW-47	12/11/2017	W47-171211-	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.5 U	< 0.1 U	< 0.1 U	< 0.1 U	6.17
MW-56	11/8/2017	W56-171108-	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
MW-59	10/9/2017	W59-171009-	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
MW-62	12/12/2017	W62-171212-	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
MW-64	11/6/2017	W64-171106-	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
MW-65	11/6/2017	W65-171106-	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 5 U	< 0.1 U	< 0.1 U	< 0.1 U	0.032
MW-65	11/6/2017	W65-171106D	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 5 U	< 0.1 U	< 0.1 U	< 0.1 U	0.0354
MW-66	10/9/2017	W66-171009-	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
MW-67	10/30/2017	W67-171030-	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
MW-68	12/28/2017	W68-171228-	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
MW-69	10/18/2017	W69-171018-	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
MW-72	10/16/2017	W72-171016-	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
MW-73	11/6/2017	W73-171106-	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
MW-74	10/9/2017	W74R171009-	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
MW-74	10/9/2017	W74R171009D	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
MW-75	10/18/2017	W75-171018-	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
MW-76	11/6/2017	W76-171106-	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	0.437	< 0.1 U	< 0.1 U	< 0.5 U	< 5 U	9.44	< 0.1 U	< 0.1 U	< 0.01 U
MW-80	10/9/2017	W80-171009-	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
MW-81	10/18/2017	W81-171018-	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
MW-82	11/2/2017	W82-171102-	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 5 U	5.14	< 0.1 U	< 0.1 U	< 0.01 U
MW-83	10/31/2017	W83-171031-	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 5 U	2	< 0.1 U	< 0.1 U	< 0.01 U
MW-84	10/31/2017	W84-171031-	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
MW-85	10/30/2017	W85-171030-	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
MW-86	11/3/2017	W86-171103-	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
MW-87	10/16/2017	W87-171016-	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
MW-88	10/27/2017	W88-171027-	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
MW-89	10/27/2017	W89-171027-	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
MW-93	10/18/2017	W93-171018-	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
MW-94	10/16/2017	W94-171016-	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.5 U	2.02	< 0.1 U	< 0.1 U	< 0.01 U
MW-95	12/28/2017	W95-171228-	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
MW-100	11/3/2017	W100171103-	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U

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Data Collected from October 1, 2017 to December 31, 2017
 Cedar Hills Landfill --- Groundwater VOAs Analytical Data
 Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Methyl Iodide	Methylene Chloride	O-Xylene	Styrene	Tetra-chloro ethene	Toluene	<i>trans</i> -1,2- Dichloro- ethene	<i>trans</i> -1,3- Dichloro- propene	<i>trans</i> -1,4- Dichloro-2- Butene	Trichloro- ethene	Trichloro- fluoro- methane	Vinyl Acetate	Vinyl Chloride
			74-88-4 (ug/L)	75-09-2 (ug/L)	95-47-6 (ug/L)	100-42-5 (ug/L)	127-18-4 (ug/L)	108-88-3 (ug/L)	156-60-5 (ug/L)	10061-02-6 (ug/L)	110-57-6 (ug/L)	79-01-6 (ug/L)	75-69-4 (ug/L)	108-05-4 (ug/L)	75-01-4 (ug/L)
MW-101	10/6/2017	W101171006-	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.5 U	< 0.1 U	< 0.1 U	< 0.1 U	0.378
EQUIPMENT BLANK	11/1/2017	EW25171101F	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
FIELD BLANK	11/8/2017	W56-171108F	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	0.266	< 0.1 U	< 0.5 U	< 5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
VOA TRIP BLANK	10/2/2017	VTRP171004X	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
VOA TRIP BLANK	10/4/2017	VTRP171005X	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
VOA TRIP BLANK	10/2/2017	VTRP171006X	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
VOA TRIP BLANK	10/6/2017	VTRP171009X	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
VOA TRIP BLANK	10/6/2017	VTRP171009Y	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
VOA TRIP BLANK	10/9/2017	VTRP171016X	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
VOA TRIP BLANK	10/12/2017	VTRP171016Y	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
VOA TRIP BLANK	10/12/2017	VTRP171018X	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
VOA TRIP BLANK	10/16/2017	VTRP171018Y	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
VOA TRIP BLANK	10/26/2017	VTRP171027Y	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
VOA TRIP BLANK	10/26/2017	VTRP171030Y	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
VOA TRIP BLANK	10/30/2017	VTRP171031Y	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
VOA TRIP BLANK	10/31/2017	VTRP171101X	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
VOA TRIP BLANK	10/30/2017	VTRP171102X	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
VOA TRIP BLANK	10/31/2017	VTRP171103Y	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
VOA TRIP BLANK	11/2/2017	VTRP171106X	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
VOA TRIP BLANK	11/3/2017	VTRP171108Y	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
VOA TRIP BLANK	12/8/2017	VTRP171211X	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
VOA TRIP BLANK	12/8/2017	VTRP171211Y	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
VOA TRIP BLANK	12/11/2017	VTRP171212X	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
VOA TRIP BLANK	12/27/2017	VTRP171228Y	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
WS-OS-1	10/5/2017	WOS1171005-	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
WS-OS-2	10/5/2017	WOS2171005-	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
WS-OS-3	10/4/2017	WOS3171004-	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
WS-OS-4	10/4/2017	WOS4171004-	< 0.1 U	< 2.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U

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Contact Person: Sindy Jimenez (206) 477-5224

Site	Date	Sample ID	1,1-Dichloro- Propene 563-58-6 (ug/L)	1,2,4,5- Tetrachloro- Benzene 95-94-3 (ug/L)	1,2,4-Trichloro- Benzene 120-82-1 (ug/L)	1,2-Diphenyl- Hydrazine 122-66-7 (ug/L)	1,3,5-Trinitro- Benzene 99-35-4 (ug/L)	1,3-Dichloro- Benzene 541-73-1 (ug/L)	1,3-Dichloro- Propane 142-28-9 (ug/L)	1,4-Naphtho- Quinone 130-15-4 (ug/L)	1-Naphthyl- Amine 134-32-7 (ug/L)	2,2-Dichloro- Propane 594-20-7 (ug/L)
MW-30A	12/11/2017	W30A171211-	< 0.1 U	< 0.94 U	< 0.47 U	< 0.19 U	< 0.47 U	< 0.1 U	< 0.1 U	< 0.94 U	< 4.7 U	< 0.25 U
MW-47	12/11/2017	W47-171211-	< 0.1 U	< 0.94 U	< 0.47 U	< 0.19 U	< 0.47 U	< 0.1 U	< 0.1 U	< 0.94 U	< 4.7 U	< 0.25 U
MW-62	12/12/2017	W62-171212-	< 0.1 U	< 0.96 U	< 0.48 U	< 0.19 U	< 0.48 U	< 0.1 U	< 0.1 U	< 0.96 U	< 4.8 U	< 0.25 U
SW-E1	12/11/2017	SE1-171211Q	< 0.1 U	< 0.96 U	< 0.48 U	< 0.19 U	< 0.48 U	< 0.1 U	< 0.1 U	< 0.96 U	< 4.8 U	< 0.25 U
VOA TRIP BLANK	12/8/2017	VTRP171211X	< 0.1 U					< 0.1 U	< 0.1 U			< 0.25 U
VOA TRIP BLANK	12/8/2017	VTRP171211Y	< 0.1 U					< 0.1 U	< 0.1 U			< 0.25 U
VOA TRIP BLANK	12/11/2017	VTRP171212X	< 0.1 U					< 0.1 U	< 0.1 U			< 0.25 U

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Contact Person: Sandy Jimenez (206) 477-5224

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	12/11/2017	W30A171211-	< 0.47 U	< 0.025 U	< 0.025 U	< 0.94 U	< 0.94 U	< 0.05 U	< 0.47 U	< 1.9 U	< 9.4 U	< 0.94 U	< 0.47 U	< 0.94 U
MW-47	12/11/2017	W47-171211-	< 0.47 U	< 0.0248 U	< 0.0248 U	< 0.94 U	< 0.94 U	< 0.0495 U	< 0.47 U	< 1.9 U	< 9.4 U	< 0.94 U	< 0.47 U	< 0.94 U
MW-62	12/12/2017	W62-171212-	< 0.48 U	< 0.025 U	< 0.025 U	< 0.96 U	< 0.96 U	< 0.05 U	< 0.48 U	< 1.9 U	< 9.6 U	< 0.96 U	< 0.48 U	< 0.96 U
SW-E1	12/11/2017	SE1-171211Q	< 0.48 U	< 0.0248 U	< 0.0248 U	< 0.96 U	< 0.96 U	< 0.0495 U	< 0.48 U	< 1.9 U	< 9.6 U	< 0.96 U	< 0.48 U	< 0.96 U
VOA TRIP BLANK	12/8/2017	VTRP171211X												
VOA TRIP BLANK	12/8/2017	VTRP171211Y												
VOA TRIP BLANK	12/11/2017	VTRP171212X												

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Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Sample ID	2-Acetylamino- Fluorene 53-96-3 (ug/L)	2-Chloro- Naphthalene 91-58-7 (ug/L)	2- Chlorophen ol 95-57-8 (ug/L)	2-Methyl-1- Propanol 78-83-1 (ug/L)	2-Methyl- Naphthalene 91-57-6 (ug/L)	2- Methylphen ol 95-48-7 (ug/L)	2- Naphthylamin e 91-59-8 (ug/L)	2- Nitroaniline 88-74-4 (ug/L)	2-Nitrophenol 88-75-5 (ug/L)	2,3,7,8-Tcdd 1746-01-6 (pg/L)	3,3-Dichloro- Benzidine 91-94-1 (ug/L)
MW-30A	12/11/2017	W30A171211-	< 0.94 U	< 0.47 U	< 0.47 U	< 5 U	< 0.024 U	< 0.47 U	< 4.7 U	< 0.94 U	< 0.19 U		< 0.19 U
MW-47	12/11/2017	W47-171211-	< 0.94 U	< 0.47 U	< 0.47 U	< 5 U	< 0.024 U	< 0.47 U	< 4.7 U	< 0.94 U	< 0.19 U		< 0.19 U
MW-62	12/12/2017	W62-171212-	< 0.96 U	< 0.48 U	< 0.48 U	< 5 U	< 0.024 U	< 0.48 U	< 4.8 U	< 0.96 U	< 0.19 U		< 0.19 U
SW-E1	12/11/2017	SE1-171211Q	< 0.96 U	< 0.48 U	< 0.48 U	< 5 U	< 0.024 U	< 0.48 U	< 4.8 U	< 0.96 U	< 0.19 U		< 0.19 U
VOA TRIP BLANK	12/8/2017	VTRP171211X				< 5 U							
VOA TRIP BLANK	12/8/2017	VTRP171211Y				< 5 U							
VOA TRIP BLANK	12/11/2017	VTRP171212X				< 5 U							

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Site	Date	Sample ID	3,3'-Dimethyl- Benzidine	3,4- Methylphenol Mixture	3-Chloro- Propene	3-Methylchlor- Anthrene	3- Nitroanilin e	4,4'DDD	4,4'DDE	4,4'DDT	4,6-Dinitro-2- Methylphenol	4-Amino- Biphenyl	4-Bromophenyl Phenyl Ether
			119-93-7 (ug/L)	15831-10-4 (ug/L)	107-05-1 (ug/L)	56-49-5 (ug/L)	99-09-2 (ug/L)	72-54-8 (ug/L)	72-55-9 (ug/L)	50-29-3 (ug/L)	534-52-1 (ug/L)	92-67-1 (ug/L)	101-55-3 (ug/L)
MW-30A	12/11/2017	W30A171211-	< 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	< 1.9 U	< 0.47 U
MW-47	12/11/2017	W47-171211-	< 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	< 1.9 U	< 0.47 U
MW-62	12/12/2017	W62-171212-	< 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	< 1.9 U	< 0.48 U
SW-E1	12/11/2017	SE1-171211Q	< 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	< 1.9 U	< 0.48 U
VOA TRIP BLANK	12/8/2017	VTRP171211X			< 0.1 U								
VOA TRIP BLANK	12/8/2017	VTRP171211Y			< 0.1 U								
VOA TRIP BLANK	12/11/2017	VTRP171212X			< 0.1 U								

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Site	Date	Sample ID	4-Chloro-3-Methylphenol	4-Chlorophenyl Ether	4-Dimethylaminoazobenzene	4-Nitroaniline	4-Nitrophenol	5-Nitro-Toluidine	7,12-Dimethylbenz-(A)Anthracene	Acenaphthylene	Acenaphthalene
			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)	208-96-8 (ug/L)	83-32-9 (ug/L)
MW-30A	12/11/2017	W30A171211-	< 0.47 U	< 0.47 U	< 0.94 U	< 4.7 U	< 4.7 U	< 1.9 U	< 0.47 U	< 0.024 U	< 0.024 U
MW-47	12/11/2017	W47-171211-	< 0.47 U	< 0.47 U	< 0.94 U	< 4.7 U	< 4.7 U	< 1.9 U	< 0.47 U	< 0.024 U	< 0.024 U
MW-62	12/12/2017	W62-171212-	< 0.48 U	< 0.48 U	< 0.96 U	< 4.8 U	< 4.8 U	< 1.9 U	< 0.48 U	< 0.024 U	< 0.024 U
SW-E1	12/11/2017	SE1-171211Q	< 0.48 U	< 0.48 U	< 0.96 U	< 4.8 U	< 4.8 U	< 1.9 U	< 0.48 U	< 0.024 U	< 0.024 U
VOA TRIP BLANK	12/8/2017	VTRP171211X									
VOA TRIP BLANK	12/8/2017	VTRP171211Y									
VOA TRIP BLANK	12/11/2017	VTRP171212X									

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Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Sample ID	Acetonitrile	Acetophenone	Acrolein	Aldrin	Alpha Bhc	Alpha Chlordane	Alpha- Terpineol	Aniline	Anthracene	Aroclor 1016	Aroclor 1221	Aroclor 1232
			75-05-8 (ug/L)	98-86-2 (ug/L)	107-02-8 (ug/L)	309-00-2 (ug/L)	319-84-6 (ug/L)	5103-71-9 (ug/L)	98-55-5 (ug/L)	62-53-3 (ug/L)	120-12-7 (ug/L)	12674-11-2 (ug/L)	11104-28-2 (ug/L)	11141-16-5 (ug/L)
MW-30A	12/11/2017	W30A171211-	< 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	< 0.00625 U	< 0.0125 U	< 0.00625 U
MW-47	12/11/2017	W47-171211-	< 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	< 0.00625 U	< 0.00625 U	< 0.00625 U
MW-62	12/12/2017	W62-171212-	< 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	< 0.00625 U	< 0.00625 U	< 0.00625 U
SW-E1	12/11/2017	SE1-171211Q	< 5 U	< 0.48 U	< 2.5 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.48 U	< 0.96 U	< 0.048 U	< 0.00625 U	< 0.00625 U	< 0.00625 U
VOA TRIP BLANK	12/8/2017	VTRP171211X	< 5 U		< 2.5 U									
VOA TRIP BLANK	12/8/2017	VTRP171211Y	< 5 U		< 2.5 U									
VOA TRIP BLANK	12/11/2017	VTRP171212X	< 5 U		< 2.5 U									

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Site	Date	Sample ID	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Benzo(A)- Anthracene	Benzo(A)Pyrene	Benzo(B,J,K)- Fluoranthrene	Benzo(G,H,I)- Perylene	Benzoic Acid	Benzyl Alcohol
			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)	191-24-2 (ug/L)	65-85-0 (ug/L)	100-51-6 (ug/L)
MW-30A	12/11/2017	W30A171211-	< 0.00625 U	< 0.00625 U	< 0.00625 U	< 0.00625 U	< 0.047 U	< 0.047 U	< 0.047 U	< 0.047 U	< 9.4 U	< 4.7 U
MW-47	12/11/2017	W47-171211-	< 0.00625 U	< 0.00625 U	< 0.00625 U	< 0.00625 U	< 0.047 U	< 0.047 U	< 0.047 U	< 0.047 U	< 9.4 U	< 4.7 U
MW-62	12/12/2017	W62-171212-	< 0.00625 U	< 0.00625 U	< 0.00625 U	< 0.00625 U	< 0.047 U	< 0.047 U	< 0.047 U	< 0.047 U	< 9.6 U	< 4.8 U
SW-E1	12/11/2017	SE1-171211Q	< 0.00625 U	< 0.00625 U	< 0.00625 U	< 0.00625 U	< 0.048 U	< 0.048 U	< 0.048 U	< 0.048 U	< 9.6 U	< 4.8 U
VOA TRIP BLANK	12/8/2017	VTRP171211X										
VOA TRIP BLANK	12/8/2017	VTRP171211Y										
VOA TRIP BLANK	12/11/2017	VTRP171212X										

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Cedar Hills Landfill --- Groundwater Appendix III Analytical Data

Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Sample ID	Beta Bhc 319-85-7 (ug/L)	Bis-(2- Chloroethoxy)- Methane 111-91-1 (ug/L)	Bis-(2- Chloroethyl)- Ether 111-44-4 (ug/L)	Bis-(2- Ethylhexyl)- Phthalate 117-81-7 (ug/L)	Butyl-Benzyl- Phthalate 85-68-7 (ug/L)	Chlordecone (Kepone) 143-50-0 (ug/L)	Chlorobenzilate 510-15-6 (ug/L)	Chlorophenols 58-90-2 (ug/L)	Chloroprene 126-99-8 (ug/L)	Chrysene 218-01-9 (ug/L)
MW-30A	12/11/2017	W30A171211-	< 0.005 U	< 0.47 U	< 0.47 U	57.7 DJ	< 0.94 U	< 4.7 GU	< 0.47 U	< 0.94 U	< 0.1 U	< 0.047 U
MW-47	12/11/2017	W47-171211-	< 0.005 U	< 0.47 U	< 0.47 U	11.9 DJ	< 0.94 U	< 4.7 GU	< 0.47 U	< 0.94 U	< 0.1 U	< 0.047 U
MW-62	12/12/2017	W62-171212-	< 0.005 U	< 0.48 U	< 0.48 U	2.83 J	< 0.94 U	< 4.8 GU	< 0.48 U	< 0.96 U	< 0.1 U	< 0.047 U
SW-E1	12/11/2017	SE1-171211Q	< 0.005 U	< 0.48 U	< 0.48 U	< 0.95 JU	< 0.95 U	< 4.8 GU	< 0.48 U	< 0.96 U	< 0.1 U	< 0.048 U
VOA TRIP BLANK	12/8/2017	VTRP171211X									< 0.1 U	
VOA TRIP BLANK	12/8/2017	VTRP171211Y									< 0.1 U	
VOA TRIP BLANK	12/11/2017	VTRP171212X									< 0.1 U	

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017

Cedar Hills Landfill --- Groundwater Appendix III Analytical Data

Contact Person: Sindy Jimenez (206) 477-5224

Site	Date	Sample ID	Cis-Diallate	Cygon	Delta Bhc	Diallate	Dibenzo(A,H)- Anthracene	Dibenzofuran	Dieldrin	Diethyl- Phthalate	Dimethyl- Phthalate	Di-N- Butylphthalate
			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)	84-66-2 (ug/L)	131-11-3 (ug/L)	84-74-2 (ug/L)
MW-30A	12/11/2017	W30A171211-	< 0.038 U	< 0.094 U	< 0.005 U	< 0.038 U	< 0.047 U	< 0.47 U	< 0.005 U	< 0.94 U	< 0.94 U	< 0.94 U
MW-47	12/11/2017	W47-171211-	< 0.038 U	< 0.094 U	< 0.005 U	< 0.038 U	< 0.047 U	< 0.47 U	< 0.005 U	< 0.94 U	< 0.94 U	< 0.94 U
MW-62	12/12/2017	W62-171212-	< 0.038 U	< 0.094 U	< 0.005 U	< 0.038 U	< 0.047 U	< 0.48 U	< 0.005 U	< 0.94 U	< 0.94 U	< 0.94 U
SW-E1	12/11/2017	SE1-171211Q	< 0.038 U	< 0.095 U	< 0.005 U	< 0.038 U	< 0.048 U	< 0.48 U	< 0.005 U	< 0.95 U	< 0.95 U	< 0.95 U
VOA TRIP BLANK	12/8/2017	VTRP171211X										
VOA TRIP BLANK	12/8/2017	VTRP171211Y										
VOA TRIP BLANK	12/11/2017	VTRP171212X										

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017

Cedar Hills Landfill --- Groundwater Appendix III Analytical Data

Contact Person: Sindy Jimenez (206) 477-5224

Site	Date	Sample ID	Di-N-Octyl Phthalate	Dinoseb	Diphenylamin e	Disulfoton	Endosulfan I	Endosulfan li	Endosulfan Sulfate	Endrin	Endrin Aldehyde	Ethyl Methacrylate
			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)	72-20-8 (ug/L)	7421-93-4 (ug/L)	97-63-2 (ug/L)
MW-30A	12/11/2017	W30A171211-	< 0.94 U	< 0.025 U	< 0.47 U	< 0.038 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.1 U
MW-47	12/11/2017	W47-171211-	< 0.94 U	< 0.0248 U	< 0.47 U	< 0.038 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.1 U
MW-62	12/12/2017	W62-171212-	< 0.94 U	< 0.025 U	< 0.48 U	< 0.038 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.1 U
SW-E1	12/11/2017	SE1-171211Q	< 0.95 U	< 0.0248 U	< 0.48 U	< 0.038 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.1 U
VOA TRIP BLANK	12/8/2017	VTRP171211X										
VOA TRIP BLANK	12/8/2017	VTRP171211Y										
VOA TRIP BLANK	12/11/2017	VTRP171212X										

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017

Cedar Hills Landfill --- Groundwater Appendix III Analytical Data

Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Sample ID	Ethyl Methane Sulfonate	Famphur	Fluoranthene	Fluorene	Heptachlor	Heptachlor Epoxide	Hexachloro- Benzene	Hexachloro- Butadiene	Hexachloro- Cyclo- Pentadiene	Hexachloro- Ethane
			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)	87-68-3 (ug/L)	77-47-4 (ug/L)	67-72-1 (ug/L)
MW-30A	12/11/2017	W30A171211-	< 0.47 U	< 0.038 U	< 0.047 U	< 0.047 U	< 0.005 U	< 0.005 U	< 0.19 U	< 1.9 U	< 4.7 U	< 4.7 U
MW-47	12/11/2017	W47-171211-	< 0.47 U	< 0.038 U	< 0.047 U	< 0.047 U	< 0.005 U	< 0.005 U	< 0.19 U	< 1.9 U	< 4.7 U	< 4.7 U
MW-62	12/12/2017	W62-171212-	< 0.48 U	< 0.038 U	< 0.047 U	< 0.047 U	< 0.005 U	< 0.005 U	< 0.19 U	< 1.9 U	< 4.8 U	< 4.8 U
SW-E1	12/11/2017	SE1-171211Q	< 0.48 U	< 0.038 U	< 0.048 U	< 0.048 U	< 0.005 U	< 0.005 U	< 0.19 U	< 1.9 U	< 4.8 U	< 4.8 U
VOA TRIP BLANK	12/8/2017	VTRP171211X										
VOA TRIP BLANK	12/8/2017	VTRP171211Y										
VOA TRIP BLANK	12/11/2017	VTRP171212X										

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017

Cedar Hills Landfill --- Groundwater Appendix III Analytical Data

Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Sample ID	Hexachloro- Propene	Indeno(1,2,3- C,D)-Pyrene	Isodrin	Isophorone	Isosafrole	Lindane (Gamma Bhc)	M- Dinitrobenzene	Methapyrilen e	Methoxychlor	Methyl Methacrylate
			1888-71-7 (ug/L)	193-39-5 (ug/L)	465-73-6 (ug/L)	78-59-1 (ug/L)	120-58-1 (ug/L)	58-89-9 (ug/L)	99-65-0 (ug/L)	91-80-5 (ug/L)	72-43-5 (ug/L)	80-62-6 (ug/L)
MW-30A	12/11/2017	W30A171211-	< 1.9 U	< 0.047 U	< 0.005 U	< 0.47 U	< 0.47 U	< 0.005 U	< 0.94 U	< 47 U	< 0.025 U	< 0.25 U
MW-47	12/11/2017	W47-171211-	< 1.9 U	< 0.047 U	< 0.005 U	< 0.47 U	< 0.47 U	< 0.005 U	< 0.94 U	< 47 U	< 0.025 U	< 0.25 U
MW-62	12/12/2017	W62-171212-	< 1.9 U	< 0.047 U	< 0.005 U	< 0.48 U	< 0.48 U	< 0.005 U	< 0.96 U	< 48 U	< 0.025 U	< 0.25 U
SW-E1	12/11/2017	SE1-171211Q	< 1.9 U	< 0.048 U	< 0.005 U	< 0.48 U	< 0.48 U	< 0.005 U	< 0.96 U	< 48 U	< 0.025 U	< 0.25 U
VOA TRIP BLANK	12/8/2017	VTRP171211X										< 0.25 U
VOA TRIP BLANK	12/8/2017	VTRP171211Y										< 0.25 U
VOA TRIP BLANK	12/11/2017	VTRP171212X										< 0.25 U

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017

Cedar Hills Landfill --- Groundwater Appendix III Analytical Data

Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Sample ID	Methyl Methane- Sulfonate 66-27-3 (ug/L)	Methyl Parathion 298-00-0 (ug/L)	Methylacrylon itrile 126-98-7 (ug/L)	Naphthalene 91-20-3 (ug/L)	Nitrobenzene 98-95-3 (ug/L)	N-Nitroso- Diethylamine 55-18-5 (ug/L)	N-Nitroso- Dimethylamine 62-75-9 (ug/L)	N-Nitrosodi-N- Butylamine 924-16-3 (ug/L)	N-Nitroso- Diphenylamin e 86-30-6 (ug/L)
MW-30A	12/11/2017	W30A171211-	< 0.47 U	< 0.038 U	< 0.1 U	< 0.024 U	< 0.47 U	< 0.47 U	< 0.47 U	< 0.47 U	< 0.47 U
MW-47	12/11/2017	W47-171211-	< 0.47 U	< 0.038 U	< 0.1 U	< 0.024 U	< 0.47 U	< 0.47 U	< 0.47 U	< 0.47 U	< 0.47 U
MW-62	12/12/2017	W62-171212-	< 0.48 U	< 0.038 U	< 0.1 U	< 0.024 U	< 0.48 U	< 0.48 U	< 0.48 U	< 0.48 U	< 0.48 U
SW-E1	12/11/2017	SE1-171211Q	< 0.48 U	< 0.038 U	< 0.1 U	< 0.024 U	< 0.48 U	< 0.48 U	< 0.48 U	< 0.48 U	< 0.48 U
VOA TRIP BLANK	12/8/2017	VTRP171211X			< 0.1 U						
VOA TRIP BLANK	12/8/2017	VTRP171211Y			< 0.1 U						
VOA TRIP BLANK	12/11/2017	VTRP171212X			< 0.1 U						

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017

Cedar Hills Landfill --- Groundwater Appendix III Analytical Data

Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Sample ID	N-Nitroso- Dipropylamine 621-64-7 (ug/L)	N-Nitroso- Methyl- Ethalamine 10595-95-6 (ug/L)	N-Nitroso- Piperidine 100-75-4 (ug/L)	N-Nitroso- Pyrrolidine 930-55-2 (ug/L)	O,O,O-Triethyl Phosphoro- Thioate 126-68-1 (ug/L)	O,O-Diethyl O- Pyrazinyl Phosphoro- Thioate 297-97-2 (ug/L)	O-Toluidine 95-53-4 (ug/L)	Parathion 56-38-2 (ug/L)	P- Chloroaniline 106-47-8 (ug/L)	Pentachloro- Benzene 608-93-5 (ug/L)
MW-30A	12/11/2017	W30A171211-	< 0.47 U	< 0.47 U	< 0.94 U	< 0.94 U	< 0.038 U	< 0.038 U	< 0.094 U	< 0.038 U	< 0.94 U	< 0.47 U
MW-47	12/11/2017	W47-171211-	< 0.47 U	< 0.47 U	< 0.94 U	< 0.94 U	< 0.038 U	< 0.038 U	< 0.094 U	< 0.038 U	< 0.94 U	< 0.47 U
MW-62	12/12/2017	W62-171212-	< 0.48 U	< 0.48 U	< 0.96 U	< 0.96 U	< 0.038 U	< 0.038 U	< 0.096 U	< 0.038 U	< 0.96 U	< 0.48 U
SW-E1	12/11/2017	SE1-171211Q	< 0.48 U	< 0.48 U	< 0.96 U	< 0.96 U	< 0.038 U	< 0.038 U	< 0.096 U	< 0.038 U	< 0.96 U	< 0.48 U
VOA TRIP BLANK	12/8/2017	VTRP171211X										
VOA TRIP BLANK	12/8/2017	VTRP171211Y										
VOA TRIP BLANK	12/11/2017	VTRP171212X										

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017

Cedar Hills Landfill --- Groundwater Appendix III Analytical Data

Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Sample ID	Pentachloronit robenzene	Pentachloroph enol	Phenacetin	Phenanthrene	Phenol	Phentermine	Phorate	P-Phenylene- Diamine	Propionitrile	Propyzamide
			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)	106-50-3 (ug/L)	107-12-0 (ug/L)	23950-58-5 (ug/L)
MW-30A	12/11/2017	W30A171211-	< 0.47 U	< 1.9 GU	< 0.47 U	< 0.047 U	< 0.47 U	< 19 GU	< 0.038 U	< 19 GU	< 0.5 U	< 0.038 U
MW-47	12/11/2017	W47-171211-	< 0.47 U	< 1.9 GU	< 0.47 U	< 0.047 U	< 0.47 U	< 19 GU	< 0.038 U	< 19 GU	< 0.5 U	< 0.038 U
MW-62	12/12/2017	W62-171212-	< 0.48 U	< 1.9 GU	< 0.48 U	< 0.047 U	< 0.48 U	< 19 GU	< 0.038 U	< 19 GU	< 0.5 U	< 0.038 U
SW-E1	12/11/2017	SE1-171211Q	< 0.48 U	< 1.9 GU	< 0.48 U	< 0.048 U	< 0.48 U	< 19 GU	< 0.038 U	< 19 GU	< 0.5 U	< 0.038 U
VOA TRIP BLANK	12/8/2017	VTRP171211X									< 0.5 U	
VOA TRIP BLANK	12/8/2017	VTRP171211Y									< 0.5 U	
VOA TRIP BLANK	12/11/2017	VTRP171212X									< 0.5 U	

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017

Cedar Hills Landfill --- Groundwater Appendix III Analytical Data

Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Sample ID	Pyrene	Safrole	Total Aroclors	Toxaphene	Trans-Chlordane	Trans-Diallate
			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	12/11/2017	W30A171211-	< 0.047 U	< 0.94 U	< 0.0125 U	< 0.5 U	< 0.005 U	< 0.038 U
MW-47	12/11/2017	W47-171211-	< 0.047 U	< 0.94 U	< 0.00625 U	< 0.5 U	< 0.005 U	< 0.038 U
MW-62	12/12/2017	W62-171212-	< 0.047 U	< 0.96 U	< 0.00625 U	< 0.5 U	< 0.005 U	< 0.038 U
SW-E1	12/11/2017	SE1-171211Q	< 0.048 U	< 0.96 U	< 0.00625 U	< 0.5 U	< 0.005 U	< 0.038 U
VOA TRIP BLANK	12/8/2017	VTRP171211X						
VOA TRIP BLANK	12/8/2017	VTRP171211Y						
VOA TRIP BLANK	12/11/2017	VTRP171212X						

Surface Water Analytical Data

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017

Cedar Hills Landfill ---Surface Water Elevation-Staff Gage Measurements

Contact Person: Sandy Jimenez (206) 477-5224

Staff Gage	Location	Date	Reference Elevation Staff Gage 0' (msl)	Reference Elevation Top of Peizo (msl)	Depth to Water (Peizometer) (feet)	Staff Gage Reading (feet)	Surface Water Elevation (msl)	Comment
SW-G1	SW-W1	10/3/2017	415.38	418.84		0.7	416.08	
SW-G1	SW-W1	11/8/2017	415.38	418.84		0.89	416.27	
SW-G1	SW-W1	12/27/2017	415.38	418.84		0.9	416.28	
SW-G2	SW-N1	10/3/2017	355.68	358.21			--	Dry. Measured 3.65' to dirt.
SW-G2	SW-N1	11/8/2017	355.68	358.21		0.49	356.17	
SW-G2	SW-N1	12/27/2017	355.68	358.21		0.58	356.26	
SW-G3	SW -V	10/3/2017	466.46	469.88			--	Dry. Measured 5.28' to dirt.
SW-G3	SW -V	11/8/2017	466.46	469.88			--	Dry. Wet mud.
SW-G3	SW -V	12/27/2017	466.46	469.88		0.20	466.66	
SW-G4	Upstream of SW-E1	10/3/2017	502.41	505.85			--	Dry. Measured 6.10' to dirt.
SW-G4	Upstream of SW-E1	11/8/2017	502.41	505.85	5.3		500.55	
SW-G4	Upstream of SW-E1	12/27/2017	502.41	505.85		0.38	502.79	
SW-G5	SW-E1	10/3/2017	486.92	490.34			--	Dry. Measured 5.2' to dirt.
SW-G5	SW-E1	11/8/2017	486.92	490.34			--	Dry. Dry mud.
SW-G5	SW-E1	12/27/2017	486.92	490.34			--	No measurement. Inaccessible due to snow.
SW-G6	Upstream of SW-GS1	10/3/2017	490.72	494.12	7.11		487.01	
SW-G6	Upstream of SW-GS1	11/8/2017	490.72	494.12	3.84		490.28	
SW-G6	Upstream of SW-GS1	12/27/2017	490.72	494.12	2.7		491.42	
SW-G7	SW-S2	10/3/2017	453.03	456.41	8.85		447.56	
SW-G7	SW-S2	11/8/2017	453.03	456.41		0.98	454.01	
SW-G7	SW-S2	12/27/2017	453.03	456.41		0.89	453.92	
SW-G8	Upstream of SW-S1	10/3/2017	510.61	515.56	4.65		510.91	
SW-G8	Upstream of SW-S1	11/8/2017	510.61	515.56			--	Dry. Dry mud.
SW-G8	Upstream of SW-S1	12/27/2017	510.61	515.56		0.54	511.15	
SW-G9	SW-S1	10/3/2017	490.93	494.35	6.23		488.12	
SW-G9	SW-S1	11/8/2017	490.93	494.35	3.88		490.47	
SW-G9	SW-S1	12/27/2017	490.93	494.35		0.52	491.45	

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017

Cedar Hills Landfill ---Stormwater Field Parameters

Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Sample ID	pH (Field)	Conductance (Field)	Temperature	Turbidity	Oxygen, Dissolved
			(std. Units)	(umho/cm)	(°C)	(NTU)	(mg/L)
SW-GS1	10/19/2017	SGS1171019P	6.45	188.9	13.3	20.9	8.02
SW-N4	10/20/2017	SN4-171020P	7.57	129.1	11.35	63.7	10.35
SW-SL3	10/19/2017	SSL3171019P	6.61	125	11.48		9.4
SW-TD1	10/19/2017	STD1171019-	7.5	235.4	10.89	77.1	10.54
SW-TD4	10/19/2017	STD4171019-	7.11	63.3	10.63	124	9.23
SW-TD6	10/19/2017	STD6171019-	7.21	146.4	11.14	7000	9.97

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017

Cedar Hills Landfill ---Stormwater ISWGP Analytes

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)	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	10/19/2017	SGS1171019P	0.0154	< 2 U	1.6	0.00446	0.00487	< 0.47 U	< 0.47 U	< 9.4 U	< 0.47 U
SW-N4	10/20/2017	SN4-171020P	0.0735	< 2 U	6.3	0.0114	0.0392	< 0.48 U	< 0.48 U	< 9.5 U	< 0.48 U
SW-SL3	10/19/2017	SSL3171019P	0.0125	< 2 U	205		0.0811	< 0.47 U	< 0.47 U	< 9.4 U	< 0.47 U

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017

Cedar Hills Landfill --- Area 5 Top Deck Stormwater Monitoring Data

Contact Person: Sandy Jimenez (206) 296-4411

Site	Date	Sample ID	pH (Field)	Conductance (Field)	Temperature (Field)	Turbidity (Field)	Alkalinity, Total (CaCO3)	Chemical Oxygen Demand	Chloride	Iron, dissolved	Iron, total	Sulfate (SO4)	Total Organic Carbon
			(std. Units)	(umho/cm)	(oC)	(NTU)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
SW-TD1	10/19/2017	STD1171019-	7.5	235.4	10.89	77.1	52.2	32.3	2.77	0.0363	3.29	28.4	8.54
SW-TD4	10/19/2017	STD4171019-	7.11	63.3	10.63	124	18.2	35.7	3.29	0.234	5.54	3.7	11.5
SW-TD6	10/19/2017	STD6171019-	7.21	146.4	11.14	7000	58.7	644	4.79	3.12	106	17.9	102

Washington Department of Ecology

Electronic Submission Cover Letter



**WQWebDMR - Permit# WAR000756 - DMR Submission Id: 1611060 - 1/18/2018
3:17:14 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 Thursday January 18 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



mPBB4cMQzZSMLy3yfg
+PUinX1o6AYMnwuRfpU05Yx8OfiXu1QVtuKivifbftVffTJVcCTXNTKrVIDqNsholyPxM1ZEIcgKtOaQkEMstyvk=



Validation Report

Facility: CEDAR HILLS LANDFILL - Permit: WAR000756

Monitoring Period: 10/01/2017 to 12/31/2017

Validation Message Type: Violation

Outfall	Monitoring Point	Parameter	Units	Sample Date/ Statistical Base	Value Entered	Limit/Benchmark	Message
SL3	SL3	Solids (Residue) Total suspended (TSS)	Milligrams/L (mg/L)	10/19/2017	205	<= 88	The reported value exceeds the permit limit.
SL3	SL3	Solids (Residue) Total suspended (TSS)	Milligrams/L (mg/L)	Month 1 Average	205	<= 27	The reported value exceeds the permit limit.



Permit Number: WAR000756

Permittee: CEDAR HILLS LANDFILL

Facility County: King

Receiving Waterbody: Unnamed stream

Monitoring Period: 10/01/2017 - 12/31/2017

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 50 D5 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
3-Th	10/19/17	20.9	6.45	No	4.46	A	<2	1.6	0.0154	<0.47	<9.4	<0.47
Minimum			6.45 BM: >= 5.0 (RO)									
Average		20.9 BM: <= 25			4.46 BM: <= 14	A BM: <= 117						
Maximum			6.45 BM: <= 9.0 (RO)									
Month 1 Average							<2 <= 37	1.6 <= 27	0.0154 <= 4.9	<0.47 <= 16	<9.4 <= 71	<0.47 <= 14
Month 2 Average							M <= 37	M <= 27	M <= 4.9	M <= 16	M <= 71	M <= 14
Month 3 Average							M <= 37	M <= 27	M <= 4.9	M <= 16	M <= 71	M <= 14

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



		Phenol Micrograms/L (ug/L) Quarterly Grab	Zinc Total Micrograms/L (ug/L) Quarterly Grab	pH Standard Units Quarterly Grab
Week	Monitoring Point	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
3-Th	10/19/17	<0.47	4.87	6.45
Minimum				6.45
				>= 6.0 (RO)
Average				
Maximum				6.45
				<= 9.0 (RO)
Month 1 Average		<0.47	4.87	
		<= 15	<= 110	
Month 2 Average		M	M	
		<= 15	<= 110	
Month 3 Average		M	M	
		<= 15	<= 110	



Permit Number: WAR000756

Permittee: CEDAR HILLS LANDFILL

Facility County: King

Receiving Waterbody: Unnamed stream

Monitoring Period: 10/01/2017 - 12/31/2017

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
3-F	10/20/17	63.7	7.57	No	11.4	39.2	<2	6.3	0.0735	<0.48	<9.4	<0.48
7-M	11/13/17	23.1										
8-M	11/20/17	23										
9-Th	11/30/17	16.3										
9-F	12/1/17	15.7										
10-M	12/4/17	9.01										
10-T	12/5/17	7.92										
Minimum			7.57									
			BM: >= 5.0 (RO)									
Average		22.6757			11.4	39.2						
		BM: <= 25			BM: <= 14	BM: <= 117						
Maximum			7.57									
			BM: <= 9.0 (RO)									
Month 1 Average							<2	6.3	0.0735	<0.48	<9.4	<0.48
							<= 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





Permit Number: WAR000756

Permittee: CEDAR HILLS LANDFILL

Facility County: King

Receiving Waterbody: Unnamed stream

Monitoring Period: 10/01/2017 - 12/31/2017

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, 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
3-Th	10/19/17	A	6.61	No	A	A	<2	205	0.0125	<0.47	<9.4	<0.47
Minimum			6.61 BM: >= 5.0 (RO)									
Average		A BM: <= 25			A BM: <= 14	A BM: <= 117						
Maximum			6.61 BM: <= 9.0 (RO)									
Month 1 Average							<2 <= 37	205 <= 27	0.0125 <= 4.9	<0.47 <= 16	<9.4 <= 71	<0.47 <= 14
Month 2 Average							M <= 37	M <= 27	M <= 4.9	M <= 16	M <= 71	M <= 14
Month 3 Average							M <= 37	M <= 27	M <= 4.9	M <= 16	M <= 71	M <= 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

1/18/2018 3:17:13 PM

Signature

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
3-Th	10/19/17	<0.47	81.1	6.61
Minimum				6.61
				>= 6.0 (RO)
Average				
Maximum				6.61
				<= 9.0 (RO)
Month 1 Average		<0.47	81.1	
		<= 15	<= 110	
Month 2 Average		M	M	
		<= 15	<= 110	
Month 3 Average		M	M	
		<= 15	<= 110	

Leachate Analytical Data

Leachate Monitoring Activities 4th Quarter 2017

Station ID	Date	Activity	Sample ID	Comment
P2A	10/11/17	Monthly Characterization Sample	LP2A171011M	
46N	10/11/17	Monthly Characterization Sample	L46N171011M	
LEPS	10/17/17	Monthly Characterization Sample	LEPS171017M	
API	10/17/17	Monthly Characterization Sample	LAPI171017M	
API	11/15/17	Monthly Characterization Sample	LAPI171115M	
46N	11/15/17	Monthly Characterization Sample	L46N171115M	
P2A	11/15/17	Monthly Characterization Sample	LP2A171115M	
LEPS	11/14/17	Monthly Characterization Sample	LEPS171114M	
LEPS	12/13/17	Monthly Characterization Sample	LEPS171213M	
API	12/13/17	Monthly Characterization Sample	LAPI171213M	
46N	12/13/17	Monthly Characterization Sample	L46N171213M	
P2A	12/13/17	Monthly Characterization Sample	LP2A171213M	
LEPS	10/17/17	Permit Sample	LEPS171017P	
LEPS	10/17/17	Leachate Lagoon Special Permit Sampling	LEPS171017E1+As	
LEPS	10/17/17	Leachate Lagoon Special Permit Sampling	LEPS171017P+As	
LEPS	10/18/17	Leachate Lagoon Special Permit Sampling	LEPS171017E2	
LEPS	10/19/17	Leachate Lagoon Special Permit Sampling	LEPS171019E3	
LEPS	10/20/17	Leachate Lagoon Special Permit Sampling	LEPS171020E6	
LEPS	10/20/17	Leachate Lagoon Special Permit Sampling	LEPS171020E5	
LEPS	10/20/17	Leachate Lagoon Special Permit Sampling	LEPS171019E4	
LEPS	10/21/17	Leachate Lagoon Special Permit Sampling	LEPS171021E7	
LEPS	10/21/17	Leachate Lagoon Special Permit Sampling	LEPS171021E8	
LEPS	10/21/17	Leachate Lagoon Special Permit Sampling	LEPS171021E9	
LEPS	10/22/17	Leachate Lagoon Special Permit Sampling	LEPS171022E10	
LEPS	10/22/17	Leachate Lagoon Special Permit Sampling	LEPS171022E11	
LEPS	10/22/17	Leachate Lagoon Special Permit Sampling	LEPS171022E12	
LEPS	10/23/17	Leachate Lagoon Special Permit Sampling	LEPS171023E13	
LEPS	10/24/17	Leachate Lagoon Special Permit Sampling	LEPS171023E14	
LEPS	10/24/17	Leachate Lagoon Special Permit Sampling	LEPS171024E15	
LEPS	10/24/17	Leachate Lagoon Special Permit Sampling	LEPS171024E16	
LEPS	10/25/17	Leachate Lagoon Special Permit Sampling	LEPS171025E17	
LEPS	10/26/17	Leachate Lagoon Special Permit Sampling	LEPS171026E20	
LEPS	10/26/17	Leachate Lagoon Special Permit Sampling	LEPS171025E18	
LEPS	10/26/17	Leachate Lagoon Special Permit Sampling	LEPS171026E19	
LEPS	10/27/17	Leachate Lagoon Special Permit Sampling	LEPS171027E21	
LEPS	10/30/17	Leachate Lagoon Special Permit Sampling	LEPS171027E22	
LEPS	11/3/17	Leachate Lagoon Special Permit Sampling	LEPS171103E23	
LEPS	11/3/17	Leachate Lagoon Special Permit Sampling	LEPS171103E24	
LEPS	11/6/17	Leachate Lagoon Special Permit Sampling	LEPS171106E25	
LEPS	11/6/17	Leachate Lagoon Special Permit Sampling	LEPS171106E26	
LEPS	11/6/17	Leachate Lagoon Special Permit Sampling	LEPS171107E27	
LEPS	11/6/17	Leachate Lagoon Special Permit Sampling	LEPS171107E28	
LEPS	11/8/17	Leachate Lagoon Special Permit Sampling	LEPS171108E30	
LEPS	11/8/17	Leachate Lagoon Special Permit Sampling	LEPS171108E29	
LEPS	11/9/17	Leachate Lagoon Special Permit Sampling	LEPS171109E31	

Leachate Monitoring Activities 4th Quarter 2017

Station ID	Date	Activity	Sample ID	Comment
LEPS	11/9/17	Leachate Lagoon Special Permit Sampling	LEPS171109E32	
LEPS	11/10/17	Leachate Lagoon Special Permit Sampling	LEPS171110E33	
LEPS	11/10/17	Leachate Lagoon Special Permit Sampling	LEPS171110E34	
LEPS	11/11/17	Leachate Lagoon Special Permit Sampling	LEPS171111E35	
LEPS	11/13/17	Leachate Lagoon Special Permit Sampling	LEPS171113E36	
LEPS	11/13/17	Leachate Lagoon Special Permit Sampling	LEPS171113E37	
LEPS	11/14/17	Leachate Lagoon Special Permit Sampling	LEPS171114E38	
LEPS	11/14/17	Leachate Lagoon Special Permit Sampling	LEPS171114E39	
LEPS	11/15/17	Leachate Lagoon Special Permit Sampling	LEPS171115E40	
LEPS	11/15/17	Permit Sample	LEPS171114P	
LEPS	11/15/17	Leachate Lagoon Special Permit Sampling	LEPS171115E41	
LEPS	11/16/17	Leachate Lagoon Special Permit Sampling	LEPS171116E42	
LEPS	11/16/17	Leachate Lagoon Special Permit Sampling	LEPS171116E43	
LEPS	11/17/17	Leachate Lagoon Special Permit Sampling	LEPS171117E44	
LEPS	11/17/17	Leachate Lagoon Special Permit Sampling	LEPS171117E45	
LEPS	11/17/17	Leachate Lagoon Special Permit Sampling	LEPS171117E46	
LEPS	11/18/17	Leachate Lagoon Special Permit Sampling	LEPS171118E47	
LEPS	11/20/17	Leachate Lagoon Special Permit Sampling	LEPS171120E48	
LEPS	11/20/17	Leachate Lagoon Special Permit Sampling	LEPS171120E49	
LEPS	11/21/17	Leachate Lagoon Special Permit Sampling	LEPS171121E50	
LEPS	11/22/17	Leachate Lagoon Special Permit Sampling	LEPS171122E51	
LEPS	11/23/17	Leachate Lagoon Special Permit Sampling	LEPS171123E52	
LEPS	11/25/17	Leachate Lagoon Special Permit Sampling	LEPS171125E53	
LEPS	11/26/17	Leachate Lagoon Special Permit Sampling	LEPS171126E54	
LEPS	11/27/17	Leachate Lagoon Special Permit Sampling	LEPS171127E55	
LEPS	11/28/17	Leachate Lagoon Special Permit Sampling	LEPS171128E56	
LEPS	11/29/17	Leachate Lagoon Special Permit Sampling	LEPS171129E57	
LEPS	11/30/17	Leachate Lagoon Special Permit Sampling	LEPS171130E58	
LEPS	12/1/17	Leachate Lagoon Special Permit Sampling	LEPS171201E59	
LEPS	12/2/17	Leachate Lagoon Special Permit Sampling	LEPS171204E60	
LEPS	12/4/17	Leachate Lagoon Special Permit Sampling	LEPS171204E61	
LEPS	12/4/17	Leachate Lagoon Special Permit Sampling	LEPS171204E62	
LEPS	12/5/17	Leachate Lagoon Special Permit Sampling	LEPS171204E63	
LEPS	12/5/17	Leachate Lagoon Special Permit Sampling	LEPS171205E64	
LEPS	12/6/17	Leachate Lagoon Special Permit Sampling	LEPS171206E65	
LEPS	12/13/17	Permit Sample	LEPS171212P	
LEPS	12/21/17	Leachate Lagoon Special Permit Sampling	LEPS171220E66	
LEPS	12/21/17	Leachate Lagoon Special Permit Sampling	LEPS171221E67	
LEPS	12/22/17	Leachate Lagoon Special Permit Sampling	LEPS171222E68	
LEPS	12/23/17	Leachate Lagoon Special Permit Sampling	LEPS171223E69	
LEPS	12/29/17	Leachate Lagoon Special Permit Sampling	LEPS171229E70	
LEPS	12/30/17	Leachate Lagoon Special Permit Sampling	LEPS171230E71	
LEPS	12/31/17	Leachate Lagoon Special Permit Sampling	LEPS171231E72	

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017

Cedar Hills Landfill ---Leachate Field Parameters

Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Sample ID	pH (Field)	Conductance (Field)	Temperature
			(std. Units)	(umho/cm)	(o C)
LS-API	10/17/2017	LAPI171017M	8.25	8700	27.1
LS-API	11/15/2017	LAPI171115M	7.71	2900	12.2
LS-API	12/13/2017	LAPI171213M	8.37	14000	19.3
LS-LEPS	10/17/2017	LEPS171017E1+As	8.59	11200	16
LS-LEPS	10/17/2017	LEPS171017M	8.49	4000	17.4
LS-LEPS	10/17/2017	LEPS171017P	8.49	4000	17.4
LS-LEPS	10/17/2017	LEPS171017P+As	8.49	4000	17.4
LS-LEPS	10/17/2017	LEPS171017E2	8.57	11400	16.1
LS-LEPS	10/19/2017	LEPS171019E3	8.18	11150	7.6
LS-LEPS	10/19/2017	LEPS171019E4	8.51	4400	13.4
LS-LEPS	10/20/2017	LEPS171020E5	8.19	9800	14.9
LS-LEPS	10/20/2017	LEPS171020E6	8.82	9150	8.9
LS-LEPS	10/21/2017	LEPS171021E7	8.49	5000	13.5
LS-LEPS	10/21/2017	LEPS171021E8	8.6	7750	11.7
LS-LEPS	10/21/2017	LEPS171021E9	8.25	3200	14.5
LS-LEPS	10/22/2017	LEPS171022E10	8.53	8400	14.6
LS-LEPS	10/22/2017	LEPS171022E11	8.53	4600	14.4
LS-LEPS	10/22/2017	LEPS171022E12	8.34	3800	15.5
LS-LEPS	10/23/2017	LEPS171023E13	8.37	3600	13.9
LS-LEPS	10/23/2017	LEPS171023E14	8.51	3900	15.6
LS-LEPS	10/24/2017	LEPS171024E15	8.31	3700	14.5
LS-LEPS	10/24/2017	LEPS171024E16	8.15	3800	17.6
LS-LEPS	10/25/2017	LEPS171025E17	8.57	6300	14.2
LS-LEPS	10/25/2017	LEPS171025E18	8.49	5000	16.5
LS-LEPS	10/26/2017	LEPS171026E19	8.37	4100	7.5
LS-LEPS	10/26/2017	LEPS171026E20	8.57	6700	14.8
LS-LEPS	10/27/2017	LEPS171027E21	8.63	5650	14
LS-LEPS	10/27/2017	LEPS171027E22	8.5	3200	19.2
LS-LEPS	11/3/2017	LEPS171103E23	8.95	6450	13.3
LS-LEPS	11/3/2017	LEPS171103E24	8.42	2000	11
LS-LEPS	11/6/2017	LEPS171106E25	8.2	4900	12.6
LS-LEPS	11/6/2017	LEPS171106E26	8.3	2800	11
LS-LEPS	11/7/2017	LEPS171107E27	8.28	3800	9.8
LS-LEPS	11/7/2017	LEPS171107E28	8.51	6600	10.7
LS-LEPS	11/8/2017	LEPS171108E29	8.39	5900	11.6
LS-LEPS	11/8/2017	LEPS171108E30	8.58	2200	11.1
LS-LEPS	11/9/2017	LEPS171109E32	8.49	7100	11.6
LS-LEPS	11/9/2017	LEPS171109E31	8.33	6700	13.4
LS-LEPS	11/10/2017	LEPS171110E33	8.27	6500	8.27
LS-LEPS	11/10/2017	LEPS171110E34	8.18	6500	13

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017

Cedar Hills Landfill ---Leachate Field Parameters

Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Sample ID	pH (Field)	Conductance (Field)	Temperature
			(std. Units)	(umho/cm)	(o C)
LS-LEPS	11/11/2017	LEPS171111E35	8.17	6600	14.3
LS-LEPS	11/13/2017	LEPS171113E36	8.31	6600	12.9
LS-LEPS	11/13/2017	LEPS171113E37	8.48	6500	12.1
LS-LEPS	11/14/2017	LEPS171114E38	8.44	6400	13.8
LS-LEPS	11/14/2017	LEPS171114M	8.44	6400	13.8
LS-LEPS	11/14/2017	LEPS171114P	8.44	6400	13.8
LS-LEPS	11/14/2017	LEPS171114E39	8.48	6200	13.1
LS-LEPS	11/15/2017	LEPS171115E40	8.27	5900	12.9
LS-LEPS	11/15/2017	LEPS171115E41	8.77	4500	7
LS-LEPS	11/16/2017	LEPS171116E42	8.43	6000	13
LS-LEPS	11/16/2017	LEPS171116E43	8.32	5600	12.8
LS-LEPS	11/17/2017	LEPS171117E44	8.32	5060	14.9
LS-LEPS	11/17/2017	LEPS171118E47	8.18	5250	13.7
LS-LEPS	11/17/2017	LEPS171117E45	8.29	5500	13
LS-LEPS	11/17/2017	LEPS171117E46	8.29	5450	11.9
LS-LEPS	11/20/2017	LEPS171120E48	8.15	5100	13.6
LS-LEPS	11/20/2017	LEPS171120E49	8.17	5200	12.6
LS-LEPS	11/21/2017	LEPS171121E50	8.3	4670	13.9
LS-LEPS	11/22/2017	LEPS171122E51	8.33	4000	13.4
LS-LEPS	11/23/2017	LEPS171123E52	8.04	4000	15.7
LS-LEPS	11/25/2017	LEPS171125E53	8.11	3800	13.9
LS-LEPS	11/26/2017	LEPS171126E54	8.3	3700	13.7
LS-LEPS	11/27/2017	LEPS171127E55	8.34	3300	12.5
LS-LEPS	11/28/2017	LEPS171128E56	8.14	3700	13.5
LS-LEPS	11/29/2017	LEPS171129E57	8.33	3300	11.9
LS-LEPS	11/30/2017	LEPS171130E58	8.22	3550	12.9
LS-LEPS	12/1/2017	LEPS171201E59	8.1	3650	12.8
LS-LEPS	12/2/2017	LEPS171202E60	8.06	3700	14.4
LS-LEPS	12/3/2017	LEPS171203E61	8.08	3750	12
LS-LEPS	12/4/2017	LEPS171204E62	8.03	3600	12.1
LS-LEPS	12/4/2017	LEPS171204E63	8.07	3600	11.3
LS-LEPS	12/5/2017	LEPS171205E64	8.2	3850	11.7
LS-LEPS	12/7/2017	LEPS171206E65	8.21	3600	7.9
LS-LEPS	12/13/2017	LEPS171212M	8.35	4200	8.4
LS-LEPS	12/13/2017	LEPS171212P	8.35	4200	8.4
LS-LEPS	12/21/2017	LEPS171220E66	8.11	4700	12.9
LS-LEPS	12/21/2017	LEPS171221E67	8.07	4700	12.9
LS-LEPS	12/22/2017	LEPS171222E68	8.11	4500	10.1
LS-LEPS	12/23/2017	LEPS171223E69	8.07	4600	13.5
LS-LEPS	12/29/2017	LEPS171229E70	7.96	4500	12.4

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017

Cedar Hills Landfill ---Leachate Field Parameters

Contact Person: Sindy Jimenez (206) 477-5224

Site	Date	Sample ID	pH (Field)	Conductance (Field)	Temperature
			(std. Units)	(umho/cm)	(o C)
LS-LEPS	12/30/2017	LEPS171230E71	8.02	4200	12.5
LS-LEPS	12/31/2017	LEPS171231E72	8.09	4000	10.2
LS-MH46N	10/11/2017	L46N171011M	7.13	2900	27.9
LS-MH46N	11/15/2017	L46N171115M	7.23	8400	24.8
LS-MH46N	12/13/2017	L46N171213M	7.32	8700	20.5
LS-PS2A	10/11/2017	LP2A171011M	7.47	1800	10.4
LS-PS2A	11/15/2017	LP2A171115M	7.52	120	10.5
LS-PS2A	12/13/2017	LP2A171213M	7.11	200	8.2

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017
 Cedar Hills Landfill ---Leachate Conventional Analytical 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	10/17/2017	LAPI171017M	8770	1740	2040	6580 S	2400	140000 H	1200000 CH	0.029 ST	< 4 U	< 1 U
LS-API	11/15/2017	LAPI171115M	2040	340 T	494	1390	512	22000	900000	0.01 ST	< 2 U	1.16
LS-API	12/13/2017	LAPI171213M	5120	991	2840	5240 S	1230	49000	670000	0.015 ST	< 2 U	0.26 T
LS-LEPS	10/17/2017	LEPS171017M	6970	1250	594	3900 S	2140	24000	590000	0.026 T	< 2 U	< 1 U
LS-LEPS	11/15/2017	LEPS171114M	2830	477	366	1600	794	2700 CH	80000 H	0.012 ST	< 2 U	< 0.1 U
LS-LEPS	12/12/2017	LEPS171212M	2200	304	200	972	543	23000 H	210000 H	< 0.008 SU	0.27 T	< 0.1 U
LS-MH46N	10/11/2017	L46N171011M	3380	621	106	2180	2180	1	450	0.02 ST	< 4 U	< 0.1 U
LS-MH46N	11/15/2017	L46N171115M	3590	612	96.1	2270 S	2230	< 1 U	210	0.024 ST	< 4 U	< 0.1 U
LS-MH46N	12/13/2017	L46N171213M	3480	648	84.9	2200	1980	< 1 U	< 1 U	0.014 ST	< 4 U	< 0.1 U
LS-PS2A	10/11/2017	LP2A171011M	404	123	22.8	223	239	< 1 U	300000	< 0.008 SU	< 0.4 U	11.9
LS-PS2A	11/15/2017	LP2A171115M	26.1	1.32	2.58	32.5	4.37	2	900	< 0.008 U	0.066 T	2.08
LS-PS2A	12/13/2017	LP2A171213M	77.7	3.61	< 2 U	27.2	4.01	< 1 U	370	< 0.008 U	0.0473	0.882

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017
 Cedar Hills Landfill ---Leachate Conventional Analytical Data
 Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Phosphorus, Sol. Reactive	Phosphorus, Total, as P	Specific Conductance	Sulfate (SO4)	Sulfide Total	Total Fats, Oils and Grease	Total Kjeldahl Nitrogen	Total Organic Carbon	Total Suspended Solids	Total Volatile Solids	Volatile Suspended Solids
			(mg/L)		(umho/cm)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
LS-API	10/17/2017	LAPI171017M	11.3	14.8	20400	< 50 U	2.2 T	3 BT	2060 S	1910 S	82.2	4250	54.2
LS-API	11/15/2017	LAPI171115M	1.87	3.63	5480	31.1	0.54 T	4.4 BT	297 H	459 S	23	1170	17.3
LS-API	12/13/2017	LAPI171213M	3.93	8.42	12000	71.7	0.64 T	23.6	1070 S	1680 S	152	3090	108
LS-LEPS	10/17/2017	LEPS171017M	6.17	11.3	16700	41.1	0.26 T	5.6 BT	1500 S	1100 S	134	2880	118
LS-LEPS	11/15/2017	LEPS171114M	1.75	4.63	7370	42.2	0.531	3.6 BT	462 H	430 S	62.9	1330	52.9
LS-LEPS	12/12/2017	LEPS171212M	0.0525	3.6	5510	42.9	0.1 T	4.2 BT	413	254	160	1140	144
LS-MH46N	10/11/2017	L46N171011M	2.98	3.89	11900	< 2 U	1.13	5.2 BT	682	676 S	< 0.51 U	1500	< 0.51 U
LS-MH46N	11/15/2017	L46N171115M	2.96	4.35	12700	< 2 U	1.4	5.6 B	691 HS	697 S	< 0.5 U	1680	< 0.5 U
LS-MH46N	12/13/2017	L46N171213M	3.44	3.64	11600	< 5 U	0.829	3.9 BT	588	765 S	< 0.5 U	1540	< 0.5 U
LS-PS2A	10/11/2017	LP2A171011M	0.248	< 1 U	2370	311	< 0.25 U	3.1 BT	153	259	2.3	256	2.2
LS-PS2A	11/15/2017	LP2A171115M	0.019 T	< 1 U	138	11.9	0.17 T	3.5 BT	2.08 H	11.3	2.7	41.3	1.7
LS-PS2A	12/13/2017	LP2A171213M	0.0058 T	< 1 U	214	11.9	< 0.01 U	2 BT	2.97	10	2.1	37.9 B	1.4

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017

Cedar Hills Landfill ---Leachate Metals Analytical 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	10/17/2017	LAPI171017M	1.35	0.0325	0.366	0.37	< 0.001 U	< 0.0005 U	79.7 D	0.315	0.0625	0.0114
LS-API	11/15/2017	LAPI171115M	0.5	0.00841	0.08	0.103	< 0.001 U	< 0.0005 U	43	0.0691	0.0145	0.0108
LS-API	12/13/2017	LAPI171213M	0.725	0.0163	0.181	0.242	< 0.001 U	< 0.0005 U	170	0.156	0.0429	0.012
LS-LEPS	10/17/2017	LEPS171017E1+AS			0.337			< 0.0005 U		0.278		0.0101
LS-LEPS	10/17/2017	LEPS171017M	1.01	0.0342	0.313	0.32	< 0.001 U	< 0.0005 U	78.1 D	0.259	0.0528	0.0163
LS-LEPS	10/17/2017	LEPS171017P			0.325			< 0.0005 U		0.27		0.0152
LS-LEPS	10/17/2017	LEPS171017P+AS			0.325			< 0.0005 U		0.277		0.0153
LS-LEPS	10/17/2017	LEPS171017E2			0.321			< 0.0005 U		0.266		0.00982
LS-LEPS	10/19/2017	LEPS171019E3			0.259			< 0.0005 U		0.234		0.0169
LS-LEPS	10/19/2017	LEPS171019E4			0.244			< 0.0005 U		0.212		0.0136
LS-LEPS	10/20/2017	LEPS171020E5			0.205			< 0.0005 U		0.182		0.0164
LS-LEPS	10/20/2017	LEPS171020E6			0.219			< 0.0005 U		0.186		0.015
LS-LEPS	10/21/2017	LEPS171021E7			0.22			< 0.0005 U		0.191		0.0176
LS-LEPS	10/21/2017	LEPS171021E8			0.213			< 0.0005 U		0.187		0.018
LS-LEPS	10/21/2017	LEPS171021E9			0.199			< 0.0005 U		0.17		0.0192
LS-LEPS	10/22/2017	LEPS171022E10			0.13			< 0.0005 U		0.12		0.0282
LS-LEPS	10/22/2017	LEPS171022E11			0.156			< 0.0005 U		0.139		0.0233
LS-LEPS	10/22/2017	LEPS171022E12			0.17			< 0.0005 U		0.127		0.0206
LS-LEPS	10/23/2017	LEPS171023E13			0.157			< 0.0005 U		0.108		0.0162
LS-LEPS	10/23/2017	LEPS171023E14			0.146			< 0.0005 U		0.134		0.0349
LS-LEPS	10/24/2017	LEPS171024E15			0.142			< 0.0005 U		0.124		0.0257
LS-LEPS	10/24/2017	LEPS171024E16			0.136			< 0.0005 U		0.123		0.026
LS-LEPS	10/25/2017	LEPS171025E17			0.126			< 0.0005 U		0.115		0.0243
LS-LEPS	10/25/2017	LEPS171025E18			0.128			< 0.0005 U		0.116		0.0249
LS-LEPS	10/26/2017	LEPS171026E19			0.141			< 0.0005 U		0.12		0.0233
LS-LEPS	10/26/2017	LEPS171026E20			0.149			< 0.0005 U		0.125		0.0222
LS-LEPS	10/27/2017	LEPS171027E21			0.132			< 0.0005 U		0.114		0.0239
LS-LEPS	10/27/2017	LEPS171027E22			0.135			< 0.0005 U		0.11		0.021
LS-LEPS	11/3/2017	LEPS171103E23			0.15			< 0.0005 U		0.123		0.0187
LS-LEPS	11/3/2017	LEPS171103E24			0.149			< 0.0005 U		0.125		0.0189
LS-LEPS	11/6/2017	LEPS171106E25			0.142			< 0.0005 U		0.115		0.0165
LS-LEPS	11/6/2017	LEPS171106E26			0.137			< 0.0005 U		0.112		0.0186
LS-LEPS	11/7/2017	LEPS171107E27			0.137			< 0.0005 U		0.111		0.0171
LS-LEPS	11/7/2017	LEPS171107E28			0.134			< 0.0005 U		0.111		0.0166
LS-LEPS	11/8/2017	LEPS171108E29			0.14			< 0.0005 U		0.12		0.0172
LS-LEPS	11/8/2017	LEPS171108E30			0.127			< 0.0005 U		0.109		0.0159
LS-LEPS	11/9/2017	LEPS171109E31			0.135			< 0.0005 U		0.116		0.0146
LS-LEPS	11/9/2017	LEPS171109E32			0.129			< 0.0005 U		0.11		0.0146
LS-LEPS	11/10/2017	LEPS171110E33			0.127			< 0.0005 U		0.105		0.0143
LS-LEPS	11/10/2017	LEPS171110E34			0.121			< 0.0005 U		0.105		0.0171

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017

Cedar Hills Landfill ---Leachate Metals Analytical 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-LEPS	11/11/2017	LEPS171111E35			0.125			< 0.0005 U		0.107		0.0146
LS-LEPS	11/13/2017	LEPS171113E36			0.134			< 0.0005 U		0.113		0.0141
LS-LEPS	11/13/2017	LEPS171113E37			0.128			< 0.0005 U		0.112		0.0153
LS-LEPS	11/14/2017	LEPS171114E38			0.124			< 0.0005 U		0.106		0.0156
LS-LEPS	11/14/2017	LEPS171114P						< 0.0005 U		0.103		0.0146
LS-LEPS	11/14/2017	LEPS171114E39			0.121			< 0.0005 U		0.105		0.0147
LS-LEPS	11/15/2017	LEPS171114M	0.844	0.0123	0.123	0.155	< 0.001 U	< 0.0005 U	62.7	0.104	0.0242	0.0133
LS-LEPS	11/15/2017	LEPS171115E40			0.119			< 0.0005 U		0.102		0.0152
LS-LEPS	11/15/2017	LEPS171115E41			0.113			< 0.0005 U		0.0984		0.0152
LS-LEPS	11/16/2017	LEPS171116E42			0.105			< 0.0005 U		0.0893		0.0134
LS-LEPS	11/16/2017	LEPS171116E43			0.111			< 0.0005 U		0.0967		0.0161 J
LS-LEPS	11/17/2017	LEPS171117E44			0.0995			< 0.0005 U		0.0852		0.0155
LS-LEPS	11/17/2017	LEPS171117E45			0.0998			< 0.0005 U		0.0848		0.0148
LS-LEPS	11/17/2017	LEPS171117E46			0.0958			< 0.0005 U		0.0831		0.0142
LS-LEPS	11/18/2017	LEPS171118E47			0.0915			< 0.0005 U		0.0766		0.0132
LS-LEPS	11/20/2017	LEPS171120E48			0.0955			< 0.0005 U		0.0816		0.0136
LS-LEPS	11/20/2017	LEPS171120E49			0.0913			< 0.0005 U		0.0779		0.014
LS-LEPS	11/21/2017	LEPS171121E50			0.0869			< 0.0005 U		0.075		0.0152
LS-LEPS	11/22/2017	LEPS171122E51			0.0819			< 0.0005 U		0.0722		0.0162
LS-LEPS	11/23/2017	LEPS171123E52			0.0677			< 0.0005 U		0.058		0.0114
LS-LEPS	11/25/2017	LEPS171125E53			0.0625			< 0.0005 U		0.0542		0.0132
LS-LEPS	11/26/2017	LEPS171126E54			0.0596			< 0.0005 U		0.0523		0.0141
LS-LEPS	11/27/2017	LEPS171127E55			0.0574			< 0.0005 U		0.0455		0.0115
LS-LEPS	11/28/2017	LEPS171128E56			0.0599			< 0.0005 U		0.0519		0.0135
LS-LEPS	11/29/2017	LEPS171129E57			0.0538			< 0.0005 U		0.0464		0.0117
LS-LEPS	11/30/2017	LEPS171130E58			0.0538			< 0.0005 U		0.046		0.0119
LS-LEPS	12/1/2017	LEPS171201E59			0.0543			< 0.0005 U		0.0461		0.0119
LS-LEPS	12/2/2017	LEPS171202E60			0.0589			< 0.0005 U		0.0497		0.0115
LS-LEPS	12/3/2017	LEPS171203E61			0.0605			< 0.0005 U		0.0511		0.0123
LS-LEPS	12/4/2017	LEPS171204E62			0.0585			< 0.0005 U		0.0531		0.0144
LS-LEPS	12/4/2017	LEPS171204E63			0.0568			< 0.0005 U		0.0483		0.012
LS-LEPS	12/5/2017	LEPS171205E64			0.0612			< 0.0005 U		0.0531		0.0116
LS-LEPS	43075.64236	LEPS171206E65			0.0645			< 0.0005 U		0.0529		0.0119
LS-LEPS	43081.52083	LEPS171212M	0.78	0.00966	0.0856	0.12	< 0.001 U	< 0.0005 U	74.9	0.0715	0.0186	0.0115
LS-LEPS	12/12/2017	LEPS171212P						< 0.0005 U		0.0691		0.0107
LS-LEPS	12/20/2017	LEPS171220E66			0.0869			< 0.0005 U		0.0695		0.00965
LS-LEPS	12/21/2017	LEPS171221E67			0.0786			< 0.0005 U		0.0627		0.0109
LS-LEPS	12/22/2017	LEPS171222E68			0.0734			< 0.0005 U		0.0581		0.00951
LS-LEPS	12/23/2017	LEPS171223E69			0.0747			< 0.0005 U		0.0644		0.0113
LS-LEPS	12/29/2017	LEPS171229E70			0.0741			< 0.0005 U		0.0623		0.0101

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017

Cedar Hills Landfill ---Leachate Metals Analytical Data

Contact Person: Sandy 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-LEPS	12/30/2017	LEPS171230E71			0.0668			< 0.0005 U		0.0568		0.0105
LS-LEPS	12/31/2017	LEPS171231E72			0.0595			< 0.0005 U		0.0526		0.0103
LS-MH46N	10/11/2017	L46N171011M	0.0356	< 0.003 U	0.0864	0.503	< 0.001 U	< 0.0005 U	150	0.114	0.039	< 0.002 U
LS-MH46N	11/15/2017	L46N171115M	0.0406	< 0.003 U	0.0944	0.619	< 0.001 U	< 0.0005 U	141	0.135	0.0424	< 0.002 U
LS-MH46N	12/13/2017	L46N171213M	0.0345	< 0.003 U	0.0822	0.491	< 0.001 U	< 0.0005 U	103	0.115	0.0359	< 0.002 U
LS-PS2A	10/11/2017	LP2A171011M	0.0415	0.0138	0.0197	0.0549	< 0.001 U	< 0.0005 U	40.9	0.00503	0.00756	0.0142
LS-PS2A	11/15/2017	LP2A171115M	0.15	< 0.003 U	0.00149	0.00657	< 0.001 U	< 0.0005 U	11.4	0.00248	0.000734	0.0301
LS-PS2A	12/13/2017	LP2A171213M	0.0778	< 0.003 U	0.00143	0.0129	< 0.001 U	< 0.0005 U	20.5	< 0.002 U	0.000752	0.0201

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017

Cedar Hills Landfill ---Leachate Metals Analytical 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	10/17/2017	LAPI171017M	8.06	0.00649	106	0.824	< 0.0001 U	0.264	778	< 0.005 U	< 0.0008 DU	2280
LS-API	11/15/2017	LAPI171115M	2.67	0.00147	29.9	0.486	< 0.0001 U	0.0577 D	181	< 0.005 U	< 0.0004 U	518
LS-API	12/13/2017	LAPI171213M	16.1	0.00372	78.8	1.92	< 0.0001 U	0.178	439	< 0.005 U	< 0.0004 U	1250
LS-LEPS	10/17/2017	LEPS171017E1+AS		0.00743				0.233				
LS-LEPS	10/17/2017	LEPS171017M	7.02	0.00782	91.7	0.885	< 0.0001 U	0.221	671	< 0.005 U	< 0.0008 DU	1900
LS-LEPS	10/17/2017	LEPS171017P		0.0078				0.222				
LS-LEPS	10/17/2017	LEPS171017P+AS		0.00776				0.222				
LS-LEPS	10/17/2017	LEPS171017E2		0.00728				0.228				
LS-LEPS	10/19/2017	LEPS171019E3		0.00753				0.197				
LS-LEPS	10/19/2017	LEPS171019E4		0.00651				0.182				
LS-LEPS	10/20/2017	LEPS171020E5		0.00606				0.165				
LS-LEPS	10/20/2017	LEPS171020E6		0.00673				0.181				
LS-LEPS	10/21/2017	LEPS171021E7		0.00619				0.182				
LS-LEPS	10/21/2017	LEPS171021E8		0.0067				0.179				
LS-LEPS	10/21/2017	LEPS171021E9		0.00811				0.172				
LS-LEPS	10/22/2017	LEPS171022E10		0.00718				0.119				
LS-LEPS	10/22/2017	LEPS171022E11		0.00746				0.138				
LS-LEPS	10/22/2017	LEPS171022E12		0.00623				0.124				
LS-LEPS	10/23/2017	LEPS171023E13		0.00764				0.125				
LS-LEPS	10/23/2017	LEPS171023E14		0.0101				0.14				
LS-LEPS	10/24/2017	LEPS171024E15		0.00916				0.135				
LS-LEPS	10/24/2017	LEPS171024E16		0.00961				0.132				
LS-LEPS	10/25/2017	LEPS171025E17		0.00908				0.122				
LS-LEPS	10/25/2017	LEPS171025E18		0.00821				0.118				
LS-LEPS	10/26/2017	LEPS171026E19		0.00778				0.122				
LS-LEPS	10/26/2017	LEPS171026E20		0.00656				0.126				
LS-LEPS	10/27/2017	LEPS171027E21		0.00618				0.118				
LS-LEPS	10/27/2017	LEPS171027E22		0.00646				0.123				
LS-LEPS	11/3/2017	LEPS171103E23		0.00498				0.128				
LS-LEPS	11/3/2017	LEPS171103E24		0.00519				0.128				
LS-LEPS	11/6/2017	LEPS171106E25		0.00447				0.119				
LS-LEPS	11/6/2017	LEPS171106E26		0.00429				0.118				
LS-LEPS	11/7/2017	LEPS171107E27		0.00431				0.116				
LS-LEPS	11/7/2017	LEPS171107E28		0.0044				0.113				
LS-LEPS	11/8/2017	LEPS171108E29		0.00451				0.121				
LS-LEPS	11/8/2017	LEPS171108E30		0.00421				0.108				
LS-LEPS	11/9/2017	LEPS171109E31		0.00468				0.118				
LS-LEPS	11/9/2017	LEPS171109E32		0.00453				0.113				
LS-LEPS	11/10/2017	LEPS171110E33		0.00443				0.109				
LS-LEPS	11/10/2017	LEPS171110E34		0.00385				0.107				

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017

Cedar Hills Landfill ---Leachate Metals Analytical 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-LEPS	11/11/2017	LEPS171111E35		0.00383				0.11				
LS-LEPS	11/13/2017	LEPS171113E36		0.00463				0.115				
LS-LEPS	11/13/2017	LEPS171113E37		0.00469				0.11				
LS-LEPS	11/14/2017	LEPS171114E38		0.00425				0.108				
LS-LEPS	11/14/2017	LEPS171114P		0.00419				0.103				
LS-LEPS	11/14/2017	LEPS171114E39		0.00372				0.105				
LS-LEPS	11/15/2017	LEPS171114M	4.31	0.00402	45.3	0.862	< 0.0001 U	0.105 D	280	< 0.005 U	< 0.0004 U	794
LS-LEPS	11/15/2017	LEPS171115E40		0.00386				0.103				
LS-LEPS	11/15/2017	LEPS171115E41		0.0041				0.0978				
LS-LEPS	11/16/2017	LEPS171116E42		0.0038				0.0907				
LS-LEPS	11/16/2017	LEPS171116E43		0.00438				0.0962				
LS-LEPS	11/17/2017	LEPS171117E44		0.00322				0.0892				
LS-LEPS	11/17/2017	LEPS171117E45		0.00419				0.0905				
LS-LEPS	11/17/2017	LEPS171117E46		0.00404				0.086				
LS-LEPS	11/18/2017	LEPS171118E47		0.0029				0.0834				
LS-LEPS	11/20/2017	LEPS171120E48		0.0032				0.0872				
LS-LEPS	11/20/2017	LEPS171120E49		0.00342				0.0847				
LS-LEPS	11/21/2017	LEPS171121E50		0.00357				0.0823				
LS-LEPS	11/22/2017	LEPS171122E51		0.00391				0.0789				
LS-LEPS	11/23/2017	LEPS171123E52		0.00245				0.0654				
LS-LEPS	11/25/2017	LEPS171125E53		0.0028				0.0608				
LS-LEPS	11/26/2017	LEPS171126E54		0.00309				0.0597				
LS-LEPS	11/27/2017	LEPS171127E55		0.0027				0.0577				
LS-LEPS	11/28/2017	LEPS171128E56		0.00281				0.062				
LS-LEPS	11/29/2017	LEPS171129E57		0.00257				0.0554				
LS-LEPS	11/30/2017	LEPS171130E58		0.0026				0.0545				
LS-LEPS	12/1/2017	LEPS171201E59		0.00255				0.0555				
LS-LEPS	12/2/2017	LEPS171202E60		0.00238				0.0601				
LS-LEPS	12/3/2017	LEPS171203E61		0.00263				0.0606				
LS-LEPS	12/4/2017	LEPS171204E62		0.00298				0.0606				
LS-LEPS	12/4/2017	LEPS171204E63		0.00291				0.0596				
LS-LEPS	12/5/2017	LEPS171205E64		0.0029				0.0637				
LS-LEPS	43075.64236	LEPS171206E65		0.00287				0.0652				
LS-LEPS	43081.52083	LEPS171212M	5.93	0.00265	37.5	0.965	< 0.0001 U	0.0796	198	< 0.005 U	< 0.0004 U	569
LS-LEPS	12/12/2017	LEPS171212P		0.00254				0.0775				
LS-LEPS	12/20/2017	LEPS171220E66		0.00255				0.0838			< 0.0004 U	
LS-LEPS	12/21/2017	LEPS171221E67		0.00261				0.0785				
LS-LEPS	12/22/2017	LEPS171222E68		0.00258				0.0765				
LS-LEPS	12/23/2017	LEPS171223E69		0.00268				0.0792				
LS-LEPS	12/29/2017	LEPS171229E70		0.0024				0.0748				

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017

Cedar Hills Landfill ---Leachate Metals Analytical Data

Contact Person: Sandy 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-LEPS	12/30/2017	LEPS171230E71		0.00269				0.0696				
LS-LEPS	12/31/2017	LEPS171231E72		0.00225				0.0642				
LS-MH46N	10/11/2017	L46N171011M	2.52	< 0.001 U	72.6	0.706 D	< 0.0001 U	0.182	375	< 0.005 U	< 0.0004 DU	1460
LS-MH46N	11/15/2017	L46N171115M	2.76	< 0.001 U	71.5	0.709	< 0.0001 U	0.201 D	444	< 0.005 U	< 0.0004 U	1630
LS-MH46N	12/13/2017	L46N171213M	2.29	< 0.001 U	56.5	0.528	< 0.0001 U	0.164	373	< 0.005 U	< 0.0004 U	1360
LS-PS2A	10/11/2017	LP2A171011M	0.743	< 0.001 U	19.5	0.89 D	< 0.0001 U	0.0408	59	< 0.005 U	< 0.0004 DU	185
LS-PS2A	11/15/2017	LP2A171115M	0.847	< 0.001 U	4.15	0.0836	< 0.0001 U	0.00914 D	< 5 U	< 0.005 U	< 0.0004 U	4.8
LS-PS2A	12/13/2017	LP2A171213M	1.45	< 0.001 U	6.12	0.128	< 0.0001 U	0.00833	< 5 U	< 0.005 U	< 0.0004 U	5.18

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017

Cedar Hills Landfill ---Leachate Metals Analytical Data

Contact Person: Sandy 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	10/17/2017	LAPI171017M	< 0.001 U	0.0621	0.0942	0.46 D
LS-API	11/15/2017	LAPI171115M	< 0.001 U	0.0127	0.0233	0.117
LS-API	12/13/2017	LAPI171213M	< 0.001 U	0.027	0.0505	0.622
LS-LEPS	10/17/2017	LEPS171017E1+AS				0.307
LS-LEPS	10/17/2017	LEPS171017M	< 0.001 U	0.0361	0.0802	0.3 D
LS-LEPS	10/17/2017	LEPS171017P				0.297
LS-LEPS	10/17/2017	LEPS171017P+AS				0.296
LS-LEPS	10/17/2017	LEPS171017E2				0.293
LS-LEPS	10/19/2017	LEPS171019E3				0.281
LS-LEPS	10/19/2017	LEPS171019E4				0.249
LS-LEPS	10/20/2017	LEPS171020E5				0.244
LS-LEPS	10/20/2017	LEPS171020E6				0.257
LS-LEPS	10/21/2017	LEPS171021E7				0.235
LS-LEPS	10/21/2017	LEPS171021E8				0.231
LS-LEPS	10/21/2017	LEPS171021E9				0.249
LS-LEPS	10/22/2017	LEPS171022E10				0.208
LS-LEPS	10/22/2017	LEPS171022E11				0.195
LS-LEPS	10/22/2017	LEPS171022E12				0.179
LS-LEPS	10/23/2017	LEPS171023E13				0.162
LS-LEPS	10/23/2017	LEPS171023E14				0.187
LS-LEPS	10/24/2017	LEPS171024E15				0.183
LS-LEPS	10/24/2017	LEPS171024E16				0.202
LS-LEPS	10/25/2017	LEPS171025E17				0.175
LS-LEPS	10/25/2017	LEPS171025E18				0.179
LS-LEPS	10/26/2017	LEPS171026E19				0.183
LS-LEPS	10/26/2017	LEPS171026E20				0.194
LS-LEPS	10/27/2017	LEPS171027E21				0.175
LS-LEPS	10/27/2017	LEPS171027E22				0.173
LS-LEPS	11/3/2017	LEPS171103E23				0.176
LS-LEPS	11/3/2017	LEPS171103E24				0.18
LS-LEPS	11/6/2017	LEPS171106E25				0.16
LS-LEPS	11/6/2017	LEPS171106E26				0.169
LS-LEPS	11/7/2017	LEPS171107E27				0.161
LS-LEPS	11/7/2017	LEPS171107E28				0.159
LS-LEPS	11/8/2017	LEPS171108E29				0.172
LS-LEPS	11/8/2017	LEPS171108E30				0.154
LS-LEPS	11/9/2017	LEPS171109E31				0.168
LS-LEPS	11/9/2017	LEPS171109E32				0.166
LS-LEPS	11/10/2017	LEPS171110E33				0.165
LS-LEPS	11/10/2017	LEPS171110E34				0.18

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017

Cedar Hills Landfill ---Leachate Metals Analytical Data

Contact Person: Sandy 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-LEPS	11/11/2017	LEPS171111E35				0.186
LS-LEPS	11/13/2017	LEPS171113E36				0.181
LS-LEPS	11/13/2017	LEPS171113E37				0.181
LS-LEPS	11/14/2017	LEPS171114E38				0.18
LS-LEPS	11/14/2017	LEPS171114P				0.168
LS-LEPS	11/14/2017	LEPS171114E39				0.171
LS-LEPS	11/15/2017	LEPS171114M	< 0.001 U	0.0175	0.04	0.164
LS-LEPS	11/15/2017	LEPS171115E40				0.172
LS-LEPS	11/15/2017	LEPS171115E41				0.177
LS-LEPS	11/16/2017	LEPS171116E42				0.164
LS-LEPS	11/16/2017	LEPS171116E43				0.188
LS-LEPS	11/17/2017	LEPS171117E44				0.185
LS-LEPS	11/17/2017	LEPS171117E45				0.2
LS-LEPS	11/17/2017	LEPS171117E46				0.203
LS-LEPS	11/18/2017	LEPS171118E47				0.202
LS-LEPS	11/20/2017	LEPS171120E48				0.208
LS-LEPS	11/20/2017	LEPS171120E49				0.213
LS-LEPS	11/21/2017	LEPS171121E50				0.212
LS-LEPS	11/22/2017	LEPS171122E51				0.213
LS-LEPS	11/23/2017	LEPS171123E52				0.144
LS-LEPS	11/25/2017	LEPS171125E53				0.147
LS-LEPS	11/26/2017	LEPS171126E54				0.17
LS-LEPS	11/27/2017	LEPS171127E55				0.175
LS-LEPS	11/28/2017	LEPS171128E56				0.191
LS-LEPS	11/29/2017	LEPS171129E57				0.166
LS-LEPS	11/30/2017	LEPS171130E58				0.153
LS-LEPS	12/1/2017	LEPS171201E59				0.15
LS-LEPS	12/2/2017	LEPS171202E60				0.16
LS-LEPS	12/3/2017	LEPS171203E61				0.169
LS-LEPS	12/4/2017	LEPS171204E62				0.189
LS-LEPS	12/4/2017	LEPS171204E63				0.203
LS-LEPS	12/5/2017	LEPS171205E64				0.201
LS-LEPS	43075.64236	LEPS171206E65				0.194
LS-LEPS	43081.52083	LEPS171212M	< 0.001 U	0.0115	0.0247	0.214
LS-LEPS	12/12/2017	LEPS171212P				0.205
LS-LEPS	12/20/2017	LEPS171220E66				0.252
LS-LEPS	12/21/2017	LEPS171221E67				0.268
LS-LEPS	12/22/2017	LEPS171222E68				0.294
LS-LEPS	12/23/2017	LEPS171223E69				0.311
LS-LEPS	12/29/2017	LEPS171229E70				0.301

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017

Cedar Hills Landfill ---Leachate Metals Analytical Data

Contact Person: Sandy 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-LEPS	12/30/2017	LEPS171230E71				0.267
LS-LEPS	12/31/2017	LEPS171231E72				0.25
LS-MH46N	10/11/2017	L46N171011M	< 0.001 U	0.00539	0.135	< 0.005 DU
LS-MH46N	11/15/2017	L46N171115M	< 0.001 U	0.00515	0.169	< 0.005 U
LS-MH46N	12/13/2017	L46N171213M	< 0.001 U	< 0.005 U	0.141	< 0.005 U
LS-PS2A	10/11/2017	LP2A171011M	< 0.001 U	< 0.005 U	0.00237	0.146 D
LS-PS2A	11/15/2017	LP2A171115M	< 0.001 U	< 0.005 U	0.00243	0.0203
LS-PS2A	12/13/2017	LP2A171213M	< 0.001 U	< 0.005 U	0.00172	0.0226

Environmental Monitoring Data

Data Collected from October 1, 2017 to December 31, 2017

Cedar Hills Landfill ---Leachate VOAs Analytical Data

Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	1,1,1,2-Tetrachloro-ethane	1,1,1-Trichloro-ethane	1,1,2,2-Tetrachloro-ethane	1,1,2-Trichloro-ethane	1,1-Dichloro-ethane	1,1-Dichloro-ethene	1,1-Dichloro-propene	1,2,3-Trichloro-propane	1,2-Dibromo-3-Chloropropane
			630-20-6 (ug/L)	71-55-6 (ug/L)	79-34-5 (ug/L)	79-00-5 (ug/L)	75-34-3 (ug/L)	75-35-4 (ug/L)	563-58-6 (ug/L)	96-18-4 (ug/L)	96-12-8 (ug/L)
LS-API	10/17/2017	LAPI171017M	< 5 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 50 U
LS-API	11/15/2017	LAPI171115M	< 2.5 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 25 U
LS-API	12/13/2017	LAPI171213M	< 2.5 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 25 U
LS-LEPS	10/17/2017	LEPS171017M	< 5 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 50 U
LS-LEPS	11/15/2017	LEPS171114M	< 2.5 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 25 U
LS-LEPS	12/12/2017	LEPS171212M	< 2.5 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 25 U
LS-MH46N	10/11/2017	L46N171011M	< 2.5 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 25 U
LS-MH46N	11/15/2017	L46N171115M	< 2.5 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 25 U
LS-MH46N	12/13/2017	L46N171213M	< 2.5 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 25 U
LS-PS2A	10/11/2017	LP2A171011M	< 2.5 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 25 U
LS-PS2A	11/15/2017	LP2A171115M	< 2.5 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 25 U
LS-PS2A	12/13/2017	LP2A171213M	< 2.5 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 25 U
VOA TRIP BLANK	10/10/2017	VTRP171011Y	< 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	10/16/2017	VTRP171017Y2	< 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	11/14/2017	VTRP171115Y	< 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	12/8/2017	VTRP171211X	< 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	12/8/2017	VTRP171211Y	< 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	12/11/2017	VTRP171212X	< 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	12/12/2017	VTRP171213X2	< 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	12/12/2017	VTRP171213Y	< 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, 2017 to December 31, 2017

Cedar Hills Landfill ---Leachate VOAs Analytical Data

Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	1,2-Dibromo- ethane	1,2-Dichloro- benzene	1,2-Dichloro- ethane	1,2-Dichloro- propane	1,3 Dichloro- benzene	1,3-Dichloro- propane	1,4-Dichloro- benzene	2,2-Dichloro- propane	2-Butanone
			106-93-4 (ug/L)	95-50-1 (ug/L)	107-06-2 (ug/L)	78-87-5 (ug/L)	541-73-1 (ug/L)	142-28-9 (ug/L)	106-46-7 (ug/L)	594-20-7 (ug/L)	78-93-3 (ug/L)
LS-API	10/17/2017	LAPI171017M	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	2.5 JT	< 2 U	3710 D
LS-API	11/15/2017	LAPI171115M	< 1 U	< 1 U	1.1 JT	< 1 U	< 1 U	< 1 U	1.1 JT	< 1 U	1270
LS-API	12/13/2017	LAPI171213M	< 1 U	< 1 U	1.5 JT	< 1 U	< 1 U	< 1 U	1.2 JT	< 1 U	3370 D
LS-LEPS	10/17/2017	LEPS171017M	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	1100
LS-LEPS	11/15/2017	LEPS171114M	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	532
LS-LEPS	12/12/2017	LEPS171212M	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	432
LS-MH46N	10/11/2017	L46N171011M	< 1 U	1.9 JT	< 1 U	< 1 U	< 1 U	< 1 U	8.36	< 1 U	< 2.5 U
LS-MH46N	11/15/2017	L46N171115M	< 1 U	2.34	< 1 U	< 1 U	< 1 U	< 1 U	9.64	< 1 U	< 2.5 U
LS-MH46N	12/13/2017	L46N171213M	< 1 U	2.45	< 1 U	< 1 U	< 1 U	< 1 U	9.77	< 1 U	< 2.5 U
LS-PS2A	10/11/2017	LP2A171011M	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2.5 U
LS-PS2A	11/15/2017	LP2A171115M	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2.5 U
LS-PS2A	12/13/2017	LP2A171213M	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	1.2 JT	< 1 U	49.5
VOA TRIP BLANK	10/10/2017	VTRP171011Y	< 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	10/16/2017	VTRP171017Y2	< 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	11/14/2017	VTRP171115Y	< 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	12/8/2017	VTRP171211X	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.25 U	< 0.25 U
VOA TRIP BLANK	12/8/2017	VTRP171211Y	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.25 U	< 0.25 U
VOA TRIP BLANK	12/11/2017	VTRP171212X	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.25 U	< 0.25 U
VOA TRIP BLANK	12/12/2017	VTRP171213X2	< 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	12/12/2017	VTRP171213Y	< 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, 2017 to December 31, 2017

Cedar Hills Landfill ---Leachate VOAs Analytical 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	10/17/2017	LAPI171017M	< 10 U	< 100 U	< 2 U	< 50 U	4200 D	< 100 U	< 50 U	< 0.7 U	< 2 U
LS-API	11/15/2017	LAPI171115M	< 5 U	< 50 U	< 1 U	< 25 U	1370 D	< 50 U	< 25 U	0.49 JT	< 1 U
LS-API	12/13/2017	LAPI171213M	7.9 JT	< 50 U	< 1 U	34 JT	3320 D	< 50 U	< 25 U	< 0.35 U	< 1 U
LS-LEPS	10/17/2017	LEPS171017M	< 10 U	< 100 U	< 2 U	< 50 U	1720	< 100 U	< 50 U	< 0.7 U	< 2 U
LS-LEPS	11/15/2017	LEPS171114M	< 5 U	< 50 U	< 1 U	< 25 U	693	< 50 U	< 25 U	< 0.35 U	< 1 U
LS-LEPS	12/12/2017	LEPS171212M	< 5 U	< 50 U	< 1 U	< 25 U	898	< 50 U	< 25 U	< 0.35 U	< 1 U
LS-MH46N	10/11/2017	L46N171011M	< 5 U	< 50 U	< 1 U	< 25 U	< 25 U	< 50 U	< 25 U	< 0.35 U	2.98
LS-MH46N	11/15/2017	L46N171115M	< 5 U	< 50 U	< 1 U	< 25 U	< 25 U	< 50 U	< 25 U	< 0.35 U	3.59
LS-MH46N	12/13/2017	L46N171213M	< 5 U	< 50 U	< 1 U	< 25 U	< 25 U	< 50 U	< 25 U	< 0.35 U	3.68
LS-PS2A	10/11/2017	LP2A171011M	< 5 U	< 50 U	< 1 U	< 25 U	< 25 U	< 50 U	< 25 U	< 0.35 U	< 1 U
LS-PS2A	11/15/2017	LP2A171115M	< 5 U	< 50 U	< 1 U	< 25 U	< 25 U	< 50 U	< 25 U	< 0.35 U	< 1 U
LS-PS2A	12/13/2017	LP2A171213M	< 5 U	< 50 U	< 1 U	< 25 U	69.9	< 50 U	< 25 U	< 0.35 U	< 1 U
VOA TRIP BLANK	10/10/2017	VTRP171011Y	< 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	10/16/2017	VTRP171017Y2	< 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	11/14/2017	VTRP171115Y	< 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	12/8/2017	VTRP171211X	< 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	12/8/2017	VTRP171211Y	< 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	12/11/2017	VTRP171212X	< 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	12/12/2017	VTRP171213X2	< 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	12/12/2017	VTRP171213Y	< 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, 2017 to December 31, 2017

Cedar Hills Landfill ---Leachate VOAs Analytical 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	10/17/2017	LAPI171017M	< 2 U	< 5 U	< 10 U	< 2 U	< 2 U	< 5 U	< 2 U	< 10 U	< 2 U
LS-API	11/15/2017	LAPI171115M	< 1 U	< 2.5 U	< 5 U	< 1 U	< 1 U	< 2.5 U	< 1 U	< 5 U	< 1 U
LS-API	12/13/2017	LAPI171213M	< 1 U	< 2.5 U	< 5 U	< 1 U	< 1 U	< 2.5 U	< 1 U	< 5 U	< 1 U
LS-LEPS	10/17/2017	LEPS171017M	< 2 U	< 5 U	< 10 U	< 2 U	< 2 U	< 5 U	< 2 U	< 10 U	< 2 U
LS-LEPS	11/15/2017	LEPS171114M	< 1 U	< 2.5 U	< 5 U	< 1 U	< 1 U	< 2.5 U	< 1 U	< 5 U	< 1 U
LS-LEPS	12/12/2017	LEPS171212M	< 1 U	< 2.5 U	< 5 U	< 1 U	< 1 U	< 2.5 U	< 1 U	< 5 U	< 1 U
LS-MH46N	10/11/2017	L46N171011M	< 1 U	< 2.5 U	< 5 U	< 1 U	< 1 U	< 2.5 U	1.8 JT	< 5 U	< 1 U
LS-MH46N	11/15/2017	L46N171115M	< 1 U	< 2.5 U	< 5 U	< 1 U	< 1 U	< 2.5 U	2.25	< 5 U	< 1 U
LS-MH46N	12/13/2017	L46N171213M	< 1 U	< 2.5 U	< 5 U	< 1 U	< 1 U	< 2.5 U	2.22	< 5 U	< 1 U
LS-PS2A	10/11/2017	LP2A171011M	< 1 U	< 2.5 U	< 5 U	< 1 U	< 1 U	< 2.5 U	< 1 U	< 5 U	< 1 U
LS-PS2A	11/15/2017	LP2A171115M	< 1 U	< 2.5 U	< 5 U	< 1 U	< 1 U	< 2.5 U	< 1 U	< 5 U	< 1 U
LS-PS2A	12/13/2017	LP2A171213M	< 1 U	< 2.5 U	< 5 U	< 1 U	< 1 U	< 2.5 U	< 1 U	< 5 U	< 1 U
VOA TRIP BLANK	10/10/2017	VTRP171011Y	< 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	10/16/2017	VTRP171017Y2	< 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	11/14/2017	VTRP171115Y	< 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	12/8/2017	VTRP171211X	< 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	12/8/2017	VTRP171211Y	< 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	12/11/2017	VTRP171212X	< 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	12/12/2017	VTRP171213X2	< 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	12/12/2017	VTRP171213Y	< 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, 2017 to December 31, 2017

Cedar Hills Landfill ---Leachate VOAs Analytical 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	10/17/2017	LAPI171017M	< 2 U	< 5 U	< 2 U	< 2 U	< 5 U	< 2 U	< 2 U	3 JT	6.53
LS-API	11/15/2017	LAPI171115M	< 1 U	< 2.5 U	< 1 U	< 1 U	< 2.5 U	< 1 U	< 1 U	1.9 JT	4.11
LS-API	12/13/2017	LAPI171213M	< 1 U	< 2.5 U	< 1 U	< 1 U	< 2.5 U	< 1 U	< 1 U	1.8 JT	3.79
LS-LEPS	10/17/2017	LEPS171017M	< 2 U	< 5 U	< 2 U	< 2 U	< 5 U	< 2 U	< 2 U	< 2 U	< 2 U
LS-LEPS	11/15/2017	LEPS171114M	< 1 U	< 2.5 U	< 1 U	< 1 U	< 2.5 U	< 1 U	< 1 U	< 1 U	2 JT
LS-LEPS	12/12/2017	LEPS171212M	< 1 U	< 2.5 U	< 1 U	< 1 U	< 2.5 U	< 1 U	< 1 U	< 1 U	< 1 U
LS-MH46N	10/11/2017	L46N171011M	< 1 U	< 2.5 U	< 1 U	1.3 JT	< 2.5 U	< 1 U	< 1 U	34	37.4
LS-MH46N	11/15/2017	L46N171115M	< 1 U	< 2.5 U	< 1 U	1.9 JT	< 2.5 U	< 1 U	< 1 U	42.3	50.8
LS-MH46N	12/13/2017	L46N171213M	< 1 U	< 2.5 U	< 1 U	2.3	< 2.5 U	< 1 U	< 1 U	41.8	53.8
LS-PS2A	10/11/2017	LP2A171011M	< 1 U	< 2.5 U	< 1 U	< 1 U	< 2.5 U	< 1 U	< 1 U	< 1 U	< 1 U
LS-PS2A	11/15/2017	LP2A171115M	< 1 U	< 2.5 U	< 1 U	< 1 U	< 2.5 U	< 1 U	< 1 U	< 1 U	< 1 U
LS-PS2A	12/13/2017	LP2A171213M	< 1 U	< 2.5 U	< 1 U	< 1 U	< 2.5 U	< 1 U	< 1 U	< 1 U	1.9 JT
VOA TRIP BLANK	10/10/2017	VTRP171011Y	< 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	10/16/2017	VTRP171017Y2	< 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	11/14/2017	VTRP171115Y	< 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	12/8/2017	VTRP171211X	< 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	12/8/2017	VTRP171211Y	< 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	12/11/2017	VTRP171212X	< 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	12/12/2017	VTRP171213X2	< 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	12/12/2017	VTRP171213Y	< 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, 2017 to December 31, 2017

Cedar Hills Landfill ---Leachate VOAs Analytical Data

Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Methyl Iodide	Methyl Methacrylate	Methylacrylonitrile	Methylene Chloride	o-Xylene	Propionitrile	Styrene	Tetrachloroethene	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	10/17/2017	LAPI171017M	< 2 U	< 5 U	< 2 U	< 50 U	3.7 JT	< 10 U	< 2 U	< 2 U	9.41
LS-API	11/15/2017	LAPI171115M	< 1 U	< 2.5 U	< 1 U	< 25 U	2.12	< 5 U	< 1 U	< 1 U	5.59
LS-API	12/13/2017	LAPI171213M	< 1 U	< 2.5 U	< 1 U	< 25 U	2 JT	< 5 U	< 1 U	< 1 U	6.76
LS-LEPS	10/17/2017	LEPS171017M	< 2 U	< 5 U	< 2 U	< 50 U	< 2 U	< 10 U	< 2 U	< 2 U	< 2 U
LS-LEPS	11/15/2017	LEPS171114M	< 1 U	< 2.5 U	< 1 U	< 25 U	1 JT	< 5 U	< 1 U	< 1 U	2.69
LS-LEPS	12/12/2017	LEPS171212M	< 1 U	< 2.5 U	< 1 U	< 25 U	< 1 U	< 5 U	< 1 U	< 1 U	< 1 U
LS-MH46N	10/11/2017	L46N171011M	< 1 U	< 2.5 U	< 1 U	< 25 U	2.46	< 5 U	< 1 U	< 1 U	2.9
LS-MH46N	11/15/2017	L46N171115M	< 1 U	< 2.5 U	< 1 U	< 25 U	4.74	< 5 U	1.2 JT	< 1 U	5.49
LS-MH46N	12/13/2017	L46N171213M	< 1 U	< 2.5 U	< 1 U	< 25 U	5	< 5 U	1.3 JT	< 1 U	4.84
LS-PS2A	10/11/2017	LP2A171011M	< 1 U	< 2.5 U	< 1 U	< 25 U	< 1 U	< 5 U	< 1 U	< 1 U	< 1 U
LS-PS2A	11/15/2017	LP2A171115M	< 1 U	< 2.5 U	< 1 U	< 25 U	< 1 U	< 5 U	< 1 U	< 1 U	< 1 U
LS-PS2A	12/13/2017	LP2A171213M	< 1 U	< 2.5 U	< 1 U	< 25 U	< 1 U	< 5 U	< 1 U	< 1 U	< 1 U
VOA TRIP BLANK	10/10/2017	VTRP171011Y	< 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	10/16/2017	VTRP171017Y2	< 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	11/14/2017	VTRP171115Y	< 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	12/8/2017	VTRP171211X	< 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	12/8/2017	VTRP171211Y	< 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	12/11/2017	VTRP171212X	< 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	12/12/2017	VTRP171213X2	< 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	12/12/2017	VTRP171213Y	< 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, 2017 to December 31, 2017

Cedar Hills Landfill ---Leachate VOAs Analytical Data

Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	trans-1,2-	trans-1,3-	trans-1,4-	Trichloro-ethene	Trichloro-fluoro-	Vinyl Acetate	Vinyl Chloride
			Dichloro-ethene	Dichloro-propene	Dichloro-2-butene		methane		
			156-60-5 (ug/L)	10061-02-6 (ug/L)	110-57-6 (ug/L)	79-01-6 (ug/L)	75-69-4 (ug/L)	108-05-4 (ug/L)	75-01-4 (ug/L)
LS-API	10/17/2017	LAPI171017M	< 2 U	< 10 U	< 10 U	< 2 U	< 2 U	< 2 U	< 0.2 U
LS-API	11/15/2017	LAPI171115M	< 1 U	< 5 U	< 5 U	< 1 U	< 1 U	< 1 U	0.1 JT
LS-API	12/13/2017	LAPI171213M	< 1 U	< 5 U	< 5 U	< 1 U	< 1 U	< 1 U	< 0.1 U
LS-LEPS	10/17/2017	LEPS171017M	< 2 U	< 10 U	< 10 U	< 2 U	< 2 U	< 2 U	< 0.2 U
LS-LEPS	11/15/2017	LEPS171114M	< 1 U	< 5 U	< 5 U	< 1 U	< 1 U	< 1 U	< 0.1 U
LS-LEPS	12/12/2017	LEPS171212M	< 1 U	< 5 U	< 5 U	< 1 U	< 1 U	< 1 U	< 0.1 U
LS-MH46N	10/11/2017	L46N171011M	< 1 U	< 5 U	< 5 U	< 1 U	< 1 U	< 1 U	5.89
LS-MH46N	11/15/2017	L46N171115M	< 1 U	< 5 U	< 5 U	< 1 U	< 1 U	< 1 U	4.57
LS-MH46N	12/13/2017	L46N171213M	< 1 U	< 5 U	< 5 U	< 1 U	< 1 U	< 1 U	4.36
LS-PS2A	10/11/2017	LP2A171011M	< 1 U	< 5 U	< 5 U	< 1 U	< 1 U	< 1 U	< 0.1 U
LS-PS2A	11/15/2017	LP2A171115M	< 1 U	< 5 U	< 5 U	< 1 U	< 1 U	< 1 U	< 0.1 U
LS-PS2A	12/13/2017	LP2A171213M	< 1 U	< 5 U	< 5 U	< 1 U	< 1 U	< 1 U	< 0.1 U
VOA TRIP BLANK	10/10/2017	VTRP171011Y	< 0.1 U	< 0.5 U	< 0.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
VOA TRIP BLANK	10/16/2017	VTRP171017Y2	< 0.1 U	< 0.5 U	< 0.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
VOA TRIP BLANK	11/14/2017	VTRP171115Y	< 0.1 U	< 0.5 U	< 0.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
VOA TRIP BLANK	12/8/2017	VTRP171211X	< 0.1 U	< 0.5 U	< 0.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
VOA TRIP BLANK	12/8/2017	VTRP171211Y	< 0.1 U	< 0.5 U	< 0.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
VOA TRIP BLANK	12/11/2017	VTRP171212X	< 0.1 U	< 0.5 U	< 0.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
VOA TRIP BLANK	12/12/2017	VTRP171213X2	< 0.1 U	< 0.5 U	< 0.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.01 U
VOA TRIP BLANK	12/12/2017	VTRP171213Y	< 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, 2017 to December 31, 2017

Cedar Hills Landfill ---Leachate Pesticide/Herbicide/PCB Analytical Data

Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Sample ID	2,4,5-T	2,4,5-TP	2,4-D	4,4'-DDD	4,4'-DDE	4,4'-DDT	Aldrin	Alpha BHC	Alpha Chlordane	Aroclor 1016
			93-76-5 (ug/L)	93-72-1 (ug/L)	94-75-7 (ug/L)	72-54-8 (ug/L)	72-55-9 (ug/L)	50-29-3 (ug/L)	309-00-2 (ug/L)	319-84-6 (ug/L)	57-74-9 (ug/L)	12674-11-2 (ug/L)
LS-API	10/17/2017	LAPI171017M	< 0.5 U	< 2.5 U	< 1 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 GU	< 0.05 U
LS-API	11/15/2017	LAPI171115M	< 0.5 U	< 0.5 U	< 1 U	< 0.025 GU	< 0.025 GU	< 0.025 GU	< 0.025 GU	< 0.025 U	< 0.025 GU	< 0.025 U
LS-API	12/13/2017	LAPI171213M	< 0.5 U	< 2 U	3.12 J	< 0.025 U	< 0.025 U	< 0.025 U	< 0.025 U	< 0.025 U	< 0.025 GU	< 0.025 U
LS-LEPS	10/17/2017	LEPS171017M	< 0.5 U	< 2.5 U	< 1.2 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 GU	< 0.05 U
LS-LEPS	11/15/2017	LEPS171114M	< 0.5 U	0.863	< 1 U	< 0.025 GU	0.0307 GJ	< 0.025 GU	< 0.025 GU	< 0.025 U	< 0.025 GU	< 0.025 U
LS-LEPS	12/12/2017	LEPS171212M	< 0.5 U	< 0.5 U	< 1 U	< 0.025 U	< 0.025 U	< 0.025 U	< 0.025 U	< 0.025 U	< 0.025 GU	< 0.025 U
LS-MH46N	10/11/2017	L46N171011M	< 0.5 U	1.49	3.43	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	0.0148 J	< 0.025 U
LS-MH46N	11/15/2017	L46N171115M	< 0.5 U	1.59	3.58	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	0.0117 J	< 0.025 U
LS-MH46N	12/13/2017	L46N171213M	< 0.5 U	< 2 U	5.99	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	0.0271 J	< 0.025 U
LS-PS2A	10/11/2017	LP2A171011M	< 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	11/15/2017	LP2A171115M	< 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	12/13/2017	LP2A171213M	< 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, 2017 to December 31, 2017

Cedar Hills Landfill ---Leachate Pesticide/Herbicide/PCB Analytical Data

Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Sample ID	Aroclor	Aroclor	Aroclor	Aroclor	Aroclor	Aroclor	Beta	Delta	Dieldrin	Dinoseb
			1221	1232	1242	1248	1254	1260	BHC	BHC	Dieldrin	Dinoseb
			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	10/17/2017	LAPI171017M	< 0.05 U	< 0.05 U	0.382	< 0.05 U	0.151	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 2 U
LS-API	11/15/2017	LAPI171115M	< 0.025 U	< 0.025 U	0.0926	< 0.025 U	0.0406	< 0.025 U	< 0.025 U	< 0.025 U	< 0.025 GU	< 0.5 U
LS-API	12/13/2017	LAPI171213M	< 0.2 U	< 0.025 U	0.102	< 0.025 U	0.0415	< 0.025 U	< 0.025 U	< 0.025 U	< 0.025 U	< 0.5 U
LS-LEPS	10/17/2017	LEPS171017M	0.129	< 0.05 U	0.205	< 0.05 U	0.0861	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 2 U
LS-LEPS	11/15/2017	LEPS171114M	< 0.025 U	< 0.025 U	0.0551	< 0.025 U	0.0313 J	< 0.025 U	< 0.025 U	< 0.025 U	< 0.025 GU	< 0.5 U
LS-LEPS	12/12/2017	LEPS171212M	< 0.05 U	< 0.025 U	< 0.025 U	< 0.025 U	< 0.025 U	< 0.025 U	< 0.025 U	< 0.025 U	< 0.025 U	< 0.5 U
LS-MH46N	10/11/2017	L46N171011M	0.132	< 0.025 U	0.239	< 0.025 U	< 0.025 U	< 0.025 U	0.0713 J	< 0.01 U	< 0.01 U	< 0.5 U
LS-MH46N	11/15/2017	L46N171115M	0.0834 J	< 0.025 U	0.217	< 0.025 U	< 0.025 U	< 0.025 U	0.0499 J	< 0.01 U	0.0236 J	< 0.5 U
LS-MH46N	12/13/2017	L46N171213M	< 0.2 U	< 0.025 U	0.221	< 0.025 U	< 0.025 U	< 0.025 U	0.0547 J	< 0.07 U	< 0.03 U	< 0.5 U
LS-PS2A	10/11/2017	LP2A171011M	< 0.025 U	< 0.025 U	0.0426	< 0.025 U	< 0.025 U	< 0.025 U	< 0.02 U	< 0.01 U	< 0.01 U	< 0.5 U
LS-PS2A	11/15/2017	LP2A171115M	< 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	12/13/2017	LP2A171213M	< 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, 2017 to December 31, 2017

Cedar Hills Landfill ---Leachate Pesticide/Herbicide/PCB Analytical Data

Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Sample ID	Endo- sulfan I 959-98-8 (ug/L)	Endo- sulfan II 33213-65-9 (ug/L)	Endosulfan Sulfate 1031-07-8 (ug/L)	Endrin 72-20-8 (ug/L)	Endrin Aldehyde 7421-93-4 (ug/L)	Heptachlor 76-44-8 (ug/L)	Heptachlor Epoxide 1024-57-3 (ug/L)	Isodrin 465-73-6 (ug/L)	Lindane 58-89-9 (ug/L)	Methoxy- chlor 72-43-5 (ug/L)
LS-API	10/17/2017	LAPI171017M	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 GU	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.25 U
LS-API	11/15/2017	LAPI171115M	< 0.025 U	< 0.025 U	< 0.025 U	< 0.025 U	< 0.025 GU	< 0.025 GU	< 0.025 U	< 0.025 GU	< 0.025 U	< 0.125 U
LS-API	12/13/2017	LAPI171213M	< 0.025 U	< 0.025 U	< 0.025 U	< 0.025 U	0.082 G	< 0.025 U	< 0.025 U	< 0.025 U	< 0.025 U	< 0.125 U
LS-LEPS	10/17/2017	LEPS171017M	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 GU	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.25 U
LS-LEPS	11/15/2017	LEPS171114M	< 0.025 U	< 0.025 U	< 0.025 U	< 0.025 U	< 0.025 GU	< 0.025 GU	< 0.025 U	< 0.025 GU	< 0.025 U	< 0.125 U
LS-LEPS	12/12/2017	LEPS171212M	< 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	10/11/2017	L46N171011M	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	0.0441 J	< 0.05 U
LS-MH46N	11/15/2017	L46N171115M	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	0.0714 J	< 0.05 U
LS-MH46N	12/13/2017	L46N171213M	< 0.04 U	< 0.01 U	< 0.01 U	< 0.01 U	0.0168	< 0.01 U	< 0.01 U	< 0.01 U	0.0492 J	< 0.05 U
LS-PS2A	10/11/2017	LP2A171011M	< 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	11/15/2017	LP2A171115M	< 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	12/13/2017	LP2A171213M	< 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

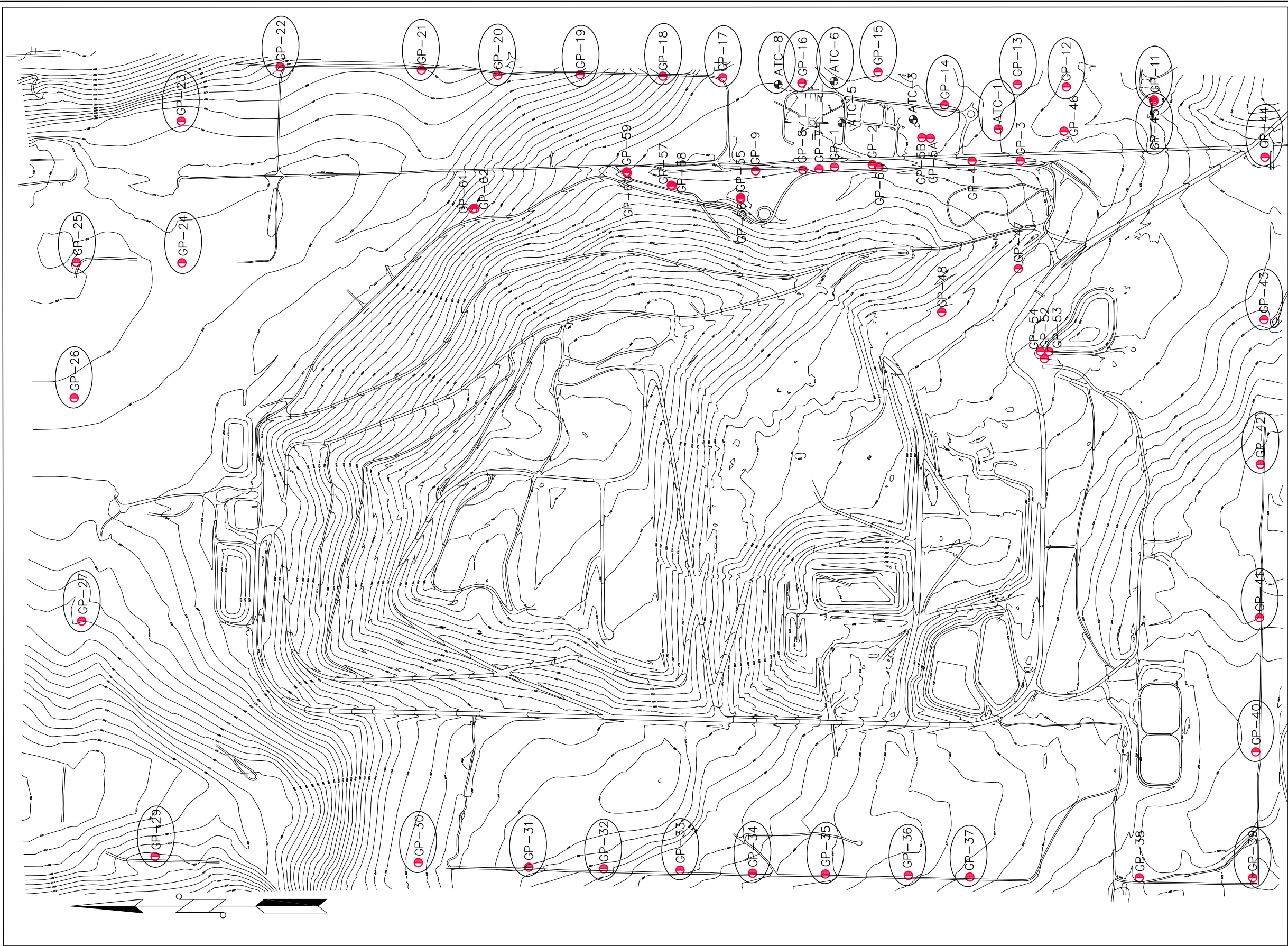
Data Collected from October 1, 2017 to December 31, 2017

Cedar Hills Landfill ---Leachate Pesticide/Herbicide/PCB Analytical Data

Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Sample ID	Total	Toxaphene	<i>trans</i> -
			Aroclors		Chlordane
			1336-36-3	8001-35-2	5103-74-2
			(ug/L)	(ug/L)	(ug/L)
LS-API	10/17/2017	LAPI171017M	0.533	< 5 U	< 0.05 U
LS-API	11/15/2017	LAPI171115M	0.1332	< 2.5 U	< 0.025 GU
LS-API	12/13/2017	LAPI171213M	0.1435	< 2.5 U	< 0.025 GU
LS-LEPS	10/17/2017	LEPS171017M	0.4201	< 5 U	< 0.05 U
LS-LEPS	11/15/2017	LEPS171114M	0.0864	< 2.5 U	< 0.025 GU
LS-LEPS	12/12/2017	LEPS171212M	< 0.05 U	< 2.5 U	< 0.025 GU
LS-MH46N	10/11/2017	L46N171011M	0.371	< 1 U	< 0.01 U
LS-MH46N	11/15/2017	L46N171115M	0.3004	< 1 U	< 0.01 U
LS-MH46N	12/13/2017	L46N171213M	0.221	< 1 U	< 0.01 U
LS-PS2A	10/11/2017	LP2A171011M	0.0426	< 1 U	< 0.01 U
LS-PS2A	11/15/2017	LP2A171115M	< 0.025 U	< 1 U	< 0.01 U
LS-PS2A	12/13/2017	LP2A171213M	< 0.025 U	< 1 U	< 0.01 U

Landfill Gas Monitoring Data



- 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

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



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

Compliance Probes

CEDAR HILLS REGIONAL LANDFILL
Landfill Gas Compliance Probes
October 2017 Monitoring

Probe ID	Date/Time	CH4 %vol	CO2 %vol	O2 %vol	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
ATC-01D	--	--	--	--	--	--	No Reading
ATC-01S	--	--	--	--	--	--	No Reading
ATC-06D	10/25/2017 14:42	0.0	0.6	19.9	0	0.11	
ATC-06S	10/25/2017 14:40	0.0	0.7	20.8	0	-0.02	
ATC-08D	10/25/2017 14:32	0.0	1.0	20.2	0	-0.15	
ATC-08S	10/25/2017 14:31	0.0	0.3	18.3	0	0.96	
GP-11A	10/25/2017 13:23	0.0	0.8	20.3	0	0.02	
GP-11B	10/25/2017 13:24	0.0	0.5	18.2	0	0.66	
GP-11C	10/25/2017 13:26	0.0	0.2	20.5	0	0.62	
GP-11D	10/25/2017 13:27	0.0	0.3	14.8	0	0.78	
GP-12A	10/25/2017 13:43	0.0	0.9	20.1	0	-0.01	
GP-12B	10/25/2017 13:45	0.0	0.1	21.0	0	0	
GP-12C	10/25/2017 13:46	0.0	0.2	20.5	0	-0.01	
GP-12D	10/25/2017 13:47	0.0	0.2	21.0	0	0.01	
GP-13A	10/25/2017 13:50	0.0	0.7	21.0	0	0	
GP-13B	10/25/2017 13:51	0.0	0.1	21.0	0	0.29	
GP-13C	10/25/2017 13:52	0.0	0.1	21.0	0	-0.05	
GP-13D	10/25/2017 13:54	0.0	0.1	21.0	0	0.82	
GP-14A	10/25/2017 13:58	0.0	0.1	21.0	0	0	
GP-14B	10/25/2017 13:59	0.0	0.1	21.0	0	0.09	
GP-15A	10/25/2017 14:15	0.0	0.0	0.0	0	0	No Reading, Water
GP-15C	10/25/2017 14:16	0.0	0.8	17.4	0	0.25	
GP-15D	10/25/2017 14:17	0.0	0.1	21.0	0	-0.8	
GP-16A	10/25/2017 14:34	0.0	1.7	19.9	0	-0.03	
GP-16B	10/25/2017 14:36	0.0	0.2	21.0	0	-2.14	
GP-16C	10/25/2017 14:37	0.0	0.2	21.0	0	0.72	
GP-17A	10/25/2017 7:54	0.0	0.0	0.0	0	0	No Reading, Water
GP-17B	10/25/2017 7:56	0.0	0.7	19.0	0	-0.03	
GP-17C	10/25/2017 7:57	0.0	0.1	21.0	0	0.34	
GP-18A	10/25/2017 8:10	0.0	2.1	19.1	0	-0.03	
GP-18B	10/25/2017 8:12	0.0	0.3	19.2	0	-0.03	
GP-18C	10/25/2017 8:13	0.0	0.2	20.6	0	0.02	
GP-19A	10/25/2017 8:22	0.0	0.1	21.0	0	-0.03	
GP-19B	10/25/2017 8:24	0.0	0.7	17.5	0	-0.04	
GP-19C	10/25/2017 8:25	0.0	0.1	20.9	0	-0.03	
GP-20A	10/25/2017 8:40	0.0	1.4	20.2	0	-0.02	
GP-20B	10/25/2017 8:42	0.0	0.2	20.7	0	-0.02	
GP-20C	10/25/2017 8:43	0.0	0.2	10.7	0	-0.03	
GP-21A	10/25/2017 8:46	0.0	0.2	20.4	0	-0.04	
GP-21B	10/25/2017 8:48	0.0	0.2	12.5	0	-0.04	
GP-21C	10/25/2017 8:49	0.0	0.0	0.0	0	0	No Reading, Water
GP-22A	10/25/2017 8:54	0.0	0.9	20.1	0	-2.2	
GP-22C	10/25/2017 8:56	0.0	1.3	4.3	0	0.53	
GP-23A	10/25/2017 9:00	0.0	0.2	20.2	0	-0.05	
GP-23B	10/25/2017 9:02	0.0	0.1	21.0	0	-0.01	
GP-23C	10/25/2017 9:03	0.0	0.1	21.0	0	-0.06	
GP-24A	10/25/2017 9:07	0.0	4.7	16.2	0	0.01	
GP-24B	10/25/2017 9:09	0.0	0.4	20.3	0	0.06	
GP-25	10/25/2017 9:16	0.0	2.4	17.4	0	-0.02	
GP-26	10/25/2017 9:19	0.0	0.4	20.1	0	0.88	
GP-27	10/25/2017 9:24	0.0	6.2	14.4	0	-0.02	
GP-29A	10/25/2017 9:30	0.0	1.9	18.8	0	-0.01	
GP-29B	10/25/2017 9:31	0.0	0.3	20.8	0	-0.01	
GP-30A	10/25/2017 10:23	0.0	1.0	19.5	0	0.02	
GP-30B	10/25/2017 10:24	0.0	1.1	19.1	0	0.03	
GP-31A	10/25/2017 10:27	0.0	5.4	15.2	0	0.07	
GP-31B	10/25/2017 10:29	0.0	0.3	15.8	0	0.26	
GP-31C	10/25/2017 10:30	0.0	1.2	17.9	0	0.04	
GP-32A	10/25/2017 10:33	0.0	0.3	19.8	0	0.06	
GP-32B	10/25/2017 10:34	0.0	0.2	20.0	0	0.05	
GP-32C	10/25/2017 10:36	0.0	0.3	20.0	0	0.08	
GP-33A	10/25/2017 10:38	0.0	2.1	18.7	0	0.05	
GP-33B	10/25/2017 10:39	0.0	0.4	19.8	0	0.04	
GP-33C	10/25/2017 10:40	0.0	0.1	20.3	0	-0.01	
GP-34A	10/25/2017 10:43	0.0	8.2	12.5	0	-0.05	

CEDAR HILLS REGIONAL LANDFILL
Landfill Gas Compliance Probes
October 2017 Monitoring

Probe ID	Date/Time	CH4 %vol	CO2 %vol	O2 %vol	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
GP-34B	10/25/2017 10:44	0.0	0.2	20.2	0	0.03	
GP-34C	10/25/2017 10:46	0.0	0.1	20.5	0	0.3	
GP-35A	10/25/2017 10:49	0.0	3.5	18.4	0	0	
GP-35B	10/25/2017 10:50	0.0	0.2	20.7	0	0.03	
GP-35C	10/25/2017 10:52	0.0	0.1	21.0	0	0.01	
GP-36A	10/25/2017 10:54	0.0	0.9	20.1	0	0.51	
GP-36B	10/25/2017 10:56	0.0	2.1	18.9	0	0.01	
GP-36C	10/25/2017 10:57	0.0	0.4	19.9	0	0.11	
GP-37A	10/25/2017 11:02	0.0	1.8	18.8	0	0.03	
GP-37B	10/25/2017 11:03	0.0	0.4	19.3	0	0.19	
GP-37C	10/25/2017 11:05	0.0	0.6	3.3	0	1.17	
GP-39	10/25/2017 11:18	0.0	0.4	17.3	0	0.06	
GP-40	10/25/2017 11:21	0.0	0.1	20.9	0	0.03	
GP-41A	10/25/2017 11:24	0.0	3.0	20.8	0	-0.01	
GP-41B	10/25/2017 11:25	0.0	0.7	10.5	0	-0.04	
GP-41C	10/25/2017 11:27	0.0	0.1	20.6	0	0	
GP-42A	10/25/2017 11:31	0.0	0.1	21.0	0	-0.02	
GP-42B	10/25/2017 11:32	0.0	0.6	20.2	0	0.6	
GP-43A	10/25/2017 11:51	0.0	0.1	20.9	0	-0.21	
GP-43B	10/25/2017 11:52	0.0	0.1	21.0	0	-0.03	
GP-43C	10/25/2017 11:53	0.0	0.1	21.0	0	-0.01	
GP-44A	10/25/2017 11:57	0.0	0.5	19.8	0	0.01	
GP-44B	10/25/2017 11:58	0.0	1.7	10.5	0	0.85	
GP-44C	10/25/2017 12:00	0.0	0.1	20.7	0	0.03	
GP-45D	10/25/2017 13:31	0.0	0.1	20.8	0	0.65	
GP-45I	10/25/2017 13:30	0.0	0.1	20.7	0	0.02	
GP-45S	10/25/2017 13:29	0.0	0.1	19.8	0	-0.02	

CEDAR HILLS REGIONAL LANDFILL
Landfill Gas Compliance Probes
November 2017 Monitoring

Probe ID	Date/Time	CH4 %vol	CO2 %vol	O2 %vol	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
ATC-01D	11/15/2017 11:51	0.0	0.3	13.8	0	14.19	
ATC-01S	11/15/2017 11:50	0.0	0.1	20.0	0	0.32	
ATC-06D	11/15/2017 12:49	0.0	0.9	14.3	0	1.17	
ATC-06S	11/15/2017 12:48	0.0	0.9	20.4	0	-0.06	
ATC-08D	11/15/2017 12:58	0.0	1.9	18.6	0	-0.08	
ATC-08S	11/15/2017 12:57	0.0	0.4	12.8	0	1.05	
GP-11A	11/15/2017 9:45	0.0	1.1	19.9	0	0	
GP-11B	11/15/2017 9:47	0.0	0.3	17.2	0	0.46	
GP-11C	11/15/2017 9:48	0.0	0.2	17.0	0	0.62	
GP-11D	11/15/2017 9:49	0.0	0.2	16.5	0	0.1	
GP-12A	11/15/2017 12:03	0.0	1.5	19.3	0	0	
GP-12B	11/15/2017 12:04	0.0	0.1	20.7	0	0	
GP-12C	11/15/2017 12:06	0.0	0.1	19.1	0	0	
GP-12D	11/15/2017 12:07	0.0	0.2	20.6	0	2.6	
GP-13A	11/15/2017 11:56	0.0	1.3	19.0	0	0	
GP-13B	11/15/2017 11:57	0.0	0.5	18.4	0	0.28	
GP-13C	11/15/2017 11:58	0.0	0.1	20.3	0	0.08	
GP-13D	11/15/2017 12:00	0.0	0.1	19.8	0	1.79	
GP-14A	11/15/2017 12:13	0.0	0.1	20.3	0	0.41	
GP-14B	11/15/2017 12:14	0.0	0.1	20.1	0	0.39	
GP-15A	11/15/2017 12:35	0.0	3.1	18.3	0	0.27	
GP-15C	11/15/2017 12:36	0.0	2.2	9.1	0	0.1	
GP-15D	11/15/2017 12:37	0.0	0.1	21.1	0	-1.32	
GP-16A	11/15/2017 12:52	0.0	1.2	19.8	0	0.11	
GP-16B	11/15/2017 12:53	0.0	0.3	17.5	0	0.74	
GP-16C	11/15/2017 12:55	0.0	0.6	19.5	0	2.34	
GP-17A	11/15/2017 13:06	0.0	0.0	0.0	0	0	No Reading, Water
GP-17B	11/15/2017 13:08	0.0	0.9	15.1	0	0.02	
GP-17C	11/15/2017 13:09	0.0	0.1	20.5	0	2.56	
GP-18A	11/15/2017 13:12	0.0	2.3	18.0	0	-0.04	
GP-18B	11/15/2017 13:13	0.0	0.4	15.3	0	0	
GP-18C	11/15/2017 13:15	0.0	0.3	16.1	0	2.67	
GP-19A	11/15/2017 13:18	0.0	0.1	20.9	0	-0.04	
GP-19B	11/15/2017 13:19	0.0	0.7	16.4	0	-0.02	
GP-19C	11/15/2017 13:20	0.0	0.1	20.8	0	0.25	
GP-20A	11/15/2017 13:23	0.0	1.2	19.7	0	0	
GP-20B	11/15/2017 13:24	0.0	0.2	15.2	0	0.18	
GP-20C	11/15/2017 13:25	0.0	0.2	6.0	0	0.36	
GP-21A	11/15/2017 13:28	0.0	0.2	20.6	0	5.35	
GP-21B	11/15/2017 13:29	0.0	0.2	10.8	0	-0.04	
GP-21C	11/15/2017 13:30	0.0	0.0	0.0	0	0	No Reading, Water
GP-22A	11/15/2017 13:33	0.0	0.7	20.0	0	6.83	
GP-22C	11/15/2017 13:35	0.0	1.4	2.7	0	2.38	
GP-23A	11/15/2017 13:39	0.0	0.1	20.7	0	0	
GP-23B	11/15/2017 13:40	0.0	0.1	20.9	0	-0.04	
GP-23C	11/15/2017 13:42	0.0	0.1	21.0	0	-0.05	
GP-24A	11/15/2017 13:45	0.0	4.8	15.1	0	0	
GP-24B	11/15/2017 13:46	0.0	1.5	18.4	0	1.24	
GP-25	11/15/2017 13:48	0.0	2.8	15.4	0	0.08	
GP-26	11/15/2017 13:51	0.0	0.6	18.9	0	1.03	
GP-27	11/15/2017 13:54	0.0	6.5	11.8	0	0	
GP-29A	11/15/2017 13:58	0.0	3.6	16.7	0	0	
GP-29B	11/15/2017 13:59	0.0	0.6	20.2	0	0	
GP-30A	11/15/2017 14:44	0.0	1.7	18.2	0	0.25	
GP-30B	11/15/2017 14:45	0.0	1.1	18.6	0	0.62	
GP-31A	11/15/2017 14:48	0.0	5.9	13.7	0	0.43	
GP-31B	11/15/2017 14:49	0.0	0.3	15.5	0	0.78	
GP-31C	11/15/2017 14:51	0.0	1.5	17.2	0	0	
GP-32A	11/15/2017 14:53	0.0	0.7	19.0	0	0	
GP-32B	11/15/2017 14:55	0.0	0.3	19.8	0	0.09	
GP-33A	11/15/2017 14:59	0.0	2.3	17.4	0	0	
GP-33B	11/15/2017 15:00	0.0	0.7	19.2	0	0.11	
GP-33C	11/15/2017 15:01	0.0	0.2	19.5	0	0.29	
GP-34A	11/15/2017 15:05	0.0	9.7	9.8	0	0.02	
GP-34B	11/15/2017 15:06	0.0	0.2	18.9	0	0.37	

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Probe ID	Date/Time	CH4 %vol	CO2 %vol	O2 %vol	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
GP-34C	11/15/2017 15:07	0.0	0.2	5.5	0	2.21	
GP-35A	11/15/2017 15:10	0.0	5.9	13.7	0	-0.02	
GP-35B	11/15/2017 15:11	0.0	0.2	20.1	0	0	
GP-35C	11/15/2017 15:12	0.0	0.2	19.6	0	0.27	
GP-36A	11/15/2017 15:15	0.0	1.0	18.3	0	2.11	
GP-36B	11/15/2017 15:16	0.0	2.5	16.5	0	-0.02	
GP-36C	11/15/2017 15:18	0.0	0.3	12.3	0	1.55	
GP-37A	11/15/2017 15:20	0.0	1.9	17.1	0	-0.01	
GP-37B	11/15/2017 15:21	0.0	0.5	17.6	0	0.7	
GP-37C	11/15/2017 15:22	0.0	0.7	1.2	0	3.12	
GP-39	11/15/2017 9:01	0.0	0.3	18.4	0	0.47	
GP-40	11/15/2017 9:13	0.0	0.1	19.8	0	0.13	
GP-41A	11/15/2017 9:16	0.0	3.8	17.3	0	-0.01	
GP-41B	11/15/2017 9:18	0.0	0.9	7.0	0	0	
GP-41C	11/15/2017 9:19	0.0	0.1	20.6	0	-0.02	
GP-42A	11/15/2017 9:22	0.0	0.0	0.0	0	0	No Reading, Water
GP-42B	11/15/2017 9:23	0.0	0.6	17.9	0	0.95	
GP-43A	11/15/2017 9:26	0.0	0.3	19.4	0	0	
GP-43B	11/15/2017 9:28	0.0	0.1	20.8	0	0	
GP-43C	11/15/2017 9:29	0.0	0.1	18.5	0	0.05	
GP-44A	11/15/2017 9:33	0.0	0.1	20.8	0	0.03	
GP-44B	11/15/2017 9:34	0.0	0.8	10.6	0	0.69	
GP-44C	11/15/2017 9:36	0.0	0.1	20.7	0	0	
GP-45D	11/15/2017 9:43	0.0	0.1	20.2	0	0.52	
GP-45I	11/15/2017 9:42	0.0	0.1	20.1	0	0.03	
GP-45S	11/15/2017 9:41	0.0	0.2	19.0	0	0	

CEDAR HILLS REGIONAL LANDFILL
Landfill Gas Compliance Probes
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Probe ID	Date/Time	CH4 %vol	CO2 %vol	O2 %vol	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
ATC-01D	12/20/2017 12:10	0.0	0.3	18.5	0	0.05	
ATC-01S	12/20/2017 12:09	0.0	0.1	21.0	0	-0.11	
ATC-06D	12/20/2017 13:05	0.0	0.9	5.3	0	0.62	
ATC-06S	12/20/2017 13:04	0.0	0.0	0.0	0	2.44	No Reading, Water
ATC-08D	12/20/2017 12:56	0.0	0.2	21.0	0	-0.83	
ATC-08S	12/20/2017 12:55	0.0	0.4	13.5	0	1.52	
GP-11A	12/20/2017 11:45	0.0	0.8	19.3	0	-0.03	
GP-11B	12/20/2017 11:47	0.0	0.1	20.8	0	-1.64	
GP-11C	12/20/2017 11:48	0.0	0.1	20.9	0	-1.99	
GP-11D	12/20/2017 11:49	0.0	0.1	20.7	0	-0.09	
GP-12A	12/20/2017 12:15	0.0	0.1	21.0	0	-1.1	
GP-12B	12/20/2017 12:17	0.0	0.1	21.0	0	-0.11	
GP-12C	12/20/2017 12:18	0.0	0.1	19.1	0	0.03	
GP-12D	12/20/2017 12:19	0.0	0.5	15.6	0	-1.79	
GP-13A	12/20/2017 12:22	0.0	0.1	21.0	0	-0.12	
GP-13B	12/20/2017 12:23	0.0	0.2	21.0	0	-0.19	
GP-13C	12/20/2017 12:24	0.0	0.1	21.0	0	-0.15	
GP-13D	12/20/2017 12:25	0.0	0.1	21.0	0	-2.85	
GP-14A	12/20/2017 12:29	0.0	0.1	21.0	0	-0.75	
GP-14B	12/20/2017 12:30	0.0	0.1	21.0	0	-0.96	
GP-15A	12/20/2017 12:47	0.0	0.0	0.0	0	-4.68	No Reading, Water
GP-15C	12/20/2017 12:44	0.0	0.1	21.0	0	-1.14	
GP-15D	12/20/2017 12:45	0.0	0.1	21.0	0	-2.81	
GP-16A	12/20/2017 12:59	0.0	0.0	0.0	0	0.42	No Reading, Water
GP-16B	12/20/2017 13:00	0.0	0.1	21.0	0	-1.33	
GP-16C	12/20/2017 13:01	0.0	0.2	21.0	0	-2.77	
GP-17A	12/20/2017 9:10	0.0	0.0	0.0	0	-12.95	No Reading, Water
GP-17B	12/20/2017 9:11	0.0	0.8	15.7	0	-0.02	
GP-17C	12/20/2017 9:13	0.0	0.1	20.9	0	-1.21	
GP-18A	12/20/2017 9:18	0.0	0.8	20.8	0	-1.45	
GP-18B	12/20/2017 9:19	0.0	0.4	14.4	0	0	
GP-18C	12/20/2017 9:21	0.0	0.3	15.1	0	-1.08	
GP-19A	12/20/2017 9:37	0.0	0.1	21.0	0	0.13	
GP-19B	12/20/2017 9:38	0.0	0.8	16.4	0	-0.08	
GP-19C	12/20/2017 9:39	0.0	0.1	21.0	0	-0.07	
GP-20A	12/20/2017 9:42	0.0	0.1	21.0	0	0	
GP-20B	12/20/2017 9:43	0.0	0.3	17.8	0	-0.03	
GP-20C	12/20/2017 9:44	0.0	0.2	6.0	0	0.21	
GP-21A	12/20/2017 9:50	0.0	0.0	0.0	0	-0.32	No Reading, Water
GP-21B	12/20/2017 9:51	0.0	0.2	10.3	0	0.25	
GP-21C	12/20/2017 9:52	0.0	0.2	10.5	0	-0.43	
GP-22A	12/20/2017 9:56	0.0	1.0	19.7	0	0.99	
GP-22C	12/20/2017 9:57	0.0	1.4	3.1	0	0.56	
GP-23A	12/20/2017 10:02	0.0	0.1	20.9	0	-0.68	
GP-23B	12/20/2017 10:04	0.0	0.1	21.0	0	-0.59	
GP-23C	12/20/2017 10:05	0.0	0.1	21.0	0	-1.68	
GP-24A	12/20/2017 10:09	0.0	0.1	21.0	0	0	
GP-24B	12/20/2017 10:10	0.0	1.9	17.2	0	-0.02	
GP-25	12/20/2017 10:12	0.0	2.1	15.2	0	-0.01	
GP-26	12/20/2017 10:15	0.0	0.7	19.8	0	-0.13	
GP-27	12/20/2017 10:19	0.0	5.3	11.8	0	-0.07	
GP-29A	12/20/2017 10:23	0.0	1.2	19.8	0	-0.07	
GP-29B	12/20/2017 10:24	0.0	0.4	21.0	0	-0.02	
GP-30A	12/20/2017 7:11	0.0	1.8	19.4	0	-0.63	
GP-30B	12/20/2017 7:12	0.0	0.2	21.0	0	-2.86	
GP-31A	12/20/2017 7:15	0.0	5.0	16.6	0	0.34	
GP-31B	12/20/2017 7:17	0.0	0.4	15.3	0	-2.55	
GP-31C	12/20/2017 7:18	0.0	2.4	15.6	0	0.48	
GP-32A	12/20/2017 7:23	0.0	0.1	20.9	0	-0.08	
GP-32B	12/20/2017 7:24	0.0	0.8	20.1	0	0.01	
GP-32C	12/20/2017 7:25	0.0	0.7	20.1	0	0.02	
GP-33A	12/20/2017 7:28	0.0	0.4	20.7	0	0.04	
GP-33B	12/20/2017 7:29	0.0	0.1	21.0	0	0.08	
GP-33C	12/20/2017 7:30	0.0	0.1	21.0	0	-3.69	
GP-34A	12/20/2017 7:33	0.0	0.0	0.0	0	10.75	No Reading, Water

CEDAR HILLS REGIONAL LANDFILL
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Probe ID	Date/Time	CH4 %vol	CO2 %vol	O2 %vol	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
GP-34B	12/20/2017 7:35	0.0	0.1	21.0	0	-0.58	
GP-34C	12/20/2017 7:36	0.0	0.2	12.1	0	-0.42	
GP-35A	12/20/2017 7:39	0.0	0.1	21.0	0	0.03	
GP-35B	12/20/2017 7:40	0.0	0.1	21.0	0	0.02	
GP-35C	12/20/2017 7:41	0.0	0.1	20.8	0	0	
GP-36A	12/20/2017 7:51	0.0	0.5	4.8	0	4.45	
GP-36B	12/20/2017 7:52	0.0	0.1	21.0	0	-0.02	
GP-36C	12/20/2017 7:53	0.0	0.3	13.3	0	0.52	
GP-37A	12/20/2017 7:55	0.0	0.2	13.8	0	0.15	
GP-37B	12/20/2017 7:57	0.0	0.2	20.5	0	-0.01	
GP-37C	12/20/2017 7:58	0.0	0.8	3.5	0	-0.06	
GP-39	12/20/2017 8:17	0.0	1.1	19.0	0	-0.01	
GP-40	12/20/2017 8:20	0.0	0.1	20.4	0	0.01	
GP-41A	12/20/2017 8:23	0.0	0.1	20.9	0	0.01	
GP-41B	12/20/2017 8:25	0.0	0.1	20.9	0	0.11	
GP-41C	12/20/2017 8:26	0.0	0.1	21.0	0	-0.02	
GP-42A	12/20/2017 8:31	0.0	0.0	0.0	0	0.02	No Reading, Water
GP-42B	12/20/2017 8:32	0.0	0.7	17.2	0	-1.73	
GP-43A	12/20/2017 8:36	0.0	0.4	18.2	0	0.01	
GP-43B	12/20/2017 8:37	0.0	0.1	21.0	0	-0.02	
GP-43C	12/20/2017 8:39	0.0	0.2	17.1	0	0.02	
GP-44A	12/20/2017 8:42	0.0	0.1	21.0	0	0.06	
GP-44B	12/20/2017 8:43	0.0	0.9	11.4	0	13.84	
GP-44C	12/20/2017 8:44	0.0	0.1	21.0	0	0	
GP-45D	12/20/2017 11:53	0.0	0.1	21.0	0	-2.01	
GP-45I	12/20/2017 11:51	0.0	0.1	21.0	0	-0.24	
GP-45S	12/20/2017 11:50	0.0	0.1	21.0	0	-0.07	

Interior Probes

CEDAR HILLS REGIONAL LANDFILL

Interior Landfill Gas Probes

October 2017 Monitoring

Probe ID	Date/Time	CH4 %vol	CO2 %vol	O2 %vol	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
ATC-03D	10/25/2017 14:23	0.0	0.0	0.0	0	0	NR H2O
ATC-03S	10/25/2017 14:22	0.0	0.9	20.6	0	-0.05	
GP-B4-1	10/20/2017 23:44	0.0	0.1	21.0	0	-2.97	
GP-B4-2	10/20/2017 23:46	0.0	2.7	18.8	0	-1.31	
GP-1A	10/20/2017 22:50	0.0	0.1	21.0	0	0.08	
GP-1A	10/25/2017 13:37	0.0	1.0	20.2	0	0	
GP-1B	10/20/2017 22:52	0.0	0.1	21.0	0	0.07	
GP-1B	10/25/2017 13:39	0.0	0.3	17.5	0	0.01	
GP-2A	10/20/2017 23:23	0.0	4.5	15.4	0	0.02	
GP-2B	10/20/2017 23:25	0.0	0.2	21.0	0	0.01	
GP-3	10/20/2017 23:51	0.0	5.4	13.7	0	0.01	NR H2O
GP-4A	10/20/2017 23:35	0.0	0.1	21.0	0	-0.07	
GP-4B	10/20/2017 23:37	0.0	0.1	21.0	0	0.01	
GP-5A	10/25/2017 14:04	0.0	0.1	21.0	0	-1.01	
GP-5BA	10/25/2017 14:06	0.0	0.0	0.0	0	0	
GP-5BB	10/25/2017 14:07	0.0	0.2	21.0	0	-1.06	
GP-5BC	10/25/2017 14:09	0.0	0.1	21.0	0	-1.05	
GP-5BD	10/25/2017 14:10	0.0	0.1	21.0	0	-0.09	
GP-6A	10/20/2017 23:00	0.0	0.1	21.2	0	-2.49	
GP-6B	10/20/2017 23:03	0.0	1.2	19.5	0	-1.12	
GP-6C	10/20/2017 23:05	0.0	0.1	21.0	0	-1.06	
GP-6D	10/20/2017 23:06	0.0	0.1	21.0	0	-1.76	
GP-6E	10/20/2017 23:08	0.0	2.6	10.0	0	-1.12	
GP-6F	10/20/2017 23:10	0.0	0.1	21.0	0	-1.08	
GP-6G	10/20/2017 23:12	0.0	0.1	21.0	0	-1.11	
GP-6H	10/20/2017 23:14	0.0	0.1	21.0	0	-1.75	
GP-7	10/20/2017 22:44	0.0	0.1	21.0	0	-2.14	
GP-8	10/20/2017 21:31	0.0	14.7	3.3	0	-2.05	
GP-9	10/20/2017 21:43	0.0	1.7	17.0	0	-2.12	
GP-46D	10/20/2017 21:23	0.0	0.1	20.6	0	-1.99	
GP-46I	10/20/2017 21:20	0.0	1.0	15.8	0	-1.7	
GP-46S	10/20/2017 21:18	0.0	0.1	20.6	0	-0.21	
GP-47D	10/25/2017 7:40	0.1	0.8	19.4	2	-0.05	
GP-47I	10/25/2017 7:38	0.3	7.4	11.4	6	0.81	
GP-47S	10/25/2017 7:36	59.8	21.0	0.9	1196	1.5	
GP-48D	10/20/2017 21:00	0.0	0.1	20.5	0	-1.3	
GP-48I	10/20/2017 20:59	0.1	0.3	20.1	2	-0.03	
GP-48S	10/20/2017 20:56	0.1	0.1	20.2	2	-0.24	
GP-52	10/25/2017 7:26	0.0	0.5	20.4	0	-0.14	
GP-53	10/25/2017 7:28	0.3	0.5	19.7	6	0.89	
GP-54	10/25/2017 7:29	0.0	1.2	20.0	0	0.54	
GP-55	10/20/2017 22:35	0.0	0.3	20.9	0	-2.29	
GP-56	10/20/2017 22:37	0.0	2.2	19.5	0	-0.05	
GP-57	10/20/2017 22:25	43.4	25.4	2.1	868	-15.52	
GP-58	10/20/2017 22:28	0.1	12.8	8.1	2	-0.05	
GP-59	10/20/2017 22:12	0.0	0.1	20.8	0	-1.76	
GP-60	10/20/2017 22:15	0.0	0.4	20.6	0	0.04	
GP-61	10/20/2017 22:03	0.0	0.2	20.5	0	-0.02	
GP-62	10/20/2017 22:06	0.0	1.7	19.2	0	0.03	

CEDAR HILLS REGIONAL LANDFILL

Interior Landfill Gas Probes

November 2017 Monitoring

Probe ID	Date/Time	CH4 %vol	CO2 %vol	O2 %vol	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
ATC-03D	11/15/2017 12:31	0.0	0.0	0.0	0	0	No Reading, Water
ATC-03S	11/15/2017 12:31	0.0	1.2	17.9	0	2.2	
GP-B4-1	11/15/2017 22:02	0.0	0.3	21.5	0	2.53	
GP-B4-2	11/15/2017 22:03	0.0	2.2	19.6	0	3.22	
GP-1A	11/15/2017 21:28	0.0	0.1	21.7	0	0.03	
GP-1B	11/15/2017 21:30	0.0	0.1	21.7	0	0.03	
GP-2A	11/15/2017 21:51	0.0	7.0	2.6	0	0.06	
GP-2B	11/15/2017 21:53	0.0	0.1	21.6	0	0.02	
GP-3	11/15/2017 22:07	0.0	3.3	13.7	0	-0.1	
GP-4A	11/15/2017 21:57	0.0	0.1	21.8	0	0.03	
GP-4B	11/15/2017 21:58	0.0	0.1	21.8	0	0.12	
GP-5A	11/15/2017 12:19	0.0	0.5	14.9	0	2.23	
GP-5BA	11/15/2017 12:21	0.0	0.5	19.9	0	0.29	
GP-5BB	11/15/2017 12:22	0.0	1.6	17.8	0	2.07	
GP-5BC	11/15/2017 12:23	0.0	1.0	13.3	0	2.14	
GP-5BD	11/15/2017 12:25	0.0	1.1	13.4	0	1.97	
GP-6A	11/15/2017 21:37	0.0	0.2	21.3	0	-0.52	
GP-6B	11/15/2017 21:39	0.0	4.4	5.3	0	3.74	
GP-6C	11/15/2017 21:40	0.0	0.9	16.0	0	3.72	
GP-6D	11/15/2017 21:42	0.0	5.2	0.2	0	3.22	
GP-6E	11/15/2017 21:43	0.0	2.6	9.5	0	3.73	
GP-6F	11/15/2017 21:45	0.0	2.6	7.9	0	3.73	
GP-6G	11/15/2017 21:46	0.0	1.8	11.5	0	3.58	
GP-6H	11/15/2017 21:48	0.0	5.2	0.1	0	3.27	
GP-7	11/15/2017 21:25	0.0	3.5	13.5	0	3.17	
GP-8	11/15/2017 21:21	0.0	6.6	11.3	0	3	
GP-9	11/15/2017 20:55	0.0	0.5	20.3	0	3.14	
GP-46D	11/15/2017 22:15	0.0	1.9	18.5	0	2.61	
GP-46I	11/15/2017 22:13	0.0	0.1	21.8	0	2.58	
GP-46S	11/15/2017 22:12	0.0	0.2	16.7	0	0.21	
GP-47D	11/15/2017 8:50	0.0	1.9	13.1	0	0.14	
GP-47I	11/15/2017 8:48	4.3	15.0	0.1	86	2.24	
GP-47S	11/15/2017 8:46	46.7	22.0	0.2	934	2.2	
GP-48D	11/15/2017 22:24	10.9	10.8	0.1	218	3.07	
GP-48I	11/15/2017 22:22	0.0	0.3	21.4	0	0.15	
GP-48S	11/15/2017 22:20	0.0	1.9	13.7	0	0.12	
GP-52	11/15/2017 8:34	0.0	0.1	20.4	0	0.31	
GP-53	11/15/2017 8:36	0.3	0.7	18.1	6	0.83	
GP-54	11/15/2017 8:39	0.0	7.5	12.7	0	0.69	
GP-55	11/15/2017 21:14	10.3	7.9	9.7	206	2.98	
GP-56	11/15/2017 21:17	0.0	3.2	13.5	0	18.04	
GP-57	11/15/2017 21:08	45.6	27.4	1.6	912	-13.11	
GP-58	11/15/2017 21:10	0.1	16.6	1.3	2	0.06	
GP-59	11/15/2017 21:00	23.0	8.0	8.9	460	2.14	
GP-60	11/15/2017 21:04	0.0	0.5	21.0	0	0.09	
GP-61	11/15/2017 20:46	0.0	1.1	19.5	0	0.87	
GP-62	11/15/2017 20:49	0.0	2.0	19.3	0	0.07	

CEDAR HILLS REGIONAL LANDFILL

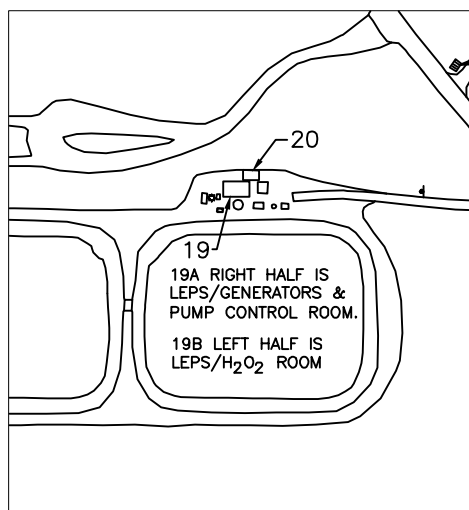
Interior Landfill Gas Probes

December 2017 Monitoring

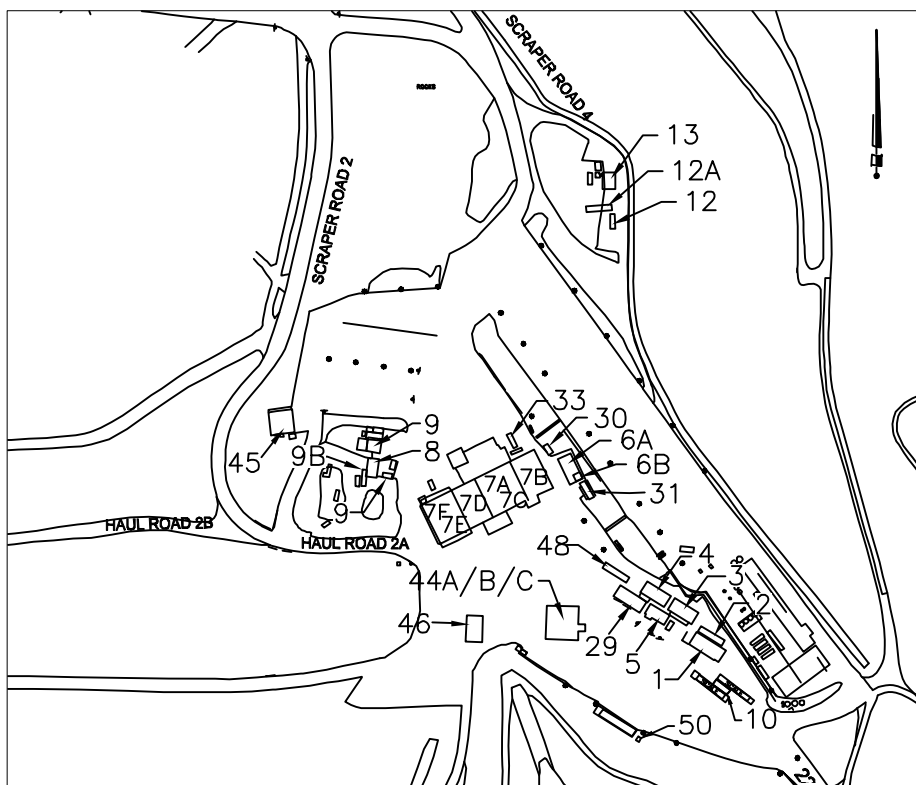
Probe ID	Date/Time	CH4 %vol	CO2 %vol	O2 %vol	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
ATC-03D	12/20/2017 12:41	0.0	0.0	0.0	0	-1.96	No Reading, Water
ATC-03S	12/20/2017 12:41	0.0	1.4	17.0	0	-1.25	
GP-B4-1	12/20/2017 23:14	0.0	1.0	20.8	0	-6.54	
GP-B4-2	12/20/2017 23:16	0.0	0.2	21.0	0	-4.34	
GP-1A	12/20/2017 22:28	0.0	0.1	21.0	0	0.01	
GP-1B	12/20/2017 22:31	0.0	0.1	21.0	0	0.07	
GP-2A	12/21/2017 0:46	0.0	2.9	13.2	0	-0.01	
GP-2B	12/21/2017 0:48	0.0	0.1	20.9	0	0.01	
GP-3	12/20/2017 23:32	0.0	0.3	21.0	0	-0.07	
GP-4A	12/20/2017 23:07	0.0	0.1	21.0	0	0.25	No Reading, Frozen
GP-4B	12/20/2017 23:09	0.0	0.1	21.0	0	0.17	
GP-5A	12/20/2017 13:09	0.0	0.1	20.9	0	-1.56	
GP-5BA	12/20/2017 13:14	0.0	0.0	0.0	0	-11.51	No Reading, Water
GP-5BB	12/20/2017 13:11	0.0	0.1	21.0	0	-1.59	
GP-5BC	12/20/2017 13:12	0.0	0.1	21.0	0	-1.61	
GP-5BD	12/20/2017 13:13	0.0	0.1	21.0	0	-2.65	
GP-6A	12/20/2017 22:39	0.0	0.1	21.0	0	-9.99	
GP-6B	12/20/2017 22:41	0.0	0.1	21.0	0	-4.52	
GP-6C	12/20/2017 22:43	0.0	0.1	21.0	0	-4.41	
GP-6D	12/20/2017 22:45	0.0	0.1	21.0	0	-5.75	
GP-6E	12/20/2017 22:48	0.0	0.1	21.0	0	-4.49	
GP-6F	12/20/2017 22:50	0.0	0.1	21.0	0	-4.42	
GP-6G	12/20/2017 22:52	0.0	0.1	21.0	0	-4.42	
GP-6H	12/20/2017 22:55	0.0	0.1	21.0	0	-5.84	
GP-7	12/20/2017 22:23	0.0	0.1	21.0	0	-2.7	
GP-8	12/20/2017 22:17	0.0	0.1	21.0	0	-5.47	
GP-9	12/20/2017 21:45	0.0	0.1	20.2	0	-5.59	
GP-46D	12/20/2017 23:43	0.0	0.1	21.0	0	-4.44	
GP-46I	12/20/2017 23:41	0.0	0.1	21.0	0	-5.22	
GP-46S	12/20/2017 23:39	0.0	0.1	21.0	0	-0.57	
GP-47D	12/20/2017 13:29	0.0	1.3	11.2	0	-0.23	
GP-47I	12/20/2017 13:28	17.8	17.0	0.7	356	-3.05	
GP-47S	12/20/2017 13:27	0.0	0.1	21.0	0	-3.21	
GP-48D	12/20/2017 23:59	0.0	0.4	19.8	0	-0.26	
GP-48I	12/20/2017 23:56	0.1	0.3	20.9	2	-3.25	
GP-48S	12/20/2017 23:54	0.0	0.1	21.0	0	-4.82	
GP-52	12/20/2017 13:19	0.0	0.1	21.0	0	0.08	
GP-53	12/20/2017 13:20	0.0	0.5	20.0	0	-1.74	
GP-54	12/20/2017 13:22	0.0	0.1	21.0	0	-1.62	
GP-55	12/20/2017 22:08	0.0	0.2	21.0	0	-5.68	
GP-56	12/20/2017 22:11	0.0	1.1	20.7	0	0.01	
GP-57	12/20/2017 21:57	42.7	24.0	2.7	854	-21.94	
GP-58	12/20/2017 22:00	1.4	17.1	0.0	28	33.37	
GP-59	12/20/2017 11:37	0.0	0.1	20.0	0	-2.71	
GP-60	12/20/2017 11:38	0.0	0.2	20.1	0	-0.03	
GP-61	12/20/2017 11:32	0.0	0.1	19.3	0	-0.33	
GP-62	12/20/2017 11:33	0.0	1.5	17.7	0	-0.05	

On-site Building Monitoring

Aeration Ponds



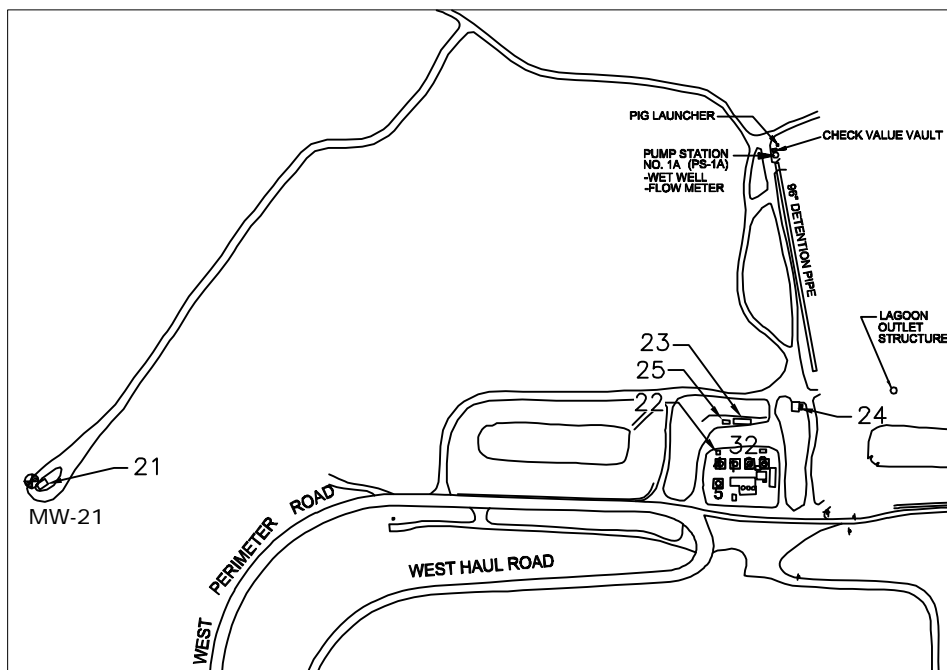
Shop and Office Buildings



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 ₂ O 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

DESIGNED BY:

DRAWN BY:

REVISED BY:

PROJECT NO.

FIGURE NO.

**FOURTH QUARTER
BUILDING MONITORING**

 King County	INSTRUMENT: Place check by instrument used :				WEATHER: Clear Night	DATE: 10/17/17 TECH: BL
	Foxboro TVA 1000 (sn. 301)					
	Foxboro TVA 1000 (sn. 732)					
ENVIS ID	BLDG #	DESCRIPTION	CH ₄ (ppm)	BAR PRESS (in. Hg)	TIME	REMARKS
GOC- 10/17/17	1	FRONT OFFICE	0	30.06	10:58pm	
GCR- 10/17/17	2	CONF ROOM	0	30.06	10:59pm	
GAO- 10/17/17	3	PAYROLL OFFICE	0	30.06	11:04pm	
GEO- 10/17/17	4	ENGR. OFFICE	0	30.06	11:00pm	
GLRC- 10/17/17	5	LUNCHROOM	0	30.06	11:03pm	
GSPC 10/17/17		SPOC	0	30.06	11:12pm	
GELO- 10/17/17 A	6A	DRY STORAGE	0	30.06	11:08pm	
GELO- 10/17/17 B	6B	ELECTRICIAN OFFICE	0	30.06	11:09pm	
GAP- 10/17/17		ACCOUNT PAYABLE	0	30.06	11:01pm	
GSO- 10/17/17 A	7A	SHOP OFFICE	0	30.06	11:12pm	
GPR- 10/17/17 B	7B	PARTS ROOM	0	30.06	11:13pm	
GMS- 10/17/17 C	7C	SHOP PIT AREA/BAY	0	30.06	11:14pm	
GTB- 10/17/17 D	7D	SHOP TIRE BAY	0	30.06	11:14pm	
GEW- 10/17/17 E	7E	EAST WELD SHOP	0	30.06	11:15pm	
GWW- 10/17/17 F	7F	WEST WELD SHOP	0	30.06	11:15pm	
GCS- 10/17/17	8	CARPENTER'S	0	30.06	11:16pm	
GSS- 10/17/17	9	WASTEWATER	0	30.06	11:15pm	
GSS- 10/17/17 B	9B	CARPENTER/STORAGE	0	30.06	11:16pm	
GSH- 10/17/17	10	SCALEHOUSE	0	30.06	10:57pm	
GB13- 10/17/17	13	WW COMPRESSOR	0	30.06	11:23pm	
GB16- 10/17/17	16	GENERATOR	0	30.06	10:51pm	
GB19- 10/17/17	19	LEPS (P.S.# 5)	0	30.06	10:47pm	
GB19- 10/17/17 B	19B	LEPS/H2O2 ROOM	0	30.06	10:46pm	
GB20- 10/17/17	20	LEPS ELEC PANALS	0	30.06	10:45pm	
GB21- 10/17/17	21	STORAGE(OLD PS 1)	0	30.06	10:38pm	
GB22- 10/17/17	22	STORAGE/N FLARE	0	30.06	10:26pm	
GB23- 10/17/17	23	LFGAS	0	30.06	10:25pm	
GB24- 10/17/17	24	NE GENERATOR BLDG	0	30.06	10:28pm	
GBWW- 10/17/17	30	WOMEN BRK RM	0	30.06	11:11pm	
GPWT- 10/17/17	PW	PRESSURE WASH RM	0	30.06	10:53pm	
GBRR- 10/17/17	RR	TRUCKWASH RR W	0	30.06	10:53pm	
GBSS- 10/17/17	SS	TRUCKWASH RR E	0	30.06	10:53pm	
GBZZ- 10/17/17	29	MANAGERS TRAILER	0	30.06	11:05pm	
GBPT- 10/17/17		CCG FASTER	0	30.06	11:13pm	
GCLS- 10/17/17		CHLORINE SHED	0	30.06	10:55pm	

CEDAR HILLS REGIONAL LANDFILL
West Perimeter Landfill Gas Migration Control Probes
Fourth Quarter 2017 Monitoring

Probe ID	Date	Time	Barometric				Static Pressure in INWC
			Pressure in Hg	CH4 %vol	CO2 %vol	O2 %vol	
MGPW 1700	10/10/2017	11:09am	29.89	0.0	0.0	20.7	0
MGPW 1700	10/24/2017	1:44PM	30.39	0.0	0.0	20.5	0
MGPW 1700	11/14/2017	12:44pm	29.99	0.0	0.2	20.6	0
MGPW 1700	11/21/2017	10:45am	29.93	0.0	0.2	20.4	-0.05
MGPW 1700	12/7/2017	11:47am	30.38	0.0	0.2	20.5	0
MGPW 1708	10/10/2017	11:31am	29.89	0.0	0.0	20.9	-0.61
MGPW 1708	10/24/2017	1:41pm	30.39	0.0	0.0	20.6	0
MGPW 1708	11/14/2017	12:34pm	29.99	0.0	0.2	20.4	-1.64
MGPW 1708	11/21/2017	10:35am	29.93	0.0	0.4	20.3	-1.47
MGPW 1708	12/7/2017	11:50am	30.38	0.0	0.1	20.6	-1.29
MGPW 1710S	10/10/2017	10:58am	29.89	0.0	0.0	20.6	-0.31
MGPW 1710S	10/24/2017	1:33pm	30.39	0.0	0.0	20.0	0.00
MGPW 1710S	11/14/2017	12:30pm	29.99	0.0	0.2	20.3	-1.41
MGPW 1710S	11/21/2017	10:29am	29.93	0.0	0.2	20.2	-1.53
MGPW 1710S	12/7/2017	11:53am	30.38	0.0	0.1	20.7	-1.11
MGPW 1710D	10/10/2017	11:00am	29.89	0.0	0.0	20.9	-0.46
MGPW 1710D	10/24/2017	1:35pm	30.39	0.0	0.0	20.4	0
MGPW 1710D	11/14/2017	12:28pm	29.99	0.0	0.1	20.5	-1.5
MGPW 1710D	11/21/2017	10:29am	29.93	0.0	0.2	20.5	-1.39
MGPW 1710D	12/7/2017	11:55am	30.38	0.0	0.1	20.8	-1.24
MGPW 1714	10/10/2017	11:28am	29.89	0.0	0.0	20.9	-0.48
MGPW 1714	10/24/2017	1:30pm	30.39	0.0	0.0	19.8	0.05
MGPW 1714	11/14/2017	10:21am	29.99	0.0	0.1	20.5	-1.92
MGPW 1714	11/21/2017	10:24am	29.93	0.0	0.2	20.1	-1.21
MGPW 1714	12/7/2017	11:58am	30.38	0.0	0.1	20.9	-1.03

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

**PARTIAL METEOROLOGICAL DATA
AVAILABLE for the
4th QUARTER OF 2017**

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
Data Missing 10-1-18 to 10/26/18 11:00:00 AM						
10/26/2017 11:15	7.808	24.27	10.16	10.83	0	0
10/26/2017 11:30	8.39	26.77	8.12	10.85	0	0
10/26/2017 11:45	8.26	26.17	11.66	10.76	0	0
10/26/2017 12:00	9.7	28.37	9.39	10.62	29.43	0
10/26/2017 12:15	8.76	29.67	12.17	10.99	29.43	0
10/26/2017 12:30	7.588	27.09	15.67	11.12	29.43	0
10/26/2017 12:45	7.582	24.18	12.2	11.22	29.43	0
10/26/2017 13:00	7.725	27.99	11.12	10.71	29.41	0
10/26/2017 13:15	6.296	24.13	9.87	11.07	29.41	0
10/26/2017 13:30	6.466	21.35	12.57	11.5	29.41	0
10/26/2017 13:45	8.56	19.68	12.36	10.96	29.41	0
10/26/2017 14:00	7.709	27.99	11.86	10.81	29.4	0
10/26/2017 14:15	9.12	30.61	11	10.76	29.4	0
10/26/2017 14:30	10.26	27.25	13.15	10.37	29.4	0
10/26/2017 14:45	13.59	26.45	10.7	10.14	29.4	0
10/26/2017 15:00	10.79	26.33	12	10.4	29.39	0
10/26/2017 15:15	12	37.75	10.58	10.33	29.39	0
10/26/2017 15:30	8.54	29.97	9.36	10.63	29.39	0
10/26/2017 15:45	12.72	28.72	10.3	10.28	29.39	0
10/26/2017 16:00	13.1	32.11	9.67	10.2	29.38	0
10/26/2017 16:15	12.74	33.04	7.831	10.16	29.38	0
10/26/2017 16:30	10.71	27.77	9.51	10	29.38	0
10/26/2017 16:45	4.569	10.07	14.01	10.16	29.38	0
10/26/2017 17:00	11.79	17.22	12.51	10.77	29.38	0
10/26/2017 17:15	13.82	13.5	12.77	10.95	29.38	0
10/26/2017 17:30	10.13	18.9	11.73	11	29.38	0
10/26/2017 17:45	9.21	18.11	14.99	10.91	29.38	0
10/26/2017 18:00	9.96	22.08	12.97	11.01	29.38	0
10/26/2017 18:15	11.6	16.61	10.58	10.98	29.38	0
10/26/2017 18:30	15.72	13.09	10.82	11.02	29.38	0
10/26/2017 18:45	11.19	21.82	10	10.78	29.38	0
10/26/2017 19:00	9.83	22.84	8.93	10.31	29.38	0
10/26/2017 19:15	10.08	29.01	8.6	10.12	29.38	0
10/26/2017 19:30	11.27	32.66	8.82	9.87	29.38	0
10/26/2017 19:45	9.9	29.45	8.79	9.65	29.38	0
10/26/2017 20:00	10.3	23.9	8.91	9.72	29.37	0
10/26/2017 20:15	11.75	15.92	12.13	9.84	29.37	0
10/26/2017 20:30	13.61	11.67	12.11	9.99	29.37	0
10/26/2017 20:45	13.02	17.14	11.65	9.95	29.37	0
10/26/2017 21:00	12.29	20.75	10.68	9.93	29.39	0
10/26/2017 21:15	10.44	23.75	7.894	9.76	29.39	0
10/26/2017 21:30	9.75	26.56	8.32	9.45	29.39	0
10/26/2017 21:45	7.687	34.25	9.22	9.15	29.39	0
10/26/2017 22:00	7.531	17.13	8.64	8.78	29.37	0
10/26/2017 22:15	8.78	14.22	8.57	8.9	29.37	0
10/26/2017 22:30	6.145	23.86	11	9.05	29.37	0
10/26/2017 22:45	8.69	20.29	7.222	8.83	29.37	0
10/26/2017 23:00	9.27	22.37	9.87	8.88	29.37	0
10/26/2017 23:15	7.769	25.56	8.65	8.8	29.37	0
10/26/2017 23:30	10.85	22.14	7.727	8.66	29.37	0
10/26/2017 23:45	11.11	21.06	9.21	8.63	29.37	0
10/27/2017 0:00	9.11	20.14	7.744	8.53	29.37	0
10/27/2017 0:15	9.76	29.86	8.33	8.42	29.37	0
10/27/2017 0:30	10.84	25.86	8.63	8.34	29.37	0
10/27/2017 0:45	11.87	23.3	8.45	8.41	29.37	0

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
10/27/2017 1:00	12.39	26.79	9.28	8.44	29.37	0
10/27/2017 1:15	11.48	12.76	12.18	8.41	29.37	0
10/27/2017 1:30	12.42	16.63	13.85	8.47	29.37	0
10/27/2017 1:45	14.98	25.12	8.8	8.6	29.37	0.01
10/27/2017 2:00	14.82	22.95	8.64	8.63	29.36	0
10/27/2017 2:15	13.31	26.9	9.19	8.47	29.36	0
10/27/2017 2:30	13.66	26.68	9.38	8.22	29.36	0
10/27/2017 2:45	11.91	29.53	9.79	8.07	29.36	0
10/27/2017 3:00	8.86	27.53	8.49	7.944	29.34	0
10/27/2017 3:15	7.441	29.66	7.46	7.834	29.34	0
10/27/2017 3:30	6.653	35.7	7.514	7.727	29.34	0
10/27/2017 3:45	6.623	28.43	8.26	7.581	29.34	0
10/27/2017 4:00	5.697	28.49	7.435	7.444	29.34	0
10/27/2017 4:15	4.353	25.04	9.05	7.353	29.34	0
10/27/2017 4:30	3.28	31.49	6.831	7.323	29.34	0
10/27/2017 4:45	3.739	39.55	7.723	7.235	29.34	0
10/27/2017 5:00	4.197	35.32	8.53	7.127	29.33	0
10/27/2017 5:15	5.779	26.81	9.17	7.015	29.33	0
10/27/2017 5:30	4.862	21.06	7.477	6.786	29.33	0
10/27/2017 5:45	8.31	27.29	7.992	6.721	29.33	0
10/27/2017 6:00	9.71	26.24	8.43	6.853	29.33	0
10/27/2017 6:15	8.54	42.44	12.13	6.776	29.33	0
10/27/2017 6:30	7.297	28.14	12.28	6.644	29.33	0
10/27/2017 6:45	6.004	33.39	10.25	6.584	29.33	0
10/27/2017 7:00	7.105	36.73	9.67	6.651	29.33	0
10/27/2017 7:15	8.09	28.66	8.8	6.608	29.33	0
10/27/2017 7:30	4.063	37.2	10.5	6.532	29.33	0
10/27/2017 7:45	4.308	20.35	6.93	6.493	29.33	0
10/27/2017 8:00	3.14	27.28	6.154	6.386	29.35	0
10/27/2017 8:15	3.779	23.7	6.6	6.65	29.35	0
10/27/2017 8:30	3.502	40.26	10.01	6.805	29.35	0
10/27/2017 8:45	4.64	27.92	11.5	7.07	29.35	0
10/27/2017 9:00	0.687	37.66	10.42	7.434	29.35	0
10/27/2017 9:15	2.522	207.8	27.33	7.383	29.35	0
10/27/2017 9:30	1.064	170.1	53.57	7.48	29.35	0
10/27/2017 9:45	2.925	126.9	25.72	7.739	29.35	0
10/27/2017 10:00	2.377	121.5	32.68	8.06	29.35	0
10/27/2017 10:15	1.932	119.2	44.74	8.71	29.35	0
10/27/2017 10:30	2.369	57.24	18.02	9.34	29.35	0
10/27/2017 10:45	1.429	13.54	76.03	10.28	29.35	0
10/27/2017 11:00	3.232	248	20.6	10.79	29.35	0
10/27/2017 11:15	2.213	321.3	29.82	11.72	29.35	0
10/27/2017 11:30	1.511	3.706	31.1	12.3	29.35	0
10/27/2017 11:45	1.767	147.5	29.12	13.5	29.35	0
10/27/2017 12:00	2.054	178.5	29.17	13.71	29.34	0
10/27/2017 12:15	2.415	214.7	17.23	14.15	29.34	0
10/27/2017 12:30	3.172	224.7	21.55	14.56	29.34	0
10/27/2017 12:45	1.592	273	32.86	15.05	29.34	0
10/27/2017 13:00	1.265	328.7	46.47	15.57	29.33	0
10/27/2017 13:15	2.035	353.8	45.21	15.97	29.33	0
10/27/2017 13:30	1.819	348.3	38.42	16.45	29.33	0
10/27/2017 13:45	2.271	344.3	22.71	16.82	29.33	0
10/27/2017 14:00	2.469	43.17	12.35	16.81	29.3	0
10/27/2017 14:15	1.375	28.25	43.02	17.03	29.3	0
10/27/2017 14:30	1.785	349.3	18.92	17.63	29.3	0
10/27/2017 14:45	2.565	24.2	10.41	17.62	29.3	0

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
10/27/2017 15:00	1.587	3.866	42.43	17.7	29.3	0
10/27/2017 15:15	1.852	289	47.61	18.27	29.3	0
10/27/2017 15:30	2.975	70.5	16.89	17.4	29.3	0
10/27/2017 15:45	3.503	20.52	12.64	16.95	29.3	0
10/27/2017 16:00	0.881	335.2	15.8	17.4	29.3	0
10/27/2017 16:15	2.315	29.28	23.04	17.03	29.3	0
10/27/2017 16:30	6.14	28.45	11.15	16.31	29.3	0
10/27/2017 16:45	5.239	23.05	8.67	15.5	29.3	0
10/27/2017 17:00	5.91	22.43	8.41	15.1	29.27	0
10/27/2017 17:15	3.988	23.04	8.89	14.88	29.27	0
10/27/2017 17:30	4.017	21.62	7.692	14.79	29.27	0
10/27/2017 17:45	3.815	35.86	9.27	14.39	29.27	0
10/27/2017 18:00	4.807	22.06	8.74	13.95	29.28	0
10/27/2017 18:15	5.182	23.77	7.231	13.93	29.28	0
10/27/2017 18:30	5.572	11.19	9.36	14.1	29.28	0
10/27/2017 18:45	3.992	2.788	11.45	13.92	29.28	0
10/27/2017 19:00	3.817	358	11.32	13.88	29.25	0
10/27/2017 19:15	2.891	10.09	14.46	13.72	29.25	0
10/27/2017 19:30	2.864	22.73	7.007	13.28	29.25	0
10/27/2017 19:45	1.493	4.429	2.599	13.05	29.25	0
10/27/2017 20:00	1.609	277.6	31.42	13.06	29.24	0
10/27/2017 20:15	0.557	352.9	15.51	13.19	29.24	0
10/27/2017 20:30	0.938	101.7	53.47	12.69	29.24	0
10/27/2017 20:45	0.27	47.16	0.036	12.62	29.24	0
10/27/2017 21:00	0.181	63.4	3.872	12.31	29.25	0
10/27/2017 21:15	0.852	281.3	47.93	12.51	29.25	0
10/27/2017 21:30	1.404	204.7	61.18	11.59	29.25	0
10/27/2017 21:45	2.884	202.2	30.8	10.8	29.25	0
10/27/2017 22:00	3.276	191	11.51	10.98	29.26	0
10/27/2017 22:15	2.173	149.3	21.91	10.98	29.26	0
10/27/2017 22:30	2.694	160	12.8	10.67	29.26	0
10/27/2017 22:45	2.378	158	4.882	10.58	29.26	0
10/27/2017 23:00	1.476	105.7	50.61	10.33	29.25	0
10/27/2017 23:15	2.407	92.9	8.89	10.44	29.25	0
10/27/2017 23:30	3.359	71.9	12.81	10.67	29.25	0
10/27/2017 23:45	2.78	43.89	16.51	11.23	29.25	0
10/28/2017 0:00	2.604	39.84	8.74	11.85	29.25	0
10/28/2017 0:15	2.86	60.87	10.49	11.48	29.25	0
10/28/2017 0:30	3.104	57.76	7.656	11.62	29.25	0
10/28/2017 0:45	1.781	39.74	2.381	13.42	29.25	0
10/28/2017 1:00	3.178	62.91	10.23	12.58	29.22	0
10/28/2017 1:15	3.04	61.24	5.469	13.84	29.22	0
10/28/2017 1:30	0.881	58.05	0.051	14.84	29.22	0
10/28/2017 1:45	1.006	52.78	10.6	13.49	29.22	0
10/28/2017 2:00	1.18	107.1	21.87	12.07	29.23	0
10/28/2017 2:15	3.559	251.2	37.11	10.9	29.23	0
10/28/2017 2:30	5.867	246.4	9.63	11.29	29.23	0
10/28/2017 2:45	3.72	289.1	16.39	10.52	29.23	0
10/28/2017 3:00	3.21	282.2	15.61	10.27	29.23	0
10/28/2017 3:15	1.352	289.5	27.46	10.74	29.23	0
10/28/2017 3:30	0.101	308.2	0.042	11.29	29.23	0
10/28/2017 3:45	0.539	247.8	8.76	10.54	29.23	0
10/28/2017 4:00	0.397	205.8	28.37	10.47	29.23	0
10/28/2017 4:15	2.522	157.9	10.76	10.42	29.23	0
10/28/2017 4:30	2.881	171.4	10.48	9.97	29.23	0
10/28/2017 4:45	3.102	165.2	19	9.17	29.23	0

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
10/28/2017 5:00	2.072	134.5	14.68	9.41	29.2	0
10/28/2017 5:15	1.405	119.7	6.899	9.99	29.2	0
10/28/2017 5:30	1.582	110.6	1.099	10.46	29.2	0
10/28/2017 5:45	1.498	116.1	13.47	10.27	29.2	0
10/28/2017 6:00	3.209	159.4	12.67	10.27	29.21	0
10/28/2017 6:15	1.944	167.6	6.404	10.04	29.21	0
10/28/2017 6:30	0.812	195.3	16.88	10.05	29.21	0
10/28/2017 6:45	0.531	279.6	13.18	10.23	29.21	0
10/28/2017 7:00	1.609	303.2	8.91	9.72	29.22	0
10/28/2017 7:15	0.085	332.5	4.446	9.4	29.22	0
10/28/2017 7:30	0.646	185	35.26	10.64	29.22	0
10/28/2017 7:45	0.909	106.4	4.395	10.51	29.22	0
10/28/2017 8:00	0.757	102.1	3.083	11.4	29.2	0
10/28/2017 8:15	1.387	169.1	24.76	11.48	29.2	0
10/28/2017 8:30	0.845	81	11.25	11.92	29.2	0
10/28/2017 8:45	0.889	62.14	4.164	12.77	29.2	0
10/28/2017 9:00	2.798	39.45	13.21	12.22	29.19	0
10/28/2017 9:15	2.634	17.73	2.636	12.16	29.19	0
10/28/2017 9:30	0.399	14.51	15.59	14.17	29.19	0
10/28/2017 9:45	0.499	30.97	11.54	15.07	29.19	0
10/28/2017 10:00	0.964	4.947	69.67	15.5	29.19	0
10/28/2017 10:15	1.475	32.48	48.14	15.49	29.19	0
10/28/2017 10:30	1.627	21.13	78	16.22	29.19	0
10/28/2017 10:45	3.241	229	17.17	16.41	29.19	0
10/28/2017 11:00	1.923	291	25.71	16.96	29.2	0
10/28/2017 11:15	2.028	302.4	21.47	17.36	29.2	0
10/28/2017 11:30	1.445	306.6	26.24	17.7	29.2	0
10/28/2017 11:45	2.232	48.78	30.4	17.69	29.2	0
10/28/2017 12:00	2.293	176.8	51.06	18.44	29.16	0
10/28/2017 12:15	2.516	204.7	21.03	18.72	29.16	0
10/28/2017 12:30	2.907	222.3	14.03	18.82	29.16	0
10/28/2017 12:45	1.381	230.6	48.01	19.65	29.16	0
10/28/2017 13:00	2.398	215.5	21.73	20.12	29.16	0
10/28/2017 13:15	3.599	228.3	15.36	19.87	29.16	0
10/28/2017 13:30	3.815	235.3	25.9	20.13	29.16	0
10/28/2017 13:45	4.061	259.7	9.5	20.21	29.16	0
10/28/2017 14:00	5.652	270.2	13.23	20	29.14	0
10/28/2017 14:15	5.031	258	17.58	19.94	29.14	0
10/28/2017 14:30	5.194	272.2	14.76	20	29.14	0
10/28/2017 14:45	6.214	280.5	6.756	19.6	29.14	0
10/28/2017 15:00	4.847	267.3	8.27	19.6	29.14	0
10/28/2017 15:15	3.706	275.8	7.823	19.57	29.14	0
10/28/2017 15:30	4.136	283.7	6.829	19.26	29.14	0
10/28/2017 15:45	4.46	278.2	9.61	18.93	29.14	0
10/28/2017 16:00	3.491	294.1	7.193	18.89	29.12	0
10/28/2017 16:15	2.305	312.8	3.698	18.78	29.12	0
10/28/2017 16:30	1.644	359.1	12.75	17.81	29.12	0
10/28/2017 16:45	2.863	25.99	3.99	16.94	29.12	0
10/28/2017 17:00	2.704	0.922	9.38	16.65	29.12	0
10/28/2017 17:15	1.343	351.5	0.619	17.14	29.12	0
10/28/2017 17:30	0.698	353.5	5.35	16.43	29.12	0
10/28/2017 17:45	3.231	16.3	3.329	15.76	29.12	0
10/28/2017 18:00	3.529	13.15	3.157	15.48	29.11	0
10/28/2017 18:15	3.04	22.25	3.017	14.88	29.11	0
10/28/2017 18:30	2.682	20.17	1.361	14.75	29.11	0
10/28/2017 18:45	3.067	22.92	1.07	14.74	29.11	0

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
10/28/2017 19:00	1.695	24.94	0.192	15.04	29.13	0
10/28/2017 19:15	0.291	25.56	1.695	14.61	29.13	0
10/28/2017 19:30	0.568	70.29	34.65	14.84	29.13	0
10/28/2017 19:45	3.218	180.8	8.51	15.34	29.13	0
10/28/2017 20:00	3.142	157.4	3.786	14.92	29.14	0
10/28/2017 20:15	2.309	147.4	8.68	14.62	29.14	0
10/28/2017 20:30	2.495	164.9	0.156	14.79	29.14	0
10/28/2017 20:45	0.956	159.3	8.34	14.45	29.14	0
10/28/2017 21:00	2.783	136.2	4.416	14.25	29.13	0
10/28/2017 21:15	2.009	121.4	1.384	14.38	29.13	0
10/28/2017 21:30	1.102	120.2	0.391	14.55	29.13	0
10/28/2017 21:45	1.553	137.5	14.57	14.11	29.13	0
10/28/2017 22:00	3.112	163.8	6.818	14.17	29.14	0
10/28/2017 22:15	4.581	188.1	3.345	13.01	29.14	0
10/28/2017 22:30	4.696	183.8	5.389	12.44	29.14	0
10/28/2017 22:45	2.958	162	3.693	12.56	29.14	0
10/28/2017 23:00	0.317	136.2	23.84	11.61	29.15	0
10/28/2017 23:15	2.936	36.97	10.09	11.67	29.15	0
10/28/2017 23:30	1.555	27.23	41.08	10.62	29.15	0
10/28/2017 23:45	1.266	262.9	14.72	10.9	29.15	0
10/29/2017 0:00	2.579	299.1	12.68	11.39	29.15	0
10/29/2017 0:15	1.828	312.5	1.909	12.11	29.15	0
10/29/2017 0:30	0.37	304.2	28.97	11.51	29.15	0
10/29/2017 0:45	2.631	112.6	10.62	11.1	29.15	0
10/29/2017 1:00	3.28	166.1	24.34	11.42	29.15	0
10/29/2017 1:15	4.812	181.4	6.305	11.03	29.15	0
10/29/2017 1:30	4.16	164	8.95	10.66	29.15	0
10/29/2017 1:45	3.544	151.4	6.967	11.07	29.15	0
10/29/2017 2:00	2.429	113.9	13.53	10.08	29.16	0
10/29/2017 2:15	2.603	115.5	13.08	9.93	29.16	0
10/29/2017 2:30	4.717	142.1	10.5	11.03	29.16	0
10/29/2017 2:45	5.587	177.1	6.561	10.79	29.16	0
10/29/2017 3:00	6.23	173.9	5.055	10.04	29.17	0
10/29/2017 3:15	7.534	186.6	4.207	9.74	29.17	0
10/29/2017 3:30	5.566	175.4	6.382	9.61	29.17	0
10/29/2017 3:45	6.363	190.3	6.833	8.92	29.17	0
10/29/2017 4:00	6.005	203	7.968	8.16	29.15	0
10/29/2017 4:15	4.605	217.3	3.333	7.665	29.15	0
10/29/2017 4:30	3.242	192.3	20.29	7.746	29.15	0
10/29/2017 4:45	3.382	177.2	7.855	7.777	29.15	0
10/29/2017 5:00	5.718	188.1	3.72	7.548	29.15	0
10/29/2017 5:15	4.45	189.8	7.412	7.441	29.15	0
10/29/2017 5:30	3.659	194.3	7.098	7.273	29.15	0
10/29/2017 5:45	3.345	197.4	6.534	7.245	29.15	0
10/29/2017 6:00	1.855	214.8	7.767	7.265	29.17	0
10/29/2017 6:15	1.748	207.6	39.46	7.174	29.17	0
10/29/2017 6:30	2.648	143.7	6.626	7.13	29.17	0
10/29/2017 6:45	0.913	116.1	7.385	7.137	29.17	0
10/29/2017 7:00	0.657	84.2	12.5	7.198	29.19	0
10/29/2017 7:15	1.557	68.96	8.14	7.003	29.19	0
10/29/2017 7:30	1.654	47.52	0.153	6.931	29.19	0
10/29/2017 7:45	0.55	47.68	0.405	7.043	29.19	0
10/29/2017 8:00	1.581	61.25	5.266	7.147	29.2	0
10/29/2017 8:15	0.866	58.94	0.065	7.262	29.2	0
10/29/2017 8:30	0.985	100.1	46.02	7.335	29.2	0
10/29/2017 8:45	2.247	132.4	23.32	7.519	29.2	0

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
10/29/2017 9:00	2.946	93.5	8.93	7.369	29.23	0
10/29/2017 9:15	1.648	95.6	16.58	7.419	29.23	0
10/29/2017 9:30	3.061	66.09	13.42	7.469	29.23	0
10/29/2017 9:45	2.948	76.07	10.99	7.415	29.23	0
10/29/2017 10:00	3.212	95.9	12.02	7.49	29.23	0
10/29/2017 10:15	2.988	61.09	17.86	7.6	29.23	0
10/29/2017 10:30	1.343	63.28	10.21	7.827	29.23	0
10/29/2017 10:45	1.047	38.79	10.66	7.811	29.23	0
10/29/2017 11:00	0.329	53.18	1.419	8.05	29.22	0
10/29/2017 11:15	0.869	110.7	13.41	8.12	29.22	0
10/29/2017 11:30	0.721	118.7	0.641	8.29	29.22	0
10/29/2017 11:45	1.378	123.9	6.341	8.43	29.22	0
10/29/2017 12:00	1.153	97.7	34.46	8.55	29.23	0
10/29/2017 12:15	1.985	17.49	27	8.53	29.23	0
10/29/2017 12:30	0.993	24.03	15.18	8.68	29.23	0
10/29/2017 12:45	0.9	48.94	7.077	8.76	29.23	0
10/29/2017 13:00	2.581	45.3	7.394	8.85	29.2	0
10/29/2017 13:15	2.083	58.2	5.182	8.98	29.2	0
10/29/2017 13:30	2.257	42.6	6.854	9.09	29.2	0
10/29/2017 13:45	2.893	35.16	7.609	9.2	29.2	0
10/29/2017 14:00	1.916	71.75	16.81	9.32	29.21	0.01
10/29/2017 14:15	2.674	41.15	24.31	9.5	29.21	0
10/29/2017 14:30	3.298	20.04	21.62	9.56	29.21	0
10/29/2017 14:45	3.506	45.05	11.31	9.85	29.21	0
10/29/2017 15:00	3.406	37.5	14.89	9.97	29.21	0
10/29/2017 15:15	2.259	46.54	20.31	10.53	29.21	0
10/29/2017 15:30	3.754	43.19	11.79	10.82	29.21	0
10/29/2017 15:45	2.378	35.56	21.68	10.7	29.21	0
10/29/2017 16:00	0.803	53.02	20.92	10.7	29.21	0
10/29/2017 16:15	2.307	189.7	8.41	10.73	29.21	0
10/29/2017 16:30	1.279	190.5	16.98	10.76	29.21	0
10/29/2017 16:45	2.418	174.3	12.18	9.92	29.21	0
10/29/2017 17:00	1.363	206.7	34.12	9.81	29.23	0
10/29/2017 17:15	2.081	233.5	65.42	9.66	29.23	0
10/29/2017 17:30	2.838	50.47	23.55	10.09	29.23	0
10/29/2017 17:45	4.15	41.48	17.97	10.19	29.23	0
10/29/2017 18:00	3.894	27.4	10.86	9.85	29.22	0
10/29/2017 18:15	3.824	35.1	16.1	9.62	29.22	0
10/29/2017 18:30	4.59	18.81	14.32	9.71	29.22	0
10/29/2017 18:45	3.187	25.74	18.86	9.71	29.22	0
10/29/2017 19:00	4.956	12.62	19.9	9.95	29.22	0
10/29/2017 19:15	5.906	6.08	15.83	10.04	29.22	0
10/29/2017 19:30	8.47	3.49	15.26	11.04	29.22	0
10/29/2017 19:45	8.6	8.89	12.83	11.08	29.22	0
10/29/2017 20:00	10	12.85	9.15	11.38	29.25	0
10/29/2017 20:15	9.88	20.14	8.92	11.56	29.25	0
10/29/2017 20:30	9.53	14.41	8.94	11.46	29.25	0
10/29/2017 20:45	9.73	13.31	9.61	11.76	29.25	0
10/29/2017 21:00	9.98	17.27	8.43	11.17	29.26	0
10/29/2017 21:15	9.31	14.96	7.718	11.53	29.26	0
10/29/2017 21:30	7.73	20.55	10.91	11.31	29.26	0
10/29/2017 21:45	7.099	26.94	12.98	11.28	29.26	0
10/29/2017 22:00	6.513	27.54	8.76	10.74	29.29	0
10/29/2017 22:15	7.259	24.84	11.03	10.66	29.29	0
10/29/2017 22:30	8.28	17.27	7.532	10.58	29.29	0
10/29/2017 22:45	6.698	17.95	11.99	10.55	29.29	0

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
10/29/2017 23:00	7.328	15.01	12.23	10.16	29.28	0
10/29/2017 23:15	5.574	14.94	22.27	10.21	29.28	0
10/29/2017 23:30	6.312	25.3	16	9.62	29.28	0
10/29/2017 23:45	6.398	28.86	14.51	10.74	29.28	0
10/30/2017 0:00	6.32	35.96	17.37	11.1	29.31	0
10/30/2017 0:15	7.249	49.61	19.79	11.22	29.31	0
10/30/2017 0:30	7.091	67.7	12.86	12.12	29.31	0
10/30/2017 0:45	7.462	54.19	15.82	12.03	29.31	0
10/30/2017 1:00	7.589	59.7	15.83	11.96	29.31	0
10/30/2017 1:15	8.23	72.71	15.3	12.58	29.31	0
10/30/2017 1:30	7.107	85.2	11.45	12.59	29.31	0
10/30/2017 1:45	5.601	67.18	23.11	11.83	29.31	0
10/30/2017 2:00	5.808	56.03	20.54	12.03	29.35	0
10/30/2017 2:15	5.367	47.48	17.89	11.89	29.35	0
10/30/2017 2:30	5.803	61.33	23.8	12.28	29.35	0
10/30/2017 2:45	4.356	75.86	17.06	12.09	29.35	0
10/30/2017 3:00	4.348	71.37	15.35	11.86	29.32	0
10/30/2017 3:15	4.533	64.19	16.05	12.39	29.32	0
10/30/2017 3:30	4.966	77.49	14.77	13.49	29.32	0
10/30/2017 3:45	6.444	97.4	20.32	13.35	29.32	0
10/30/2017 4:00	5.325	106	13.4	13.17	29.34	0
10/30/2017 4:15	4.814	104.5	19.13	13.03	29.34	0
10/30/2017 4:30	5.509	102.3	16.41	13.29	29.34	0
10/30/2017 4:45	5.653	96.6	16.95	12.65	29.34	0
10/30/2017 5:00	7.701	114.3	15.43	12.95	29.34	0
10/30/2017 5:15	6.137	106.4	15.64	12.97	29.34	0
10/30/2017 5:30	5.904	102.3	17.3	12.79	29.34	0
10/30/2017 5:45	4.156	56.93	21.61	12.72	29.34	0
10/30/2017 6:00	3.279	78.66	23.89	12.46	29.33	0
10/30/2017 6:15	6.352	77.48	21.27	12.51	29.33	0
10/30/2017 6:30	7.045	81.9	20.48	12.7	29.33	0
10/30/2017 6:45	8.72	92.2	10.81	12.5	29.33	0
10/30/2017 7:00	6.01	70.98	13.97	12.26	29.37	0
10/30/2017 7:15	5.499	71.27	10.55	12.07	29.37	0
10/30/2017 7:30	5.609	81.5	14.78	12.42	29.37	0
10/30/2017 7:45	7.173	94	10.59	12.54	29.37	0
10/30/2017 8:00	6.482	97.9	11.24	12.53	29.37	0
10/30/2017 8:15	5.818	75.8	12.01	12.98	29.37	0
10/30/2017 8:30	5.07	65.41	14.74	13.12	29.37	0
10/30/2017 8:45	3.992	76.25	20.28	13.62	29.37	0
10/30/2017 9:00	4.42	84.7	18.27	13.69	29.37	0
10/30/2017 9:15	5.324	92.5	15.04	13.8	29.37	0
10/30/2017 9:30	4.377	82.6	18.08	13.75	29.37	0
10/30/2017 9:45	5.307	81.4	14.64	13.94	29.37	0
10/30/2017 10:00	6.509	91.4	14.62	14.39	29.38	0
10/30/2017 10:15	4.794	88.1	17.18	14.46	29.38	0
10/30/2017 10:30	6.55	98.9	15.75	14.86	29.38	0
10/30/2017 10:45	4.651	59.28	26.66	14.65	29.38	0
10/30/2017 11:00	3.775	37.54	13.76	14.57	29.37	0
10/30/2017 11:15	3.102	38.44	18.58	14.77	29.37	0
10/30/2017 11:30	4.594	30.66	11.62	14.67	29.37	0
10/30/2017 11:45	4.968	21.74	5.72	14.1	29.37	0
10/30/2017 12:00	5.312	18.87	9.33	14.23	29.34	0
10/30/2017 12:15	6.016	14.86	10.43	14.41	29.34	0
10/30/2017 12:30	4.541	5.249	10.17	14.95	29.34	0
10/30/2017 12:45	6.733	15.69	8.59	15.32	29.34	0

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
10/30/2017 13:00	9.91	16.47	8.7	14.88	29.32	0
10/30/2017 13:15	10.39	13.71	8.36	15.05	29.32	0
10/30/2017 13:30	11.21	15.51	12.5	15.05	29.32	0
10/30/2017 13:45	11.99	13.98	11.1	15.21	29.32	0
10/30/2017 14:00	10.86	13.21	10.6	15.48	29.32	0
10/30/2017 14:15	12.34	12.45	11.47	15.45	29.32	0
10/30/2017 14:30	12.4	7.193	12.62	15.33	29.32	0
10/30/2017 14:45	12.08	9.27	13.29	15.22	29.32	0
10/30/2017 15:00	14.15	5.937	14.42	15.05	29.28	0
10/30/2017 15:15	13.33	13.08	10.31	14.89	29.28	0
10/30/2017 15:30	12.75	11.11	9.71	14.66	29.28	0
10/30/2017 15:45	12.88	10.63	12.96	14.41	29.28	0
10/30/2017 16:00	11.82	13.77	11.78	14.17	29.28	0
10/30/2017 16:15	11.27	14.21	10.84	13.9	29.28	0
10/30/2017 16:30	11.71	15.01	12.23	13.5	29.28	0
10/30/2017 16:45	15.01	12.66	10.73	13.2	29.28	0
10/30/2017 17:00	13.76	13.18	8.67	12.95	29.31	0
10/30/2017 17:15	10.52	8.58	11.28	12.58	29.31	0
10/30/2017 17:30	12.05	356.8	15.89	12.35	29.31	0
10/30/2017 17:45	12.59	358.2	14.96	12.05	29.31	0
10/30/2017 18:00	12.12	0.984	17.09	11.85	29.31	0
10/30/2017 18:15	13.53	4.636	12.69	11.51	29.31	0
10/30/2017 18:30	13.52	15.66	8.27	11.95	29.31	0
10/30/2017 18:45	11.62	19.13	7.134	11.65	29.31	0
10/30/2017 19:00	9.44	19.52	6.451	10.68	29.32	0
10/30/2017 19:15	9.67	19.5	6.283	10.17	29.32	0
10/30/2017 19:30	11.59	13.28	5.717	10.21	29.32	0
10/30/2017 19:45	8.41	13.37	5.144	10.31	29.32	0
10/30/2017 20:00	5.814	19.05	8.92	9.5	29.3	0
10/30/2017 20:15	3.612	31	15.62	9.24	29.3	0
10/30/2017 20:30	5.994	32.85	11.91	9.15	29.3	0
10/30/2017 20:45	5.592	34.94	8.62	8.58	29.3	0
10/30/2017 21:00	5.775	32.19	6.72	7.992	29.31	0
10/30/2017 21:15	4.954	18.21	4.976	7.726	29.31	0
10/30/2017 21:30	4.478	22.76	6.137	8.11	29.31	0
10/30/2017 21:45	4.079	34.84	8.22	7.715	29.31	0
10/30/2017 22:00	3.468	44.22	8.93	7.213	29.3	0
10/30/2017 22:15	4.281	21.46	6.34	7.648	29.3	0
10/30/2017 22:30	3.688	27.85	7.59	7.763	29.3	0
10/30/2017 22:45	1.15	37.54	0.495	7.688	29.3	0
10/30/2017 23:00	0.254	37.39	0.132	7.644	29.31	0
10/30/2017 23:15	0.188	37.57	0.06	7.181	29.31	0
10/30/2017 23:30	0.095	37.57	0.041	7.215	29.31	0
10/30/2017 23:45	0.312	37.57	0.083	7.097	29.31	0
10/31/2017 0:00	0.701	104.3	36.78	7.542	29.31	0
10/31/2017 0:15	1.38	155	8.28	6.534	29.31	0
10/31/2017 0:30	1.571	142.6	0.104	6.245	29.31	0
10/31/2017 0:45	1.878	171.9	19.66	6.679	29.31	0
10/31/2017 1:00	2.541	144.8	10.31	7.323	29.3	0
10/31/2017 1:15	3.789	114.8	10.1	6.776	29.3	0
10/31/2017 1:30	5.795	137.8	4.869	6.784	29.3	0
10/31/2017 1:45	6.708	134.8	6.439	6.278	29.3	0
10/31/2017 2:00	3.651	132.8	9.99	6.33	29.3	0
10/31/2017 2:15	2.379	109.7	5.065	6.856	29.3	0
10/31/2017 2:30	2.508	114.6	1.711	7.377	29.3	0
10/31/2017 2:45	2.333	118.7	0.279	7.722	29.3	0

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
10/31/2017 3:00	1.997	116.6	1.228	7.623	29.29	0
10/31/2017 3:15	2.743	132.6	11.7	7.049	29.29	0
10/31/2017 3:30	3.761	158	18.86	7.078	29.29	0
10/31/2017 3:45	4.889	197.8	9.81	5.459	29.29	0
10/31/2017 4:00	4.331	205.7	26.52	5.412	29.31	0
10/31/2017 4:15	3.383	257.4	37.36	4.583	29.31	0
10/31/2017 4:30	1.529	110.3	32.8	4.627	29.31	0
10/31/2017 4:45	4.401	138.4	7.607	4.846	29.31	0
10/31/2017 5:00	4.625	146.6	3.305	4.993	29.29	0
10/31/2017 5:15	4.659	135.1	13.18	5.16	29.29	0
10/31/2017 5:30	4.848	136.9	8.67	5.298	29.29	0
10/31/2017 5:45	2.492	137.4	3.36	5.843	29.29	0
10/31/2017 6:00	1.309	82.9	10.35	4.997	29.26	0
10/31/2017 6:15	2.227	68.07	9.85	5.016	29.26	0
10/31/2017 6:30	2.244	71.76	4.64	5.45	29.26	0
10/31/2017 6:45	1.446	77.94	11.7	5.164	29.26	0
10/31/2017 7:00	4.274	172.2	10.89	5.412	29.27	0
10/31/2017 7:15	2.875	180.5	13.17	5.4	29.27	0
10/31/2017 7:30	2.602	155.4	13.72	5.632	29.27	0
10/31/2017 7:45	1.416	157.6	5.018	5.937	29.27	0
10/31/2017 8:00	1.432	139.7	13.04	6.622	29.26	0
10/31/2017 8:15	1.399	122.7	16.66	7.794	29.26	0
10/31/2017 8:30	1.819	131.3	11.35	8.16	29.26	0
10/31/2017 8:45	2.233	129.5	15.48	8.33	29.26	0
10/31/2017 9:00	2.68	140.8	9.46	8.81	29.24	0
10/31/2017 9:15	1.811	162.8	49.45	8.85	29.24	0
10/31/2017 9:30	2.151	220.8	19.05	8.84	29.24	0
10/31/2017 9:45	4.581	217.4	5.09	8.69	29.24	0
10/31/2017 10:00	4.451	205.5	6.167	8.89	29.23	0
10/31/2017 10:15	4.235	184.1	14.7	9.54	29.23	0
10/31/2017 10:30	3.944	150	24.37	10.44	29.23	0
10/31/2017 10:45	2.655	158.1	17.26	11.3	29.23	0
10/31/2017 11:00	2.56	199.7	43.85	11.58	29.21	0
10/31/2017 11:15	2.988	226.5	14.78	11.85	29.21	0
10/31/2017 11:30	2.99	214	20.42	12.06	29.21	0
10/31/2017 11:45	3.316	216.9	15.58	12.36	29.21	0
10/31/2017 12:00	4.472	214.9	11.53	12.77	29.18	0
10/31/2017 12:15	5.027	215.3	12.35	12.97	29.18	0
10/31/2017 12:30	4.336	210.4	18.78	13.34	29.18	0
10/31/2017 12:45	2.294	236.8	33.62	13.75	29.18	0
10/31/2017 13:00	2.893	260.2	22.89	13.73	29.15	0
10/31/2017 13:15	2.851	220.8	16.22	13.97	29.15	0
10/31/2017 13:30	3.945	217.7	12.26	14.05	29.15	0
10/31/2017 13:45	4.711	200.8	15.45	14.25	29.15	0
10/31/2017 14:00	3.674	224.6	42.85	14.43	29.13	0
10/31/2017 14:15	3.162	222.5	23.88	14.67	29.13	0
10/31/2017 14:30	3.545	214.9	12.29	14.86	29.13	0
10/31/2017 14:45	3.382	225.5	11.44	15	29.13	0
10/31/2017 15:00	4.604	203.4	14.24	14.88	29.1	0
10/31/2017 15:15	4.513	221.8	13.16	14.88	29.1	0
10/31/2017 15:30	4.278	217.1	12.87	14.7	29.1	0
10/31/2017 15:45	5.76	203.9	9.18	14.53	29.1	0
10/31/2017 16:00	6.352	198.8	11.72	14.24	29.06	0
10/31/2017 16:15	7.066	204.5	12.68	13.94	29.06	0
10/31/2017 16:30	6.505	233.7	8.33	13.59	29.06	0
10/31/2017 16:45	5.521	263.5	4.693	12.84	29.06	0

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
10/31/2017 17:00	4.089	266.1	6.778	12.74	29.08	0
10/31/2017 17:15	4.672	275	10.64	12.38	29.08	0
10/31/2017 17:30	3.344	262.6	11.56	12.52	29.08	0
10/31/2017 17:45	2.039	220.6	10.23	12.5	29.08	0
10/31/2017 18:00	2.048	220.3	2.667	12.6	29.07	0
10/31/2017 18:15	0.877	168.4	43.18	12.05	29.07	0
10/31/2017 18:30	2.506	97.6	8.31	11.82	29.07	0
10/31/2017 18:45	3.009	83.9	6.565	11.58	29.07	0
10/31/2017 19:00	1.765	94.1	3.67	11.79	29.04	0
10/31/2017 19:15	2.523	113.7	12.64	10.92	29.04	0
10/31/2017 19:30	2.073	89.6	10.18	10.87	29.04	0
10/31/2017 19:45	0.485	96.7	42.48	10.84	29.04	0
10/31/2017 20:00	0.929	195.2	21	11.23	29.05	0
10/31/2017 20:15	2.704	184.5	9.71	10.79	29.05	0
10/31/2017 20:30	6.037	226.6	22.38	9.39	29.05	0
10/31/2017 20:45	4.994	230.6	6.934	9.29	29.05	0
10/31/2017 21:00	6.482	196.8	9.08	8.38	29.02	0
10/31/2017 21:15	5.897	180.4	5.658	7.839	29.02	0
10/31/2017 21:30	3.466	170.6	8.75	7.589	29.02	0
10/31/2017 21:45	3.795	130.4	7.825	7.402	29.02	0
10/31/2017 22:00	7.246	146.4	6.614	7.893	29.02	0
10/31/2017 22:15	6.211	141	10.47	8.36	29.02	0
10/31/2017 22:30	5.862	132.5	7.467	8.54	29.02	0
10/31/2017 22:45	5.019	138.3	11.5	8.76	29.02	0
10/31/2017 23:00	6.156	153.9	11.06	8.93	29.01	0
10/31/2017 23:15	6.838	162.2	13.63	8.97	29.01	0
10/31/2017 23:30	5.235	143.8	13.33	8.93	29.01	0
10/31/2017 23:45	6.05	141.1	7.633	8.93	29.01	0
11/1/2017 0:00	7.018	127.7	9.84	9.11	29.03	0
11/1/2017 0:15	6.348	133	8.97	9.16	29.03	0
11/1/2017 0:30	6.086	129.4	8.63	9.14	29.03	0
11/1/2017 0:45	7.151	134.7	7.436	9.06	29.03	0
11/1/2017 1:00	6.552	128.7	7.752	8.59	29.01	0
11/1/2017 1:15	6.685	121.2	8.12	8.21	29.01	0
11/1/2017 1:30	7.858	126	7.1	8.09	29.01	0
11/1/2017 1:45	7.177	121.8	7.59	8.16	29.01	0
11/1/2017 2:00	7.256	122.5	11.83	8.22	28.98	0
11/1/2017 2:15	5.495	122	12.75	8.33	28.98	0.01
11/1/2017 2:30	5.043	135.5	14.1	8.44	28.98	0
11/1/2017 2:45	3.584	123.4	17.96	8.56	28.98	0
11/1/2017 3:00	2.715	109.9	14.15	8.52	28.98	0
11/1/2017 3:15	3.015	128.5	9.39	8.6	28.98	0
11/1/2017 3:30	3.122	145.3	18.14	8.71	28.98	0.01
11/1/2017 3:45	3.728	161.5	17.71	8.91	28.98	0
11/1/2017 4:00	4.302	160.4	26.36	8.97	28.97	0
11/1/2017 4:15	2.856	136.4	17.73	8.87	28.97	0.01
11/1/2017 4:30	3.507	146.7	18.65	8.95	28.97	0
11/1/2017 4:45	3.165	139.1	23.13	8.96	28.97	0
11/1/2017 5:00	5.467	170.8	12.87	9.2	28.94	0
11/1/2017 5:15	5.222	177.2	16.29	9.23	28.94	0
11/1/2017 5:30	6.819	175.9	9.07	9.25	28.94	0
11/1/2017 5:45	7.442	175.9	9.88	9.18	28.94	0
11/1/2017 6:00	6.129	168.4	13.46	9.12	28.96	0
11/1/2017 6:15	7.716	171.4	11.34	9.03	28.96	0
11/1/2017 6:30	9.95	173.5	8.96	9.07	28.96	0
11/1/2017 6:45	9.58	173.7	8.75	9.07	28.96	0

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
11/1/2017 7:00	8.02	170.8	9.62	9.09	28.97	0
11/1/2017 7:15	8.92	169.2	11.32	9.02	28.97	0
11/1/2017 7:30	9.63	176.4	9.35	9.05	28.97	0
11/1/2017 7:45	7.71	176.2	10.42	9.07	28.97	0
11/1/2017 8:00	7.96	175.3	7.832	9.05	28.95	0
11/1/2017 8:15	7.12	165.4	9.67	9.01	28.95	0
11/1/2017 8:30	5.651	160.7	12.96	8.93	28.95	0
11/1/2017 8:45	8.64	185.8	11.31	9.12	28.95	0
11/1/2017 9:00	8.58	199.2	11.06	9.22	28.99	0
11/1/2017 9:15	5.703	224.3	11.42	9.21	28.99	0
11/1/2017 9:30	8	192.3	11.16	9.11	28.99	0
11/1/2017 9:45	7.692	190.6	7.751	9.12	28.99	0
11/1/2017 10:00	6.871	187.8	8.57	9.19	28.99	0
11/1/2017 10:15	4.612	172	17.41	9.23	28.99	0
11/1/2017 10:30	5.409	187.5	7.491	9.26	28.99	0
11/1/2017 10:45	6.172	184	11.73	9.28	28.99	0
11/1/2017 11:00	7.413	203.8	10.95	9.22	28.98	0
11/1/2017 11:15	4.427	228.1	12.65	9.22	28.98	0
11/1/2017 11:30	5.53	221.5	14.6	9.15	28.98	0
11/1/2017 11:45	4.818	218.2	10.46	9.28	28.98	0
11/1/2017 12:00	5.145	210.5	13.69	9.53	29	0
11/1/2017 12:15	5.262	193.2	12.3	9.94	29	0
11/1/2017 12:30	7.704	202.3	8.83	9.72	29	0
11/1/2017 12:45	8.74	217	11.43	9.75	29	0
11/1/2017 13:00	8.34	212.2	8.9	9.83	28.98	0
11/1/2017 13:15	8.46	194.4	12.05	9.86	28.98	0
11/1/2017 13:30	8.89	196.9	7.977	10.01	28.98	0
11/1/2017 13:45	8.28	199.9	9.3	9.9	28.98	0
11/1/2017 14:00	7.491	192.1	9.11	10.01	28.98	0
11/1/2017 14:15	7.1	182.8	8.61	9.56	28.98	0
11/1/2017 14:30	5.519	177.2	8.04	9.32	28.98	0
11/1/2017 14:45	3.792	116.1	29.5	9.08	28.98	0.01
11/1/2017 15:00	2.313	72.39	14.24	8.98	28.98	0
11/1/2017 15:15	2.894	109.4	13.25	8.96	28.98	0
11/1/2017 15:30	2.683	70.78	12.1	9	28.98	0
11/1/2017 15:45	4.152	100.5	9.81	8.63	28.98	0
11/1/2017 16:00	3.211	101.8	6.631	8.61	28.99	0
11/1/2017 16:15	2.757	137.7	18.92	8.76	28.99	0
11/1/2017 16:30	5.352	175	8.12	9.04	28.99	0
11/1/2017 16:45	8.91	190.6	8.86	9.34	28.99	0
11/1/2017 17:00	8.64	184.2	6.943	9.29	28.96	0
11/1/2017 17:15	8.93	176.8	6.869	9.23	28.96	0
11/1/2017 17:30	7.797	172.6	6.967	9.07	28.96	0
11/1/2017 17:45	3.682	154.5	14.81	8.63	28.96	0
11/1/2017 18:00	4.349	161.7	13.46	8.63	29	0
11/1/2017 18:15	7.898	174.4	7.078	8.75	29	0
11/1/2017 18:30	11.16	181.1	7.8	8.72	29	0
11/1/2017 18:45	9.79	173.4	7.752	8.65	29	0
11/1/2017 19:00	10.62	160.6	8.3	8.41	28.98	0
11/1/2017 19:15	9.27	162.8	9.94	8.23	28.98	0
11/1/2017 19:30	7.678	165.6	8.78	8.11	28.98	0
11/1/2017 19:45	7.097	162.8	8.8	7.984	28.98	0
11/1/2017 20:00	6.493	158.4	7.367	7.684	28.98	0
11/1/2017 20:15	5.554	150.8	6.926	7.51	28.98	0
11/1/2017 20:30	7.75	167.9	10.62	7.801	28.98	0
11/1/2017 20:45	8.68	176	7.374	8.01	28.98	0

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
11/1/2017 21:00	9.24	178.9	7.661	7.91	28.97	0
11/1/2017 21:15	10.23	181.6	8.74	7.865	28.97	0
11/1/2017 21:30	10.17	175.7	6.726	7.901	28.97	0
11/1/2017 21:45	10.93	174.3	8.14	7.93	28.97	0
11/1/2017 22:00	12.02	169.3	8.37	8.01	28.97	0
11/1/2017 22:15	11.23	177.2	8.37	7.979	28.97	0
11/1/2017 22:30	10.83	180.4	7.774	7.934	28.97	0
11/1/2017 22:45	10.45	182	7.484	7.94	28.97	0
11/1/2017 23:00	10.05	176.1	7.238	7.975	28.99	0
11/1/2017 23:15	9.68	174.3	9.54	7.96	28.99	0
11/1/2017 23:30	8.82	179.8	8.71	7.891	28.99	0
11/1/2017 23:45	12.07	183.1	8.79	7.965	28.99	0
11/2/2017 0:00	12.26	186.3	9.62	7.951	28.98	0
11/2/2017 0:15	11.22	185	8.64	7.848	28.98	0
11/2/2017 0:30	12.28	183.2	8.42	7.834	28.98	0
11/2/2017 0:45	11.3	178.1	7.36	7.786	28.98	0
11/2/2017 1:00	11.23	176.1	7.461	7.73	28.97	0
11/2/2017 1:15	9.44	177	6.954	7.675	28.97	0
11/2/2017 1:30	9.5	176.2	6.321	7.555	28.97	0
11/2/2017 1:45	11.68	175.5	8.35	7.43	28.97	0
11/2/2017 2:00	11.09	173.7	9.06	7.401	28.95	0
11/2/2017 2:15	9.81	161	8.55	7.196	28.95	0
11/2/2017 2:30	9.07	159.7	10.63	7.14	28.95	0
11/2/2017 2:45	8.25	173.4	10.05	7.242	28.95	0
11/2/2017 3:00	9.09	178.4	9.27	7.388	28.94	0
11/2/2017 3:15	9.63	175.4	8.79	7.393	28.94	0
11/2/2017 3:30	8.82	174.5	8.79	7.296	28.94	0
11/2/2017 3:45	9.49	173.9	6.871	7.222	28.94	0
11/2/2017 4:00	9.59	167.2	9.19	6.821	28.93	0
11/2/2017 4:15	8.41	162.2	9.39	6.628	28.93	0
11/2/2017 4:30	9.08	166.5	11.41	6.653	28.93	0.01
11/2/2017 4:45	8.7	163.8	11.26	6.5	28.93	0
11/2/2017 5:00	8.78	150.7	8.39	6.305	28.92	0
11/2/2017 5:15	7.157	152	10.12	6.328	28.92	0
11/2/2017 5:30	6.283	142.9	9.29	6.268	28.92	0
11/2/2017 5:45	6.05	128.6	6.195	6.249	28.92	0
11/2/2017 6:00	6.18	134	7.481	6.254	28.91	0
11/2/2017 6:15	7.066	130.8	8.79	6.247	28.91	0
11/2/2017 6:30	8.39	138.6	7.45	6.103	28.91	0
11/2/2017 6:45	8.67	137.6	8.63	6.065	28.91	0
11/2/2017 7:00	8.86	140.3	8.68	6.082	28.88	0
11/2/2017 7:15	8.08	146.2	8.44	6.174	28.88	0
11/2/2017 7:30	7.278	147.4	8.68	6.236	28.88	0
11/2/2017 7:45	8.16	142.2	6.82	6.953	28.88	0
11/2/2017 8:00	7.68	143	6.999	7.193	28.86	0
11/2/2017 8:15	6.244	138.5	8.83	7.037	28.86	0
11/2/2017 8:30	7.036	129.7	7.486	7.13	28.86	0
11/2/2017 8:45	5.946	137.6	8.79	7.475	28.86	0
11/2/2017 9:00	6.959	157.9	8.64	7.447	28.84	0.01
11/2/2017 9:15	6.919	173.4	12.44	7.306	28.84	0
11/2/2017 9:30	4.342	159.7	20.97	7.055	28.84	0.01
11/2/2017 9:45	5.643	136.4	6.493	7.252	28.84	0
11/2/2017 10:00	7.549	139.2	8.18	7.686	28.83	0
11/2/2017 10:15	9.08	144.4	9.13	8.27	28.83	0
11/2/2017 10:30	11.93	155.5	10.31	8.33	28.83	0
11/2/2017 10:45	14.36	169.3	9.69	8.38	28.83	0

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
11/2/2017 11:00	12.82	166.1	10.42	8.32	28.82	0
11/2/2017 11:15	10.54	151.1	7.481	8.05	28.82	0
11/2/2017 11:30	11.56	174.1	17.79	7.99	28.82	0.02
11/2/2017 11:45	12.49	184.8	15.33	7.94	28.82	0.03
11/2/2017 12:00	18.12	230.9	14.58	7.275	28.83	0.06
11/2/2017 12:15	13.29	226.6	11.03	6.626	28.83	0.02
11/2/2017 12:30	12.08	206.5	12.5	6.412	28.83	0.04
11/2/2017 12:45	11.61	185.1	9.69	6.248	28.83	0
11/2/2017 13:00	10.27	169.2	10.29	6.361	28.84	0
11/2/2017 13:15	9.51	159.1	11.87	6.446	28.84	0
11/2/2017 13:30	10.7	182	16.4	6.431	28.84	0
11/2/2017 13:45	13.52	212.2	11.9	6.452	28.84	0.01
11/2/2017 14:00	12.98	190.9	11.42	6.13	28.86	0
11/2/2017 14:15	11.45	188.2	8.46	6.091	28.86	0
11/2/2017 14:30	11.51	178	8.9	6.006	28.86	0
11/2/2017 14:45	10.44	150.9	10.21	5.795	28.86	0
11/2/2017 15:00	9.06	128.2	9.96	5.726	28.86	0
11/2/2017 15:15	8.81	128.2	10.34	5.63	28.86	0
11/2/2017 15:30	9.67	121.3	10.16	5.542	28.86	0
11/2/2017 15:45	8.19	118.2	10.36	5.473	28.86	0
11/2/2017 16:00	9.29	130.5	8.7	5.451	28.87	0
11/2/2017 16:15	11.23	138.6	8.35	5.354	28.87	0
11/2/2017 16:30	11.52	149.7	14.26	5.065	28.87	0.04
11/2/2017 16:45	9.37	167.3	13.69	4.821	28.87	0.05
11/2/2017 17:00	13.46	155.7	9.29	4.299	28.89	0.02
11/2/2017 17:15	8.43	135.9	11.73	4.018	28.89	0
11/2/2017 17:30	6.125	119.1	11.52	3.837	28.89	0
11/2/2017 17:45	7.992	125.5	7.993	3.96	28.89	0
11/2/2017 18:00	9.95	129.5	8.33	4.108	28.88	0
11/2/2017 18:15	9.83	135.3	7.646	4.242	28.88	0
11/2/2017 18:30	8.96	136.3	8.96	4.076	28.88	0
11/2/2017 18:45	8.49	140.6	7.195	4.068	28.88	0
11/2/2017 19:00	5.684	130.9	9.36	3.998	28.91	0
11/2/2017 19:15	6.595	140	7.169	4.037	28.91	0
11/2/2017 19:30	8.18	140	7.03	4.014	28.91	0
11/2/2017 19:45	8.36	135.1	8.36	4.015	28.91	0
11/2/2017 20:00	10.45	143.7	7.596	4.223	28.89	0
11/2/2017 20:15	10.33	147.7	7.3	4.399	28.89	0
11/2/2017 20:30	11.09	148	6.711	4.445	28.89	0
11/2/2017 20:45	10.67	148.2	6.781	4.447	28.89	0
11/2/2017 21:00	10.6	154.4	6.547	4.527	28.91	0
11/2/2017 21:15	9.41	166.6	12.31	4.573	28.91	0
11/2/2017 21:30	10.04	182.4	7.979	4.612	28.91	0
11/2/2017 21:45	9.31	187.6	9.37	4.581	28.91	0
11/2/2017 22:00	8.39	175.1	9.25	4.412	28.92	0
11/2/2017 22:15	6.642	163.4	9.63	4.161	28.92	0
11/2/2017 22:30	6.796	166.9	7.866	4.217	28.92	0
11/2/2017 22:45	7.011	157.9	10.45	4.259	28.92	0
11/2/2017 23:00	8.27	161.1	9.94	4.504	28.94	0
11/2/2017 23:15	7.82	170.5	8.66	4.527	28.94	0
11/2/2017 23:30	8.11	173	5.986	4.309	28.94	0
11/2/2017 23:45	9.08	170.4	8.89	4.037	28.94	0
11/3/2017 0:00	5.807	147.6	18.27	3.592	28.94	0
11/3/2017 0:15	4.109	125.9	9.57	3.462	28.94	0
11/3/2017 0:30	4.711	128.9	12.05	3.671	28.94	0
11/3/2017 0:45	3.589	123.1	13.46	3.544	28.94	0

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
11/3/2017 1:00	4.324	146.7	14.83	3.549	28.94	0
11/3/2017 1:15	4.328	127.2	7.259	3.509	28.94	0
11/3/2017 1:30	5.141	130.3	6.014	3.5	28.94	0
11/3/2017 1:45	6.248	140.5	6.066	3.645	28.94	0
11/3/2017 2:00	5.08	135.4	8.09	3.617	28.97	0
11/3/2017 2:15	4.37	130.6	4.391	3.703	28.97	0
11/3/2017 2:30	4.246	134.9	5.778	3.731	28.97	0
11/3/2017 2:45	3.951	134.2	8.71	3.765	28.97	0
11/3/2017 3:00	2.98	135	5.745	3.881	28.98	0
11/3/2017 3:15	5.468	134.8	21.42	3.797	28.98	0
11/3/2017 3:30	5.44	36.99	15.71	2.92	28.98	0
11/3/2017 3:45	6.702	20.99	9.38	2.442	28.98	0
11/3/2017 4:00	7.587	18.07	10.54	2.036	28.97	0
11/3/2017 4:15	6.983	15.93	12.84	1.753	28.97	0
11/3/2017 4:30	6.363	13.63	12.68	1.601	28.97	0
11/3/2017 4:45	7.704	19.02	8.68	1.623	28.97	0
11/3/2017 5:00	8.18	16	9.25	1.28	29	0
11/3/2017 5:15	6.568	12.89	7.165	1.341	29	0
11/3/2017 5:30	12.08	16.81	10.13	1.226	29	0
11/3/2017 5:45	12.94	13.04	12.64	1.029	29	0
11/3/2017 6:00	13.36	11.47	13.23	0.895	29.02	0
11/3/2017 6:15	14.77	9.18	13.46	0.86	29.02	0
11/3/2017 6:30	14.21	11.87	13.05	0.682	29.02	0
11/3/2017 6:45	14.06	11.46	13.14	0.518	29.02	0
11/3/2017 7:00	13.63	16.68	12.96	0.295	29.04	0
11/3/2017 7:15	12.57	13.33	12.73	0.274	29.04	0
11/3/2017 7:30	10.98	13.56	11.29	0.353	29.04	0
11/3/2017 7:45	9.84	14.76	13.5	0.667	29.04	0
11/3/2017 8:00	10.5	26.62	14.08	0.894	29.06	0
11/3/2017 8:15	12.75	16.47	11.59	0.963	29.06	0.01
11/3/2017 8:30	13.65	10.14	12.38	1.066	29.06	0
11/3/2017 8:45	13.16	14.11	11.4	1.35	29.06	0.01
11/3/2017 9:00	13.05	17.11	11.46	1.511	29.08	0
11/3/2017 9:15	12.93	12.5	12.08	1.565	29.08	0
11/3/2017 9:30	13.6	8.64	16.36	1.513	29.08	0
11/3/2017 9:45	12.61	8.81	13.71	1.455	29.08	0
11/3/2017 10:00	12.92	6.615	14.82	1.409	29.1	0
11/3/2017 10:15	11.65	7.497	14.03	1.454	29.1	0
11/3/2017 10:30	11.54	9.3	13.62	1.518	29.1	0
11/3/2017 10:45	11.68	8.42	13.88	1.547	29.1	0
11/3/2017 11:00	11.91	9.4	12.75	1.519	29.11	0.01
11/3/2017 11:15	10.01	13.2	12.14	1.735	29.11	0
11/3/2017 11:30	10.96	10.13	13.28	1.897	29.11	0
11/3/2017 11:45	12.05	14.99	11.55	1.691	29.11	0
11/3/2017 12:00	11.75	9.63	10.66	1.574	29.1	0
11/3/2017 12:15	11.78	13.76	11.88	1.461	29.1	0
11/3/2017 12:30	11.39	11.82	14.97	1.252	29.1	0
11/3/2017 12:45	11.14	7.837	14.4	1.179	29.1	0.01
11/3/2017 13:00	9.17	0.762	16.06	1.286	29.12	0
11/3/2017 13:15	7.808	344	16.3	1.357	29.12	0.01
11/3/2017 13:30	7.034	350.5	23.46	1.273	29.12	0.01
11/3/2017 13:45	5.718	1.729	18.71	1.194	29.12	0
11/3/2017 14:00	4.077	360	30.74	1.114	29.13	0.01
11/3/2017 14:15	6.127	17.93	11.62	0.526	29.13	0
11/3/2017 14:30	7.793	25.13	13.04	0.442	29.13	0
11/3/2017 14:45	5.263	22.39	10.76	0.469	29.13	0

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
11/3/2017 15:00	5.409	14.29	12.75	0.493	29.16	0
11/3/2017 15:15	4.182	16.81	15.63	0.641	29.16	0
11/3/2017 15:30	6.171	19.39	8.8	0.413	29.16	0.01
11/3/2017 15:45	7.506	22.89	9.19	0.528	29.16	0
11/3/2017 16:00	7.576	20.45	6.759	0.54	29.18	0
11/3/2017 16:15	9.15	18.37	9.68	0.504	29.18	0
11/3/2017 16:30	8.27	13.17	10.99	0.478	29.18	0
11/3/2017 16:45	8.38	14.98	11.9	0.632	29.18	0
11/3/2017 17:00	7.952	9.24	15.22	0.618	29.18	0
11/3/2017 17:15	7.331	11.64	9.87	0.765	29.18	0
11/3/2017 17:30	6.98	2.823	13.3	0.863	29.18	0
11/3/2017 17:45	5.758	349.3	14.74	1.073	29.18	0
11/3/2017 18:00	3.201	301.4	18.32	1.162	29.2	0
11/3/2017 18:15	2.778	331.2	15.71	1.045	29.2	0
11/3/2017 18:30	6.642	5.975	12.64	0.955	29.2	0
11/3/2017 18:45	7.42	7.59	12.74	0.957	29.2	0
11/3/2017 19:00	5.92	10.4	10.35	0.952	29.2	0
11/3/2017 19:15	7.658	12.43	10.2	0.982	29.2	0
11/3/2017 19:30	6.622	18.35	12.39	0.888	29.2	0
11/3/2017 19:45	6.481	22.43	15.64	0.891	29.2	0
11/3/2017 20:00	6.598	19.58	11.81	0.911	29.2	0
11/3/2017 20:15	5.049	17.25	6.975	0.87	29.2	0
11/3/2017 20:30	4.574	9.65	12.05	1.001	29.2	0
11/3/2017 20:45	4.074	8.22	15.02	0.975	29.2	0
11/3/2017 21:00	8.58	15.36	7.777	0.847	29.22	0
11/3/2017 21:15	9.24	25.02	10.1	0.703	29.22	0
11/3/2017 21:30	9.89	25.03	10.8	0.682	29.22	0
11/3/2017 21:45	7.973	22.79	7.75	0.663	29.22	0
11/3/2017 22:00	6.486	19.83	8.54	0.819	29.23	0
11/3/2017 22:15	5.098	32.55	8.48	0.761	29.23	0
11/3/2017 22:30	4.63	38.11	11.8	0.493	29.23	0
11/3/2017 22:45	3.658	25.82	3.737	0.425	29.23	0
11/3/2017 23:00	2.438	24.78	0.638	0.447	29.23	0
11/3/2017 23:15	3.772	343.2	26.02	0.5	29.23	0
11/3/2017 23:30	3.797	309.4	8.73	0.425	29.23	0
11/3/2017 23:45	2.51	351.7	31.1	0.322	29.23	0
11/4/2017 0:00	1.006	14.23	4.803	0.411	29.22	0
11/4/2017 0:15	0.417	21.34	0.1	0.452	29.22	0
11/4/2017 0:30	0.525	11.84	4.237	0.662	29.22	0
11/4/2017 0:45	1.837	25.01	5.115	0.684	29.22	0
11/4/2017 1:00	1.533	20.02	2.72	0.724	29.21	0
11/4/2017 1:15	2.717	33.25	9.44	0.548	29.21	0
11/4/2017 1:30	1.958	32.35	6.697	0.362	29.21	0
11/4/2017 1:45	1.05	18.93	9.27	0.522	29.21	0
11/4/2017 2:00	1.603	356.9	9.52	0.552	29.22	0
11/4/2017 2:15	0.48	352.9	0.058	0.495	29.22	0
11/4/2017 2:30	0.057	352.9	0.022	0.389	29.22	0
11/4/2017 2:45	0.574	9.93	18.93	0.338	29.22	0
11/4/2017 3:00	0.076	42.81	0.659	0.347	29.22	0
11/4/2017 3:15	0.672	49.17	0.079	0.442	29.22	0
11/4/2017 3:30	0.792	49.17	0.135	0.501	29.22	0
11/4/2017 3:45	0.925	49.54	0.226	0.641	29.22	0
11/4/2017 4:00	1.953	314.9	37.14	0.74	29.2	0
11/4/2017 4:15	1.669	331.2	0.261	0.606	29.2	0
11/4/2017 4:30	0.583	20.6	30.21	0.577	29.2	0
11/4/2017 4:45	0.008	49.25	0.004	0.492	29.2	0

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
11/4/2017 5:00	1.71	230	63.97	0.843	29.2	0
11/4/2017 5:15	2.133	220.6	23.37	0.989	29.2	0
11/4/2017 5:30	0.704	260.9	5.491	0.933	29.2	0
11/4/2017 5:45	1.037	38.8	18.35	0.713	29.2	0
11/4/2017 6:00	1.182	26.6	16.67	0.581	29.18	0
11/4/2017 6:15	0.147	2.485	0.017	0.68	29.18	0
11/4/2017 6:30	0.286	356.1	16.78	0.867	29.18	0
11/4/2017 6:45	2.502	224.5	16.36	1.175	29.18	0
11/4/2017 7:00	0.756	288.3	51.05	1.061	29.17	0
11/4/2017 7:15	2.291	33.78	9.42	0.596	29.17	0
11/4/2017 7:30	2.05	29.08	7.721	0.629	29.17	0
11/4/2017 7:45	0.519	22.27	0.116	0.888	29.17	0
11/4/2017 8:00	0.065	32.02	4.362	1.08	29.18	0
11/4/2017 8:15	2.01	149.1	19.35	1.222	29.18	0
11/4/2017 8:30	2.258	148.9	6.451	1.238	29.18	0
11/4/2017 8:45	2.269	158.4	11.35	1.404	29.18	0
11/4/2017 9:00	2.272	184.1	18.72	1.589	29.18	0
11/4/2017 9:15	1.736	218.9	12.32	1.674	29.18	0
11/4/2017 9:30	2.691	221.3	9.25	1.74	29.18	0
11/4/2017 9:45	2.442	222.6	11.84	1.767	29.18	0
11/4/2017 10:00	2.087	246.7	20.08	1.785	29.19	0
11/4/2017 10:15	1.706	170	23.18	2.124	29.19	0
11/4/2017 10:30	2.816	162.2	24.15	2.345	29.19	0
11/4/2017 10:45	4.341	184.9	19.75	2.356	29.19	0
11/4/2017 11:00	4.051	195	10.25	2.294	29.17	0
11/4/2017 11:15	4.422	172.6	23.37	2.425	29.17	0
11/4/2017 11:30	4.789	139.8	11.68	2.648	29.17	0
11/4/2017 11:45	5.7	150.7	13.49	2.651	29.17	0
11/4/2017 12:00	6.524	171.7	18.55	2.833	29.13	0
11/4/2017 12:15	5.34	154.4	22.03	2.805	29.13	0
11/4/2017 12:30	6.58	148.6	13.68	2.73	29.13	0
11/4/2017 12:45	6.681	149.7	8.09	2.725	29.13	0
11/4/2017 13:00	5.303	156.5	14.55	2.797	29.14	0
11/4/2017 13:15	6.02	161.4	18.81	2.829	29.14	0
11/4/2017 13:30	5.093	141.1	17.6	2.657	29.14	0
11/4/2017 13:45	5.194	132.8	10.85	2.714	29.14	0
11/4/2017 14:00	5.378	113.3	11.53	2.681	29.12	0
11/4/2017 14:15	5.329	104.1	10	2.598	29.12	0
11/4/2017 14:30	5.87	119.5	11.23	2.491	29.12	0
11/4/2017 14:45	6.065	119	11.56	2.531	29.12	0
11/4/2017 15:00	5.969	113.6	10.83	2.465	29.09	0
11/4/2017 15:15	5.643	123.8	10.48	2.55	29.09	0.01
11/4/2017 15:30	5.655	115.2	8.12	2.569	29.09	0
11/4/2017 15:45	4.896	115.5	12.99	2.506	29.09	0
11/4/2017 16:00	5.84	112.4	9.01	2.42	29.07	0
11/4/2017 16:15	5.527	118	8.16	2.428	29.07	0
11/4/2017 16:30	5.271	118.1	9.02	2.449	29.07	0
11/4/2017 16:45	5.801	106.4	10.01	2.473	29.07	0
11/4/2017 17:00	4.547	94.2	6.505	2.426	29.06	0
11/4/2017 17:15	4.77	92.6	7.91	2.557	29.06	0
11/4/2017 17:30	4.242	90.7	6.89	2.489	29.06	0
11/4/2017 17:45	4.243	95	7.961	2.658	29.06	0
11/4/2017 18:00	3.57	73.94	7.627	2.586	29.04	0
11/4/2017 18:15	3.509	76.67	8.17	2.448	29.04	0
11/4/2017 18:30	4.31	87.5	7.571	2.335	29.04	0.01
11/4/2017 18:45	4.709	89.8	13.27	2.261	29.04	0.01

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
11/4/2017 19:00	5.581	96.1	11.94	2.315	29.02	0.01
11/4/2017 19:15	5.97	110.6	9.1	2.26	29.02	0.01
11/4/2017 19:30	7.102	121.2	9.97	2.449	29.02	0.01
11/4/2017 19:45	8.66	112	11.27	2.356	29.02	0.01
11/4/2017 20:00	9.74	115.2	10.21	2.599	28.96	0
11/4/2017 20:15	8.09	112.7	9.47	2.776	28.96	0
11/4/2017 20:30	6.202	111.6	11.97	2.763	28.96	0.01
11/4/2017 20:45	7.012	125.6	9.91	2.919	28.96	0.01
11/4/2017 21:00	9.33	128.7	9.44	2.983	28.94	0.03
11/4/2017 21:15	6.717	118.8	13.74	2.768	28.94	0.03
11/4/2017 21:30	4.129	95.9	17.57	2.445	28.94	0.04
11/4/2017 21:45	4.716	100.3	18.52	2.72	28.94	0.02
11/4/2017 22:00	4.238	82.6	16.62	2.416	28.94	0.02
11/4/2017 22:15	5.56	44.47	16.1	2.135	28.94	0.03
11/4/2017 22:30	6.667	34.8	11.46	2.045	28.94	0.01
11/4/2017 22:45	4.533	56.57	15.34	2.296	28.94	0.02
11/4/2017 23:00	3.934	49.75	23.71	2.333	28.93	0.01
11/4/2017 23:15	3.423	100.4	29.06	2.639	28.93	0.02
11/4/2017 23:30	9.76	126	11.24	2.975	28.93	0.04
11/4/2017 23:45	3.353	83.6	28.27	2.624	28.93	0.02
11/5/2017 0:00	3.39	48.06	19.54	2.635	28.91	0.01
11/5/2017 0:15	3.918	37.05	10.49	2.501	28.91	0.01
11/5/2017 0:30	3.845	40.63	8.59	2.211	28.91	0.01
11/5/2017 0:45	4.553	48.93	7.828	2.3	28.91	0
11/5/2017 1:00	4.184	43.95	15.39	2.338	28.89	0
11/5/2017 1:15	2.995	67.19	31.84	2.694	28.89	0.01
11/5/2017 1:30	5.361	130.2	12.81	2.912	28.89	0.02
11/5/2017 1:45	8.17	112.4	14.13	3.221	28.89	0.03
11/5/2017 2:00	6.126	93.8	11.27	3.001	28.89	0
11/5/2017 2:15	4.989	82.5	17.33	2.955	28.89	0
11/5/2017 2:30	4.168	82.1	21.03	2.962	28.89	0
11/5/2017 2:45	3.845	51.47	16.83	2.93	28.89	0
11/5/2017 3:00	5.338	66.26	18.42	3.054	28.9	0.01
11/5/2017 3:15	2.368	37.89	18.25	2.65	28.9	0
11/5/2017 3:30	3.698	104.4	31	3.296	28.9	0.02
11/5/2017 3:45	4.749	135.2	19.28	3.227	28.9	0.02
11/5/2017 4:00	3.518	110.8	20.05	2.791	28.92	0.01
11/5/2017 4:15	5.43	113.4	13.06	2.619	28.92	0.01
11/5/2017 4:30	8.5	122.3	9.83	2.63	28.92	0.01
11/5/2017 4:45	9.59	132.5	10.39	2.232	28.92	0.02
11/5/2017 5:00	9.18	140.9	9.07	1.76	28.92	0.02
11/5/2017 5:15	6.716	139.9	8.32	1.39	28.92	0.03
11/5/2017 5:30	4.492	137.2	11.66	1.267	28.92	0.02
11/5/2017 5:45	4.459	154.8	16.28	1.382	28.92	0.02
11/5/2017 6:00	5.316	174.8	18.89	1.581	28.92	0.01
11/5/2017 6:15	3.059	178.7	71.1	1.648	28.92	0
11/5/2017 6:30	4.648	329.6	7.004	0.991	28.92	0.01
11/5/2017 6:45	4.934	322.2	5.25	0.875	28.92	0.01
11/5/2017 7:00	5.221	336.3	21.46	0.912	28.93	0
11/5/2017 7:15	4.314	2.829	8.04	0.793	28.93	0
11/5/2017 7:30	2.241	332.1	6.433	0.816	28.93	0.01
11/5/2017 7:45	1.005	34.2	9.64	0.522	28.93	0
11/5/2017 8:00	1.516	41.49	0.846	0.198	28.95	0
11/5/2017 8:15	3.054	32.59	10.52	0.059	28.95	0
11/5/2017 8:30	3.175	14.49	6.213	0.001	28.95	0
11/5/2017 8:45	3.007	18.8	2.82	0.022	28.95	0

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
11/5/2017 9:00	5.827	15.18	11.15	0.03	28.97	0
11/5/2017 9:15	9.01	8.9	10.9	0.076	28.97	0
11/5/2017 9:30	8.41	11.23	8.8	0.056	28.97	0
11/5/2017 9:45	7.189	12.62	9.51	0.139	28.97	0
11/5/2017 10:00	10.51	11.18	8.96	0.159	28.99	0
11/5/2017 10:15	9.79	10.89	9.41	0.181	28.99	0
11/5/2017 10:30	8.48	5.219	11.96	0.234	28.99	0
11/5/2017 10:45	8.33	14.82	8.65	0.276	28.99	0
11/5/2017 11:00	9.18	18.43	7.997	0.361	29	0.01
11/5/2017 11:15	11.16	7.455	12.19	0.493	29	0
11/5/2017 11:30	13.46	5.629	11.7	0.52	29	0
11/5/2017 11:45	12.51	2.629	12.94	0.658	29	0
11/5/2017 12:00	12.71	4.937	14.65	0.613	28.99	0
11/5/2017 12:15	11.56	3.4	13.96	0.522	28.99	0.01
11/5/2017 12:30	9.95	6.957	11.43	0.535	28.99	0
11/5/2017 12:45	9.08	6.987	12.89	0.594	28.99	0.02
11/5/2017 13:00	9.12	3.365	13.72	0.79	29.01	0.02
11/5/2017 13:15	8.07	352.8	14.81	0.889	29.01	0.01
11/5/2017 13:30	6.875	326.7	16.78	0.913	29.01	0.01
11/5/2017 13:45	9.72	299	10.36	0.793	29.01	0.01
11/5/2017 14:00	7.987	304.8	15.71	0.666	29.04	0
11/5/2017 14:15	7.627	313.1	9.9	0.393	29.04	0
11/5/2017 14:30	6.983	327.4	17.86	0.268	29.04	0
11/5/2017 14:45	8.67	321.4	11.91	0.3	29.04	0
11/5/2017 15:00	6.751	304.8	9.92	0.264	29.07	0
11/5/2017 15:15	5.244	313.2	11.09	0.261	29.07	0
11/5/2017 15:30	2.152	326.9	72.57	0.286	29.07	0
11/5/2017 15:45	3.672	7.733	46.35	0.339	29.07	0
11/5/2017 16:00	3.764	21.13	14.78	0.192	29.11	0
11/5/2017 16:15	4.796	26.02	17.84	0.274	29.11	0
11/5/2017 16:30	4.755	23.23	14.2	0.214	29.11	0
11/5/2017 16:45	2.714	3.491	26.13	0.164	29.11	0
11/5/2017 17:00	3.614	25.79	9.92	0.19	29.14	0
11/5/2017 17:15	2.021	63.63	62.77	0.248	29.14	0.01
11/5/2017 17:30	1.744	147.3	44.29	0.173	29.14	0
11/5/2017 17:45	0.444	70	3.883	0.246	29.14	0
11/5/2017 18:00	1.977	160.7	35.3	0.33	29.16	0
11/5/2017 18:15	2.089	180.3	9.07	0.253	29.16	0
11/5/2017 18:30	2.946	207	14.6	0.194	29.16	0
11/5/2017 18:45	3.808	195	8.8	0.182	29.16	0
11/5/2017 19:00	4.591	186.4	5.421	0.231	29.18	0
11/5/2017 19:15	4.007	175.3	9.38	0.286	29.18	0
11/5/2017 19:30	3.972	158.4	5.33	0.356	29.18	0
11/5/2017 19:45	4.066	164.9	6.437	0.4	29.18	0
11/5/2017 20:00	3.285	150	2.651	0.429	29.2	0
11/5/2017 20:15	2.033	109.8	12.23	0.31	29.2	0
11/5/2017 20:30	1.502	87	6.905	0.373	29.2	0
11/5/2017 20:45	2.394	116.7	16.33	0.486	29.2	0
11/5/2017 21:00	2.034	95.4	16.5	0.401	29.22	0
11/5/2017 21:15	0.814	67.55	4.537	0.264	29.22	0
11/5/2017 21:30	1.034	69.71	0.072	0.492	29.22	0
11/5/2017 21:45	0.943	70.22	0.515	0.594	29.22	0
11/5/2017 22:00	1.105	70.84	0.224	0.573	29.24	0
11/5/2017 22:15	1.013	70.83	0.148	0.549	29.24	0
11/5/2017 22:30	0.366	70.83	0.055	0.528	29.24	0
11/5/2017 22:45	0.423	70.79	0.105	0.407	29.24	0

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
11/5/2017 23:00	1.132	70.64	0.149	0.514	29.26	0
11/5/2017 23:15	1.281	70.62	0.224	0.621	29.26	0
11/5/2017 23:30	1.29	70.91	0.074	0.34	29.26	0
11/5/2017 23:45	2.093	83.9	5.976	0.365	29.26	0
11/6/2017 0:00	1.444	64.47	10.88	0.366	29.28	0
11/6/2017 0:15	2.182	37.37	11.5	0.526	29.28	0
11/6/2017 0:30	2.286	24.87	6.036	0.5	29.28	0
11/6/2017 0:45	1.831	13	6.758	0.46	29.28	0
11/6/2017 1:00	1.944	27.44	0.241	0.377	29.29	0
11/6/2017 1:15	2.276	27.32	0.197	0.271	29.29	0
11/6/2017 1:30	2.537	26.06	0.422	0.268	29.29	0
11/6/2017 1:45	2.41	13.31	9.07	0.437	29.29	0
11/6/2017 2:00	2.75	22.66	7.321	0.373	29.31	0
11/6/2017 2:15	2.828	25.17	5.707	0.198	29.31	0
11/6/2017 2:30	2.909	27.02	2.482	0.148	29.31	0
11/6/2017 2:45	2.713	24.21	3.712	0.157	29.31	0
11/6/2017 3:00	3.275	14.46	6.202	0.172	29.32	0
11/6/2017 3:15	5.721	6.452	14.17	0.301	29.32	0
11/6/2017 3:30	4.592	22.74	8.1	0.295	29.32	0
11/6/2017 3:45	4.311	22.15	6.974	-0.126	29.32	0
11/6/2017 4:00	5.961	39.84	6.152	-0.182	29.33	0
11/6/2017 4:15	4.677	37	8.18	-0.269	29.33	0
11/6/2017 4:30	2.211	21.28	18.03	0.061	29.33	0
11/6/2017 4:45	2.019	21.35	63.73	0.65	29.33	0
11/6/2017 5:00	1.363	9.72	16.45	0.627	29.36	0
11/6/2017 5:15	4.725	19.31	15.58	-0.049	29.36	0
11/6/2017 5:30	5.763	33.34	6.709	-0.215	29.36	0
11/6/2017 5:45	4.005	36.56	4.417	-0.296	29.36	0
11/6/2017 6:00	2.575	36.79	4.451	-0.358	29.37	0
11/6/2017 6:15	6.91	26.63	8.38	-0.214	29.37	0
11/6/2017 6:30	6.123	26.95	5.096	-0.195	29.37	0
11/6/2017 6:45	5.712	28.74	6.168	-0.278	29.37	0
11/6/2017 7:00	6.416	28.09	5.731	-0.177	29.37	0
11/6/2017 7:15	5.358	24.62	7.364	-0.325	29.37	0
11/6/2017 7:30	4.188	21.5	7.987	-0.383	29.37	0
11/6/2017 7:45	2.668	14.64	7.948	-0.267	29.37	0
11/6/2017 8:00	1.928	13.51	0.274	-0.194	29.38	0
11/6/2017 8:15	2.233	18.02	9.21	-0.401	29.38	0
11/6/2017 8:30	1.937	19	9.64	-0.148	29.38	0
11/6/2017 8:45	3.339	46.04	2.505	-0.251	29.38	0
11/6/2017 9:00	3.453	42.83	3.652	-0.153	29.39	0
11/6/2017 9:15	3.973	32.16	6.57	0.378	29.39	0
11/6/2017 9:30	4.252	28.13	5.547	0.568	29.39	0
11/6/2017 9:45	4.492	34	8.17	0.994	29.39	0
11/6/2017 10:00	4.415	30.57	8.83	1.526	29.4	0.03
11/6/2017 10:15	2.156	14.85	10.97	2.212	29.4	0.01
11/6/2017 10:30	1.191	284.6	22.86	3.621	29.4	0
11/6/2017 10:45	2.635	326.1	37.96	3.713	29.4	0.01
11/6/2017 11:00	3.589	41.55	17.05	3.04	29.44	0.02
11/6/2017 11:15	2.929	24.31	11.63	3.237	29.44	0.01
11/6/2017 11:30	2.958	29.92	12.16	3.774	29.44	0.01
11/6/2017 11:45	2.09	30.12	13.48	4.196	29.44	0.02
11/6/2017 12:00	2.579	28.63	17.37	4.619	29.44	0.01
11/6/2017 12:15	2.722	42.63	19.22	4.763	29.44	0.02
11/6/2017 12:30	2.801	54.85	12.21	4.974	29.44	0.01
11/6/2017 12:45	3.027	78.13	20.73	5.269	29.44	0

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
11/6/2017 13:00	2.062	34.64	22.27	5.706	29.44	0
11/6/2017 13:15	2.114	23.12	28.65	6.211	29.44	0
11/6/2017 13:30	2.543	30.88	18.87	6.224	29.44	0
11/6/2017 13:45	2.253	10.65	13.71	6.176	29.44	0
11/6/2017 14:00	2.769	16.61	5.541	6.144	29.42	0
11/6/2017 14:15	3.858	27.22	5.18	5.709	29.42	0
11/6/2017 14:30	3.9	23.75	8.06	5.562	29.42	0
11/6/2017 14:45	3.449	20.16	4.31	5.97	29.42	0
11/6/2017 15:00	2.644	14.53	8.78	6.169	29.43	0
11/6/2017 15:15	2.658	16	5.33	6.105	29.43	0
11/6/2017 15:30	2.848	13.38	4.668	6.017	29.43	0
11/6/2017 15:45	2.09	15.47	0.344	5.909	29.43	0
11/6/2017 16:00	1.339	16.05	0.202	5.884	29.44	0
11/6/2017 16:15	1.747	54.18	41.21	5.698	29.44	0
11/6/2017 16:30	3.315	105.4	20.75	5.543	29.44	0
11/6/2017 16:45	4.36	112.9	13.18	5.496	29.44	0
11/6/2017 17:00	4.209	107.2	10.87	5.071	29.44	0
11/6/2017 17:15	4.911	126.9	8.55	4.909	29.44	0
11/6/2017 17:30	5.679	121.5	8.85	4.619	29.44	0
11/6/2017 17:45	6.105	125.5	10.84	4.162	29.44	0
11/6/2017 18:00	6.894	129.5	11.92	3.984	29.45	0
11/6/2017 18:15	7.049	123.3	13.47	3.879	29.45	0
11/6/2017 18:30	6.317	128.3	16.45	3.752	29.45	0
11/6/2017 18:45	5.748	135.3	12.18	3.744	29.45	0
11/6/2017 19:00	5.811	123.4	13.61	3.612	29.44	0
11/6/2017 19:15	4.866	125.4	14.55	3.369	29.44	0
11/6/2017 19:30	4.621	121.2	15.87	3.256	29.44	0
11/6/2017 19:45	5.69	114.8	16.12	3.204	29.44	0
11/6/2017 20:00	4.791	99.5	13.62	2.87	29.44	0
11/6/2017 20:15	5.679	101.4	10.85	2.942	29.44	0
11/6/2017 20:30	4.73	119.1	13.69	3.006	29.44	0
11/6/2017 20:45	4.765	111.9	19.32	2.849	29.44	0
11/6/2017 21:00	6.525	104.5	16.36	2.752	29.45	0
11/6/2017 21:15	7.453	113.6	12.01	2.882	29.45	0
11/6/2017 21:30	7.528	116.1	11.68	2.959	29.45	0
11/6/2017 21:45	7.036	103.2	15.97	2.932	29.45	0
11/6/2017 22:00	7.746	111.6	12.18	3.402	29.45	0
11/6/2017 22:15	5.635	118.2	18.23	3.294	29.45	0
11/6/2017 22:30	6.859	108.3	17.48	3.216	29.45	0
11/6/2017 22:45	6.897	110.2	16.8	3.078	29.45	0
11/6/2017 23:00	9.1	114.4	14.3	3.21	29.45	0
11/6/2017 23:15	11.06	118	14.31	3.125	29.45	0
11/6/2017 23:30	13.12	124.5	10.71	3.283	29.45	0
11/6/2017 23:45	12.59	124.5	11.28	3.299	29.45	0
11/7/2017 0:00	11.7	120.7	11.91	3.347	29.45	0
11/7/2017 0:15	11.62	122.1	11.96	3.389	29.45	0
11/7/2017 0:30	10.16	116.2	11.66	3.433	29.45	0
11/7/2017 0:45	8.68	112.4	13.33	3.344	29.45	0
11/7/2017 1:00	8.6	113.6	13.58	3.238	29.44	0
11/7/2017 1:15	8.08	118	12.62	3.212	29.44	0
11/7/2017 1:30	8.53	109.7	13.59	3.308	29.44	0
11/7/2017 1:45	8.08	106.7	10.54	3.447	29.44	0
11/7/2017 2:00	6.455	111.2	14.81	3.569	29.43	0
11/7/2017 2:15	4.542	91.6	22.16	3.287	29.43	0
11/7/2017 2:30	4.267	115.9	20.51	3.036	29.43	0
11/7/2017 2:45	4.012	88.4	30.66	2.986	29.43	0

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
11/7/2017 3:00	3.456	125.6	25.06	3.143	29.41	0
11/7/2017 3:15	4.457	88.3	33.38	3.038	29.41	0
11/7/2017 3:30	7.651	105.9	14.69	3.288	29.41	0
11/7/2017 3:45	9.03	106.4	13.69	3.421	29.41	0
11/7/2017 4:00	7.256	95.1	13.92	3.051	29.4	0
11/7/2017 4:15	8.46	102.6	11.28	3.386	29.4	0
11/7/2017 4:30	7.162	108.7	14.79	3.438	29.4	0
11/7/2017 4:45	8.33	107.8	12.95	3.557	29.4	0
11/7/2017 5:00	9.75	110.1	12.74	3.658	29.41	0
11/7/2017 5:15	9.79	110.4	11.42	3.767	29.41	0
11/7/2017 5:30	8.68	113.6	13.69	3.77	29.41	0
11/7/2017 5:45	8.01	107.1	18.41	3.801	29.41	0
11/7/2017 6:00	8.19	118.1	14.78	3.729	29.4	0
11/7/2017 6:15	8.95	116.8	13.29	3.954	29.4	0
11/7/2017 6:30	8.88	118.7	11.75	3.99	29.4	0
11/7/2017 6:45	7.504	121.9	12.74	3.926	29.4	0
11/7/2017 7:00	6.994	99.4	24.45	3.949	29.38	0
11/7/2017 7:15	6.443	136.4	24.27	3.906	29.38	0
11/7/2017 7:30	7.819	114.5	16.14	4.055	29.38	0
11/7/2017 7:45	10.9	124.7	10.89	4.239	29.38	0
11/7/2017 8:00	11.45	120.7	11.28	4.276	29.36	0
11/7/2017 8:15	12.76	127.1	10.47	4.295	29.36	0
11/7/2017 8:30	11.97	123.9	10.98	4.327	29.36	0
11/7/2017 8:45	14.28	125.6	10.26	4.37	29.36	0
11/7/2017 9:00	13.12	124.3	11.8	4.462	29.36	0
11/7/2017 9:15	13.93	130.8	10.35	4.614	29.36	0
11/7/2017 9:30	13.03	131.4	11.27	4.748	29.36	0
11/7/2017 9:45	13.14	128.2	12	4.887	29.36	0
11/7/2017 10:00	10.78	129.3	12.33	4.961	29.35	0
11/7/2017 10:15	10.58	130.5	11.51	5.135	29.35	0
11/7/2017 10:30	9.19	126.5	12.8	5.238	29.35	0
11/7/2017 10:45	9.91	129.6	11.91	5.434	29.35	0
11/7/2017 11:00	9.99	125.8	14.6	5.526	29.35	0
11/7/2017 11:15	11.2	130.5	11.23	5.503	29.35	0
11/7/2017 11:30	13.29	131.6	10.43	5.553	29.35	0
11/7/2017 11:45	13.67	122.9	12.87	5.641	29.35	0
11/7/2017 12:00	12.83	121.9	12.36	5.958	29.31	0
11/7/2017 12:15	13.65	125.7	10.98	6.104	29.31	0
11/7/2017 12:30	13.56	122	11.79	6.22	29.31	0
11/7/2017 12:45	14.51	124.1	10.6	6.334	29.31	0
11/7/2017 13:00	14.94	122.4	10.78	6.474	29.26	0
11/7/2017 13:15	14.27	122.8	13.46	6.464	29.26	0
11/7/2017 13:30	12.53	123.2	13.58	6.42	29.26	0
11/7/2017 13:45	13.42	113.4	14.94	6.358	29.26	0
11/7/2017 14:00	12.46	125.5	14.35	6.355	29.26	0
11/7/2017 14:15	13.42	126.9	12.37	6.442	29.26	0
11/7/2017 14:30	15.03	132.2	11.8	6.644	29.26	0
11/7/2017 14:45	16.79	136.2	11.89	6.562	29.26	0
11/7/2017 15:00	16.36	130.3	10.96	6.479	29.25	0
11/7/2017 15:15	17.15	128.8	10.93	6.274	29.25	0
11/7/2017 15:30	15.69	128.7	11.61	6.168	29.25	0
11/7/2017 15:45	9.83	118.2	13.49	6.175	29.25	0
11/7/2017 16:00	10.11	123	15.2	6.184	29.25	0
11/7/2017 16:15	7.066	127.5	12.3	6.118	29.25	0
11/7/2017 16:30	7.28	135.9	14.39	6.071	29.25	0
11/7/2017 16:45	8.53	122.8	10.01	6.042	29.25	0

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
11/7/2017 17:00	12.57	126.2	8.79	5.943	29.23	0
11/7/2017 17:15	11.41	134.9	12.6	5.923	29.23	0
11/7/2017 17:30	14.92	135.8	12.36	5.927	29.23	0
11/7/2017 17:45	12.71	138.4	11.95	5.832	29.23	0
11/7/2017 18:00	11.77	136.1	12.48	5.838	29.2	0
11/7/2017 18:15	14.29	131.5	13.22	5.977	29.2	0
11/7/2017 18:30	15.26	130.1	13.26	6.122	29.2	0
11/7/2017 18:45	15.21	129.5	11.83	6.255	29.2	0
11/7/2017 19:00	12.18	145.6	12.29	6.228	29.22	0
11/7/2017 19:15	14.17	134.2	14.05	6.339	29.22	0
11/7/2017 19:30	12.59	119.9	14.34	6.45	29.22	0
11/7/2017 19:45	12.71	122.2	12.42	6.423	29.22	0
11/7/2017 20:00	16.16	124.2	11.45	6.33	29.16	0
11/7/2017 20:15	17.23	122.1	12.13	6.3	29.16	0
11/7/2017 20:30	18.31	127	12.28	6.228	29.16	0
11/7/2017 20:45	14.32	118.1	14.43	6.173	29.16	0
11/7/2017 21:00	13.95	116.5	12.51	6.404	29.16	0
11/7/2017 21:15	14.46	118.8	12.09	6.791	29.16	0
11/7/2017 21:30	11.97	135.3	12.01	6.843	29.16	0
11/7/2017 21:45	11.03	133.1	15.14	6.762	29.16	0
11/7/2017 22:00	12.45	124.7	15.18	6.693	29.14	0
11/7/2017 22:15	10.89	118.7	14.24	6.756	29.14	0
11/7/2017 22:30	9.63	117	13.33	6.9	29.14	0
11/7/2017 22:45	10.89	121.4	12.12	7.141	29.14	0
11/7/2017 23:00	13.39	133.2	12.04	7.238	29.13	0
11/7/2017 23:15	14.05	122	15.92	7.192	29.13	0
11/7/2017 23:30	7.327	113.6	15.63	7.371	29.13	0
11/7/2017 23:45	6.706	132.7	20.82	7.357	29.13	0
11/8/2017 0:00	6.495	119.8	15.27	7.214	29.13	0
11/8/2017 0:15	6.934	130.2	14.13	7.175	29.13	0
11/8/2017 0:30	8.79	134.3	12.54	7.161	29.13	0
11/8/2017 0:45	12.25	128.5	12.53	7.199	29.13	0
11/8/2017 1:00	13.34	123	12.37	7.131	29.12	0
11/8/2017 1:15	7.422	116.4	15.87	7.057	29.12	0
11/8/2017 1:30	8.47	107.6	20.2	7.01	29.12	0
11/8/2017 1:45	5.083	117.2	24.93	6.711	29.12	0
11/8/2017 2:00	3.746	104.2	26.73	7.049	29.12	0
11/8/2017 2:15	7.953	123.5	18.77	7.36	29.12	0
11/8/2017 2:30	8.75	112.6	16.72	7.492	29.12	0
11/8/2017 2:45	6.365	97.6	23.47	7.453	29.12	0
11/8/2017 3:00	4.496	126.4	24.77	6.694	29.11	0
11/8/2017 3:15	5.882	125.2	24.4	7.402	29.11	0
11/8/2017 3:30	13.27	121.4	19.52	7.581	29.11	0
11/8/2017 3:45	15.52	135.2	13.44	7.586	29.11	0
11/8/2017 4:00	7.722	91.4	29.85	7.253	29.07	0
11/8/2017 4:15	5.619	92.6	17.1	6.631	29.07	0
11/8/2017 4:30	4.242	118	19.53	6.883	29.07	0
11/8/2017 4:45	5.645	135	29.86	7.607	29.07	0
11/8/2017 5:00	6.792	300.9	79.03	6.425	29.07	0
11/8/2017 5:15	10.41	140.9	53.36	7.322	29.07	0
11/8/2017 5:30	11.38	106.9	20.9	7.411	29.07	0
11/8/2017 5:45	16.09	126	12.58	7.885	29.07	0
11/8/2017 6:00	13.06	127.1	10.65	7.948	29.04	0
11/8/2017 6:15	10.04	122.1	13.92	7.784	29.04	0
11/8/2017 6:30	11.62	114.5	15.23	7.873	29.04	0
11/8/2017 6:45	10.81	122.2	13.95	8.06	29.04	0

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
11/8/2017 7:00	11.14	106.9	14.64	8.33	29.02	0
11/8/2017 7:15	12.35	114	13.6	9.05	29.02	0
11/8/2017 7:30	13.14	108.7	13.71	9.21	29.02	0
11/8/2017 7:45	13.65	114.8	12.61	9.34	29.02	0
11/8/2017 8:00	11.81	112.1	14.88	9.59	29.03	0
11/8/2017 8:15	15.07	122.9	13.51	9.68	29.03	0
11/8/2017 8:30	14.89	126.8	11.63	9.84	29.03	0
11/8/2017 8:45	16.04	121.8	13.62	10.08	29.03	0
11/8/2017 9:00	20.15	116.5	14.11	10.18	29.01	0
11/8/2017 9:15	22.03	120.2	12.54	10.24	29.01	0
11/8/2017 9:30	20.5	118.9	13.48	10.4	29.01	0
11/8/2017 9:45	17.61	118	12.56	10.47	29.01	0
11/8/2017 10:00	19.55	122.8	13.43	10.77	29.02	0
11/8/2017 10:15	20.66	116.1	12.66	11.11	29.02	0
11/8/2017 10:30	19.09	115.1	13.61	11.42	29.02	0
11/8/2017 10:45	18.92	105.1	14.22	10.99	29.02	0
11/8/2017 11:00	18.81	104.9	14.99	11.33	28.98	0
11/8/2017 11:15	17.37	116	15.44	11.59	28.98	0
11/8/2017 11:30	14.69	123.5	13.6	11.45	28.98	0
11/8/2017 11:45	15.29	117.3	14.82	10.95	28.98	0
11/8/2017 12:00	15.63	119.1	15.43	10.74	28.98	0
11/8/2017 12:15	13.92	121.9	13.86	10.64	28.98	0
11/8/2017 12:30	16.02	120.4	15.5	10.66	28.98	0
11/8/2017 12:45	14.85	111.7	16.7	10.51	28.98	0
11/8/2017 13:00	14.84	114.2	14.77	10.44	28.98	0
11/8/2017 13:15	12.75	120.7	15.58	10.57	28.98	0
11/8/2017 13:30	13.42	114.5	14.66	10.67	28.98	0
11/8/2017 13:45	15.96	111.1	11.86	10.66	28.98	0
11/8/2017 14:00	16.21	112	14.33	10.73	28.94	0
11/8/2017 14:15	12.79	109.6	13.88	10.72	28.94	0
11/8/2017 14:30	16.16	123	12.48	10.6	28.94	0
11/8/2017 14:45	16.43	123.6	12.31	10.41	28.94	0
11/8/2017 15:00	17.37	123.2	13.53	10.31	28.95	0
11/8/2017 15:15	17.07	122.6	12.04	10.26	28.95	0
11/8/2017 15:30	20.18	123.3	12.85	9.52	28.95	0
11/8/2017 15:45	17.54	124.2	10.92	8.6	28.95	0
11/8/2017 16:00	18.18	121.5	11.97	7.712	28.94	0.02
11/8/2017 16:15	17.27	117.4	11.72	6.919	28.94	0.01
11/8/2017 16:30	16.74	113.7	13.87	6.409	28.94	0.02
11/8/2017 16:45	16.86	108.3	14.01	6.156	28.94	0.02
11/8/2017 17:00	16.55	100.1	11.49	6.252	28.89	0.02
11/8/2017 17:15	20.69	105.5	12.52	6.691	28.89	0
11/8/2017 17:30	20.05	105.9	13.16	7.174	28.89	0
11/8/2017 17:45	22.16	108.2	13.09	7.572	28.89	0
11/8/2017 18:00	22.19	107.2	14.44	7.658	28.85	0.01
11/8/2017 18:15	21.49	112.5	13.2	7.579	28.85	0
11/8/2017 18:30	21.37	107	12.75	7.892	28.85	0
11/8/2017 18:45	22.64	111.8	14	8.46	28.85	0
11/8/2017 19:00	21.25	113.9	14.04	8.51	28.84	0
11/8/2017 19:15	20.06	112.3	14.45	8.7	28.84	0
11/8/2017 19:30	20.63	118.7	13.14	8.92	28.84	0
11/8/2017 19:45	15.89	113.3	16.47	8.87	28.84	0
11/8/2017 20:00	15.21	111.2	19.29	9.29	28.83	0
11/8/2017 20:15	17.16	112.9	17.28	9.65	28.83	0
11/8/2017 20:30	15.74	115.6	15.05	9.75	28.83	0
11/8/2017 20:45	20.02	113.1	14.17	9.58	28.83	0

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
11/8/2017 21:00	20.45	117.2	12.82	9.82	28.84	0
11/8/2017 21:15	19.56	122.1	15.16	9.83	28.84	0
11/8/2017 21:30	20.87	119.2	13.94	9.89	28.84	0
11/8/2017 21:45	19.84	126.4	12.96	10.01	28.84	0
11/8/2017 22:00	19.73	140.7	12.18	9.76	28.88	0
11/8/2017 22:15	17.52	161.5	10.89	9.34	28.88	0
11/8/2017 22:30	14.3	166.9	16.34	9.09	28.88	0
11/8/2017 22:45	14.16	132.4	10.56	9.1	28.88	0
11/8/2017 23:00	15.24	133.1	11.78	9.1	28.9	0
11/8/2017 23:15	16.47	122.4	10.44	9.31	28.9	0
11/8/2017 23:30	16.87	117.6	12.74	9.11	28.9	0
11/8/2017 23:45	17.44	121.9	13.53	8.88	28.9	0
11/9/2017 0:00	20.06	123.7	10.61	9.05	28.88	0
11/9/2017 0:15	18.19	123.6	10.22	9.19	28.88	0
11/9/2017 0:30	20.59	125.2	10.52	9.33	28.88	0
11/9/2017 0:45	17.06	121.4	11.31	9.4	28.88	0
11/9/2017 1:00	15.17	123.5	10.98	9.45	28.85	0
11/9/2017 1:15	14.04	120.6	11.44	9.44	28.85	0
11/9/2017 1:30	13.18	116.7	12.18	9.46	28.85	0
11/9/2017 1:45	11.81	125	10.49	9.51	28.85	0
11/9/2017 2:00	12.06	122.6	10.63	9.37	28.84	0
11/9/2017 2:15	11.88	127.9	11.52	9.17	28.84	0
11/9/2017 2:30	10.69	121.7	10.41	9.02	28.84	0
11/9/2017 2:45	11.1	129.2	8.86	8.96	28.84	0
11/9/2017 3:00	16.37	130	9.09	8.94	28.83	0
11/9/2017 3:15	13.18	124.7	10.23	9	28.83	0
11/9/2017 3:30	11.78	118.3	10.3	9.22	28.83	0
11/9/2017 3:45	8.66	120.9	12.12	9.37	28.83	0
11/9/2017 4:00	4.204	74.04	45.12	9.08	28.82	0
11/9/2017 4:15	4.318	105.6	30.19	8.92	28.82	0
11/9/2017 4:30	7.659	120.7	12.43	9.19	28.82	0
11/9/2017 4:45	8.36	117	14.12	9.31	28.82	0
11/9/2017 5:00	9.94	118.1	12.5	9.28	28.8	0
11/9/2017 5:15	12.19	127.5	12.66	9	28.8	0
11/9/2017 5:30	11.9	116.1	12.53	8.84	28.8	0
11/9/2017 5:45	7.592	119.5	17.93	9	28.8	0
11/9/2017 6:00	12.65	134.3	14.45	8.77	28.81	0
11/9/2017 6:15	11.21	130	13.31	8.62	28.81	0
11/9/2017 6:30	13.39	126.1	11.76	8.51	28.81	0
11/9/2017 6:45	11.96	114.1	12.07	8.59	28.81	0
11/9/2017 7:00	6.418	72.9	21.76	8.14	28.82	0
11/9/2017 7:15	3.782	51.33	23.76	7.888	28.82	0
11/9/2017 7:30	4.829	81.5	31.25	8.22	28.82	0
11/9/2017 7:45	5.109	83.5	24.96	8.24	28.82	0
11/9/2017 8:00	9.25	107.1	20.24	8.52	28.85	0
11/9/2017 8:15	10.69	119.6	13.32	9.03	28.85	0
11/9/2017 8:30	7.642	108.3	20.16	8.88	28.85	0
11/9/2017 8:45	7.097	117.5	17.4	9.02	28.85	0
11/9/2017 9:00	4.751	92.7	20.7	9.22	28.86	0
11/9/2017 9:15	4.718	100.2	19.84	9.01	28.86	0
11/9/2017 9:30	3.475	103.4	32.65	8.74	28.86	0.01
11/9/2017 9:45	4.719	116.3	21.55	8.23	28.86	0
11/9/2017 10:00	7.799	112.2	16.16	8.26	28.86	0
11/9/2017 10:15	6.995	105.3	19.27	8.49	28.86	0
11/9/2017 10:30	3.894	91.2	21.8	8.21	28.86	0.01
11/9/2017 10:45	8.65	138.9	25.44	8.46	28.86	0

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
11/9/2017 11:00	8.96	140	14.07	8.46	28.88	0
11/9/2017 11:15	9.73	169.2	16.14	8.07	28.88	0.01
11/9/2017 11:30	6.417	148.7	12.5	7.704	28.88	0
11/9/2017 11:45	7.579	162	9.79	7.501	28.88	0.02
11/9/2017 12:00	6.96	160	15.59	7.163	28.92	0.01
11/9/2017 12:15	9.32	158.7	10.71	6.76	28.92	0.02
11/9/2017 12:30	9.02	160.1	19.4	6.479	28.92	0.02
11/9/2017 12:45	9.23	133.6	9.46	6.262	28.92	0.04
11/9/2017 13:00	8.8	117.5	10.8	6.117	28.94	0.02
11/9/2017 13:15	9.39	119.6	10.28	6.159	28.94	0.03
11/9/2017 13:30	9.96	122.3	12.99	6.265	28.94	0.03
11/9/2017 13:45	10.89	119.8	10.66	6.344	28.94	0.02
11/9/2017 14:00	9.68	131.1	10.95	6.384	28.96	0.04
11/9/2017 14:15	9.39	123.2	10.36	6.261	28.96	0.03
11/9/2017 14:30	7.645	137.8	14.96	6.322	28.96	0.02
11/9/2017 14:45	7.344	142.2	12.27	6.403	28.96	0.01
11/9/2017 15:00	8.42	128.2	8.66	6.535	28.98	0.01
11/9/2017 15:15	8.53	123.7	9.06	6.739	28.98	0
11/9/2017 15:30	7.278	126.9	13.72	6.809	28.98	0.01
11/9/2017 15:45	8.57	133.3	9.21	6.904	28.98	0.01
11/9/2017 16:00	8.62	133.3	10.25	7.117	29.01	0
11/9/2017 16:15	7.856	134	12.55	7.056	29.01	0
11/9/2017 16:30	7.25	127.5	10.47	7.075	29.01	0.01
11/9/2017 16:45	7.824	129.6	10.66	7.206	29.01	0
11/9/2017 17:00	7.36	140.4	10.95	7.393	29.03	0
11/9/2017 17:15	7.456	151.1	10.76	7.232	29.03	0.03
11/9/2017 17:30	7.689	145.2	12.49	7.136	29.03	0.02
11/9/2017 17:45	5.682	132.2	10.88	7.017	29.03	0.04
11/9/2017 18:00	5.942	121.2	7.939	7.031	29.03	0
11/9/2017 18:15	6.975	123.4	9.24	7.404	29.03	0
11/9/2017 18:30	6.838	128.3	6.424	7.621	29.03	0
11/9/2017 18:45	7.045	134.8	7.089	7.627	29.03	0
11/9/2017 19:00	6.085	138.5	7.718	7.583	29.03	0
11/9/2017 19:15	4.856	132.5	12.28	7.551	29.03	0
11/9/2017 19:30	4.938	122.4	10.49	7.711	29.03	0
11/9/2017 19:45	5.872	129.8	7.854	7.834	29.03	0
11/9/2017 20:00	4.673	129.6	7.194	7.866	29.04	0
11/9/2017 20:15	5.535	128.5	5.749	8.05	29.04	0
11/9/2017 20:30	4.806	125.6	9.2	8.09	29.04	0
11/9/2017 20:45	3.269	118.2	15.57	8.05	29.04	0
11/9/2017 21:00	5.307	125	8.94	8.13	29.04	0
11/9/2017 21:15	5.581	129.1	7.196	8.26	29.04	0
11/9/2017 21:30	4.404	141.3	13.31	8.1	29.04	0
11/9/2017 21:45	4.847	132.8	6.473	8.53	29.04	0
11/9/2017 22:00	4.657	129.1	7.476	8.37	29.04	0
11/9/2017 22:15	4.414	126.9	8.63	8.36	29.04	0
11/9/2017 22:30	3.832	136	9.46	8.43	29.04	0
11/9/2017 22:45	5.516	182.4	19.44	7.249	29.04	0
11/9/2017 23:00	4.746	126.2	29.56	6.947	29.04	0
11/9/2017 23:15	3.396	86.2	18.49	6.702	29.04	0
11/9/2017 23:30	3.942	125	27.09	7.238	29.04	0
11/9/2017 23:45	3.956	161.8	19.45	7.148	29.04	0
11/10/2017 0:00	3.209	102.5	16.46	7.425	29.03	0
11/10/2017 0:15	2.095	64.67	25.67	7.439	29.03	0.01
11/10/2017 0:30	1.789	113	18.16	7.453	29.03	0
11/10/2017 0:45	1.657	132.2	25.09	7.223	29.03	0

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
11/10/2017 1:00	3.382	152.5	17.69	6.808	29.02	0
11/10/2017 1:15	3.442	121.6	6.498	6.912	29.02	0
11/10/2017 1:30	3.282	139.6	4.469	6.812	29.02	0
11/10/2017 1:45	3.564	112.4	24.69	6.523	29.02	0
11/10/2017 2:00	3.533	83.7	11.1	6.239	29.01	0
11/10/2017 2:15	4.262	70.78	8.95	6.198	29.01	0
11/10/2017 2:30	3.015	59.45	8.19	6.06	29.01	0
11/10/2017 2:45	2.475	77.51	30.91	6.295	29.01	0
11/10/2017 3:00	5.82	160.1	12.8	6.26	28.98	0
11/10/2017 3:15	3.404	114.5	21.24	6.372	28.98	0
11/10/2017 3:30	1.559	50.06	13.12	5.654	28.98	0
11/10/2017 3:45	2.1	85	49.55	5.694	28.98	0
11/10/2017 4:00	2.86	64.95	14.14	5.527	28.99	0
11/10/2017 4:15	3.941	54.18	6.758	5.163	28.99	0
11/10/2017 4:30	2.68	76.42	17.16	5.136	28.99	0
11/10/2017 4:45	3.535	13	13.43	5.334	28.99	0
11/10/2017 5:00	5.6	6.665	5.293	5.039	28.98	0
11/10/2017 5:15	5.554	6.313	4.707	4.989	28.98	0
11/10/2017 5:30	3.079	47.97	11.34	4.803	28.98	0
11/10/2017 5:45	1.721	52.49	7.307	4.408	28.98	0
11/10/2017 6:00	4.244	47.69	14.2	4.531	28.98	0
11/10/2017 6:15	4.107	7.414	13.76	4.408	28.98	0
11/10/2017 6:30	3.388	340.5	19.16	4.492	28.98	0
11/10/2017 6:45	1.667	6.468	0.343	4.741	28.98	0
11/10/2017 7:00	2.275	6.557	3.83	5.206	28.99	0
11/10/2017 7:15	1.65	1.043	10.98	5.478	28.99	0
11/10/2017 7:30	1.797	347.6	4.244	5.726	28.99	0
11/10/2017 7:45	2.03	253.9	28.1	4.929	28.99	0
11/10/2017 8:00	5.696	245.6	10.23	5.036	29.01	0
11/10/2017 8:15	3.253	224.5	17.82	5.299	29.01	0
11/10/2017 8:30	1.7	149.7	46.04	5.394	29.01	0
11/10/2017 8:45	1.473	95.1	3.484	5.348	29.01	0
11/10/2017 9:00	3.642	102	8.84	5.777	29.04	0.01
11/10/2017 9:15	3.565	110.7	12.4	6.361	29.04	0
11/10/2017 9:30	2.748	101.4	12.16	7.062	29.04	0
11/10/2017 9:45	2.193	105.9	11.5	7.307	29.04	0
11/10/2017 10:00	3.803	132.1	12.94	7.71	29.06	0
11/10/2017 10:15	5.504	140.8	11.11	7.801	29.06	0
11/10/2017 10:30	3.266	163.9	20.58	7.581	29.06	0
11/10/2017 10:45	3.395	167.5	22.93	7.788	29.06	0
11/10/2017 11:00	4.717	194.8	11.1	7.769	29.08	0
11/10/2017 11:15	5.624	206.3	8.83	7.706	29.08	0
11/10/2017 11:30	5.097	191.9	13.86	7.845	29.08	0
11/10/2017 11:45	6.468	199.2	9.64	7.862	29.08	0
11/10/2017 12:00	6.214	188	7.912	7.979	29.07	0
11/10/2017 12:15	5.256	193.8	11.93	8.29	29.07	0
11/10/2017 12:30	6.86	202.6	8.27	8.59	29.07	0
11/10/2017 12:45	7.076	195.1	13.53	8.54	29.07	0
11/10/2017 13:00	7.592	197.7	13.06	8.08	29.07	0
11/10/2017 13:15	6.651	203.6	9.44	8.02	29.07	0
11/10/2017 13:30	6.725	201.5	11.09	7.656	29.07	0
11/10/2017 13:45	4.958	197	13.32	7.39	29.07	0
11/10/2017 14:00	4.875	184.9	24.4	7.48	29.09	0
11/10/2017 14:15	4.925	198.3	10.07	7.497	29.09	0
11/10/2017 14:30	4.342	202.2	6.573	7.455	29.09	0
11/10/2017 14:45	2.3	221.5	11	7.563	29.09	0

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
11/10/2017 15:00	3.645	196.5	16.87	7.521	29.08	0
11/10/2017 15:15	4.395	189.7	12.59	7.561	29.08	0
11/10/2017 15:30	5.322	193.1	7.266	7.363	29.08	0
11/10/2017 15:45	4.716	191.3	8.85	7.362	29.08	0
11/10/2017 16:00	5.392	196	9.55	7.286	29.09	0
11/10/2017 16:15	4.824	205.1	7.25	7.164	29.09	0
11/10/2017 16:30	5.59	214.7	4.136	7.084	29.09	0
11/10/2017 16:45	5.717	206.8	6.19	6.995	29.09	0
11/10/2017 17:00	4.582	206.5	4.644	6.862	29.1	0
11/10/2017 17:15	2.134	207.4	5.716	6.778	29.1	0
11/10/2017 17:30	0.174	212.6	0.049	6.286	29.1	0
11/10/2017 17:45	1.531	347.6	84.7	6.365	29.1	0
11/10/2017 18:00	0.388	14.75	0.037	6.382	29.13	0
11/10/2017 18:15	0.854	14.76	0.214	6.163	29.13	0
11/10/2017 18:30	2.445	71.03	23.88	6.228	29.13	0
11/10/2017 18:45	2.868	106.6	5.712	6.138	29.13	0
11/10/2017 19:00	2.943	101.5	4.403	6.035	29.14	0
11/10/2017 19:15	2.901	75.57	17.19	5.327	29.14	0
11/10/2017 19:30	2.246	70.63	14.98	5.176	29.14	0
11/10/2017 19:45	3.092	105.5	5.713	5.752	29.14	0
11/10/2017 20:00	3.162	100.7	4.658	5.53	29.12	0
11/10/2017 20:15	2.564	108.6	2.536	5.85	29.12	0
11/10/2017 20:30	2.367	138	22.84	6.228	29.12	0
11/10/2017 20:45	2.748	142.7	9.5	5.842	29.12	0
11/10/2017 21:00	4.308	113.2	10.44	5.789	29.15	0
11/10/2017 21:15	2.441	45.31	21.98	4.978	29.15	0
11/10/2017 21:30	1.183	13.87	10.93	4.869	29.15	0
11/10/2017 21:45	0.528	1.556	0.19	5.559	29.15	0
11/10/2017 22:00	1.482	162	40.4	5.548	29.15	0
11/10/2017 22:15	1.898	162.9	17.17	5.42	29.15	0
11/10/2017 22:30	2.552	118.2	10.19	5.525	29.15	0
11/10/2017 22:45	2.572	48.08	13.83	4.687	29.15	0
11/10/2017 23:00	3.195	98.4	28.34	5.232	29.16	0
11/10/2017 23:15	3.91	144.1	8.33	5.389	29.16	0
11/10/2017 23:30	3.819	117.5	6.95	5.54	29.16	0
11/10/2017 23:45	2.466	112.8	1.032	4.936	29.16	0
11/11/2017 0:00	2.162	122.9	12.25	4.771	29.18	0
11/11/2017 0:15	3.535	107.3	13.68	5.245	29.18	0
11/11/2017 0:30	4.327	121.7	24.68	5.139	29.18	0
11/11/2017 0:45	4.673	153.6	9.06	5.886	29.18	0
11/11/2017 1:00	3.412	135.5	8.73	6.151	29.16	0
11/11/2017 1:15	1.413	133.3	2.14	6.235	29.16	0
11/11/2017 1:30	2.145	119.4	1.519	6.094	29.16	0
11/11/2017 1:45	2.527	137.5	10.91	6.267	29.16	0
11/11/2017 2:00	2.966	168.1	13.22	6.455	29.18	0
11/11/2017 2:15	3.324	152.8	10.28	6.702	29.18	0
11/11/2017 2:30	0.72	182.1	17.93	5.98	29.18	0
11/11/2017 2:45	1.904	84	26.63	5.945	29.18	0
11/11/2017 3:00	2.055	66.62	9.24	6.369	29.18	0
11/11/2017 3:15	2.194	107.8	7.475	6.192	29.18	0
11/11/2017 3:30	3.404	119.9	10.11	6.569	29.18	0
11/11/2017 3:45	2.075	93.3	2.941	6.964	29.18	0
11/11/2017 4:00	3.57	95.3	9.8	6.787	29.15	0
11/11/2017 4:15	4.09	65.59	7.688	6.313	29.15	0
11/11/2017 4:30	3.064	75.4	11.19	6.171	29.15	0
11/11/2017 4:45	3.538	129.9	11.03	7.074	29.15	0

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
11/11/2017 5:00	2.334	124.3	8.18	7.152	29.15	0
11/11/2017 5:15	2.446	148.6	30.05	7.098	29.15	0
11/11/2017 5:30	3.927	164	14.38	7.148	29.15	0
11/11/2017 5:45	2.277	69.09	27.31	6.677	29.15	0
11/11/2017 6:00	2.207	68.85	37.13	6.461	29.16	0
11/11/2017 6:15	6.456	167.8	17.38	6.66	29.16	0
11/11/2017 6:30	6.036	94.1	20.97	6.844	29.16	0
11/11/2017 6:45	6.652	77.47	7.483	6.624	29.16	0
11/11/2017 7:00	4.97	117.1	11.85	7.545	29.15	0
11/11/2017 7:15	4.802	138.1	18.5	8.34	29.15	0
11/11/2017 7:30	5.916	166	23.72	8.28	29.15	0
11/11/2017 7:45	5.76	133.1	18.38	8.02	29.15	0
11/11/2017 8:00	4.993	118.4	23.3	8.17	29.15	0
11/11/2017 8:15	6.794	157.1	26.5	8.46	29.15	0
11/11/2017 8:30	10.49	142.2	13.44	8.9	29.15	0
11/11/2017 8:45	10.25	154.9	14.52	8.69	29.15	0
11/11/2017 9:00	9.09	145.9	14.31	8.72	29.15	0
11/11/2017 9:15	9.76	145.7	14.78	9.06	29.15	0
11/11/2017 9:30	10.78	131.8	13.65	9.18	29.15	0
11/11/2017 9:45	14	130.3	10.66	9.33	29.15	0
11/11/2017 10:00	15.11	127.2	9.23	8.59	29.14	0
11/11/2017 10:15	15.26	125.2	10.13	8.63	29.14	0
11/11/2017 10:30	14.28	125.7	9.67	8.87	29.14	0.01
11/11/2017 10:45	13.9	122	11.61	8.46	29.14	0
11/11/2017 11:00	15.07	121.4	11.22	8.81	29.17	0
11/11/2017 11:15	16.65	123	10.81	9.12	29.17	0
11/11/2017 11:30	15.81	121.7	10.83	9.37	29.17	0
11/11/2017 11:45	13.83	122.6	11.35	9.73	29.17	0
11/11/2017 12:00	12.5	125.6	12.49	9.78	29.16	0
11/11/2017 12:15	14.28	124.3	10.32	9.75	29.16	0
11/11/2017 12:30	15.39	123	10.07	10.08	29.16	0
11/11/2017 12:45	13.42	127.4	11.13	10.22	29.16	0
11/11/2017 13:00	13.16	129.6	11.92	10.45	29.15	0
11/11/2017 13:15	14.3	127.5	12.03	10.46	29.15	0
11/11/2017 13:30	13.79	123	12.24	10.51	29.15	0
11/11/2017 13:45	12.93	125.6	10.71	10.55	29.15	0
11/11/2017 14:00	11.72	128.2	11.45	10.58	29.12	0
11/11/2017 14:15	14.12	131.8	10.68	10.45	29.12	0
11/11/2017 14:30	12.61	124.6	11.39	9.37	29.12	0.01
11/11/2017 14:45	12.51	133.9	12.27	9.07	29.12	0.01
11/11/2017 15:00	13.84	129.5	11.22	8.82	29.17	0
11/11/2017 15:15	14.74	126.2	10.66	8.74	29.17	0.01
11/11/2017 15:30	13.32	123.8	10.74	8.57	29.17	0
11/11/2017 15:45	14.94	126.8	10.28	8.39	29.17	0.01
11/11/2017 16:00	13.41	121.9	9.73	7.966	29.17	0.01
11/11/2017 16:15	12.44	122.2	9.69	8.07	29.17	0
11/11/2017 16:30	12.54	119.9	12.1	8.4	29.17	0
11/11/2017 16:45	16.06	126.6	10.86	8.69	29.17	0
11/11/2017 17:00	16.92	126.7	9.64	8.83	29.13	0
11/11/2017 17:15	17.62	128.2	9	8.8	29.13	0
11/11/2017 17:30	15.3	128.8	9.86	8.72	29.13	0
11/11/2017 17:45	16.59	129.2	9.86	8.99	29.13	0
11/11/2017 18:00	17.49	127.3	9.1	9.16	29.12	0
11/11/2017 18:15	18.31	129.3	9.53	9.17	29.12	0
11/11/2017 18:30	18.47	128.3	9.24	9.06	29.12	0
11/11/2017 18:45	16.67	126.3	10.11	8.8	29.12	0

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
11/11/2017 19:00	14.89	125.3	11.08	9.33	29.13	0
11/11/2017 19:15	14.87	131.1	12.1	9.53	29.13	0
11/11/2017 19:30	15.72	133.2	9.22	9.33	29.13	0
11/11/2017 19:45	15.94	127.1	10.25	9.36	29.13	0
11/11/2017 20:00	16.4	127.9	10.12	9.45	29.14	0
11/11/2017 20:15	16.46	127.5	10.32	9.67	29.14	0
11/11/2017 20:30	16.68	128.3	10.21	9.71	29.14	0
11/11/2017 20:45	15.49	133.3	8.62	9.61	29.14	0
11/11/2017 21:00	12.52	136.8	9.87	9.45	29.12	0
11/11/2017 21:15	13.51	132.7	9.54	9.56	29.12	0
11/11/2017 21:30	16.32	127.5	9.65	9.71	29.12	0
11/11/2017 21:45	15.15	125.5	11.36	9.71	29.12	0
11/11/2017 22:00	14.45	122.5	9.82	9.58	29.15	0
11/11/2017 22:15	13.43	128.4	11.75	9.72	29.15	0
11/11/2017 22:30	14.62	133.4	10.35	9.83	29.15	0
11/11/2017 22:45	15.35	127	9.67	9.51	29.15	0
11/11/2017 23:00	15.31	129.9	9.56	9.26	29.13	0
11/11/2017 23:15	15.02	131.1	9.6	9.39	29.13	0
11/11/2017 23:30	14.58	130.4	9.15	9.18	29.13	0
11/11/2017 23:45	14.06	130.9	9.46	9.06	29.13	0
11/12/2017 0:00	16.08	131.7	9.17	9.26	29.13	0
11/12/2017 0:15	16.24	128.8	9.06	9.39	29.13	0
11/12/2017 0:30	15.03	127.6	10.59	9.29	29.13	0
11/12/2017 0:45	14.99	130.3	11.65	9.34	29.13	0
11/12/2017 1:00	15.33	132.3	8.75	9.31	29.14	0
11/12/2017 1:15	15.75	127.4	9.15	9.68	29.14	0
11/12/2017 1:30	14.98	129.6	8.55	9.7	29.14	0
11/12/2017 1:45	14.14	128.6	9.49	9.81	29.14	0
11/12/2017 2:00	15.64	130.1	9.29	9.76	29.12	0
11/12/2017 2:15	15.67	131.1	9.82	9.69	29.12	0
11/12/2017 2:30	15.21	127.6	9.49	9.74	29.12	0
11/12/2017 2:45	13.91	126.6	9.18	9.69	29.12	0
11/12/2017 3:00	13.23	122.2	10.61	9.68	29.12	0
11/12/2017 3:15	15.52	125.2	9.54	9.95	29.12	0
11/12/2017 3:30	15.16	126.8	10.36	10.07	29.12	0
11/12/2017 3:45	13.23	129.8	10.31	9.87	29.12	0
11/12/2017 4:00	12.41	127.2	10.08	9.48	29.11	0
11/12/2017 4:15	11.9	128.4	9.37	9.33	29.11	0
11/12/2017 4:30	9.61	143.7	11.39	9.14	29.11	0.01
11/12/2017 4:45	10.18	138.2	9.96	8.45	29.11	0.03
11/12/2017 5:00	9.88	122.4	9.98	8.32	29.11	0.03
11/12/2017 5:15	8.66	115.5	9.29	8.28	29.11	0.03
11/12/2017 5:30	7.88	121.7	9.67	8.33	29.11	0.02
11/12/2017 5:45	6.83	114.2	13.31	8.29	29.11	0.01
11/12/2017 6:00	5.658	137.8	21.95	8.05	29.11	0
11/12/2017 6:15	6.605	119.5	13.55	8.12	29.11	0.01
11/12/2017 6:30	10.21	123.9	14.24	8.66	29.11	0.01
11/12/2017 6:45	7.238	134.7	16.52	8.52	29.11	0
11/12/2017 7:00	8.22	125	15.29	8.46	29.13	0.02
11/12/2017 7:15	3.019	184.4	80	8.11	29.13	0.01
11/12/2017 7:30	5.058	170.1	42.47	7.684	29.13	0.01
11/12/2017 7:45	3.58	86.8	15.08	7.319	29.13	0
11/12/2017 8:00	5.571	79.85	12.07	7.503	29.13	0
11/12/2017 8:15	5.319	108.6	12.87	7.923	29.13	0
11/12/2017 8:30	6.513	125.2	19.43	8.28	29.13	0.01
11/12/2017 8:45	10.27	132.3	14.73	8.88	29.13	0

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
11/12/2017 9:00	12.76	125.3	9.65	9.15	29.12	0
11/12/2017 9:15	11.82	123.4	9.6	9.8	29.12	0
11/12/2017 9:30	10.46	133.4	10.91	9.99	29.12	0
11/12/2017 9:45	11.46	133.2	11.22	10.03	29.12	0
11/12/2017 10:00	11.7	141.1	11.91	10	29.11	0
11/12/2017 10:15	11.85	130.9	10.26	10.1	29.11	0
11/12/2017 10:30	10.25	135.3	11.3	10.27	29.11	0
11/12/2017 10:45	9.36	133.2	11.43	10.13	29.11	0
11/12/2017 11:00	10.94	132.2	10.56	9.68	29.11	0
11/12/2017 11:15	12.52	125.7	9.54	10.28	29.11	0.01
11/12/2017 11:30	11.96	133.3	11.67	11.04	29.11	0
11/12/2017 11:45	11.96	137.5	13.09	11.45	29.11	0
11/12/2017 12:00	11.06	130	12.93	11.63	29.09	0
11/12/2017 12:15	10.22	132.1	11.79	11.69	29.09	0
11/12/2017 12:30	8.47	149.7	14.57	11.71	29.09	0
11/12/2017 12:45	10.31	141	13.83	11.33	29.09	0
11/12/2017 13:00	9.15	148.2	13.41	11.13	29.08	0
11/12/2017 13:15	7.399	156.4	19.41	11.1	29.08	0
11/12/2017 13:30	9.03	126.7	12.48	11.47	29.08	0
11/12/2017 13:45	10.07	118.1	11.23	11.45	29.08	0
11/12/2017 14:00	11.15	127	10.22	11.66	29.06	0
11/12/2017 14:15	11.56	124.5	10.44	11.76	29.06	0
11/12/2017 14:30	7.592	150.7	24.76	11.45	29.06	0
11/12/2017 14:45	8.77	136.5	11.41	11.04	29.06	0.01
11/12/2017 15:00	8.94	122.8	11.28	10.78	29.02	0
11/12/2017 15:15	9.45	124.8	11.31	10.84	29.02	0
11/12/2017 15:30	12.26	123	10.7	10.8	29.02	0
11/12/2017 15:45	13.04	123.5	10.39	10.6	29.02	0.01
11/12/2017 16:00	11.2	123.5	9.58	10.64	29.03	0
11/12/2017 16:15	11.93	124.2	10.51	10.64	29.03	0
11/12/2017 16:30	9.7	126.3	10.32	10.66	29.03	0
11/12/2017 16:45	5.177	103.3	14.79	10.19	29.03	0
11/12/2017 17:00	2.302	123.2	27.3	10.18	29.01	0
11/12/2017 17:15	7.966	117.9	16.46	10.12	29.01	0
11/12/2017 17:30	7.173	112.2	11.95	10.11	29.01	0.01
11/12/2017 17:45	4.587	103.9	18.6	9.88	29.01	0
11/12/2017 18:00	5.687	105.1	17.46	9.79	28.99	0.01
11/12/2017 18:15	4.014	116.7	18.55	9.67	28.99	0.01
11/12/2017 18:30	4.66	127.6	33.95	9.79	28.99	0.01
11/12/2017 18:45	4.708	94.2	25.81	9.7	28.99	0
11/12/2017 19:00	6.423	70.74	21.87	9.35	28.96	0
11/12/2017 19:15	6.687	85.8	15	9.31	28.96	0
11/12/2017 19:30	8.8	115.4	13.83	9.71	28.96	0
11/12/2017 19:45	9.86	120.2	10.65	10.05	28.96	0
11/12/2017 20:00	11.72	125.8	10.33	10.46	28.93	0
11/12/2017 20:15	12.69	125.7	12.33	10.5	28.93	0
11/12/2017 20:30	13.36	124.3	10.82	10.56	28.93	0
11/12/2017 20:45	14.51	125.5	11.67	10.69	28.93	0
11/12/2017 21:00	15.63	125.7	10.93	10.73	28.87	0
11/12/2017 21:15	15.92	125.1	11.22	10.9	28.87	0
11/12/2017 21:30	17.62	128.5	12.46	11	28.87	0
11/12/2017 21:45	16.9	137.7	15.57	11.03	28.87	0
11/12/2017 22:00	16.42	124.2	10.3	11.3	28.9	0
11/12/2017 22:15	15.63	143.3	11.28	10.75	28.9	0
11/12/2017 22:30	13.72	120.9	11.7	10.23	28.9	0.01
11/12/2017 22:45	14.32	124.4	10.96	10.5	28.9	0

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
11/12/2017 23:00	11.41	130.8	14.34	10.29	28.87	0
11/12/2017 23:15	7.868	107.5	15.48	10.17	28.87	0
11/12/2017 23:30	13.83	124.5	10.38	10.69	28.87	0
11/12/2017 23:45	18.92	120.9	10.73	11.18	28.87	0
11/13/2017 0:00	18.52	123.8	11.37	11.49	28.8	0
11/13/2017 0:15	18.05	117.8	10.71	11.8	28.8	0
11/13/2017 0:30	18.64	123.3	10.83	11.84	28.8	0
11/13/2017 0:45	18.39	123.7	9.92	11.91	28.8	0
11/13/2017 1:00	17.54	119.7	11.59	12.06	28.76	0
11/13/2017 1:15	18.12	118.8	10.71	12.19	28.76	0
11/13/2017 1:30	19.46	122.2	10.57	12.16	28.76	0
11/13/2017 1:45	17.58	124.4	10.81	12.1	28.76	0
11/13/2017 2:00	14.2	130.3	10.6	11.9	28.77	0
11/13/2017 2:15	11.3	159.1	17.48	12.07	28.77	0
11/13/2017 2:30	23.49	177.9	14.45	12.27	28.77	0.02
11/13/2017 2:45	24.48	190.2	8.05	11.36	28.77	0
11/13/2017 3:00	26.86	216	11.35	9.55	28.84	0.04
11/13/2017 3:15	22.53	192.2	13.21	8.92	28.84	0.02
11/13/2017 3:30	24.18	174.2	11.54	9.13	28.84	0.01
11/13/2017 3:45	21.58	176.5	8.9	9.41	28.84	0
11/13/2017 4:00	18.63	161.7	14.4	9.35	28.84	0
11/13/2017 4:15	15.38	148.9	9.45	9.29	28.84	0
11/13/2017 4:30	18.28	155	8.95	9.74	28.84	0
11/13/2017 4:45	20.59	154.5	9.16	9.72	28.84	0
11/13/2017 5:00	21.49	161.1	8.12	9.71	28.84	0
11/13/2017 5:15	19.22	159	8.9	9.31	28.84	0
11/13/2017 5:30	19.11	159.3	9.82	9.48	28.84	0
11/13/2017 5:45	17.83	168.1	11.24	9.67	28.84	0.01
11/13/2017 6:00	17.55	215.2	21.65	8.68	28.89	0.06
11/13/2017 6:15	21.06	201.9	15.24	6.933	28.89	0.05
11/13/2017 6:30	20.53	211.8	11.68	6.632	28.89	0
11/13/2017 6:45	19.14	217.2	10.6	6.499	28.89	0.03
11/13/2017 7:00	9.89	209.6	13.8	6.499	28.91	0.04
11/13/2017 7:15	14.45	188.4	21.49	6.371	28.91	0.06
11/13/2017 7:30	7.483	148.6	10.18	5.954	28.91	0
11/13/2017 7:45	9.71	141.7	8.26	5.763	28.91	0
11/13/2017 8:00	10.35	135.8	7.961	6.01	28.91	0
11/13/2017 8:15	13.58	145.1	7.293	6.823	28.91	0
11/13/2017 8:30	12.29	145.4	7.507	7.474	28.91	0
11/13/2017 8:45	12.03	151.4	6.691	7.363	28.91	0
11/13/2017 9:00	11.38	152.4	6.299	7.711	28.91	0
11/13/2017 9:15	12.56	157.3	8.35	7.959	28.91	0
11/13/2017 9:30	14.54	159.2	8.34	7.876	28.91	0
11/13/2017 9:45	12.52	158.8	7.621	7.861	28.91	0
11/13/2017 10:00	13.98	156.6	7.341	8.37	28.92	0
11/13/2017 10:15	16.64	161	10.31	9.25	28.92	0
11/13/2017 10:30	18.11	166.6	10.71	8.47	28.92	0
11/13/2017 10:45	15.29	157.5	10.25	8.02	28.92	0
11/13/2017 11:00	12.5	144.1	9.25	8.07	28.94	0
11/13/2017 11:15	12.64	143.4	10.67	9.15	28.94	0
11/13/2017 11:30	19.1	166.1	11.04	9.7	28.94	0
11/13/2017 11:45	15.58	164.5	10.31	9.75	28.94	0
11/13/2017 12:00	19	177.7	12.13	9.56	28.92	0
11/13/2017 12:15	18.55	172.5	11.13	9.99	28.92	0
11/13/2017 12:30	20.77	172.1	9	9.69	28.92	0
11/13/2017 12:45	20.68	170.1	8.63	9.96	28.92	0

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
11/13/2017 13:00	20.29	168.3	10.46	9.99	28.88	0
11/13/2017 13:15	21.7	175.9	10.94	9.88	28.88	0
11/13/2017 13:30	22.71	167.5	10.56	10.56	28.88	0
11/13/2017 13:45	22.85	174.2	10.36	10.44	28.88	0
11/13/2017 14:00	19.73	166.7	11.28	10.28	28.87	0
11/13/2017 14:15	23.89	165.4	9.79	10.29	28.87	0
11/13/2017 14:30	24.37	163.6	9.86	10.46	28.87	0
11/13/2017 14:45	24.5	166.1	9.39	10.45	28.87	0
11/13/2017 15:00	23.78	171.7	10.78	10.51	28.84	0
11/13/2017 15:15	27.14	182.5	10.32	10.6	28.84	0
11/13/2017 15:30	30.03	184.9	9.25	10.17	28.84	0
11/13/2017 15:45	26.31	183.8	10.67	9.62	28.84	0.01
11/13/2017 16:00	30.81	185.9	9.89	8.71	28.87	0.02
11/13/2017 16:15	28.6	185.8	9.74	8.13	28.87	0.02
11/13/2017 16:30	27.16	178.3	8.5	7.766	28.87	0.02
11/13/2017 16:45	21.63	172.6	8.89	7.312	28.87	0.03
11/13/2017 17:00	23.74	176.1	9.67	7.148	28.91	0.05
11/13/2017 17:15	24.22	184.9	10.24	6.896	28.91	0.06
11/13/2017 17:30	27.06	190.9	10.22	6.802	28.91	0.04
11/13/2017 17:45	25.14	191.3	9.27	6.781	28.91	0.06
11/13/2017 18:00	25.27	194	9.69	6.608	28.97	0.05
11/13/2017 18:15	28.27	194.2	10.45	6.264	28.97	0.06
11/13/2017 18:30	28.6	194.6	9.92	6.196	28.97	0.05
11/13/2017 18:45	23.43	193.1	9.95	6.154	28.97	0.03
11/13/2017 19:00	21.49	186.7	9.4	6.155	29.02	0.03
11/13/2017 19:15	19.11	184.8	9.24	6.357	29.02	0.03
11/13/2017 19:30	18.27	184.2	9.02	6.376	29.02	0.03
11/13/2017 19:45	18.56	184.4	11.03	6.402	29.02	0.01
11/13/2017 20:00	18.32	184	9.08	6.373	29.05	0.01
11/13/2017 20:15	20.23	185.6	8.77	6.323	29.05	0.03
11/13/2017 20:30	19.13	187.5	9.85	6.267	29.05	0
11/13/2017 20:45	15.04	192.3	7.684	6.199	29.05	0
11/13/2017 21:00	10.2	187.3	10.38	6.076	29.07	0.01
11/13/2017 21:15	5.527	157.3	17.29	5.76	29.07	0.01
11/13/2017 21:30	4.285	141.5	8.13	5.583	29.07	0.01
11/13/2017 21:45	6.691	145.8	9.02	5.694	29.07	0
11/13/2017 22:00	10.05	157.6	9.8	5.902	29.09	0.01
11/13/2017 22:15	9.62	161.5	10.28	5.984	29.09	0
11/13/2017 22:30	7.74	147.6	8.2	5.861	29.09	0
11/13/2017 22:45	6.713	143.8	10.38	5.884	29.09	0
11/13/2017 23:00	5.929	141.9	11.13	5.909	29.13	0
11/13/2017 23:15	7.829	147.1	8.71	5.928	29.13	0.01
11/13/2017 23:30	7.948	146.5	9.31	5.886	29.13	0
11/13/2017 23:45	9.41	147.6	8.43	5.917	29.13	0.01
11/14/2017 0:00	6.883	139.7	10.02	5.819	29.15	0.01
11/14/2017 0:15	6.476	138	9.05	5.841	29.15	0.01
11/14/2017 0:30	6.229	134.7	7.863	5.809	29.15	0
11/14/2017 0:45	6.471	142.8	7.226	5.803	29.15	0
11/14/2017 1:00	7.751	160.6	13.25	6.024	29.15	0
11/14/2017 1:15	8.3	160.8	7.826	5.899	29.15	0
11/14/2017 1:30	6.961	158.5	8.35	5.835	29.15	0.01
11/14/2017 1:45	7.957	153	7.66	5.811	29.15	0
11/14/2017 2:00	6.284	143.4	8.36	5.8	29.15	0
11/14/2017 2:15	5.579	143.7	9.65	5.868	29.15	0.01
11/14/2017 2:30	6.831	144.8	8.44	5.781	29.15	0
11/14/2017 2:45	8.19	149.5	6.617	5.92	29.15	0

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
11/14/2017 3:00	8.01	156.6	10.48	6.163	29.18	0
11/14/2017 3:15	6.359	180.1	11.6	6.243	29.18	0.02
11/14/2017 3:30	4.29	180.6	10.12	6.013	29.18	0.02
11/14/2017 3:45	3.666	135.1	15.29	5.676	29.18	0
11/14/2017 4:00	5.198	124.8	6.365	5.649	29.2	0
11/14/2017 4:15	7.42	124.2	8.18	5.832	29.2	0
11/14/2017 4:30	7.975	128	6.982	5.779	29.2	0
11/14/2017 4:45	7.601	128.7	6.546	5.827	29.2	0
11/14/2017 5:00	8.64	127	6.706	6.15	29.2	0
11/14/2017 5:15	8.67	127.8	7.615	6.262	29.2	0
11/14/2017 5:30	8.86	135.9	7.264	6.33	29.2	0
11/14/2017 5:45	9.03	138.6	8.51	6.578	29.2	0
11/14/2017 6:00	7.475	135.9	8.77	6.726	29.18	0
11/14/2017 6:15	7.903	133.5	7.239	6.836	29.18	0
11/14/2017 6:30	9.1	134.9	7.414	6.976	29.18	0
11/14/2017 6:45	9.43	137.5	8.55	6.969	29.18	0
11/14/2017 7:00	9.95	140	8	6.975	29.17	0
11/14/2017 7:15	8.93	138.3	8.46	7.009	29.17	0
11/14/2017 7:30	10.35	147.7	6.779	7.126	29.17	0
11/14/2017 7:45	10.02	139.7	8.02	7.573	29.17	0
11/14/2017 8:00	11.5	131.2	9.95	8.11	29.18	0
11/14/2017 8:15	10.25	134.5	9.86	8.02	29.18	0
11/14/2017 8:30	10.52	139.6	8.27	8.06	29.18	0
11/14/2017 8:45	11.1	134.9	8.06	8.15	29.18	0
11/14/2017 9:00	11.18	136	9.02	8.66	29.17	0
11/14/2017 9:15	11.24	143.7	8.11	8.82	29.17	0
11/14/2017 9:30	11.35	138.3	9.65	8.68	29.17	0
11/14/2017 9:45	10.58	137.5	8.86	8.59	29.17	0
11/14/2017 10:00	11.04	133.2	9.48	8.83	29.19	0
11/14/2017 10:15	10.29	137.5	11.48	9.25	29.19	0
11/14/2017 10:30	11.66	145.8	11.84	9.43	29.19	0
11/14/2017 10:45	8.77	138.6	10.49	9.66	29.19	0
11/14/2017 11:00	8.89	140.3	9.47	9.82	29.17	0
11/14/2017 11:15	8.94	146.6	9.6	9.81	29.17	0
11/14/2017 11:30	8.69	147.6	12.88	10.15	29.17	0
11/14/2017 11:45	11.3	165.1	16.55	10.63	29.17	0
11/14/2017 12:00	15.02	180.4	9.4	10.91	29.16	0
11/14/2017 12:15	18.75	175.8	11.13	11.08	29.16	0
11/14/2017 12:30	20.49	176.6	11.21	11.26	29.16	0
11/14/2017 12:45	21.51	178.6	11.56	11.33	29.16	0
11/14/2017 13:00	20.1	180.5	10.22	11.26	29.14	0
11/14/2017 13:15	16.41	174	9.25	11.19	29.14	0
11/14/2017 13:30	16.88	175.9	9.65	11.25	29.14	0
11/14/2017 13:45	16.86	179.8	9.19	11.2	29.14	0
11/14/2017 14:00	17.32	180.4	8.96	11.19	29.12	0
11/14/2017 14:15	19.17	178.3	9.26	11.22	29.12	0
11/14/2017 14:30	16.29	176.6	9.26	11.11	29.12	0
11/14/2017 14:45	15.15	179.7	8.36	10.98	29.12	0
11/14/2017 15:00	15.79	174.4	9.93	10.99	29.1	0
11/14/2017 15:15	18.32	169	9.49	11.11	29.1	0
11/14/2017 15:30	18.67	172.5	10.68	11.06	29.1	0
11/14/2017 15:45	19.85	165.4	10.26	11	29.1	0
11/14/2017 16:00	18.42	161.5	9.82	10.99	29.08	0
11/14/2017 16:15	18.22	164.9	9.93	11.09	29.08	0
11/14/2017 16:30	17.38	158.4	9.2	11.17	29.08	0
11/14/2017 16:45	10.53	137.8	9.17	10.23	29.08	0

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
11/14/2017 17:00	11.7	144.4	8.59	9.97	29.08	0
11/14/2017 17:15	10.41	135.5	9.85	9.97	29.08	0
11/14/2017 17:30	11.65	136.3	10.04	9.85	29.08	0
11/14/2017 17:45	12.62	137.1	9.33	9.6	29.08	0
11/14/2017 18:00	12.78	133.2	8.71	9.49	29.04	0
11/14/2017 18:15	12.89	125.8	11.18	9.5	29.04	0
11/14/2017 18:30	13	145	11.02	9.56	29.04	0
11/14/2017 18:45	15.06	137.5	10.93	9.54	29.04	0
11/14/2017 19:00	13.5	135.3	9.35	9.64	29.03	0
11/14/2017 19:15	11.33	145	8.21	9.69	29.03	0
11/14/2017 19:30	9.18	152.4	11.63	9.58	29.03	0
11/14/2017 19:45	9.49	148	9.33	9.72	29.03	0
11/14/2017 20:00	10.44	138.5	10.55	9.78	29	0
11/14/2017 20:15	10.17	142.2	9.15	9.8	29	0
11/14/2017 20:30	10.87	138.3	10.71	9.88	29	0
11/14/2017 20:45	11.08	147.4	8.81	10.12	29	0
11/14/2017 21:00	9.91	141.9	9.43	9.99	29	0
11/14/2017 21:15	9.74	131.2	9.47	10.1	29	0
11/14/2017 21:30	8.2	134.4	10.96	10.03	29	0
11/14/2017 21:45	7.648	135.8	12.06	10.02	29	0
11/14/2017 22:00	8.14	141.4	9.38	10.03	28.98	0
11/14/2017 22:15	7.575	140.1	10.65	10.1	28.98	0
11/14/2017 22:30	8.63	135	10.54	10.2	28.98	0
11/14/2017 22:45	9.65	142.4	13.89	10.36	28.98	0
11/14/2017 23:00	10.35	126	9.69	10.46	28.94	0
11/14/2017 23:15	11.85	128.5	9.97	10.51	28.94	0
11/14/2017 23:30	13.19	126.6	11.64	10.55	28.94	0
11/14/2017 23:45	13.93	128.1	13.16	10.66	28.94	0
11/15/2017 0:00	11.29	136.5	11.66	10.5	28.92	0
11/15/2017 0:15	14.54	130.9	10.07	10.62	28.92	0
11/15/2017 0:30	11.12	138.5	11.68	10.32	28.92	0
11/15/2017 0:45	13.28	131.1	12.55	10.27	28.92	0
11/15/2017 1:00	12.17	134.1	11.23	10.16	28.88	0
11/15/2017 1:15	12.14	122.7	9.91	10.07	28.88	0
11/15/2017 1:30	9.17	136.2	10.33	9.97	28.88	0
11/15/2017 1:45	9.21	132.6	10.64	10.06	28.88	0
11/15/2017 2:00	8.75	135	9.15	10.13	28.88	0
11/15/2017 2:15	5.588	152.7	14.65	10.01	28.88	0
11/15/2017 2:30	6.452	162.1	16.98	10.16	28.88	0
11/15/2017 2:45	6.573	149.4	7.987	10.04	28.88	0
11/15/2017 3:00	5.014	162.7	21.82	9.77	28.85	0
11/15/2017 3:15	7.159	159	12.38	10.23	28.85	0
11/15/2017 3:30	3.242	144.3	13.3	9.74	28.85	0
11/15/2017 3:45	2.292	130.5	49.38	9.83	28.85	0
11/15/2017 4:00	4.986	281.6	8.7	9.46	28.86	0
11/15/2017 4:15	7.94	298.3	4.413	8.49	28.86	0
11/15/2017 4:30	9.24	280.5	10.78	7.838	28.86	0.01
11/15/2017 4:45	11.19	243.3	17.89	7.953	28.86	0.01
11/15/2017 5:00	12.66	212.3	10.79	7.882	28.88	0.01
11/15/2017 5:15	11.66	202	11.68	7.701	28.88	0.01
11/15/2017 5:30	8.92	192.9	10	7.538	28.88	0.01
11/15/2017 5:45	11.39	209.2	14.01	7.463	28.88	0.01
11/15/2017 6:00	12.85	209.4	14.08	7.305	28.88	0.04
11/15/2017 6:15	12.23	156.5	24.3	6.991	28.88	0.01
11/15/2017 6:30	10.15	139.4	10.11	6.867	28.88	0.01
11/15/2017 6:45	12.46	149.7	9.08	7.039	28.88	0.01

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
11/15/2017 7:00	9.17	164.1	8.99	6.993	28.88	0.02
11/15/2017 7:15	8.91	160.1	11.43	6.82	28.88	0.04
11/15/2017 7:30	6.665	173.7	12.23	6.66	28.88	0.02
11/15/2017 7:45	5.916	154.4	18.32	6.476	28.88	0.03
11/15/2017 8:00	7.752	135.2	8.28	6.59	28.89	0.01
11/15/2017 8:15	8.55	133.4	13.9	6.743	28.89	0
11/15/2017 8:30	11.84	143.7	10.6	6.714	28.89	0.01
11/15/2017 8:45	11.24	149.7	9.93	6.611	28.89	0
11/15/2017 9:00	9.64	132.7	10.48	6.527	28.87	0.01
11/15/2017 9:15	8.59	129.7	11.92	6.503	28.87	0
11/15/2017 9:30	8.85	137.4	9.77	6.615	28.87	0
11/15/2017 9:45	10.52	145.1	7.166	6.551	28.87	0.01
11/15/2017 10:00	10.24	134.6	8.65	6.418	28.88	0
11/15/2017 10:15	9.46	129.6	9.6	6.276	28.88	0
11/15/2017 10:30	8.38	141.7	10.61	6.357	28.88	0
11/15/2017 10:45	8.56	141.4	8.29	6.317	28.88	0.01
11/15/2017 11:00	8.17	134.3	8.88	6.327	28.86	0
11/15/2017 11:15	8.57	137.3	9.56	6.482	28.86	0
11/15/2017 11:30	7.432	149.6	13.57	6.478	28.86	0
11/15/2017 11:45	6.226	132.6	12.32	6.234	28.86	0
11/15/2017 12:00	8.99	135.4	10.64	6.117	28.84	0
11/15/2017 12:15	11.91	125.1	9.73	6.011	28.84	0
11/15/2017 12:30	12.38	125.5	9.16	6.015	28.84	0
11/15/2017 12:45	11.89	129	9.94	6.234	28.84	0
11/15/2017 13:00	10.22	131.7	7.763	6.358	28.81	0
11/15/2017 13:15	10.59	126.1	9.6	6.44	28.81	0
11/15/2017 13:30	11.1	135.4	10.22	6.541	28.81	0
11/15/2017 13:45	10.18	146.8	8.05	6.527	28.81	0
11/15/2017 14:00	7.835	135.2	11.81	6.496	28.79	0
11/15/2017 14:15	9.72	145.9	11.02	6.779	28.79	0
11/15/2017 14:30	9.03	148.6	12.58	6.734	28.79	0
11/15/2017 14:45	6.567	148	13.82	6.795	28.79	0
11/15/2017 15:00	4.961	146.8	15.77	6.781	28.79	0
11/15/2017 15:15	4.998	140.5	15.64	6.857	28.79	0
11/15/2017 15:30	5.897	149.8	16.33	6.704	28.79	0
11/15/2017 15:45	7.598	127.8	9.75	6.477	28.79	0
11/15/2017 16:00	5.681	111.3	11.84	6.616	28.77	0
11/15/2017 16:15	4.025	125	29.76	6.679	28.77	0
11/15/2017 16:30	4.149	174.9	25.12	6.648	28.77	0
11/15/2017 16:45	5.449	156.3	25.71	6.323	28.77	0
11/15/2017 17:00	6.567	119.4	8.54	6.132	28.78	0
11/15/2017 17:15	7.579	133.4	6.333	6.299	28.78	0
11/15/2017 17:30	6.226	138.3	14.31	6.398	28.78	0
11/15/2017 17:45	5.996	164.3	17.25	6.036	28.78	0
11/15/2017 18:00	5.235	139.1	9.95	6.394	28.77	0
11/15/2017 18:15	6.062	187.1	12.03	5.767	28.77	0
11/15/2017 18:30	6.07	136.4	27.76	5.733	28.77	0
11/15/2017 18:45	3.628	90.9	17.9	5.651	28.77	0
11/15/2017 19:00	5.228	147.5	18.22	5.982	28.76	0
11/15/2017 19:15	5.16	205.9	19.47	5.679	28.76	0
11/15/2017 19:30	3.505	175.2	18.15	5.755	28.76	0
11/15/2017 19:45	3.41	151.4	16.2	5.432	28.76	0
11/15/2017 20:00	4.377	146.3	23.06	5.53	28.72	0
11/15/2017 20:15	3.163	147.2	30.39	5.433	28.72	0
11/15/2017 20:30	4.223	138	23.84	5.494	28.72	0
11/15/2017 20:45	3.541	176.2	15.71	5.254	28.72	0

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
11/15/2017 21:00	3.856	159.5	15.7	5.38	28.72	0
11/15/2017 21:15	3.393	143.1	18.28	5.179	28.72	0
11/15/2017 21:30	1.443	126.8	2.93	5.273	28.72	0
11/15/2017 21:45	2.173	135.9	23.89	5.752	28.72	0
11/15/2017 22:00	3.205	159.4	9.79	5.466	28.71	0
11/15/2017 22:15	3.683	129.9	7.288	5.449	28.71	0
11/15/2017 22:30	2.565	167.4	18.67	5.48	28.71	0
11/15/2017 22:45	2.53	166.9	15.92	5.728	28.71	0
11/15/2017 23:00	3.478	180.8	20.26	5.39	28.69	0
11/15/2017 23:15	2.884	193.3	14.94	4.875	28.69	0
11/15/2017 23:30	3.152	169	19.27	5.103	28.69	0
11/15/2017 23:45	4.139	170.3	8.58	5.353	28.69	0
11/16/2017 0:00	1.891	108	25.02	4.822	28.72	0
11/16/2017 0:15	1.777	134	21.09	4.852	28.72	0
11/16/2017 0:30	3.185	163.6	11.18	5.237	28.72	0
11/16/2017 0:45	4.03	167.9	6.883	5.343	28.72	0
11/16/2017 1:00	4.312	173.8	7.985	5.144	28.73	0
11/16/2017 1:15	5.388	172.8	6.188	4.981	28.73	0
11/16/2017 1:30	3.628	157.7	13.61	4.772	28.73	0
11/16/2017 1:45	3.039	169.9	16.39	4.978	28.73	0
11/16/2017 2:00	3.835	165.6	9.08	5.011	28.73	0
11/16/2017 2:15	3.489	159.8	7.363	5.09	28.73	0
11/16/2017 2:30	3.187	160.5	20.33	5.011	28.73	0
11/16/2017 2:45	3.927	190.5	6.452	5.299	28.73	0
11/16/2017 3:00	3.562	182.3	8	5.134	28.76	0
11/16/2017 3:15	3.23	197	7.782	5.092	28.76	0
11/16/2017 3:30	4.933	197.9	7.413	5.001	28.76	0
11/16/2017 3:45	7.283	197.2	8.24	4.773	28.76	0.01
11/16/2017 4:00	7.378	188.8	8.48	4.593	28.76	0
11/16/2017 4:15	7.265	180.4	10.07	4.512	28.76	0.01
11/16/2017 4:30	6.975	166.3	11.13	4.558	28.76	0
11/16/2017 4:45	6.981	162.3	11.69	4.499	28.76	0
11/16/2017 5:00	5.809	145.6	5.08	4.213	28.77	0
11/16/2017 5:15	5.549	142.9	9.44	4.402	28.77	0
11/16/2017 5:30	4.015	142.7	12.19	4.52	28.77	0
11/16/2017 5:45	3.903	142.8	9.68	4.494	28.77	0
11/16/2017 6:00	3.794	141.2	14.3	4.532	28.78	0.01
11/16/2017 6:15	4.978	137.6	6.673	4.536	28.78	0
11/16/2017 6:30	4.684	159.7	13.76	4.51	28.78	0
11/16/2017 6:45	5.334	169.4	14.88	4.566	28.78	0.01
11/16/2017 7:00	2.29	139.6	18	4.232	28.79	0
11/16/2017 7:15	4.055	132.3	4.898	4.332	28.79	0
11/16/2017 7:30	4.904	141.5	8.46	4.484	28.79	0
11/16/2017 7:45	3.74	153.7	12.33	4.56	28.79	0
11/16/2017 8:00	3.466	175.2	12.7	4.837	28.81	0.01
11/16/2017 8:15	2.754	183.5	8.82	4.938	28.81	0
11/16/2017 8:30	3.616	171.8	7.489	5.059	28.81	0
11/16/2017 8:45	3.827	162.3	11.91	5.192	28.81	0
11/16/2017 9:00	4.752	165.6	11.95	5.353	28.8	0
11/16/2017 9:15	3.096	159.5	15.37	5.365	28.8	0
11/16/2017 9:30	4.583	190.4	15.21	5.438	28.8	0
11/16/2017 9:45	3.793	207.5	10.51	5.257	28.8	0
11/16/2017 10:00	5.145	225.8	10.1	5.136	28.84	0.01
11/16/2017 10:15	8.52	211	10.69	5.038	28.84	0
11/16/2017 10:30	8.41	186.2	14.21	5.046	28.84	0
11/16/2017 10:45	6.961	166	13.42	5.307	28.84	0

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
11/16/2017 11:00	6.989	144.7	12.35	5.194	28.84	0
11/16/2017 11:15	5.943	129.7	11.09	5.173	28.84	0
11/16/2017 11:30	4.544	126.7	11.52	5.317	28.84	0
11/16/2017 11:45	5.035	132.2	11.81	5.305	28.84	0.01
11/16/2017 12:00	5.382	140.3	11.38	5.218	28.81	0.01
11/16/2017 12:15	4.664	133.7	11.91	5.28	28.81	0.01
11/16/2017 12:30	4.944	134.6	12.44	5.325	28.81	0.01
11/16/2017 12:45	4.085	148.2	17.34	5.509	28.81	0
11/16/2017 13:00	3.182	184.3	11.76	5.537	28.82	0.01
11/16/2017 13:15	2.363	172.7	16.65	5.619	28.82	0
11/16/2017 13:30	4.182	180.2	8.03	5.5	28.82	0.01
11/16/2017 13:45	4.278	174.4	16.27	5.453	28.82	0.02
11/16/2017 14:00	4.475	151.5	25.27	5.448	28.84	0
11/16/2017 14:15	4.752	130.3	12.23	5.429	28.84	0.01
11/16/2017 14:30	4.432	137.5	11.54	5.408	28.84	0.02
11/16/2017 14:45	5.26	170.3	20.58	5.42	28.84	0.01
11/16/2017 15:00	5.351	146	16.29	5.325	28.82	0.01
11/16/2017 15:15	7.609	145.1	7.906	5.379	28.82	0
11/16/2017 15:30	10.15	160.9	10.14	5.46	28.82	0
11/16/2017 15:45	11.29	160.5	10.61	5.417	28.82	0
11/16/2017 16:00	12.79	176.4	9.67	5.305	28.83	0
11/16/2017 16:15	11.73	180	8.62	4.993	28.83	0.01
11/16/2017 16:30	11.08	171.3	9.85	4.749	28.83	0
11/16/2017 16:45	9.85	154.8	6.925	4.438	28.83	0.01
11/16/2017 17:00	8.57	146.4	7.852	4.278	28.85	0
11/16/2017 17:15	7.227	134.4	9.6	4.167	28.85	0
11/16/2017 17:30	8.12	120.7	9.04	3.797	28.85	0
11/16/2017 17:45	6.28	130	11.7	3.768	28.85	0
11/16/2017 18:00	5.5	143.5	9.03	3.918	28.84	0
11/16/2017 18:15	6.129	151.1	7.345	4.015	28.84	0
11/16/2017 18:30	6.942	144.8	7.725	4.031	28.84	0
11/16/2017 18:45	6.459	147.4	8.02	3.979	28.84	0
11/16/2017 19:00	6.822	146.2	9.55	4.1	28.86	0
11/16/2017 19:15	6.144	155.9	12.26	4.173	28.86	0
11/16/2017 19:30	6.865	175.3	9.53	4.179	28.86	0
11/16/2017 19:45	5.231	163.5	12.42	4.051	28.86	0
11/16/2017 20:00	6.263	143.3	7.081	3.955	28.85	0
11/16/2017 20:15	6.742	141.3	7.206	4.004	28.85	0
11/16/2017 20:30	6.317	139.4	7.001	3.891	28.85	0
11/16/2017 20:45	4.901	137.3	9.35	3.988	28.85	0.01
11/16/2017 21:00	5.16	157.5	12.82	4.17	28.88	0
11/16/2017 21:15	6.293	181.1	10.61	4.384	28.88	0
11/16/2017 21:30	6.765	171.9	14.22	4.44	28.88	0.01
11/16/2017 21:45	7.237	169.5	15.56	4.471	28.88	0
11/16/2017 22:00	5.69	162.3	13.94	4.421	28.87	0
11/16/2017 22:15	5.957	140	8.34	4.263	28.87	0
11/16/2017 22:30	8.39	158.6	10.68	4.373	28.87	0
11/16/2017 22:45	9.95	174.3	6.757	4.529	28.87	0
11/16/2017 23:00	8.78	176.1	7.505	4.501	28.92	0
11/16/2017 23:15	8.86	182.6	10.46	4.588	28.92	0
11/16/2017 23:30	11.44	185	9.81	4.773	28.92	0
11/16/2017 23:45	9.22	182.6	8.89	4.706	28.92	0
11/17/2017 0:00	11.01	181.7	7.504	4.742	28.9	0
11/17/2017 0:15	12.99	178.3	8.49	4.798	28.9	0
11/17/2017 0:30	10.56	171.4	11.84	4.861	28.9	0
11/17/2017 0:45	9.89	167.8	12.13	4.832	28.9	0

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
11/17/2017 1:00	8.9	171.9	9.81	4.883	28.95	0
11/17/2017 1:15	7.177	153.8	12.15	4.768	28.95	0
11/17/2017 1:30	7.767	162.6	11.32	4.824	28.95	0
11/17/2017 1:45	8.61	176.9	9.59	4.886	28.95	0
11/17/2017 2:00	8.98	178.8	8.26	4.957	28.97	0
11/17/2017 2:15	8.03	182.7	8.97	5.025	28.97	0
11/17/2017 2:30	7.294	192.5	8.15	4.969	28.97	0
11/17/2017 2:45	8.4	182.5	10.98	5.053	28.97	0
11/17/2017 3:00	6.518	182.9	10.06	5.023	28.99	0
11/17/2017 3:15	8.03	187.8	13.53	5.092	28.99	0
11/17/2017 3:30	9.13	196.1	9.52	5.104	28.99	0
11/17/2017 3:45	9.12	189.8	8.1	4.967	28.99	0
11/17/2017 4:00	8.64	196.3	8.32	4.884	29.04	0
11/17/2017 4:15	7.37	195.9	9.29	4.801	29.04	0
11/17/2017 4:30	6.792	198.8	9.53	4.769	29.04	0
11/17/2017 4:45	6.858	192.2	9.37	4.761	29.04	0
11/17/2017 5:00	5.334	171.2	10.84	4.702	29.05	0
11/17/2017 5:15	6.686	190.3	8.9	4.724	29.05	0
11/17/2017 5:30	7.008	182.6	8.89	4.747	29.05	0
11/17/2017 5:45	8.06	185.5	9.14	4.765	29.05	0
11/17/2017 6:00	8.87	178.3	9.07	4.8	29.08	0
11/17/2017 6:15	8.01	182.4	9.6	4.787	29.08	0
11/17/2017 6:30	6.685	177.4	11.16	4.872	29.08	0
11/17/2017 6:45	7.422	180.4	18.77	4.861	29.08	0
11/17/2017 7:00	7.035	184.3	14.07	4.923	29.13	0
11/17/2017 7:15	6.483	190.4	11.29	4.834	29.13	0
11/17/2017 7:30	7.336	189.7	11.8	4.802	29.13	0
11/17/2017 7:45	8.98	194.8	9.23	4.796	29.13	0
11/17/2017 8:00	12.33	195.6	9.42	4.764	29.13	0
11/17/2017 8:15	10.8	191.7	9.84	4.711	29.13	0
11/17/2017 8:30	9.15	182.4	9.21	4.734	29.13	0
11/17/2017 8:45	8.9	190.2	9.97	4.76	29.13	0
11/17/2017 9:00	11.48	194	11.31	4.745	29.2	0
11/17/2017 9:15	9.33	187.9	9.16	4.759	29.2	0
11/17/2017 9:30	10.99	198.8	9.23	4.807	29.2	0
11/17/2017 9:45	10.51	188.9	10.24	4.918	29.2	0
11/17/2017 10:00	8.95	184.7	6.726	5.087	29.23	0
11/17/2017 10:15	6.568	182.1	10.62	5.278	29.23	0
11/17/2017 10:30	7.45	178.9	8.36	5.366	29.23	0
11/17/2017 10:45	6.537	181.2	8.68	5.562	29.23	0
11/17/2017 11:00	6.641	179.2	9.54	5.835	29.24	0
11/17/2017 11:15	5.317	191.2	16.81	6.095	29.24	0
11/17/2017 11:30	6.896	197.4	12.27	6.444	29.24	0
11/17/2017 11:45	8.86	206.7	12.16	6.781	29.24	0
11/17/2017 12:00	6.39	217.3	11.71	6.897	29.26	0
11/17/2017 12:15	7.413	213.2	16.11	7.24	29.26	0
11/17/2017 12:30	10.49	222.3	15.81	7.44	29.26	0
11/17/2017 12:45	9.66	224	10.28	7.503	29.26	0
11/17/2017 13:00	11.78	226.3	10.36	7.947	29.28	0
11/17/2017 13:15	14.52	219.7	8.91	7.775	29.28	0
11/17/2017 13:30	11.51	201.7	10.89	7.989	29.28	0
11/17/2017 13:45	13.55	214.2	11.64	7.842	29.28	0
11/17/2017 14:00	13.17	218.4	12.3	7.841	29.32	0
11/17/2017 14:15	13.32	217.8	10.89	8.14	29.32	0
11/17/2017 14:30	11.27	218.8	10.98	7.963	29.32	0
11/17/2017 14:45	11.25	218.1	7.61	7.762	29.32	0

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
11/17/2017 15:00	7.514	217.5	8.48	7.663	29.35	0
11/17/2017 15:15	7.321	208.5	11.3	7.631	29.35	0
11/17/2017 15:30	9.85	205.4	12.75	7.716	29.35	0
11/17/2017 15:45	11.72	218.9	12.73	7.427	29.35	0
11/17/2017 16:00	12.36	196.9	8.31	7.05	29.37	0
11/17/2017 16:15	10.66	200	9.42	6.778	29.37	0
11/17/2017 16:30	9.85	184.3	9.33	6.547	29.37	0
11/17/2017 16:45	10.25	185.3	8.57	6.359	29.37	0
11/17/2017 17:00	10.94	186.2	10.24	6.197	29.38	0
11/17/2017 17:15	10.01	177.6	8.72	5.769	29.38	0
11/17/2017 17:30	7.699	162.1	14.58	5.342	29.38	0
11/17/2017 17:45	5.588	142.8	9.76	5.103	29.38	0
11/17/2017 18:00	6.171	143.9	7.665	5.266	29.42	0
11/17/2017 18:15	7.653	161.7	12.38	5.236	29.42	0
11/17/2017 18:30	9.13	177.6	8.83	5.201	29.42	0
11/17/2017 18:45	8.31	172.6	10	5.324	29.42	0
11/17/2017 19:00	8.01	166.1	11	5.388	29.42	0
11/17/2017 19:15	9.32	158.5	8.01	5.522	29.42	0
11/17/2017 19:30	8.55	153.4	6.66	5.473	29.42	0
11/17/2017 19:45	7.153	153.8	7.477	5.385	29.42	0
11/17/2017 20:00	6.47	146.1	6.518	5.34	29.43	0
11/17/2017 20:15	7.156	146	7.822	5.427	29.43	0
11/17/2017 20:30	7.121	144.4	7.664	5.516	29.43	0
11/17/2017 20:45	6.461	145.1	8.45	5.621	29.43	0
11/17/2017 21:00	6.361	144.8	7.84	5.576	29.46	0
11/17/2017 21:15	5.26	137.8	7.401	5.622	29.46	0
11/17/2017 21:30	5.934	146.1	7.818	5.79	29.46	0
11/17/2017 21:45	5.308	137.7	8.26	5.753	29.46	0
11/17/2017 22:00	5.15	142.3	9.34	5.785	29.45	0
11/17/2017 22:15	4.564	145.9	8.91	5.598	29.45	0
11/17/2017 22:30	6.194	168.1	8.59	5.892	29.45	0
11/17/2017 22:45	7.807	172.8	7.35	6.12	29.45	0
11/17/2017 23:00	6.827	175.1	9	6.207	29.45	0
11/17/2017 23:15	6.668	169.5	9.97	6.324	29.45	0
11/17/2017 23:30	6.851	167	9.66	6.306	29.45	0
11/17/2017 23:45	8.07	176.1	7.596	6.585	29.45	0
11/18/2017 0:00	8.68	178.3	9.73	6.79	29.48	0
11/18/2017 0:15	7.073	169.3	10.61	6.82	29.48	0
11/18/2017 0:30	5.627	148.4	9.92	6.494	29.48	0
11/18/2017 0:45	7.776	157.7	12.44	6.471	29.48	0
11/18/2017 1:00	5.069	144.1	12.09	5.973	29.48	0
11/18/2017 1:15	3.791	155.2	9.97	5.947	29.48	0
11/18/2017 1:30	4.551	155.6	9.25	6.096	29.48	0
11/18/2017 1:45	5.754	150.5	6.489	6.147	29.48	0
11/18/2017 2:00	6.472	146.5	5.995	6.38	29.49	0
11/18/2017 2:15	6.09	142.2	6.836	6.491	29.49	0
11/18/2017 2:30	5.678	140.3	6.469	6.455	29.49	0
11/18/2017 2:45	5.211	131.8	8.38	6.395	29.49	0
11/18/2017 3:00	5.839	140.4	7.123	6.474	29.48	0
11/18/2017 3:15	6.642	145.5	8.37	6.529	29.48	0
11/18/2017 3:30	6.192	142.8	8.2	6.539	29.48	0
11/18/2017 3:45	5.029	135.1	8.76	6.417	29.48	0
11/18/2017 4:00	4.689	139.4	11.41	6.377	29.45	0
11/18/2017 4:15	4.885	131	7.587	6.304	29.45	0
11/18/2017 4:30	5.387	122.2	7.903	6.347	29.45	0
11/18/2017 4:45	5.56	118.8	7.032	6.559	29.45	0

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
11/18/2017 5:00	5.999	130.2	6.055	6.708	29.44	0
11/18/2017 5:15	5.951	134.7	7.828	6.846	29.44	0
11/18/2017 5:30	5.267	131.7	8.48	6.913	29.44	0
11/18/2017 5:45	5.141	129.3	8.1	6.922	29.44	0
11/18/2017 6:00	5.775	124.7	7.604	6.958	29.44	0
11/18/2017 6:15	7.066	124.5	7.64	7.066	29.44	0
11/18/2017 6:30	6.797	130.7	8.96	7.096	29.44	0
11/18/2017 6:45	6.768	128.6	7.848	7.181	29.44	0
11/18/2017 7:00	7.033	120.9	10.02	7.246	29.45	0
11/18/2017 7:15	5.036	131.6	39.02	6.769	29.45	0
11/18/2017 7:30	4.451	162.6	36.98	6.673	29.45	0
11/18/2017 7:45	5.118	159.5	20.18	6.529	29.45	0
11/18/2017 8:00	5.388	143.7	10.36	6.708	29.45	0
11/18/2017 8:15	5.603	127.6	11.35	6.99	29.45	0
11/18/2017 8:30	5.666	126.2	9.02	7.139	29.45	0
11/18/2017 8:45	4.984	139	15.52	7.323	29.45	0
11/18/2017 9:00	5.606	148.3	11.44	7.382	29.46	0
11/18/2017 9:15	5.628	127.6	14.61	7.683	29.46	0
11/18/2017 9:30	5.675	134.3	12.16	7.877	29.46	0
11/18/2017 9:45	6.503	131.8	14.68	8.04	29.46	0
11/18/2017 10:00	6.528	125.3	10.55	8.24	29.44	0
11/18/2017 10:15	6.978	128.1	10.3	8.46	29.44	0
11/18/2017 10:30	6.695	125.8	10.37	8.84	29.44	0
11/18/2017 10:45	5.909	126.4	10.08	9.1	29.44	0
11/18/2017 11:00	5.111	138.5	11.88	9.67	29.4	0
11/18/2017 11:15	4.827	138.1	11.41	10.02	29.4	0
11/18/2017 11:30	4.598	163.8	15.34	10.06	29.4	0
11/18/2017 11:45	3.93	198.7	16.01	9.92	29.4	0
11/18/2017 12:00	3.831	135.8	18.92	10.59	29.38	0
11/18/2017 12:15	3.021	214.6	40.75	10.47	29.38	0
11/18/2017 12:30	3.437	214.1	31.96	10.16	29.38	0
11/18/2017 12:45	4.239	188.8	16.18	10.44	29.38	0
11/18/2017 13:00	4.317	211.8	19.5	10.53	29.35	0
11/18/2017 13:15	3.277	225	23.31	10.63	29.35	0
11/18/2017 13:30	5.452	146.2	25.32	10.66	29.35	0
11/18/2017 13:45	4.29	111.1	18.12	10.74	29.35	0
11/18/2017 14:00	5.219	161.2	21.41	10.84	29.34	0
11/18/2017 14:15	5.689	167.4	14.63	10.7	29.34	0
11/18/2017 14:30	3.708	157.1	20.78	10.77	29.34	0
11/18/2017 14:45	3.796	210.3	25.44	10.78	29.34	0
11/18/2017 15:00	2.867	231.7	37.47	10.54	29.33	0
11/18/2017 15:15	1.952	276.8	9.68	10.54	29.33	0
11/18/2017 15:30	4.299	288.9	6.215	10.1	29.33	0
11/18/2017 15:45	4.731	299.7	11.43	9.44	29.33	0
11/18/2017 16:00	5.41	302.1	2.999	8.94	29.31	0
11/18/2017 16:15	6.748	293.5	2.927	8.87	29.31	0
11/18/2017 16:30	7.247	296.3	5.243	8.42	29.31	0
11/18/2017 16:45	5.649	305.4	4.381	7.837	29.31	0
11/18/2017 17:00	3.486	287.5	1.027	8	29.31	0
11/18/2017 17:15	1.026	287.2	0.12	8.1	29.31	0
11/18/2017 17:30	0.916	287	0.071	7.798	29.31	0
11/18/2017 17:45	0.792	286.8	0.11	7.808	29.31	0
11/18/2017 18:00	0.071	287	0.036	7.877	29.31	0
11/18/2017 18:15	2.349	190.9	18.12	7.656	29.31	0
11/18/2017 18:30	3.671	153.2	17.25	7.214	29.31	0
11/18/2017 18:45	3.988	124.2	6.113	6.493	29.31	0

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
11/18/2017 19:00	5.057	116.1	5.204	6.057	29.3	0
11/18/2017 19:15	6.724	121.8	4.739	6.495	29.3	0
11/18/2017 19:30	5.867	125.5	6.965	6.633	29.3	0
11/18/2017 19:45	5.1	140.1	7.289	6.436	29.3	0
11/18/2017 20:00	5.51	142.1	5.689	6.216	29.3	0
11/18/2017 20:15	5.95	141	8.47	6.198	29.3	0
11/18/2017 20:30	5.503	143.6	7.793	5.979	29.3	0
11/18/2017 20:45	5.569	160.9	14.49	5.947	29.3	0
11/18/2017 21:00	4.704	145.3	11.72	6.168	29.31	0
11/18/2017 21:15	4.503	120.7	7.333	5.946	29.31	0
11/18/2017 21:30	4.667	117	6.548	5.549	29.31	0
11/18/2017 21:45	5.014	139.9	8.25	6	29.31	0
11/18/2017 22:00	4.852	142.7	5.332	6.024	29.28	0
11/18/2017 22:15	4.946	139.4	10.08	6.204	29.28	0
11/18/2017 22:30	5.68	146.1	9.02	6.108	29.28	0
11/18/2017 22:45	6.38	141.2	12.16	6.198	29.28	0
11/18/2017 23:00	6.992	153.1	9.23	6.072	29.25	0
11/18/2017 23:15	6.976	149.1	8.91	6.204	29.25	0
11/18/2017 23:30	6.947	147.4	10.6	6.104	29.25	0
11/18/2017 23:45	6.245	149.7	11.5	5.939	29.25	0
11/19/2017 0:00	6.202	147.6	8.06	5.868	29.26	0
11/19/2017 0:15	5.57	146.7	6.857	5.955	29.26	0
11/19/2017 0:30	5.251	145	7.568	5.886	29.26	0
11/19/2017 0:45	5.356	144.6	7.807	5.881	29.26	0
11/19/2017 1:00	5.198	142.5	9.12	5.897	29.26	0
11/19/2017 1:15	4.937	140.3	9.64	6.016	29.26	0
11/19/2017 1:30	4.998	149.5	13.91	5.851	29.26	0
11/19/2017 1:45	5.771	143.3	8.78	5.979	29.26	0
11/19/2017 2:00	6.158	144.2	8.29	5.71	29.21	0
11/19/2017 2:15	6.212	147.7	15.65	5.706	29.21	0
11/19/2017 2:30	5.436	156.4	13.85	5.558	29.21	0
11/19/2017 2:45	6.582	161.8	14.22	5.189	29.21	0
11/19/2017 3:00	5.007	144.3	13.97	4.911	29.22	0
11/19/2017 3:15	4.002	126.2	11.91	5.276	29.22	0
11/19/2017 3:30	5.215	175.1	25.1	4.622	29.22	0
11/19/2017 3:45	5.669	173.4	18.07	4.319	29.22	0
11/19/2017 4:00	4.637	166.9	18.51	4.691	29.18	0
11/19/2017 4:15	5.121	183.5	15.68	4.431	29.18	0
11/19/2017 4:30	5.267	166	13.45	4.69	29.18	0
11/19/2017 4:45	4.481	143.3	15.09	4.831	29.18	0
11/19/2017 5:00	6.309	141.3	8.07	5.098	29.2	0
11/19/2017 5:15	6.536	144.4	7.159	5.572	29.2	0
11/19/2017 5:30	7.715	144.5	7.223	5.741	29.2	0
11/19/2017 5:45	8.77	145.5	6.945	5.798	29.2	0
11/19/2017 6:00	7.938	141.8	7.696	6.051	29.15	0
11/19/2017 6:15	7.842	142.7	8.29	6.648	29.15	0
11/19/2017 6:30	7.015	142.4	7.829	6.641	29.15	0
11/19/2017 6:45	7.412	147.7	7.53	6.574	29.15	0
11/19/2017 7:00	7.333	146.6	7.308	6.541	29.14	0
11/19/2017 7:15	7.899	147.1	7.907	6.642	29.14	0
11/19/2017 7:30	6.657	147	8.79	6.568	29.14	0
11/19/2017 7:45	7.105	142.6	9.42	6.764	29.14	0
11/19/2017 8:00	8.08	141.4	7.618	6.931	29.13	0
11/19/2017 8:15	7.985	136.3	8.14	7.035	29.13	0
11/19/2017 8:30	8.44	137.6	9.84	7.115	29.13	0
11/19/2017 8:45	9.95	147.2	7.579	7.323	29.13	0

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
11/19/2017 9:00	10.93	140.1	8.71	7.721	29.1	0
11/19/2017 9:15	10.49	139.4	9.23	8.08	29.1	0
11/19/2017 9:30	11.45	144	7.703	8.43	29.1	0
11/19/2017 9:45	10.92	147.4	7.663	8.7	29.1	0
11/19/2017 10:00	11.07	154.2	10.36	9.02	29.06	0
11/19/2017 10:15	9.45	158.3	11	9	29.06	0
11/19/2017 10:30	8.91	139.9	9.25	9.05	29.06	0
11/19/2017 10:45	7.298	134.5	8.4	9.18	29.06	0
11/19/2017 11:00	6.137	134.1	7.267	9.42	29.05	0
11/19/2017 11:15	5.803	146.9	10.32	9.68	29.05	0
11/19/2017 11:30	6.444	140	10.32	9.92	29.05	0
11/19/2017 11:45	7.114	150.5	15.68	9.57	29.05	0
11/19/2017 12:00	9.44	159.4	15.95	10.28	28.99	0
11/19/2017 12:15	10.2	159.6	11.11	10.35	28.99	0
11/19/2017 12:30	10.56	158.5	10.09	10.45	28.99	0
11/19/2017 12:45	9.13	154.9	12.74	10.46	28.99	0
11/19/2017 13:00	7.636	142.3	13.43	10.53	28.96	0
11/19/2017 13:15	8.72	141.7	13.52	10.63	28.96	0
11/19/2017 13:30	8.83	153.8	14.4	10.87	28.96	0
11/19/2017 13:45	9.38	187.5	13.82	10.88	28.96	0
11/19/2017 14:00	13.14	197.7	10.5	11.24	28.95	0
11/19/2017 14:15	13.18	200.3	10.68	11.15	28.95	0
11/19/2017 14:30	13.8	208.5	12.45	10.91	28.95	0
11/19/2017 14:45	15.87	190.7	17.82	10.37	28.95	0
11/19/2017 15:00	11.84	203.5	9.57	10.17	28.9	0
11/19/2017 15:15	9.77	220.7	15.65	9.92	28.9	0
11/19/2017 15:30	6.268	235	30.12	9.69	28.9	0
11/19/2017 15:45	5.275	259.1	35.2	9.52	28.9	0
11/19/2017 16:00	10.31	270.8	24.81	8.47	28.91	0
11/19/2017 16:15	9.83	225.3	42.39	8.05	28.91	0
11/19/2017 16:30	7.942	173.6	15.24	7.337	28.91	0
11/19/2017 16:45	6.632	189.1	6.942	7.285	28.91	0.01
11/19/2017 17:00	4.393	158.9	22.13	7.176	28.89	0
11/19/2017 17:15	12.5	173.5	13.4	7.242	28.89	0.01
11/19/2017 17:30	11.31	186.5	10.89	6.45	28.89	0.01
11/19/2017 17:45	10.78	179.6	8.55	5.923	28.89	0.01
11/19/2017 18:00	7.48	164.8	14.63	5.281	28.9	0.01
11/19/2017 18:15	6.59	146.6	8.03	4.782	28.9	0.01
11/19/2017 18:30	8.59	151.7	9.72	4.853	28.9	0.02
11/19/2017 18:45	8.86	142.8	9.2	4.765	28.9	0.01
11/19/2017 19:00	9.06	125.3	10.51	4.498	28.84	0.03
11/19/2017 19:15	7.66	109.3	11.19	4.198	28.84	0.03
11/19/2017 19:30	5.272	113.6	15.77	4.291	28.84	0.05
11/19/2017 19:45	3.763	126.2	13.43	4.457	28.84	0.05
11/19/2017 20:00	3.819	85.1	10.66	4.407	28.81	0.02
11/19/2017 20:15	5.351	85.8	11.85	4.728	28.81	0
11/19/2017 20:30	4.595	112.3	15.52	5.534	28.81	0.01
11/19/2017 20:45	1.794	120.9	24.58	6.021	28.81	0
11/19/2017 21:00	2.1	104.6	41.2	6.204	28.8	0.01
11/19/2017 21:15	1.266	60.01	25.39	5.129	28.8	0
11/19/2017 21:30	1.813	45.42	8.31	5.684	28.8	0
11/19/2017 21:45	2.632	58.87	22.89	6.048	28.8	0.01
11/19/2017 22:00	1.546	227.7	50.69	6.413	28.79	0
11/19/2017 22:15	2.031	119.1	41.84	6.818	28.79	0.02
11/19/2017 22:30	3.562	144.6	32.13	6.955	28.79	0.01
11/19/2017 22:45	5.857	166.6	14.4	7.18	28.79	0.01

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
11/19/2017 23:00	5.56	147.2	13.35	7.035	28.79	0
11/19/2017 23:15	6.132	133.7	11.15	6.949	28.79	0
11/19/2017 23:30	7.08	137.5	10.02	7.086	28.79	0
11/19/2017 23:45	5.287	142.2	9.81	7.201	28.79	0
11/20/2017 0:00	4.876	129.4	7.877	7.286	28.79	0
11/20/2017 0:15	6.837	123.8	8.28	7.59	28.79	0.01
11/20/2017 0:30	6.335	129.4	10.97	7.882	28.79	0
11/20/2017 0:45	5.409	128.3	13.67	7.963	28.79	0
11/20/2017 1:00	6.49	141.6	15.47	8.24	28.78	0
11/20/2017 1:15	6.988	145.8	10.36	8.71	28.78	0
11/20/2017 1:30	7.725	155	8.61	8.8	28.78	0
11/20/2017 1:45	8.89	162.8	12.1	9.07	28.78	0
11/20/2017 2:00	6.904	164.1	12.04	9.08	28.77	0
11/20/2017 2:15	6.293	151.2	20.29	9.26	28.77	0
11/20/2017 2:30	5.859	133.3	12.29	9.36	28.77	0
11/20/2017 2:45	5.836	124.3	12.64	9.41	28.77	0
11/20/2017 3:00	5.318	134	12.34	9.55	28.76	0
11/20/2017 3:15	6.101	140.7	14.12	9.89	28.76	0
11/20/2017 3:30	6.514	156.9	6.997	9.71	28.76	0
11/20/2017 3:45	6.836	153.6	9.76	9.86	28.76	0
11/20/2017 4:00	9.15	148.3	7.655	10.11	28.72	0
11/20/2017 4:15	7.882	144.3	8.59	10.16	28.72	0
11/20/2017 4:30	6.225	126.3	9.87	10.59	28.72	0
11/20/2017 4:45	5.875	126.8	9.6	10.84	28.72	0
11/20/2017 5:00	6.119	139.4	13.34	11.01	28.71	0
11/20/2017 5:15	6.934	175.7	13.8	10.37	28.71	0.03
11/20/2017 5:30	6.005	165	16.48	9.62	28.71	0.02
11/20/2017 5:45	6.066	128	10.25	9.46	28.71	0
11/20/2017 6:00	7.883	125.1	7.22	9.88	28.67	0
11/20/2017 6:15	7.595	127.7	9.54	9.89	28.67	0.02
11/20/2017 6:30	8.35	117	13.13	9.68	28.67	0.01
11/20/2017 6:45	10.22	123.3	10.45	9.86	28.67	0.01
11/20/2017 7:00	11.75	124	10	10.06	28.66	0
11/20/2017 7:15	8.9	162.5	18.54	10.03	28.66	0.03
11/20/2017 7:30	6.921	255.4	24.98	9.02	28.66	0.06
11/20/2017 7:45	6.795	287.2	8.4	8.68	28.66	0.02
11/20/2017 8:00	7.545	315.3	10.83	8.78	28.7	0
11/20/2017 8:15	15.42	285.3	11.94	8.32	28.7	0.1
11/20/2017 8:30	12.83	357.4	35.1	7.978	28.7	0.04
11/20/2017 8:45	6.779	334.1	52.99	8.08	28.7	0
11/20/2017 9:00	3.698	6.47	88.8	8.1	28.79	0
11/20/2017 9:15	4.76	286	19.23	8.2	28.79	0.02
11/20/2017 9:30	4.74	349.3	48.24	7.938	28.79	0.02
11/20/2017 9:45	8.53	48.36	17.72	7.681	28.79	0
11/20/2017 10:00	6.603	45.36	13.95	8.03	28.83	0
11/20/2017 10:15	3.802	177.7	66.43	8.14	28.83	0
11/20/2017 10:30	8.84	202.6	7.945	8.01	28.83	0.01
11/20/2017 10:45	7.177	252.7	13.41	7.973	28.83	0.05
11/20/2017 11:00	6.567	249.3	6.789	8	28.89	0.03
11/20/2017 11:15	6.237	264.3	8.32	8.09	28.89	0.01
11/20/2017 11:30	4.391	265.3	10.3	8.23	28.89	0
11/20/2017 11:45	7.346	263.5	8.19	8.06	28.89	0.01
11/20/2017 12:00	6.644	263.5	7.349	7.999	28.91	0
11/20/2017 12:15	3.106	280.3	25.05	8.27	28.91	0
11/20/2017 12:30	3.51	221.6	13.65	8.34	28.91	0
11/20/2017 12:45	5.4	209.1	9.97	8.32	28.91	0

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
11/20/2017 13:00	4.297	219.2	10.1	8.12	28.96	0.01
11/20/2017 13:15	5.919	219.9	12.43	8.18	28.96	0.01
11/20/2017 13:30	10.05	216.8	7.419	8.19	28.96	0
11/20/2017 13:45	13.71	219.6	7.689	7.893	28.96	0
11/20/2017 14:00	10.63	221.6	7.475	7.739	29.02	0
11/20/2017 14:15	8.9	207.2	9.53	7.836	29.02	0
11/20/2017 14:30	9.8	208.6	12.06	8.04	29.02	0
11/20/2017 14:45	11.51	217	11.36	8.57	29.02	0
11/20/2017 15:00	8.33	196	13.52	8.68	29.06	0
11/20/2017 15:15	6.984	196.3	12.97	8.68	29.06	0
11/20/2017 15:30	5.258	174	13.2	8.47	29.06	0
11/20/2017 15:45	4.535	191.2	10.39	8.14	29.06	0
11/20/2017 16:00	1.955	135.4	37.6	7.974	29.11	0
11/20/2017 16:15	1.651	80.5	11.83	7.77	29.11	0
11/20/2017 16:30	5.652	34.7	7.612	6.691	29.11	0
11/20/2017 16:45	6.769	27.13	11.3	6.476	29.11	0
11/20/2017 17:00	5.782	28.78	10.06	6.354	29.13	0
11/20/2017 17:15	4.566	36.26	14.1	6.145	29.13	0
11/20/2017 17:30	5.652	38.72	12.15	6.096	29.13	0
11/20/2017 17:45	5.124	53.13	11.88	5.771	29.13	0
11/20/2017 18:00	5.079	29.28	10.41	5.53	29.14	0
11/20/2017 18:15	4.614	36.05	8.83	5.162	29.14	0
11/20/2017 18:30	4.458	46.91	10.45	4.873	29.14	0
11/20/2017 18:45	3.437	30.25	7.284	4.855	29.14	0
11/20/2017 19:00	4.851	19.67	7.663	4.787	29.18	0
11/20/2017 19:15	4.602	20.99	5.66	4.639	29.18	0
11/20/2017 19:30	3.967	30.74	6.747	4.391	29.18	0
11/20/2017 19:45	3.803	27.74	5.861	4.263	29.18	0
11/20/2017 20:00	4.242	32.2	6.114	4.257	29.18	0
11/20/2017 20:15	4.724	39.69	5.227	4.303	29.18	0
11/20/2017 20:30	3.829	29.88	6.944	4.44	29.18	0
11/20/2017 20:45	4.033	26.88	5.857	4.347	29.18	0
11/20/2017 21:00	3.69	34.28	5.367	4.184	29.23	0
11/20/2017 21:15	3.892	44.9	3.814	4.164	29.23	0
11/20/2017 21:30	3.574	47.35	4.865	4.262	29.23	0
11/20/2017 21:45	2.224	109.4	46.27	4.201	29.23	0
11/20/2017 22:00	3.106	150.1	9.33	4.446	29.23	0
11/20/2017 22:15	3.658	130.7	9.29	4.838	29.23	0
11/20/2017 22:30	4.77	97.8	17.96	4.786	29.23	0
11/20/2017 22:45	3.575	64.74	23.89	3.858	29.23	0
11/20/2017 23:00	3.204	42.09	8.7	4.046	29.24	0
11/20/2017 23:15	2.243	30.87	13.68	4.528	29.24	0
11/20/2017 23:30	2.628	39.53	7.418	4.531	29.24	0
11/20/2017 23:45	2.65	33.9	6.194	4.306	29.24	0
11/21/2017 0:00	4.013	20.95	4.656	4.159	29.22	0
11/21/2017 0:15	3.362	12.84	15.61	3.686	29.22	0
11/21/2017 0:30	4.025	27.52	14.04	3.605	29.22	0
11/21/2017 0:45	4.673	19.81	12.49	3.374	29.22	0
11/21/2017 1:00	4.305	24.66	5.925	3.164	29.19	0
11/21/2017 1:15	3.581	33.01	6.493	3.043	29.19	0
11/21/2017 1:30	3.457	25.3	8.3	3.288	29.19	0
11/21/2017 1:45	4.434	20.98	10.56	3.084	29.19	0
11/21/2017 2:00	3.267	38.43	8.82	3.85	29.19	0
11/21/2017 2:15	2.552	50.89	0.182	4.791	29.19	0
11/21/2017 2:30	2.731	54.56	5.043	5.123	29.19	0
11/21/2017 2:45	1.983	31.13	3.167	4.187	29.19	0

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
11/21/2017 3:00	3.085	45.4	7.136	4.212	29.19	0
11/21/2017 3:15	2.425	38.96	16.85	3.682	29.19	0
11/21/2017 3:30	4.015	24.58	4.786	4.276	29.19	0
11/21/2017 3:45	3.397	28.47	8.7	4.682	29.19	0
11/21/2017 4:00	3.199	84	41.56	5.713	29.15	0
11/21/2017 4:15	3.933	134.7	7.415	6.561	29.15	0
11/21/2017 4:30	2.869	127.4	33.37	6.181	29.15	0
11/21/2017 4:45	4.765	132.9	11.06	6.962	29.15	0.01
11/21/2017 5:00	5.285	92.1	22.52	6.02	29.15	0
11/21/2017 5:15	5.994	88.3	16.5	6.1	29.15	0.01
11/21/2017 5:30	7.468	104.5	9.86	6.495	29.15	0.01
11/21/2017 5:45	4.457	80.1	14.24	6.179	29.15	0.01
11/21/2017 6:00	3.89	56.37	16.53	5.798	29.13	0.01
11/21/2017 6:15	5.738	105.8	26.61	6.516	29.13	0.03
11/21/2017 6:30	5.219	110.6	21.57	6.397	29.13	0.03
11/21/2017 6:45	2.559	53.29	51.34	6.036	29.13	0.04
11/21/2017 7:00	4.564	67.46	37.8	5.614	29.12	0.02
11/21/2017 7:15	4.862	64.39	24.11	4.625	29.12	0.02
11/21/2017 7:30	4.565	108.5	22.51	5.791	29.12	0.02
11/21/2017 7:45	3.217	74.33	61.81	6.267	29.12	0.02
11/21/2017 8:00	2.999	47.18	22.17	5.278	29.11	0.01
11/21/2017 8:15	4.251	78.35	45.94	5.798	29.11	0.04
11/21/2017 8:30	8.49	147.3	10.7	7.76	29.11	0.03
11/21/2017 8:45	7.996	138.8	13.07	8.03	29.11	0.02
11/21/2017 9:00	11.99	143.3	10.47	8.89	29.12	0.01
11/21/2017 9:15	13.81	136.1	10.27	9.33	29.12	0.01
11/21/2017 9:30	14.74	130.7	10.14	9.54	29.12	0.02
11/21/2017 9:45	15.24	132.3	10.3	9.85	29.12	0.01
11/21/2017 10:00	15.78	129.6	10.11	9.86	29.1	0.04
11/21/2017 10:15	15.93	130.2	9.27	9.96	29.1	0.02
11/21/2017 10:30	15.71	128.1	9.58	10.03	29.1	0.01
11/21/2017 10:45	16.1	127.9	9.18	10.05	29.1	0.02
11/21/2017 11:00	15.85	123.1	9.98	10.26	29.11	0.01
11/21/2017 11:15	17.36	125.4	10.09	10.26	29.11	0.02
11/21/2017 11:30	19.26	127.1	9.66	10.6	29.11	0.01
11/21/2017 11:45	17.79	128.6	9.39	10.7	29.11	0.02
11/21/2017 12:00	18.65	128.5	9.32	10.5	29.07	0.01
11/21/2017 12:15	18.94	127.7	9.56	10.71	29.07	0.02
11/21/2017 12:30	18.49	127.2	9.67	10.77	29.07	0.02
11/21/2017 12:45	18.81	127.8	8.46	11.08	29.07	0.02
11/21/2017 13:00	18.55	126	9.33	11.25	29.06	0.01
11/21/2017 13:15	18.86	126.2	7.801	11.42	29.06	0.02
11/21/2017 13:30	18.46	126.5	8.38	11.65	29.06	0
11/21/2017 13:45	18.12	127.3	9.35	11.91	29.06	0.01
11/21/2017 14:00	17.25	128.9	8.69	12.08	29.01	0
11/21/2017 14:15	17.74	129.7	8.45	12.49	29.01	0
11/21/2017 14:30	17.13	130.5	8.9	12.6	29.01	0
11/21/2017 14:45	15.5	131.1	8.6	12.51	29.01	0
11/21/2017 15:00	14.75	133.7	8.73	12.36	29.02	0.01
11/21/2017 15:15	13.17	134.7	8.29	12.19	29.02	0
11/21/2017 15:30	14.22	130.4	8.34	12.46	29.02	0
11/21/2017 15:45	14.96	128.9	8.07	12.64	29.02	0
11/21/2017 16:00	13.86	129.2	8.09	12.9	29.03	0
11/21/2017 16:15	13.2	131.3	8.64	13.06	29.03	0
11/21/2017 16:30	12.18	134.1	8.78	13.38	29.03	0
11/21/2017 16:45	11.13	132.6	8.3	13.64	29.03	0

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
11/21/2017 17:00	11.39	132.6	7.99	14.05	29.05	0
11/21/2017 17:15	10.79	141.4	7.953	13.56	29.05	0
11/21/2017 17:30	10.73	138.1	10.07	13.1	29.05	0.01
11/21/2017 17:45	10.46	133.4	8.08	12.86	29.05	0
11/21/2017 18:00	11.92	129.6	8.26	13.23	29.06	0
11/21/2017 18:15	11.09	127	8.46	13.57	29.06	0
11/21/2017 18:30	10.93	131.7	9.04	13.88	29.06	0
11/21/2017 18:45	10.38	143.8	10.15	13.42	29.06	0
11/21/2017 19:00	8.11	131.4	9.23	12.91	29.06	0.02
11/21/2017 19:15	8.14	135.4	9.52	12.64	29.06	0.05
11/21/2017 19:30	7.427	138.4	10.4	12.49	29.06	0.07
11/21/2017 19:45	7.962	131.6	8.89	12.17	29.06	0.03
11/21/2017 20:00	10.8	128.9	9.53	11.96	29.07	0.04
11/21/2017 20:15	10.5	123.6	10.32	11.93	29.07	0.06
11/21/2017 20:30	9.79	141.2	13.25	11.8	29.07	0.04
11/21/2017 20:45	8.92	143.9	9.92	11.63	29.07	0.03
11/21/2017 21:00	5.955	165.4	17.21	11.23	29.1	0.1
11/21/2017 21:15	8.77	142.9	21.22	10.95	29.1	0.04
11/21/2017 21:30	9.11	134.9	12.1	11.55	29.1	0.01
11/21/2017 21:45	9.43	125.4	8.61	11.91	29.1	0
11/21/2017 22:00	10.03	133.4	10.67	12.36	29.11	0
11/21/2017 22:15	8.96	132.2	11.25	12.88	29.11	0
11/21/2017 22:30	7.823	144.6	9.64	12.99	29.11	0.03
11/21/2017 22:45	6.928	139.1	9.56	12.94	29.11	0.03
11/21/2017 23:00	7.559	124.5	8.26	13.49	29.12	0.01
11/21/2017 23:15	7.035	122.4	8.47	14.16	29.12	0
11/21/2017 23:30	6.7	133.4	7.339	14.4	29.12	0
11/21/2017 23:45	5.998	150.5	13.16	14.31	29.12	0
11/22/2017 0:00	4.533	145.5	10.49	14.17	29.15	0
11/22/2017 0:15	4.432	160	12.66	13.74	29.15	0.01
11/22/2017 0:30	4.574	125.1	26.76	13.73	29.15	0.02
11/22/2017 0:45	4.212	101	16.72	13.36	29.15	0.01
11/22/2017 1:00	5.389	116.6	12.18	14.22	29.12	0
11/22/2017 1:15	4.265	140.6	9.9	14.27	29.12	0
11/22/2017 1:30	3.915	129	10.95	14.42	29.12	0
11/22/2017 1:45	5.69	143.4	7.23	14.4	29.12	0
11/22/2017 2:00	7.196	158.3	7.776	14.18	29.16	0.01
11/22/2017 2:15	4.018	150	12.09	13.87	29.16	0.01
11/22/2017 2:30	3.689	160.8	17.31	14.25	29.16	0
11/22/2017 2:45	5.801	163.2	19.07	14.42	29.16	0
11/22/2017 3:00	5.324	150.1	21.65	14.62	29.13	0
11/22/2017 3:15	5.261	148.3	35.21	14.52	29.13	0
11/22/2017 3:30	6.809	170.2	17.66	14.48	29.13	0
11/22/2017 3:45	6.91	160.6	9.32	14.61	29.13	0
11/22/2017 4:00	6.762	141.3	11.84	14.37	29.15	0
11/22/2017 4:15	6.668	130.8	8.93	15	29.15	0
11/22/2017 4:30	6.478	130.5	8.22	15.34	29.15	0
11/22/2017 4:45	5.636	132.8	8.41	15.31	29.15	0
11/22/2017 5:00	5.994	133.5	4.789	15.38	29.14	0
11/22/2017 5:15	6.294	132.6	5.746	15.49	29.14	0
11/22/2017 5:30	5.015	141.2	7.296	15.67	29.14	0
11/22/2017 5:45	5.703	148.8	6.34	15.76	29.14	0
11/22/2017 6:00	4.786	153.4	12.47	15.89	29.13	0
11/22/2017 6:15	3.302	158	15.69	15.96	29.13	0
11/22/2017 6:30	4.197	129.3	11.16	16	29.13	0
11/22/2017 6:45	4.484	125.3	6.66	16.23	29.13	0

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
11/22/2017 7:00	3.483	132.2	16.86	16.72	29.15	0
11/22/2017 7:15	4.489	151.3	15.56	17.1	29.15	0
11/22/2017 7:30	4.681	139.5	12.91	16.56	29.15	0
11/22/2017 7:45	4.838	145.8	16.66	16.23	29.15	0
11/22/2017 8:00	5.902	129.4	10.93	16.51	29.15	0
11/22/2017 8:15	6.605	117	13.2	16.74	29.15	0.01
11/22/2017 8:30	6.255	119.1	7.687	16.72	29.15	0
11/22/2017 8:45	7.063	120.9	8.67	16.86	29.15	0
11/22/2017 9:00	6.148	124.7	17.53	17.07	29.16	0
11/22/2017 9:15	5.644	149.6	11.71	16.67	29.16	0
11/22/2017 9:30	6.842	148.3	9.93	16.22	29.16	0
11/22/2017 9:45	6.43	142.1	8.45	16.28	29.16	0
11/22/2017 10:00	7.35	142.3	6.987	16.34	29.16	0
11/22/2017 10:15	7.615	141.8	7.751	16.46	29.16	0
11/22/2017 10:30	8.17	159.3	14.57	15.82	29.16	0.01
11/22/2017 10:45	6.622	136.5	9.49	15.59	29.16	0
11/22/2017 11:00	6.296	145.6	6.712	15.61	29.17	0
11/22/2017 11:15	8.28	157.8	9.19	15.23	29.17	0
11/22/2017 11:30	10.67	146.7	6.183	15.04	29.17	0.01
11/22/2017 11:45	9.1	134.9	9.55	15.11	29.17	0
11/22/2017 12:00	8.19	135.8	7.408	15.44	29.15	0
11/22/2017 12:15	9.14	136.3	8.45	15.87	29.15	0
11/22/2017 12:30	9.1	136.2	9.45	16.18	29.15	0
11/22/2017 12:45	8.18	135.7	9.48	16.33	29.15	0
11/22/2017 13:00	7.973	138.6	9.04	16.9	29.13	0
11/22/2017 13:15	8.56	134.3	8.7	17.65	29.13	0
11/22/2017 13:30	9.51	137.6	11.59	18.42	29.13	0
11/22/2017 13:45	9.58	141.2	9.59	18.6	29.13	0
11/22/2017 14:00	11.3	156.7	12.39	18.88	29.11	0
11/22/2017 14:15	10.41	163.6	11.1	18.97	29.11	0
11/22/2017 14:30	10.34	151.8	6.87	18.59	29.11	0
11/22/2017 14:45	9.61	157.8	8.33	18.65	29.11	0
11/22/2017 15:00	12.72	170.6	9.14	19.25	29.1	0
11/22/2017 15:15	16.35	176.4	8.65	19.6	29.1	0
11/22/2017 15:30	15.91	180	8.55	19.38	29.1	0
11/22/2017 15:45	14.35	180.5	7.956	19.19	29.1	0
11/22/2017 16:00	13.47	191.3	12.66	18.36	29.1	0.01
11/22/2017 16:15	7.674	196.5	6.201	18.06	29.1	0
11/22/2017 16:30	7.291	179.4	11.99	17.97	29.1	0
11/22/2017 16:45	12.24	176.8	7.979	18.33	29.1	0
11/22/2017 17:00	13.2	180.5	8.05	18.16	29.11	0
11/22/2017 17:15	10.44	166.3	10.23	17.85	29.11	0
11/22/2017 17:30	10.95	152.4	6.76	17.86	29.11	0
11/22/2017 17:45	11.6	152	6.96	17.7	29.11	0
11/22/2017 18:00	12.27	156	6.901	17.82	29.07	0
11/22/2017 18:15	12.29	155.7	7.051	17.79	29.07	0
11/22/2017 18:30	11.53	153.2	6.026	17.82	29.07	0
11/22/2017 18:45	11.23	155.3	5.846	17.65	29.07	0
11/22/2017 19:00	10.68	155.6	5.946	17.79	29.06	0
11/22/2017 19:15	9.95	156.6	6.3	17.63	29.06	0
11/22/2017 19:30	9.4	165.9	8.18	17.87	29.06	0
11/22/2017 19:45	9.53	174.4	6.575	18.19	29.06	0
11/22/2017 20:00	10.54	173.2	6.41	18.33	29.03	0
11/22/2017 20:15	12.32	180.5	7.762	18.25	29.03	0
11/22/2017 20:30	13.21	186.7	8.5	18.2	29.03	0
11/22/2017 20:45	11.78	190.4	7.84	18.1	29.03	0

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
11/22/2017 21:00	11.17	196.8	8.72	17.97	29.06	0
11/22/2017 21:15	10.69	208.2	6.736	17.48	29.06	0
11/22/2017 21:30	9.98	191.5	10.25	16.93	29.06	0.01
11/22/2017 21:45	14.25	179	8.24	16.67	29.06	0
11/22/2017 22:00	14.17	174.1	7.964	16.23	29.03	0.01
11/22/2017 22:15	12.74	171.3	7.654	16.02	29.03	0.01
11/22/2017 22:30	10.56	167.5	8.41	15.76	29.03	0
11/22/2017 22:45	10.37	174.6	7.858	15.7	29.03	0
11/22/2017 23:00	11.16	170.7	6.896	15.62	29.03	0.01
11/22/2017 23:15	10.57	183.7	11.76	15.35	29.03	0.05
11/22/2017 23:30	8.1	213.1	11.02	14.87	29.03	0.12
11/22/2017 23:45	15.61	220.7	10.02	14.87	29.03	0.13
11/23/2017 0:00	14.74	228.7	10.17	14.81	29.04	0.11
11/23/2017 0:15	17.53	237.7	9.31	14.72	29.04	0.02
11/23/2017 0:30	15.96	235	9.75	14.51	29.04	0.04
11/23/2017 0:45	15.13	240.5	11.21	14.16	29.04	0.03
11/23/2017 1:00	13.23	224.6	8.24	14	29.05	0.02
11/23/2017 1:15	12.67	219.9	10.6	13.97	29.05	0
11/23/2017 1:30	16.18	222.8	10.24	13.95	29.05	0.01
11/23/2017 1:45	14.39	225.5	8.7	13.73	29.05	0
11/23/2017 2:00	13.36	224.7	10.54	13.59	29.05	0
11/23/2017 2:15	10.08	211.5	8.84	13.4	29.05	0
11/23/2017 2:30	8.63	205.9	8.78	13.35	29.05	0
11/23/2017 2:45	9.78	206.5	10.01	13.33	29.05	0
11/23/2017 3:00	10.22	196	9.8	13.25	29.08	0
11/23/2017 3:15	8.84	199.7	11.16	13.18	29.08	0
11/23/2017 3:30	8.63	200.5	10.5	13.13	29.08	0
11/23/2017 3:45	8.97	209.1	10.4	13.12	29.08	0
11/23/2017 4:00	8.98	186.3	14.58	12.87	29.05	0.01
11/23/2017 4:15	8.9	184.9	12.68	12.64	29.05	0.02
11/23/2017 4:30	10.46	185.4	10.57	12.74	29.05	0.01
11/23/2017 4:45	9	187.1	10.02	12.85	29.05	0
11/23/2017 5:00	9.56	190.1	8.03	12.86	29.03	0
11/23/2017 5:15	11.11	181.1	7.765	12.81	29.03	0
11/23/2017 5:30	11.15	180.6	8.31	12.74	29.03	0
11/23/2017 5:45	12.11	185.7	8.05	12.73	29.03	0
11/23/2017 6:00	12.73	195.2	7.464	12.8	29.03	0
11/23/2017 6:15	9.75	192.9	10.31	12.7	29.03	0
11/23/2017 6:30	8.61	196.5	14.95	12.62	29.03	0.01
11/23/2017 6:45	10.36	185.4	9.32	12.52	29.03	0.01
11/23/2017 7:00	7.686	199.4	13.11	12.41	28.99	0.01
11/23/2017 7:15	7.284	225.4	22.68	12.22	28.99	0.02
11/23/2017 7:30	12.1	218	10.9	11.78	28.99	0.1
11/23/2017 7:45	10.85	223.1	11.74	11.55	28.99	0.05
11/23/2017 8:00	9.17	223.2	9.67	11.29	28.99	0.01
11/23/2017 8:15	8.9	224.4	7.937	11.15	28.99	0.01
11/23/2017 8:30	13.1	218.8	9.36	11.13	28.99	0.03
11/23/2017 8:45	11.22	225.1	11.84	11.03	28.99	0.03
11/23/2017 9:00	9.79	225.7	11.98	10.97	29	0.03
11/23/2017 9:15	10.88	212.2	10.1	10.96	29	0.02
11/23/2017 9:30	11.04	206.9	10.91	11.02	29	0.01
11/23/2017 9:45	9.92	210.2	12.7	11.11	29	0.01
11/23/2017 10:00	11.66	217.2	9.57	11.18	28.99	0
11/23/2017 10:15	11.69	214.2	8.84	11.19	28.99	0.01
11/23/2017 10:30	11.51	205.4	11.15	11.24	28.99	0
11/23/2017 10:45	9.23	199.6	9.37	11.22	28.99	0

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
11/23/2017 11:00	10.67	210.3	9.8	11.28	28.99	0
11/23/2017 11:15	12.96	218.7	9.69	11.28	28.99	0
11/23/2017 11:30	13.68	215.6	9.89	11.16	28.99	0
11/23/2017 11:45	13.79	220.9	9.34	11.12	28.99	0
11/23/2017 12:00	11.66	219.7	12.4	11.03	29	0
11/23/2017 12:15	12.22	236.2	9.45	10.78	29	0.02
11/23/2017 12:30	10.06	229	11.69	10.53	29	0.01
11/23/2017 12:45	6.191	236	14.91	10.42	29	0
11/23/2017 13:00	4.548	226.1	15.26	10.43	29.03	0
11/23/2017 13:15	6.86	204.6	20.24	10.41	29.03	0.01
11/23/2017 13:30	9.19	196	13.73	10.21	29.03	0
11/23/2017 13:45	6.928	209.8	13.43	10.17	29.03	0
11/23/2017 14:00	8.37	200.6	13.13	10.1	29.03	0
11/23/2017 14:15	9.06	199.9	11.33	10.23	29.03	0
11/23/2017 14:30	9.36	186.7	16.22	10.01	29.03	0
11/23/2017 14:45	9.72	196.7	10	10.04	29.03	0
11/23/2017 15:00	8.05	178.6	10.12	9.93	29.04	0
11/23/2017 15:15	9.46	173.9	9.2	10.08	29.04	0
11/23/2017 15:30	10.07	182	10.43	10.12	29.04	0
11/23/2017 15:45	12.5	193.5	8.26	10.08	29.04	0
11/23/2017 16:00	11.98	189.1	7.865	9.86	29.05	0
11/23/2017 16:15	14.61	182	7.328	9.65	29.05	0
11/23/2017 16:30	9.46	175.2	8.13	9.45	29.05	0
11/23/2017 16:45	13.89	184.5	7.227	9.36	29.05	0
11/23/2017 17:00	11.34	180	9.77	9.19	29.08	0
11/23/2017 17:15	11.26	172.7	7.832	9.1	29.08	0
11/23/2017 17:30	12.47	179.7	7.828	9.09	29.08	0
11/23/2017 17:45	12.57	171.6	10.81	9.01	29.08	0
11/23/2017 18:00	10.49	155.4	9.2	8.6	29.08	0
11/23/2017 18:15	12.49	170.1	8.86	8.67	29.08	0
11/23/2017 18:30	10.87	177.8	8.72	8.51	29.08	0
11/23/2017 18:45	10.55	166.2	10.91	8.52	29.08	0
11/23/2017 19:00	10.79	166	12.74	8.55	29.12	0
11/23/2017 19:15	11.98	180.4	8.11	8.52	29.12	0
11/23/2017 19:30	12.77	189.9	10.26	8.32	29.12	0
11/23/2017 19:45	11.22	196.8	7.742	8.17	29.12	0
11/23/2017 20:00	11.44	192.7	6.902	8.19	29.12	0
11/23/2017 20:15	9.29	189.1	7.218	8.11	29.12	0
11/23/2017 20:30	8.08	172.2	11.47	8.04	29.12	0
11/23/2017 20:45	8.83	171.5	10.51	7.879	29.12	0
11/23/2017 21:00	8.85	172	11.94	7.813	29.12	0
11/23/2017 21:15	9.63	176	10.8	7.844	29.12	0
11/23/2017 21:30	8.25	177.3	12.52	7.852	29.12	0
11/23/2017 21:45	6.726	163.7	13.18	7.741	29.12	0
11/23/2017 22:00	7.926	171	11.05	7.728	29.12	0
11/23/2017 22:15	7.944	168.9	10.94	7.718	29.12	0
11/23/2017 22:30	9.31	176.8	12.41	7.716	29.12	0
11/23/2017 22:45	10.75	188.4	9.58	7.794	29.12	0
11/23/2017 23:00	12.26	195.8	7.957	7.915	29.15	0
11/23/2017 23:15	11.92	194.2	8.13	7.97	29.15	0
11/23/2017 23:30	10.93	190	6.91	7.96	29.15	0
11/23/2017 23:45	11.64	188.3	7.677	7.877	29.15	0
11/24/2017 0:00	11.2	182.4	10.18	7.697	29.18	0
11/24/2017 0:15	11.62	195.9	9.35	7.65	29.18	0
11/24/2017 0:30	11.26	192.3	12.73	7.552	29.18	0
11/24/2017 0:45	12.85	193.7	10.02	7.478	29.18	0

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
11/24/2017 1:00	10.53	189.9	9.8	7.334	29.2	0
11/24/2017 1:15	10.23	184.2	8.56	7.251	29.2	0
11/24/2017 1:30	9.96	176.1	8.42	7.26	29.2	0
11/24/2017 1:45	9.13	165.5	10.89	7.243	29.2	0
11/24/2017 2:00	9.72	173.4	13.63	7.221	29.21	0
11/24/2017 2:15	10.57	179.1	8.86	7.141	29.21	0
11/24/2017 2:30	8.85	167.5	10.79	7.096	29.21	0
11/24/2017 2:45	9.57	176	11.37	7.088	29.21	0
11/24/2017 3:00	11.21	181.1	8.11	7.13	29.22	0
11/24/2017 3:15	9.76	176.7	8.06	7.114	29.22	0
11/24/2017 3:30	10.92	175.7	6.12	7.169	29.22	0
11/24/2017 3:45	7.887	160.7	11.91	6.862	29.22	0
11/24/2017 4:00	7.015	152	9.31	6.646	29.22	0
11/24/2017 4:15	8.36	159.7	13.19	6.816	29.22	0
11/24/2017 4:30	7.593	168.3	8.33	6.871	29.22	0
11/24/2017 4:45	10	173.6	7.682	6.924	29.22	0
11/24/2017 5:00	8.59	169.4	9.77	6.824	29.23	0
11/24/2017 5:15	6.358	156.9	10.45	6.637	29.23	0
11/24/2017 5:30	8.25	164.9	10.01	6.786	29.23	0
11/24/2017 5:45	7.181	147.1	11.49	6.693	29.23	0
11/24/2017 6:00	4.979	127.4	13.93	6.672	29.23	0
11/24/2017 6:15	5.441	128	7.173	6.479	29.23	0
11/24/2017 6:30	5.724	132.3	8.86	6.483	29.23	0
11/24/2017 6:45	6.309	128.2	7.773	6.558	29.23	0
11/24/2017 7:00	7.2	129.5	7.522	6.701	29.24	0
11/24/2017 7:15	6.578	135.2	8.42	6.856	29.24	0
11/24/2017 7:30	6.618	133.8	7.357	6.926	29.24	0
11/24/2017 7:45	8.17	144.3	6.186	7.015	29.24	0
11/24/2017 8:00	8.85	143.8	7.854	7.089	29.25	0
11/24/2017 8:15	8.84	151.2	6.911	7.012	29.25	0
11/24/2017 8:30	8.06	146	9.66	7.23	29.25	0
11/24/2017 8:45	8.43	141.6	7.816	7.421	29.25	0
11/24/2017 9:00	9.18	141.2	8.91	7.472	29.25	0
11/24/2017 9:15	9.44	149	8.14	7.704	29.25	0
11/24/2017 9:30	8.53	147.3	7.299	7.853	29.25	0
11/24/2017 9:45	9.73	151.6	7.255	7.845	29.25	0
11/24/2017 10:00	9.16	157.3	7.946	7.964	29.26	0
11/24/2017 10:15	10.57	160.3	8.79	8.64	29.26	0
11/24/2017 10:30	12.14	161.7	8.63	8.98	29.26	0
11/24/2017 10:45	10.22	161.1	10.89	9.11	29.26	0
11/24/2017 11:00	13.51	177.5	10.02	9.33	29.27	0
11/24/2017 11:15	16.29	185.4	10.17	8.96	29.27	0
11/24/2017 11:30	13.11	188.6	8.82	8.87	29.27	0
11/24/2017 11:45	10.99	180.9	11.89	9.04	29.27	0
11/24/2017 12:00	11.08	183.9	9.22	9.06	29.26	0
11/24/2017 12:15	9.77	180.1	9.45	9.22	29.26	0
11/24/2017 12:30	10.32	175	9.07	9.35	29.26	0
11/24/2017 12:45	10.9	178.5	9.17	9.52	29.26	0
11/24/2017 13:00	12.63	180.1	10.53	9.57	29.27	0
11/24/2017 13:15	14.63	183	10.49	8.99	29.27	0
11/24/2017 13:30	8.22	171.9	10.44	8.8	29.27	0
11/24/2017 13:45	5.866	150.3	12.24	8.87	29.27	0
11/24/2017 14:00	5.504	136.9	8.66	8.86	29.24	0
11/24/2017 14:15	4.485	123.8	5.557	8.74	29.24	0
11/24/2017 14:30	5.43	130	5.917	8.66	29.24	0
11/24/2017 14:45	5.979	136.8	6.349	8.72	29.24	0

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
11/24/2017 15:00	7.005	133.3	6.662	8.79	29.24	0
11/24/2017 15:15	6.582	138.8	8.22	8.82	29.24	0
11/24/2017 15:30	5.431	144.5	6.691	8.68	29.24	0
11/24/2017 15:45	4.013	145	11.17	8.63	29.24	0
11/24/2017 16:00	3.716	141.3	9.73	8.32	29.25	0
11/24/2017 16:15	5.121	131.1	4.974	8.2	29.25	0
11/24/2017 16:30	4.343	126.2	7.98	8.2	29.25	0.01
11/24/2017 16:45	1.747	94.1	12.06	7.939	29.25	0.01
11/24/2017 17:00	1.718	90.4	8.73	7.762	29.25	0
11/24/2017 17:15	2.642	124.1	33.02	7.863	29.25	0
11/24/2017 17:30	6.598	134.6	16.4	7.976	29.25	0.01
11/24/2017 17:45	3.489	117.3	12.21	7.516	29.25	0
11/24/2017 18:00	5.264	119	8.34	7.582	29.23	0
11/24/2017 18:15	8.44	129	8.69	7.808	29.23	0
11/24/2017 18:30	9.86	131.5	7.832	7.92	29.23	0
11/24/2017 18:45	8.92	134.8	8.95	8.01	29.23	0
11/24/2017 19:00	9.17	137.3	7.261	8.04	29.23	0
11/24/2017 19:15	9.75	133.3	7.546	8.15	29.23	0
11/24/2017 19:30	9.08	132.8	7.789	8.21	29.23	0
11/24/2017 19:45	9.21	131.6	7.085	8.3	29.23	0
11/24/2017 20:00	9.48	134.6	8.14	8.41	29.24	0
11/24/2017 20:15	9.35	135.2	8.1	8.37	29.24	0
11/24/2017 20:30	8.51	145.8	8.27	8.31	29.24	0
11/24/2017 20:45	8.09	143.4	7.401	8.28	29.24	0
11/24/2017 21:00	7.422	138	7.645	8.37	29.27	0
11/24/2017 21:15	7.559	140.9	7.522	8.46	29.27	0
11/24/2017 21:30	7.312	140	8.67	8.67	29.27	0
11/24/2017 21:45	8.85	147.2	5.803	8.8	29.27	0
11/24/2017 22:00	9.23	153.8	5.698	8.91	29.27	0
11/24/2017 22:15	8.07	151.8	6.603	8.95	29.27	0
11/24/2017 22:30	7.215	146.6	8.89	8.97	29.27	0
11/24/2017 22:45	5.7	140.7	9.04	9.03	29.27	0
11/24/2017 23:00	6.358	143.2	5.907	8.83	29.27	0
11/24/2017 23:15	7.35	129.1	6.21	8.94	29.27	0
11/24/2017 23:30	7.234	130.1	7.227	9	29.27	0
11/24/2017 23:45	7.545	131.1	7.848	8.94	29.27	0
11/25/2017 0:00	7.581	132	7.195	8.8	29.28	0
11/25/2017 0:15	8.14	127.1	7.941	8.75	29.28	0
11/25/2017 0:30	7.649	133.9	9.29	8.75	29.28	0
11/25/2017 0:45	7.991	145.6	10.26	8.5	29.28	0
11/25/2017 1:00	8.92	128.7	8.18	8.62	29.26	0
11/25/2017 1:15	7.834	126.7	9.1	8.66	29.26	0
11/25/2017 1:30	7.669	138.6	11.49	8.65	29.26	0
11/25/2017 1:45	7.183	141.3	11.92	8.52	29.26	0
11/25/2017 2:00	6.604	124.1	9.32	8.49	29.24	0
11/25/2017 2:15	6.224	135.5	13.43	8.42	29.24	0
11/25/2017 2:30	4.651	143.7	25.99	8.18	29.24	0
11/25/2017 2:45	6.031	163.1	16.88	8.34	29.24	0
11/25/2017 3:00	6.366	156.1	13.68	8.15	29.23	0
11/25/2017 3:15	5.745	140.1	22.68	7.97	29.23	0
11/25/2017 3:30	3.536	116.3	39.76	7.492	29.23	0
11/25/2017 3:45	3.354	115.9	35.77	7.715	29.23	0
11/25/2017 4:00	4.246	101.4	9.99	7.021	29.24	0
11/25/2017 4:15	6.245	108.7	5.511	7.166	29.24	0
11/25/2017 4:30	5.391	125.1	13.27	7.83	29.24	0
11/25/2017 4:45	4.951	133.6	11.34	8	29.24	0

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
11/25/2017 5:00	3.122	135.5	14.14	7.927	29.23	0
11/25/2017 5:15	3.668	102	9.66	7.312	29.23	0
11/25/2017 5:30	5.156	118.5	13.41	7.128	29.23	0
11/25/2017 5:45	5.795	150.3	17.37	7.024	29.23	0
11/25/2017 6:00	5.581	111.3	19.49	6.849	29.19	0
11/25/2017 6:15	4.564	95.6	12.71	6.237	29.19	0
11/25/2017 6:30	6.089	129.2	14.12	7.299	29.19	0
11/25/2017 6:45	6.072	136.3	9.83	7.734	29.19	0
11/25/2017 7:00	5.782	135.7	9.21	7.665	29.18	0
11/25/2017 7:15	4.54	159	11.6	7.644	29.18	0
11/25/2017 7:30	4.068	149.9	7.027	7.351	29.18	0
11/25/2017 7:45	4.483	115.8	28.41	7.289	29.18	0
11/25/2017 8:00	4.381	62.95	12.69	6.605	29.17	0
11/25/2017 8:15	4.541	57.2	12.32	6.728	29.17	0
11/25/2017 8:30	3.006	35.64	23.64	7.352	29.17	0
11/25/2017 8:45	2.875	12.06	14.79	7.057	29.17	0
11/25/2017 9:00	2.283	72.28	26.92	7.021	29.14	0
11/25/2017 9:15	2.304	68.58	22.42	7.488	29.14	0
11/25/2017 9:30	3.497	107.6	11.84	8.22	29.14	0
11/25/2017 9:45	6.166	126	7.714	8.7	29.14	0
11/25/2017 10:00	4.855	123.6	11.08	8.91	29.13	0
11/25/2017 10:15	4.277	94.6	22.85	8.97	29.13	0
11/25/2017 10:30	3.893	33.57	28.49	8.23	29.13	0
11/25/2017 10:45	3.261	28.97	20.61	7.934	29.13	0
11/25/2017 11:00	1.644	7.101	17.04	8.6	29.12	0
11/25/2017 11:15	3.401	54.58	15.42	7.848	29.12	0
11/25/2017 11:30	4.823	30.31	8.38	7.681	29.12	0
11/25/2017 11:45	3.676	33.87	14.53	8.18	29.12	0
11/25/2017 12:00	3.152	67.9	46.32	8.64	29.06	0
11/25/2017 12:15	3.672	110.8	17.36	9.96	29.06	0
11/25/2017 12:30	3.586	99.1	19.05	9.64	29.06	0
11/25/2017 12:45	3.394	99.7	39.7	9.63	29.06	0
11/25/2017 13:00	3.899	126.9	15.57	9.89	29.05	0
11/25/2017 13:15	6.105	115.7	18.25	10.26	29.05	0
11/25/2017 13:30	7.836	126.8	14.77	10.86	29.05	0
11/25/2017 13:45	4.411	98.7	15.7	10.06	29.05	0
11/25/2017 14:00	4.721	81.5	13.1	9.64	29.01	0
11/25/2017 14:15	8.95	127.6	14.58	10.63	29.01	0
11/25/2017 14:30	10.16	144.7	20.02	11.26	29.01	0
11/25/2017 14:45	9.11	133.4	14.9	11.18	29.01	0
11/25/2017 15:00	12.63	128.9	10.69	10.96	29	0
11/25/2017 15:15	13.49	125.3	11.51	10.26	29	0.01
11/25/2017 15:30	7.515	108.9	9.52	9.25	29	0
11/25/2017 15:45	7.18	113.9	10.61	8.69	29	0.02
11/25/2017 16:00	9.83	118.8	10.78	8.45	28.97	0.01
11/25/2017 16:15	5.654	103.3	13.87	7.935	28.97	0.01
11/25/2017 16:30	3.653	107.6	17.03	7.641	28.97	0
11/25/2017 16:45	3.683	135.4	16.02	7.705	28.97	0.01
11/25/2017 17:00	9.03	114	14.12	8.02	28.91	0
11/25/2017 17:15	11.87	116.4	15.33	8.45	28.91	0
11/25/2017 17:30	15.71	127.6	12.12	8.8	28.91	0.01
11/25/2017 17:45	14.85	123.6	10.8	8.85	28.91	0
11/25/2017 18:00	15.14	128.5	11.35	9.05	28.93	0
11/25/2017 18:15	16.48	136.7	11.28	8.95	28.93	0.01
11/25/2017 18:30	17.7	129	10.5	8.78	28.93	0.01
11/25/2017 18:45	16.48	133.3	11.64	8.81	28.93	0.01

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
11/25/2017 19:00	17.35	135.3	10.77	8.73	28.9	0.01
11/25/2017 19:15	17.61	131	10.22	8.76	28.9	0.02
11/25/2017 19:30	18.1	122.7	11.15	9	28.9	0.02
11/25/2017 19:45	18.15	127.2	9.39	9.16	28.9	0.01
11/25/2017 20:00	13.82	120.5	15.14	9.13	28.85	0.01
11/25/2017 20:15	11.37	102.2	22.67	9.22	28.85	0.01
11/25/2017 20:30	4.651	64.03	29.81	8.5	28.85	0.01
11/25/2017 20:45	6.517	60.97	21.61	8.36	28.85	0
11/25/2017 21:00	7.503	87.4	18.81	8.7	28.85	0
11/25/2017 21:15	7.237	106.4	16.08	9.3	28.85	0
11/25/2017 21:30	13.56	121.3	12.18	10.13	28.85	0
11/25/2017 21:45	19.56	129.3	9.63	11.15	28.85	0
11/25/2017 22:00	22.51	128	9.06	11.65	28.8	0
11/25/2017 22:15	20.14	127.1	9.78	11.69	28.8	0
11/25/2017 22:30	20.17	126.7	8.75	11.8	28.8	0
11/25/2017 22:45	19.22	127.1	8.65	12.01	28.8	0
11/25/2017 23:00	16.33	129	11.39	12.45	28.79	0
11/25/2017 23:15	15.54	130.1	12.03	12.39	28.79	0
11/25/2017 23:30	17.65	128	9.85	12.42	28.79	0
11/25/2017 23:45	16.68	124.9	9.62	12.76	28.79	0
11/26/2017 0:00	16.97	126.6	10.29	12.88	28.77	0
11/26/2017 0:15	14.42	143.1	13.62	12.45	28.77	0
11/26/2017 0:30	13.57	142.4	9.6	12.25	28.77	0
11/26/2017 0:45	15.13	137.6	10.79	12.52	28.77	0
11/26/2017 1:00	13.78	142.7	9.34	12.76	28.77	0
11/26/2017 1:15	9	140.6	9.44	13.46	28.77	0
11/26/2017 1:30	10.19	139	10.21	14.01	28.77	0
11/26/2017 1:45	8.23	158.7	20.03	13.75	28.77	0
11/26/2017 2:00	10.34	148.8	23.4	13.24	28.77	0
11/26/2017 2:15	10.57	137.3	9.65	12.9	28.77	0
11/26/2017 2:30	14.82	123.3	9.4	13.1	28.77	0
11/26/2017 2:45	15.73	139	10.82	12.77	28.77	0
11/26/2017 3:00	16.68	135.1	9.07	12.5	28.74	0
11/26/2017 3:15	17.43	124.2	9.55	13.51	28.74	0
11/26/2017 3:30	18.32	126.4	9.31	13.88	28.74	0
11/26/2017 3:45	18.77	127.5	8.83	14.46	28.74	0
11/26/2017 4:00	16.02	130.9	7.766	14.8	28.69	0
11/26/2017 4:15	15.67	130.5	8.65	15.01	28.69	0
11/26/2017 4:30	13.84	131.6	7.998	15.3	28.69	0
11/26/2017 4:45	12.97	136	9.39	15.4	28.69	0
11/26/2017 5:00	10.16	157.8	14.65	15.06	28.69	0
11/26/2017 5:15	9.64	150.3	12.8	14.45	28.69	0
11/26/2017 5:30	13.57	155.8	12.8	15.13	28.69	0
11/26/2017 5:45	18.3	178.8	8.55	16.29	28.69	0
11/26/2017 6:00	18.79	186.6	8.61	16.81	28.68	0
11/26/2017 6:15	18.22	195.9	8.54	16.12	28.68	0
11/26/2017 6:30	13.14	212.5	10.67	15.54	28.68	0
11/26/2017 6:45	9.04	242.8	16.59	14.56	28.68	0
11/26/2017 7:00	7.334	224.5	12.2	14.25	28.7	0
11/26/2017 7:15	10.49	265.7	12.05	12.32	28.7	0.01
11/26/2017 7:30	6.934	263.8	12.76	11.11	28.7	0.04
11/26/2017 7:45	4.251	254.4	25.29	11.45	28.7	0
11/26/2017 8:00	2.873	353.1	32.66	10.77	28.73	0
11/26/2017 8:15	4.094	264.5	52.58	10.9	28.73	0.03
11/26/2017 8:30	7.335	200.2	12.86	11.35	28.73	0.01
11/26/2017 8:45	7.182	217.5	15.33	11.23	28.73	0.03

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
11/26/2017 9:00	6.798	219	9.46	11.12	28.73	0.05
11/26/2017 9:15	5.958	208.1	14.31	11.12	28.73	0.01
11/26/2017 9:30	7.629	207.7	14.17	11.19	28.73	0.01
11/26/2017 9:45	7.995	181	12.19	11.21	28.73	0.01
11/26/2017 10:00	6.504	130.6	14.09	11.51	28.7	0.01
11/26/2017 10:15	8.22	117	9.17	11.74	28.7	0
11/26/2017 10:30	10.23	127	8.08	12.04	28.7	0
11/26/2017 10:45	8.3	126.8	7.141	12.84	28.7	0
11/26/2017 11:00	10.57	132.5	9.5	12.64	28.66	0
11/26/2017 11:15	11.36	146.6	9.33	13.08	28.66	0
11/26/2017 11:30	14.24	161.2	12.73	13.23	28.66	0
11/26/2017 11:45	18.56	194.2	28.74	13.13	28.66	0
11/26/2017 12:00	25.36	250.2	9.2	8.88	28.66	0.03
11/26/2017 12:15	21.69	239.2	8.13	8.31	28.66	0.02
11/26/2017 12:30	22.48	234.1	9.7	8.04	28.66	0.03
11/26/2017 12:45	24.26	226.5	10.17	7.67	28.66	0.04
11/26/2017 13:00	16.52	212.9	10.42	7.358	28.81	0.03
11/26/2017 13:15	12.67	177	18.59	7.084	28.81	0.02
11/26/2017 13:30	13.97	158.9	9.65	6.861	28.81	0.01
11/26/2017 13:45	13.68	160.2	9.79	6.9	28.81	0
11/26/2017 14:00	12.97	155	7.642	6.813	28.83	0
11/26/2017 14:15	9.05	144.5	11.12	6.768	28.83	0
11/26/2017 14:30	8	142.4	9.23	6.725	28.83	0.01
11/26/2017 14:45	7.946	139.3	9.84	6.619	28.83	0
11/26/2017 15:00	9.48	141.8	6.534	6.5	28.83	0
11/26/2017 15:15	8.94	146.8	9.71	6.372	28.83	0.01
11/26/2017 15:30	8.99	147	8.3	6.171	28.83	0
11/26/2017 15:45	9.24	146.7	10.37	6.009	28.83	0
11/26/2017 16:00	8.02	151.3	9.67	5.967	28.86	0
11/26/2017 16:15	7.678	154.7	11.3	5.863	28.86	0
11/26/2017 16:30	6.441	143.3	9.86	5.832	28.86	0
11/26/2017 16:45	7.042	142.1	8.03	5.866	28.86	0
11/26/2017 17:00	6.788	142.3	13.7	5.94	28.88	0
11/26/2017 17:15	7.951	158.9	15.88	5.918	28.88	0
11/26/2017 17:30	7.809	157.8	12.45	5.772	28.88	0.01
11/26/2017 17:45	9.26	169	9.55	5.903	28.88	0
11/26/2017 18:00	10.56	174.6	7.798	5.909	28.91	0
11/26/2017 18:15	9.96	175	7.093	5.879	28.91	0
11/26/2017 18:30	9.85	172.8	7.471	5.867	28.91	0
11/26/2017 18:45	10.09	177.2	7.258	5.926	28.91	0.01
11/26/2017 19:00	10.42	176.9	8.02	5.842	28.94	0.01
11/26/2017 19:15	9.06	165.7	12.67	5.753	28.94	0.01
11/26/2017 19:30	8.08	152.3	6.701	5.557	28.94	0
11/26/2017 19:45	8.45	147.4	6.911	5.468	28.94	0
11/26/2017 20:00	7.981	161.2	15.46	5.449	28.96	0.01
11/26/2017 20:15	7.362	185.9	9.28	5.506	28.96	0.02
11/26/2017 20:30	11.6	190.2	13.8	5.41	28.96	0.01
11/26/2017 20:45	12.54	188.5	10.35	5.316	28.96	0.01
11/26/2017 21:00	9.97	156.8	14.34	5.112	28.99	0
11/26/2017 21:15	9.49	148.1	7.877	5.034	28.99	0.01
11/26/2017 21:30	10.77	152.4	6.17	4.822	28.99	0
11/26/2017 21:45	10.5	158.4	5.722	4.576	28.99	0
11/26/2017 22:00	11.32	154.1	5.552	4.328	29.01	0
11/26/2017 22:15	6.85	138.5	11.22	4.215	29.01	0
11/26/2017 22:30	3.854	135.8	8.93	4.202	29.01	0
11/26/2017 22:45	5.606	138.5	11.2	4.284	29.01	0

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
11/26/2017 23:00	7.433	147.9	7.278	4.2	29.02	0
11/26/2017 23:15	6.669	145.6	8.22	4.385	29.02	0
11/26/2017 23:30	8.66	151.5	9.1	4.565	29.02	0
11/26/2017 23:45	6.771	173.6	19.39	4.704	29.02	0.01
11/27/2017 0:00	5.367	163.2	11.58	4.589	29.04	0
11/27/2017 0:15	4.233	148.5	10.48	4.46	29.04	0
11/27/2017 0:30	6.194	143.4	6.346	4.342	29.04	0
11/27/2017 0:45	4.573	142.6	7.514	4.734	29.04	0
11/27/2017 1:00	4.841	145.8	8.03	4.819	29.02	0
11/27/2017 1:15	3.98	139.1	8.63	4.977	29.02	0
11/27/2017 1:30	3.524	141.8	11.21	5.084	29.02	0
11/27/2017 1:45	4.832	169.1	8.71	5.227	29.02	0
11/27/2017 2:00	7.728	173.8	6.111	5.411	29.07	0
11/27/2017 2:15	5.098	161.6	8.37	4.907	29.07	0
11/27/2017 2:30	4.027	161	9.77	4.928	29.07	0
11/27/2017 2:45	4.592	154.2	9.48	4.923	29.07	0
11/27/2017 3:00	6.807	154.8	11.17	5.001	29.09	0
11/27/2017 3:15	8.19	150.1	13.04	4.832	29.09	0.01
11/27/2017 3:30	6.17	165	10.89	4.765	29.09	0
11/27/2017 3:45	6.906	153.1	5.987	4.479	29.09	0
11/27/2017 4:00	7.077	152.2	4.93	4.124	29.08	0
11/27/2017 4:15	7.392	158.6	8.19	4.221	29.08	0
11/27/2017 4:30	6.746	146.3	6.071	4.037	29.08	0
11/27/2017 4:45	5.676	138.5	5.623	4.181	29.08	0
11/27/2017 5:00	5.772	140.6	7.215	4.255	29.12	0
11/27/2017 5:15	6.49	153.6	7.894	4.464	29.12	0
11/27/2017 5:30	4.996	145.6	12.39	4.634	29.12	0
11/27/2017 5:45	4.287	129.3	5.741	4.647	29.12	0.01
11/27/2017 6:00	3.079	125.3	11.13	4.608	29.14	0
11/27/2017 6:15	2.603	136.5	15.54	4.728	29.14	0
11/27/2017 6:30	2.839	130.7	10.25	4.824	29.14	0
11/27/2017 6:45	2.183	145.6	22.28	4.848	29.14	0
11/27/2017 7:00	4.177	169.7	7.572	5.007	29.17	0
11/27/2017 7:15	5.875	175.6	9.38	5.075	29.17	0
11/27/2017 7:30	4.63	159.6	21.24	4.97	29.17	0
11/27/2017 7:45	2.747	117.9	9.48	4.694	29.17	0
11/27/2017 8:00	3.665	141.5	10.43	4.831	29.18	0
11/27/2017 8:15	4.22	172.7	11.92	4.914	29.18	0
11/27/2017 8:30	3.165	136.3	14.79	5.08	29.18	0
11/27/2017 8:45	2.835	137.2	19.38	5.281	29.18	0
11/27/2017 9:00	2.872	152.8	10.76	5.508	29.22	0
11/27/2017 9:15	3.71	161.7	22.54	5.64	29.22	0
11/27/2017 9:30	6.495	176.6	11.47	5.679	29.22	0
11/27/2017 9:45	6.068	168.5	12.65	5.537	29.22	0
11/27/2017 10:00	3.432	152	10.81	5.598	29.25	0
11/27/2017 10:15	4.872	153.9	15.35	5.747	29.25	0
11/27/2017 10:30	5.399	174.3	10.25	5.85	29.25	0
11/27/2017 10:45	4.46	173.7	8.83	5.972	29.25	0
11/27/2017 11:00	4.454	172	23.1	6.101	29.27	0
11/27/2017 11:15	4.845	174.1	17.54	6.362	29.27	0
11/27/2017 11:30	6.094	175.3	12.24	6.38	29.27	0
11/27/2017 11:45	6.028	172.8	9.28	6.59	29.27	0
11/27/2017 12:00	5.02	158	17.2	6.742	29.28	0
11/27/2017 12:15	4.273	146.8	12.04	6.795	29.28	0
11/27/2017 12:30	5.493	146.5	8.63	6.975	29.28	0
11/27/2017 12:45	6.547	174.5	17.11	7.67	29.28	0

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
11/27/2017 13:00	5.023	178.4	14.91	7.66	29.29	0
11/27/2017 13:15	4.65	203.7	41.57	7.622	29.29	0
11/27/2017 13:30	4.903	263.5	11.87	7.683	29.29	0
11/27/2017 13:45	4.535	235.1	10.35	7.761	29.29	0
11/27/2017 14:00	4.923	227	15.21	8.12	29.29	0
11/27/2017 14:15	5.067	209.8	12.44	8.08	29.29	0
11/27/2017 14:30	4.297	213.1	14.25	8.09	29.29	0
11/27/2017 14:45	3.692	199.8	21.57	8.47	29.29	0
11/27/2017 15:00	4.753	185.1	14.71	8.74	29.31	0
11/27/2017 15:15	9.64	221	12.43	8.38	29.31	0
11/27/2017 15:30	9.61	219.2	7.452	8.42	29.31	0
11/27/2017 15:45	6.751	209.4	8.53	8.36	29.31	0
11/27/2017 16:00	8.06	217.5	8.78	8.07	29.32	0
11/27/2017 16:15	6.966	221.6	7.986	7.79	29.32	0
11/27/2017 16:30	5.336	189.4	8.01	7.47	29.32	0
11/27/2017 16:45	5.77	179.1	5.615	7.008	29.32	0
11/27/2017 17:00	7.467	179.2	6.006	6.944	29.31	0
11/27/2017 17:15	7.963	182.1	5.651	6.849	29.31	0
11/27/2017 17:30	6.286	172.8	9.63	6.478	29.31	0
11/27/2017 17:45	4.133	158.8	7.858	6.358	29.31	0
11/27/2017 18:00	3.101	141.6	12.79	5.951	29.32	0
11/27/2017 18:15	5.009	139.3	5.29	5.866	29.32	0
11/27/2017 18:30	5.172	139.6	7.044	5.785	29.32	0
11/27/2017 18:45	5.256	137.1	7.728	5.986	29.32	0
11/27/2017 19:00	5.135	134.8	10.4	6.087	29.33	0
11/27/2017 19:15	5.896	147.5	6.526	6.106	29.33	0
11/27/2017 19:30	6.637	143.3	8.79	6.097	29.33	0
11/27/2017 19:45	5.999	149.5	6.706	6.11	29.33	0
11/27/2017 20:00	6.002	137.6	7.853	5.949	29.32	0
11/27/2017 20:15	5.924	140.4	6.677	5.99	29.32	0
11/27/2017 20:30	5.927	142.7	7.061	6.065	29.32	0
11/27/2017 20:45	6.642	132.4	6.848	6.196	29.32	0
11/27/2017 21:00	7.798	143.2	12.78	6.363	29.31	0
11/27/2017 21:15	7.77	147.4	8.92	6.265	29.31	0
11/27/2017 21:30	7.838	133.8	7.271	6.387	29.31	0
11/27/2017 21:45	7.503	140	9.13	6.416	29.31	0
11/27/2017 22:00	7.67	133.3	10.7	6.53	29.29	0
11/27/2017 22:15	7.464	147.9	9.53	6.54	29.29	0
11/27/2017 22:30	8.04	152.3	7.245	6.533	29.29	0
11/27/2017 22:45	8.45	148.3	10.24	6.525	29.29	0
11/27/2017 23:00	8.16	142.1	9.83	6.411	29.28	0
11/27/2017 23:15	8.15	132.1	7.634	6.549	29.28	0
11/27/2017 23:30	9.07	127.3	7.011	6.712	29.28	0
11/27/2017 23:45	9.66	130.9	6.953	6.843	29.28	0
11/28/2017 0:00	9.83	122.1	7.425	6.918	29.27	0
11/28/2017 0:15	8.33	131.6	11.44	6.957	29.27	0
11/28/2017 0:30	8.76	139.2	8.5	6.913	29.27	0
11/28/2017 0:45	9.31	130.3	8.99	6.992	29.27	0
11/28/2017 1:00	9.21	133.9	9.68	6.985	29.25	0
11/28/2017 1:15	8.24	142.6	9.96	6.902	29.25	0
11/28/2017 1:30	10.67	136.2	11.84	7.055	29.25	0
11/28/2017 1:45	11.46	131	9.54	6.971	29.25	0
11/28/2017 2:00	11.79	128.9	8.49	7.055	29.23	0
11/28/2017 2:15	10.54	132.5	8.06	7.071	29.23	0
11/28/2017 2:30	8.2	132.8	8.78	7.071	29.23	0
11/28/2017 2:45	9.29	140	11.14	7.137	29.23	0

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
11/28/2017 3:00	7.37	128.5	12.39	7.307	29.21	0
11/28/2017 3:15	8.6	145.3	11.45	7.512	29.21	0
11/28/2017 3:30	10.38	132.4	15.41	7.356	29.21	0
11/28/2017 3:45	8.07	147.6	21.72	7.271	29.21	0
11/28/2017 4:00	6.633	116.6	17.9	7.662	29.18	0
11/28/2017 4:15	7.118	126.2	11.15	7.735	29.18	0
11/28/2017 4:30	8.34	124.8	10.41	7.766	29.18	0
11/28/2017 4:45	9.08	141.2	11.79	7.698	29.18	0
11/28/2017 5:00	10.65	132.2	12.32	7.603	29.16	0
11/28/2017 5:15	10.24	127.4	16.19	7.694	29.16	0
11/28/2017 5:30	9.25	138.2	16.04	7.793	29.16	0
11/28/2017 5:45	9.59	128	11.84	7.655	29.16	0
11/28/2017 6:00	7.202	118	12.3	7.529	29.13	0
11/28/2017 6:15	6.334	135.1	15.8	7.339	29.13	0
11/28/2017 6:30	6.58	143.7	12.93	6.963	29.13	0
11/28/2017 6:45	7.419	138.7	13.14	6.843	29.13	0
11/28/2017 7:00	8.01	119.6	8.78	6.592	29.12	0.01
11/28/2017 7:15	6.912	134.9	11.1	6.271	29.12	0.01
11/28/2017 7:30	7.315	134.7	11.78	6.172	29.12	0.01
11/28/2017 7:45	7.15	156	12.91	5.959	29.12	0.01
11/28/2017 8:00	8.25	141.7	19.47	5.679	29.12	0.02
11/28/2017 8:15	7.733	128.7	11.92	5.498	29.12	0.04
11/28/2017 8:30	7.541	152.6	10.57	5.507	29.12	0.02
11/28/2017 8:45	7.402	159.9	13.73	5.493	29.12	0.02
11/28/2017 9:00	8.37	143.9	14.29	5.458	29.13	0.03
11/28/2017 9:15	7.239	163.9	19.46	5.432	29.13	0.02
11/28/2017 9:30	7.568	157.5	16.69	5.505	29.13	0.02
11/28/2017 9:45	6.288	179	13.12	5.375	29.13	0.01
11/28/2017 10:00	8.1	151.4	15.23	5.331	29.12	0.03
11/28/2017 10:15	10.15	132.7	12.49	5.455	29.12	0.04
11/28/2017 10:30	9.59	145.7	12.67	5.784	29.12	0.03
11/28/2017 10:45	10.2	138.6	9.02	5.972	29.12	0.02
11/28/2017 11:00	10.89	135.4	9.95	6.205	29.08	0.03
11/28/2017 11:15	9.44	139.8	9.89	6.388	29.08	0.02
11/28/2017 11:30	7.872	147.1	56.53	6.492	29.08	0.03
11/28/2017 11:45	7.592	274.9	12.19	5.621	29.08	0.03
11/28/2017 12:00	3.406	358.5	87.4	5.813	29.08	0.02
11/28/2017 12:15	4.842	320.6	36.59	5.787	29.08	0.01
11/28/2017 12:30	8.12	285.5	8.94	5.603	29.08	0.04
11/28/2017 12:45	7.084	307.9	7.901	5.645	29.08	0.03
11/28/2017 13:00	5.504	318.7	5.654	5.546	29.11	0.03
11/28/2017 13:15	1.182	325.4	31.74	5.617	29.11	0.03
11/28/2017 13:30	3.632	112.2	34.18	5.671	29.11	0.01
11/28/2017 13:45	5.511	169.2	16.21	5.791	29.11	0.04
11/28/2017 14:00	9.25	188.7	16.39	5.859	29.13	0.03
11/28/2017 14:15	12.62	203.6	11.47	5.897	29.13	0.03
11/28/2017 14:30	11.74	199.7	8.57	5.74	29.13	0.03
11/28/2017 14:45	12.96	190	9.78	5.618	29.13	0
11/28/2017 15:00	11.26	187.8	7.873	5.542	29.15	0
11/28/2017 15:15	11.81	194.7	7.097	5.509	29.15	0.01
11/28/2017 15:30	13.89	195.1	8.3	5.503	29.15	0.03
11/28/2017 15:45	14.86	211.8	10.75	5.434	29.15	0.02
11/28/2017 16:00	13.24	209	10.4	5.34	29.17	0.01
11/28/2017 16:15	12.54	213.3	10.58	5.198	29.17	0.02
11/28/2017 16:30	10.74	208.6	10.68	5.076	29.17	0.01
11/28/2017 16:45	12.17	207	9.58	5.008	29.17	0.02

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
11/28/2017 17:00	11.39	215.9	8.25	4.99	29.19	0
11/28/2017 17:15	9.32	211.7	9.3	4.975	29.19	0.01
11/28/2017 17:30	10.01	205.1	10.25	5.027	29.19	0
11/28/2017 17:45	8.16	201.9	10.42	5.066	29.19	0
11/28/2017 18:00	7.044	198.7	11.56	5.056	29.25	0
11/28/2017 18:15	6.225	191.3	9.5	5.012	29.25	0
11/28/2017 18:30	10.42	201.7	7.985	5.074	29.25	0
11/28/2017 18:45	11.39	203.9	9.86	5.18	29.25	0
11/28/2017 19:00	7.37	185	11.44	5.057	29.27	0
11/28/2017 19:15	6.521	186	14.38	5.049	29.27	0
11/28/2017 19:30	6.535	174.4	12.48	5.056	29.27	0
11/28/2017 19:45	7.334	171.9	8.88	5.005	29.27	0
11/28/2017 20:00	5.329	155.7	11.31	4.869	29.27	0
11/28/2017 20:15	6.78	144.3	9.09	4.926	29.27	0
11/28/2017 20:30	6.438	159.4	11.42	5.028	29.27	0
11/28/2017 20:45	8.07	176.9	7.947	5.143	29.27	0
11/28/2017 21:00	6.437	177.3	9.17	5.107	29.31	0
11/28/2017 21:15	7.028	173.9	10.66	5.166	29.31	0
11/28/2017 21:30	6.804	180.2	10.15	5.196	29.31	0
11/28/2017 21:45	8.02	183.2	8.85	5.262	29.31	0
11/28/2017 22:00	7.659	185.7	11.53	5.323	29.36	0
11/28/2017 22:15	6.774	188.3	13.82	5.357	29.36	0
11/28/2017 22:30	7.512	189.9	9.44	5.428	29.36	0
11/28/2017 22:45	7.782	179.4	11.97	5.481	29.36	0
11/28/2017 23:00	8.35	186	12.92	5.482	29.4	0
11/28/2017 23:15	7.868	185.5	9.52	5.376	29.4	0
11/28/2017 23:30	6.929	183.4	12.58	5.403	29.4	0
11/28/2017 23:45	8.16	174.1	10.33	5.426	29.4	0
11/29/2017 0:00	7.114	179.5	7.468	5.483	29.42	0
11/29/2017 0:15	6.32	155.4	11.96	5.374	29.42	0
11/29/2017 0:30	4.817	161.9	14.02	5.318	29.42	0
11/29/2017 0:45	6.02	170.3	11.41	5.381	29.42	0
11/29/2017 1:00	6.77	174.3	8.96	5.419	29.44	0
11/29/2017 1:15	5.682	166.6	11.09	5.351	29.44	0
11/29/2017 1:30	2.652	157	11.63	5.044	29.44	0
11/29/2017 1:45	2.83	137.2	11.27	5.167	29.44	0
11/29/2017 2:00	3.882	139.3	7.492	5.204	29.48	0
11/29/2017 2:15	4.848	144.1	7.574	5.237	29.48	0
11/29/2017 2:30	4.743	140.3	8.13	5.183	29.48	0
11/29/2017 2:45	5.135	151.2	8.65	5.39	29.48	0
11/29/2017 3:00	5.686	146.3	6.952	5.449	29.49	0
11/29/2017 3:15	6.928	143.4	7.119	5.446	29.49	0
11/29/2017 3:30	6.502	157.1	9.39	5.339	29.49	0
11/29/2017 3:45	4.579	132.5	7.377	5.262	29.49	0
11/29/2017 4:00	5.263	136.2	8.12	5.46	29.48	0
11/29/2017 4:15	6.17	141.9	6.207	5.619	29.48	0
11/29/2017 4:30	5.538	136.3	7.315	5.698	29.48	0
11/29/2017 4:45	4.254	136	10.58	5.716	29.48	0
11/29/2017 5:00	4.564	138.3	6.782	5.868	29.5	0
11/29/2017 5:15	4.543	164.1	15.09	5.876	29.5	0
11/29/2017 5:30	4.245	169.4	10.51	5.948	29.5	0
11/29/2017 5:45	4.404	159.7	10.63	5.91	29.5	0
11/29/2017 6:00	5.645	154.8	8.02	5.811	29.52	0
11/29/2017 6:15	4.944	157.3	16.11	5.84	29.52	0
11/29/2017 6:30	3.948	144	9.31	5.646	29.52	0
11/29/2017 6:45	3.298	148	11.03	5.489	29.52	0

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
11/29/2017 7:00	3.998	122.8	7.493	5.396	29.54	0
11/29/2017 7:15	3.749	128.7	10.06	5.513	29.54	0
11/29/2017 7:30	4.815	116	6.369	5.419	29.54	0
11/29/2017 7:45	4.728	125.4	6.106	5.438	29.54	0
11/29/2017 8:00	5.835	119.5	7.028	5.445	29.54	0
11/29/2017 8:15	6.06	121.1	7.965	5.605	29.54	0.01
11/29/2017 8:30	6.17	126.5	7.824	5.776	29.54	0
11/29/2017 8:45	5.316	133.8	10.97	5.942	29.54	0
11/29/2017 9:00	4.591	136	8.12	6.077	29.55	0
11/29/2017 9:15	5.577	125.4	6.074	6.095	29.55	0
11/29/2017 9:30	5.874	134.2	8.76	6.455	29.55	0
11/29/2017 9:45	6.142	135.8	8.86	6.604	29.55	0
11/29/2017 10:00	5.923	135	9.94	6.864	29.57	0
11/29/2017 10:15	5.689	146.7	11.27	7.032	29.57	0
11/29/2017 10:30	4.316	179.5	24.37	7.011	29.57	0
11/29/2017 10:45	7.529	134.5	10.02	6.861	29.57	0
11/29/2017 11:00	4.707	142.2	14.29	7.261	29.58	0
11/29/2017 11:15	3.683	165.3	15.88	7.561	29.58	0
11/29/2017 11:30	3.794	157.4	21.65	7.575	29.58	0
11/29/2017 11:45	4.128	179.1	14.01	7.646	29.58	0
11/29/2017 12:00	3.508	160.8	15.55	7.906	29.57	0
11/29/2017 12:15	4.477	162	19.46	8.04	29.57	0
11/29/2017 12:30	5.669	169.1	13.62	8.28	29.57	0
11/29/2017 12:45	5.834	207.5	18.25	8.52	29.57	0
11/29/2017 13:00	5.637	199.3	16.13	8.56	29.57	0
11/29/2017 13:15	6.585	159.5	15.15	8.93	29.57	0
11/29/2017 13:30	5.785	163	22.26	9.28	29.57	0
11/29/2017 13:45	7.843	193.4	15.76	9.49	29.57	0
11/29/2017 14:00	8.88	204	9.15	9.26	29.54	0
11/29/2017 14:15	9.3	190.5	12.43	9.11	29.54	0
11/29/2017 14:30	7.549	191.6	8.7	9.07	29.54	0
11/29/2017 14:45	6.098	193	6.984	9.06	29.54	0
11/29/2017 15:00	4.435	187.9	8.02	8.9	29.55	0
11/29/2017 15:15	2.536	172.3	9.51	8.73	29.55	0
11/29/2017 15:30	1.494	159.5	21.62	8.89	29.55	0
11/29/2017 15:45	3.545	134.9	11.81	8.59	29.55	0
11/29/2017 16:00	4.051	130.5	6.34	8.39	29.51	0
11/29/2017 16:15	4.311	125.2	7.518	8.16	29.51	0
11/29/2017 16:30	5.059	116.7	6.666	8.07	29.51	0
11/29/2017 16:45	5.752	129.7	9.1	8	29.51	0
11/29/2017 17:00	7.594	130.2	8.85	7.943	29.51	0
11/29/2017 17:15	8.03	135.8	9.59	7.857	29.51	0
11/29/2017 17:30	9.04	129.6	8.61	7.784	29.51	0
11/29/2017 17:45	9.62	125.2	8.23	7.666	29.51	0
11/29/2017 18:00	9.72	128.8	7.425	7.581	29.5	0
11/29/2017 18:15	8.96	130.4	7.828	7.523	29.5	0
11/29/2017 18:30	6.055	146.2	15.34	7.334	29.5	0
11/29/2017 18:45	5.809	154.9	12.96	7.317	29.5	0
11/29/2017 19:00	5.525	147.3	7.094	7.073	29.5	0
11/29/2017 19:15	5.452	127.8	7.014	6.968	29.5	0
11/29/2017 19:30	6.288	125	7.48	7.12	29.5	0
11/29/2017 19:45	6.437	126.4	9.58	7.152	29.5	0
11/29/2017 20:00	6.406	128.2	10.12	7.046	29.48	0
11/29/2017 20:15	6.442	126.1	8.91	6.915	29.48	0
11/29/2017 20:30	5.851	128.1	10.78	6.986	29.48	0
11/29/2017 20:45	6.024	125.9	11.2	7.05	29.48	0

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
11/29/2017 21:00	6.575	119.3	7.389	6.992	29.46	0
11/29/2017 21:15	6.486	127.5	8.96	6.905	29.46	0
11/29/2017 21:30	5.404	109.9	11.05	7.028	29.46	0
11/29/2017 21:45	5.411	137.5	23.54	6.892	29.46	0
11/29/2017 22:00	4.623	159.1	15	7.177	29.45	0
11/29/2017 22:15	4.707	183.5	13.51	6.692	29.45	0
11/29/2017 22:30	5.245	201.7	5.688	5.961	29.45	0
11/29/2017 22:45	5.015	191.3	9.08	6.073	29.45	0
11/29/2017 23:00	3.431	176.4	13.66	6.25	29.44	0
11/29/2017 23:15	2.318	155.7	21.97	6.055	29.44	0
11/29/2017 23:30	3.212	106.1	9.45	5.89	29.44	0
11/29/2017 23:45	4.585	127.6	7.512	6.103	29.44	0
11/30/2017 0:00	6.141	136.5	8.3	6.443	29.4	0
11/30/2017 0:15	7.049	128.4	7.462	6.609	29.4	0
11/30/2017 0:30	7.209	152.2	13.59	6.638	29.4	0
11/30/2017 0:45	7.431	163.4	12.19	6.829	29.4	0
11/30/2017 1:00	6.86	177.1	19.65	6.621	29.37	0
11/30/2017 1:15	5.97	169.9	15.48	6.572	29.37	0
11/30/2017 1:30	4.997	173.4	16.94	6.224	29.37	0
11/30/2017 1:45	5.305	169.7	15.68	6.149	29.37	0
11/30/2017 2:00	5.297	146.2	10.85	6.394	29.35	0
11/30/2017 2:15	4.471	134.8	11.89	6.478	29.35	0
11/30/2017 2:30	3.864	132.8	12.29	6.46	29.35	0
11/30/2017 2:45	5.307	154.1	10.48	6.485	29.35	0
11/30/2017 3:00	5.158	134.5	7.465	6.618	29.34	0
11/30/2017 3:15	3.224	114.4	17.98	6.541	29.34	0
11/30/2017 3:30	2.458	137.7	18.45	6.448	29.34	0
11/30/2017 3:45	5.009	169.9	10.08	6.492	29.34	0
11/30/2017 4:00	5.12	180.5	12.41	6.415	29.34	0
11/30/2017 4:15	5.857	190.4	7.381	5.939	29.34	0
11/30/2017 4:30	5.629	197.1	8.88	5.884	29.34	0
11/30/2017 4:45	5.126	191.1	10.81	5.957	29.34	0
11/30/2017 5:00	4.997	187.9	9.63	5.907	29.34	0
11/30/2017 5:15	3.945	166.6	12.68	5.882	29.34	0
11/30/2017 5:30	3.709	168.5	17.93	5.754	29.34	0
11/30/2017 5:45	5.438	177.4	10.46	5.559	29.34	0
11/30/2017 6:00	5.167	185.7	14.31	5.61	29.32	0
11/30/2017 6:15	7.196	217.7	8.78	5.034	29.32	0
11/30/2017 6:30	8.91	204.7	19.18	5.11	29.32	0
11/30/2017 6:45	7.053	191.7	16.2	4.816	29.32	0.01
11/30/2017 7:00	4.638	150.6	23.04	4.742	29.32	0
11/30/2017 7:15	3.07	105.6	17.29	4.347	29.32	0.01
11/30/2017 7:30	4.696	108.1	9.09	4.258	29.32	0.01
11/30/2017 7:45	6.878	120.3	7.968	4.436	29.32	0.02
11/30/2017 8:00	6.688	125.5	7.473	4.58	29.33	0.01
11/30/2017 8:15	8.17	129.8	7.005	4.76	29.33	0.02
11/30/2017 8:30	7.651	121.8	9.75	4.765	29.33	0.03
11/30/2017 8:45	7.921	118.8	8.86	4.753	29.33	0.01
11/30/2017 9:00	6.906	111.8	9.09	4.664	29.3	0.02
11/30/2017 9:15	8.3	113.7	9.48	4.651	29.3	0.02
11/30/2017 9:30	7.426	104.3	9.36	4.61	29.3	0.02
11/30/2017 9:45	5.82	89.9	9.04	4.537	29.3	0.03
11/30/2017 10:00	6.611	79.38	9.36	4.816	29.27	0.01
11/30/2017 10:15	3.61	107.7	15.99	5.105	29.27	0.01
11/30/2017 10:30	4.315	112.6	13.75	5.227	29.27	0
11/30/2017 10:45	4.206	157.7	38.56	5.483	29.27	0.01

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
11/30/2017 11:00	4.121	176.9	28.07	5.296	29.27	0.01
11/30/2017 11:15	3.36	154.1	26.13	5.23	29.27	0.01
11/30/2017 11:30	2.527	124.3	30.77	5.326	29.27	0
11/30/2017 11:45	3.619	136.2	41.57	5.389	29.27	0
11/30/2017 12:00	3.763	113.8	26.36	5.622	29.25	0
11/30/2017 12:15	3.079	139	46.6	5.633	29.25	0
11/30/2017 12:30	5.429	154.1	11.77	5.794	29.25	0
11/30/2017 12:45	5.648	139.3	16.94	5.817	29.25	0
11/30/2017 13:00	2.327	64.88	31.06	5.712	29.23	0
11/30/2017 13:15	1.677	96.7	75.98	5.789	29.23	0
11/30/2017 13:30	5.51	159.3	15.27	5.987	29.23	0
11/30/2017 13:45	6.693	146.6	19.8	5.999	29.23	0
11/30/2017 14:00	5.621	162.8	11.77	5.9	29.23	0
11/30/2017 14:15	6.625	156.2	9.06	5.843	29.23	0
11/30/2017 14:30	6.448	141.5	7.886	5.861	29.23	0
11/30/2017 14:45	5.906	147.8	7.151	5.822	29.23	0.01
11/30/2017 15:00	5.813	146.4	6.878	5.759	29.24	0
11/30/2017 15:15	4.368	133.6	10.7	5.763	29.24	0
11/30/2017 15:30	4.034	146.5	14.79	5.839	29.24	0
11/30/2017 15:45	4.955	148.7	5.877	5.969	29.24	0.01
11/30/2017 16:00	5.273	140.2	9.43	5.975	29.25	0
11/30/2017 16:15	5.348	138.3	9.38	5.997	29.25	0
11/30/2017 16:30	5.707	143	5.944	6.088	29.25	0
11/30/2017 16:45	4.969	139.6	7.977	6.147	29.25	0
11/30/2017 17:00	5.091	136.5	7.874	6.381	29.26	0
11/30/2017 17:15	6.899	168	13.41	6.634	29.26	0
11/30/2017 17:30	6.65	189.7	12.6	6.563	29.26	0
11/30/2017 17:45	7.293	185.4	10.95	6.467	29.26	0
11/30/2017 18:00	8.17	178.2	8.21	6.32	29.27	0
11/30/2017 18:15	7.899	174	9.13	6.122	29.27	0
11/30/2017 18:30	7.262	161.1	7.31	5.919	29.27	0
11/30/2017 18:45	6.57	170.6	11.13	5.983	29.27	0
11/30/2017 19:00	6.257	172.5	10.2	6.179	29.27	0
11/30/2017 19:15	7.134	166.7	11.36	6.306	29.27	0
11/30/2017 19:30	3.077	161	31.3	6.143	29.27	0
11/30/2017 19:45	4.046	191.2	15.7	6.327	29.27	0
11/30/2017 20:00	5.273	172.4	15.2	6.346	29.28	0
11/30/2017 20:15	5.392	167.5	12.43	6.38	29.28	0
11/30/2017 20:30	4.941	158	11.16	6.313	29.28	0
11/30/2017 20:45	5.198	158.4	12	6.123	29.28	0
11/30/2017 21:00	5.406	157.7	10.38	6.24	29.28	0
11/30/2017 21:15	5.725	150.2	8.65	6.207	29.28	0
11/30/2017 21:30	6.4	159.1	10.94	6.295	29.28	0
11/30/2017 21:45	8.5	174.3	10.94	6.427	29.28	0
11/30/2017 22:00	8.05	175.1	8.6	6.414	29.29	0
11/30/2017 22:15	6.749	170	8.88	6.301	29.29	0
11/30/2017 22:30	7.125	174.3	9.14	6.269	29.29	0.02
11/30/2017 22:45	5.841	155.5	10.5	5.925	29.29	0.01
11/30/2017 23:00	6.762	148.8	7.909	5.838	29.31	0.01
11/30/2017 23:15	7.617	159.9	11.66	5.936	29.31	0
11/30/2017 23:30	7.763	170.6	7.631	6.02	29.31	0
11/30/2017 23:45	7.781	170.7	9.16	5.999	29.31	0
12/1/2017 0:00	6.061	160.8	11.79	5.783	29.32	0
12/1/2017 0:15	6.17	166.7	7.375	5.781	29.32	0
12/1/2017 0:30	6.527	176	9.28	6.053	29.32	0
12/1/2017 0:45	5.569	170.4	8.63	5.961	29.32	0

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
12/1/2017 1:00	5.761	156.5	15.84	5.773	29.32	0
12/1/2017 1:15	7.079	151.7	8.66	5.573	29.32	0
12/1/2017 1:30	6.624	142.5	8.39	5.552	29.32	0
12/1/2017 1:45	6.868	143.3	6.049	5.336	29.32	0
12/1/2017 2:00	7.349	139	12.35	5.253	29.31	0
12/1/2017 2:15	7.438	125	8.95	5.202	29.31	0
12/1/2017 2:30	8.8	123.8	8.15	5.227	29.31	0
12/1/2017 2:45	7.407	131	8.37	5.136	29.31	0
12/1/2017 3:00	7.665	127.6	7.379	5.214	29.28	0
12/1/2017 3:15	7.677	125.9	7.783	5.237	29.28	0
12/1/2017 3:30	7.133	127.6	8.43	5.352	29.28	0
12/1/2017 3:45	6.704	128.8	6.515	5.401	29.28	0
12/1/2017 4:00	6.549	137.7	8.11	5.182	29.29	0
12/1/2017 4:15	6.477	140	5.985	5.041	29.29	0
12/1/2017 4:30	6.441	137.6	6.175	5.007	29.29	0
12/1/2017 4:45	7.327	142.7	5.954	4.923	29.29	0
12/1/2017 5:00	8.52	134.6	6.379	5.178	29.26	0
12/1/2017 5:15	8.82	133.6	6.926	5.265	29.26	0
12/1/2017 5:30	8.09	137.6	8.17	5.172	29.26	0
12/1/2017 5:45	6.389	142.5	8.64	4.957	29.26	0
12/1/2017 6:00	6.72	145.1	6.82	4.708	29.24	0
12/1/2017 6:15	6.401	146.9	6.712	4.355	29.24	0
12/1/2017 6:30	5.844	139.3	8.71	4.557	29.24	0
12/1/2017 6:45	5.601	154.9	17	4.281	29.24	0
12/1/2017 7:00	6.222	150.6	12.05	4.17	29.24	0
12/1/2017 7:15	6.749	145.2	10.34	4.162	29.24	0
12/1/2017 7:30	7.118	163.6	36.57	3.733	29.24	0
12/1/2017 7:45	6.386	159.5	27.21	3.903	29.24	0
12/1/2017 8:00	5.166	156.3	20.9	3.932	29.24	0
12/1/2017 8:15	4.723	159.9	13.11	4.337	29.24	0
12/1/2017 8:30	5.551	164.8	15.36	4.475	29.24	0.01
12/1/2017 8:45	5.688	177.1	14.8	4.259	29.24	0
12/1/2017 9:00	6.708	168.8	11.58	4.141	29.22	0
12/1/2017 9:15	5.217	158.4	17.71	4.346	29.22	0
12/1/2017 9:30	3.81	161.9	22.55	4.552	29.22	0
12/1/2017 9:45	5.452	178.9	14.42	5.056	29.22	0
12/1/2017 10:00	6.21	180.9	24.33	4.942	29.22	0
12/1/2017 10:15	4.513	175.4	27.06	5.617	29.22	0
12/1/2017 10:30	3.514	201.1	15.39	5.913	29.22	0
12/1/2017 10:45	4.571	205.5	15.4	6.066	29.22	0
12/1/2017 11:00	4.879	195.3	9.51	6.405	29.23	0
12/1/2017 11:15	4.689	181.3	12.4	6.461	29.23	0
12/1/2017 11:30	5.425	173.3	14.2	6.651	29.23	0
12/1/2017 11:45	6.716	149.6	11.01	6.671	29.23	0
12/1/2017 12:00	6.564	147.6	9.24	6.79	29.2	0
12/1/2017 12:15	4.152	192.2	13.76	7.154	29.2	0
12/1/2017 12:30	5.802	173.1	20.06	7.327	29.2	0
12/1/2017 12:45	5.678	181.4	15.76	7.176	29.2	0
12/1/2017 13:00	6.691	189.3	10.19	7.113	29.17	0
12/1/2017 13:15	6.859	182.6	19.09	7.181	29.17	0
12/1/2017 13:30	5.923	154.8	14.12	7.021	29.17	0
12/1/2017 13:45	5.11	161.5	19.81	7.234	29.17	0
12/1/2017 14:00	4.553	148.3	10.14	7.3	29.15	0
12/1/2017 14:15	5.73	159.5	11.38	7.309	29.15	0
12/1/2017 14:30	5.207	161.3	17.06	7.239	29.15	0
12/1/2017 14:45	5.044	140.7	16	7.062	29.15	0

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
12/1/2017 15:00	8.6	194.7	19.14	7.223	29.15	0
12/1/2017 15:15	9.18	215.5	13.09	7.023	29.15	0.02
12/1/2017 15:30	10.13	211.8	9.34	6.418	29.15	0.02
12/1/2017 15:45	12.72	205.8	8.26	6.452	29.15	0.04
12/1/2017 16:00	12.72	180.4	11.78	6.314	29.13	0.03
12/1/2017 16:15	10.18	166.1	11.42	6.068	29.13	0.01
12/1/2017 16:30	9.6	142.6	6.658	5.729	29.13	0.01
12/1/2017 16:45	10.44	143.5	8.7	5.93	29.13	0
12/1/2017 17:00	7.381	136.7	7.958	5.812	29.13	0
12/1/2017 17:15	7.502	132.9	7.607	5.658	29.13	0.01
12/1/2017 17:30	8.13	142.9	7.561	5.672	29.13	0.02
12/1/2017 17:45	7.79	134	10.87	5.578	29.13	0.01
12/1/2017 18:00	7.861	127.7	10.33	5.451	29.14	0.03
12/1/2017 18:15	8.08	134.4	12.59	5.451	29.14	0.01
12/1/2017 18:30	6.48	154.8	12.56	5.437	29.14	0.04
12/1/2017 18:45	3.478	135.3	9.19	5.207	29.14	0.04
12/1/2017 19:00	3.491	125.8	6.158	5.104	29.16	0.02
12/1/2017 19:15	5.322	126.5	8.95	5.167	29.16	0
12/1/2017 19:30	7.99	140.9	9.71	5.51	29.16	0
12/1/2017 19:45	10.37	144	10.85	5.671	29.16	0
12/1/2017 20:00	11.17	151.2	7.716	5.491	29.15	0
12/1/2017 20:15	12.14	155	7.818	5.497	29.15	0
12/1/2017 20:30	9.67	156.5	7.925	5.301	29.15	0.01
12/1/2017 20:45	6.04	138.1	10.38	5.153	29.15	0.01
12/1/2017 21:00	4.261	130.4	7.788	5.136	29.15	0
12/1/2017 21:15	4.549	143.3	12.79	5.3	29.15	0
12/1/2017 21:30	6.073	144	7.745	5.368	29.15	0
12/1/2017 21:45	8.03	144	9.61	5.602	29.15	0
12/1/2017 22:00	7.17	154.4	10.15	5.536	29.18	0.01
12/1/2017 22:15	6.383	146.1	9.5	5.312	29.18	0
12/1/2017 22:30	4.985	141.5	8.27	5.319	29.18	0
12/1/2017 22:45	5.931	146.7	6.95	5.317	29.18	0
12/1/2017 23:00	6.98	145.7	7.016	5.383	29.18	0
12/1/2017 23:15	6.963	144	9.08	5.518	29.18	0
12/1/2017 23:30	7.668	143.1	9.06	5.632	29.18	0
12/1/2017 23:45	7.759	143.1	8.03	5.652	29.18	0
12/2/2017 0:00	6.836	146.4	6.793	5.432	29.16	0
12/2/2017 0:15	6.099	138.6	9.2	5.323	29.16	0
12/2/2017 0:30	5.448	132.4	6.743	5.178	29.16	0
12/2/2017 0:45	5.772	134.6	6.95	5.204	29.16	0
12/2/2017 1:00	6.101	136.7	5.781	5.098	29.17	0
12/2/2017 1:15	6.583	137.7	7.51	5.013	29.17	0
12/2/2017 1:30	5.798	142.1	7.848	5.167	29.17	0
12/2/2017 1:45	6.772	136.6	7.319	5.503	29.17	0
12/2/2017 2:00	7.569	141	7.28	5.713	29.18	0
12/2/2017 2:15	6.795	138.7	8.51	5.717	29.18	0
12/2/2017 2:30	7.207	136.8	7.61	5.81	29.18	0
12/2/2017 2:45	7.134	140.2	7.83	5.779	29.18	0
12/2/2017 3:00	6.738	133.9	8.23	5.713	29.15	0
12/2/2017 3:15	7.416	132.6	6.357	5.712	29.15	0
12/2/2017 3:30	8.02	132.6	7.116	5.83	29.15	0
12/2/2017 3:45	7.539	132.8	7.814	5.907	29.15	0
12/2/2017 4:00	6.879	133.4	7.721	5.967	29.12	0
12/2/2017 4:15	6.635	126.8	7.489	6.224	29.12	0
12/2/2017 4:30	5.968	127.2	9.49	6.476	29.12	0
12/2/2017 4:45	5.436	139.2	10.17	6.262	29.12	0

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
12/2/2017 5:00	5.271	132.5	9.67	6.032	29.12	0
12/2/2017 5:15	4.513	126.3	11.1	5.969	29.12	0
12/2/2017 5:30	5.72	151.8	10.24	5.747	29.12	0
12/2/2017 5:45	4.685	137.2	8.57	5.512	29.12	0
12/2/2017 6:00	5.396	122.5	6.255	5.677	29.12	0
12/2/2017 6:15	5.403	135.1	8.75	5.697	29.12	0
12/2/2017 6:30	5.876	148.8	8.6	5.722	29.12	0
12/2/2017 6:45	5.468	131.3	8.13	5.803	29.12	0
12/2/2017 7:00	5.769	137.4	8.22	5.765	29.08	0
12/2/2017 7:15	6.269	125.5	11.74	5.779	29.08	0
12/2/2017 7:30	8.81	127.3	8.9	5.846	29.08	0
12/2/2017 7:45	12.16	126.2	8.44	5.952	29.08	0
12/2/2017 8:00	11.96	122.6	10.4	5.795	29.07	0
12/2/2017 8:15	10.06	120.2	10.35	5.879	29.07	0
12/2/2017 8:30	11.4	119.8	11.35	5.953	29.07	0
12/2/2017 8:45	11.62	115.7	12.28	6.221	29.07	0
12/2/2017 9:00	9.5	127	12.08	6.407	29.07	0
12/2/2017 9:15	11.35	129.1	9.48	6.235	29.07	0
12/2/2017 9:30	11.81	118.7	10.05	6.159	29.07	0
12/2/2017 9:45	8.58	121	10.56	6.335	29.07	0
12/2/2017 10:00	6.496	134.3	17.45	6.391	29.07	0.01
12/2/2017 10:15	7.284	127.5	14.38	6.191	29.07	0.01
12/2/2017 10:30	6.008	165.4	18.12	5.901	29.07	0.02
12/2/2017 10:45	6.417	140.3	15.01	5.845	29.07	0.01
12/2/2017 11:00	5.332	168.4	16.34	5.796	29.06	0.01
12/2/2017 11:15	6.094	164.1	14.43	5.669	29.06	0.04
12/2/2017 11:30	6.36	163.1	10.8	5.579	29.06	0.02
12/2/2017 11:45	5.496	122.5	14.22	5.354	29.06	0.02
12/2/2017 12:00	2.839	106.6	18.1	5.255	29.02	0.02
12/2/2017 12:15	3.104	98.8	14.76	5.26	29.02	0.02
12/2/2017 12:30	4.941	91.7	9.99	5.222	29.02	0.02
12/2/2017 12:45	3.336	92.2	9.67	5.242	29.02	0.02
12/2/2017 13:00	3.165	80.2	10.51	5.206	29	0.01
12/2/2017 13:15	2.245	79.62	18.2	5.235	29	0.02
12/2/2017 13:30	2.491	127.2	18.41	5.487	29	0.01
12/2/2017 13:45	0.822	195.1	32.48	5.444	29	0.02
12/2/2017 14:00	3.208	229.8	12.49	5.397	29	0.02
12/2/2017 14:15	2.936	210.3	7.099	5.312	29	0.02
12/2/2017 14:30	3.455	224.4	9.87	5.161	29	0.02
12/2/2017 14:45	1.533	291.9	54.59	5.186	29	0.01
12/2/2017 15:00	2.2	36.67	5.467	5.106	29	0.01
12/2/2017 15:15	1.759	49.59	0.216	4.977	29	0.01
12/2/2017 15:30	1.688	49.62	0.203	4.916	29	0.02
12/2/2017 15:45	0.66	58.16	8.53	4.885	29	0.02
12/2/2017 16:00	3.222	200	9.68	4.824	28.98	0.02
12/2/2017 16:15	2.066	175.5	34.77	4.826	28.98	0.01
12/2/2017 16:30	2.526	118.1	17.58	4.595	28.98	0.01
12/2/2017 16:45	3.541	117.7	14.49	4.428	28.98	0.02
12/2/2017 17:00	1.713	119.5	23.97	4.308	28.99	0.01
12/2/2017 17:15	1.697	175.5	34.75	4.354	28.99	0.02
12/2/2017 17:30	3.966	169.3	20.63	4.28	28.99	0.01
12/2/2017 17:45	4.487	162.9	26.14	4.353	28.99	0.02
12/2/2017 18:00	5.537	138.5	10.45	4.119	29.01	0.02
12/2/2017 18:15	4.064	164.4	22.95	4.198	29.01	0.01
12/2/2017 18:30	4.569	176.5	12.4	4.184	29.01	0.02
12/2/2017 18:45	6.101	177.8	20.09	4.157	29.01	0.01

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
12/2/2017 19:00	4.661	122.4	11.66	3.921	28.99	0.01
12/2/2017 19:15	5.548	108.3	8.54	3.806	28.99	0
12/2/2017 19:30	5.816	102.6	8.39	3.64	28.99	0.01
12/2/2017 19:45	5.688	105	5.75	3.537	28.99	0.01
12/2/2017 20:00	3.985	98.5	9.34	3.453	29.02	0
12/2/2017 20:15	2.764	96.2	8.41	3.398	29.02	0.01
12/2/2017 20:30	3.412	108.6	9.64	3.462	29.02	0.01
12/2/2017 20:45	3.103	140.8	14.76	3.5	29.02	0.01
12/2/2017 21:00	3.255	139.3	12.69	3.506	29	0
12/2/2017 21:15	3.346	125.4	8.14	3.533	29	0.01
12/2/2017 21:30	4.015	115.2	5.903	3.471	29	0
12/2/2017 21:45	2.69	120.6	6.781	3.47	29	0.01
12/2/2017 22:00	6.327	233	37.16	3.631	29.04	0.05
12/2/2017 22:15	5.97	264.2	8.01	3.379	29.04	0.05
12/2/2017 22:30	3.479	221	26.15	3.437	29.04	0.04
12/2/2017 22:45	3.278	93.2	21.66	3.033	29.04	0.01
12/2/2017 23:00	2.882	66.21	9.14	2.797	29.03	0
12/2/2017 23:15	2.683	92.4	5.279	2.729	29.03	0
12/2/2017 23:30	2.475	63.55	9.85	2.766	29.03	0.01
12/2/2017 23:45	2.442	33.78	16.08	3.044	29.03	0
12/3/2017 0:00	2.313	57.98	13.68	3.012	29.06	0.01
12/3/2017 0:15	1.527	69.86	1.199	3.018	29.06	0
12/3/2017 0:30	2.209	69.24	0.044	3.198	29.06	0.01
12/3/2017 0:45	2.011	89	7.844	3.373	29.06	0
12/3/2017 1:00	0.137	94.6	0.023	3.382	29.06	0.01
12/3/2017 1:15	0.499	94.6	0.1	3.576	29.06	0
12/3/2017 1:30	1.013	94.6	0.162	3.411	29.06	0
12/3/2017 1:45	0.114	94.6	0.022	3.231	29.06	0
12/3/2017 2:00	0.17	9.04	1.323	3.278	29.08	0
12/3/2017 2:15	2.542	207.6	12.56	3.441	29.08	0.01
12/3/2017 2:30	2.298	224.4	13.14	3.4	29.08	0
12/3/2017 2:45	2.079	236.9	13.84	3.496	29.08	0
12/3/2017 3:00	1.228	221.1	12.76	3.435	29.11	0
12/3/2017 3:15	2.664	280.9	13.21	3.399	29.11	0.02
12/3/2017 3:30	3.052	265.5	11.83	3.557	29.11	0
12/3/2017 3:45	2.627	282.1	13.31	3.627	29.11	0.01
12/3/2017 4:00	1.089	326.6	11.93	3.529	29.12	0
12/3/2017 4:15	2.008	292.4	4.37	3.658	29.12	0
12/3/2017 4:30	2.3	293.9	5.826	3.747	29.12	0
12/3/2017 4:45	4.157	316.6	26.78	3.716	29.12	0
12/3/2017 5:00	2.953	348.3	21.55	3.562	29.16	0
12/3/2017 5:15	4.095	4.276	17.1	3.705	29.16	0
12/3/2017 5:30	2.961	338.1	25.99	3.808	29.16	0
12/3/2017 5:45	2.653	338.5	15.65	3.815	29.16	0
12/3/2017 6:00	1.595	329.5	16.94	3.815	29.16	0
12/3/2017 6:15	0.457	3.315	3.534	3.857	29.16	0
12/3/2017 6:30	2.409	293.2	29.08	3.716	29.16	0
12/3/2017 6:45	5.165	298.1	21.82	3.657	29.16	0
12/3/2017 7:00	4.428	334.7	10.84	3.818	29.22	0
12/3/2017 7:15	3.174	336.2	26.08	3.786	29.22	0
12/3/2017 7:30	4.34	5.117	22.88	3.738	29.22	0
12/3/2017 7:45	4.028	12.85	15.3	3.741	29.22	0
12/3/2017 8:00	3.802	47.04	6.939	3.648	29.22	0
12/3/2017 8:15	3.075	33.99	8.83	3.687	29.22	0
12/3/2017 8:30	3.517	14.32	20.75	3.546	29.22	0
12/3/2017 8:45	2.417	27.27	7.065	3.411	29.22	0

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
12/3/2017 9:00	3.47	3.07	13.85	3.607	29.27	0
12/3/2017 9:15	4.621	358.7	12.08	4.256	29.27	0
12/3/2017 9:30	4.176	291.5	13.16	4.341	29.27	0
12/3/2017 9:45	1.459	282.8	33.92	4.204	29.27	0
12/3/2017 10:00	1.061	240.7	22.92	4.35	29.3	0
12/3/2017 10:15	0.643	337.7	6.294	4.573	29.3	0
12/3/2017 10:30	1.72	68.74	15.92	4.621	29.3	0
12/3/2017 10:45	1.938	60.69	13.53	4.756	29.3	0
12/3/2017 11:00	0.64	71.17	6.074	4.798	29.31	0
12/3/2017 11:15	0.712	42.44	15.31	4.914	29.31	0
12/3/2017 11:30	0.906	14	33.92	5.232	29.31	0
12/3/2017 11:45	2.25	42.76	22.7	4.967	29.31	0
12/3/2017 12:00	2.329	28.63	11.29	4.83	29.35	0
12/3/2017 12:15	1.871	19.64	7.763	4.685	29.35	0
12/3/2017 12:30	2.589	10.24	46.18	4.304	29.35	0.04
12/3/2017 12:45	0.918	1.796	39.92	4.189	29.35	0
12/3/2017 13:00	2.306	274.5	28.44	4.559	29.38	0.01
12/3/2017 13:15	4.312	263.7	30.72	4.474	29.38	0
12/3/2017 13:30	5.407	355.7	43.42	4.401	29.38	0
12/3/2017 13:45	2.367	106.2	22.08	4.584	29.38	0
12/3/2017 14:00	1.801	72.18	6.4	4.475	29.36	0
12/3/2017 14:15	2.915	63.15	16.47	4.392	29.36	0
12/3/2017 14:30	3.779	43.47	13.34	4.043	29.36	0
12/3/2017 14:45	3.915	28.85	11.24	3.879	29.36	0
12/3/2017 15:00	3.966	32.66	7.507	3.758	29.4	0
12/3/2017 15:15	3.086	23.35	10.53	3.698	29.4	0
12/3/2017 15:30	3.41	26.19	8.07	3.845	29.4	0
12/3/2017 15:45	2.574	35.45	7.758	3.819	29.4	0
12/3/2017 16:00	2.257	25.42	4.323	3.89	29.44	0
12/3/2017 16:15	2.36	50.43	18.17	3.913	29.44	0
12/3/2017 16:30	2.225	85.2	28.82	3.812	29.44	0
12/3/2017 16:45	2.362	188.9	19.93	3.924	29.44	0
12/3/2017 17:00	1.877	163.5	18.33	3.927	29.44	0
12/3/2017 17:15	1.244	81.2	26.91	3.838	29.44	0
12/3/2017 17:30	0.677	47.22	0.147	3.702	29.44	0
12/3/2017 17:45	1.315	49.62	1.935	3.623	29.44	0
12/3/2017 18:00	2.157	56.23	1.32	3.561	29.47	0
12/3/2017 18:15	0.292	58.21	0.085	3.502	29.47	0
12/3/2017 18:30	1.09	58.21	0.065	3.493	29.47	0
12/3/2017 18:45	1.465	100.4	22.94	3.54	29.47	0
12/3/2017 19:00	2.327	177.5	31.79	3.536	29.47	0
12/3/2017 19:15	2.664	212.7	13.11	3.665	29.47	0
12/3/2017 19:30	2.756	185.6	10.12	3.738	29.47	0
12/3/2017 19:45	1.822	161	12.85	3.591	29.47	0
12/3/2017 20:00	0.664	133.6	1.903	3.449	29.51	0
12/3/2017 20:15	2.112	151.5	9.6	3.437	29.51	0
12/3/2017 20:30	0.806	146.1	2.08	3.595	29.51	0
12/3/2017 20:45	0.255	59.47	1.825	3.347	29.51	0
12/3/2017 21:00	0.168	58.88	0.043	3.408	29.53	0
12/3/2017 21:15	1.405	59.82	2.545	3.364	29.53	0
12/3/2017 21:30	2.362	97	11.69	3.074	29.53	0
12/3/2017 21:45	2.323	105.2	3.453	2.838	29.53	0
12/3/2017 22:00	0.703	107.6	0	2.858	29.56	0
12/3/2017 22:15	0.453	112.7	3.617	2.878	29.56	0
12/3/2017 22:30	0.667	118.4	0.201	2.914	29.56	0
12/3/2017 22:45	0.304	118.1	0.052	2.801	29.56	0

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
12/3/2017 23:00	0.397	259.4	48.28	2.871	29.59	0
12/3/2017 23:15	1.403	4.757	20.15	2.895	29.59	0
12/3/2017 23:30	2.274	15.29	1.882	2.513	29.59	0
12/3/2017 23:45	2.075	21.67	8.2	2.218	29.59	0
12/4/2017 0:00	1.9	31.62	5.088	1.999	29.6	0
12/4/2017 0:15	2.418	38.36	3.259	1.737	29.6	0
12/4/2017 0:30	2.991	32.21	1.319	1.478	29.6	0
12/4/2017 0:45	3.537	35.48	2.713	1.716	29.6	0
12/4/2017 1:00	3.499	33.2	4.367	1.784	29.61	0
12/4/2017 1:15	3.253	42.63	7.736	1.607	29.61	0
12/4/2017 1:30	2.682	18.81	5.873	1.79	29.61	0
12/4/2017 1:45	1.909	19.3	4.626	2.291	29.61	0
12/4/2017 2:00	0.809	46.32	9.39	2.118	29.63	0
12/4/2017 2:15	1.856	78.83	4.266	2.236	29.63	0
12/4/2017 2:30	1.228	81.7	0.177	2.09	29.63	0
12/4/2017 2:45	2.13	81.9	0.839	2.088	29.63	0
12/4/2017 3:00	2.657	98.9	6.491	2.069	29.66	0
12/4/2017 3:15	2.666	110.9	7.168	2.345	29.66	0
12/4/2017 3:30	2.825	113.9	5.051	2.521	29.66	0
12/4/2017 3:45	2.314	109.4	0.161	2.053	29.66	0
12/4/2017 4:00	2.237	109.3	0.137	1.873	29.67	0
12/4/2017 4:15	0.794	109	0.158	1.924	29.67	0
12/4/2017 4:30	0.16	108.9	0.113	2.14	29.67	0
12/4/2017 4:45	1.233	36.81	22.93	2.251	29.67	0
12/4/2017 5:00	1.149	22.34	0.325	1.852	29.68	0
12/4/2017 5:15	2.311	43.73	7.537	1.91	29.68	0
12/4/2017 5:30	2.325	59.81	5.625	2.048	29.68	0
12/4/2017 5:45	2.087	58.96	1.896	1.875	29.68	0
12/4/2017 6:00	1.448	57.53	0.374	1.602	29.69	0
12/4/2017 6:15	2.707	46.59	5.895	1.963	29.69	0
12/4/2017 6:30	2.857	46.01	7.174	1.726	29.69	0
12/4/2017 6:45	3.49	33.73	5.13	1.421	29.69	0
12/4/2017 7:00	3.199	26.73	4.8	1.17	29.7	0
12/4/2017 7:15	3.572	30.8	4	0.603	29.7	0
12/4/2017 7:30	3.353	40.02	6.526	0.374	29.7	0
12/4/2017 7:45	3.88	29.35	7.98	0.172	29.7	0
12/4/2017 8:00	2.584	54.88	5.331	0.713	29.7	0
12/4/2017 8:15	1.249	65.53	2.012	1.073	29.7	0
12/4/2017 8:30	2.519	19.89	9.19	1.464	29.7	0
12/4/2017 8:45	1.303	144.8	82.6	1.339	29.7	0
12/4/2017 9:00	2.056	176.8	23.83	1.166	29.73	0
12/4/2017 9:15	1.832	267.8	25.96	1.291	29.73	0
12/4/2017 9:30	1.771	310.7	14.99	1.742	29.73	0
12/4/2017 9:45	0.087	318.6	0.043	2.656	29.73	0.01
12/4/2017 10:00	0.347	310.7	0.113	2.317	29.73	0
12/4/2017 10:15	0.414	313.4	13.66	2.362	29.73	0
12/4/2017 10:30	0.394	68.14	12.08	2.362	29.73	0
12/4/2017 10:45	0.021	77.72	0.013	2.456	29.73	0
12/4/2017 11:00	0.049	77.65	0.016	2.008	29.72	0
12/4/2017 11:15	2.123	15.03	11.62	2.854	29.72	0
12/4/2017 11:30	1.895	356.4	16.28	3.211	29.72	0
12/4/2017 11:45	1.646	340	44.09	4.105	29.72	0
12/4/2017 12:00	2.536	255	17.39	4.487	29.71	0
12/4/2017 12:15	0.946	253.1	23.18	5.65	29.71	0
12/4/2017 12:30	2.554	202.2	37.19	5.253	29.71	0
12/4/2017 12:45	2.053	204.5	46.54	4.669	29.71	0

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
12/4/2017 13:00	2.56	226.6	22.61	5.271	29.69	0
12/4/2017 13:15	3.7	287.9	15.65	5.304	29.69	0
12/4/2017 13:30	2.597	280	13.17	5.407	29.69	0
12/4/2017 13:45	3.142	19.78	9.98	4.597	29.69	0
12/4/2017 14:00	2.502	341.9	40.09	4.087	29.72	0
12/4/2017 14:15	2.867	350	50.43	4.671	29.72	0
12/4/2017 14:30	2.454	349.1	26.55	4.552	29.72	0
12/4/2017 14:45	2.546	346.8	40.23	4.64	29.72	0
12/4/2017 15:00	2.231	346.6	33.29	4.622	29.73	0
12/4/2017 15:15	1.669	341.3	27.38	4.508	29.73	0
12/4/2017 15:30	5.922	302.7	8.47	3.536	29.73	0
12/4/2017 15:45	6.158	308.1	7.787	3.236	29.73	0
12/4/2017 16:00	2.651	337.9	15.18	3.15	29.72	0
12/4/2017 16:15	2.964	358.8	17.65	2.99	29.72	0
12/4/2017 16:30	3.958	353.5	10.53	2.92	29.72	0
12/4/2017 16:45	4.845	10.47	12.29	2.83	29.72	0
12/4/2017 17:00	6.04	4.521	9.53	3.018	29.72	0
12/4/2017 17:15	5.825	5.136	11.2	3.142	29.72	0
12/4/2017 17:30	0.903	24.36	3.081	2.986	29.72	0
12/4/2017 17:45	1.135	38.67	6.89	2.857	29.72	0
12/4/2017 18:00	3.097	37.84	15.33	2.867	29.7	0
12/4/2017 18:15	4.41	30.72	8.69	2.977	29.7	0
12/4/2017 18:30	4.218	19.47	13.21	2.908	29.7	0
12/4/2017 18:45	5.205	21.4	10.15	2.599	29.7	0
12/4/2017 19:00	4.218	40.82	5.065	2.358	29.71	0
12/4/2017 19:15	2.312	47.22	5.874	2.169	29.71	0
12/4/2017 19:30	3.488	32.46	21.35	1.85	29.71	0
12/4/2017 19:45	3.938	23.13	9.64	1.618	29.71	0
12/4/2017 20:00	2.768	40.14	9.07	1.679	29.72	0
12/4/2017 20:15	2.465	28.46	10.25	1.68	29.72	0
12/4/2017 20:30	3.224	17.15	14.93	1.62	29.72	0
12/4/2017 20:45	2.681	14.58	24.45	1.384	29.72	0
12/4/2017 21:00	5.511	12.41	11.9	1.07	29.72	0
12/4/2017 21:15	8.16	16.8	4.012	1.487	29.72	0
12/4/2017 21:30	6.624	15.1	4.687	1.506	29.72	0
12/4/2017 21:45	6.749	9.81	4.408	1.486	29.72	0
12/4/2017 22:00	6.332	13.52	5.506	1.444	29.72	0
12/4/2017 22:15	5.263	20.65	6.697	0.837	29.72	0
12/4/2017 22:30	6.157	14.03	5.718	0.951	29.72	0
12/4/2017 22:45	4.576	14.11	9.86	0.797	29.72	0
12/4/2017 23:00	4.859	19.66	9.76	0.399	29.72	0
12/4/2017 23:15	3.85	39.15	7.527	0.144	29.72	0
12/4/2017 23:30	3.579	37.37	8.27	0.013	29.72	0
12/4/2017 23:45	4.002	24.45	9.77	-0.019	29.72	0
12/5/2017 0:00	3.76	21.97	7.425	0.052	29.72	0
12/5/2017 0:15	3.284	19.38	6.215	-0.125	29.72	0
12/5/2017 0:30	3.142	23.55	7.269	-0.374	29.72	0
12/5/2017 0:45	2.726	22.3	10.56	-0.211	29.72	0
12/5/2017 1:00	1.918	52.79	12.37	-0.459	29.73	0
12/5/2017 1:15	2.883	44.85	5.674	-0.571	29.73	0
12/5/2017 1:30	3.423	20.9	8.86	-0.661	29.73	0
12/5/2017 1:45	3.755	17.25	6.411	-0.825	29.73	0
12/5/2017 2:00	6.102	2.744	13.09	-0.413	29.74	0
12/5/2017 2:15	3.532	1.075	17.65	-0.624	29.74	0
12/5/2017 2:30	2.797	31.86	13.94	-0.544	29.74	0
12/5/2017 2:45	4.131	38.72	7.645	-0.644	29.74	0

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
12/5/2017 3:00	3.222	33.96	14.12	-0.721	29.75	0
12/5/2017 3:15	3.366	13.26	9.43	-0.776	29.75	0
12/5/2017 3:30	4.344	33.9	8.16	-0.892	29.75	0
12/5/2017 3:45	4.652	38.61	5.612	-0.981	29.75	0
12/5/2017 4:00	2.813	57.88	31.04	-1.102	29.75	0
12/5/2017 4:15	2.366	108.6	17.38	-0.665	29.75	0
12/5/2017 4:30	1.663	53.65	37.74	-1.192	29.75	0
12/5/2017 4:45	1.215	34.06	11.23	-1.422	29.75	0
12/5/2017 5:00	2.012	22.13	24.34	-1.36	29.76	0
12/5/2017 5:15	3.779	7.815	11.86	-1.606	29.76	0
12/5/2017 5:30	3.691	37.07	8.15	-1.446	29.76	0
12/5/2017 5:45	3.377	47.33	5.62	-1.412	29.76	0
12/5/2017 6:00	2.997	29.6	10.41	-1.398	29.75	0
12/5/2017 6:15	3.47	20.03	11.89	-1.393	29.75	0
12/5/2017 6:30	3.301	31.76	10.4	-1.436	29.75	0
12/5/2017 6:45	4.056	24.74	7.134	-1.41	29.75	0
12/5/2017 7:00	4.269	22.7	9.22	-1.477	29.75	0
12/5/2017 7:15	3.205	41.24	9.36	-1.501	29.75	0
12/5/2017 7:30	3.185	24.86	7.345	-1.462	29.75	0
12/5/2017 7:45	3.77	27.98	5.08	-1.447	29.75	0
12/5/2017 8:00	5.295	33.06	8.79	-1.358	29.75	0
12/5/2017 8:15	6.959	26.17	10.17	-1.004	29.75	0
12/5/2017 8:30	9.6	16.37	9.32	-0.776	29.75	0
12/5/2017 8:45	8.71	31.83	8.58	-0.82	29.75	0
12/5/2017 9:00	8.74	27.39	9.69	-0.849	29.74	0
12/5/2017 9:15	8.15	28.38	10.67	-0.898	29.74	0
12/5/2017 9:30	6.713	39.01	9.08	-0.784	29.74	0
12/5/2017 9:45	8	25.59	9.33	-0.219	29.74	0
12/5/2017 10:00	7.1	26.07	8.65	0.129	29.76	0
12/5/2017 10:15	4.353	16.93	11.6	0.322	29.76	0.01
12/5/2017 10:30	2.428	24.01	9.8	0.61	29.76	0
12/5/2017 10:45	2.712	22.75	12.45	0.787	29.76	0
12/5/2017 11:00	3.146	17.18	9.53	1.336	29.79	0
12/5/2017 11:15	3.332	39.43	13.66	1.879	29.79	0
12/5/2017 11:30	2.098	56.84	32.47	2.14	29.79	0
12/5/2017 11:45	3.629	45.61	23.98	2.303	29.79	0
12/5/2017 12:00	6.15	19.01	9.41	2.62	29.75	0
12/5/2017 12:15	6.18	28.25	12.92	3	29.75	0
12/5/2017 12:30	6.351	14.56	11.38	3.388	29.75	0
12/5/2017 12:45	6.23	16.51	10.92	3.55	29.75	0
12/5/2017 13:00	6.722	23.22	8.64	3.847	29.74	0
12/5/2017 13:15	8.05	21.99	8.99	3.825	29.74	0
12/5/2017 13:30	6.12	27.98	12.11	3.98	29.74	0
12/5/2017 13:45	4.78	29.86	12.23	4.081	29.74	0
12/5/2017 14:00	8.4	19.56	9.45	3.963	29.73	0
12/5/2017 14:15	8.51	21.18	9.2	4.067	29.73	0
12/5/2017 14:30	7.811	15.11	10.6	4.395	29.73	0
12/5/2017 14:45	10.19	16.61	10.48	4.505	29.73	0
12/5/2017 15:00	10.48	10.66	12.89	4.455	29.75	0
12/5/2017 15:15	11.52	14.77	10.43	4.256	29.75	0
12/5/2017 15:30	10.23	25	10.16	4.08	29.75	0
12/5/2017 15:45	11.2	23.79	9.34	3.625	29.75	0
12/5/2017 16:00	10.9	21.62	8.67	3.405	29.74	0
12/5/2017 16:15	8.45	20.16	9.39	3.464	29.74	0
12/5/2017 16:30	6.89	25.76	9.6	3.06	29.74	0
12/5/2017 16:45	9.95	25.63	10.08	2.744	29.74	0

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
12/5/2017 17:00	9.46	17.69	9.66	2.56	29.73	0
12/5/2017 17:15	7.396	8.54	8.55	2.439	29.73	0
12/5/2017 17:30	8.97	19.91	9.27	2.589	29.73	0
12/5/2017 17:45	13.52	25.6	8.92	2.747	29.73	0
12/5/2017 18:00	12.83	6.521	17.1	2.955	29.73	0
12/5/2017 18:15	12.4	14.83	13.04	3.061	29.73	0
12/5/2017 18:30	13.81	23.54	10.91	3.197	29.73	0
12/5/2017 18:45	11.4	23.8	9.47	2.938	29.73	0
12/5/2017 19:00	9.84	11.02	12.53	2.886	29.75	0
12/5/2017 19:15	12.84	18.2	10.55	3.273	29.75	0
12/5/2017 19:30	18.16	22.6	9.39	3.534	29.75	0
12/5/2017 19:45	17.29	22.4	10.3	3.489	29.75	0
12/5/2017 20:00	17.16	18.75	10.25	3.387	29.75	0
12/5/2017 20:15	16.42	24.71	9.35	3.14	29.75	0
12/5/2017 20:30	17.46	21.46	10.11	3.086	29.75	0
12/5/2017 20:45	17.86	20.56	9.92	3.072	29.75	0
12/5/2017 21:00	17.29	25.23	8.91	2.952	29.73	0
12/5/2017 21:15	16.17	24.18	8.89	2.763	29.73	0
12/5/2017 21:30	14.24	23.63	8.82	2.525	29.73	0
12/5/2017 21:45	13.76	28.41	9.02	2.046	29.73	0
12/5/2017 22:00	13.08	28.81	8.46	1.857	29.75	0
12/5/2017 22:15	11.54	26.43	9.26	1.665	29.75	0
12/5/2017 22:30	10.09	28.36	8.44	1.571	29.75	0
12/5/2017 22:45	9.78	28.2	9.24	1.553	29.75	0
12/5/2017 23:00	10.95	29.24	10.26	1.45	29.77	0
12/5/2017 23:15	9.52	31.17	8.71	1.353	29.77	0
12/5/2017 23:30	8.66	31.02	7.576	1.083	29.77	0
12/5/2017 23:45	10.4	27.41	8.1	1.412	29.77	0
12/6/2017 0:00	9.54	25.75	8.44	1.341	29.77	0
12/6/2017 0:15	12.02	32.3	9.04	1.397	29.77	0
12/6/2017 0:30	11.45	25.63	11.21	1.453	29.77	0
12/6/2017 0:45	12.52	22.63	9.69	1.265	29.77	0
12/6/2017 1:00	10.46	32.83	9.99	1.043	29.77	0
12/6/2017 1:15	7.249	29.19	11.29	1.018	29.77	0
12/6/2017 1:30	8.82	41.41	8.94	0.966	29.77	0
12/6/2017 1:45	9.17	39.64	7.517	0.793	29.77	0
12/6/2017 2:00	10.38	31.01	7.161	0.832	29.77	0
12/6/2017 2:15	10.12	28.45	7.391	0.923	29.77	0
12/6/2017 2:30	8.69	28.61	8.48	1.037	29.77	0
12/6/2017 2:45	10.22	21.7	8.89	1.079	29.77	0
12/6/2017 3:00	9.25	21.87	8.63	0.554	29.75	0
12/6/2017 3:15	9.48	22.06	11.02	0.195	29.75	0
12/6/2017 3:30	8.69	24.01	9.86	-0.024	29.75	0
12/6/2017 3:45	7.311	28.7	9.52	-0.616	29.75	0
12/6/2017 4:00	6.571	29.59	9.93	-1.076	29.74	0
12/6/2017 4:15	8.55	24.86	7.77	-1.041	29.74	0
12/6/2017 4:30	7.323	30.25	8.43	-0.934	29.74	0
12/6/2017 4:45	6.859	23	11.11	-0.838	29.74	0
12/6/2017 5:00	8.51	28.86	11.08	-0.71	29.76	0
12/6/2017 5:15	9.59	26.26	10.78	-0.525	29.76	0
12/6/2017 5:30	10.44	22.2	8.62	-0.059	29.76	0
12/6/2017 5:45	11.18	30.92	9.05	-0.157	29.76	0
12/6/2017 6:00	10.96	34.42	10.02	-0.567	29.76	0
12/6/2017 6:15	12.14	30.78	8.32	-0.496	29.76	0
12/6/2017 6:30	10.28	34.57	9.68	-0.241	29.76	0
12/6/2017 6:45	11.34	31.03	9.74	-0.127	29.76	0

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
12/6/2017 7:00	12.28	28.21	8.67	-0.221	29.77	0
12/6/2017 7:15	10.87	29.2	9.78	-0.235	29.77	0
12/6/2017 7:30	10.78	24.24	8.62	0.062	29.77	0
12/6/2017 7:45	8.15	24.85	8.61	0.193	29.77	0
12/6/2017 8:00	8.11	24.28	8.34	0.48	29.78	0
12/6/2017 8:15	7.761	27.88	9.5	0.288	29.78	0
12/6/2017 8:30	8.08	23.49	9.47	0.102	29.78	0
12/6/2017 8:45	6.711	28.87	10.44	0.135	29.78	0
12/6/2017 9:00	6.585	27.56	8.77	0.108	29.78	0
12/6/2017 9:15	6.236	34.4	14.27	0.642	29.78	0
12/6/2017 9:30	4.366	34.05	11.61	0.685	29.78	0
12/6/2017 9:45	6.491	31.04	11.62	0.969	29.78	0
12/6/2017 10:00	6.581	29.56	10.48	1.217	29.79	0
12/6/2017 10:15	5.07	46.41	16.07	2.071	29.79	0
12/6/2017 10:30	4.297	32.26	12.76	2.272	29.79	0
12/6/2017 10:45	4.569	39.81	9.19	2.678	29.79	0
12/6/2017 11:00	5.469	28.81	11.56	2.792	29.77	0
12/6/2017 11:15	4.263	5.619	19.94	4.729	29.77	0
12/6/2017 11:30	4.428	9.17	12.69	5.098	29.77	0
12/6/2017 11:45	3.82	340.7	30.4	5.844	29.77	0
12/6/2017 12:00	3.806	3.918	37.34	6.906	29.76	0
12/6/2017 12:15	6.025	24.93	8.16	7.138	29.76	0
12/6/2017 12:30	5.596	19.16	11.49	6.606	29.76	0
12/6/2017 12:45	5.561	17.21	10.93	7.912	29.76	0
12/6/2017 13:00	5.184	20.26	8.46	9.24	29.73	0
12/6/2017 13:15	4.692	24.75	10.36	8.87	29.73	0
12/6/2017 13:30	5.57	25.34	8.11	8.56	29.73	0
12/6/2017 13:45	6.051	17.43	8.95	8.98	29.73	0
12/6/2017 14:00	6.299	14.98	8.32	8.97	29.72	0
12/6/2017 14:15	5.751	9.96	10.37	9.02	29.72	0
12/6/2017 14:30	5.908	10.54	12.22	9	29.72	0
12/6/2017 14:45	5.293	13.36	13.27	9.38	29.72	0
12/6/2017 15:00	5.8	36.45	14.08	10.55	29.72	0
12/6/2017 15:15	5.319	37.27	7.537	10.69	29.72	0
12/6/2017 15:30	4.85	31.81	8.9	10.42	29.72	0
12/6/2017 15:45	5.278	15.85	9.88	9.21	29.72	0
12/6/2017 16:00	5.05	12.1	13.07	8.89	29.73	0
12/6/2017 16:15	5.076	13.11	7.764	8.77	29.73	0
12/6/2017 16:30	4.102	21.34	11.93	8.64	29.73	0
12/6/2017 16:45	2.863	49.16	34.01	9.04	29.73	0
12/6/2017 17:00	2.982	96.1	22.72	9.54	29.72	0
12/6/2017 17:15	3.389	83.3	18.84	9.17	29.72	0
12/6/2017 17:30	3.355	63.35	20.18	8.91	29.72	0
12/6/2017 17:45	3.68	63.71	26.6	8.72	29.72	0
12/6/2017 18:00	3.592	51.37	21.23	8.48	29.72	0
12/6/2017 18:15	3.813	19.79	8.25	7.285	29.72	0
12/6/2017 18:30	3.933	61.05	26.97	7.706	29.72	0
12/6/2017 18:45	6.152	87	18.87	8.22	29.72	0
12/6/2017 19:00	7.626	102.4	11.31	8.72	29.72	0
12/6/2017 19:15	8.45	104.8	11.68	8.65	29.72	0
12/6/2017 19:30	7.187	91.7	13.71	8.6	29.72	0
12/6/2017 19:45	7.381	103	16.68	8.53	29.72	0
12/6/2017 20:00	7.329	101.5	11.79	8.72	29.72	0
12/6/2017 20:15	6.723	95.4	12.99	8.67	29.72	0
12/6/2017 20:30	6.018	76.86	21.04	8.25	29.72	0
12/6/2017 20:45	5.695	82	18.52	8.14	29.72	0

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
12/6/2017 21:00	5.987	82.8	16.13	8.26	29.72	0
12/6/2017 21:15	6.897	83	19.66	7.92	29.72	0
12/6/2017 21:30	7.763	89.7	20.4	7.92	29.72	0
12/6/2017 21:45	7.299	99.9	14.75	8.01	29.72	0
12/6/2017 22:00	6.77	99.1	12.97	7.89	29.71	0
12/6/2017 22:15	5.834	97.1	15.77	7.585	29.71	0
12/6/2017 22:30	7.673	117.1	10.58	7.861	29.71	0
12/6/2017 22:45	7.922	118.9	10.64	7.671	29.71	0
12/6/2017 23:00	6.316	106.4	13.52	7.492	29.7	0
12/6/2017 23:15	5.707	106.9	12.08	7.724	29.7	0
12/6/2017 23:30	5.641	99.7	20.85	7.209	29.7	0
12/6/2017 23:45	4.432	93.6	15.46	6.499	29.7	0
12/7/2017 0:00	4.176	97.7	21.07	7.274	29.68	0
12/7/2017 0:15	5.086	109.2	19.93	8.04	29.68	0
12/7/2017 0:30	4.169	111.1	18.13	7.619	29.68	0
12/7/2017 0:45	1.804	37.06	21.64	7.198	29.68	0
12/7/2017 1:00	2.717	57.91	40.15	6.624	29.68	0
12/7/2017 1:15	3.337	94	28.34	7.409	29.68	0
12/7/2017 1:30	1.988	78.81	37.1	7.064	29.68	0
12/7/2017 1:45	1.923	12.46	30.29	7.021	29.68	0
12/7/2017 2:00	2.542	22.13	21.45	6.06	29.68	0
12/7/2017 2:15	3.486	10.96	9.24	5.706	29.68	0
12/7/2017 2:30	5.508	18.39	7.752	4.696	29.68	0
12/7/2017 2:45	5.699	19.66	8.56	4.406	29.68	0
12/7/2017 3:00	4.646	28.03	10.09	4.848	29.67	0
12/7/2017 3:15	4.25	29.17	11.09	4.874	29.67	0
12/7/2017 3:30	3.583	22.34	12.66	5.387	29.67	0
12/7/2017 3:45	3.59	15.52	8.91	5.166	29.67	0
12/7/2017 4:00	2.573	355	25.99	6.427	29.65	0
12/7/2017 4:15	3.109	12.11	18.86	6.015	29.65	0
12/7/2017 4:30	2.48	3.994	41.84	7.068	29.65	0
12/7/2017 4:45	2.314	49.02	40.97	6.796	29.65	0
12/7/2017 5:00	3.491	31.88	4.54	4.612	29.67	0
12/7/2017 5:15	3.557	29.65	11	5.329	29.67	0
12/7/2017 5:30	3.628	66.18	24.84	6.711	29.67	0
12/7/2017 5:45	4.877	81.8	19.9	6.845	29.67	0
12/7/2017 6:00	3.588	84.9	21.41	6.758	29.65	0
12/7/2017 6:15	4.525	85.6	13.31	6.073	29.65	0
12/7/2017 6:30	3.663	80.8	21.9	6.251	29.65	0
12/7/2017 6:45	4.64	110.1	14.99	6.907	29.65	0
12/7/2017 7:00	5.748	92.3	14.6	6.668	29.67	0
12/7/2017 7:15	4.689	97	13.62	6.826	29.67	0
12/7/2017 7:30	5.869	99.9	15.59	6.506	29.67	0
12/7/2017 7:45	8.4	109.7	10.61	6.783	29.67	0
12/7/2017 8:00	9.67	114.1	9.4	6.887	29.65	0
12/7/2017 8:15	9.96	111.9	12.41	6.927	29.65	0
12/7/2017 8:30	9.86	104.1	11.16	6.995	29.65	0
12/7/2017 8:45	7.82	110	9.02	7.343	29.65	0
12/7/2017 9:00	8.07	114.9	10.05	7.837	29.66	0
12/7/2017 9:15	9.12	113.6	10.22	8.02	29.66	0
12/7/2017 9:30	10.32	111.3	9.77	8.41	29.66	0
12/7/2017 9:45	9.51	110.1	12.71	8.77	29.66	0
12/7/2017 10:00	7.717	103.2	13.5	8.92	29.66	0
12/7/2017 10:15	6.856	101.7	12.07	9.36	29.66	0
12/7/2017 10:30	5.796	107.8	16.79	9.8	29.66	0
12/7/2017 10:45	4.601	91.5	18	9.92	29.66	0

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
12/7/2017 11:00	4.255	70.88	11.32	9.97	29.65	0
12/7/2017 11:15	3.761	71.42	17.07	10.24	29.65	0
12/7/2017 11:30	4.218	74	13.83	10.51	29.65	0
12/7/2017 11:45	5.551	92.3	19.74	10.91	29.65	0
12/7/2017 12:00	6.059	107.6	15.08	11.3	29.64	0
12/7/2017 12:15	5.296	83.9	26.43	11.24	29.64	0
12/7/2017 12:30	4.146	76.06	21.2	11.21	29.64	0
12/7/2017 12:45	4.667	45.35	16.89	10.45	29.64	0
12/7/2017 13:00	3.92	40.35	10.73	10.23	29.64	0
12/7/2017 13:15	4.934	55.65	20.4	10.57	29.64	0
12/7/2017 13:30	4.369	44.08	8.4	10.49	29.64	0
12/7/2017 13:45	3.975	31.78	11.65	10.52	29.64	0
12/7/2017 14:00	3.582	20.91	8.84	10.61	29.62	0
12/7/2017 14:15	3.124	31.75	7.133	10.73	29.62	0
12/7/2017 14:30	4.325	56.45	15.28	10.63	29.62	0
12/7/2017 14:45	3.041	55.3	25.04	10.96	29.62	0
12/7/2017 15:00	2.411	42.12	17.73	10.75	29.64	0
12/7/2017 15:15	2.676	95.2	26.15	11.28	29.64	0
12/7/2017 15:30	4.016	115.6	10.34	11.11	29.64	0
12/7/2017 15:45	6.842	134.8	8.64	10.92	29.64	0
12/7/2017 16:00	7.284	130.7	8.37	10.57	29.65	0
12/7/2017 16:15	8.1	145.5	7.435	9.99	29.65	0
12/7/2017 16:30	7.88	152.9	6.777	9.44	29.65	0
12/7/2017 16:45	6.5	139.8	11.07	9.08	29.65	0
12/7/2017 17:00	4.374	140.8	9.04	8.81	29.63	0
12/7/2017 17:15	4.519	109.9	7.78	8.51	29.63	0
12/7/2017 17:30	3.381	107.3	11.78	8.64	29.63	0
12/7/2017 17:45	3.723	119.3	11.18	8.38	29.63	0
12/7/2017 18:00	3.606	108.8	20.07	8.54	29.64	0
12/7/2017 18:15	1.297	101.4	24.3	8.61	29.64	0
12/7/2017 18:30	1.195	143.3	40.08	7.978	29.64	0
12/7/2017 18:45	2.85	210.6	38.61	7.016	29.64	0
12/7/2017 19:00	2.24	116.6	21.57	7.349	29.65	0
12/7/2017 19:15	3.244	133.2	13.67	6.975	29.65	0
12/7/2017 19:30	6.941	117.4	7.631	6.464	29.65	0
12/7/2017 19:45	9.24	124.6	10.7	6.918	29.65	0
12/7/2017 20:00	8.26	120.8	14.82	6.345	29.66	0
12/7/2017 20:15	6.519	140.2	15.55	7.058	29.66	0
12/7/2017 20:30	3.668	109.3	21.45	6.908	29.66	0
12/7/2017 20:45	3.127	39.29	70.05	5.457	29.66	0
12/7/2017 21:00	4.547	339.9	17.19	4.879	29.65	0
12/7/2017 21:15	3.109	40.56	13.69	4.965	29.65	0
12/7/2017 21:30	2.581	42.34	26.97	5.197	29.65	0
12/7/2017 21:45	2.128	358.9	75.3	5.847	29.65	0
12/7/2017 22:00	2.148	134.9	14.48	6.617	29.67	0
12/7/2017 22:15	2.662	136	7.482	6.36	29.67	0
12/7/2017 22:30	2.836	84.4	28.55	5.034	29.67	0
12/7/2017 22:45	1.636	69.78	19.44	5.128	29.67	0
12/7/2017 23:00	2.667	111.3	5.365	5.281	29.67	0
12/7/2017 23:15	5.057	135.8	8.08	5.153	29.67	0
12/7/2017 23:30	7.432	146.4	9.39	5.628	29.67	0
12/7/2017 23:45	4.613	105.8	19.72	5.353	29.67	0
12/8/2017 0:00	4.529	101.1	17.34	4.562	29.66	0
12/8/2017 0:15	4.765	112.8	7.118	4.404	29.66	0
12/8/2017 0:30	4.146	133	9.38	4.965	29.66	0
12/8/2017 0:45	2.934	79.02	29.87	4.772	29.66	0

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
12/8/2017 1:00	2.16	104	37.13	4.064	29.68	0
12/8/2017 1:15	4.533	161.4	9.47	5.239	29.68	0
12/8/2017 1:30	2.807	121	26.27	4.763	29.68	0
12/8/2017 1:45	2.312	81.5	20.67	4.587	29.68	0
12/8/2017 2:00	4.046	87.9	16.95	3.737	29.67	0
12/8/2017 2:15	4.86	133.7	20.45	4.12	29.67	0
12/8/2017 2:30	7.469	147.3	6.209	4.789	29.67	0
12/8/2017 2:45	6.482	149.5	6.176	4.737	29.67	0
12/8/2017 3:00	4.257	139.5	13.28	4.787	29.66	0
12/8/2017 3:15	2.419	112.2	17.08	4.531	29.66	0
12/8/2017 3:30	2.231	71.1	14.1	3.96	29.66	0
12/8/2017 3:45	0.994	76.45	23.49	3.785	29.66	0
12/8/2017 4:00	2.32	18.83	9.71	3.596	29.67	0
12/8/2017 4:15	2.407	35.74	1.756	3.226	29.67	0
12/8/2017 4:30	1.861	38.64	0.112	3.539	29.67	0
12/8/2017 4:45	1.19	38.64	0.111	3.328	29.67	0
12/8/2017 5:00	0.332	38.65	0.059	3.673	29.67	0
12/8/2017 5:15	0.016	38.52	0.048	4.254	29.67	0
12/8/2017 5:30	1.46	14.72	5.86	3.351	29.67	0
12/8/2017 5:45	1.896	354.9	16.38	2.58	29.67	0
12/8/2017 6:00	2.178	6.546	21.44	2.427	29.67	0
12/8/2017 6:15	3.897	33.13	12.77	1.997	29.67	0
12/8/2017 6:30	1.986	81.5	4.121	2.776	29.67	0
12/8/2017 6:45	0.74	81.4	6.933	3.799	29.67	0
12/8/2017 7:00	1.688	74.68	22.3	3.869	29.65	0
12/8/2017 7:15	3.098	128.1	11.02	4.397	29.65	0
12/8/2017 7:30	0.798	127	1.201	3.96	29.65	0
12/8/2017 7:45	0.342	126.6	0.036	3.898	29.65	0
12/8/2017 8:00	1.472	330.9	86.6	3.885	29.65	0
12/8/2017 8:15	3.048	355.7	25.39	3.149	29.65	0
12/8/2017 8:30	1.371	15.82	0.048	2.055	29.65	0
12/8/2017 8:45	3.266	341.6	17.3	3.203	29.65	0
12/8/2017 9:00	1.076	343	6.503	4.145	29.67	0
12/8/2017 9:15	2.084	199.7	74.11	5.128	29.67	0
12/8/2017 9:30	2.955	129.5	28.63	5.873	29.67	0
12/8/2017 9:45	1.535	85.3	26.22	5.664	29.67	0
12/8/2017 10:00	1.642	38.21	33.67	5.437	29.65	0
12/8/2017 10:15	2.355	340.4	16	4.705	29.65	0
12/8/2017 10:30	1.329	6.692	19.81	5.271	29.65	0
12/8/2017 10:45	1.363	15.33	7.049	5.564	29.65	0
12/8/2017 11:00	2.831	27.11	10.15	4.397	29.64	0
12/8/2017 11:15	3.844	23.37	8.63	4.531	29.64	0
12/8/2017 11:30	2.948	10.67	15.69	5.865	29.64	0
12/8/2017 11:45	0.888	13.85	13.1	7.229	29.64	0
12/8/2017 12:00	2.723	43.25	13.67	7.793	29.64	0
12/8/2017 12:15	1.643	24.97	27.2	8.15	29.64	0
12/8/2017 12:30	1.559	23.67	23.31	8.59	29.64	0
12/8/2017 12:45	2.14	55.53	36.59	8.6	29.64	0
12/8/2017 13:00	3.771	92.5	16.3	8.94	29.62	0
12/8/2017 13:15	3.997	117.9	30.89	9.37	29.62	0
12/8/2017 13:30	3.052	49.04	26.08	8.16	29.62	0
12/8/2017 13:45	1.353	26.72	12.6	7.958	29.62	0
12/8/2017 14:00	0.659	26.76	49.98	9.46	29.61	0
12/8/2017 14:15	2.172	30.37	3.802	7.924	29.61	0
12/8/2017 14:30	2.276	29.66	6.584	7.614	29.61	0
12/8/2017 14:45	1.359	23.62	6.113	8.33	29.61	0

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
12/8/2017 15:00	2.103	229.9	47.51	9.29	29.62	0
12/8/2017 15:15	2.506	291.8	24.21	7.988	29.62	0
12/8/2017 15:30	0.814	264.2	69.69	8.04	29.62	0
12/8/2017 15:45	2.822	152	54.01	7.031	29.62	0
12/8/2017 16:00	2.253	53.9	18.84	6.01	29.6	0
12/8/2017 16:15	2.095	75.09	41.05	6.037	29.6	0
12/8/2017 16:30	2.572	166.9	20.67	6.273	29.6	0
12/8/2017 16:45	1.946	165.6	39.8	5.743	29.6	0
12/8/2017 17:00	3.507	250	14.75	4.848	29.61	0
12/8/2017 17:15	2.893	212.5	27.3	4.86	29.61	0
12/8/2017 17:30	2.256	210.5	21.3	4.713	29.61	0
12/8/2017 17:45	4.428	186.5	19.16	4.73	29.61	0
12/8/2017 18:00	5.975	146.7	15.27	4.749	29.59	0
12/8/2017 18:15	7.666	142.3	7.832	4.875	29.59	0
12/8/2017 18:30	9.22	155.3	9.09	4.991	29.59	0
12/8/2017 18:45	8.69	154.5	6.707	4.797	29.59	0
12/8/2017 19:00	7.677	175	14.02	4.799	29.61	0
12/8/2017 19:15	7.941	166.2	9.81	4.611	29.61	0
12/8/2017 19:30	6.055	179.2	11.12	4.428	29.61	0
12/8/2017 19:45	4.183	170.4	10.46	4.305	29.61	0
12/8/2017 20:00	2.569	148.4	14.18	4.483	29.59	0
12/8/2017 20:15	1.688	125.1	5.955	4.631	29.59	0
12/8/2017 20:30	2.031	158.9	32.09	4.364	29.59	0
12/8/2017 20:45	4.187	171	21.42	4.063	29.59	0
12/8/2017 21:00	3.674	135	12.28	3.907	29.59	0
12/8/2017 21:15	3.934	131.6	14.39	3.651	29.59	0
12/8/2017 21:30	6.741	141.3	8.56	4.147	29.59	0
12/8/2017 21:45	8.73	155	6.604	4.206	29.59	0
12/8/2017 22:00	11	144.5	10.48	4.322	29.62	0
12/8/2017 22:15	8.79	133.7	9.55	4.554	29.62	0
12/8/2017 22:30	8.92	146.4	7.515	4.71	29.62	0
12/8/2017 22:45	8.87	132.7	8.79	5.007	29.62	0
12/8/2017 23:00	8.17	128.4	9.7	4.898	29.59	0
12/8/2017 23:15	6.499	130.7	7.42	4.672	29.59	0
12/8/2017 23:30	5.119	104.4	20.99	3.933	29.59	0
12/8/2017 23:45	4.364	81.4	8.04	3.5	29.59	0
12/9/2017 0:00	3.182	61.09	8.45	3.069	29.58	0
12/9/2017 0:15	2.933	61.33	11.46	3.141	29.58	0
12/9/2017 0:30	3.183	65.51	6.614	2.872	29.58	0
12/9/2017 0:45	2.944	81.7	9.19	3.23	29.58	0
12/9/2017 1:00	3.512	119.3	8.58	4.762	29.59	0
12/9/2017 1:15	3.92	116	7.093	4.864	29.59	0
12/9/2017 1:30	4.154	127.7	14.5	5.307	29.59	0
12/9/2017 1:45	3.494	117.7	14.36	5.333	29.59	0
12/9/2017 2:00	4.249	145.2	7.672	5.004	29.59	0
12/9/2017 2:15	2.635	136	7.678	4.557	29.59	0
12/9/2017 2:30	1.414	113.3	10.52	4.215	29.59	0
12/9/2017 2:45	2.408	160.4	29.36	4.508	29.59	0
12/9/2017 3:00	4.373	148.6	10.03	4.852	29.57	0
12/9/2017 3:15	3.696	131.7	10.77	4.736	29.57	0
12/9/2017 3:30	4.203	120.3	16.09	4.679	29.57	0
12/9/2017 3:45	3.46	102.1	42.74	4.314	29.57	0
12/9/2017 4:00	7.917	168.9	13.58	4.525	29.6	0
12/9/2017 4:15	7.177	138.4	11.21	4.287	29.6	0
12/9/2017 4:30	5.962	119.4	10.22	4.172	29.6	0
12/9/2017 4:45	7.649	125.9	7.53	4.274	29.6	0

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
12/9/2017 5:00	6.245	132.9	13.9	4.501	29.58	0
12/9/2017 5:15	7.402	149	11.01	4.816	29.58	0
12/9/2017 5:30	4.626	159.7	11.63	4.682	29.58	0
12/9/2017 5:45	3.076	68.39	32.98	3.813	29.58	0
12/9/2017 6:00	3.74	81.5	12.31	3.604	29.56	0
12/9/2017 6:15	1.675	123.3	21.76	3.788	29.56	0
12/9/2017 6:30	1.299	42.31	39.01	3.709	29.56	0
12/9/2017 6:45	2.349	137.6	73.37	3.885	29.56	0
12/9/2017 7:00	4.82	114.5	34.2	3.433	29.57	0
12/9/2017 7:15	3.703	43.96	7.565	1.315	29.57	0
12/9/2017 7:30	2.516	11.89	19.23	2.302	29.57	0
12/9/2017 7:45	2.171	29.23	31.28	2.648	29.57	0
12/9/2017 8:00	4.163	104.7	26.02	3.491	29.57	0
12/9/2017 8:15	5.574	109.6	11.7	3.616	29.57	0
12/9/2017 8:30	7.853	129	8.37	4.535	29.57	0
12/9/2017 8:45	6.42	127.2	6.969	5.252	29.57	0
12/9/2017 9:00	6.455	133.2	8.3	5.578	29.58	0
12/9/2017 9:15	5.296	144	8.9	6.247	29.58	0
12/9/2017 9:30	3.402	142	24.19	6.902	29.58	0
12/9/2017 9:45	4.52	207.2	23.25	6.668	29.58	0
12/9/2017 10:00	3.392	145.9	33.42	7.412	29.59	0
12/9/2017 10:15	2.23	112.1	32.71	6.733	29.59	0
12/9/2017 10:30	2.785	129.9	23.7	7.451	29.59	0
12/9/2017 10:45	1.408	51.78	20.45	6.245	29.59	0
12/9/2017 11:00	3.859	155.5	20.89	7.816	29.58	0
12/9/2017 11:15	4.481	125.2	20.61	8.32	29.58	0
12/9/2017 11:30	5.489	140.6	16.59	8.54	29.58	0
12/9/2017 11:45	8.71	131.9	9.45	8.86	29.58	0
12/9/2017 12:00	8.69	135.1	12.61	9.39	29.58	0
12/9/2017 12:15	5.886	146.9	14.53	10.01	29.58	0
12/9/2017 12:30	2.413	64.38	82.8	10.06	29.58	0
12/9/2017 12:45	3.601	131.1	40.88	10.34	29.58	0
12/9/2017 13:00	3.701	130.1	22.69	9.95	29.57	0
12/9/2017 13:15	2.546	108.6	26.87	8.74	29.57	0
12/9/2017 13:30	3.888	131.3	10.51	10.08	29.57	0
12/9/2017 13:45	4.486	113	14.82	9.91	29.57	0
12/9/2017 14:00	6.031	127.8	9.79	10.21	29.55	0
12/9/2017 14:15	5.412	137.5	9.96	10.32	29.55	0
12/9/2017 14:30	6.804	140.4	9.64	10.22	29.55	0
12/9/2017 14:45	6.224	134.8	12.72	9.9	29.55	0
12/9/2017 15:00	4.624	150.9	8.84	9.6	29.55	0
12/9/2017 15:15	5.944	155.4	7.191	9.46	29.55	0
12/9/2017 15:30	4.555	139.8	7.339	9.01	29.55	0
12/9/2017 15:45	4.549	132.7	5.864	8.81	29.55	0
12/9/2017 16:00	4.397	138.3	12.07	8.46	29.54	0
12/9/2017 16:15	7.132	125.2	6.88	8.04	29.54	0
12/9/2017 16:30	9.67	129.1	6.963	7.965	29.54	0
12/9/2017 16:45	10.51	128.7	8.66	7.848	29.54	0
12/9/2017 17:00	9.77	134.5	8.81	7.799	29.53	0
12/9/2017 17:15	8.68	138	8.34	7.338	29.53	0
12/9/2017 17:30	7.737	134.8	8.72	7.346	29.53	0
12/9/2017 17:45	5.056	130.4	9.55	6.84	29.53	0
12/9/2017 18:00	6.598	132.1	8.65	6.855	29.53	0
12/9/2017 18:15	5.307	120.8	10.38	6.603	29.53	0
12/9/2017 18:30	3.913	122.5	15.68	6.31	29.53	0
12/9/2017 18:45	5.916	133	7.942	6.365	29.53	0

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
12/9/2017 19:00	8.5	142.5	7.859	6.405	29.55	0
12/9/2017 19:15	8.93	132.7	8.32	6.663	29.55	0
12/9/2017 19:30	8.61	141	11.83	6.903	29.55	0
12/9/2017 19:45	8.02	161.7	13.28	6.594	29.55	0
12/9/2017 20:00	6.435	193.1	16.89	5.786	29.57	0
12/9/2017 20:15	5.899	201.3	7.459	5.235	29.57	0
12/9/2017 20:30	4.734	169.6	12.31	5.307	29.57	0
12/9/2017 20:45	3.315	159.9	5.77	5.484	29.57	0
12/9/2017 21:00	4.704	162.9	13.08	5.358	29.55	0
12/9/2017 21:15	6.76	149.8	6.322	5.229	29.55	0
12/9/2017 21:30	8.71	136	9.25	5.411	29.55	0
12/9/2017 21:45	8.39	143	10.27	5.557	29.55	0
12/9/2017 22:00	7.795	143.3	11.17	5.376	29.58	0
12/9/2017 22:15	5.27	142	8.44	5.12	29.58	0
12/9/2017 22:30	4.706	117.8	11.61	4.806	29.58	0
12/9/2017 22:45	7.615	128.6	9.8	4.558	29.58	0
12/9/2017 23:00	9.25	133.2	9.66	5.521	29.56	0
12/9/2017 23:15	6.778	146.5	10.4	5.18	29.56	0
12/9/2017 23:30	6.661	148.4	7.841	5.147	29.56	0
12/9/2017 23:45	7.329	139.3	6.334	5.117	29.56	0
12/10/2017 0:00	6.603	132	8.12	5.008	29.58	0
12/10/2017 0:15	3.284	124.9	10.6	5.026	29.58	0
12/10/2017 0:30	6.895	127.9	9.24	5.151	29.58	0
12/10/2017 0:45	6.933	127.2	8.84	5.111	29.58	0
12/10/2017 1:00	8.95	137.2	8.7	5.645	29.57	0
12/10/2017 1:15	8.22	130.2	9.31	5.911	29.57	0
12/10/2017 1:30	5.594	130	8.65	5.615	29.57	0
12/10/2017 1:45	6.916	134.9	7.313	5.748	29.57	0
12/10/2017 2:00	7.387	133.8	8.67	5.595	29.57	0
12/10/2017 2:15	9.38	138.2	8.09	6.085	29.57	0
12/10/2017 2:30	7.749	125.4	11.04	6.322	29.57	0
12/10/2017 2:45	5.574	125	10.14	5.911	29.57	0
12/10/2017 3:00	6.104	134.2	7.075	5.653	29.59	0
12/10/2017 3:15	3.122	28.48	82.5	4.904	29.59	0
12/10/2017 3:30	7.062	311.9	12.36	3.501	29.59	0
12/10/2017 3:45	5.321	335.7	34.31	3.404	29.59	0
12/10/2017 4:00	3.819	31.92	7.193	2.688	29.58	0
12/10/2017 4:15	2.423	16.95	15.68	3.198	29.58	0
12/10/2017 4:30	2.482	25	10.63	2.552	29.58	0
12/10/2017 4:45	2.746	347.1	8.99	3.511	29.58	0
12/10/2017 5:00	3.86	336.4	7.319	3.679	29.6	0
12/10/2017 5:15	1.577	347.1	15.06	4.012	29.6	0
12/10/2017 5:30	2.533	318.7	18.6	4.146	29.6	0
12/10/2017 5:45	3.976	306.2	7.085	3.457	29.6	0
12/10/2017 6:00	1.109	290.5	0.084	4.015	29.59	0
12/10/2017 6:15	0.522	306.5	17.37	4.048	29.59	0
12/10/2017 6:30	2.984	4.529	12.54	3.712	29.59	0
12/10/2017 6:45	2.042	14.51	4.301	3.033	29.59	0
12/10/2017 7:00	0.726	355.2	3.716	3.379	29.57	0
12/10/2017 7:15	0.429	349.3	0.049	3.74	29.57	0
12/10/2017 7:30	0.225	349.6	0.071	3.753	29.57	0
12/10/2017 7:45	0.205	346.9	3.563	4.064	29.57	0
12/10/2017 8:00	1.633	203.8	37.73	4.565	29.56	0
12/10/2017 8:15	3.111	155	5.481	4.6	29.56	0
12/10/2017 8:30	1.873	146.1	5.23	4.364	29.56	0
12/10/2017 8:45	2.61	358.9	11.13	3.046	29.56	0

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
12/10/2017 9:00	3.31	343.1	11.36	3.062	29.58	0
12/10/2017 9:15	2.03	5.139	26.5	3.324	29.58	0
12/10/2017 9:30	1.486	303	19.99	4.252	29.58	0
12/10/2017 9:45	1.373	2.575	14.52	4.191	29.58	0
12/10/2017 10:00	1.443	33.68	5.86	4.445	29.57	0
12/10/2017 10:15	2.867	0.877	15.9	4.437	29.57	0
12/10/2017 10:30	2.964	346	10.37	5.558	29.57	0
12/10/2017 10:45	2.635	2.238	7.059	5.547	29.57	0
12/10/2017 11:00	1.154	28.18	13.62	5.926	29.57	0
12/10/2017 11:15	1.508	13.9	14.58	6.476	29.57	0
12/10/2017 11:30	3.062	14.22	13.19	6.358	29.57	0
12/10/2017 11:45	2.437	23.26	22.02	6.41	29.57	0
12/10/2017 12:00	1.551	16.35	29.16	6.976	29.54	0
12/10/2017 12:15	2.154	69.33	10.96	7.16	29.54	0
12/10/2017 12:30	1.831	49.34	15.68	7.481	29.54	0
12/10/2017 12:45	2.595	24.81	14.22	7.236	29.54	0
12/10/2017 13:00	2.534	8.91	3.729	7.629	29.54	0
12/10/2017 13:15	2.294	332.9	18.16	8.5	29.54	0
12/10/2017 13:30	2.231	8.4	18.91	8.8	29.54	0
12/10/2017 13:45	1.408	11.57	14.78	8.35	29.54	0
12/10/2017 14:00	1.641	358.1	8.28	8.56	29.52	0
12/10/2017 14:15	1.829	3.354	21.45	8.31	29.52	0
12/10/2017 14:30	1.643	326.3	12.14	8.97	29.52	0
12/10/2017 14:45	3.401	17.13	12.09	7.749	29.52	0
12/10/2017 15:00	4.235	20.16	6.248	7.419	29.51	0
12/10/2017 15:15	3.584	25.19	7.633	7.467	29.51	0
12/10/2017 15:30	1.81	16.38	7.373	7.558	29.51	0
12/10/2017 15:45	1.033	22.52	9.62	7.397	29.51	0
12/10/2017 16:00	2.689	17.32	9.37	6.937	29.51	0
12/10/2017 16:15	1.439	6.631	0.514	6.923	29.51	0
12/10/2017 16:30	1.663	6.007	4.095	7.053	29.51	0
12/10/2017 16:45	2.089	323.9	6.528	6.844	29.51	0
12/10/2017 17:00	3.422	16.83	20.38	6.412	29.51	0
12/10/2017 17:15	4.227	25.46	7.252	5.802	29.51	0
12/10/2017 17:30	5.163	15.98	9.37	5.674	29.51	0
12/10/2017 17:45	4.677	14.96	8.63	5.401	29.51	0
12/10/2017 18:00	4.77	15.92	7.444	5.291	29.46	0
12/10/2017 18:15	4.869	18.03	6.695	5.004	29.46	0
12/10/2017 18:30	4.809	19.54	7.321	4.716	29.46	0
12/10/2017 18:45	4.508	15.56	10.41	4.773	29.46	0
12/10/2017 19:00	3.412	321.6	29.28	5.394	29.47	0
12/10/2017 19:15	3.258	342.3	26.48	5.252	29.47	0
12/10/2017 19:30	2.457	351.8	14.57	4.716	29.47	0
12/10/2017 19:45	3.286	14.67	10.21	4.462	29.47	0
12/10/2017 20:00	3.817	8.77	7.897	4.308	29.46	0
12/10/2017 20:15	2.897	331.2	31.92	4.888	29.46	0
12/10/2017 20:30	2.856	258	26.99	6.355	29.46	0
12/10/2017 20:45	2.904	314.8	41.88	5.276	29.46	0
12/10/2017 21:00	5.017	327.2	12.9	4.784	29.46	0
12/10/2017 21:15	4.988	320.8	10.48	4.706	29.46	0
12/10/2017 21:30	4.43	329.2	24.74	4.936	29.46	0
12/10/2017 21:45	3.657	4.546	15.79	3.904	29.46	0
12/10/2017 22:00	3.032	4.5	13.49	4.494	29.5	0
12/10/2017 22:15	2.11	342.3	28.39	4.8	29.5	0
12/10/2017 22:30	2.103	319.5	56.89	4.629	29.5	0
12/10/2017 22:45	3.94	179.3	22.54	5.18	29.5	0

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
12/10/2017 23:00	4.591	156.2	8.81	5.762	29.47	0
12/10/2017 23:15	5.687	127.4	14.55	5.305	29.47	0
12/10/2017 23:30	5.054	130	16.09	6.013	29.47	0
12/10/2017 23:45	6.9	143.1	9.69	6.037	29.47	0
12/11/2017 0:00	7.743	121.9	9.38	5.914	29.46	0
12/11/2017 0:15	6.513	142.8	13.2	6.143	29.46	0
12/11/2017 0:30	6.897	129.2	13.43	6.145	29.46	0
12/11/2017 0:45	5.65	124.5	8.7	5.565	29.46	0
12/11/2017 1:00	4.614	105.4	10.66	5.391	29.46	0
12/11/2017 1:15	3.113	68.36	24.07	4.959	29.46	0
12/11/2017 1:30	2.576	6.096	25.79	3.894	29.46	0
12/11/2017 1:45	5.539	321.6	15.92	3.217	29.46	0
12/11/2017 2:00	6.766	324.9	8	3.342	29.47	0
12/11/2017 2:15	2.461	13.92	18.33	4.129	29.47	0
12/11/2017 2:30	0.511	8.01	0.142	4.896	29.47	0
12/11/2017 2:45	0.345	241	28.23	5.488	29.47	0
12/11/2017 3:00	4.306	168.7	16.02	5.005	29.48	0
12/11/2017 3:15	4.997	141.8	9.45	5.007	29.48	0
12/11/2017 3:30	5.71	144.2	6.098	4.99	29.48	0
12/11/2017 3:45	4.876	154.2	16.92	4.917	29.48	0
12/11/2017 4:00	6.7	175.6	9.61	4.75	29.49	0
12/11/2017 4:15	7.213	169.2	8.41	4.768	29.49	0
12/11/2017 4:30	5.064	152.6	11.79	4.611	29.49	0
12/11/2017 4:45	9.11	160	12.3	4.734	29.49	0
12/11/2017 5:00	8.92	162.8	9.25	4.578	29.48	0
12/11/2017 5:15	13.06	156.5	9.03	4.93	29.48	0
12/11/2017 5:30	8.62	168.3	11.71	4.226	29.48	0
12/11/2017 5:45	10.64	180.8	10.57	3.358	29.48	0
12/11/2017 6:00	10.02	156.2	10.67	3.94	29.49	0
12/11/2017 6:15	11.77	153.4	8.33	4.452	29.49	0
12/11/2017 6:30	8.62	145.3	7.871	4.396	29.49	0
12/11/2017 6:45	6.349	169.6	11.83	4.016	29.49	0
12/11/2017 7:00	5.034	160.4	11.11	3.757	29.49	0
12/11/2017 7:15	1.754	119.3	29.75	4.335	29.49	0
12/11/2017 7:30	1.538	43.65	32.71	3.215	29.49	0
12/11/2017 7:45	2.463	326.6	11.5	2.561	29.49	0
12/11/2017 8:00	2.261	345.8	10.36	3.065	29.48	0
12/11/2017 8:15	2.422	43.51	61.01	3.762	29.48	0
12/11/2017 8:30	7.351	122.1	12.8	4.852	29.48	0
12/11/2017 8:45	7.878	131.6	10.4	5.618	29.48	0
12/11/2017 9:00	12.49	153	11.08	6.365	29.46	0
12/11/2017 9:15	13.13	148.5	8.28	6.858	29.46	0
12/11/2017 9:30	11.44	145.8	9.06	7.173	29.46	0
12/11/2017 9:45	12.26	153.8	9.7	7.661	29.46	0
12/11/2017 10:00	13.11	155.5	12.18	8.1	29.48	0
12/11/2017 10:15	12.06	156.6	10.57	8.32	29.48	0
12/11/2017 10:30	12.47	145.6	13.5	8.59	29.48	0
12/11/2017 10:45	14.08	134.5	12.47	8.55	29.48	0
12/11/2017 11:00	9.42	104.6	27.73	7.516	29.49	0
12/11/2017 11:15	2.971	63.51	29.21	5.993	29.49	0
12/11/2017 11:30	4.344	129.1	38.42	8.05	29.49	0
12/11/2017 11:45	7.131	110.4	15.13	8.11	29.49	0
12/11/2017 12:00	4.656	124.4	35.87	8.38	29.49	0
12/11/2017 12:15	12.33	138.3	16.63	10.03	29.49	0
12/11/2017 12:30	15.46	155.8	10.32	10.32	29.49	0
12/11/2017 12:45	14.05	148.9	8.47	10.46	29.49	0

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
12/11/2017 13:00	13.83	151.6	11.38	10.75	29.49	0
12/11/2017 13:15	12.69	142.9	12.24	10.73	29.49	0
12/11/2017 13:30	11.89	135.9	14	10.92	29.49	0
12/11/2017 13:45	10.61	135.3	13.58	11.21	29.49	0
12/11/2017 14:00	11.36	149.6	11.67	11.47	29.49	0
12/11/2017 14:15	12.11	148.3	10.12	11.17	29.49	0
12/11/2017 14:30	12.62	148.6	7.448	11.17	29.49	0
12/11/2017 14:45	10.83	140.1	17.89	10.93	29.49	0
12/11/2017 15:00	7.194	160.7	25.61	11.05	29.52	0
12/11/2017 15:15	11.62	184.1	16.03	10.18	29.52	0
12/11/2017 15:30	11.05	157.4	19.4	9.4	29.52	0
12/11/2017 15:45	11.73	130.3	8.38	9.28	29.52	0
12/11/2017 16:00	13.77	145.1	10.28	9.18	29.51	0
12/11/2017 16:15	11.64	161.4	11.59	8.55	29.51	0
12/11/2017 16:30	10.35	142.5	12.18	8.14	29.51	0
12/11/2017 16:45	9.41	136.4	12.05	8.11	29.51	0
12/11/2017 17:00	10.44	151.2	8.32	8.02	29.52	0
12/11/2017 17:15	6.969	137.7	10.39	8.23	29.52	0
12/11/2017 17:30	6.404	143.6	12.03	8.04	29.52	0
12/11/2017 17:45	7.543	134.6	12.03	7.585	29.52	0
12/11/2017 18:00	8.01	149.4	14.17	7.707	29.52	0
12/11/2017 18:15	9.28	169.1	9.61	7.253	29.52	0
12/11/2017 18:30	9.71	157.7	9.85	7.221	29.52	0
12/11/2017 18:45	8.11	159	8.48	7.136	29.52	0
12/11/2017 19:00	7.639	160.9	9.51	6.572	29.53	0
12/11/2017 19:15	7.635	159.4	8.44	6.484	29.53	0
12/11/2017 19:30	7.479	149.7	9.25	6.533	29.53	0
12/11/2017 19:45	6.039	151.9	9.24	6.147	29.53	0
12/11/2017 20:00	8.24	175	10.86	6.005	29.54	0
12/11/2017 20:15	8.73	184.6	8.29	5.745	29.54	0
12/11/2017 20:30	5.68	200.3	18.63	5.318	29.54	0
12/11/2017 20:45	4.827	186.7	11.36	4.851	29.54	0
12/11/2017 21:00	6.146	156.5	10.37	4.871	29.58	0
12/11/2017 21:15	5.508	136.9	8.59	4.843	29.58	0
12/11/2017 21:30	6.745	138.6	5.444	5.356	29.58	0
12/11/2017 21:45	6.655	156.6	12.06	5.701	29.58	0
12/11/2017 22:00	6.394	150.6	11.61	5.607	29.56	0
12/11/2017 22:15	6.121	145.8	7.434	5.867	29.56	0
12/11/2017 22:30	6.898	151.6	6.888	5.582	29.56	0
12/11/2017 22:45	5.761	154.2	9.37	5.445	29.56	0
12/11/2017 23:00	6.185	150.1	10.99	5.795	29.57	0
12/11/2017 23:15	6.576	160	8.71	5.852	29.57	0
12/11/2017 23:30	5.002	176.3	13.44	5.545	29.57	0
12/11/2017 23:45	4.712	165.3	10.8	5.647	29.57	0
12/12/2017 0:00	6.03	156.8	8.17	5.348	29.57	0
12/12/2017 0:15	6.39	147	8.07	5.544	29.57	0
12/12/2017 0:30	4.475	136.3	10.81	5.747	29.57	0
12/12/2017 0:45	4	159.6	22.06	5.833	29.57	0
12/12/2017 1:00	4.681	201.8	12.5	3.919	29.61	0
12/12/2017 1:15	6.157	210.2	6.016	3.651	29.61	0
12/12/2017 1:30	7.929	194.4	4.822	3.318	29.61	0
12/12/2017 1:45	7.854	192.1	6.594	2.948	29.61	0
12/12/2017 2:00	7.237	164.2	10.68	3.217	29.59	0
12/12/2017 2:15	6.216	156.2	6.087	4.045	29.59	0
12/12/2017 2:30	3.582	153.5	10.44	4.362	29.59	0
12/12/2017 2:45	3.88	155.4	6.921	4.095	29.59	0

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
12/12/2017 3:00	4.745	178.9	11.43	3.528	29.61	0
12/12/2017 3:15	4.061	168.6	11.17	3.549	29.61	0
12/12/2017 3:30	3.153	143.3	6.099	4.019	29.61	0
12/12/2017 3:45	3.529	146.4	3.544	4.073	29.61	0
12/12/2017 4:00	3.273	132.3	9.41	3.784	29.6	0
12/12/2017 4:15	2.846	148.9	21.28	3.967	29.6	0
12/12/2017 4:30	4.214	180.8	17.29	3.661	29.6	0
12/12/2017 4:45	4.186	147.6	7.151	3.925	29.6	0
12/12/2017 5:00	5.384	138.2	7.377	4.111	29.58	0
12/12/2017 5:15	4.259	140.2	10.87	4.081	29.58	0
12/12/2017 5:30	5.178	140.2	6.383	3.702	29.58	0
12/12/2017 5:45	6.074	144	4.903	4.439	29.58	0
12/12/2017 6:00	5.3	133.6	13.71	4.123	29.57	0
12/12/2017 6:15	6.171	131.5	10.71	4.017	29.57	0
12/12/2017 6:30	5.595	143.8	4.526	4.017	29.57	0
12/12/2017 6:45	1.825	43.66	58.32	3.261	29.57	0
12/12/2017 7:00	0.915	350.1	16.87	3.007	29.6	0
12/12/2017 7:15	2.982	291.3	27.85	3.431	29.6	0
12/12/2017 7:30	5.589	297.6	16.08	3.087	29.6	0
12/12/2017 7:45	4.882	301.9	9.23	2.607	29.6	0
12/12/2017 8:00	5.031	302.7	12.56	2.825	29.62	0
12/12/2017 8:15	2.919	301.4	7.411	2.871	29.62	0
12/12/2017 8:30	2.738	75.98	32.61	1.77	29.62	0
12/12/2017 8:45	1.83	69.25	3.991	1.913	29.62	0
12/12/2017 9:00	1.495	59.78	15.33	3.515	29.62	0
12/12/2017 9:15	1.22	41.15	0.184	3.567	29.62	0
12/12/2017 9:30	0.883	67.86	16.47	4.325	29.62	0
12/12/2017 9:45	2.532	146	12.55	4.941	29.62	0
12/12/2017 10:00	2.338	95.9	20.46	4.831	29.64	0
12/12/2017 10:15	2.144	140.1	29.68	4.98	29.64	0
12/12/2017 10:30	2.636	134.9	5.813	5.299	29.64	0
12/12/2017 10:45	2.516	161.9	16.89	5.45	29.64	0
12/12/2017 11:00	2.655	173.3	15.94	5.709	29.64	0
12/12/2017 11:15	1.506	205.2	7.746	5.806	29.64	0
12/12/2017 11:30	1.698	277.3	23.15	5.819	29.64	0
12/12/2017 11:45	2.018	290.1	16.15	5.871	29.64	0
12/12/2017 12:00	2.803	228.5	16.31	5.91	29.62	0
12/12/2017 12:15	2.596	181.2	14.73	6.043	29.62	0
12/12/2017 12:30	2.042	178.9	14.45	6.267	29.62	0
12/12/2017 12:45	0.715	291.3	50.52	6.571	29.62	0
12/12/2017 13:00	0.657	40.49	61.66	7.095	29.59	0
12/12/2017 13:15	1.793	136.9	20.89	7.215	29.59	0
12/12/2017 13:30	1.745	77.89	73.09	7.501	29.59	0
12/12/2017 13:45	2.365	3.458	16.01	7.285	29.59	0
12/12/2017 14:00	1.945	320.4	17.14	7.572	29.58	0
12/12/2017 14:15	2.816	327.7	7.901	7.36	29.58	0
12/12/2017 14:30	1.997	0.845	28.42	7.285	29.58	0
12/12/2017 14:45	1.929	18.34	9.79	6.731	29.58	0
12/12/2017 15:00	1.654	18.07	17.73	6.697	29.55	0
12/12/2017 15:15	3.581	21.98	13.31	6.095	29.55	0
12/12/2017 15:30	2.555	40.1	10.29	5.809	29.55	0
12/12/2017 15:45	1.395	40.33	0.279	5.879	29.55	0
12/12/2017 16:00	0.81	40.36	0.134	6.006	29.54	0
12/12/2017 16:15	2.562	18.75	10.19	5.484	29.54	0
12/12/2017 16:30	2.059	31.87	9.08	5.06	29.54	0
12/12/2017 16:45	0.709	31.46	1.065	4.774	29.54	0

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
12/12/2017 17:00	1.324	27.53	3.218	4.433	29.56	0
12/12/2017 17:15	3.259	21.82	8.1	4.324	29.56	0
12/12/2017 17:30	3.886	18.62	14.75	4.113	29.56	0
12/12/2017 17:45	4.969	29.57	10.59	3.899	29.56	0
12/12/2017 18:00	6.602	24.56	6.184	3.782	29.54	0
12/12/2017 18:15	5.356	20.23	9.83	3.808	29.54	0
12/12/2017 18:30	5.901	16.7	9.45	3.913	29.54	0
12/12/2017 18:45	4.616	8.76	8.34	3.693	29.54	0
12/12/2017 19:00	3.561	13.79	19.7	3.909	29.56	0
12/12/2017 19:15	3.831	19.12	4.302	3.76	29.56	0
12/12/2017 19:30	5.14	18.48	11.81	3.981	29.56	0
12/12/2017 19:45	4.915	38.76	7.903	3.273	29.56	0
12/12/2017 20:00	3.903	34.17	10.07	2.588	29.54	0
12/12/2017 20:15	5.187	31.52	15.18	3.306	29.54	0
12/12/2017 20:30	4.176	37.1	10.42	3.386	29.54	0
12/12/2017 20:45	4.079	36.22	7.085	2.595	29.54	0
12/12/2017 21:00	3.783	23.59	14.62	2.803	29.53	0
12/12/2017 21:15	5.268	7.017	5.563	2.726	29.53	0
12/12/2017 21:30	5.083	5.254	16.77	2.774	29.53	0
12/12/2017 21:45	5.983	24.2	6.409	2.604	29.53	0
12/12/2017 22:00	6.184	11.62	9.56	2.427	29.57	0
12/12/2017 22:15	5.07	18.78	6.941	2.566	29.57	0
12/12/2017 22:30	5.207	22.58	7.275	2.591	29.57	0
12/12/2017 22:45	4.779	19.53	9.12	2.42	29.57	0
12/12/2017 23:00	4.3	19.16	8.31	2.482	29.58	0
12/12/2017 23:15	5.041	27.86	11.37	2.473	29.58	0
12/12/2017 23:30	4.539	359.2	17.79	2.633	29.58	0
12/12/2017 23:45	5.063	324.8	25.08	2.878	29.58	0
12/13/2017 0:00	5.381	24.25	9.86	3.098	29.58	0
12/13/2017 0:15	6.567	24.13	11.88	3.455	29.58	0
12/13/2017 0:30	4.532	40.6	29.92	3.645	29.58	0
12/13/2017 0:45	3.585	64.79	17.7	3.343	29.58	0
12/13/2017 1:00	3.707	87.2	28.14	3.37	29.57	0
12/13/2017 1:15	3.838	174	23.6	3.762	29.57	0
12/13/2017 1:30	4.053	183.9	12.82	4.069	29.57	0
12/13/2017 1:45	3.681	216.6	54.4	3.709	29.57	0
12/13/2017 2:00	6.304	292.5	9.22	2.922	29.54	0
12/13/2017 2:15	6.1	317.3	14.32	3.093	29.54	0
12/13/2017 2:30	3.426	31.38	14.55	2.781	29.54	0
12/13/2017 2:45	3.047	36.86	11.01	2.607	29.54	0
12/13/2017 3:00	2.052	27.56	5.96	3.092	29.55	0
12/13/2017 3:15	3.331	331.2	27.25	3.281	29.55	0
12/13/2017 3:30	4.137	277.3	7.465	3.356	29.55	0
12/13/2017 3:45	3.655	315.5	44.27	3.053	29.55	0
12/13/2017 4:00	4.554	14.98	6.488	2.315	29.58	0
12/13/2017 4:15	5.119	16.02	7.155	2.114	29.58	0
12/13/2017 4:30	5.126	21.19	7.88	1.83	29.58	0
12/13/2017 4:45	4.649	29.72	13.53	1.625	29.58	0
12/13/2017 5:00	6.308	34.06	13.13	1.443	29.56	0
12/13/2017 5:15	8.01	26.52	6.353	1.287	29.56	0
12/13/2017 5:30	7.424	21.13	12.36	0.822	29.56	0
12/13/2017 5:45	6.247	12	9.76	1.156	29.56	0
12/13/2017 6:00	4.473	31.53	11.38	1.237	29.56	0
12/13/2017 6:15	4.496	7.995	14.54	0.767	29.56	0
12/13/2017 6:30	4.842	315.6	28.18	1.386	29.56	0
12/13/2017 6:45	3.489	25.13	51.52	0.903	29.56	0

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
12/13/2017 7:00	4.679	30.51	6.995	0.763	29.57	0
12/13/2017 7:15	4.89	25.81	7.881	1.275	29.57	0
12/13/2017 7:30	4.634	32.23	9.31	1.363	29.57	0
12/13/2017 7:45	5.075	22.43	20.65	0.36	29.57	0
12/13/2017 8:00	10.16	13.81	14.18	0.34	29.58	0
12/13/2017 8:15	8.71	34.13	9.83	0.148	29.58	0
12/13/2017 8:30	8.44	35.98	7.234	0.13	29.58	0
12/13/2017 8:45	5.999	35.43	9.76	0.548	29.58	0
12/13/2017 9:00	4.098	30.73	10.72	2.171	29.59	0
12/13/2017 9:15	2.455	43.65	28.53	3.19	29.59	0
12/13/2017 9:30	3.342	40.78	29.69	2.959	29.59	0
12/13/2017 9:45	3.429	35.6	11.48	2.491	29.59	0
12/13/2017 10:00	4.627	25.86	6.922	2.746	29.57	0
12/13/2017 10:15	3.452	19.48	13.11	3.426	29.57	0
12/13/2017 10:30	2.415	350	15.03	4.355	29.57	0
12/13/2017 10:45	1.906	329.3	10	4.898	29.57	0
12/13/2017 11:00	3.852	345.1	6.053	5.141	29.55	0
12/13/2017 11:15	4.407	11.59	14.57	4.783	29.55	0
12/13/2017 11:30	2.74	323.9	29.73	5.821	29.55	0
12/13/2017 11:45	4.495	316.6	18.27	6.708	29.55	0
12/13/2017 12:00	5.165	38.71	10.13	5.618	29.54	0
12/13/2017 12:15	8.89	25.35	10.79	5.243	29.54	0
12/13/2017 12:30	4.71	12.33	14.41	5.705	29.54	0
12/13/2017 12:45	4.673	26.92	8.81	6.215	29.54	0
12/13/2017 13:00	6.952	25.66	8.12	5.914	29.54	0
12/13/2017 13:15	12.18	21.83	10.1	5.855	29.54	0
12/13/2017 13:30	11.83	22.75	8.28	6.291	29.54	0
12/13/2017 13:45	10.93	20.68	8.84	6.485	29.54	0
12/13/2017 14:00	9.09	21.37	8.86	6.751	29.53	0
12/13/2017 14:15	9.18	22.99	8.71	6.845	29.53	0
12/13/2017 14:30	10.98	20.96	7.143	6.805	29.53	0
12/13/2017 14:45	10.4	20.03	10.64	6.981	29.53	0
12/13/2017 15:00	12.61	22.23	8.64	7.197	29.5	0
12/13/2017 15:15	8.45	17.22	11.15	7.224	29.5	0
12/13/2017 15:30	2.305	342.1	17.61	7.164	29.5	0
12/13/2017 15:45	5.634	13.94	19.71	6.958	29.5	0
12/13/2017 16:00	11.01	24.44	9.23	6.922	29.51	0
12/13/2017 16:15	9.77	23.1	9.52	6.574	29.51	0
12/13/2017 16:30	10.92	28.17	9.1	6.216	29.51	0
12/13/2017 16:45	13.22	28.76	9.55	5.974	29.51	0
12/13/2017 17:00	12.75	33.57	7.949	5.64	29.54	0
12/13/2017 17:15	13.31	28.9	8.38	5.694	29.54	0
12/13/2017 17:30	12.65	30.14	8.59	5.459	29.54	0
12/13/2017 17:45	11.08	31.86	8.69	5.5	29.54	0
12/13/2017 18:00	8.49	41.14	9.62	5.356	29.54	0
12/13/2017 18:15	6.815	40.25	8.53	5.534	29.54	0
12/13/2017 18:30	4.817	35.94	15.34	5.322	29.54	0
12/13/2017 18:45	4.738	13.61	14.36	4.956	29.54	0
12/13/2017 19:00	4.367	23.28	15.68	4.874	29.51	0
12/13/2017 19:15	6.2	31.02	6.183	4.476	29.51	0
12/13/2017 19:30	6.113	20.99	7.244	4.487	29.51	0
12/13/2017 19:45	5.399	349.5	21.62	4.504	29.51	0
12/13/2017 20:00	3.947	9.95	10.36	4.345	29.54	0
12/13/2017 20:15	3.979	25.78	11.19	4.372	29.54	0
12/13/2017 20:30	3.97	21.26	25.9	4.028	29.54	0
12/13/2017 20:45	1.306	40.68	17.97	4.071	29.54	0

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
12/13/2017 21:00	2.91	39.28	13.76	4.07	29.53	0
12/13/2017 21:15	4.998	26.53	11.07	3.767	29.53	0
12/13/2017 21:30	6.089	31.52	11.13	3.62	29.53	0
12/13/2017 21:45	5.641	31.42	12.19	3.473	29.53	0
12/13/2017 22:00	5.588	24	12.47	3.482	29.55	0
12/13/2017 22:15	4.998	21.59	19.35	3.724	29.55	0
12/13/2017 22:30	4.534	9.12	15.45	4.389	29.55	0
12/13/2017 22:45	3.124	3.242	48.4	4.147	29.55	0
12/13/2017 23:00	2.573	21.92	20.14	4.467	29.54	0
12/13/2017 23:15	3.401	29.97	12.09	4.394	29.54	0
12/13/2017 23:30	4.365	24.57	9.03	3.973	29.54	0
12/13/2017 23:45	4.135	31.09	11.35	3.638	29.54	0
12/14/2017 0:00	3.227	49.75	11.7	4.148	29.54	0
12/14/2017 0:15	3.327	81.5	25.82	4.928	29.54	0
12/14/2017 0:30	5.586	143.6	7.939	6.026	29.54	0
12/14/2017 0:45	3.056	141.3	39.29	6.038	29.54	0
12/14/2017 1:00	2.477	36.88	23.55	5.495	29.54	0
12/14/2017 1:15	3.734	91	16.1	6.592	29.54	0
12/14/2017 1:30	5.909	109.2	10.76	7.458	29.54	0
12/14/2017 1:45	6.598	109.3	9.57	7.425	29.54	0
12/14/2017 2:00	6.302	121.7	10.81	7.556	29.53	0
12/14/2017 2:15	7.091	133.2	8.23	7.642	29.53	0
12/14/2017 2:30	5.878	111.4	18.33	7.148	29.53	0
12/14/2017 2:45	4.666	103.4	15.72	6.959	29.53	0
12/14/2017 3:00	5.257	98.6	12.47	7.114	29.5	0
12/14/2017 3:15	5.022	70.99	19.15	5.831	29.5	0
12/14/2017 3:30	5.804	38.21	10.02	4.966	29.5	0
12/14/2017 3:45	5.655	17.92	14.57	5.709	29.5	0
12/14/2017 4:00	5.4	20.21	10.44	5.842	29.5	0
12/14/2017 4:15	5.255	42.46	12.43	5.239	29.5	0
12/14/2017 4:30	5.11	350.6	13.35	5.182	29.5	0
12/14/2017 4:45	3.393	27.27	11.17	5.238	29.5	0
12/14/2017 5:00	3.649	20.08	12.88	4.794	29.49	0
12/14/2017 5:15	3.192	34.69	8.75	6.179	29.49	0
12/14/2017 5:30	0.945	22.36	23.76	7.518	29.49	0
12/14/2017 5:45	1.449	32.16	56.6	7.787	29.49	0
12/14/2017 6:00	1.731	352.7	22.75	7.702	29.47	0
12/14/2017 6:15	2.36	273.1	15.47	7.704	29.47	0
12/14/2017 6:30	2.117	353.8	49.2	6.378	29.47	0
12/14/2017 6:45	4.092	34.15	11.76	4.812	29.47	0
12/14/2017 7:00	1.803	28.21	0.157	6.082	29.5	0
12/14/2017 7:15	0.513	101.3	32.71	6.877	29.5	0
12/14/2017 7:30	1.576	120.7	26.05	7.089	29.5	0
12/14/2017 7:45	1.049	73.58	25.53	5.979	29.5	0
12/14/2017 8:00	5.181	130.6	7.742	6.597	29.48	0
12/14/2017 8:15	4.914	107	12.38	6.112	29.48	0
12/14/2017 8:30	8.35	118.6	8.78	6.43	29.48	0
12/14/2017 8:45	7.417	132.1	12	6.812	29.48	0
12/14/2017 9:00	9.28	120.7	12.69	7.049	29.49	0
12/14/2017 9:15	10.56	117.6	9.12	7.116	29.49	0
12/14/2017 9:30	8.4	126.1	12.84	7.885	29.49	0
12/14/2017 9:45	5.606	119.2	14.43	7.658	29.49	0
12/14/2017 10:00	5.05	115.7	13.75	7.392	29.5	0
12/14/2017 10:15	3.905	97.9	9.69	7.025	29.5	0
12/14/2017 10:30	5.735	79.95	10	7.06	29.5	0
12/14/2017 10:45	4.325	91.2	13.23	8.29	29.5	0

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
12/14/2017 11:00	2.016	21.09	43.56	8.36	29.47	0
12/14/2017 11:15	4.807	32.09	10.2	7.196	29.47	0
12/14/2017 11:30	3.848	23	10.95	6.777	29.47	0
12/14/2017 11:45	2.445	42.38	16.48	7.741	29.47	0
12/14/2017 12:00	3.141	21.36	16.26	7.539	29.47	0
12/14/2017 12:15	2.809	2.831	27.28	7.523	29.47	0
12/14/2017 12:30	2.936	23.91	17.3	7.858	29.47	0
12/14/2017 12:45	3.936	37.94	8.75	7.545	29.47	0
12/14/2017 13:00	2.607	340.3	21.49	7.974	29.44	0
12/14/2017 13:15	3.453	1.197	39.66	8.7	29.44	0
12/14/2017 13:30	2.027	30.01	6.13	8.64	29.44	0
12/14/2017 13:45	0.698	290	35.09	9.9	29.44	0
12/14/2017 14:00	2.296	28.23	10.24	8.8	29.43	0
12/14/2017 14:15	3.236	27.82	8.66	7.816	29.43	0
12/14/2017 14:30	2.627	50.57	17.24	8.16	29.43	0
12/14/2017 14:45	4.352	114.6	20.42	8.98	29.43	0
12/14/2017 15:00	7.158	143.4	14.05	9.64	29.42	0
12/14/2017 15:15	3.848	139.7	17.31	9.58	29.42	0
12/14/2017 15:30	2.733	142.1	25.94	9.27	29.42	0
12/14/2017 15:45	2.856	191.8	16.08	9.07	29.42	0
12/14/2017 16:00	3.132	79.82	62.47	7.952	29.39	0
12/14/2017 16:15	2.783	346.7	21.53	7.431	29.39	0
12/14/2017 16:30	6.482	286	4.837	7.2	29.39	0
12/14/2017 16:45	3.451	22.32	45.08	6.762	29.39	0
12/14/2017 17:00	3.138	30.53	5.777	6.796	29.42	0
12/14/2017 17:15	3.79	49.22	26.04	6.588	29.42	0
12/14/2017 17:30	3.392	79	33.32	6.757	29.42	0
12/14/2017 17:45	6.122	142.2	8.54	6.826	29.42	0
12/14/2017 18:00	7.663	136	7.236	6.561	29.42	0
12/14/2017 18:15	6.122	137.8	16.62	6.762	29.42	0
12/14/2017 18:30	9.34	146.1	10.56	6.778	29.42	0
12/14/2017 18:45	9.64	149.3	9.2	6.542	29.42	0
12/14/2017 19:00	9.8	138.8	8.56	6.38	29.42	0
12/14/2017 19:15	12.65	143.2	9.24	6.578	29.42	0
12/14/2017 19:30	12.48	139.2	10.72	6.44	29.42	0
12/14/2017 19:45	14.08	140	9.3	6.441	29.42	0
12/14/2017 20:00	13	140.9	9.87	6.425	29.39	0
12/14/2017 20:15	11.18	147.4	8.05	6.111	29.39	0
12/14/2017 20:30	8.49	168.2	17.63	5.73	29.39	0
12/14/2017 20:45	8.6	164.2	11.16	5.409	29.39	0
12/14/2017 21:00	10.43	156.2	6.569	5.371	29.39	0
12/14/2017 21:15	11.23	150.8	7.71	5.434	29.39	0
12/14/2017 21:30	11.18	150	9.02	5.41	29.39	0
12/14/2017 21:45	9.61	149.4	8.03	5.414	29.39	0
12/14/2017 22:00	8.71	154.1	10.74	5.219	29.38	0
12/14/2017 22:15	6.565	131.6	8.61	5.085	29.38	0
12/14/2017 22:30	6.848	130.4	7.531	5.21	29.38	0
12/14/2017 22:45	6.413	161.2	13.07	5.107	29.38	0
12/14/2017 23:00	7.236	147.7	10.15	4.875	29.41	0
12/14/2017 23:15	6.923	161.4	10.57	4.717	29.41	0
12/14/2017 23:30	8.35	150.8	10.14	4.87	29.41	0
12/14/2017 23:45	7.442	143.3	6.621	4.828	29.41	0
12/15/2017 0:00	7.47	160	10.23	4.783	29.38	0
12/15/2017 0:15	6.104	171.4	12.17	4.281	29.38	0
12/15/2017 0:30	5.67	171.3	12.12	4.712	29.38	0
12/15/2017 0:45	5.516	178.2	15.12	4.524	29.38	0

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
12/15/2017 1:00	4.077	156	14.65	4.264	29.36	0
12/15/2017 1:15	4.891	163.1	16.89	4.668	29.36	0
12/15/2017 1:30	5.167	158.5	26.46	5.044	29.36	0
12/15/2017 1:45	5.588	222.7	9.36	4.199	29.36	0
12/15/2017 2:00	3.589	186.1	16.51	4.456	29.35	0
12/15/2017 2:15	3.582	25.08	41.92	3.732	29.35	0
12/15/2017 2:30	3.858	15.03	12.94	3.391	29.35	0
12/15/2017 2:45	2.747	75.83	27.6	2.762	29.35	0
12/15/2017 3:00	2.389	1.581	30.9	2.105	29.37	0
12/15/2017 3:15	3.755	316.7	26.25	3.061	29.37	0
12/15/2017 3:30	5.852	277.3	5.555	3.815	29.37	0
12/15/2017 3:45	4.406	234.7	38.38	4.022	29.37	0
12/15/2017 4:00	1.952	141.7	18.37	3.123	29.35	0
12/15/2017 4:15	1.974	100.1	9.62	3.485	29.35	0
12/15/2017 4:30	3.449	155.9	22.96	3.823	29.35	0
12/15/2017 4:45	6.851	158.7	8.58	4.386	29.35	0
12/15/2017 5:00	6.534	171.4	10.51	4.532	29.36	0
12/15/2017 5:15	4.682	166.4	10.15	4.525	29.36	0
12/15/2017 5:30	3.29	139.7	11.21	4.877	29.36	0
12/15/2017 5:45	3.228	141.3	10.67	4.805	29.36	0
12/15/2017 6:00	2.29	94.7	38.93	3.932	29.33	0
12/15/2017 6:15	2.795	138.1	52.77	4.547	29.33	0
12/15/2017 6:30	2.036	175.5	30.16	5.118	29.33	0
12/15/2017 6:45	1.567	186.4	58.03	4.891	29.33	0
12/15/2017 7:00	1.172	115.4	50.89	4.055	29.37	0.01
12/15/2017 7:15	1.273	160.6	39.1	4.218	29.37	0
12/15/2017 7:30	2.926	124.2	15.58	4.372	29.37	0.01
12/15/2017 7:45	5.263	127.8	7.379	3.561	29.37	0
12/15/2017 8:00	6.828	147.5	13.14	4.285	29.33	0
12/15/2017 8:15	10.59	137.8	11.11	4.42	29.33	0
12/15/2017 8:30	7.447	151.5	19.59	4.876	29.33	0
12/15/2017 8:45	6.573	154.4	9.89	4.786	29.33	0
12/15/2017 9:00	9.23	156.5	10.46	4.272	29.35	0
12/15/2017 9:15	5.183	136.4	11.1	4.588	29.35	0
12/15/2017 9:30	3.487	129.6	23.04	4.795	29.35	0
12/15/2017 9:45	3.033	146	21	5.012	29.35	0
12/15/2017 10:00	3.328	146.8	26	5.051	29.36	0
12/15/2017 10:15	1.904	139.5	10.33	5.585	29.36	0
12/15/2017 10:30	1.823	122	14.82	5.668	29.36	0
12/15/2017 10:45	2.146	126.4	9.21	6.097	29.36	0
12/15/2017 11:00	2.46	133.6	12.91	6.24	29.35	0
12/15/2017 11:15	2.995	161.3	17.19	6.312	29.35	0
12/15/2017 11:30	4.812	206.5	15.96	5.65	29.35	0
12/15/2017 11:45	6.33	209.3	10.38	5.31	29.35	0
12/15/2017 12:00	6.78	183	8.56	5.069	29.35	0
12/15/2017 12:15	5.045	178	12.38	4.986	29.35	0
12/15/2017 12:30	4.346	169.1	12.82	4.909	29.35	0
12/15/2017 12:45	2.521	193.3	16.61	4.799	29.35	0
12/15/2017 13:00	0.754	140.5	9.87	4.703	29.36	0.01
12/15/2017 13:15	0.992	285.7	22.69	4.66	29.36	0
12/15/2017 13:30	0.619	8.6	23.57	4.7	29.36	0
12/15/2017 13:45	2.477	78.89	29.4	4.662	29.36	0.01
12/15/2017 14:00	3.038	120.4	10.28	4.644	29.31	0
12/15/2017 14:15	0.575	105.3	0.474	4.723	29.31	0
12/15/2017 14:30	0.509	49.31	12.51	4.845	29.31	0
12/15/2017 14:45	0.706	64.15	33.7	4.957	29.31	0

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
12/15/2017 15:00	0.363	22.74	0.01	5.024	29.33	0
12/15/2017 15:15	0.53	141.9	58.93	5.114	29.33	0
12/15/2017 15:30	2.041	208.1	19.71	5.139	29.33	0
12/15/2017 15:45	1.71	235.9	24.8	4.972	29.33	0
12/15/2017 16:00	2.875	201.6	61.9	4.923	29.37	0
12/15/2017 16:15	2.158	129.8	14.53	4.866	29.37	0
12/15/2017 16:30	1.774	146.9	29.92	4.857	29.37	0
12/15/2017 16:45	3.228	201.9	23.22	4.832	29.37	0
12/15/2017 17:00	2.219	225.1	41.26	4.812	29.37	0
12/15/2017 17:15	4.163	155.5	16.71	4.751	29.37	0
12/15/2017 17:30	5.801	182.5	5.996	4.679	29.37	0
12/15/2017 17:45	6.691	192.2	11.98	4.585	29.37	0
12/15/2017 18:00	4.916	207.6	12.19	4.552	29.36	0
12/15/2017 18:15	2.108	158.9	26.73	4.556	29.36	0
12/15/2017 18:30	2.667	183.2	21.37	4.554	29.36	0.01
12/15/2017 18:45	0.337	164.4	1.165	4.565	29.36	0
12/15/2017 19:00	0.435	116.7	2.741	4.549	29.39	0.01
12/15/2017 19:15	1.505	76.71	11.26	4.526	29.39	0
12/15/2017 19:30	2.222	81.5	16.83	4.523	29.39	0
12/15/2017 19:45	3.353	130.5	19.94	4.554	29.39	0
12/15/2017 20:00	3.478	193	23.84	4.656	29.39	0
12/15/2017 20:15	1.502	323.6	52.25	4.606	29.39	0.03
12/15/2017 20:30	1.625	47.26	13.4	4.566	29.39	0
12/15/2017 20:45	2.504	52.97	18.68	4.544	29.39	0
12/15/2017 21:00	0.705	19.28	10.53	4.605	29.39	0.01
12/15/2017 21:15	3.582	186.4	14.13	4.844	29.39	0
12/15/2017 21:30	4.782	189.7	6.886	4.848	29.39	0
12/15/2017 21:45	4.332	211.7	51.06	4.793	29.39	0
12/15/2017 22:00	15.04	18.71	11.27	3.253	29.43	0.03
12/15/2017 22:15	7.386	28.11	12.36	2.345	29.43	0.04
12/15/2017 22:30	5.21	51.09	13.26	2.414	29.43	0
12/15/2017 22:45	3.632	67.76	21.59	2.89	29.43	0
12/15/2017 23:00	5.223	185.7	19.92	2.653	29.41	0
12/15/2017 23:15	6.013	195.2	6.903	2.613	29.41	0
12/15/2017 23:30	5.411	155.5	11.78	2.722	29.41	0.01
12/15/2017 23:45	3.086	118.1	15.61	2.375	29.41	0
12/16/2017 0:00	4.322	118.6	5.362	2.192	29.43	0
12/16/2017 0:15	4.522	134.5	8.2	2.522	29.43	0
12/16/2017 0:30	2.975	134.2	13.09	2.691	29.43	0
12/16/2017 0:45	2.643	107.5	12.3	2.707	29.43	0
12/16/2017 1:00	3.352	99.3	18.91	2.401	29.45	0
12/16/2017 1:15	2.894	88.7	11.34	2.639	29.45	0
12/16/2017 1:30	3.382	95.9	6.829	2.815	29.45	0
12/16/2017 1:45	3.832	107.4	5.119	3.339	29.45	0
12/16/2017 2:00	4.902	117.6	5.755	3.817	29.44	0
12/16/2017 2:15	3.094	126.6	11.67	4.146	29.44	0
12/16/2017 2:30	2.513	126.8	13.72	4.039	29.44	0
12/16/2017 2:45	2.246	92.6	9.84	3.786	29.44	0
12/16/2017 3:00	3.197	108.7	7.381	3.784	29.45	0
12/16/2017 3:15	2.513	109.3	8.6	3.922	29.45	0
12/16/2017 3:30	2.849	103.9	6.054	3.891	29.45	0
12/16/2017 3:45	3.221	111.8	10.12	4.037	29.45	0
12/16/2017 4:00	3.389	113.2	10.78	4.039	29.45	0
12/16/2017 4:15	3.256	88.6	35.52	3.517	29.45	0
12/16/2017 4:30	4.056	118.8	6.974	3.863	29.45	0
12/16/2017 4:45	3.643	97.7	27.87	3.802	29.45	0

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
12/16/2017 5:00	3.133	120.1	12.18	3.962	29.44	0
12/16/2017 5:15	5.92	136.8	10.15	3.96	29.44	0
12/16/2017 5:30	3.939	128.1	12.64	4.082	29.44	0
12/16/2017 5:45	3.754	87.9	50.34	3.791	29.44	0
12/16/2017 6:00	2.727	102.7	12.54	3.788	29.47	0
12/16/2017 6:15	3.312	109.7	10.64	3.799	29.47	0
12/16/2017 6:30	4.31	109.4	7.054	4.002	29.47	0
12/16/2017 6:45	4.152	108	4.625	4.032	29.47	0
12/16/2017 7:00	4.59	116.5	4.357	4.087	29.44	0
12/16/2017 7:15	4.194	98.6	11.46	4.165	29.44	0
12/16/2017 7:30	4.046	99.4	3.187	3.964	29.44	0
12/16/2017 7:45	3.399	88.7	7.803	4.04	29.44	0
12/16/2017 8:00	3.621	86.4	9.22	4.364	29.48	0
12/16/2017 8:15	3.392	86.4	9.68	4.424	29.48	0
12/16/2017 8:30	4.562	112.6	5.751	4.404	29.48	0
12/16/2017 8:45	5.183	113.4	7.025	4.478	29.48	0
12/16/2017 9:00	4.116	103.9	6.498	4.519	29.48	0
12/16/2017 9:15	3.786	105.2	8.2	4.634	29.48	0
12/16/2017 9:30	3.259	106.1	10.39	4.735	29.48	0
12/16/2017 9:45	3.271	109.6	5.818	4.942	29.48	0
12/16/2017 10:00	2.741	106.2	10.3	4.978	29.51	0
12/16/2017 10:15	3.431	113.6	6.392	5.016	29.51	0
12/16/2017 10:30	4.212	110.1	6.711	5.102	29.51	0
12/16/2017 10:45	4.627	106.3	7.363	5.23	29.51	0
12/16/2017 11:00	4.372	107.5	8.11	5.517	29.48	0
12/16/2017 11:15	3.746	123.8	7.477	5.906	29.48	0
12/16/2017 11:30	3.729	123.7	9.92	6.131	29.48	0
12/16/2017 11:45	3.986	131.8	9.29	6.482	29.48	0
12/16/2017 12:00	4.377	141.7	14.52	6.511	29.46	0
12/16/2017 12:15	5.029	156.1	17	6.564	29.46	0
12/16/2017 12:30	4.149	184.4	16.16	6.359	29.46	0
12/16/2017 12:45	3.825	186.7	9.07	6.177	29.46	0
12/16/2017 13:00	3.256	172	11.77	6.182	29.47	0
12/16/2017 13:15	3.077	176.9	13.14	6.305	29.47	0
12/16/2017 13:30	3.439	175.2	14.89	6.165	29.47	0
12/16/2017 13:45	3.587	164.6	14.53	6.095	29.47	0
12/16/2017 14:00	4.421	127	10.82	6.147	29.45	0
12/16/2017 14:15	4.679	115.3	7.895	6.171	29.45	0
12/16/2017 14:30	3.792	117.2	9.07	6.194	29.45	0
12/16/2017 14:45	3.699	128.1	7.928	6.176	29.45	0
12/16/2017 15:00	3.837	126.1	5.822	6.185	29.44	0
12/16/2017 15:15	4.647	125.7	7.231	6.202	29.44	0
12/16/2017 15:30	4.354	127.7	6.641	6.242	29.44	0
12/16/2017 15:45	3.815	151.6	8.69	6.22	29.44	0
12/16/2017 16:00	4.215	149	10.34	6.153	29.43	0
12/16/2017 16:15	5.503	129.2	4.439	5.845	29.43	0
12/16/2017 16:30	5.927	131.4	6.515	5.739	29.43	0
12/16/2017 16:45	5.855	147.9	7.2	5.73	29.43	0
12/16/2017 17:00	5.967	147.5	4.086	5.716	29.43	0
12/16/2017 17:15	4.656	140.2	6.44	5.679	29.43	0
12/16/2017 17:30	4.684	141.6	6.752	5.75	29.43	0
12/16/2017 17:45	4.589	132.6	4.277	5.921	29.43	0
12/16/2017 18:00	3.136	163.3	22.22	5.876	29.45	0
12/16/2017 18:15	4.154	157.5	17.6	5.882	29.45	0
12/16/2017 18:30	5.272	143.8	3.859	5.555	29.45	0
12/16/2017 18:45	6.15	143.2	5.295	5.665	29.45	0

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
12/16/2017 19:00	5.535	136.3	5.858	5.673	29.44	0
12/16/2017 19:15	4.776	133.3	6.917	5.699	29.44	0
12/16/2017 19:30	5.268	143.6	7.133	5.712	29.44	0
12/16/2017 19:45	4.845	151.8	4.845	5.772	29.44	0
12/16/2017 20:00	4.058	142.3	6.319	5.761	29.43	0
12/16/2017 20:15	4.48	142.6	6.334	5.767	29.43	0
12/16/2017 20:30	4.832	139.1	7.787	5.875	29.43	0
12/16/2017 20:45	4.097	139.4	6.747	5.866	29.43	0
12/16/2017 21:00	5.137	147.5	11.37	5.801	29.42	0
12/16/2017 21:15	6.066	151.2	9.79	5.696	29.42	0.01
12/16/2017 21:30	6.637	144.5	5.969	5.517	29.42	0
12/16/2017 21:45	5.754	145.8	5.919	5.494	29.42	0
12/16/2017 22:00	5.521	149.4	5.049	5.477	29.42	0.01
12/16/2017 22:15	3.921	147.1	6.987	5.222	29.42	0.01
12/16/2017 22:30	3.881	173.5	11.47	5.119	29.42	0.01
12/16/2017 22:45	5.568	155.1	13.12	4.99	29.42	0
12/16/2017 23:00	6.931	146.6	6.152	5.017	29.43	0.01
12/16/2017 23:15	6.776	148.8	5.75	4.978	29.43	0
12/16/2017 23:30	6.578	146.6	6.258	5.009	29.43	0
12/16/2017 23:45	6.847	140.4	6.409	4.951	29.43	0
12/17/2017 0:00	6.349	134.9	6.953	4.883	29.39	0
12/17/2017 0:15	6.025	129.9	7.341	4.836	29.39	0
12/17/2017 0:30	7.26	135.2	6.818	4.852	29.39	0
12/17/2017 0:45	7.705	133.8	7.25	4.869	29.39	0
12/17/2017 1:00	8.43	131.8	8.11	5.019	29.39	0
12/17/2017 1:15	9.48	127.7	7.758	5.014	29.39	0.01
12/17/2017 1:30	10	127.1	7.511	5.042	29.39	0
12/17/2017 1:45	10.05	125.5	7.405	5.014	29.39	0
12/17/2017 2:00	7.264	137.3	11.81	4.994	29.38	0
12/17/2017 2:15	8.04	137.4	8.29	5.112	29.38	0
12/17/2017 2:30	7.695	136	9.75	5.284	29.38	0
12/17/2017 2:45	6.738	143.1	9.33	5.544	29.38	0
12/17/2017 3:00	8.88	150.8	13.82	5.704	29.36	0
12/17/2017 3:15	9.01	155.9	11.46	5.368	29.36	0
12/17/2017 3:30	8.76	156.2	10.84	5.238	29.36	0.01
12/17/2017 3:45	7.011	147.1	9.51	5.039	29.36	0
12/17/2017 4:00	5.987	128	6.054	4.914	29.34	0
12/17/2017 4:15	6.469	136.1	8.13	4.892	29.34	0
12/17/2017 4:30	6.526	147	8.15	4.983	29.34	0.01
12/17/2017 4:45	6.445	138.6	6.859	4.912	29.34	0
12/17/2017 5:00	6.751	131	6.183	5.018	29.33	0
12/17/2017 5:15	6.438	122.3	8.05	5.202	29.33	0
12/17/2017 5:30	6.609	117.7	10.58	5.468	29.33	0
12/17/2017 5:45	5.996	138.5	12.11	5.747	29.33	0
12/17/2017 6:00	6.537	144.7	5.99	5.761	29.31	0
12/17/2017 6:15	6.19	136.5	7.13	5.778	29.31	0.01
12/17/2017 6:30	6.463	130.2	6.282	5.8	29.31	0
12/17/2017 6:45	6.145	130.5	7.226	5.9	29.31	0
12/17/2017 7:00	6.064	127.4	6.796	5.986	29.28	0
12/17/2017 7:15	6.543	136	6.49	6.092	29.28	0
12/17/2017 7:30	7.344	139.7	7.742	6.248	29.28	0
12/17/2017 7:45	7.14	140.9	9.29	6.366	29.28	0.01
12/17/2017 8:00	8.5	147.5	5.681	6.386	29.27	0
12/17/2017 8:15	8.3	145.5	6.366	6.391	29.27	0
12/17/2017 8:30	7.988	142.2	7.967	6.522	29.27	0.01
12/17/2017 8:45	7.18	142.1	8.17	6.705	29.27	0

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
12/17/2017 9:00	7.846	160.2	12.66	6.895	29.26	0
12/17/2017 9:15	7.054	144.6	12.22	6.898	29.26	0
12/17/2017 9:30	9.01	167.6	10.87	7.078	29.26	0
12/17/2017 9:45	10.32	169	8.26	7.173	29.26	0
12/17/2017 10:00	9.44	159.1	10.22	7.173	29.28	0.01
12/17/2017 10:15	8.05	159.1	11.66	7.181	29.28	0.01
12/17/2017 10:30	10.43	169	11.04	7.289	29.28	0.02
12/17/2017 10:45	14.27	176.8	7.468	7.309	29.28	0.02
12/17/2017 11:00	13.27	172.5	8.05	7.402	29.26	0.01
12/17/2017 11:15	12.34	169.3	7.993	7.445	29.26	0.01
12/17/2017 11:30	13.21	167.6	8.6	7.502	29.26	0.02
12/17/2017 11:45	13.51	173.7	7.694	7.514	29.26	0.02
12/17/2017 12:00	13.52	173.8	7.799	7.639	29.24	0.01
12/17/2017 12:15	13.26	172.7	7.838	7.634	29.24	0.01
12/17/2017 12:30	12.53	171.7	8.1	7.681	29.24	0
12/17/2017 12:45	12.14	168.2	8.74	7.625	29.24	0
12/17/2017 13:00	11.31	159.8	8.9	7.556	29.23	0
12/17/2017 13:15	10.95	155.9	7.782	7.597	29.23	0
12/17/2017 13:30	11.71	163.7	9.73	7.711	29.23	0
12/17/2017 13:45	12.73	169.2	8.64	7.69	29.23	0
12/17/2017 14:00	13.05	168.1	9.28	7.688	29.22	0.01
12/17/2017 14:15	13	163.2	8.34	7.845	29.22	0
12/17/2017 14:30	12.84	168	8.34	8.05	29.22	0
12/17/2017 14:45	13.62	173.4	7.429	8.2	29.22	0
12/17/2017 15:00	12.5	170.7	8.16	8.31	29.21	0
12/17/2017 15:15	11.77	175.4	7.392	8.26	29.21	0
12/17/2017 15:30	12.13	168.6	8.29	8.37	29.21	0
12/17/2017 15:45	11.6	162.5	7.612	8.28	29.21	0
12/17/2017 16:00	12.05	169	8.71	8.35	29.21	0
12/17/2017 16:15	14.58	173.7	8.12	8.37	29.21	0
12/17/2017 16:30	14.52	176.4	7.656	8.32	29.21	0
12/17/2017 16:45	13.35	176.2	7.805	8.27	29.21	0
12/17/2017 17:00	13.4	181.1	8.48	8.31	29.19	0
12/17/2017 17:15	11.88	179.6	7.516	8.28	29.19	0
12/17/2017 17:30	11.31	175.1	7.66	8.32	29.19	0
12/17/2017 17:45	14.43	180.3	10.1	8.3	29.19	0
12/17/2017 18:00	14.44	183.4	10.39	8.31	29.19	0
12/17/2017 18:15	14.6	185.3	9.3	8.3	29.19	0
12/17/2017 18:30	14.61	180.3	9.4	8.39	29.19	0
12/17/2017 18:45	11.38	170.7	9.4	8.24	29.19	0
12/17/2017 19:00	12.04	175.3	8.37	8.29	29.19	0
12/17/2017 19:15	11.07	184.8	8.94	8.28	29.19	0
12/17/2017 19:30	11.26	179.1	8.7	8.38	29.19	0
12/17/2017 19:45	11.58	181.5	10.22	8.46	29.19	0
12/17/2017 20:00	10.88	186.8	10.01	8.6	29.19	0
12/17/2017 20:15	11.15	185.8	9.93	8.67	29.19	0
12/17/2017 20:30	11.44	188.6	7.839	8.68	29.19	0
12/17/2017 20:45	13.57	188.8	7.725	8.69	29.19	0
12/17/2017 21:00	14.65	183.8	7.58	8.79	29.16	0
12/17/2017 21:15	16.11	189.2	7.639	8.85	29.16	0
12/17/2017 21:30	16.46	187.2	7.726	8.98	29.16	0
12/17/2017 21:45	17.75	186.3	7.825	9.09	29.16	0
12/17/2017 22:00	16.07	183.5	7.894	9.1	29.17	0
12/17/2017 22:15	14.71	179.1	7.842	9.13	29.17	0
12/17/2017 22:30	13.93	181.8	7.777	9.2	29.17	0
12/17/2017 22:45	14.55	185.1	10.9	8.9	29.17	0

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
12/17/2017 23:00	13.17	178.1	10.15	8.58	29.15	0
12/17/2017 23:15	14.05	169	9.26	8.84	29.15	0
12/17/2017 23:30	17.36	175.5	9.49	8.86	29.15	0
12/17/2017 23:45	14.77	177.9	9.21	8.92	29.15	0
12/18/2017 0:00	14.19	180.3	8.44	8.94	29.13	0
12/18/2017 0:15	16.25	186.9	7.772	8.63	29.13	0
12/18/2017 0:30	15.36	186.7	7.805	8.25	29.13	0.01
12/18/2017 0:45	14.95	187.8	7.611	8.17	29.13	0.01
12/18/2017 1:00	13.85	182.3	8.42	8.15	29.16	0
12/18/2017 1:15	12.21	181.1	9.35	8.11	29.16	0
12/18/2017 1:30	12.92	178.1	10.14	8.14	29.16	0
12/18/2017 1:45	14.48	177.9	8.01	8.14	29.16	0.01
12/18/2017 2:00	13.72	177.7	7.799	8.15	29.16	0
12/18/2017 2:15	12.04	180.8	8.75	8.13	29.16	0
12/18/2017 2:30	10.84	186.6	9.29	8.16	29.16	0
12/18/2017 2:45	12.21	186.1	8.83	8.23	29.16	0
12/18/2017 3:00	11.41	187.4	8.93	8.24	29.15	0.01
12/18/2017 3:15	11.79	179.8	8.09	8.41	29.15	0
12/18/2017 3:30	13.28	185	8.04	8.56	29.15	0
12/18/2017 3:45	13.83	182.8	8.6	8.61	29.15	0
12/18/2017 4:00	12.96	185	8.06	8.55	29.15	0
12/18/2017 4:15	14.23	184.6	9.35	8.55	29.15	0.01
12/18/2017 4:30	15.94	186.4	7.291	8.43	29.15	0.01
12/18/2017 4:45	16.02	185.7	7.759	8.37	29.15	0
12/18/2017 5:00	13.53	191.8	9.91	8.39	29.17	0.01
12/18/2017 5:15	13.34	191.8	9.43	8.42	29.17	0
12/18/2017 5:30	12.19	198.3	9.84	8.44	29.17	0.01
12/18/2017 5:45	14.09	198.8	9.5	8.51	29.17	0.01
12/18/2017 6:00	12.45	199.9	11.27	8.48	29.17	0
12/18/2017 6:15	10.83	214.9	22.86	8.46	29.17	0.01
12/18/2017 6:30	11.46	209.4	12	8.48	29.17	0.01
12/18/2017 6:45	10.36	220.9	18.37	8.48	29.17	0
12/18/2017 7:00	10.18	217.8	10.13	8.5	29.18	0
12/18/2017 7:15	11.22	216.1	10.47	8.52	29.18	0.01
12/18/2017 7:30	11.27	215.7	9.94	8.5	29.18	0.01
12/18/2017 7:45	11.02	223.7	10.06	8.52	29.18	0.03
12/18/2017 8:00	10.19	233.2	9.6	8.56	29.23	0.03
12/18/2017 8:15	3.955	311	70.64	8.41	29.23	0.05
12/18/2017 8:30	4.134	45.28	23.09	7.36	29.23	0.03
12/18/2017 8:45	11.33	32.79	10.85	6.661	29.23	0.03
12/18/2017 9:00	11.96	28.29	10.22	6.627	29.25	0.02
12/18/2017 9:15	10.76	26.56	13.06	6.509	29.25	0.03
12/18/2017 9:30	10.98	23.31	14.9	6.397	29.25	0.02
12/18/2017 9:45	9.45	31.26	10.08	6.366	29.25	0.01
12/18/2017 10:00	8.65	29.04	13.16	6.434	29.28	0.01
12/18/2017 10:15	7.945	26.76	15.26	6.423	29.28	0.01
12/18/2017 10:30	12.51	22.1	9.59	6.279	29.28	0
12/18/2017 10:45	10.02	32.35	7.272	6.081	29.28	0
12/18/2017 11:00	8.84	31.56	12.49	6.083	29.31	0.01
12/18/2017 11:15	10.46	34.69	9.67	6.025	29.31	0
12/18/2017 11:30	7.765	62	14.19	6.095	29.31	0
12/18/2017 11:45	8.6	47.35	18.28	6.159	29.31	0
12/18/2017 12:00	10.39	41.3	12.51	6.093	29.31	0
12/18/2017 12:15	7.356	47.36	14.72	5.727	29.31	0
12/18/2017 12:30	7.794	58.73	11.66	5.852	29.31	0.01
12/18/2017 12:45	8.92	47.69	13.05	6.081	29.31	0

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
12/18/2017 13:00	8.59	28.55	8	6.053	29.31	0
12/18/2017 13:15	5.354	44.81	19.13	6.07	29.31	0
12/18/2017 13:30	4.533	43	24.21	6.026	29.31	0
12/18/2017 13:45	2.795	26.01	12.76	5.928	29.31	0
12/18/2017 14:00	2.125	31.65	2.561	6.168	29.31	0
12/18/2017 14:15	2.878	49.11	14.85	5.946	29.31	0
12/18/2017 14:30	3.709	22.01	15.51	5.78	29.31	0
12/18/2017 14:45	3.252	41.79	9.21	5.756	29.31	0.01
12/18/2017 15:00	3.07	39.93	10.16	5.848	29.29	0
12/18/2017 15:15	3.396	11.95	12.59	5.607	29.29	0.02
12/18/2017 15:30	1.771	21.58	16.77	5.657	29.29	0.02
12/18/2017 15:45	2.517	6.555	17.69	5.467	29.29	0.01
12/18/2017 16:00	1.574	24.26	51.96	5.551	29.27	0.01
12/18/2017 16:15	2.143	55.16	49.5	5.612	29.27	0.02
12/18/2017 16:30	3.786	61.02	9.33	5.215	29.27	0.04
12/18/2017 16:45	2.126	56.15	11	5.184	29.27	0.02
12/18/2017 17:00	5.118	49.4	9.91	5.019	29.28	0.05
12/18/2017 17:15	7.663	65.47	34.37	5.056	29.28	0.03
12/18/2017 17:30	7.511	45.64	8.83	4.713	29.28	0.03
12/18/2017 17:45	5.785	37.75	7.34	4.424	29.28	0.01
12/18/2017 18:00	5.224	58.6	7.108	4.255	29.29	0.02
12/18/2017 18:15	4.987	57.29	5.033	4.078	29.29	0.01
12/18/2017 18:30	4.576	69.4	12.58	4.115	29.29	0.01
12/18/2017 18:45	4.305	77.84	6.59	4.239	29.29	0
12/18/2017 19:00	4.071	74.99	7.9	4.248	29.25	0.01
12/18/2017 19:15	3.515	62.87	5.89	4.159	29.25	0.01
12/18/2017 19:30	2.901	51.39	4.224	3.982	29.25	0
12/18/2017 19:45	3.886	63.54	5.636	4.088	29.25	0.01
12/18/2017 20:00	3.628	57.75	2.766	4.154	29.25	0.01
12/18/2017 20:15	3.862	70.63	5.706	4.222	29.25	0
12/18/2017 20:30	3.828	68.54	3.389	4.277	29.25	0.01
12/18/2017 20:45	2.989	50.03	5.968	4.227	29.25	0.01
12/18/2017 21:00	3.528	39.96	4.229	4.105	29.23	0.02
12/18/2017 21:15	3.363	52	6.018	3.951	29.23	0.01
12/18/2017 21:30	3.423	64.49	2.357	3.996	29.23	0.01
12/18/2017 21:45	2.172	57.63	0.441	4.021	29.23	0.01
12/18/2017 22:00	2.67	58.8	0.183	3.8	29.17	0
12/18/2017 22:15	1.997	40.47	14.7	3.79	29.17	0.01
12/18/2017 22:30	3.276	1.333	18.05	3.792	29.17	0.01
12/18/2017 22:45	2.338	329	16.67	3.799	29.17	0.01
12/18/2017 23:00	2.097	24.68	13.64	3.694	29.16	0.02
12/18/2017 23:15	1.162	296.5	28.03	3.76	29.16	0.01
12/18/2017 23:30	0.039	262.1	0.022	3.84	29.16	0.02
12/18/2017 23:45	1.926	348.1	31.07	3.745	29.16	0.02
12/19/2017 0:00	1.085	358.4	7.614	3.659	29.11	0.02
12/19/2017 0:15	1.662	39.67	9.44	3.607	29.11	0.02
12/19/2017 0:30	3.746	41.63	11.11	3.632	29.11	0.02
12/19/2017 0:45	3.602	32.35	10.53	3.607	29.11	0.02
12/19/2017 1:00	2.779	40.73	7.457	3.606	29.08	0.02
12/19/2017 1:15	1.952	64.31	35.82	3.623	29.08	0.01
12/19/2017 1:30	3.615	133.7	12.42	3.728	29.08	0.01
12/19/2017 1:45	4.236	204.9	32.53	3.818	29.08	0.01
12/19/2017 2:00	4.351	163.6	22.36	3.905	29	0.01
12/19/2017 2:15	2.435	184.1	14.2	3.946	29	0.01
12/19/2017 2:30	4.895	219.7	11.8	3.956	29	0.02
12/19/2017 2:45	5.966	232.6	10.81	4.022	29	0.02

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
12/19/2017 3:00	3.945	197.1	42.1	4.133	28.99	0.01
12/19/2017 3:15	3.54	216.9	77.32	4.246	28.99	0.02
12/19/2017 3:30	3.193	70.09	10.95	3.992	28.99	0.01
12/19/2017 3:45	4.169	61.37	77.13	4.252	28.99	0.01
12/19/2017 4:00	6.984	120.3	14.81	5.285	28.92	0.01
12/19/2017 4:15	8.86	118.7	8.99	5.953	28.92	0.01
12/19/2017 4:30	10.42	125.5	7.812	6.665	28.92	0.01
12/19/2017 4:45	11.57	130.7	9.99	7.209	28.92	0.01
12/19/2017 5:00	10.56	134.3	9.32	7.139	28.86	0.03
12/19/2017 5:15	9.89	144.2	10.96	7.071	28.86	0.02
12/19/2017 5:30	6.56	164.8	20.29	6.703	28.86	0.03
12/19/2017 5:45	6.745	209.7	38.97	6.057	28.86	0.04
12/19/2017 6:00	5.729	212.6	24.48	5.393	28.86	0.05
12/19/2017 6:15	6.613	155.8	20.83	5.658	28.86	0.04
12/19/2017 6:30	7.609	134.1	7.479	5.769	28.86	0.04
12/19/2017 6:45	9.24	132.1	8.57	6.255	28.86	0.05
12/19/2017 7:00	11.2	127.9	9.3	6.682	28.82	0.05
12/19/2017 7:15	12.65	128.7	7.868	7.069	28.82	0.04
12/19/2017 7:30	13.32	132.5	8.29	7.19	28.82	0.03
12/19/2017 7:45	13.99	133	8.84	7.327	28.82	0.03
12/19/2017 8:00	14.08	130.1	8.99	7.244	28.74	0.02
12/19/2017 8:15	15.47	129.7	9.38	7.125	28.74	0.01
12/19/2017 8:30	13.71	131.6	8.85	7.113	28.74	0.01
12/19/2017 8:45	14.15	130.8	8.14	7.314	28.74	0.01
12/19/2017 9:00	14.35	131.7	7.076	7.209	28.71	0.01
12/19/2017 9:15	13.91	135.5	7.547	7.254	28.71	0.01
12/19/2017 9:30	12.98	137.8	8.23	7.338	28.71	0.02
12/19/2017 9:45	14.04	139.4	8.13	7.609	28.71	0.01
12/19/2017 10:00	15.17	144	7.124	8.02	28.69	0.01
12/19/2017 10:15	16.07	148.5	6.079	8.16	28.69	0.01
12/19/2017 10:30	15.08	149.1	7.196	8.25	28.69	0
12/19/2017 10:45	13.82	153.9	6.862	8.38	28.69	0
12/19/2017 11:00	13.65	162.8	8.58	8.85	28.68	0.01
12/19/2017 11:15	14.38	179.7	10.48	8.91	28.68	0.01
12/19/2017 11:30	21.78	198.9	7.646	8.7	28.68	0.05
12/19/2017 11:45	20.91	203	9.01	8.44	28.68	0.03
12/19/2017 12:00	21.79	195.3	8.36	8.3	28.67	0.04
12/19/2017 12:15	24.61	206.2	11.03	7.823	28.67	0.03
12/19/2017 12:30	22.97	213.9	8.56	7.053	28.67	0.02
12/19/2017 12:45	18.76	201.7	9.48	6.67	28.67	0.01
12/19/2017 13:00	17.12	192.8	8.98	6.437	28.69	0.01
12/19/2017 13:15	16.6	190	10.99	6.206	28.69	0
12/19/2017 13:30	17.56	191.8	11.52	6.051	28.69	0
12/19/2017 13:45	21.3	194.7	9.25	5.86	28.69	0
12/19/2017 14:00	16.16	179	9.39	5.43	28.72	0
12/19/2017 14:15	16.56	177	9.73	5.135	28.72	0
12/19/2017 14:30	16.96	173.3	10.66	4.964	28.72	0
12/19/2017 14:45	19.69	179.1	11.38	4.936	28.72	0
12/19/2017 15:00	19.04	177	9.3	4.886	28.75	0
12/19/2017 15:15	18.09	176.4	9.92	4.798	28.75	0
12/19/2017 15:30	16.53	175.4	9.17	4.85	28.75	0
12/19/2017 15:45	19.95	178.8	9.2	4.951	28.75	0
12/19/2017 16:00	16.74	185.4	8.49	4.923	28.79	0
12/19/2017 16:15	14.39	186.4	8.44	4.878	28.79	0
12/19/2017 16:30	12.31	182.1	10.48	4.815	28.79	0
12/19/2017 16:45	14.28	178.1	9.08	4.762	28.79	0

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
12/19/2017 17:00	15.22	182.6	9.64	4.775	28.79	0
12/19/2017 17:15	13.74	177.7	9.25	4.642	28.79	0
12/19/2017 17:30	12.99	173.6	7.821	4.648	28.79	0
12/19/2017 17:45	12.58	177.6	10.1	4.668	28.79	0
12/19/2017 18:00	10	185.1	15.31	4.646	28.79	0
12/19/2017 18:15	12.7	180.9	9.7	4.663	28.79	0
12/19/2017 18:30	14.04	178.6	8.56	4.54	28.79	0
12/19/2017 18:45	14.49	181.4	8.53	4.413	28.79	0
12/19/2017 19:00	11.05	186.5	9.26	4.327	28.82	0
12/19/2017 19:15	13.17	183.9	10.02	4.321	28.82	0
12/19/2017 19:30	12.66	182.1	8.97	4.277	28.82	0
12/19/2017 19:45	13.05	189.9	12.76	4.281	28.82	0
12/19/2017 20:00	12.27	184.2	9.7	4.23	28.83	0
12/19/2017 20:15	14.25	183.2	9.6	4.133	28.83	0
12/19/2017 20:30	14.1	175	10.17	4.049	28.83	0
12/19/2017 20:45	11.38	169.6	10.47	3.975	28.83	0
12/19/2017 21:00	13.05	165.9	11.67	3.96	28.85	0
12/19/2017 21:15	13.33	176.4	9.63	3.848	28.85	0
12/19/2017 21:30	12.47	181	8.61	3.706	28.85	0
12/19/2017 21:45	12.81	176	8.65	3.576	28.85	0
12/19/2017 22:00	12.96	177.6	9.1	3.506	28.88	0
12/19/2017 22:15	11.63	185.9	8.75	3.371	28.88	0
12/19/2017 22:30	10.5	173.1	10.57	3.32	28.88	0
12/19/2017 22:45	9.06	163.9	10.33	3.306	28.88	0
12/19/2017 23:00	10.3	168.6	8.99	3.369	28.91	0
12/19/2017 23:15	10.43	170.5	8.38	3.396	28.91	0
12/19/2017 23:30	10.63	178.8	10.22	3.374	28.91	0
12/19/2017 23:45	9.59	180.9	11.45	3.326	28.91	0
12/20/2017 0:00	8.31	177.9	9.14	3.27	28.94	0
12/20/2017 0:15	8.08	180.8	8.48	3.194	28.94	0
12/20/2017 0:30	7.425	179.4	8.46	3.137	28.94	0
12/20/2017 0:45	7.335	184.7	9.95	3.061	28.94	0
12/20/2017 1:00	7.647	198.7	8.68	2.979	28.96	0.01
12/20/2017 1:15	7.87	197.7	9.59	2.837	28.96	0
12/20/2017 1:30	6.993	193.8	10.77	2.708	28.96	0
12/20/2017 1:45	6.96	190.7	9.24	2.533	28.96	0
12/20/2017 2:00	6.142	191.4	11.06	2.52	28.99	0
12/20/2017 2:15	4.722	179.5	8.75	2.433	28.99	0
12/20/2017 2:30	3.09	182.1	5.703	2.371	28.99	0.01
12/20/2017 2:45	1.466	160.9	21.14	2.367	28.99	0.02
12/20/2017 3:00	2.292	197.6	63.67	2.332	29.04	0.01
12/20/2017 3:15	5.158	243.9	15.74	2.08	29.04	0.03
12/20/2017 3:30	2.752	236.6	19.97	2.062	29.04	0
12/20/2017 3:45	1.887	328	12.55	1.97	29.04	0.01
12/20/2017 4:00	0.51	334.7	0.112	1.862	29.06	0
12/20/2017 4:15	0.493	334.7	0.114	1.869	29.06	0.01
12/20/2017 4:30	2.116	329.1	8.02	1.941	29.06	0
12/20/2017 4:45	5.915	309.5	11.17	1.958	29.06	0
12/20/2017 5:00	12.11	337.3	18.39	1.967	29.11	0
12/20/2017 5:15	11.93	356.7	15.33	2.047	29.11	0.01
12/20/2017 5:30	11.6	339.7	14.87	2.112	29.11	0
12/20/2017 5:45	12.82	349.4	16.24	2.117	29.11	0
12/20/2017 6:00	15.56	356.9	15.49	2.221	29.16	0
12/20/2017 6:15	13.32	355.4	16.05	2.285	29.16	0
12/20/2017 6:30	13.35	358	17.38	2.474	29.16	0
12/20/2017 6:45	11.21	352.6	17.39	2.622	29.16	0

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
12/20/2017 7:00	8.28	341.5	13.07	2.505	29.2	0
12/20/2017 7:15	3.778	23.26	20.04	2.347	29.2	0
12/20/2017 7:30	3.917	32.6	15.89	2.096	29.2	0
12/20/2017 7:45	6.386	27.4	11.38	2.293	29.2	0
12/20/2017 8:00	7.834	11.18	14.87	2.167	29.22	0
12/20/2017 8:15	6.16	15.28	11.65	1.761	29.22	0
12/20/2017 8:30	7.289	8.54	9.67	1.547	29.22	0
12/20/2017 8:45	8.54	13.96	13.36	1.481	29.22	0
12/20/2017 9:00	9.34	16.22	11.46	1.587	29.27	0
12/20/2017 9:15	7.904	13.85	10.18	1.705	29.27	0
12/20/2017 9:30	6.802	11.12	13.79	1.842	29.27	0
12/20/2017 9:45	6.278	355.3	17.5	2.112	29.27	0
12/20/2017 10:00	3.575	21.42	19.55	2.175	29.33	0
12/20/2017 10:15	3.441	46.38	9.74	1.913	29.33	0
12/20/2017 10:30	4.789	35.44	15.74	2.216	29.33	0
12/20/2017 10:45	4.419	341.1	27.4	3.007	29.33	0
12/20/2017 11:00	5.908	321.5	8.57	3.325	29.34	0
12/20/2017 11:15	5.431	322.7	8.94	3.295	29.34	0
12/20/2017 11:30	5.657	357.9	31.45	3.787	29.34	0
12/20/2017 11:45	4.053	338.5	39.13	3.986	29.34	0
12/20/2017 12:00	5.663	342.2	30.42	4.298	29.38	0
12/20/2017 12:15	5.272	355	20.77	3.747	29.38	0
12/20/2017 12:30	6.002	356.9	18.88	3.743	29.38	0
12/20/2017 12:45	5.972	343.7	16.5	3.524	29.38	0
12/20/2017 13:00	2.777	26.18	22.85	3.716	29.41	0
12/20/2017 13:15	4.221	48.6	15.28	3.676	29.41	0
12/20/2017 13:30	3.494	52.91	12.19	3.187	29.41	0
12/20/2017 13:45	5.52	18.44	17.66	3.079	29.41	0
12/20/2017 14:00	4.802	14.74	12.32	3.379	29.42	0
12/20/2017 14:15	3.968	28.26	10.7	3.625	29.42	0
12/20/2017 14:30	4.634	21.64	9.35	3.741	29.42	0
12/20/2017 14:45	5.582	21.59	15.55	3.939	29.42	0
12/20/2017 15:00	3.828	12.48	16.64	4.03	29.46	0
12/20/2017 15:15	2.025	14.85	27.77	4.004	29.46	0
12/20/2017 15:30	4.647	342.1	13.69	3.478	29.46	0
12/20/2017 15:45	2.683	21.66	6.021	3.322	29.46	0
12/20/2017 16:00	2.054	19.79	1.154	3.533	29.51	0
12/20/2017 16:15	2.45	21.52	0.074	3.215	29.51	0
12/20/2017 16:30	3.074	30.22	8.89	2.916	29.51	0
12/20/2017 16:45	3.104	45.37	0.808	2.544	29.51	0
12/20/2017 17:00	2.101	39.34	7.464	1.999	29.51	0
12/20/2017 17:15	2.829	91.5	13.78	1.385	29.51	0
12/20/2017 17:30	1.686	102.1	0.37	1.526	29.51	0
12/20/2017 17:45	1.617	102.1	0.235	2.071	29.51	0
12/20/2017 18:00	0.271	90.1	5.316	1.55	29.52	0
12/20/2017 18:15	0.922	78.9	2.025	1.283	29.52	0
12/20/2017 18:30	2.038	66.08	6.877	0.877	29.52	0
12/20/2017 18:45	1.569	54.46	1.118	1.122	29.52	0
12/20/2017 19:00	0.163	53.62	0.011	0.89	29.55	0
12/20/2017 19:15	1.427	73.78	9.88	0.57	29.55	0
12/20/2017 19:30	2.466	92.9	4.594	0.595	29.55	0
12/20/2017 19:45	0.973	102.7	2.537	0.852	29.55	0
12/20/2017 20:00	3.208	148.8	7.622	0.802	29.55	0
12/20/2017 20:15	2.66	150.3	9.72	0.689	29.55	0
12/20/2017 20:30	1.039	134.3	2.901	0.114	29.55	0
12/20/2017 20:45	1.144	105.2	13.5	0.277	29.55	0

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
12/20/2017 21:00	0.384	102.1	0.649	0.239	29.56	0
12/20/2017 21:15	0.093	102.3	0.017	0.228	29.56	0
12/20/2017 21:30	0.519	102.1	0.055	0.15	29.56	0
12/20/2017 21:45	0.011	101.8	0.007	0.466	29.56	0
12/20/2017 22:00	2.183	89.7	13.77	0.617	29.58	0
12/20/2017 22:15	2.289	78.9	10.04	-0.019	29.58	0
12/20/2017 22:30	2.836	129.1	15.37	-0.632	29.58	0
12/20/2017 22:45	2.379	130.3	24.14	0.568	29.58	0
12/20/2017 23:00	1.211	181.9	9.81	0.519	29.58	0
12/20/2017 23:15	2.385	176.4	23.53	-0.218	29.58	0
12/20/2017 23:30	3.953	212.5	18.22	-0.806	29.58	0
12/20/2017 23:45	5.071	223.8	10.58	-1.039	29.58	0
12/21/2017 0:00	3.951	231.8	5.086	-0.847	29.59	0
12/21/2017 0:15	3.888	187.8	11.09	-1.033	29.59	0
12/21/2017 0:30	5.57	163.6	4.829	-0.89	29.59	0
12/21/2017 0:45	4.392	143.3	10.12	-1.041	29.59	0
12/21/2017 1:00	2.661	113	6.805	-1.362	29.6	0
12/21/2017 1:15	2.208	108.6	5.29	-1.38	29.6	0
12/21/2017 1:30	2.735	142.8	12.79	-1.512	29.6	0
12/21/2017 1:45	4.033	142	4.918	-0.943	29.6	0
12/21/2017 2:00	4.08	140.1	6.966	-0.721	29.62	0
12/21/2017 2:15	3.072	131.9	2.923	-0.465	29.62	0
12/21/2017 2:30	2.756	146.7	10.19	-0.609	29.62	0
12/21/2017 2:45	2.461	131.4	14.05	-0.474	29.62	0
12/21/2017 3:00	2.837	118.5	3.021	-1.281	29.62	0
12/21/2017 3:15	4.222	109.2	3.982	-0.884	29.62	0
12/21/2017 3:30	3.782	121.3	2.671	-0.017	29.62	0
12/21/2017 3:45	2.274	95.3	12.55	-0.605	29.62	0
12/21/2017 4:00	3.392	126.1	13.72	-0.92	29.61	0
12/21/2017 4:15	3.231	160.1	10.25	-0.43	29.61	0
12/21/2017 4:30	4.489	167.6	6.754	-0.547	29.61	0
12/21/2017 4:45	4.943	172.1	7.149	-1.263	29.61	0
12/21/2017 5:00	3.831	175.9	12.3	-1.402	29.6	0
12/21/2017 5:15	5.391	195.4	5.826	-1.649	29.6	0
12/21/2017 5:30	5.492	182.5	12.03	-1.69	29.6	0
12/21/2017 5:45	5.187	169.9	7.563	-1.435	29.6	0
12/21/2017 6:00	3.603	177.8	10.98	-1.168	29.58	0
12/21/2017 6:15	3.037	127.2	16.68	-0.986	29.58	0
12/21/2017 6:30	3.301	153.6	22.96	-1.408	29.58	0
12/21/2017 6:45	5.255	184.9	10.25	-1.643	29.58	0
12/21/2017 7:00	5.674	188.8	11.25	-1.655	29.58	0
12/21/2017 7:15	5.159	160.2	18.37	-1.47	29.58	0
12/21/2017 7:30	3.158	113.9	6.058	-1.438	29.58	0
12/21/2017 7:45	2.141	116.2	6.567	-1.667	29.58	0
12/21/2017 8:00	2.938	158.5	13.15	-1.322	29.58	0
12/21/2017 8:15	3.125	156.4	5.069	-0.549	29.58	0
12/21/2017 8:30	3.155	161.3	10.62	-0.618	29.58	0
12/21/2017 8:45	3.774	183.5	10.69	-0.931	29.58	0
12/21/2017 9:00	3.776	170.7	11.4	-0.571	29.58	0
12/21/2017 9:15	2.909	172	11.17	-0.503	29.58	0
12/21/2017 9:30	3.306	173.1	9.92	-0.176	29.58	0
12/21/2017 9:45	5.28	203.4	5.938	-0.892	29.58	0
12/21/2017 10:00	7.037	203.8	3.865	-1.12	29.59	0
12/21/2017 10:15	6.715	204.2	4.747	-1.017	29.59	0
12/21/2017 10:30	4.722	176.6	19.36	-0.831	29.59	0
12/21/2017 10:45	3.136	134.6	12.59	-0.562	29.59	0

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
12/21/2017 11:00	2.099	105	6.614	0.094	29.58	0
12/21/2017 11:15	3.274	112.6	7.209	0.759	29.58	0
12/21/2017 11:30	3.414	100.2	10.39	0.808	29.58	0
12/21/2017 11:45	2.92	105.4	12.03	1.112	29.58	0
12/21/2017 12:00	2.635	119.8	10.14	1.438	29.56	0
12/21/2017 12:15	4.179	158.7	8.51	2.048	29.56	0
12/21/2017 12:30	3.575	189	10.68	1.859	29.56	0
12/21/2017 12:45	3.545	179.6	12.12	2.236	29.56	0
12/21/2017 13:00	2.521	142.1	17.46	2.387	29.53	0
12/21/2017 13:15	0.867	68.76	19.2	2.522	29.53	0
12/21/2017 13:30	1.984	87.9	16.61	2.86	29.53	0
12/21/2017 13:45	2.615	115.7	10	3.307	29.53	0
12/21/2017 14:00	3.589	98.5	18.6	3.635	29.49	0
12/21/2017 14:15	1.265	15.64	18.58	3.242	29.49	0
12/21/2017 14:30	0.57	48.7	12.35	3.892	29.49	0
12/21/2017 14:45	1.244	110.7	36.67	3.549	29.49	0
12/21/2017 15:00	2.7	173.2	25.06	3.453	29.5	0
12/21/2017 15:15	3.429	182.3	15.47	3.465	29.5	0
12/21/2017 15:30	3.803	186.6	16.53	3.424	29.5	0
12/21/2017 15:45	3.727	207.6	7.119	3.389	29.5	0
12/21/2017 16:00	5.974	184.5	7.507	3.387	29.47	0
12/21/2017 16:15	5.125	158.8	14.51	3.002	29.47	0
12/21/2017 16:30	3.543	127.3	9.57	2.852	29.47	0
12/21/2017 16:45	0.741	47.08	26.78	2.68	29.47	0
12/21/2017 17:00	1.67	51.44	12.91	2.32	29.47	0
12/21/2017 17:15	3.942	105.9	17.2	2.397	29.47	0
12/21/2017 17:30	4.182	120	6.247	2.697	29.47	0
12/21/2017 17:45	3.925	106.3	8.05	2.528	29.47	0
12/21/2017 18:00	5.204	118.8	11.57	2.634	29.46	0
12/21/2017 18:15	6.432	135.9	6.25	2.873	29.46	0
12/21/2017 18:30	5.941	133	6.435	2.879	29.46	0
12/21/2017 18:45	4.795	130.3	8.84	2.929	29.46	0
12/21/2017 19:00	4.555	133	6.035	2.977	29.43	0
12/21/2017 19:15	4.049	124.6	6.313	3.012	29.43	0
12/21/2017 19:30	3.958	120	7.577	3.098	29.43	0
12/21/2017 19:45	3.931	124.2	4.798	3.095	29.43	0
12/21/2017 20:00	4.044	132.7	5.886	3.241	29.43	0
12/21/2017 20:15	3.485	131.4	11.38	3.216	29.43	0
12/21/2017 20:30	1.25	132.8	11	3.33	29.43	0
12/21/2017 20:45	2.187	127.1	60.03	3.11	29.43	0
12/21/2017 21:00	3.483	166.7	33.08	2.794	29.42	0
12/21/2017 21:15	3.843	129.3	13.68	2.611	29.42	0
12/21/2017 21:30	2.987	80.9	13.19	2.284	29.42	0
12/21/2017 21:45	4.749	91.9	8.05	2.043	29.42	0
12/21/2017 22:00	4.523	86.5	6.676	2.125	29.4	0
12/21/2017 22:15	4.595	90.6	9.64	2.179	29.4	0.01
12/21/2017 22:30	5.296	116.4	8.08	2.192	29.4	0
12/21/2017 22:45	5.055	120.6	6.952	2.187	29.4	0
12/21/2017 23:00	4.96	129.9	6.342	2.205	29.41	0
12/21/2017 23:15	5.334	139.3	7.142	2.121	29.41	0.01
12/21/2017 23:30	5.789	138.2	5.634	2.089	29.41	0
12/21/2017 23:45	4.908	139.1	5.087	2.062	29.41	0
12/22/2017 0:00	5.076	139.3	5.525	2.002	29.41	0
12/22/2017 0:15	4.699	126.6	7.135	1.912	29.41	0
12/22/2017 0:30	5.554	122.8	7.109	1.801	29.41	0.01
12/22/2017 0:45	5.796	123	6.998	1.84	29.41	0

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
12/22/2017 1:00	5.616	116.1	7.821	1.926	29.38	0.01
12/22/2017 1:15	6.491	116.3	9.07	1.963	29.38	0
12/22/2017 1:30	5.911	107.3	9.25	2.03	29.38	0
12/22/2017 1:45	4.826	124.2	12.05	2.019	29.38	0.01
12/22/2017 2:00	4.427	139	12.57	2.075	29.36	0.01
12/22/2017 2:15	4.524	108.1	12.03	2.089	29.36	0
12/22/2017 2:30	4.414	110	10.1	2.13	29.36	0.01
12/22/2017 2:45	3.887	110.9	11.3	2.239	29.36	0
12/22/2017 3:00	3.43	94.7	7.78	2.319	29.37	0.01
12/22/2017 3:15	3.26	93.9	9.67	2.353	29.37	0
12/22/2017 3:30	2.136	71.65	7.623	2.465	29.37	0
12/22/2017 3:45	0.989	50.7	51.27	2.592	29.37	0.01
12/22/2017 4:00	0.351	230.5	19.6	2.663	29.36	0
12/22/2017 4:15	0.327	272.4	7.916	2.653	29.36	0.01
12/22/2017 4:30	0.973	322.2	14.42	2.664	29.36	0
12/22/2017 4:45	1.433	348.4	9.95	2.643	29.36	0.01
12/22/2017 5:00	2.235	353.4	17.22	2.638	29.35	0.01
12/22/2017 5:15	3.511	326.1	11.97	2.612	29.35	0.01
12/22/2017 5:30	4.254	306.8	7.332	2.519	29.35	0.02
12/22/2017 5:45	4.278	286.3	12.42	2.453	29.35	0
12/22/2017 6:00	4.376	275.4	10.54	2.406	29.35	0.01
12/22/2017 6:15	3.291	280.5	7.893	2.365	29.35	0.01
12/22/2017 6:30	3.513	281.5	7.917	2.331	29.35	0
12/22/2017 6:45	3.586	272.6	13.61	2.314	29.35	0.01
12/22/2017 7:00	4.762	252.9	10.94	2.272	29.37	0
12/22/2017 7:15	4.527	256.5	8.07	2.186	29.37	0
12/22/2017 7:30	5.306	245.4	7.963	2.135	29.37	0
12/22/2017 7:45	4.377	244.6	10.01	2.137	29.37	0
12/22/2017 8:00	3.036	231.8	15.64	2.122	29.36	0.01
12/22/2017 8:15	3.541	197.7	8.39	2.134	29.36	0
12/22/2017 8:30	2.917	202	17.58	2.098	29.36	0
12/22/2017 8:45	3.231	251.1	23.24	2.084	29.36	0
12/22/2017 9:00	2.164	290.6	14.05	2.132	29.37	0
12/22/2017 9:15	0.463	300.9	0.106	2.158	29.37	0
12/22/2017 9:30	0.196	300.5	1.571	2.226	29.37	0
12/22/2017 9:45	1.772	226.7	4.397	2.22	29.37	0
12/22/2017 10:00	1.911	255.7	69.01	2.194	29.4	0.02
12/22/2017 10:15	5.116	23.23	6.691	2.001	29.4	0.01
12/22/2017 10:30	5.755	29.46	7.711	1.674	29.4	0
12/22/2017 10:45	4.242	29.57	8.46	1.604	29.4	0.01
12/22/2017 11:00	3.64	19.35	12.87	1.713	29.4	0
12/22/2017 11:15	2.957	33.71	5.12	1.865	29.4	0
12/22/2017 11:30	1.537	19.85	14.83	2.034	29.4	0
12/22/2017 11:45	2.661	20.06	8.13	2.061	29.4	0.01
12/22/2017 12:00	2.587	21.17	7.071	1.917	29.38	0
12/22/2017 12:15	1.499	26.09	26.14	2.009	29.38	0
12/22/2017 12:30	3.488	349.1	17.4	2.225	29.38	0.01
12/22/2017 12:45	2.347	320.3	14.18	2.432	29.38	0
12/22/2017 13:00	3.477	13.22	35.73	2.365	29.39	0
12/22/2017 13:15	5.826	28.8	8.93	2.019	29.39	0
12/22/2017 13:30	6.179	10.84	7.842	2.141	29.39	0
12/22/2017 13:45	4.691	354.2	13.8	2.314	29.39	0
12/22/2017 14:00	4.931	328.4	18.66	2.295	29.4	0
12/22/2017 14:15	5.019	349.8	15.99	2.212	29.4	0
12/22/2017 14:30	4.303	19.36	26.07	2.252	29.4	0
12/22/2017 14:45	6.01	37.78	6.258	2.112	29.4	0

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
12/22/2017 15:00	5.575	30.95	6.405	2.251	29.39	0
12/22/2017 15:15	4.147	20.79	21.44	2.372	29.39	0
12/22/2017 15:30	3.553	281.6	11.21	2.473	29.39	0
12/22/2017 15:45	2.654	294.3	17.52	2.343	29.39	0
12/22/2017 16:00	3.178	335.3	16.71	2.055	29.41	0
12/22/2017 16:15	3.088	337.9	17.82	1.81	29.41	0
12/22/2017 16:30	1.646	346.7	14	1.662	29.41	0
12/22/2017 16:45	0.972	353.6	20.81	1.52	29.41	0
12/22/2017 17:00	2.043	308.6	4.724	1.756	29.42	0
12/22/2017 17:15	2.424	311	15.35	1.794	29.42	0
12/22/2017 17:30	4.351	270.5	6.413	1.461	29.42	0
12/22/2017 17:45	3.551	323.4	24.84	0.511	29.42	0
12/22/2017 18:00	3.004	12.85	20.68	-0.19	29.42	0
12/22/2017 18:15	2.46	10.66	9.27	0.11	29.42	0
12/22/2017 18:30	3.357	14.93	6.455	0.208	29.42	0
12/22/2017 18:45	2.056	2.167	11.16	0.347	29.42	0
12/22/2017 19:00	3.846	21.93	12.91	0.315	29.43	0
12/22/2017 19:15	2.74	38.03	6.576	0.005	29.43	0
12/22/2017 19:30	4.743	27.66	9.61	-0.051	29.43	0
12/22/2017 19:45	2.782	24.41	15.29	-0.011	29.43	0
12/22/2017 20:00	0.905	345.8	28.75	0.08	29.43	0
12/22/2017 20:15	1.44	13.55	54	0.153	29.43	0
12/22/2017 20:30	3.909	5.746	7.24	0.141	29.43	0
12/22/2017 20:45	2.992	11.99	6.195	0.042	29.43	0
12/22/2017 21:00	2.478	19.96	13.34	0.075	29.44	0
12/22/2017 21:15	2.499	9.68	15.9	0.232	29.44	0
12/22/2017 21:30	2.433	13.49	12.53	0.386	29.44	0
12/22/2017 21:45	4.178	27.52	14.34	0.242	29.44	0
12/22/2017 22:00	6.027	23.27	13.02	0.086	29.46	0
12/22/2017 22:15	9.43	13.8	11.49	0.363	29.46	0
12/22/2017 22:30	10.34	11.73	10.43	0.362	29.46	0
12/22/2017 22:45	13.01	14.26	10.01	0.538	29.46	0
12/22/2017 23:00	11.83	15.27	10.37	0.647	29.47	0
12/22/2017 23:15	11.16	10.97	12.6	0.594	29.47	0
12/22/2017 23:30	11.51	13.33	11.78	0.617	29.47	0
12/22/2017 23:45	10.89	12.88	12.22	0.64	29.47	0
12/23/2017 0:00	8.87	7.759	10.19	0.64	29.49	0
12/23/2017 0:15	8.57	14.79	9.44	0.517	29.49	0
12/23/2017 0:30	9.68	17.33	9.51	0.372	29.49	0
12/23/2017 0:45	8.77	11.25	11.52	0.313	29.49	0
12/23/2017 1:00	8.97	8.1	11.71	0.385	29.49	0
12/23/2017 1:15	12.49	4.835	13.91	0.428	29.49	0
12/23/2017 1:30	13.16	6.136	13.37	0.267	29.49	0
12/23/2017 1:45	14.23	10.99	10.85	0.144	29.49	0
12/23/2017 2:00	14.67	7.567	11.05	-0.029	29.51	0
12/23/2017 2:15	15.43	11.99	10.78	-0.204	29.51	0
12/23/2017 2:30	14.27	8.36	12.45	-0.272	29.51	0
12/23/2017 2:45	13.42	5.104	11.18	-0.405	29.51	0
12/23/2017 3:00	13.73	8.55	12.26	-0.548	29.53	0
12/23/2017 3:15	11.65	12.45	10.78	-0.725	29.53	0
12/23/2017 3:30	13.2	13.3	9.25	-0.757	29.53	0
12/23/2017 3:45	12.61	7.827	12.23	-0.667	29.53	0
12/23/2017 4:00	11.72	358	15.71	-0.514	29.54	0
12/23/2017 4:15	10.72	5.583	12.27	-0.607	29.54	0
12/23/2017 4:30	12	6.009	12.97	-0.648	29.54	0
12/23/2017 4:45	13.18	0.946	15.68	-0.822	29.54	0

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
12/23/2017 5:00	13.91	6.403	11.19	-1.195	29.54	0
12/23/2017 5:15	11.89	7.979	10.44	-1.372	29.54	0
12/23/2017 5:30	11.36	8.1	12.05	-1.569	29.54	0
12/23/2017 5:45	8.89	14.71	14.36	-1.663	29.54	0
12/23/2017 6:00	9.37	21	10.82	-1.675	29.53	0
12/23/2017 6:15	6.683	21.19	15.04	-1.763	29.53	0
12/23/2017 6:30	4.898	22.82	21.17	-1.847	29.53	0
12/23/2017 6:45	9.4	22.72	10.51	-1.997	29.53	0
12/23/2017 7:00	9.28	22.61	8.56	-2.003	29.53	0
12/23/2017 7:15	8.07	26.28	7.762	-2.165	29.53	0
12/23/2017 7:30	8.08	23.66	8.78	-2.304	29.53	0
12/23/2017 7:45	8.22	22.86	8.29	-2.456	29.53	0
12/23/2017 8:00	7.117	27.95	8.46	-2.647	29.54	0
12/23/2017 8:15	7.325	25.53	6.355	-2.644	29.54	0
12/23/2017 8:30	5.51	20.53	7.046	-2.405	29.54	0
12/23/2017 8:45	5.695	14.83	11.1	-2.301	29.54	0
12/23/2017 9:00	2.658	17.46	14.11	-1.927	29.59	0
12/23/2017 9:15	1.398	3.156	10.36	-1.59	29.59	0
12/23/2017 9:30	2.815	38.99	11.47	-1.452	29.59	0
12/23/2017 9:45	4.301	23.39	8.76	-1.402	29.59	0
12/23/2017 10:00	4.994	32.29	7.134	-1.393	29.62	0
12/23/2017 10:15	5.847	29.78	7.7	-1.293	29.62	0
12/23/2017 10:30	6.863	23.73	10.64	-1.205	29.62	0
12/23/2017 10:45	6.354	24.04	11.98	-0.941	29.62	0
12/23/2017 11:00	6.251	20.35	10.43	-0.832	29.64	0
12/23/2017 11:15	5.457	25.87	8.44	-0.41	29.64	0
12/23/2017 11:30	5.223	25.93	9.61	-0.234	29.64	0
12/23/2017 11:45	5.576	30.72	8.24	-0.127	29.64	0
12/23/2017 12:00	4.953	18.66	8.72	0.087	29.62	0
12/23/2017 12:15	5.31	23.73	8.06	0.341	29.62	0
12/23/2017 12:30	5.886	22.82	7.176	0.465	29.62	0
12/23/2017 12:45	4.24	23.86	9.87	0.775	29.62	0
12/23/2017 13:00	4.703	21.6	12.92	1.015	29.62	0
12/23/2017 13:15	8.12	19.39	8.22	1.075	29.62	0
12/23/2017 13:30	9.13	19.45	7.9	1.154	29.62	0
12/23/2017 13:45	8.55	18.58	10.28	1.175	29.62	0
12/23/2017 14:00	8.28	18.67	10.22	1.445	29.6	0
12/23/2017 14:15	5.266	14.76	10.48	1.628	29.6	0
12/23/2017 14:30	7.588	23.23	9.77	1.61	29.6	0
12/23/2017 14:45	8.77	23.27	8.35	1.49	29.6	0
12/23/2017 15:00	7.948	21.58	8.07	1.553	29.59	0
12/23/2017 15:15	6.408	23.46	10.2	1.553	29.59	0
12/23/2017 15:30	5.99	15.23	10.04	1.492	29.59	0
12/23/2017 15:45	6.571	19.93	8.21	1.214	29.59	0
12/23/2017 16:00	8.3	19.1	8.42	0.903	29.62	0
12/23/2017 16:15	7.509	21.89	10.19	0.468	29.62	0
12/23/2017 16:30	8.42	23.88	9.88	0.236	29.62	0
12/23/2017 16:45	6.807	24.77	10.79	0.043	29.62	0
12/23/2017 17:00	6.221	27.09	9.63	-0.259	29.62	0
12/23/2017 17:15	6.02	35.2	9.99	-0.564	29.62	0
12/23/2017 17:30	5.739	29.28	11.02	-0.567	29.62	0
12/23/2017 17:45	4.382	26.7	6.788	-0.815	29.62	0
12/23/2017 18:00	3.895	34.03	6.344	-0.781	29.62	0
12/23/2017 18:15	3.676	31.66	11.03	-0.961	29.62	0
12/23/2017 18:30	3.547	33.55	14.78	-1.172	29.62	0
12/23/2017 18:45	3.417	22.97	12.28	-1.198	29.62	0

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
12/23/2017 19:00	3.118	23.23	17.72	-1.267	29.59	0
12/23/2017 19:15	3.061	17.95	14.42	-1.384	29.59	0
12/23/2017 19:30	2.78	13.94	15.01	-1.473	29.59	0
12/23/2017 19:45	2.874	4.313	14.56	-1.741	29.59	0
12/23/2017 20:00	3.203	11.25	8.26	-1.679	29.56	0
12/23/2017 20:15	1.629	20.44	20.38	-1.607	29.56	0
12/23/2017 20:30	3.491	115.7	22.58	-0.853	29.56	0
12/23/2017 20:45	5.905	110.9	10.77	-1.005	29.56	0
12/23/2017 21:00	5.281	105.2	11.59	-1.314	29.56	0
12/23/2017 21:15	6.024	112.9	11.34	-0.891	29.56	0
12/23/2017 21:30	5.011	110.5	13.87	-0.915	29.56	0
12/23/2017 21:45	5.875	109.7	15.26	-1.371	29.56	0
12/23/2017 22:00	6.854	100.9	11.67	-1.104	29.57	0
12/23/2017 22:15	5.538	89.7	13.06	-1.405	29.57	0
12/23/2017 22:30	5.22	81.5	17.35	-1.525	29.57	0
12/23/2017 22:45	5.834	99.6	18.98	-1.006	29.57	0
12/23/2017 23:00	6.173	95.8	16.65	-1.044	29.57	0
12/23/2017 23:15	5.389	88	15.74	-1.164	29.57	0
12/23/2017 23:30	4.885	75.28	19.47	-1.116	29.57	0
12/23/2017 23:45	4.969	61.79	15.11	-1.641	29.57	0
12/24/2017 0:00	4.394	57.84	12.34	-1.838	29.54	0
12/24/2017 0:15	4.427	64.97	14.66	-1.219	29.54	0
12/24/2017 0:30	4.006	76.46	23.64	-1.072	29.54	0
12/24/2017 0:45	5.064	81.8	20.51	-1.217	29.54	0
12/24/2017 1:00	4.614	85.7	21.8	-1.295	29.53	0
12/24/2017 1:15	4.815	102.3	11.68	-1.328	29.53	0
12/24/2017 1:30	6.492	98.7	13.68	-1.182	29.53	0
12/24/2017 1:45	7.038	99.2	12.8	-1.418	29.53	0
12/24/2017 2:00	8.46	112.8	10.59	-1.2	29.53	0
12/24/2017 2:15	7.961	107.6	12.68	-1.206	29.53	0
12/24/2017 2:30	5.912	95.7	12.2	-1.528	29.53	0
12/24/2017 2:45	6.632	108.6	11.57	-1.183	29.53	0
12/24/2017 3:00	5.559	98.9	14.1	-1.156	29.52	0
12/24/2017 3:15	6.1	105	11.33	-1.111	29.52	0
12/24/2017 3:30	6.764	101.9	11.23	-1.043	29.52	0
12/24/2017 3:45	6.402	101.5	13.79	-1.277	29.52	0
12/24/2017 4:00	7.363	108.4	10.44	-1.216	29.48	0
12/24/2017 4:15	8.45	113.6	11.31	-0.85	29.48	0
12/24/2017 4:30	8.41	109.1	13.53	-0.896	29.48	0
12/24/2017 4:45	7.316	108.6	16.98	-0.962	29.48	0
12/24/2017 5:00	7.875	104.3	13.75	-0.728	29.44	0
12/24/2017 5:15	7.461	100.2	12.79	-0.932	29.44	0
12/24/2017 5:30	8.08	110.6	11.89	-0.728	29.44	0
12/24/2017 5:45	7.504	115.5	12.47	-0.476	29.44	0
12/24/2017 6:00	7.186	108.9	14.29	-0.444	29.42	0
12/24/2017 6:15	8.01	112.6	12.14	-0.408	29.42	0
12/24/2017 6:30	7.556	111.9	13	-0.448	29.42	0
12/24/2017 6:45	9.24	118.2	12.41	-0.252	29.42	0
12/24/2017 7:00	9.8	115.3	12.55	-0.081	29.39	0
12/24/2017 7:15	9.39	117.1	11.34	-0.068	29.39	0
12/24/2017 7:30	9.27	122.6	11.34	0.017	29.39	0
12/24/2017 7:45	9.8	115.4	12.33	0.073	29.39	0
12/24/2017 8:00	10.56	118.6	13.24	0.178	29.39	0
12/24/2017 8:15	9.57	121.7	11.78	0.268	29.39	0
12/24/2017 8:30	9.61	133.3	10.83	0.335	29.39	0
12/24/2017 8:45	12.58	138.6	11.23	0.405	29.39	0

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
12/24/2017 9:00	13.42	144	10.21	0.47	29.4	0
12/24/2017 9:15	10.7	137.7	10.7	0.534	29.4	0
12/24/2017 9:30	12.15	125.4	12.87	0.608	29.4	0
12/24/2017 9:45	11.37	114.4	15.69	0.748	29.4	0
12/24/2017 10:00	12.48	128.5	11.8	0.896	29.39	0
12/24/2017 10:15	12.97	130	10.92	1.02	29.39	0
12/24/2017 10:30	11.66	125.9	12.93	1.141	29.39	0
12/24/2017 10:45	9.08	122.1	14.03	1.185	29.39	0
12/24/2017 11:00	9.85	123.1	13.27	1.248	29.37	0
12/24/2017 11:15	11.18	125.7	11.41	1.247	29.37	0
12/24/2017 11:30	11.38	124.4	12.68	1.403	29.37	0
12/24/2017 11:45	9.96	128.5	13.02	1.54	29.37	0
12/24/2017 12:00	13.05	131.3	11.57	1.559	29.35	0
12/24/2017 12:15	10.58	128.2	13.09	1.555	29.35	0
12/24/2017 12:30	11.21	128.4	11.75	1.505	29.35	0
12/24/2017 12:45	10.54	132.1	10.09	1.487	29.35	0
12/24/2017 13:00	9.49	127.2	10.7	1.527	29.35	0
12/24/2017 13:15	9.7	125.2	10.62	1.583	29.35	0
12/24/2017 13:30	10.65	126.1	11.82	1.546	29.35	0
12/24/2017 13:45	9.85	124	11.59	1.45	29.35	0
12/24/2017 14:00	10.28	126.7	10.63	1.402	29.35	0
12/24/2017 14:15	9.86	127.2	10.13	1.377	29.35	0
12/24/2017 14:30	9.65	132.6	11.32	1.315	29.35	0
12/24/2017 14:45	9.09	129.7	9.58	1.361	29.35	0
12/24/2017 15:00	8.47	127.1	10.22	1.288	29.37	0
12/24/2017 15:15	9.81	119.4	12.32	1.042	29.37	0
12/24/2017 15:30	10.14	120.3	11.29	0.608	29.37	0
12/24/2017 15:45	9.24	121.7	13.39	-0.274	29.37	0
12/24/2017 16:00	8.72	143.8	9.79	-1.213	29.37	0
12/24/2017 16:15	7.629	131	11.31	-1.714	29.37	0
12/24/2017 16:30	8.67	126.9	10.96	-1.857	29.37	0
12/24/2017 16:45	8.09	114.4	14.07	-1.858	29.37	0
12/24/2017 17:00	8.05	104	11.68	-1.942	29.35	0
12/24/2017 17:15	6.534	125.9	13	-1.955	29.35	0
12/24/2017 17:30	5.374	140	15.6	-1.963	29.35	0
12/24/2017 17:45	5.377	116.6	10.52	-2.003	29.35	0
12/24/2017 18:00	7.095	120.6	10.52	-2.063	29.33	0
12/24/2017 18:15	6.096	126.4	7.136	-1.977	29.33	0
12/24/2017 18:30	5.315	124.3	8.89	-1.978	29.33	0
12/24/2017 18:45	3.388	95.5	20.53	-2.054	29.33	0
12/24/2017 19:00	1.406	68.78	10.16	-2.08	29.32	0
12/24/2017 19:15	2.079	109.8	11.58	-2.004	29.32	0
12/24/2017 19:30	1.445	80.2	40.74	-1.984	29.32	0
12/24/2017 19:45	0.735	48.53	32.37	-1.962	29.32	0
12/24/2017 20:00	4.08	125.2	10.86	-1.926	29.29	0
12/24/2017 20:15	5.184	122.5	8.86	-1.787	29.29	0
12/24/2017 20:30	4.869	113.7	11.73	-1.735	29.29	0
12/24/2017 20:45	2.474	90.4	5.556	-1.935	29.29	0
12/24/2017 21:00	0.988	93.5	0.922	-1.968	29.28	0
12/24/2017 21:15	1.031	62.84	5.08	-1.925	29.28	0
12/24/2017 21:30	0.116	64.02	0.029	-1.864	29.28	0
12/24/2017 21:45	0.019	64.19	0.014	-1.83	29.28	0
12/24/2017 22:00	0.061	64.3	0.033	-1.778	29.29	0
12/24/2017 22:15	1.425	135.1	6.155	-1.734	29.29	0
12/24/2017 22:30	2.819	143.7	9.74	-1.71	29.29	0
12/24/2017 22:45	4.245	138.2	10.69	-1.78	29.29	0

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
12/24/2017 23:00	4.008	131.5	7.45	-1.797	29.31	0
12/24/2017 23:15	4.274	133.9	7.66	-1.859	29.31	0
12/24/2017 23:30	3.796	131.6	7.253	-1.916	29.31	0
12/24/2017 23:45	2.464	127.9	7.604	-1.944	29.31	0
12/25/2017 0:00	2.678	119	5.171	-1.912	29.31	0
12/25/2017 0:15	3.296	138.3	6.269	-1.836	29.31	0
12/25/2017 0:30	2.521	126.2	11.4	-1.72	29.31	0
12/25/2017 0:45	1.527	120.4	20.08	-1.634	29.31	0
12/25/2017 1:00	0.297	192.2	2.675	-1.611	29.31	0
12/25/2017 1:15	0	0	0	-1.612	29.31	0
12/25/2017 1:30	0	0	0	-1.524	29.31	0
12/25/2017 1:45	0	0	0	-1.483	29.31	0
12/25/2017 2:00	0	0	0	-1.491	29.33	0
12/25/2017 2:15	0	0	0	-1.499	29.33	0
12/25/2017 2:30	0.391	202.1	0.77	-1.416	29.33	0
12/25/2017 2:45	0.014	203	0.01	-1.357	29.33	0
12/25/2017 3:00	0.795	204.6	0.499	-1.299	29.34	0
12/25/2017 3:15	2.048	203.7	2.72	-1.374	29.34	0
12/25/2017 3:30	0.255	202	8.45	-1.361	29.34	0
12/25/2017 3:45	0.079	170.7	0.432	-1.401	29.34	0
12/25/2017 4:00	2.804	176.4	3.747	-1.438	29.34	0
12/25/2017 4:15	3.278	189	7.252	-1.409	29.34	0
12/25/2017 4:30	3.465	171	10.97	-1.511	29.34	0
12/25/2017 4:45	3.171	158.1	7.547	-1.582	29.34	0
12/25/2017 5:00	3.526	157.8	6.683	-1.619	29.33	0
12/25/2017 5:15	3.54	162	5.012	-1.669	29.33	0
12/25/2017 5:30	3.321	159.2	9.96	-1.668	29.33	0
12/25/2017 5:45	3.737	132.4	8.19	-1.657	29.33	0
12/25/2017 6:00	4.502	137.1	7.664	-1.759	29.35	0
12/25/2017 6:15	4.166	151.4	9.85	-1.838	29.35	0
12/25/2017 6:30	5.744	156.8	9.27	-1.868	29.35	0
12/25/2017 6:45	5.467	147.3	9.52	-1.907	29.35	0
12/25/2017 7:00	4.557	141.8	6.826	-1.924	29.37	0
12/25/2017 7:15	3.967	146.9	4.326	-1.932	29.37	0
12/25/2017 7:30	5.139	155.9	4.876	-1.877	29.37	0
12/25/2017 7:45	5.641	157.7	6.369	-1.866	29.37	0
12/25/2017 8:00	4.88	145.9	6.967	-1.907	29.39	0
12/25/2017 8:15	5.062	157.1	7.01	-1.879	29.39	0
12/25/2017 8:30	4.791	151.8	6.025	-1.812	29.39	0
12/25/2017 8:45	4.143	167.4	22.83	-1.726	29.39	0
12/25/2017 9:00	2.775	199.9	10.76	-1.785	29.42	0
12/25/2017 9:15	2.961	188.8	15.5	-1.786	29.42	0
12/25/2017 9:30	3.192	169.5	9.73	-1.706	29.42	0
12/25/2017 9:45	3.075	192.6	18.95	-1.697	29.42	0
12/25/2017 10:00	3.867	231	10.34	-1.807	29.45	0
12/25/2017 10:15	3.196	190.4	21.4	-1.64	29.45	0
12/25/2017 10:30	3.353	157.1	11.9	-1.434	29.45	0
12/25/2017 10:45	2.502	136.4	6.064	-1.316	29.45	0
12/25/2017 11:00	1.729	121.6	6.439	-1.052	29.46	0
12/25/2017 11:15	1.614	144.2	23.14	-0.65	29.46	0
12/25/2017 11:30	2.043	180	17.58	-0.801	29.46	0
12/25/2017 11:45	2.276	150	5.25	-0.581	29.46	0
12/25/2017 12:00	2.967	167.8	13.69	-0.716	29.47	0
12/25/2017 12:15	1.893	160.6	28	-0.505	29.47	0
12/25/2017 12:30	2.458	115.5	5.008	-0.504	29.47	0
12/25/2017 12:45	0.957	108.9	13.19	-0.422	29.47	0

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
12/25/2017 13:00	2.005	151.2	24.85	-0.083	29.47	0
12/25/2017 13:15	1.392	124.3	16.46	0.07	29.47	0
12/25/2017 13:30	1.813	196.7	17.18	-0.069	29.47	0
12/25/2017 13:45	2.365	197.7	7.759	0.017	29.47	0
12/25/2017 14:00	4.209	214.5	7.457	-0.598	29.48	0
12/25/2017 14:15	0.742	215.5	1.454	-0.141	29.48	0
12/25/2017 14:30	1.087	215.3	0.044	0.045	29.48	0
12/25/2017 14:45	2.564	215.7	0.196	-0.536	29.48	0
12/25/2017 15:00	2.269	216.1	0.166	-0.528	29.49	0
12/25/2017 15:15	3.205	218.3	2.644	-0.578	29.49	0
12/25/2017 15:30	1.944	202.4	51.01	-0.562	29.49	0
12/25/2017 15:45	1.075	102.8	3.737	-0.493	29.49	0
12/25/2017 16:00	1.672	148.5	24.1	-0.509	29.5	0
12/25/2017 16:15	1.464	123.6	0.155	-0.553	29.5	0
12/25/2017 16:30	1.77	119.6	5.493	-0.532	29.5	0
12/25/2017 16:45	2.553	130.4	19.18	-0.484	29.5	0
12/25/2017 17:00	4.058	142.3	15.2	-0.436	29.5	0
12/25/2017 17:15	2.958	140.1	5.718	-0.466	29.5	0
12/25/2017 17:30	3.544	149.7	8.25	-0.525	29.5	0
12/25/2017 17:45	2.554	155.2	9.08	-0.56	29.5	0
12/25/2017 18:00	1.981	168.3	10.8	-0.55	29.51	0
12/25/2017 18:15	2.264	202.8	6.092	-0.472	29.51	0
12/25/2017 18:30	1.439	107.8	68.15	-0.544	29.51	0
12/25/2017 18:45	0.928	47.1	0.69	-0.608	29.51	0
12/25/2017 19:00	0.194	45.26	0.106	-0.558	29.51	0
12/25/2017 19:15	0.358	30.39	0.704	-0.521	29.51	0
12/25/2017 19:30	2.319	24.95	4.167	-0.469	29.51	0
12/25/2017 19:45	3.383	20.1	6.441	-0.643	29.51	0
12/25/2017 20:00	3.45	25.87	10.11	-0.578	29.5	0
12/25/2017 20:15	3.243	25.15	8.24	-0.466	29.5	0
12/25/2017 20:30	1.772	25.8	5.783	-0.453	29.5	0
12/25/2017 20:45	1.48	33.99	4.032	-0.563	29.5	0
12/25/2017 21:00	0.767	40.17	2.902	-0.789	29.5	0
12/25/2017 21:15	2.536	45.48	3.881	-0.77	29.5	0
12/25/2017 21:30	1.669	44.03	0.284	-0.793	29.5	0
12/25/2017 21:45	2.279	38.11	4.203	-0.625	29.5	0
12/25/2017 22:00	1.733	43.52	7.503	-0.738	29.49	0
12/25/2017 22:15	2.233	73.23	10.35	-0.86	29.49	0
12/25/2017 22:30	2.386	69.24	8.29	-0.842	29.49	0
12/25/2017 22:45	2.343	39.55	11.32	-0.826	29.49	0
12/25/2017 23:00	3.052	17.79	8.05	-0.725	29.49	0
12/25/2017 23:15	1.62	17.47	5.104	-0.724	29.49	0
12/25/2017 23:30	2.956	352.4	16.63	-0.676	29.49	0
12/25/2017 23:45	2.682	354.4	15.37	-0.723	29.49	0
12/26/2017 0:00	1.549	14.27	10.96	-0.632	29.49	0
12/26/2017 0:15	2.411	36.28	5.542	-0.778	29.49	0
12/26/2017 0:30	1.78	38.75	2.024	-1.014	29.49	0
12/26/2017 0:45	2.251	43.69	7.339	-1.08	29.49	0
12/26/2017 1:00	1.823	57.37	0.368	-1.04	29.48	0
12/26/2017 1:15	1.756	50.46	9.37	-0.885	29.48	0
12/26/2017 1:30	1.607	21.02	0.203	-0.927	29.48	0
12/26/2017 1:45	0.325	29.68	7.317	-1.056	29.48	0
12/26/2017 2:00	0.104	44.77	0.039	-0.991	29.48	0
12/26/2017 2:15	0.296	44.77	0.079	-0.918	29.48	0
12/26/2017 2:30	0.092	44.77	0.045	-0.756	29.48	0
12/26/2017 2:45	1.093	44.74	0.115	-0.757	29.48	0

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
12/26/2017 3:00	0.832	29.09	18.15	-0.779	29.5	0
12/26/2017 3:15	1.498	265.9	36.1	-0.55	29.5	0
12/26/2017 3:30	1.967	229.2	11.14	-0.493	29.5	0
12/26/2017 3:45	0.702	170.1	31.19	-0.682	29.5	0
12/26/2017 4:00	0.038	114.3	0.027	-0.847	29.51	0
12/26/2017 4:15	0.266	61.3	27.29	-0.813	29.51	0
12/26/2017 4:30	0.136	35.39	0.029	-0.818	29.51	0
12/26/2017 4:45	0.717	35.4	0.241	-0.726	29.51	0
12/26/2017 5:00	0.247	35.41	0.063	-0.669	29.5	0
12/26/2017 5:15	1.075	139.1	21.44	-0.749	29.5	0
12/26/2017 5:30	0.387	34.23	21.84	-0.448	29.5	0
12/26/2017 5:45	0.628	21.17	0.802	-0.407	29.5	0
12/26/2017 6:00	0.238	338.3	16.48	-0.577	29.49	0
12/26/2017 6:15	1.047	105.9	85.2	-0.738	29.49	0
12/26/2017 6:30	1.504	147.6	1.842	-0.939	29.49	0
12/26/2017 6:45	2.215	154.8	9.37	-1.054	29.49	0
12/26/2017 7:00	2.918	142.7	7.225	-0.989	29.49	0
12/26/2017 7:15	3.575	157.3	9.15	-1.071	29.49	0
12/26/2017 7:30	4.347	165.8	9.95	-1.031	29.49	0
12/26/2017 7:45	3.609	155.8	6.694	-1.326	29.49	0
12/26/2017 8:00	3.814	114.9	11.83	-1.037	29.46	0
12/26/2017 8:15	3.422	92.9	10.61	-0.779	29.46	0
12/26/2017 8:30	4.294	132.9	18.01	-0.243	29.46	0
12/26/2017 8:45	4.199	142.1	11.12	-0.071	29.46	0
12/26/2017 9:00	2.853	115.6	24.88	0.191	29.46	0
12/26/2017 9:15	4.335	104.7	16.93	0.517	29.46	0
12/26/2017 9:30	3.813	94.4	11.66	0.559	29.46	0
12/26/2017 9:45	3.611	84.5	13.98	0.738	29.46	0
12/26/2017 10:00	4.03	83.8	17.62	0.664	29.48	0
12/26/2017 10:15	3.657	78.76	14.64	0.584	29.48	0
12/26/2017 10:30	3.049	119.1	25.81	0.854	29.48	0
12/26/2017 10:45	5.053	134.2	7.045	1.005	29.48	0
12/26/2017 11:00	4.56	115.9	14.45	1.245	29.49	0
12/26/2017 11:15	6.014	118.8	10.82	1.226	29.49	0
12/26/2017 11:30	6.058	118.6	11.7	1.246	29.49	0
12/26/2017 11:45	4.412	117.9	16.21	1.492	29.49	0
12/26/2017 12:00	2.917	129.1	23.49	1.806	29.47	0
12/26/2017 12:15	4.316	131.5	17.83	1.626	29.47	0
12/26/2017 12:30	5.629	112	16.09	1.606	29.47	0
12/26/2017 12:45	5.051	97.5	13.9	1.486	29.47	0
12/26/2017 13:00	3.401	154.6	21.93	1.32	29.45	0.01
12/26/2017 13:15	4.257	134.8	16.93	1.294	29.45	0
12/26/2017 13:30	2.85	89.1	11.73	1.087	29.45	0
12/26/2017 13:45	2.747	99.1	13.57	1.341	29.45	0
12/26/2017 14:00	4.36	101.3	10.88	1.287	29.43	0
12/26/2017 14:15	4.133	88.2	11.39	1.134	29.43	0
12/26/2017 14:30	3.123	94.5	20.39	1.097	29.43	0
12/26/2017 14:45	4.464	127.1	13.35	1.225	29.43	0
12/26/2017 15:00	2.959	116.4	7.716	1.081	29.43	0
12/26/2017 15:15	2.894	86.7	14.48	0.941	29.43	0
12/26/2017 15:30	5.376	77.16	12.06	0.203	29.43	0
12/26/2017 15:45	3.043	163.3	33.63	0.234	29.43	0
12/26/2017 16:00	2.656	169.9	17.35	0.72	29.42	0
12/26/2017 16:15	1.533	237.4	39.19	0.458	29.42	0
12/26/2017 16:30	0.967	29.19	33.07	0.096	29.42	0
12/26/2017 16:45	1.097	39.61	16.3	0.03	29.42	0

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
12/26/2017 17:00	2.706	90.5	7.597	0.03	29.43	0
12/26/2017 17:15	4.658	101.7	11.1	0.027	29.43	0
12/26/2017 17:30	2.33	68.16	41.58	0.682	29.43	0
12/26/2017 17:45	2.891	207.7	18.69	0.433	29.43	0
12/26/2017 18:00	3.413	141.4	16.68	0.362	29.41	0
12/26/2017 18:15	3.071	160.4	27.93	0.178	29.41	0
12/26/2017 18:30	2.556	168.9	28.57	0.139	29.41	0
12/26/2017 18:45	3.111	95.4	11.78	-0.501	29.41	0
12/26/2017 19:00	3.165	87.9	6.079	-0.26	29.41	0
12/26/2017 19:15	2	115.5	7.982	0.164	29.41	0
12/26/2017 19:30	1.899	124.3	12.23	0.079	29.41	0
12/26/2017 19:45	2.988	135.9	8.38	0.187	29.41	0
12/26/2017 20:00	1.627	110.3	9.51	0.181	29.41	0
12/26/2017 20:15	0.303	99.9	0.096	0.213	29.41	0
12/26/2017 20:30	1.43	176.3	25.98	0.144	29.41	0
12/26/2017 20:45	2.634	170.9	36.11	0.069	29.41	0
12/26/2017 21:00	1.288	44.16	5.821	-0.222	29.42	0
12/26/2017 21:15	0.22	41.82	1.538	-0.167	29.42	0
12/26/2017 21:30	0.685	129.5	6.19	-0.049	29.42	0
12/26/2017 21:45	2.751	98	41.51	-0.222	29.42	0
12/26/2017 22:00	2.025	80	27.84	-0.63	29.41	0
12/26/2017 22:15	3.566	169.1	13.59	-0.127	29.41	0
12/26/2017 22:30	3.745	179	7.726	-0.021	29.41	0
12/26/2017 22:45	1.53	139.5	29.64	-0.158	29.41	0
12/26/2017 23:00	0.237	14.67	27.47	-0.376	29.42	0
12/26/2017 23:15	0.209	340.8	0.038	-0.069	29.42	0
12/26/2017 23:30	0.844	340.9	0.213	-0.003	29.42	0
12/26/2017 23:45	2.908	175	49.3	-0.251	29.42	0
12/27/2017 0:00	3.379	163.7	6.59	-0.186	29.41	0
12/27/2017 0:15	2.82	132.7	14.55	-0.288	29.41	0
12/27/2017 0:30	1.799	78.63	25.91	-0.321	29.41	0
12/27/2017 0:45	0.952	134.8	45.36	-0.357	29.41	0
12/27/2017 1:00	3.406	177.3	8.77	-0.076	29.42	0
12/27/2017 1:15	3.297	169.9	8.24	0.04	29.42	0
12/27/2017 1:30	3.359	160.8	10.91	-0.031	29.42	0
12/27/2017 1:45	3.316	150.7	8.62	-0.086	29.42	0
12/27/2017 2:00	3.047	142.7	11.49	-0.076	29.41	0
12/27/2017 2:15	1.635	157.9	1.97	-0.264	29.41	0
12/27/2017 2:30	2.589	165.7	10.11	-0.262	29.41	0
12/27/2017 2:45	4.983	182.9	8.39	-0.383	29.41	0
12/27/2017 3:00	5.39	163.3	8.31	-0.225	29.41	0
12/27/2017 3:15	4.502	192.2	22.82	-0.691	29.41	0
12/27/2017 3:30	2.504	236.3	38.16	-0.998	29.41	0
12/27/2017 3:45	1.518	358.4	61.65	-0.603	29.41	0
12/27/2017 4:00	2.141	68.47	27.79	-0.193	29.41	0
12/27/2017 4:15	4.799	148.2	11.25	0.134	29.41	0
12/27/2017 4:30	4.896	161.7	9.48	0.268	29.41	0
12/27/2017 4:45	4.726	163.8	10.72	0	29.41	0
12/27/2017 5:00	1.741	147.7	7.761	-0.277	29.41	0
12/27/2017 5:15	2.315	24.94	11.01	-0.508	29.41	0
12/27/2017 5:30	2.482	30.26	7.265	-0.215	29.41	0
12/27/2017 5:45	1.661	41.65	1.518	-0.275	29.41	0
12/27/2017 6:00	4.923	28.18	7.279	-0.652	29.41	0
12/27/2017 6:15	4.496	23.31	4.834	-0.779	29.41	0
12/27/2017 6:30	3.102	15.92	1.893	-0.734	29.41	0
12/27/2017 6:45	1.718	17.03	5.68	-0.444	29.41	0

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
12/27/2017 7:00	2.565	35.4	2.489	0.023	29.4	0
12/27/2017 7:15	0.32	35.04	0.035	0.279	29.4	0
12/27/2017 7:30	0.17	37.39	1.137	0.458	29.4	0
12/27/2017 7:45	1.423	98.3	67.22	0.651	29.4	0
12/27/2017 8:00	2.733	158.1	15.88	0.518	29.4	0
12/27/2017 8:15	3.329	159.3	18.64	0.581	29.4	0
12/27/2017 8:30	2.296	117	4.081	0.579	29.4	0
12/27/2017 8:45	2.579	141.4	10.84	0.971	29.4	0
12/27/2017 9:00	1.071	117.4	22.58	0.677	29.4	0
12/27/2017 9:15	1.3	101	31.89	0.9	29.4	0
12/27/2017 9:30	2.434	88.8	15.18	0.965	29.4	0
12/27/2017 9:45	2.885	42.12	5.038	0.459	29.4	0
12/27/2017 10:00	3.078	352.6	18.36	0.807	29.44	0.01
12/27/2017 10:15	3.562	13.23	12.77	0.514	29.44	0
12/27/2017 10:30	2.283	30.86	4.609	0.608	29.44	0
12/27/2017 10:45	1.555	57.36	11.58	1.178	29.44	0
12/27/2017 11:00	0.571	57.38	15.58	1.498	29.43	0
12/27/2017 11:15	1.425	341	27.33	1.424	29.43	0
12/27/2017 11:30	1.603	283.4	1.938	1.572	29.43	0
12/27/2017 11:45	0.246	284.3	0.021	2.144	29.43	0
12/27/2017 12:00	1.529	249.7	20.95	1.898	29.4	0
12/27/2017 12:15	1.634	249.8	16.56	1.886	29.4	0
12/27/2017 12:30	1.85	285	19.38	2.016	29.4	0
12/27/2017 12:45	2.885	321.3	2.344	1.851	29.4	0
12/27/2017 13:00	2.134	316.7	0.523	1.931	29.4	0
12/27/2017 13:15	1.689	346.5	23.64	1.99	29.4	0
12/27/2017 13:30	1.867	22.64	4.19	1.674	29.4	0
12/27/2017 13:45	2.831	20.29	7.936	1.487	29.4	0
12/27/2017 14:00	3.096	43.11	12.24	1.367	29.42	0
12/27/2017 14:15	2.293	40.97	16.77	1.332	29.42	0
12/27/2017 14:30	1.422	112.1	33.95	1.55	29.42	0
12/27/2017 14:45	2.15	114.8	9.32	2.174	29.42	0.01
12/27/2017 15:00	1.719	104	0.237	1.879	29.43	0
12/27/2017 15:15	1.436	104	0.071	2.123	29.43	0
12/27/2017 15:30	3.709	153.1	21.23	2.222	29.43	0
12/27/2017 15:45	4.349	174	11.14	2.276	29.43	0
12/27/2017 16:00	2.535	129.2	53.57	1.948	29.42	0
12/27/2017 16:15	3.506	169.4	21.29	2.143	29.42	0
12/27/2017 16:30	0.166	95.1	7.953	2.157	29.42	0
12/27/2017 16:45	0.805	108.3	7.801	2.573	29.42	0
12/27/2017 17:00	1.197	113.1	0.064	2.693	29.42	0.01
12/27/2017 17:15	2.459	105.7	9.65	2.775	29.42	0
12/27/2017 17:30	2.885	94.5	12.02	2.617	29.42	0.01
12/27/2017 17:45	2.559	93.4	8.43	2.925	29.42	0
12/27/2017 18:00	1.739	80.7	7.078	3.435	29.42	0.01
12/27/2017 18:15	1.16	78.18	0.508	3.447	29.42	0
12/27/2017 18:30	1.134	79.84	0.578	3.419	29.42	0.01
12/27/2017 18:45	1.833	69.27	15.62	3.688	29.42	0.01
12/27/2017 19:00	1.615	43.32	0.056	3.51	29.42	0
12/27/2017 19:15	2.023	85.7	32.39	3.471	29.42	0.01
12/27/2017 19:30	2.679	133.6	20.38	3.684	29.42	0.01
12/27/2017 19:45	2.421	96.5	9.3	3.846	29.42	0
12/27/2017 20:00	2.857	119.3	11.03	3.922	29.4	0.01
12/27/2017 20:15	0.923	102	4.21	4.185	29.4	0.01
12/27/2017 20:30	0.702	74.43	3.21	4.222	29.4	0
12/27/2017 20:45	1.612	60.27	18.93	4.183	29.4	0.01

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
12/27/2017 21:00	1.627	88.7	23.03	4.069	29.42	0.01
12/27/2017 21:15	1.04	123.2	3.742	3.831	29.42	0
12/27/2017 21:30	0.939	89	32.38	3.314	29.42	0.01
12/27/2017 21:45	0.902	72.55	18.45	3.338	29.42	0
12/27/2017 22:00	3.908	175.2	11.85	3.629	29.42	0.01
12/27/2017 22:15	4.45	172.7	14.33	3.485	29.42	0.01
12/27/2017 22:30	3.074	144.3	24.37	3.234	29.42	0.01
12/27/2017 22:45	2.361	154.9	37.23	3.368	29.42	0.01
12/27/2017 23:00	7.083	212.2	12.28	2.793	29.41	0.01
12/27/2017 23:15	6.268	215.7	9.04	2.826	29.41	0.01
12/27/2017 23:30	5.333	205	9.97	3.078	29.41	0.02
12/27/2017 23:45	3.54	218.8	13.3	2.873	29.41	0.01
12/28/2017 0:00	3.126	148.6	26.66	2.871	29.43	0.01
12/28/2017 0:15	4.576	102.2	9.06	2.768	29.43	0
12/28/2017 0:30	4.111	111.7	13.06	2.953	29.43	0.01
12/28/2017 0:45	4.155	127.5	22.68	3.082	29.43	0.01
12/28/2017 1:00	7.756	153.6	37.27	3.643	29.39	0.02
12/28/2017 1:15	7.226	169	26.98	3.168	29.39	0.01
12/28/2017 1:30	5.259	147.7	14.13	3.652	29.39	0
12/28/2017 1:45	7.031	144.3	6.683	4.22	29.39	0.01
12/28/2017 2:00	7.758	151.2	5.294	4.614	29.39	0.01
12/28/2017 2:15	8.99	154.5	6.079	4.89	29.39	0
12/28/2017 2:30	9.39	151.1	5.612	5.186	29.39	0
12/28/2017 2:45	9.18	150.3	6.186	5.309	29.39	0
12/28/2017 3:00	7.918	155	8.05	5.231	29.38	0
12/28/2017 3:15	8.62	168.7	8.62	5.311	29.38	0.01
12/28/2017 3:30	9.27	162.1	11.4	5.392	29.38	0
12/28/2017 3:45	7.233	156.5	6.566	5.508	29.38	0
12/28/2017 4:00	6.2	150.2	8.11	5.601	29.38	0
12/28/2017 4:15	6.56	148.7	10.73	5.975	29.38	0
12/28/2017 4:30	9.83	155.8	10.09	6.522	29.38	0
12/28/2017 4:45	8.71	146.9	11.05	6.296	29.38	0
12/28/2017 5:00	6.656	135	9.86	6.222	29.34	0
12/28/2017 5:15	9.9	152.9	6.446	6.271	29.34	0
12/28/2017 5:30	8.87	149.2	6.627	6.145	29.34	0
12/28/2017 5:45	7.111	132.6	9.33	5.967	29.34	0
12/28/2017 6:00	6.709	120.4	9.09	5.981	29.31	0
12/28/2017 6:15	7.744	126.5	10.13	6.2	29.31	0
12/28/2017 6:30	8.6	140.6	10.75	6.449	29.31	0.01
12/28/2017 6:45	8.59	147.2	8.03	6.483	29.31	0.01
12/28/2017 7:00	8.51	143.4	7.061	6.484	29.3	0
12/28/2017 7:15	7.599	151.6	6.31	6.442	29.3	0.01
12/28/2017 7:30	7.277	145.3	6.79	6.378	29.3	0.01
12/28/2017 7:45	5.606	139.1	6.351	6.317	29.3	0
12/28/2017 8:00	6.369	140.3	6.79	6.392	29.31	0.01
12/28/2017 8:15	6.823	147.3	9.01	6.481	29.31	0.01
12/28/2017 8:30	7.905	149.6	8.49	6.491	29.31	0
12/28/2017 8:45	8.71	148.7	7.857	6.62	29.31	0.01
12/28/2017 9:00	7.431	133	8.61	6.697	29.31	0
12/28/2017 9:15	7.217	131.3	8.91	6.718	29.31	0
12/28/2017 9:30	7.528	133	6.79	6.79	29.31	0
12/28/2017 9:45	8.12	132.4	7.346	6.937	29.31	0
12/28/2017 10:00	8.49	138.6	8.45	6.922	29.3	0
12/28/2017 10:15	8.04	139.4	7.126	6.89	29.3	0
12/28/2017 10:30	8.59	146	6.486	6.83	29.3	0.01
12/28/2017 10:45	8.5	143.8	5.714	6.812	29.3	0

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
12/28/2017 11:00	7.992	138.9	6.471	6.814	29.27	0
12/28/2017 11:15	9.53	145.1	7.786	6.858	29.27	0
12/28/2017 11:30	10.27	147.2	6.422	6.967	29.27	0
12/28/2017 11:45	9.95	146.8	8.6	7.042	29.27	0
12/28/2017 12:00	9.83	147.7	7.867	7.189	29.23	0
12/28/2017 12:15	11	152.7	6.284	7.326	29.23	0
12/28/2017 12:30	9.97	150.1	5.588	7.357	29.23	0
12/28/2017 12:45	10.14	152.5	6.554	7.464	29.23	0
12/28/2017 13:00	10.31	158.9	7.639	7.472	29.2	0
12/28/2017 13:15	12.82	173.5	7.75	7.433	29.2	0.01
12/28/2017 13:30	12.29	174.7	8.2	7.301	29.2	0
12/28/2017 13:45	10.19	165.3	10.26	7.152	29.2	0.01
12/28/2017 14:00	10.3	157	8.4	7.044	29.18	0
12/28/2017 14:15	10.21	156.7	7.59	6.95	29.18	0
12/28/2017 14:30	9.78	169	8.22	6.887	29.18	0.01
12/28/2017 14:45	9.72	163.8	9.65	6.846	29.18	0
12/28/2017 15:00	9	165.1	8.56	6.817	29.17	0
12/28/2017 15:15	8.62	155.8	9.39	6.713	29.17	0
12/28/2017 15:30	10.16	154.7	6.489	6.695	29.17	0.01
12/28/2017 15:45	10.33	150.6	8.14	6.644	29.17	0
12/28/2017 16:00	8.58	147	9.11	6.589	29.16	0
12/28/2017 16:15	8.02	147.8	9.58	6.514	29.16	0.01
12/28/2017 16:30	7.96	143	10.07	6.384	29.16	0.01
12/28/2017 16:45	5.799	133.8	11.29	6.299	29.16	0
12/28/2017 17:00	4.998	122.1	7.24	6.118	29.14	0
12/28/2017 17:15	5.606	118.5	8.13	6.211	29.14	0.01
12/28/2017 17:30	5.009	121.4	9.09	6.286	29.14	0
12/28/2017 17:45	6.616	131.3	11.38	6.453	29.14	0
12/28/2017 18:00	6.186	142.1	12.35	6.565	29.15	0
12/28/2017 18:15	5.314	138.8	12.51	6.413	29.15	0.01
12/28/2017 18:30	4.264	126.8	15.76	6.399	29.15	0
12/28/2017 18:45	3.506	117.7	10.9	6.184	29.15	0
12/28/2017 19:00	3.898	99	4.929	6.059	29.14	0
12/28/2017 19:15	4.053	97	5.173	5.982	29.14	0
12/28/2017 19:30	2.649	75.49	12.31	5.895	29.14	0.01
12/28/2017 19:45	3.165	58.47	5.104	5.808	29.14	0
12/28/2017 20:00	3.377	44.99	3.366	5.771	29.13	0.01
12/28/2017 20:15	3.398	38.02	4.074	5.624	29.13	0.01
12/28/2017 20:30	3.425	65.71	13.68	5.55	29.13	0.01
12/28/2017 20:45	3.567	158.1	30.39	5.376	29.13	0
12/28/2017 21:00	4.347	181.9	11.08	5.001	29.11	0
12/28/2017 21:15	4.386	158.7	8.36	4.914	29.11	0.01
12/28/2017 21:30	5.508	149.4	6.059	4.88	29.11	0.01
12/28/2017 21:45	3.639	135.9	8.79	4.952	29.11	0.02
12/28/2017 22:00	1.11	113.4	14.07	5.081	29.1	0.01
12/28/2017 22:15	3.497	137.8	9.64	5.114	29.1	0.02
12/28/2017 22:30	3.887	153.6	8.84	5.137	29.1	0.02
12/28/2017 22:45	4.093	122.4	10.39	5.102	29.1	0.03
12/28/2017 23:00	4.568	150.4	19.01	5.221	29.11	0.01
12/28/2017 23:15	4.462	143.8	6.623	5.428	29.11	0.01
12/28/2017 23:30	3.716	131.1	12.18	5.403	29.11	0.02
12/28/2017 23:45	3.545	137.1	22.92	5.751	29.11	0.02
12/29/2017 0:00	3.18	118	20.68	5.82	29.12	0.03
12/29/2017 0:15	2.179	68.84	15.16	5.588	29.12	0.02
12/29/2017 0:30	3.229	103.4	16.17	6.104	29.12	0.03
12/29/2017 0:45	2.475	40.51	20.86	6.114	29.12	0.05

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
12/29/2017 1:00	3.649	15.68	29.45	5.692	29.13	0.03
12/29/2017 1:15	1.751	1.253	37.85	6.493	29.13	0.04
12/29/2017 1:30	2.1	354.9	69.85	6.366	29.13	0.02
12/29/2017 1:45	3.118	7.152	4.264	6.145	29.13	0.04
12/29/2017 2:00	3.291	38.05	8.25	5.494	29.12	0.02
12/29/2017 2:15	1.952	94.4	65.01	5.864	29.12	0.01
12/29/2017 2:30	4.899	184.4	18.47	5.61	29.12	0.03
12/29/2017 2:45	3.156	121.9	34.66	6.203	29.12	0.04
12/29/2017 3:00	1.943	53.99	13.49	6.121	29.14	0.04
12/29/2017 3:15	2.411	117.8	24.27	6.423	29.14	0.04
12/29/2017 3:30	4.719	131	14.25	6.829	29.14	0.03
12/29/2017 3:45	3.839	119.2	13.35	7.374	29.14	0.03
12/29/2017 4:00	4.234	123.1	8.08	7.426	29.12	0.03
12/29/2017 4:15	3.697	86.9	20.5	7.535	29.12	0.02
12/29/2017 4:30	2.807	46.84	34.43	7.476	29.12	0.05
12/29/2017 4:45	1.71	16	20.23	7.882	29.12	0.05
12/29/2017 5:00	2.899	351.9	27.69	7.725	29.12	0.06
12/29/2017 5:15	0.921	335.7	3.588	7.787	29.12	0.03
12/29/2017 5:30	0.484	33.79	16.84	8.07	29.12	0.03
12/29/2017 5:45	0.487	125.9	12.26	8.12	29.12	0.05
12/29/2017 6:00	0.909	73.53	6.687	8.07	29.13	0.04
12/29/2017 6:15	1.297	76.8	10.77	7.894	29.13	0.03
12/29/2017 6:30	1.426	92.4	9.6	7.888	29.13	0.03
12/29/2017 6:45	2.156	111.4	5.449	7.98	29.13	0.03
12/29/2017 7:00	1.259	117.7	16.78	8.16	29.13	0.03
12/29/2017 7:15	0.996	117.1	17.2	8.27	29.13	0.02
12/29/2017 7:30	1.88	109.2	14.07	8.25	29.13	0.02
12/29/2017 7:45	5.214	138.2	7.095	8.62	29.13	0.02
12/29/2017 8:00	5.932	142.5	7.487	8.74	29.08	0.02
12/29/2017 8:15	5.863	146.8	10.64	8.81	29.08	0.02
12/29/2017 8:30	4.016	131.1	11.29	8.82	29.08	0.06
12/29/2017 8:45	4.161	125.1	11.46	8.59	29.08	0.05
12/29/2017 9:00	4.873	120.2	11.65	8.45	29.08	0.05
12/29/2017 9:15	4.294	134.2	10.63	8.33	29.08	0.05
12/29/2017 9:30	5.098	136.3	10.94	8.2	29.08	0.05
12/29/2017 9:45	4.385	127.6	10.81	7.965	29.08	0.04
12/29/2017 10:00	3.782	131.4	15.61	7.783	29.09	0.04
12/29/2017 10:15	4.909	150.7	14.24	7.798	29.09	0.05
12/29/2017 10:30	5.7	133.1	9.69	7.841	29.09	0.04
12/29/2017 10:45	5.134	118.2	11.02	7.92	29.09	0.05
12/29/2017 11:00	5.597	137.3	9.28	8.18	29.07	0.04
12/29/2017 11:15	6.343	135.5	8.77	8.58	29.07	0.01
12/29/2017 11:30	6.765	132.4	7.262	8.9	29.07	0.01
12/29/2017 11:45	6.162	135.9	7.118	9.14	29.07	0.01
12/29/2017 12:00	5.899	140.9	6.474	9.23	29.03	0.01
12/29/2017 12:15	7.329	151	6.763	9.37	29.03	0.02
12/29/2017 12:30	7.393	144.9	7.469	9.47	29.03	0.02
12/29/2017 12:45	7.875	147.3	6.512	9.55	29.03	0.02
12/29/2017 13:00	9.27	146.8	5.791	9.63	29.03	0.02
12/29/2017 13:15	8.95	138.8	8.93	9.61	29.03	0.01
12/29/2017 13:30	10.01	139.8	7.896	9.66	29.03	0.01
12/29/2017 13:45	12.26	132.7	8.74	9.62	29.03	0.01
12/29/2017 14:00	13.11	137.5	8.24	9.7	28.94	0.01
12/29/2017 14:15	11.7	134.9	9.79	9.58	28.94	0.01
12/29/2017 14:30	13.45	135.9	8.27	9.52	28.94	0.01
12/29/2017 14:45	14.92	139.7	8.01	9.58	28.94	0.02

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
12/29/2017 15:00	13.97	139.4	8.26	9.44	28.92	0.01
12/29/2017 15:15	12.02	132.3	8.74	9.29	28.92	0.01
12/29/2017 15:30	12.64	130.2	9.13	9.24	28.92	0.01
12/29/2017 15:45	11.67	128.4	8.35	9.42	28.92	0
12/29/2017 16:00	9.87	134.3	9.01	9.56	28.88	0
12/29/2017 16:15	11.84	127	7.898	9.75	28.88	0.01
12/29/2017 16:30	10.48	132.6	11.28	10	28.88	0
12/29/2017 16:45	9.77	144	7.956	9.98	28.88	0
12/29/2017 17:00	11.54	147.4	7.059	10.05	28.88	0
12/29/2017 17:15	11.17	148.8	5.609	10.01	28.88	0
12/29/2017 17:30	11.54	146	7.376	10.01	28.88	0
12/29/2017 17:45	13.06	157.1	7.677	10.22	28.88	0
12/29/2017 18:00	12.29	159.8	6.329	10.13	28.84	0
12/29/2017 18:15	12.72	159.7	6.946	10.27	28.84	0
12/29/2017 18:30	13.13	171.7	8.67	10.82	28.84	0
12/29/2017 18:45	17.04	176.4	7.444	11.26	28.84	0
12/29/2017 19:00	20.03	176.5	8.2	11.47	28.84	0
12/29/2017 19:15	20.69	176.9	8.93	11.63	28.84	0
12/29/2017 19:30	21.33	177.7	8.2	11.65	28.84	0
12/29/2017 19:45	21.15	176.9	8.63	11.71	28.84	0
12/29/2017 20:00	22.78	186	9.34	11.58	28.83	0.01
12/29/2017 20:15	23.36	194.2	7.601	11.15	28.83	0.01
12/29/2017 20:30	24.38	192.7	8.32	11.03	28.83	0
12/29/2017 20:45	24.92	197.8	8.54	11.12	28.83	0
12/29/2017 21:00	29.77	215	17.67	10.7	28.88	0.02
12/29/2017 21:15	29.93	222.5	9.31	9.27	28.88	0
12/29/2017 21:30	26.98	210.8	7.906	8.69	28.88	0
12/29/2017 21:45	22.41	200.7	9.44	8.31	28.88	0
12/29/2017 22:00	21.36	200.6	9.25	7.95	29	0
12/29/2017 22:15	22.3	208.1	9.17	7.77	29	0
12/29/2017 22:30	25.71	208	9.97	7.629	29	0
12/29/2017 22:45	25.64	208.5	9.99	7.494	29	0
12/29/2017 23:00	19.55	207.9	11.63	7.259	29.04	0
12/29/2017 23:15	21.21	209	9.6	7.155	29.04	0
12/29/2017 23:30	21.55	209.9	9.53	7.026	29.04	0
12/29/2017 23:45	20.74	214.3	10.73	6.84	29.04	0
12/30/2017 0:00	19.89	216.2	10.8	6.659	29.06	0
12/30/2017 0:15	22.96	209.8	8.84	6.579	29.06	0
12/30/2017 0:30	18.87	211.6	10.27	6.529	29.06	0
12/30/2017 0:45	20.27	207.9	10.28	6.486	29.06	0
12/30/2017 1:00	19.89	213.7	9.79	6.426	29.09	0
12/30/2017 1:15	18.13	212.1	10.85	6.305	29.09	0
12/30/2017 1:30	20.63	213.3	10.25	6.198	29.09	0
12/30/2017 1:45	15.37	207.3	14.1	6.194	29.09	0
12/30/2017 2:00	14.41	216.6	14.91	6.182	29.13	0
12/30/2017 2:15	12.75	213.3	16.78	6.144	29.13	0
12/30/2017 2:30	14.15	210.2	8.66	6.067	29.13	0
12/30/2017 2:45	14.53	202.8	10.51	5.976	29.13	0
12/30/2017 3:00	11.59	205	13.19	5.968	29.18	0
12/30/2017 3:15	12.18	201.4	10.13	5.847	29.18	0
12/30/2017 3:30	11.9	208.4	9.66	5.855	29.18	0
12/30/2017 3:45	15.38	216.5	8.4	5.867	29.18	0
12/30/2017 4:00	12.01	216.5	7.978	5.754	29.22	0
12/30/2017 4:15	13.43	206.9	7.834	5.786	29.22	0
12/30/2017 4:30	12.98	197	9.24	5.77	29.22	0
12/30/2017 4:45	11.63	192.8	11.14	5.749	29.22	0

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
12/30/2017 5:00	12.68	186.6	10.65	5.704	29.23	0
12/30/2017 5:15	13.24	190.2	10.11	5.355	29.23	0
12/30/2017 5:30	11.22	177.1	12.18	4.984	29.23	0
12/30/2017 5:45	4.254	148.8	29.31	4.751	29.23	0
12/30/2017 6:00	8.46	144.6	12.44	5.109	29.24	0
12/30/2017 6:15	8.72	152.6	16.95	5.134	29.24	0
12/30/2017 6:30	8.88	156.8	11.52	5.056	29.24	0
12/30/2017 6:45	6.225	141.8	15.02	5.082	29.24	0
12/30/2017 7:00	8.78	154.1	11.42	5.136	29.25	0
12/30/2017 7:15	8.9	159.9	11.06	5.258	29.25	0
12/30/2017 7:30	7.635	163.7	15.65	5.263	29.25	0
12/30/2017 7:45	8.16	167.3	13.48	5.276	29.25	0
12/30/2017 8:00	8.3	170.7	13.27	5.323	29.29	0
12/30/2017 8:15	9	185.3	13.21	5.43	29.29	0
12/30/2017 8:30	4.981	159.7	18.03	5.428	29.29	0
12/30/2017 8:45	8.51	168.7	11.91	5.566	29.29	0
12/30/2017 9:00	7.628	190.7	12.05	5.629	29.35	0
12/30/2017 9:15	7.17	188.4	12.79	5.722	29.35	0
12/30/2017 9:30	9.34	181.3	13.97	5.758	29.35	0
12/30/2017 9:45	9.27	184.2	13.53	5.806	29.35	0
12/30/2017 10:00	7.965	187.3	9.41	5.852	29.37	0
12/30/2017 10:15	8.47	187.4	12.96	5.92	29.37	0
12/30/2017 10:30	7.942	187	11.31	5.996	29.37	0
12/30/2017 10:45	7.882	200.4	13.22	5.992	29.37	0
12/30/2017 11:00	8.34	202	9.15	6.063	29.38	0
12/30/2017 11:15	9	200.4	8.82	6.232	29.38	0
12/30/2017 11:30	9.75	203.6	9.65	6.282	29.38	0
12/30/2017 11:45	8.26	202.7	9.33	6.269	29.38	0
12/30/2017 12:00	8.75	195.7	10.32	6.327	29.39	0
12/30/2017 12:15	7.298	190.5	11.62	6.418	29.39	0
12/30/2017 12:30	7.931	190.5	8.32	6.463	29.39	0
12/30/2017 12:45	8.05	194.1	8.45	6.49	29.39	0
12/30/2017 13:00	7.85	210.4	13.14	6.578	29.39	0
12/30/2017 13:15	5.881	207.2	10.52	6.65	29.39	0
12/30/2017 13:30	6.934	216.6	11.32	6.695	29.39	0
12/30/2017 13:45	5.762	223.9	10.88	6.743	29.39	0
12/30/2017 14:00	4.347	213	16.39	6.798	29.4	0
12/30/2017 14:15	4.626	224.3	12.78	6.855	29.4	0
12/30/2017 14:30	3.841	228.3	12.22	6.895	29.4	0
12/30/2017 14:45	2.665	242.9	12.05	6.925	29.4	0
12/30/2017 15:00	2.563	267.2	15.15	6.897	29.43	0
12/30/2017 15:15	2.593	301.8	6.771	6.781	29.43	0
12/30/2017 15:30	0.842	306.7	0.189	6.702	29.43	0
12/30/2017 15:45	0.455	281.7	9.25	6.706	29.43	0
12/30/2017 16:00	0.31	19.93	19.67	6.433	29.44	0
12/30/2017 16:15	0.206	27.25	0.017	6.039	29.44	0
12/30/2017 16:30	2.423	65.2	13.45	5.951	29.44	0
12/30/2017 16:45	5.505	34.49	7.956	5.304	29.44	0
12/30/2017 17:00	4.968	17.99	9.45	5.038	29.44	0
12/30/2017 17:15	3.753	23.74	6.676	4.983	29.44	0
12/30/2017 17:30	4.008	23.32	8.75	4.932	29.44	0
12/30/2017 17:45	4.554	26.35	7.427	4.961	29.44	0
12/30/2017 18:00	6.198	29.16	7.393	4.905	29.46	0
12/30/2017 18:15	7	36.71	8.35	4.72	29.46	0
12/30/2017 18:30	7.933	34.26	9.73	4.679	29.46	0
12/30/2017 18:45	6.405	26.87	8.21	4.644	29.46	0

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
12/30/2017 19:00	5.012	30.78	9.21	4.628	29.48	0
12/30/2017 19:15	5.898	36.52	5.08	4.493	29.48	0
12/30/2017 19:30	3.66	37.2	5.268	4.463	29.48	0
12/30/2017 19:45	3.595	34.89	5.168	4.483	29.48	0
12/30/2017 20:00	3.6	30.28	5.24	4.459	29.46	0
12/30/2017 20:15	2.445	38.06	2.705	4.496	29.46	0
12/30/2017 20:30	3.358	31.23	7.051	4.469	29.46	0
12/30/2017 20:45	4.347	32.23	6.888	4.302	29.46	0
12/30/2017 21:00	5.737	41.59	10.09	4.216	29.46	0
12/30/2017 21:15	5.781	36.97	8.26	4.105	29.46	0
12/30/2017 21:30	5.157	29.72	6.794	4.147	29.46	0
12/30/2017 21:45	6.16	31.41	8.74	4.092	29.46	0
12/30/2017 22:00	7.189	18.1	8.02	3.953	29.46	0
12/30/2017 22:15	5.732	7.903	8.75	3.868	29.46	0
12/30/2017 22:30	4.122	22.32	8.68	3.785	29.46	0
12/30/2017 22:45	4.487	23.77	9.93	3.41	29.46	0
12/30/2017 23:00	4.885	21.08	8.77	3.338	29.46	0
12/30/2017 23:15	6.09	40.4	9.4	3.334	29.46	0
12/30/2017 23:30	5.943	48.76	13.99	3.029	29.46	0
12/30/2017 23:45	4.856	43.29	12.46	2.81	29.46	0
12/31/2017 0:00	4.84	10.78	13.48	2.793	29.44	0
12/31/2017 0:15	5.441	9.33	9.24	2.749	29.44	0
12/31/2017 0:30	4.86	19.3	9.76	2.651	29.44	0
12/31/2017 0:45	4.982	359.2	11.86	2.173	29.44	0
12/31/2017 1:00	5.613	17.62	11.29	2.392	29.46	0
12/31/2017 1:15	4.682	22.61	11.42	2.391	29.46	0
12/31/2017 1:30	5.68	22.58	10.17	2.344	29.46	0
12/31/2017 1:45	5.868	29.83	8.55	2.148	29.46	0
12/31/2017 2:00	5.808	26.61	7.909	1.979	29.44	0
12/31/2017 2:15	4.292	31.7	11.05	1.9	29.44	0
12/31/2017 2:30	5.479	25.95	9.63	1.675	29.44	0
12/31/2017 2:45	5.348	18.13	8.56	1.466	29.44	0
12/31/2017 3:00	6.609	23.58	10.41	1.353	29.43	0
12/31/2017 3:15	7.257	32.82	7.575	1.226	29.43	0
12/31/2017 3:30	6.317	26.15	14.36	1.124	29.43	0
12/31/2017 3:45	6.567	39.2	10.44	1.056	29.43	0
12/31/2017 4:00	5.828	16.14	13.99	0.973	29.44	0
12/31/2017 4:15	4.351	5.656	11.98	0.96	29.44	0
12/31/2017 4:30	3.675	359	20.18	0.721	29.44	0
12/31/2017 4:45	2.257	304.1	41.78	0.574	29.44	0
12/31/2017 5:00	5.556	18.38	10.47	0.49	29.45	0
12/31/2017 5:15	6.5	23.17	10.95	0.284	29.45	0
12/31/2017 5:30	5.643	7.966	14.1	0.232	29.45	0
12/31/2017 5:45	2.241	4.791	11.65	0.06	29.45	0
12/31/2017 6:00	2.247	343.5	17.56	0.044	29.44	0
12/31/2017 6:15	4.188	51.11	13.94	-0.051	29.44	0
12/31/2017 6:30	8.72	26.98	9.3	-0.232	29.44	0
12/31/2017 6:45	7.452	34.79	9.9	-0.392	29.44	0
12/31/2017 7:00	6.921	34.08	9.8	-0.417	29.42	0
12/31/2017 7:15	7.374	27.09	9.77	-0.436	29.42	0
12/31/2017 7:30	6.355	22.7	8.81	-0.546	29.42	0
12/31/2017 7:45	4.567	2.035	26.26	-0.694	29.42	0
12/31/2017 8:00	2.367	343.1	11.33	-0.851	29.42	0
12/31/2017 8:15	2.098	28.9	15.06	-0.84	29.42	0
12/31/2017 8:30	1.855	37.57	9.29	-0.938	29.42	0
12/31/2017 8:45	1.02	2.509	19.91	-1.044	29.42	0

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
12/31/2017 9:00	0.684	353.6	9.71	-1.14	29.41	0
12/31/2017 9:15	2.728	349.8	14.74	-1.165	29.41	0
12/31/2017 9:30	2.84	30.55	14.49	-1.046	29.41	0
12/31/2017 9:45	2.158	24.12	9.73	-0.915	29.41	0
12/31/2017 10:00	1.478	15.29	18.69	-0.657	29.43	0
12/31/2017 10:15	4.019	19.21	11.86	-0.519	29.43	0
12/31/2017 10:30	3.959	25.23	10.06	-0.369	29.43	0
12/31/2017 10:45	3.931	23.88	8.96	-0.163	29.43	0
12/31/2017 11:00	3.368	31.04	13.58	-0.045	29.41	0
12/31/2017 11:15	5.199	24.21	8.57	0.116	29.41	0
12/31/2017 11:30	5.278	16.03	10	0.431	29.41	0
12/31/2017 11:45	6.519	21.73	7.565	0.636	29.41	0
12/31/2017 12:00	4.676	14.91	10.01	0.843	29.38	0
12/31/2017 12:15	3.336	21.06	14.14	1.463	29.38	0
12/31/2017 12:30	4.714	26.6	10.9	1.563	29.38	0
12/31/2017 12:45	4.749	25.51	8.54	1.773	29.38	0
12/31/2017 13:00	5.561	24.36	8.1	1.887	29.37	0
12/31/2017 13:15	5.298	27.58	11.92	2.069	29.37	0
12/31/2017 13:30	6.17	25.41	8.67	2.361	29.37	0
12/31/2017 13:45	8.38	26.13	9.11	2.309	29.37	0
12/31/2017 14:00	10.19	22.49	8.75	2.129	29.37	0
12/31/2017 14:15	9.48	22.37	8.49	2.105	29.37	0
12/31/2017 14:30	8.87	23.99	7.312	2.234	29.37	0
12/31/2017 14:45	9.54	20.52	7.428	2.335	29.37	0
12/31/2017 15:00	9.31	22.02	9.16	2.252	29.34	0
12/31/2017 15:15	10.93	22.24	10.75	2.282	29.34	0
12/31/2017 15:30	10.65	22.05	10.6	2.312	29.34	0
12/31/2017 15:45	10.35	24.67	10.72	2.162	29.34	0
12/31/2017 16:00	11.4	21.99	10.07	1.857	29.37	0
12/31/2017 16:15	10.73	30.33	12.86	1.588	29.37	0
12/31/2017 16:30	9.14	28.66	12.78	1.494	29.37	0
12/31/2017 16:45	9.31	23.94	9.89	1.511	29.37	0
12/31/2017 17:00	9.44	19.77	12.2	1.052	29.38	0
12/31/2017 17:15	9.68	23.45	9.34	0.691	29.38	0
12/31/2017 17:30	10.1	20.96	10.8	0.46	29.38	0
12/31/2017 17:45	10.17	27.96	9.84	0.316	29.38	0
12/31/2017 18:00	8.97	31.96	15.22	0.291	29.37	0
12/31/2017 18:15	7.355	19.7	9.52	0.146	29.37	0
12/31/2017 18:30	8.38	22.4	11.06	0.076	29.37	0
12/31/2017 18:45	6.828	17.36	10.57	0.08	29.37	0
12/31/2017 19:00	6.663	25.04	7.493	0.054	29.38	0
12/31/2017 19:15	7.1	25.36	9.2	0.042	29.38	0
12/31/2017 19:30	7.944	24	10.11	0.063	29.38	0
12/31/2017 19:45	6.827	27.06	12.86	0.009	29.38	0
12/31/2017 20:00	6.041	26.09	9.16	-0.111	29.39	0
12/31/2017 20:15	5.266	27.18	10.57	-0.173	29.39	0
12/31/2017 20:30	4.939	26.88	7.669	-0.293	29.39	0
12/31/2017 20:45	5.393	23.61	9.75	-0.358	29.39	0
12/31/2017 21:00	5.819	25.44	7.868	-0.311	29.39	0
12/31/2017 21:15	5.884	20.29	8.36	-0.316	29.39	0
12/31/2017 21:30	5.604	21.33	6.685	-0.328	29.39	0
12/31/2017 21:45	5.109	18	6.399	-0.363	29.39	0
12/31/2017 22:00	4.681	25.86	5.296	-0.385	29.41	0
12/31/2017 22:15	4.75	26.62	5.803	-0.435	29.41	0
12/31/2017 22:30	5.401	25.93	6.131	-0.457	29.41	0
12/31/2017 22:45	5.683	28.69	6.262	-0.477	29.41	0

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
12/31/2017 23:00	5.576	25.11	7.087	-0.543	29.42	0
12/31/2017 23:15	4.466	22.19	5.865	-0.623	29.42	0
12/31/2017 23:30	4.311	25.83	4.092	-0.761	29.42	0
12/31/2017 23:45	4.682	26.04	3.946	-0.892	29.42	0
1/1/2018 0:00	4.062	15.21	3.644	-0.955	29.44	0
1/1/2018 0:15	2.42	11	5.561	-1.101	29.44	0
1/1/2018 0:30	2.666	7.145	72.42	-1.08	29.44	0
1/1/2018 0:45	2.746	33.62	19.68	-1.432	29.44	0
1/1/2018 1:00	2.454	18.84	6.429	-1.195	29.46	0
1/1/2018 1:15	2.175	59.57	14.14	-1.381	29.46	0
1/1/2018 1:30	2.571	31.5	2.243	-1.425	29.46	0
1/1/2018 1:45	1.978	24.47	13.22	-1.418	29.46	0
1/1/2018 2:00	3.53	11.16	5.193	-1.26	29.47	0
1/1/2018 2:15	2.206	22.21	2.803	-1.226	29.47	0
1/1/2018 2:30	1.686	40.86	6.141	-1.189	29.47	0
1/1/2018 2:45	2.767	351.1	17.87	-1.254	29.47	0
1/1/2018 3:00	3.472	10.28	12.74	-1.064	29.49	0
1/1/2018 3:15	3.256	9.83	16.37	-1.188	29.49	0
1/1/2018 3:30	3.467	22.51	4.767	-1.421	29.49	0
1/1/2018 3:45	4.065	13.52	3.306	-1.727	29.49	0
1/1/2018 4:00	3.023	27.22	1.293	-1.792	29.49	0
1/1/2018 4:15	2.688	15.53	6.266	-1.772	29.49	0
1/1/2018 4:30	2.287	26.76	3.928	-1.735	29.49	0
1/1/2018 4:45	2.527	31.59	2.974	-1.776	29.49	0
1/1/2018 5:00	1.294	59.41	63.89	-1.803	29.48	0
1/1/2018 5:15	1.844	41.88	27.14	-1.841	29.48	0
1/1/2018 5:30	2.564	36.14	4.241	-1.783	29.48	0
1/1/2018 5:45	1.124	25.3	0.149	-1.327	29.48	0
1/1/2018 6:00	0.251	25.27	0.07	-0.537	29.5	0
1/1/2018 6:15	0.837	153.6	23.97	-1.292	29.5	0
1/1/2018 6:30	1.053	82.9	51.65	-1.441	29.5	0
1/1/2018 6:45	3.845	24.54	6.105	-2.157	29.5	0
1/1/2018 7:00	5.031	31.7	4.717	-1.829	29.51	0
1/1/2018 7:15	4.441	29.22	6.934	-1.832	29.51	0
1/1/2018 7:30	3.37	32.95	6.667	-1.884	29.51	0
1/1/2018 7:45	3.281	36.82	3.311	-2.021	29.51	0
1/1/2018 8:00	4.538	30.15	6.429	-1.973	29.52	0
1/1/2018 8:15	4.6	19.41	6.932	-1.713	29.52	0
1/1/2018 8:30	4.46	19.41	8.2	-1.555	29.52	0
1/1/2018 8:45	4.478	18.66	5.447	-1.427	29.52	0
1/1/2018 9:00	3.894	34.89	9.62	-1.422	29.54	0
1/1/2018 9:15	3.284	36.02	15.67	-1.524	29.54	0
1/1/2018 9:30	4.542	26.19	6.8	-1.249	29.54	0
1/1/2018 9:45	4.292	32.5	6.096	-1.214	29.54	0
1/1/2018 10:00	3.335	4.935	12.46	-0.772	29.56	0
1/1/2018 10:15	3.288	356.3	14.17	-0.385	29.56	0
1/1/2018 10:30	2.642	342.2	13.74	0.004	29.56	0.01
1/1/2018 10:45	1.889	6.65	1.147	0.32	29.56	0
1/1/2018 11:00	0.716	2.9	19.86	0.571	29.54	0
1/1/2018 11:15	1.893	359.6	22.06	0.521	29.54	0
1/1/2018 11:30	3.009	5.119	18.52	0.444	29.54	0
1/1/2018 11:45	2.848	334	12.44	1.141	29.54	0
1/1/2018 12:00	1.799	282.1	25.43	1.777	29.53	0
1/1/2018 12:15	1.574	123.7	93.8	2.161	29.53	0
1/1/2018 12:30	1.194	9.49	13.39	2.204	29.53	0
1/1/2018 12:45	1.689	40.32	7.417	2.468	29.53	0

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
1/1/2018 13:00	3.663	318.8	33.03	3.143	29.52	0
1/1/2018 13:15	4.921	316.3	16.36	4.191	29.52	0
1/1/2018 13:30	5.328	10.72	12.75	3.653	29.52	0
1/1/2018 13:45	4.89	10.77	11.02	3.513	29.52	0
1/1/2018 14:00	4.319	18.05	9.67	3.671	29.53	0
1/1/2018 14:15	4.064	24.98	6.247	3.88	29.53	0

APPENDIX D

Area 5 Top Deck Report

CEDAR HILLS REGIONAL LANDFILL AREA 5 TOP DECK MONITORING REPORT

Fourth Quarter 2017



Department of Natural Resources and Parks
Solid Waste Division

February 2018
Printed on recycled paper

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AREA 5 TOP DECK MONITORING QUARTERLY REPORT

FOURTH QUARTER 2017

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 currently experiencing technical issues with the leachate volume monitoring system for Area 5. Work is underway to resolve these issues and the logged data will be reported as it becomes available in subsequent Top Deck Monitoring Reports.

In the interim, 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 included in Table 1.

TABLE 1

CEDAR HILLS REGIONAL LANDFILL LEACHATE PRODUCTION for 4th QUARTER of 2017

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

2017: Precipitation, leachate and refuse in place through 4th Quarter of 2017

* 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 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 Solid Waste Operations (SWO) staff. During the 4th Quarter of 2017 all inspections and maintenance work was performed by SWO staff as planned. A summary of this work can be found in Appendix A: Inspection Reports.

Also throughout the 4th Quarter of 2017, Facility Engineering and Science Unit (FESU) staff performed monthly Landfill Facility Site Inspections. These inspections are also included in Appendix A. During the quarter erosion control measures continued to be implemented and/or maintained to mitigate runoff effects from on-going construction activities.

In addition to KCSWD inspections, inspections were regularly performed by Public Health – Seattle & King County (PHSKC) during the quarter. One inspection by PHSKC occurred during the 4th Quarter of 2017 on December 4th, 2017. The inspections reports can be viewed in Appendix A.

Air Quality Criteria

Each quarter, serpentine walks are conducted across the Area 5 Top Deck and its side slopes to verify that methane gas emissions are below regulatory criteria. The 4th Quarter of 2017 Serpentine Walk was conducted from December 17th to the 28th, 2017. There were no exceedances of regulatory criteria observed during the Serpentine Walk.

The results from the 4th Quarter 2017 Serpentine Surface 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 4th Quarter of 2017 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. A site map showing the settlement monitoring points is included as Figure 1. Visual inspections are completed by both operations and engineering staff. No evidence of erosion of the cover and underlying refuse was found during inspections.

The most recent settlement levels for Area 5 were measured on November 27th, 2017. The survey data is given in Table 2, and the settlement at each point is given in Table 3. Although settlement is proceeding at a very low rate, there is no indication that any differential settlement is occurring, nor any concern to cover system integrity.

Future plans for Area 5 are to complete the final lift(s), followed by application of final cover.

TABLE 2
CEDAR HILLS REGIONAL LANDFILL AREA 5 SURFACE SURVEY DATA for 4th QUARTER of 2017

A5SM-1 ^a		A5SM-2		A5SM-3 ^b		PMX20074 ^c	
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	--	--	--	--

^a A5SM-1 was destroyed by filling Area 7 during Lift 4.

^b A5SM-3 NEW as of 2/14/2007. Destroyed by Area 8 excavation stockpile in 08/2017.

^c PMX20074 was destroyed during Phase 3 of Area 6.

TABLE 3

CEDAR HILLS REGIONAL LANDFILL AREA 5 SETTLEMENT for 4th QUARTER of 2017

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- 08/2017
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
A5SM-2	Feet	4.85	3.43	2.41	2.51	1.94	1.51	1.06	0.71	0.97	0.74	1.07
A5SM-3	Feet	N/A	1.37	1.26	1.27	1.12	0.97	0.60	1.41	0.05	0.8	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
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	1.07
	Feet/Month	0.33	0.19	0.15	0.14	0.11	0.09	0.06	0.09	0.04	0.06	0.05

IV. STORMWATER SAMPLING

Collection of Samples

Area 5 Top Deck stormwater samples were collected during the 4th Quarter of 2017 at three of the four designated sites, including SW-TD1, SW-TD4, and SW-TD6. SW-TD2 was not flowing during the sampling event. Comparison leachate samples were taken at location LS-API each month of the quarter.

4th Quarter 2017 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 for all locations 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 (ISWGP) benchmark for turbidity is 25 NTU.

- Turbidity at SW-TD6 exceeded the acceptable range per the applicable water quality criteria.

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 CO₂ acting upon alkaline materials in the soil to produce bicarbonate (HCO₃⁻) and carbonate (CO₃²⁻). The source(s) of CO₂ 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.

- All three samples (SW-TD1, TD4, and TD6) monitoring results exceeded the designated limit for iron (total) per the applicable water quality criteria.

B. RESULTS COMPARISON

The Top Deck stormwater runoff exhibited higher than average values versus historical surface water samples for all parameters in the 4th Quarter of 2017.

All parameters are likely elevated from recent erosion control issues related to the stockpiling of soils by KCSWD's contractor for the development of Area 8, and the relocation of excavated soils from the new KCSWD Factoria Transfer Station 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. Specifically, chloride results (which are a primary screening indicator for leachate impact) were reviewed, all of which remained below the criteria of 5 mg/L.

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). All samples were below these screening criteria during the 4th Quarter of 2017.

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 - 4Q2017 Stormwater Monitoring Results

[illegible]

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 - 4Q2017 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	10/17/2017	LAPI171017M	8700	8.25	27.1	--	8770	6580 S	2400	--	8.06	50 U	1910 S
LS-API	11/15/2017	LAPI171115M	2900	7.71	12.2	--	2040	1390	512	--	2.67	31.1	459 S
LS-API	12/13/2017	LAPI171213M	14000	8.37	19.3	--	5120	5240 S	1230	--	16.1	71.7	1680 S
Average Value =			8533	8.1	19.5	NA	5310	4403	1381	NA	8.9	50.9	1350
S = INDICATES A SAMPLE HANDLING OR HOLD TIME ERROR													
NOTE: LEACHATE IS NOT ANALYZED (NA) FOR TURBIDITY OR DISSOLVED IRON													

V. CONCLUSION

Stormwater samples for the Area 5 Top Deck were collected at monitoring locations SW-TD1, TD4, and TD6 during the 4th Quarter of 2017. There were water quality exceedances with respect to the applicable water quality criteria for turbidity and total iron at all locations. However, when the overall results were compared to 2015 averaged surface water sampling data at SW-S1, and leachate effluent samples from LS-API, the Top Deck sample results exhibited a stronger resemblance to the surface water results, versus the leachate results.

Elevated analyte and field parameter results generally coincided with site conditions during the 4th Quarter, as Area 5 continues to have approved soil stockpile and movement actions from both the Area 8 excavation, and the Factoria Transfer Station stockpile.

Alkalinity results provide evidence that stormwater runoff is not being exposed to landfill gas. Chloride results similarly provide evidence that leachate impact is not occurring.

The inspection reports for the 4th Quarter of 2017 showed no issues with the interim cover system for Area 5. The Area 5 settlement rate remained low and consistent with the previous monitoring period. Additionally, there were no indications of major differential settling, nor signs of surficial erosion.

The recent compliant historical performance trend for Area 5, coupled with ongoing inspection results verifying the integrity of the cover and stormwater sample results demonstrating closer resemblance to background surface water than leachate discharge from waste in-place, 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 FLDWN SEPTEMBER 2014

DATE	REVISION	BY



KING COUNTY DEPARTMENT OF
NATURAL RESOURCES AND PARKS
SOLID WASTE DIVISION

CEDAR HILLS REGIONAL LANDFILL
SETTLEMENT MONITORING LOCATIONS

APPROVED: VDO DATE Feb. 2014
RECOMMENDED: DATE
DESIGNED: DRAWN
PROJECT NO. SURVEY NO. SHEET 1 OF 1

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

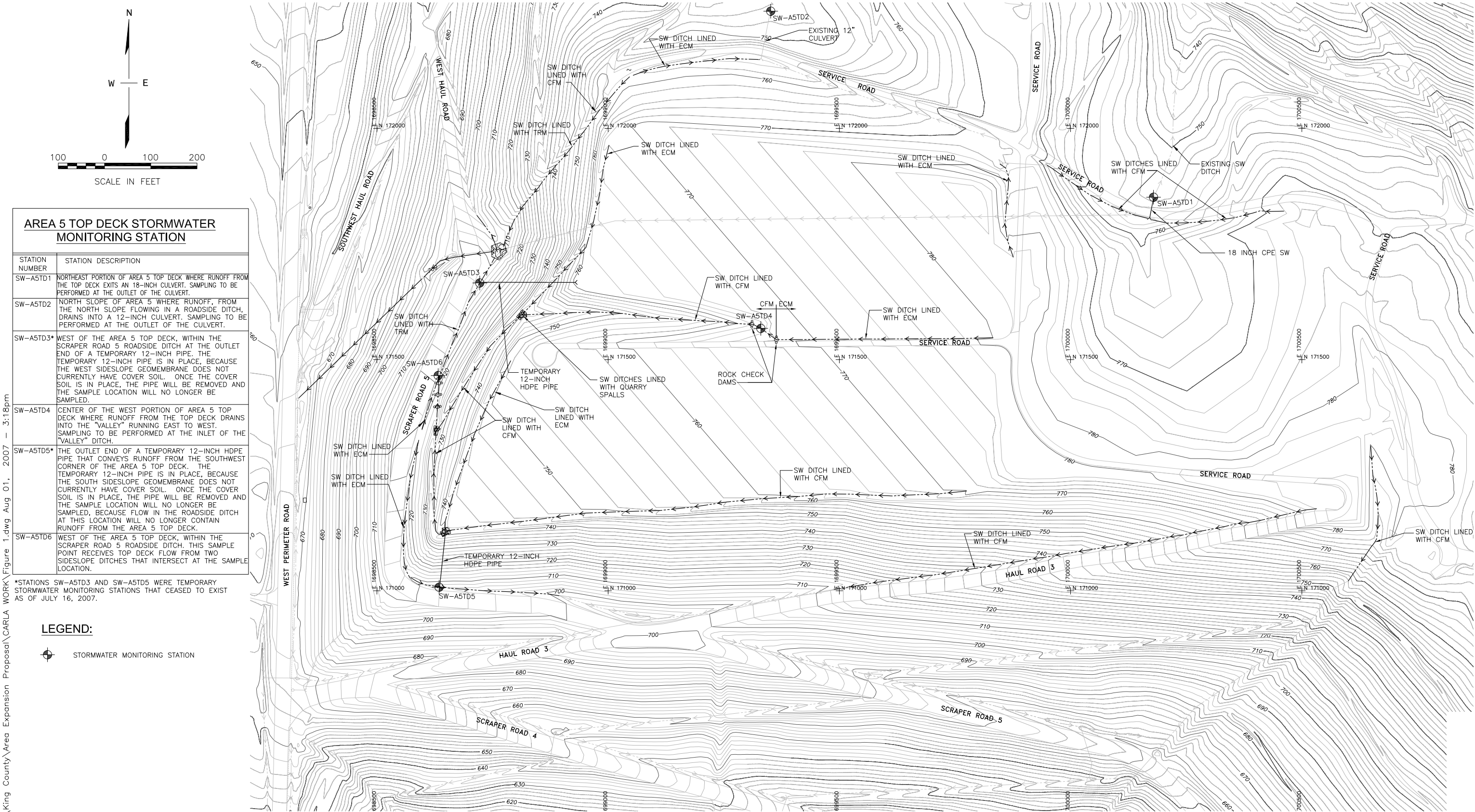


Figure 2
Area 5 Top Deck
Stormwater Monitoring Stations

Appendix A:

Inspection Reports

SOLID WASTE DIVISION

Landfill Facility Site Inspections

Type – Permit Compliance

Inspected By: Stevn Larry

Date: October 23-27, 2017

Location: Cedar Hills

Ambient Temperature (°F) 60

Weather Condition: Foggy

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			6. Landfill Cover		X
7. Air Compressors	X		b. Forcemains	X		7. Drain Rock	X	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		
4. Trash Racks		X						
5. Ditches		X	E. Roadway System			Cover System / ESC		
6. Runoff Control Berms		X	1. Road Sweeping	X		F. Vegetation		
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)	Status	State Reason if "Fair or Poor"	Date Corrective Action Implemented
		Area Map	G F P		
1				See description below	Oct 23 until completed.

AREA CODES (for Cedar Hills)

East Main Hill = EMH

Southwest Main Hill = SWMH

Southeast Pit Area = SEPA

Central Pit = CP

G = Good

Area 2/3 = A2/3

Area 4 = A4

Stockpile = SP

F = Fair

Aeration Ponds = AP

So. Solid Waste Area = SSWA

North Flare Station = NFS

P = Poor

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 storm named "The Big Dark" was the First heavy rain of the season with 5+ inches of rain over 48 to 72 hours. The storm caused heavy mud flows and soil erosion to all soil stock piles and on exposed soils payments along the side slopes of Area 7 West side. The Aeration ponds were offline for the East pond liner inspection and the installation of new inlet pipes. Night and day leachate pumping to the new CSW ponds and to Metro to reduce volume contained at CH. All stormwater conveyance systems are flowing turbid. The landfill gas collection system has been challenged with collecting gas from saturated soils or water blocked portions of the gas conveyance system.

Category number:	Action to be Completed. Suggested Remedy: Repairs are in progress.
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)
If Y, log changes in Appendix I of SWPPP.

Potential Pollutant Sources Y / N

Site Map Y / N

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 Barry, Engineer II

Signature:  Date: _____

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: 10/27/17

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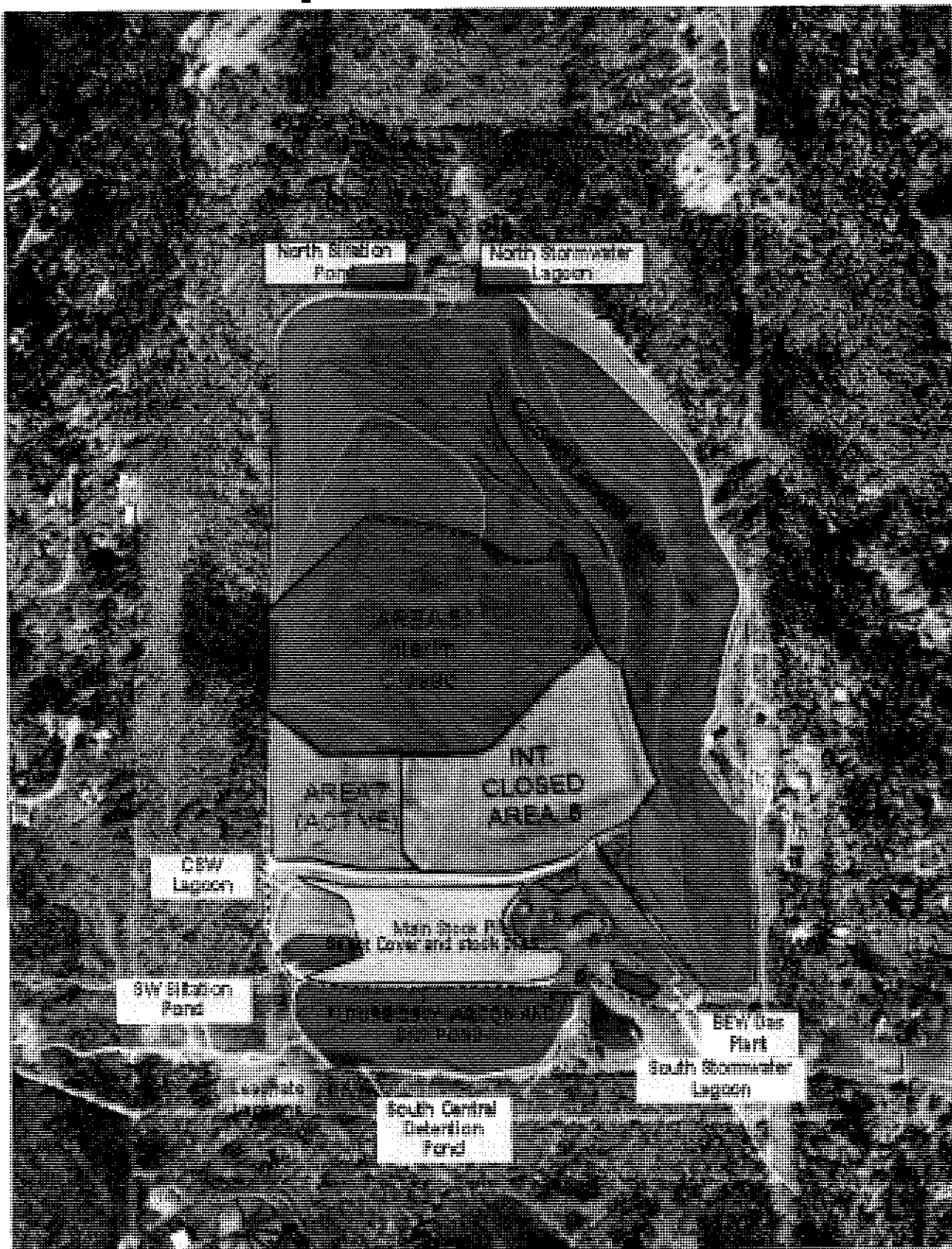
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SOLID WASTE DIVISION

Landfill Facility Site Inspections

Type – Permit Compliance

Inspected By: Stevn Larry

Date: November 28, 2017

Location: Cedar Hills

Ambient Temperature (°F) 60

Weather Condition: Rain

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)			4. Perimeter Fences	X	
5. Odor		X	5. Collection System	X		5. Vegetation	X	
6. Flare Stations	X		a. Collection Pipes			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		
4. Trash Racks	X							
5. Ditches	X		E. Roadway System			Cover System / ESC		
6. Runoff Control Berms	X		1. Road Sweeping	X		F. Vegetation		
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)	Status	State Reason if "Fair or Poor"	Date Corrective Action Implemented
		Area Map	G F P		
1			F	See description below	Oct 27 until completed.

AREA CODES (for Cedar Hills)

East Main Hill = EMH

Southwest Main Hill = SWMH

Southeast Pit Area = SEPA

Central Pit = CP

G = Good

Area 2/3 = A2/3

Area 4 = A4

Stockpile = SP

F = Fair

Aeration Ponds = AP

So. Solid Waste Area = SSWA

North Flare Station = NFS

P = Poor

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 latest series of storms over the Thanks Giving holiday, had heavy rains 1+ inches that caused heavy mud flows and soil erosion to all soil stock piles and on exposed soils along the side slopes of Area 5, 6 & 7 West side. All stormwater conveyance systems are flowing turbid. The landfill gas collection system has been challenged with collecting gas from saturated soils or water blocked portions of the gas conveyance system. There is ongoing erosion control recovery actions to repair hill slopes that have failed, to remove sediment build up behind rock check dams, increasing the side width of rock check dams. The South Stormwater Lagoon outlet is partially blocked and the lagoon has record level volumes. The increase volume is aiding in settling sediment that has washed into the lagoon from the Area 6 soil stock piles. There are odor issues along west side of the landfill resulting from partially water blocked gas collectors.

<i>Category number:</i>	Action to be Completed. Suggested Remedy: Repairs are in progress.
<i>Category number:</i>	Action to be Completed. Suggested Remedy:
<i>Category number:</i>	Action to be Completed. Suggested Remedy:
<i>Category number:</i>	Action to be Completed. Suggested Remedy:

SWPPP Modifications Necessary? (circle Y or N)
If Y, log changes in Appendix I of SWPPP.

Potential Pollutant Sources Y / N

Site Map Y / N

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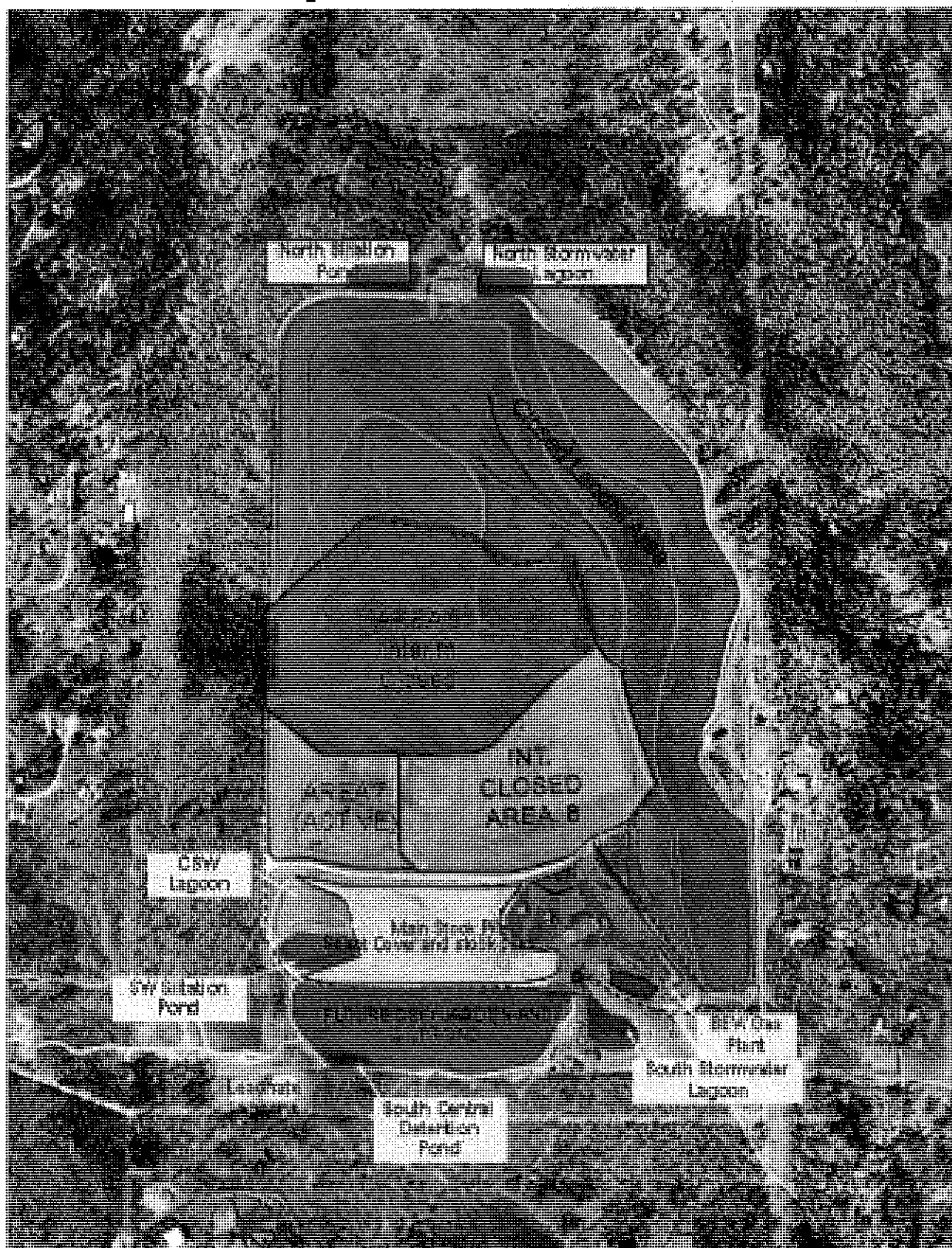
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INSPECTION REPORT SIGNATURE PAGE

INSPECTOR / QUALIFIED PERSONNEL

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

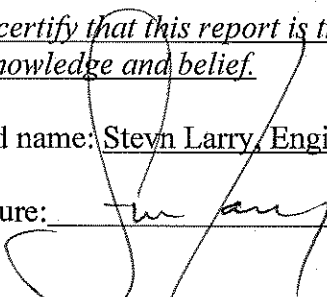
☒ *The site is in compliance with the terms and conditions of the SWPPP and the ISGP.*

☐ *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: 11/28/2017

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: 11/28/17

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: Mary Impson, HEI II

Signature: Mary Impson Date: 1/2/18

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: 1/9/18

SOLID WASTE DIVISION

Landfill Facility Site Inspections

Type – Permit Compliance

Inspected By: Mary Impson

Date: December 20, 2017

Location: Cedar Hills Ambient Temperature (°F) 40 Weather Condition: Clear & cold

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)				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	X			E. Roadway System				Cover System / ESC			
6. Runoff Control Berms	X			1. Road Sweeping	X			F. Vegetation			
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											

Item No.	Action Code(s)	Area Code(s) (See below or over for map)		Status			State Reason if "Fair or Poor"	Date Corrective Action Implemented
		Area	Map	G	F	P		
1	D5	F5					Drainage ditch behind new equipment operator trailer- accumulation of sediment	
2	D5	F2					Drainage ditch on west side of haul road needs cleaning- accumulation of sediment and garbage	
3	D5	E5					Metal pipes in the ditch north of water tower.	

4	C6/F2	-					Erosion issues- hillside rills & flows on many slopes	
5	C7	G2					Rock drain on east side of haul road	
6	C10/F2	G4					Dirt stock pile needs cover	
7	C12	G4					Trash accumulation in trailer storage area behind shop	
8	C14	G5					Conference room C trailer: -hanging wire from roof -damaged shirting	
9	C14	G5					Two generators stored outside uncovered and not containment.	
10								
11								

AREA CODES (for Cedar Hills)

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

G = Good

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

F = Fair

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

P = Poor

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:

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**)
If **Y**, log changes in Appendix I of SWPPP.

Potential Pollutant Sources **Y / N**

Site Map **Y / N**

1 | 2 | 3 | 4 | 5 | 6 | 7

A

B

C

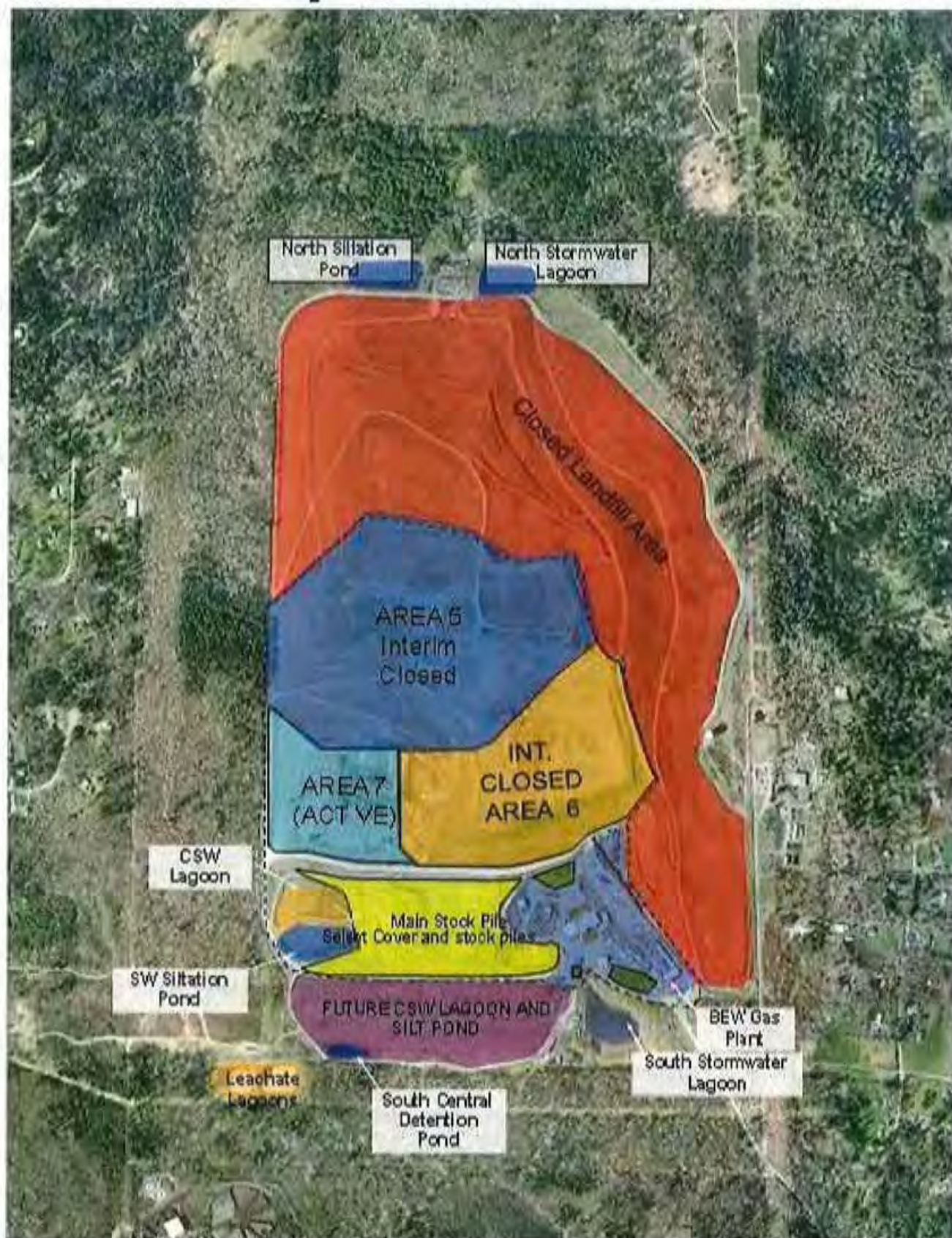
D

E

F

G

H



SOLID WASTE INSPECTION REPORT

PUBLIC HEALTH - SEATTLE & KING COUNTY Downtown Office 401 - 5th Ave., Ste 1100 Seattle, WA 98104 206-263-9566	PURPOSE OF VISIT: Routine Inspection/Field Review of a Municipal Landfill establishment (PE=1006)
ESTABLISHMENT INFORMATION: CEDAR HILLS SANITARY LAND CEDAR HILLS SANITARY LAND 16645 228TH AV SE MAPLE VALLEY, WA 98038 206-296-4385 Program Record: PR0015736	INSPECTION INFORMATION: Date of Inspection: Tuesday, December 5, 2017 Time In: 10:30 am Time Out: 11:45 am Inspector: Darshan Dhillon Result: COMPLETE

VIOLATIONS OBSERVED (if any)

OVERALL INSPECTION COMMENTS:

ACTIONS AND RECOMMENDATIONS:

- 1.1 Waste was being excavated at the east slope of Area 7. Please ensure that exposed waste is covered at the end of the day with 6 inch soil cover or plastic cover. WAC 173-351-200(2)(a).
- 1.2 Take steps to prevent stockpiles erosion. A small portion of area 6 stock piles slid and created a small gap in the stock pile. Gap needs to be filled in and action needs to be taken to prevent stock piles erosion.

OBSERVATIONS:

- 2.1 Storm water is being pumped by Scarsella Brothers Inc. from Area 8 excavated pit.
- 2.2 Groundwater monitoring wells and Gas probes have been secured by padlocks.
- 2.3 East leachate lagoon has been commissioned and aerators were operating properly.
- 2.4 Required records have been maintained.

Darshan Dhillon
H&I III

PIC Phone #: 206-263-0805

Email: Joan.Kenton@KingCounty.Gov

INSPECTION CHECKLIST

The following items are evaluated during inspections.
Violations cited as out of compliance during this inspection are highlighted below.

Out=out of compliance

OUT**Additional Operating Criteria WAC 173-351-220(1)**

- ☐ 0837-Road dust must be controlled
- ☐ 0838-Litter must be controlled
- ☐ 0839-Scavenging must be prohibited
- ☐ 0840-Staffing must be a minimum 2 personnel on site with one at the active portion when open
- ☐ 0841-Certification of operators of solid waste landfills must be current
- ☐ 0842-Reserve operational equipment must be available and adequate
- ☐ 0843-Active area boundaries must be clearly marked
- ☐ 0844-Must compact solid waste before succeeding layers are added per WAC
- ☐ 0845-Maintain monitoring systems for groundwater, explosive gas and other monitoring per permit
- ☐ 0846-Provide orderly and sanitary recycling methods to general public unless alternatives provided
- ☐ 0847-Prohibit disposal of dangerous waste unless DWR are met
- ☐ 0848-Must allow inspections by public health

Annual Report

- ☐ 0828-Annual report due April 1st

Closure and post-closure care WAC 173-351-500

- ☐ 0852-Equipment used for groundwater monitoring is maintained
- ☐ 0856-Final cover installed to minimize, infiltration and erosion per design
- ☐ 0857-Closure plan followed for areas of the MSWLF unit within 30 days of final receipt of wa-stes
- ☐ 0858-For closed areas, closure activities must be completed within 180 days
- ☐ 0859-For closed areas post closure care must be conducted per post-closure plan and WAC
- ☐ 0860-Final cover for closed areas must be maintained (vegetation, settlement, erosion,# run on/off)
- ☐ 0861-Leachate collection systems maintained and operated per post-closure plan and WAC 173-351-300
- ☐ 0862-Gas monitoring systems maintained and operated per post-closure plan and WAC 173-351-200

Design Criteria New MSWLF expansion 173-351-300

- ☐ 0849-New MSWLF units and expansions have approved liner & leachate collection system construction

Groundwater sampling and analysis requirements WAC 173-351-410

- ☐ 0853-Roundwater monitoring must be accordance with an approved sampling / analysis document

Liquids Restrictions

- ☐ 0826-Containers holding liquid waste may not be placed in a MSWLF unit unless meet 200 (9)(b)(i-iii)

MSLF Groundwater reporting WAC 173-351-415

- ☐ 0854-Annual groundwater report due by April 1st
- ☐ 0855-Quarterly groundwater monitoring reports submitted

MSLF Leachate Managementfor Surface Impoundments WAC 173-350-330**Design Standards - Surface Impoundments**

- ☐ 0740-Embankments and slopes must be maintained and be in good condition
- ☐ 0741-Freeboard for the surface impoundment is > 18 inches or as specified per the permit

Ground Water monitoring requirment for surface impoundment and tanks

- ☐ 0766-Surface impoundments not equipped with a leak detection layer must meet WAC 173-350-500
- ☐ 0767-Surface impoundments w/a leak detection layer are subject to WAC 173-350-040 (5),173-350-330(b)

OUT**Operating standards - Surface Impoundments and tanks**

- ☐ 0750-Must prevent overfilling and maintain required freeboard = 18 inches from wave action/precip
- ☐ 0751-Must control access to the site
- ☐ 0752-Must control nuisance odors for wastes or liquids
- ☐ 0753-Must control birds at impoundments storing wastes capable of attracting birds
- ☐ 0754-Records kept of weekly inspections and liner inspections at least every 5 years
- ☐ 0755-Daily records kept on-site of the quantity and type of wastes removed for at least 5 years

Operating Criteria WAC 173-351-200**Access Restriction**

- ☐ 0819-Lockable gate at each entry must be maintained and in good condition

Air Criteria

- ☐ 0816-MSWLF units must meet all applicable air standards
- ☐ 0817-Open burning of garbage is prohibited. Other types of burning only under appropriate permit
- ☐ 0818-Access must be controlled (public /animal/vehicle). Barriers must be maintained.

Cover Material Requirements

- ☐ 0806-Approved cover material must be applied at a depth of 6 in# at the end of the day or as needed
- ☐ 0807-Only approved alternative cover materials are in use and are applied at an approved depth

Disease Vectors Controlled

- ☐ 0808-Procedures must be in place to control disease vectors e g. (rodents, flies, mosquitoes, other)

Explosive Gases Control

- ☐ 0809-Methane gas must not exceed 25% of lower explosive limit for facility structures
- ☐ 0810-Methane gas concentration must not exceed lower explosive limit at the property boundary-beyond
- ☐ 0811-Methane gas concentration must not exceed 100ppm/volume of methane in offsite structures
- ☐ 0812-Explosive gases must be controlled and a routine methane monitoring program in place
- ☐ 0813-Monitoring for explosive gas occurs quarterly at a minimum
- ☐ 0814-Required measures must be taken if methane gas levels exceed limits (notify, monitor, evacuate)
- ☐ 0815-Must have procedures for methane gas level exceedance (gas levels, interim steps, remediation)

Incoming Waste Management

- ☐ 0800-Procedures must be in place for excluding the receipt of prohibited waste
- ☐ 0801-Random inspections must be conducted for incoming loads to prevent receipts of prohibited waste
- ☐ 0802-Record must be kept of random inspections of incoming loads to prevent prohibited waste
- ☐ 0803-Facility personnel must be trained to recognize prohibited wastes and training logs kept
- ☐ 0804-Immediate notification to Public Health and Ecology for any prohibited waste discovered

Performance Standards

- ☐ 0290-Must not pose a threat to human health or environment
- ☐ 0291-Protects from ground water contamination
- ☐ 0292-The facility must conform to the approved local comprehensive solid waste management plan
- ☐ 0293-Complies with RCW 70.94 Emission or ambient air quality standards

- ☐ 0294-Complies with all other local/state/federal laws and regulations

Performance Standards for groundwater monitoring

System Design

- ☐ 0850-All groundwater monitoring system must be designed and maintained per WAC 173-351-405
- ☐ 0851-All wells must be clearly labeled, capped and locked

Permit Requirements

- ☐ 0863-Permit Required

Plan of Operation

- ☐ 0829-Plan of operation is current, complete and a hard copy present at the permit approved location
- ☐ 0830-Operators handle solid waste as described in plan of operations
- ☐ 0831-Operators conducting inspections per plan of operation
- ☐ 0832-Plan of operation procedures followed for fire or explosion
- ☐ 0833-Plan of operation procedures followed for actions to take for sudden releases of gas, leachate
- ☐ 0834-Maintain and operate leachate and gas collection equipment per plan of operation
- ☐ 0835-Safety equipment listed in plan of operation must be on-site and working (shower, eyewash)
- ☐ 0836-Any additional requirements by Public Health are followed as outlined on the plan of operation

Record Keeping

- ☐ 0827-Operating record is available at the approved location and is complete for all required records

Run-on/runoff Control Systems

- ☐ 0820-Prevent run-on to the active portion of the landfill during the peak discharge from 25yr storm
- ☐ 0821-Must provide runoff control for active portions to collect & control water vol. 24hr/25yr storm
- ☐ 0822-Runoff from active portion of the landfill must be handled in accordance w. WAC 173-351-200(8)

Surface Water Requirements

- ☐ 0823-MSWLF units must not discharge pollutants into waters of the state
- ☐ 0824-Must not cause the discharge of a nonpoint source pollution to waters of the state
- ☐ 0825-Bulk or non-containerized liquid waste may not be placed in MSWLF unit unless exceptions allow

Cedar Hills Area 5 Maintenance

for the period 10/01/2017 to 12/31/2017

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	0000018515	CLOSED	Monthly Gas System PM	10/18/2017	N
	CHAREA5	0000018515	CLOSED	Monthly Stormwater PM	10/18/2017	N
	CHAREA5	0000018515	CLOSED	Monthly Cover System PM	10/18/2017	N
	CHAREA5	0000018646	CLOSED	Monthly Gas System PM	11/13/2017	N
	CHAREA5	0000018646	CLOSED	Monthly Stormwater PM	11/13/2017	N
	CHAREA5	0000018646	CLOSED	Monthly Cover System PM	11/27/2017	N
	CHAREA5	0000018819	CLOSED	Monthly Gas System PM	12/08/2017	N
	CHAREA5	0000018819	CLOSED	Monthly Stormwater PM	12/08/2017	N
	CHAREA5	0000018819	CLOSED	Monthly Cover System PM	12/08/2017	N
	CHAREA5E	0000018478	CLOSED	Monthly Header PM	10/10/2017	N
	CHAREA5E	0000018610	CLOSED	Monthly Header PM	11/08/2017	N
	CHAREA5E	0000018741	CLOSED	Monthly Header PM	12/12/2017	N
	CHAREA5W	0000018477	CLOSED	Monthly Header PM	10/10/2017	N
	CHAREA5W	0000018609	CLOSED	Monthly Header PM	11/08/2017	N
	CHAREA5W	0000018740	CLOSED	Monthly Header PM	12/12/2017	N

Cedar Hills Landfill Storm Water Pollution Prevention Plan Maintenance

for the period 10/01/2017 to 12/31/2017

Click the blue 'Y' to see notes

Item	Location	Work Order Number	Work Order Status	PM/Repair Type	Completion Date	Work Order Has Notes
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Catch Basins

Cedar Hills	0000037374	CLOSED	PMM	10/04/2017	N
Cedar Hills	0000037616	CLOSED	After Storm	10/23/2017	Y
Cedar Hills	0000037901	CLOSED	PMM	12/05/2017	N
Cedar Hills	0000037967	CLOSED	After Storm	11/27/2017	Y

Control Structures

Cedar Hills	0000037616	CLOSED	After Storm	10/23/2017	Y
Cedar Hills	0000037967	CLOSED	After Storm	11/27/2017	Y

Trash Racks

Cedar Hills	0000037431	CLOSED	PMW	10/04/2017	N
Cedar Hills	0000037487	CLOSED	PMW	10/12/2017	N
Cedar Hills	0000037539	CLOSED	PMW	10/17/2017	N
Cedar Hills	0000037578	CLOSED	PMW	10/25/2017	Y
Cedar Hills	0000037616	CLOSED	After Storm	10/23/2017	Y
Cedar Hills	0000037652	CLOSED	PMW	10/31/2017	N
Cedar Hills	0000037688	CLOSED	PMW	10/31/2017	Y
Cedar Hills	0000037725	CLOSED	PMW	11/07/2017	Y
Cedar Hills	0000037793	CLOSED	PMW	11/13/2017	Y
Cedar Hills	0000037838	CLOSED	PMW	11/22/2017	Y
Cedar Hills	0000037944	CLOSED	PMW	11/29/2017	Y
Cedar Hills	0000037967	CLOSED	After Storm	11/27/2017	Y
Cedar Hills	0000037993	CLOSED	PMW	12/05/2017	N
Cedar Hills	0000038042	CLOSED	PMW	12/12/2017	Y
Cedar Hills	0000038091	CLOSED	PMW	12/20/2017	N
Cedar Hills	0000038161	CLOSED	PMW	12/25/2017	Y

Ditches

Cedar Hills	0000037374	CLOSED	PMM	10/04/2017	N
Cedar Hills	0000037431	CLOSED	PMW	10/04/2017	N

Item	Location	Work Order Number	Work Order Status	PM/Repair Type	Completion Date	Work Order Has Notes
	Cedar Hills	0000037487	CLOSED	PMW	10/12/2017	N
	Cedar Hills	0000037539	CLOSED	PMW	10/17/2017	N
	Cedar Hills	0000037578	CLOSED	PMW	10/25/2017	Y
	Cedar Hills	0000037579	CLOSED	PMQ	10/25/2017	N
	Cedar Hills	0000037616	CLOSED	After Storm	10/23/2017	Y
	Cedar Hills	0000037652	CLOSED	PMW	10/31/2017	N
	Cedar Hills	0000037688	CLOSED	PMW	10/31/2017	Y
	Cedar Hills	0000037725	CLOSED	PMW	11/07/2017	Y
	Cedar Hills	0000037793	CLOSED	PMW	11/13/2017	Y
	Cedar Hills	0000037838	CLOSED	PMW	11/22/2017	Y
	Cedar Hills	0000037901	CLOSED	PMM	12/05/2017	N
	Cedar Hills	0000037944	CLOSED	PMW	11/29/2017	Y
	Cedar Hills	0000037967	CLOSED	After Storm	11/27/2017	Y
	Cedar Hills	0000037993	CLOSED	PMW	12/05/2017	N
	Cedar Hills	0000038042	CLOSED	PMW	12/12/2017	Y
	Cedar Hills	0000038091	CLOSED	PMW	12/20/2017	N
	Cedar Hills	0000038161	CLOSED	PMW	12/25/2017	Y

Pipes/Culverts

Cedar Hills	0000037579	CLOSED	PMQ	10/25/2017	N
Cedar Hills	0000037616	CLOSED	After Storm	10/23/2017	Y
Cedar Hills	0000037967	CLOSED	After Storm	11/27/2017	Y

Ponds/Lagoons

Cedar Hills	0000037431	CLOSED	PMW	10/04/2017	N
Cedar Hills	0000037487	CLOSED	PMW	10/12/2017	N
Cedar Hills	0000037539	CLOSED	PMW	10/17/2017	N
Cedar Hills	0000037578	CLOSED	PMW	10/25/2017	Y
Cedar Hills	0000037579	CLOSED	PMQ	10/25/2017	N
Cedar Hills	0000037616	CLOSED	After Storm	10/23/2017	Y
Cedar Hills	0000037652	CLOSED	PMW	10/31/2017	N
Cedar Hills	0000037688	CLOSED	PMW	10/31/2017	Y
Cedar Hills	0000037725	CLOSED	PMW	11/07/2017	Y
Cedar Hills	0000037793	CLOSED	PMW	11/13/2017	Y
Cedar Hills	0000037838	CLOSED	PMW	11/22/2017	Y

Item	Location	Work Order Number	Work Order Status	PM/Repair Type	Completion Date	Work Order Has Notes
	Cedar Hills	0000037944	CLOSED	PMW	11/29/2017	Y
	Cedar Hills	0000037967	CLOSED	After Storm	11/27/2017	Y
	Cedar Hills	0000037993	CLOSED	PMW	12/05/2017	N
	Cedar Hills	0000038042	CLOSED	PMW	12/12/2017	Y
	Cedar Hills	0000038091	CLOSED	PMW	12/20/2017	N
	Cedar Hills	0000038161	CLOSED	PMW	12/25/2017	Y

General

Cedar Hills	0000037431	CLOSED	PMW	10/04/2017	N
Cedar Hills	0000037487	CLOSED	PMW	10/12/2017	N
Cedar Hills	0000037539	CLOSED	PMW	10/17/2017	N
Cedar Hills	0000037578	CLOSED	PMW	10/25/2017	Y
Cedar Hills	0000037579	CLOSED	PMQ	10/25/2017	N
Cedar Hills	0000037616	CLOSED	After Storm	10/23/2017	Y
Cedar Hills	0000037652	CLOSED	PMW	10/31/2017	N
Cedar Hills	0000037688	CLOSED	PMW	10/31/2017	Y
Cedar Hills	0000037725	CLOSED	PMW	11/07/2017	Y
Cedar Hills	0000037793	CLOSED	PMW	11/13/2017	Y
Cedar Hills	0000037838	CLOSED	PMW	11/22/2017	Y
Cedar Hills	0000037944	CLOSED	PMW	11/29/2017	Y
Cedar Hills	0000037967	CLOSED	After Storm	11/27/2017	Y
Cedar Hills	0000037993	CLOSED	PMW	12/05/2017	N
Cedar Hills	0000038042	CLOSED	PMW	12/12/2017	Y
Cedar Hills	0000038091	CLOSED	PMW	12/20/2017	N
Cedar Hills	0000038161	CLOSED	PMW	12/25/2017	Y

Leachate System

Cedar Hills	0000037579	CLOSED	PMQ	10/25/2017	N
CHPS1	0000037348	CLOSED	PMW	10/02/2017	N
CHPS1	0000037441	CLOSED	PMW	10/09/2017	N
CHPS1	0000037500	CLOSED	PMW	10/16/2017	N
CHPS1	0000037564	CLOSED	PMW	10/23/2017	N
CHPS1	0000037624	CLOSED	PMW	10/30/2017	N
CHPS1	0000037707	CLOSED	PMW	11/07/2017	N
CHPS1	0000037781	CLOSED	PMW	11/13/2017	N

Item	Location	Work Order Number	Work Order Status	PM/Repair Type	Completion Date	Work Order Has Notes
	CHPS1	0000037823	CLOSED	PMW	11/19/2017	N
	CHPS1	0000037879	CLOSED	PMW	11/27/2017	Y
	CHPS1	0000037964	CLOSED	PMW	12/04/2017	Y
	CHPS1	0000038022	CLOSED	PMW	12/11/2017	Y
	CHPS1	0000038075	CLOSED	PMW	12/18/2017	Y
	CHPS1	0000038131	CLOSED	PMW	12/25/2017	N
	CHPS2	0000037347	CLOSED	PMW	10/02/2017	N
	CHPS2	0000037440	CLOSED	PMW	10/09/2017	N
	CHPS2	0000037499	CLOSED	PMW	10/16/2017	N
	CHPS2	0000037563	CLOSED	PMW	10/23/2017	N
	CHPS2	0000037623	CLOSED	PMW	10/30/2017	N
	CHPS2	0000037706	CLOSED	PMW	11/07/2017	N
	CHPS2	0000037780	CLOSED	PMW	11/13/2017	N
	CHPS2	0000037822	CLOSED	PMW	11/19/2017	N
	CHPS2	0000037878	CLOSED	PMW	11/27/2017	N
	CHPS2	0000037963	CLOSED	PMW	12/04/2017	N
	CHPS2	0000038021	CLOSED	PMW	12/11/2017	N
	CHPS2	0000038074	CLOSED	PMW	12/18/2017	N
	CHPS2	0000038130	CLOSED	PMW	12/25/2017	N
	CHPS3	0000037346	CLOSED	PMW	10/02/2017	N
	CHPS3	0000037439	CLOSED	PMW	10/09/2017	N
	CHPS3	0000037498	CLOSED	PMW	10/16/2017	N
	CHPS3	0000037562	CLOSED	PMW	10/23/2017	N
	CHPS3	0000037622	CLOSED	PMW	10/30/2017	N
	CHPS3	0000037705	CLOSED	PMW	11/13/2017	N
	CHPS3	0000037821	CLOSED	PMW	11/19/2017	N
	CHPS3	0000037877	CLOSED	PMW	11/27/2017	N
	CHPS3	0000037962	CLOSED	PMW	12/04/2017	N
	CHPS3	0000038020	CLOSED	PMW	12/11/2017	N
	CHPS3	0000038073	CLOSED	PMW	12/18/2017	N
	CHPS3	0000038129	CLOSED	PMW	12/25/2017	N
	CHPS4	0000037345	CLOSED	PMW	10/02/2017	Y
	CHPS4	0000037443	CLOSED	PMW	10/09/2017	N
	CHPS4	0000037497	CLOSED	PMW	10/16/2017	Y
	CHPS4	0000037561	CLOSED	PMW	10/23/2017	Y

Item	Location	Work Order Number	Work Order Status	PM/Repair Type	Completion Date	Work Order Has Notes
	CHPS4	0000037621	CLOSED	PMW	10/30/2017	Y
	CHPS4	0000037704	CLOSED	PMW	11/07/2017	Y
	CHPS4	0000037782	CLOSED	PMW	11/13/2017	Y
	CHPS4	0000037820	CLOSED	PMW	11/19/2017	Y
	CHPS4	0000037876	CLOSED	PMW	11/27/2017	Y
	CHPS4	0000037961	CLOSED	PMW	12/04/2017	Y
	CHPS4	0000038019	CLOSED	PMW	12/11/2017	Y
	CHPS4	0000038072	CLOSED	PMW	12/18/2017	Y
	CHPS4	0000038128	CLOSED	PMW	12/25/2017	Y
	LEPS	0000037350	CLOSED	PMW	10/02/2017	N
	LEPS	0000037369	CLOSED	PMM	10/02/2017	Y
	LEPS	0000037369	CLOSED	PMM	10/02/2017	Y
	LEPS	0000037444	CLOSED	PMW	10/09/2017	Y
	LEPS	0000037502	CLOSED	PMW	10/16/2017	Y
	LEPS	0000037558	CLOSED	PMW	10/23/2017	Y
	LEPS	0000037618	CLOSED	PMW	10/30/2017	N
	LEPS	0000037626	CLOSED	PMM	11/01/2017	Y
	LEPS	0000037626	CLOSED	PMM	11/01/2017	Y
	LEPS	0000037701	CLOSED	PMW	11/07/2017	N
	LEPS	0000037785	CLOSED	PMW	11/13/2017	Y
	LEPS	0000037817	CLOSED	PMW	11/19/2017	Y
	LEPS	0000037881	CLOSED	PMW	11/27/2017	Y
	LEPS	0000037889	CLOSED	PMM	12/04/2017	Y
	LEPS	0000037889	CLOSED	PMM	12/04/2017	Y
	LEPS	0000037958	CLOSED	PMW	12/04/2017	N
	LEPS	0000038025	CLOSED	PMW	12/11/2017	N
	LEPS	0000038070	CLOSED	PMW	12/18/2017	Y
	LEPS	0000038125	CLOSED	PMW	12/25/2017	N

Landfill Cover

CHAPONDS	0000018513	CLOSED	PMV	10/18/2017	N
CHAPONDS	0000018644	CLOSED	PMV	11/13/2017	N
CHAPONDS	0000018817	CLOSED	PMV	12/08/2017	N
CHAREA4	0000018514	CLOSED	PMV	10/18/2017	N
CHAREA4	0000018645	CLOSED	PMV	11/13/2017	N

Item	Location	Work Order Number	Work Order Status	PM/Repair Type	Completion Date	Work Order Has Notes
	CHAREA4	0000018818	CLOSED	PMV	12/08/2017	N
	CHAREA5	0000018515	CLOSED	PMV	10/18/2017	N
	CHAREA5	0000018646	CLOSED	PMV	11/27/2017	N
	CHAREA5	0000018819	CLOSED	PMV	12/08/2017	N
	CHAREA6	0000018516	CLOSED	PMV	10/18/2017	N
	CHAREA6	0000018647	CLOSED	PMV	11/13/2017	N
	CHAREA6	0000018820	CLOSED	PMV	12/08/2017	N
	CHAREAS23	0000018518	CLOSED	PMV	10/18/2017	N
	CHAREAS23	0000018649	CLOSED	PMV	11/13/2017	N
	CHAREAS23	0000018822	CLOSED	PMV	12/08/2017	N
	CHCENTRALPIT	0000018519	CLOSED	PMV	10/18/2017	N
	CHCENTRALPIT	0000018650	CLOSED	PMV	11/13/2017	N
	CHCENTRALPIT	0000018823	CLOSED	PMV	12/08/2017	N
	CHEMH	0000018520	CLOSED	PMV	10/18/2017	N
	CHEMH	0000018651	CLOSED	PMV	11/13/2017	N
	CHEMH	0000018824	CLOSED	PMV	12/08/2017	N
	CHNFLARESTN	0000018524	CLOSED	PMV	10/18/2017	N
	CHNFLARESTN	0000018655	CLOSED	PMV	11/13/2017	N
	CHNFLARESTN	0000018828	CLOSED	PMV	12/08/2017	N
	CHSEPA	0000018521	CLOSED	PMV	10/18/2017	N
	CHSEPA	0000018652	CLOSED	PMV	11/13/2017	N
	CHSEPA	0000018825	CLOSED	PMV	12/08/2017	N
	CHSSWA	0000018522	CLOSED	PMV	10/18/2017	N
	CHSSWA	0000018653	CLOSED	PMV	11/13/2017	N
	CHSSWA	0000018826	CLOSED	PMV	12/08/2017	N
	CHSTOCKPILE	0000018512	CLOSED	PMV	10/18/2017	N
	CHSTOCKPILE	0000018643	CLOSED	PMV	11/13/2017	N
	CHSTOCKPILE	0000018816	CLOSED	PMV	12/08/2017	N
	CHSWMH	0000018523	CLOSED	PMV	10/18/2017	N
	CHSWMH	0000018654	CLOSED	PMV	11/13/2017	N
	CHSWMH	0000018827	CLOSED	PMV	12/08/2017	N

Landfill Gas

CHAREA5E	0000018494	CLOSED	PMW	10/02/2017	N
CHAREA5E	0000018561	CLOSED	PMW	10/16/2017	N

Item	Location	Work Order Number	Work Order Status	PM/Repair Type	Completion Date	Work Order Has Notes
	CHAREA5E	0000018626	CLOSED	PMW	11/08/2017	N
	CHAREA5E	0000018692	CLOSED	PMW	11/25/2017	N
	CHAREA5E	0000018757	CLOSED	PMW	12/04/2017	N
	CHAREA5E	0000018800	CLOSED	PMW	12/19/2017	N
	CHAREA5W	0000018495	CLOSED	PMW	10/02/2017	N
	CHAREA5W	0000018562	CLOSED	PMW	10/16/2017	N
	CHAREA5W	0000018627	CLOSED	PMW	11/09/2017	N
	CHAREA5W	0000018693	CLOSED	PMW	11/23/2017	N
	CHAREA5W	0000018758	CLOSED	PMW	12/04/2017	N
	CHAREA5W	0000018801	CLOSED	PMW	12/19/2017	N
	CHAREA6	0000018474	CLOSED	PMW	10/03/2017	N
	CHAREA6	0000018550	CLOSED	PMW	10/17/2017	N
	CHAREA6	0000018606	CLOSED	PMW	11/09/2017	N
	CHAREA6	0000018681	CLOSED	PMW	11/21/2017	N
	CHAREA6	0000018737	CLOSED	PMW	12/07/2017	N
	CHAREA6	0000018789	CLOSED	PMW	12/19/2017	N
	CHAREAS23	0000018436	CLOSED	PMW	10/02/2017	N
	CHAREAS23	0000018525	CLOSED	PMW	10/26/2017	N
	CHAREAS23	0000018568	CLOSED	PMW	11/14/2017	N
	CHAREAS23	0000018656	CLOSED	PMW	11/28/2017	N
	CHAREAS23	0000018699	CLOSED	PMW	12/05/2017	N
	CHAREAS23	0000018764	CLOSED	PMW	12/14/2017	N
	CHCMH	0000018496	CLOSED	PMW	10/04/2017	N
	CHCMH	0000018496	CLOSED	PMW	10/05/2017	N
	CHCMH	0000018496	CLOSED	PMW	10/11/2017	N
	CHCMH	0000018563	CLOSED	PMW	10/18/2017	N
	CHCMH	0000018563	CLOSED	PMW	10/19/2017	N
	CHCMH	0000018563	CLOSED	PMW	10/25/2017	N
	CHCMH	0000018628	CLOSED	PMW	11/05/2017	N
	CHCMH	0000018628	CLOSED	PMW	11/06/2017	N
	CHCMH	0000018628	CLOSED	PMW	11/12/2017	N
	CHCMH	0000018694	CLOSED	PMW	11/19/2017	N
	CHCMH	0000018694	CLOSED	PMW	11/20/2017	N
	CHCMH	0000018694	CLOSED	PMW	11/27/2017	N
	CHCMH	0000018759	CLOSED	PMW	12/22/2017	N

Item	Location	Work Order Number	Work Order Status	PM/Repair Type	Completion Date	Work Order Has Notes
	CHCMH	0000018802	CLOSED	PMW	12/21/2017	N
	CHCMH	0000018802	CLOSED	PMW	12/23/2017	N
	CHCMH	0000018802	CLOSED	PMW	12/29/2017	N
	CHEMH	0000018493	CLOSED	PMW	10/09/2017	N
	CHEMH	0000018560	CLOSED	PMW	10/24/2017	N
	CHEMH	0000018625	CLOSED	PMW	11/01/2017	N
	CHEMH	0000018691	CLOSED	PMW	11/15/2017	N
	CHEMH	0000018756	CLOSED	PMW	12/05/2017	N
	CHEMH	0000018799	CLOSED	PMW	12/26/2017	N
	CHSEPA	0000018441	CLOSED	PMW	10/10/2017	N
	CHSEPA	0000018527	CLOSED	PMW	10/31/2017	N
	CHSEPA	0000018573	CLOSED	PMW	11/02/2017	N
	CHSEPA	0000018658	CLOSED	PMW	11/21/2017	N
	CHSEPA	0000018704	CLOSED	PMW	12/04/2017	N
	CHSEPA	0000018766	CLOSED	PMW	12/19/2017	N

Landfill Roads

CHACTIVEAREA	0000018503	CLOSED	PMR	10/18/2017	N
CHACTIVEAREA	0000018634	CLOSED	PMR	11/13/2017	N
CHACTIVEAREA	0000018807	CLOSED	PMR	12/08/2017	N
CHMAINGATE	0000018504	CLOSED	PMR	10/18/2017	N
CHMAINGATE	0000018635	CLOSED	PMR	11/13/2017	N
CHMAINGATE	0000018808	CLOSED	PMR	12/08/2017	N
CHPSR	0000018505	CLOSED	PMR	10/18/2017	N
CHPSR	0000018636	CLOSED	PMR	11/13/2017	N
CHPSR	0000018809	CLOSED	PMR	12/08/2017	N
CHSTOCKPILE	0000018512	CLOSED	PMR	10/18/2017	N
CHSTOCKPILE	0000018643	CLOSED	PMR	11/13/2017	N
CHSTOCKPILE	0000018816	CLOSED	PMR	12/08/2017	N

Item	Location	Work Order Number	Work Order Status	PM/Repair Type	Completion Date	Work Order Has Notes
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Landfill Roads

Sweeper	0	see Equipment Operator Spreadsheet	NA	0	N
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Equipment

Click the word 'Equipment' to see Work Order Numbers

Appendix B:

Gas Monitoring Reports

DNRP / King County Solid Waste Serpentine Surface Monitoring Data

Landfill Site: Cedar Hills

Date: 12-17-17

Cal. Time: 8:25 pm

Calibration :

Technician: BL

Test Instrument used: TVA 1000

Surveyor PS

Cal. Gas Lot No: 20328

Cal Gas Used:

CH₄ 496 ppm

O2 Zero Air

Barometric Pressure	Time
Start 29.99	8:30 pm
Stop 29.94	12:15 Am

90% response time in seconds:

1 4 seconds

2 4 seconds

3 4 seconds

avg. 4 seconds

Weather Conditions: light rain

Wind Speed &

Direction (out of): 10 mph SW

Northing (UTM #)**Easting (10 T #)**

Time

Comments

A hand-drawn graph on lined paper. A straight line is drawn diagonally from the bottom-left towards the top-right. The text "No EXCEEDANCE" is written in capital letters, following the slope of the line. The word "No" is on the left, and "EXCEEDANCE" is on the right, separated by a space. The line starts near the bottom-left corner and extends towards the top-right corner, passing through the middle of the page.

[illegible]

The graph shows a function on a coordinate plane with a grid. The function is a smooth, continuous curve that is strictly decreasing and concave up. It starts at the top left of the grid and ends at the bottom right, passing through the center of the grid.

A graph of a linear function on a coordinate plane. The x-axis is labeled 'x' and the y-axis is labeled 'y'. The line passes through the points (0, 4) and (4, 0). The equation of the line is $y = -x + 4$.

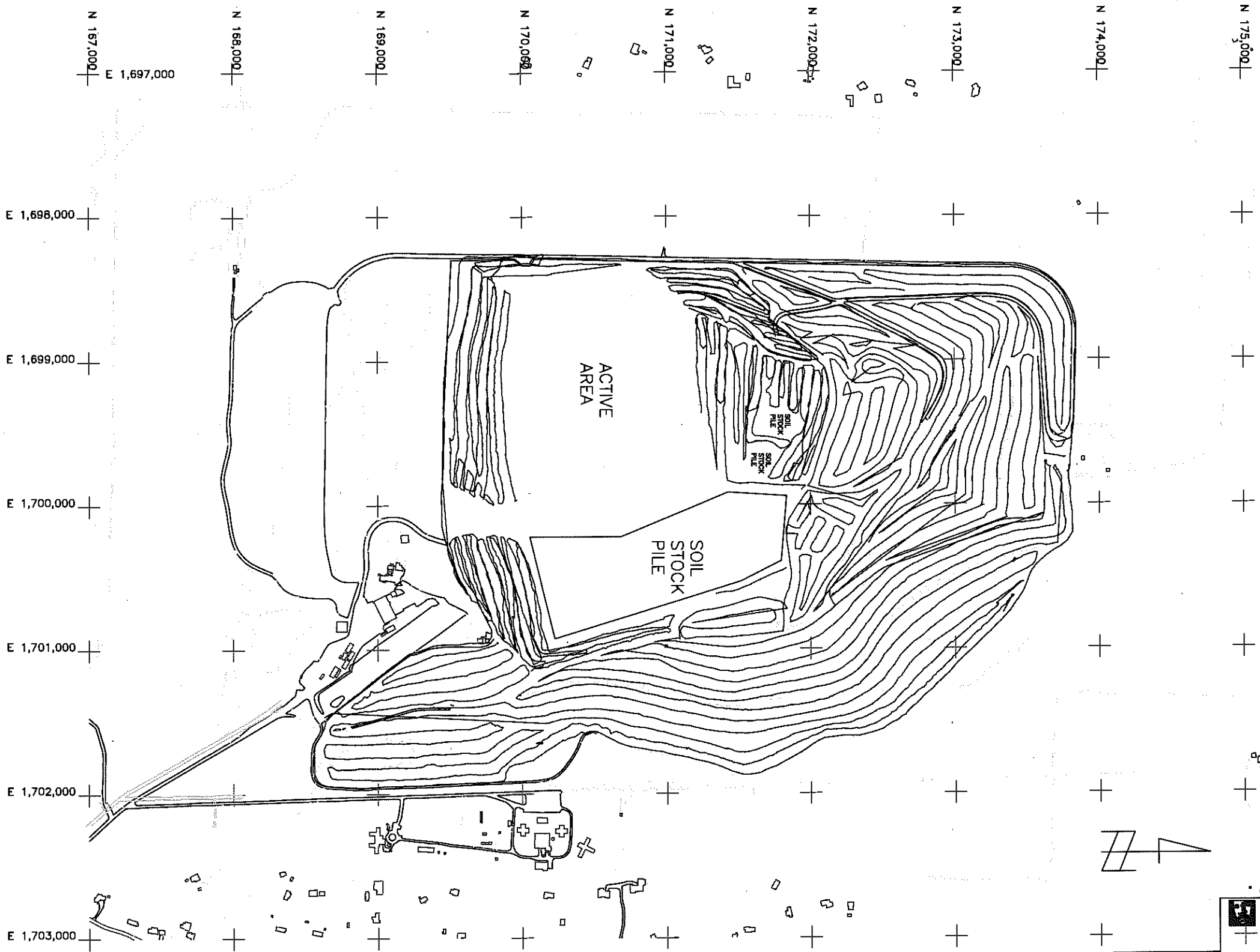
A graph of a linear function on a coordinate plane. The x-axis is labeled from 0 to 10, and the y-axis is labeled from 0 to 10. A line passes through the points (0, 10) and (10, 0).

NO EXCESSANCE DETECTED.

[illegible]

Cedar Hills Regional Landfill
Quarterly Surface Emission Monitoring
Plot of GPS Generated Track Lines

DECEMBER 2017
Scale 1"=800'



KING COUNTY SOLID WASTE
201 S JACKSON ST., SUITE 701
SEATTLE, WA 98104-2835

KING COUNTY SOLID WASTE
LANDFILL
LANDFILL

CEDAR HILLS REGIONAL LANDFILL
SCALE 1" = 800'
DATE OF MEASUREMENT 7-16-17-18

LANDFILL

LANDFILL
SHEET 1 OF 1

KING COUNTY DEPARTMENT OF NATURAL RESOURCES
AND PARKS
Christie True, Director
SOLID WASTE DIVISION
CEDAR HILLS QUARTERLY
GAS EMISSIONS MONITORING

APPROVED _____ DATE 01-03-17
RECOMMENDED _____ DATE _____
DESIGNED PJM _____ DRAWN PJM _____
PROJECT NO. _____ SURVEY NO. _____ SHEET 1 OF 1

DATE	REVISION	BY

WO Company: Gas King County Landfill Gas

WO Department: 7572 Waste Water, LF Gas

WO Shop: Gas Landfill Gas

TECHNICIAN COPY

**WO#: 0000018698**

Date In: 11/28/2017 08:54

Date Promised: 11/29/2017 08:54

Date Out: 00:00

WO Status: A Last WO#: 0000018633

WO Priority: Last WO Date: 10/31/2017

Track DownTime: Y Operator: WG

Equipment: CEDAR HILLS License: na

Location: 20

Color:

Year: 2006

Serial: na

Make: UD

Engine:

Model: UD

Class: ZZZZZZZG5: Landfill Gas - not classified

Tire Size 1:

GVW: 0

Tire Size 2:

EAC: 24

Transmission:

Department: 7572:Waste Water, LF Gas

Fuel Type1:

Company: Gas King County Landfill Gas

Fuel Type2:

Site: 20:20- Cedar Hills

Fuel Type3:

Monitor Group:

Oil Capacity: 0.000

Comments:

Fuel Cap1: 0.000

Cedar Hills

Fuel Cap2: 0.000

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD

PM SERVICE

Type	Cycle	Next Due	Description
I	A - SET AN ANNUAL DATE	07/15/2018	Annual Inspection
Q	0 - MONTHS	12/30/2017	Quarterly Inspection
S	0 - MONTHS	01/15/2018	Scheduled Inspection
X	0 - MONTHS	12/10/2017	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	710 <i>BL</i>	0.00000
PMQ BS	PM Service PMQ per list Billable Scheduled, Target	0	710 <i>750-RB</i>	0.00000
PMQ BS	PM Service PMQ per list Billable Scheduled, Target	0	761 <i>710</i>	0.00000

NOTES

Work Order Task List

Repair Code: PMQ BS

Equipment: CEDAR HILLS

Work Order: 0000018698

Complete?	Step	Tasks	OK	Adjust	Repair	Replace	Comments
	1	Gas- Ck liner integrity- Serpentine walk	<input checked="" type="checkbox"/>				
	1	Gas- Ck liner integrity- Serpentine walk					
	1	Gas- Ck liner integrity- Serpentine walk					

12-17-17 3.5 hrs BL

12-19-17 9hrs. RB

12-20-17 9hrs. RB

12-21-17 9hrs. RB

12-22-17 6hrs. RB

12-27-17 9HR DB

12-28-17 7HR DB

WO Company: Gas King County Landfill Gas

WO Department: 1734 Puyallup LFPC

WO Shop: Gas Landfill Gas

Equipment: PULFHEADER License: na

Location:

Color:

Year: 2006

Serial: na

Make: UD

Engine:

Model: UD

Class: YH00ZAZZZZ: Header, Other, Landfill Gas, NA

TECHNICIAN COPY

**WO#: 0000018748**

Date In: 11/28/2017 09:54

Date Promised: 11/29/2017 09:54

Date Out: 00:00

WO Status: A Last WO#: 0000018687

WO Priority: Last WO Date: 10/31/2017

Track DownTime: Y Operator: WG

Tire Size 1:

GVW: 0

Tire Size 2:

EAC: 24

Transmission:

Department: 1734:Puyallup LFPC

Fuel Type1:

Company: Gas King County Landfill Gas

Fuel Type2:

Site: 34:34- Puyallup

Fuel Type3:

Monitor Group:

Oil Capacity: 0.000

Comments:

Fuel Cap1: 0.000

Header

Fuel Cap2: 0.000

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD

PM SERVICE

Type	Cycle	Next Due	Description
W	W - WEEKS	11/27/2017	Weekly Inspection

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description

REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMW 85	PM Service PMW per list Billable Scheduled, Target	0	763	0.00000	Gas

NOTES

Work Order Task List

Repair Code: PMW BS

Equipment: PULFHEADER

Work Order: 0000018748

Complete?	Step	Tasks	OK	Adjust	Repair	Replace	Comments
12/13	1	Gas- Inspect valves for any abnormality	/				
	2	Gas- Note any deficiencies					
	3	Gas- Do not operate valves to inspect	/				

1.5 cwm

WO Company: Gas King County Landfill Gas

WO Department: 1734 Puyallup LFPC

WO Shop: Gas Landfill Gas

Equipment: PULFFSAC2 License: na

Location: Color:
 Year: 2006 Serial: na
 Make: UD Engine:
 Model: UD
 Class: SFA0ZAZZZZ: Air Compressor, Other, Landfill Gas, NA

TECHNICIAN COPY



WO#: 0000018747

Date In: 11/28/2017 09:53

Date Promised: 11/29/2017 09:53

Date Out: 00:00

WO Status: A Last WO#: 0000018686

WO Priority: Last WO Date: 10/31/2017

Track DownTime: Y Operator: WG

Tire Size 1: GVW: 0
 Tire Size 2: EAC: 24
 Transmission: Department: 1734:Puyallup LFPC
 Fuel Type1: Company: Gas King County Landfill Gas
 Fuel Type2: Site: 34:34- Puyallup
 Fuel Type3: Monitor Group:
 Oil Capacity: 0.000 Comments:
 Fuel Cap1: 0.000 Air Compressors
 Fuel Cap2: 0.000

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD
H	81092		H	81092	81092

PM SERVICE

Type	Cycle	Next Due	Description
S	0 - MONTHS	03/10/2018	Scheduled Inspection
W	W - WEEKS	11/27/2017	Weekly Inspection

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description
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REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMW BS	PM Service PMW per list Billable Scheduled, Target	0	763	0.00000	Gas

NOTES

Work Order Task List

Repair Code: PMW BS

Equipment: PULFFSAC2

Work Order: 0000018747

Complete?	Step	Tasks	OK	Adjust	Repair	Replace	Comments
	1	Gas- Check compressor for coolant level					
	2	Gas- Add coolant if necessary					
	3	Gas- Check belts visually for tightness.					
	4	Gas- Note any deficiencies					
	5	Gas- Report any failure to lead					

not operational

WO Company: Gas King County Landfill Gas
 WO Department: 1734 Puyallup LFPC
 WO Shop: Gas Landfill Gas

Equipment: PULFFSAC1 License: na

Location: Color:
 Year: 2006 Serial: na
 Make: UD Engine:
 Model: UD
 Class: SFA0ZAZZZ: Air Compressor, Other, Landfill Gas, NA

TECHNICIAN COPY



WO#: 0000018746

Date In: 11/28/2017 09:52
 Date Promised: 11/29/2017 09:52
 Date Out: 00:00

WO Status: A Last WO#: 0000018685
 WO Priority: Last WO Date: 10/31/2017
 Track DownTime: Y Operator: WG

Tire Size 1: GVW: 0
 Tire Size 2: EAC: 24
 Transmission: Department: 1734:Puyallup LFPC
 Fuel Type1: Company: Gas King County Landfill Gas
 Fuel Type2: Site: 34:34- Puyallup
 Fuel Type3: Monitor Group:
 Oil Capacity: 0.000
 Fuel Cap1: 0.000
 Fuel Cap2: 0.000
 Comments:
 Air Compressors

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD
H	99560	6180	H	99560	99560

PM SERVICE

Type	Cycle	Next Due	Description
S	0 - MONTHS	03/10/2018	Scheduled Inspection
W	W - WEEKS	11/27/2017	Weekly Inspection

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description
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REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMW BS	PM Service PMW per list Billable Scheduled, Target	0	763	0.00000	Gas

NOTES

Work Order Task List

Repair Code: PMW BS

Equipment: PULFFSAC1

Work Order: 0000018746

Complete?	Step	Tasks	OK	Adjust	Repair	Replace	Comments
12/13	1	Gas- Check compressor for coolant level	/				
	2	Gas- Add coolant if necessary					
	3	Gas- Check belts visually for tightness.	/				
	4	Gas- Note any deficiencies					
	5	Gas- Report any failure to lead					

10 m

WO Company: Gas King County Landfill Gas
WO Department: 1734 Puyallup LFPC
WO Shop: Gas Landfill Gas

Equipment: PULFCTANK License: na

Location: Color:
Year: 2006 Serial: na
Make: UD Engine:
Model: UD
Class: YT00ZAZZZZ: Tank, Other, Landfill Gas, NA

TECHNICIAN COPY



WO#: 0000018745

Date In: 11/28/2017 09:52

Date Promised: 11/29/2017 09:52

Date Out: 00:00

WO Status: A Last WO#: 0000018684

WO Priority: Last WO Date: 10/31/2017

Track DownTime: Y Operator: WG

Tire Size 1: GVW: 0
Tire Size 2: EAC: 24
Transmission: Department: 1734:Puyallup LFPC
Fuel Type1: Company: Gas King County Landfill Gas
Fuel Type2: Site: 34:34- Puyallup
Fuel Type3: Monitor Group:
Oil Capacity: 0.000 Comments:
Fuel Cap1: 0.000 Baker Tank
Fuel Cap2: 0.000

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD
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PM SERVICE

Type	Cycle	Next Due	Description
W	W - WEEKS	11/27/2017	Weekly Inspection

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description
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REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMW BS	PM Service PMW per list Billable Scheduled, Target	0	763	0.00000	Gas

NOTES

Work Order Task List

Repair Code: PMW BS

Equipment: PULFCTANK

Work Order: 0000018745

Complete?	Step	Tasks	OK	Adjust	Repair	Replace	Comments
12/3	1	Gas- Check baker tank liquid level	<input checked="" type="checkbox"/>				
	2	Gas- If baker tank level > 4ft, vactor					

5 m

WO Company: Gas King County Landfill Gas

WO Department: 1734 Puyallup LFPC

WO Shop: Gas Landfill Gas

Equipment: PULFCPS License: na

Location:

Color:

Year: 2006

Serial: na

Make: UD

Engine:

Model: UD

Class: SC00ZAZZZZ: Condensate Pump, Other, Landfill Gas, NA

TECHNICIAN COPY

**WO#: 0000018744**

Date In: 11/28/2017 09:51

Date Promised: 11/29/2017 09:51

Date Out: 00:00

WO Status: A Last WO#: 0000018683

WO Priority: Last WO Date: 10/31/2017

Track DownTime: Y Operator: WG

Tire Size 1:

GVW: 0

Tire Size 2:

EAC: 24

Transmission:

Department: 1734:Puyallup LFPC

Fuel Type1:

Company: Gas King County Landfill Gas

Fuel Type2:

Site: 34:34- Puyallup

Fuel Type3:

Monitor Group:

Oil Capacity: 0.000

Comments:

Fuel Cap1: 0.000

Condensate Pump Stations

Fuel Cap2: 0.000

METERS

WO Meter

Reading

Override?

Eq Meter

Actual

LTD

PM SERVICE

Type

Cycle

Next Due

Description

W

W - WEEKS

11/27/2017

Weekly Inspection

WARRANTY INFORMATION

Type

Cycle

Date Expires

Description

REPAIRS

RTY

Description

Status: MID

Est. Labor Shop

PMW BS

PM Service | PMW per list | Billable | Scheduled, Target

0 763

0.00000 Gas

NOTES

Work Order Task List

Repair Code: PMW BS

Equipment: PULFCPS

Work Order: 0000018744

Complete?	Step	Tasks	OK	Adjust	Repair	Replace	Comments
12/13	1	Gas- Switch to hand operation.	/				
	2	Gas- Test pump for proper operation	/				
	3	Gas- Make sure to check all pumps.	/				
	4	Gas- Report any failure to lead					

15 m

WO Company: Gas King County Landfill Gas

WO Department: 1734 Puyallup LFPC

WO Shop: Gas Landfill Gas

Equipment: PULFBLOWERS License: na

Location: Color:
 Year: 2006 Serial: na
 Make: UD Engine:
 Model: UD
 Class: T6A0ZAZZZZ: Blower, Other, Landfill Gas, NA

TECHNICIAN COPY



WO#: 0000018743

Date In: 11/28/2017 09:50

Date Promised: 11/29/2017 09:50

Date Out: 00:00

WO Status: A Last WO#: 0000018682

WO Priority: Last WO Date: 10/31/2017

Track DownTime: Y Operator: WG

Tire Size 1: GVW: 0
 Tire Size 2: EAC: 24
 Transmission: Department: 1734:Puyallup LFPC
 Fuel Type1: Company: Gas King County Landfill Gas
 Fuel Type2: Site: 34:34- Puyallup
 Fuel Type3: Monitor Group:
 Oil Capacity: 0.000 Comments:
 Fuel Cap1: 0.000 Blowers
 Fuel Cap2: 0.000

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD

PM SERVICE

Type	Cycle	Next Due	Description
W	W - WEEKS	11/27/2017	Weekly Inspection

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description

REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMW BS	PM Service PMW per list Billable Scheduled, Target	0	763	0.000000	Gas

NOTES

Work Order Task List

Repair Code: PMW BS

Equipment: PULFBLOWERS

Work Order: 0000018743

Complete?	Step	Tasks	OK	Adjust	Repair	Replace	Comments
12/13	1	Gas- Check belts visually for tightness.	/				
	2	Gas- Tighten belts if necessary	/				
	3	Gas- Check bearings for proper greasing.	/				
	4	Gas- Grease if necessary,	/				
	5	Gas- Listen to impeller to see if alignm	/				
	6	Gas- Report any failure to lead					

10m

W0 Shop: Gas Landfill Gas

Equipment: PUYALLUP License: na

Location:

Year: 2006

Make: UD

Model: UD

Class: ZZZZZZPCGS: LF Gas Post Closure - Not Classified

TECHNICIAN COPY



WO#: 0000018750

Date In: 11/28/2017 09:55

Date Promised: 11/29/2017 09:55

Date Out: 00:00

W0 Status: A Last W0#:0000018619

W0 Priority: Last W0 Date: 10/31/2017

Track DownTime: Y Operator: WG

Tire Size 1:

GVW: 0

Tire Size 2:

EAC: 24

Transmission:

Department: 1734:Puyallup LFPC

Fuel Type1:

Company: Gas King County Landfill Gas

Fuel Type2:

Site: 34:34- Puyallup

Fuel Type3:

Monitor Group:

Oil Capacity: 0.000

Comments:

Fuel Cap1: 0.000

Fuel Cap2: 0.000

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD
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PM SERVICE

Type	Cycle	Next Due	Description
I	A - SET AN ANNUAL DATE	03/15/2018	Annual Inspection
V	0 - MONTHS	12/28/2017	Cover System

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description
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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: PUYALLUP

Work Order: 0000018750

Complete?	Step	Tasks	OK	Adjust	Repair	Replace	Comments
12/13	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	/				

30m

WO Company: Gas King County Landfill Gas
 WO Department: 1734 Puyallup LFPC
 WO Shop: Gas Landfill Gas

Equipment: PULFWELLS License: na

Location: Color:
 Year: 2006 Serial: na
 Make: UD Engine:
 Model: UD
 Class: YW00ZAZZZZ: Well, Other, Landfill Gas, NA

TECHNICIAN COPY



WO#: 0000018749

Date In: 11/28/2017 09:54

Date Promised: 11/29/2017 09:54

Date Out: 00:00

WO Status: A Last WO#: 0000018688

WO Priority: Last WO Date: 10/31/2017

Track DownTime: Y Operator: WG

Tire Size 1: GVW: 0
 Tire Size 2: EAC: 24
 Transmission: Department: 1734:Puyallup LFPC
 Fuel Type1: Company: Gas King County Landfill Gas
 Fuel Type2: Site: 34:34- Puyallup
 Fuel Type3: Monitor Group:
 Oil Capacity: 0.000 Comments:
 Fuel Cap1: 0.000 Wells/Valves
 Fuel Cap2: 0.000

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD

PM SERVICE

Type	Cycle	Next Due	Description
I	A - SET AN ANNUAL DATE	03/10/2018	Annual Inspection
W	W - WEEKS	11/27/2017	Weekly Inspection

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description

REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMW BS	PM Service PMW per list Billable Scheduled, Target	0	763	0.00000	Gas

NOTES

Work Order Task List

Repair Code: PMW BS

Equipment: PULFWELLS

Work Order: 0000018749

Complete?	Step	Tasks	OK	Adjust	Repair	Replace	Comments
12/13	1	Gas- Check well/riser alignment	/				
	2	Gas- Check valves for normal operation	/				
	3	Gas- Ck for damage at well/riser heads	/				
	4	Gas- Ck for damage to flex hose	/				
	5	Gas- Ck for damage at sample ports	/				
	6	Gas- Report any failure to lead	/				

1.5 cum

WO Company: Gas King County Landfill Gas
 WO Department: 7572 Waste Water, LF Gas
 WO Shop: Gas Landfill Gas

Equipment: CHAREA6 License: na

Location: 20 Color:
 Year: 2006 Serial: na
 Make: UD Engine:
 Model: UD
 Class: ZZZZZZZGS: Landfill Gas - not classified

TECHNICIAN COPY



WO#: 0000018739

Date In: 11/28/2017 09:48

Date Promised: 11/29/2017 09:48

Date Out: 00:00

WO Status: A Last WO#: 0000018737

WO Priority: Last WO Date: 11/28/2017

Track DownTime: Y Operator: WG

Tire Size 1: GVW: 0
 Tire Size 2: EAC: 24
 Transmission: Department: 7572:Waste Water, LF Gas
 Fuel Type1: Company: Gas King County Landfill Gas
 Fuel Type2: Site: 20:20- Cedar Hills
 Fuel Type3: Monitor Group:
 Oil Capacity: 0.000 Comments:
 Fuel Cap1: 0.000 CH Area 6
 Fuel Cap2: 0.000

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD

PM SERVICE

Type	Cycle	Next Due	Description
G	0 - MONTHS	12/10/2017	Gas System
S	0 - MONTHS	12/28/2017	Scheduled Inspection
T	0 - MONTHS	12/10/2017	Stormwater
V	0 - MONTHS	12/10/2017	Cover System
W	1W - WEEKS	12/11/2017	Weekly Inspection

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description

REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMS BS	PM Service PMS per list Billable Scheduled, Target	0	763	0.00000	Gas

NOTES

Work Order Task List

Repair Code: PMS BS

Equipment: CHAREA6

Work Order: 0000018739

Complete?	Step	Tasks	OK	Adjust	Repair	Replace	Comments
12/17 Eg	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	/				

25 m

WO Company: Gas King County Landfill Gas

WO Department: 7572 Waste Water, LF Gas

WO Shop: Gas Landfill Gas

Equipment: CHAREA5W License: na

Location: 20

Color:

Year: 2006

Serial: na

Make: UD

Engine:

Model: UD

Class: ZZZZZZZZGS: Landfill Gas - not classified

TECHNICIAN COPY

**WO#: 0000018740**

Date In: 11/28/2017 09:48

Date Promised: 11/29/2017 09:48

Date Out: 00:00

WO Status: A Last WO#: 0000018693

WO Priority: Last WO Date: 10/31/2017

Track DownTime: Y Operator: WG

Tire Size 1:

GVW: 0

Tire Size 2:

EAC: 24

Transmission:

Department: 7572:Waste Water, LF Gas

Fuel Type1:

Company: Gas King County Landfill Gas

Fuel Type2:

Site: 20:20- Cedar Hills

Fuel Type3:

Monitor Group:

Oil Capacity: 0.000

Comments:

Fuel Cap1: 0.000

Cedar Hills Area 5 West

Fuel Cap2: 0.000

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD

PM SERVICE

Type	Cycle	Next Due	Description
S	0 - MONTHS	12/28/2017	Scheduled Inspection
W	W - WEEKS	12/11/2017	Weekly Inspection

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description

REPAIRS

RTY	Description	Status	MIO	Est. Labor	Shop
PMS BS	PM Service PMS per list Billable Scheduled, Target	0	763	0.00000	Gas

NOTES

Work Order Task List

Repair Code: PMS BS

Equipment: CHAREA5W

Work Order: 0000018740

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	/				
12/12	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

WO Company: Gas King County Landfill Gas
 WO Department: 7572 Waste Water, LF Gas
 WO Shop: Gas Landfill Gas

Equipment: CHAREA5E License: na

Location: 20 Color:
 Year: 2006 Serial: na
 Make: UD Engine:
 Model: UD
 Class: ZZZZZZZGS: Landfill Gas - not classified

TECHNICIAN COPY



WO#: 0000018741

Date In: 11/28/2017 09:49
 Date Promised: 11/29/2017 09:49
 Date Out: 00:00
 WO Status: A Last WO#: 0000018692
 WO Priority: Last WO Date: 10/31/2017
 Track DownTime: Y Operator: WG

Tire Size 1: GVW: 0
 Tire Size 2: EAC: 24
 Transmission: Department: 7572:Waste Water, LF Gas
 Fuel Type1: Company: Gas King County Landfill Gas
 Fuel Type2: Site: 20:20- Cedar Hills
 Fuel Type3: Monitor Group:
 Oil Capacity: 0.000 Comments:
 Fuel Cap1: 0.000 Cedar Hills Area 5 East
 Fuel Cap2: 0.000

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD

PM SERVICE

Type	Cycle	Next Due	Description
S	0 - MONTHS	12/28/2017	Scheduled Inspection
W	W - WEEKS	12/11/2017	Weekly Inspection

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description

REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMS BS	PM Service PMS per list Billable Scheduled, Target	0	763		0.00000 Gas

NOTES

Work Order Task List

Repair Code: PMS BS

Equipment: CHAREA5E

Work Order: 0000018741

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 for gas leaks with TVA 1000					
	5	Gas- Ck for settlement/ponding	/				
	6	Gas- Ck surface water conveyance system	/				
	7	Gas- Ck and open vault covers	/				
	8	Gas- Exercise field and header valves	/				
	9	Gas- Ck flex hoses and connections	/				
	10	Gas- Ck for erosion	/				
	11	Gas- Ck for vegetation	/				
	12	Gas- Ck cover system	/				
12/12	13	Gas- Ck for refuse/litter	/				
	14	Gas- Ck collection field pipe alignment	/				
	15	Gas- Ck for damage @ possible stress pts	/				
	16	Gas- Ck for damage at vertical pipes	/				
	17	Gas- Ck for damage at well heads	/				
	18	Gas- Note any deficiencies					

10~

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WO Company: Gas King County Landfill Gas

WO Department: 1734 Puyallup LFPC

WO Shop: Gas Landfill Gas

Equipment: PULFFSAC1 License: na

Location:

Color:

Year: 2006

Serial: na

Make: UD

Engine:

Model: UD

Class: SFA0ZAZZZZ: Air Compressor, Other, Landfill Gas, NA

TECHNICIAN COPY



WO#: 0000018793

Date In: 11/28/2017 11:16

Date Promised: 11/29/2017 11:16

Date Out: 00:00

WO Status: A Last WO#: 0000018746

WO Priority: Last WO Date: 11/28/2017

Track DownTime: Y Operator: WG

Tire Size 1:

GVW: 0

Tire Size 2:

EAC: 24

Transmission:

Department: 1734:Puyallup LFPC

Fuel Type1:

Company: Gas King County Landfill Gas

Fuel Type2:

Site: 34:34- Puyallup

Fuel Type3:

Monitor Group:

Oil Capacity: 0.000

Comments:

Fuel Cap1: 0.000

Air Compressors

Fuel Cap2: 0.000

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD
H	99560	X 6520	H	99560	99560

PM SERVICE

Type	Cycle	Next Due	Description
S	0 - MONTHS	03/10/2018	Scheduled Inspection
W	W - WEEKS	11/27/2017	Weekly Inspection

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description
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REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMW BS	PM Service PMW per list Billable Scheduled, Target	0	763		0.00000 Gas

NOTES

Work Order Task List

Repair Code: PMW BS

Equipment: PULFFSAC1

Work Order: 0000018793

Complete?	Step	Tasks	OK	Adjust	Repair	Replace	Comments
12/19	1	Gas- Check compressor for coolant level	/				
	2	Gas- Add coolant if necessary					
	3	Gas- Check belts visually for tightness.	/				
	4	Gas- Note any deficiencies					
	5	Gas- Report any failure to lead					

10~

WO Company: Gas King County Landfill Gas

WO Department: 1734 Puyallup LFPC

WO Shop: Gas Landfill Gas

Equipment: PULFFSAC2 License: na

Location: Color:
 Year: 2006 Serial: na
 Make: UD Engine:
 Model: UD
 Class: SFA0ZAZZZ: Air Compressor, Other, Landfill Gas, NA

TECHNICIAN COPY



WO#: 0000018794

Date In: 11/28/2017 11:16

Date Promised: 11/29/2017 11:16

Date Out: 00:00

WO Status: A Last WO#: 0000018747

WO Priority: Last WO Date: 11/28/2017

Track DownTime: Y Operator: WG

Tire Size 1: GVW: 0
 Tire Size 2: EAC: 24
 Transmission: Department: 1734:Puyallup LFPC
 Fuel Type1: Company: Gas King County Landfill Gas
 Fuel Type2: Site: 34:34- Puyallup
 Fuel Type3: Monitor Group:
 Oil Capacity: 0.000 Comments:
 Fuel Cap1: 0.000 Air Compressors
 Fuel Cap2: 0.000

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD
H	81092		H	81092	81092

PM SERVICE

Type	Cycle	Next Due	Description
S	0 - MONTHS	03/10/2018	Scheduled Inspection
W	W - WEEKS	11/27/2017	Weekly Inspection

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description
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REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMW BS	PM Service PMW per list Billable Scheduled, Target	0	763	0.00000	Gas

NOTES

Work Order Task List

Repair Code: PMW BS

Equipment: PULFFSAC2

Work Order: 0000018794

Complete?	Step	Tasks	OK	Adjust	Repair	Replace	Comments
	1	Gas- Check compressor for coolant level					
	2	Gas- Add coolant if necessary					
	3	Gas- Check belts visually for tightness.					
	4	Gas- Note any deficiencies					
	5	Gas- Report any failure to lead					

Not operational

WO Company: Gas King County Landfill Gas

WO Department: 1734 Puyallup LFPC

WO Shop: Gas Landfill Gas

Equipment: PULFHEADER License: na

Location:

Color:

Year: 2006

Serial: na

Make: UD

Engine:

Model: UD

Class: YH00AZZZZ: Header, Other, Landfill Gas, NA

TECHNICIAN COPY

**WO#: 0000018795**

Date In: 11/28/2017 11:17

Date Promised: 11/29/2017 11:17

Date Out: 00:00

WO Status: A Last WO#: 0000018748

WO Priority: Last WO Date: 11/28/2017

Track DownTime: Y Operator: WG

Tire Size 1:

GVW: 0

Tire Size 2:

EAC: 24

Transmission:

Department: 1734:Puyallup LFPC

Fuel Type1:

Company: Gas King County Landfill Gas

Fuel Type2:

Site: 34:34- Puyallup

Fuel Type3:

Monitor Group:

Oil Capacity: 0.000

Comments:

Fuel Cap1: 0.000

Header

Fuel Cap2: 0.000

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD

PM SERVICE

Type	Cycle	Next Due	Description
W	W - WEEKS	11/27/2017	Weekly Inspection

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description

REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMW BS	PM Service PMW per list Billable Scheduled, Target	0	763	0.00000	Gas

NOTES

Work Order Task List

Repair Code: PMW BS

Equipment: PULFHEADER

Work Order: 0000018795

Complete?	Step	Tasks	OK	Adjust	Repair	Replace	Comments
12/1/17	1	Gas- Inspect valves for any abnormality	/				
	2	Gas- Note any deficiencies					
	3	Gas- Do not operate valves to inspect	/				

30 m

WO Company: Gas King County Landfill Gas
 WO Department: 1734 Puyallup LFPC
 WO Shop: Gas Landfill Gas

Equipment: PULFWELLS License: na

Location: Color:
 Year: 2006 Serial: na
 Make: UD Engine:
 Model: UD
 Class: YW00ZAZZZZ: Well, Other, Landfill Gas, NA

TECHNICIAN COPY



WO#: 0000018796

Date In: 11/28/2017 11:18

Date Promised: 11/29/2017 11:18

Date Out: 00:00

WO Status: A Last WO#: 0000018749

WO Priority: Last WO Date: 11/28/2017

Track DownTime: Y Operator: WG

Tire Size 1: GVW: 0
 Tire Size 2: EAC: 24
 Transmission: Department: 1734:Puyallup LFPC
 Fuel Type1: Company: Gas King County Landfill Gas
 Fuel Type2: Site: 34:34- Puyallup
 Fuel Type3: Monitor Group:
 Oil Capacity: 0.000 Comments:
 Fuel Cap1: 0.000 Wells/Valves
 Fuel Cap2: 0.000

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD

PM SERVICE

Type	Cycle	Next Due	Description
I	A - SET AN ANNUAL DATE	03/10/2018	Annual Inspection
W	W - WEEKS	11/27/2017	Weekly Inspection

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description

REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMW BS	PM Service { PMW per list Billable Scheduled, Target	0	763	0.00000	Gas

NOTES

Work Order Task List

Repair Code: PMW BS

Equipment: PULFWELLS

Work Order: 0000018796

Complete?	Step	Tasks	OK	Adjust	Repair	Replace	Comments
12/19	1	Gas- Check well/riser alignment	/				
	2	Gas- Check valves for normal operation	/				
	3	Gas- Ck for damage at well/riser heads	/				
	4	Gas- Ck for damage to flex hose	/				
	5	Gas- Ck for damage at sample ports	/				
	6	Gas- Report any failure to lead					

30m

WO Company: Gas King County Landfill Gas
 WO Department: 1734 Puyallup LFPC
 WO Shop: Gas Landfill Gas

Equipment: PULFCTANK License: na

Location: Color:
 Year: 2006 Serial: na
 Make: UD Engine:
 Model: UD
 Class: YT00ZAZZZZ: Tank, Other, Landfill Gas, NA

TECHNICIAN COPY



WO#: 0000018792

Date In: 11/28/2017 11:15

Date Promised: 11/29/2017 11:15

Date Out: 00:00

WO Status: A Last WO#: 0000018745

WO Priority: Last WO Date: 11/28/2017

Track DownTime: Y Operator: WG

Tire Size 1: GVW: 0
 Tire Size 2: EAC: 24
 Transmission: Department: 1734:Puyallup LFPC
 Fuel Type1: Company: Gas King County Landfill Gas
 Fuel Type2: Site: 34:34- Puyallup
 Fuel Type3: Monitor Group:
 Oil Capacity: 0.000 Comments:
 Fuel Cap1: 0.000 Baker Tank
 Fuel Cap2: 0.000

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD

PM SERVICE

Type	Cycle	Next Due	Description
W	W - WEEKS	11/27/2017	Weekly Inspection

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description

REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMW BS	PM Service PMW per list Billable Scheduled, Target	0	763	0.00000	Gas

NOTES

Work Order Task List

Repair Code: PMW BS

Equipment: PULFCTANK

Work Order: 0000018792

Complete?	Step	Tasks	OK	Adjust	Repair	Replace	Comments
12/15	1	Gas- Check baker tank liquid level	-				
	2	Gas- If baker tank level > 4ft, vactor					

5m

WO Company: Gas King County Landfill Gas

WO Department: 1734 Puyallup LFPC

WO Shop: Gas Landfill Gas

Equipment: PULFCPS License: na

Location:

Color:

Year: 2006

Serial: na

Make: UD

Engine:

Model: UD

Class: SC00ZAZZZZ: Condensate Pump, Other, Landfill Gas, NA

TECHNICIAN COPY

**WO#: 0000018791**

Date In: 11/28/2017 11:14

Date Promised: 11/29/2017 11:14

Date Out: 00:00

WO Status: A Last WO#: 0000018744

WO Priority: Last WO Date: 11/28/2017

Track DownTime: Y Operator: WG

Tire Size 1:

GVW: 0

Tire Size 2:

EAC: 24

Transmission:

Department: 1734:Puyallup LFPC

Fuel Type1:

Company: Gas King County Landfill Gas

Fuel Type2:

Site: 34:34- Puyallup

Fuel Type3:

Monitor Group:

Oil Capacity: 0.000

Comments:

Fuel Cap1: 0.000

Condensate Pump Stations

Fuel Cap2: 0.000

METERS

WO Meter

Reading

Override?

Eq Meter

Actual

LTD

PM SERVICE

Type

Cycle

Next Due

Description

W

W - WEEKS

11/27/2017

Weekly Inspection

WARRANTY INFORMATION

Type

Cycle

Date Expires

Description

REPAIRS

RTY

Description

Status: MID

Est. Labor Shop

PMW BS PM Service } PMW per list | Billable | Scheduled, Target

0 763

0.00000 Gas

NOTES

Work Order Task List

Repair Code: PMW B5

Equipment: PULFCPS

Work Order: 0000018791

Complete?	Step	Tasks	OK	Adjust	Repair	Replace	Comments
12/19	1	Gas- Switch to hand operation.	/				
	2	Gas- Test pump for proper operation	/				
	3	Gas- Make sure to check all pumps.	/				
	4	Gas- Report any failure to lead					

15 m

WO Company: Gas King County Landfill Gas
 WO Department: 1734 Puyallup LFPC
 WO Shop: Gas Landfill Gas

TECHNICIAN COPY

**WO#: 0000018790**

Date In: 11/28/2017 11:13

Date Promised: 11/29/2017 11:13

Date Out: 00:00

WO Status: A Last WO#: 0000018743

WO Priority: Last WO Date: 11/28/2017

Track DownTime: Y Operator: WG

Equipment: PULFBLOWERS License: na

Location: Color:
 Year: 2006 Serial: na
 Make: UD Engine:
 Model: UD
 Class: T6A0ZAZZZZ: Blower, Other, Landfill Gas, NA

Tire Size 1:	GVW:	0
Tire Size 2:	EAC:	24
Transmission:	Department:	1734:Puyallup LFPC
Fuel Type1:	Company:	Gas King County Landfill Gas
Fuel Type2:	Site:	34:34- Puyallup
Fuel Type3:	Monitor Group:	
Oil Capacity: 0.000	Comments:	
Fuel Cap1: 0.000	Blowers	
Fuel Cap2: 0.000		

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD
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PM SERVICE

Type	Cycle	Next Due	Description
W	W - WEEKS	11/27/2017	Weekly Inspection

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description
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REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMW BS	PM Service PMW per list Billable Scheduled, Target	0	763	0.00000	Gas

NOTES

Work Order Task List

Repair Code: PMW BS

Equipment: PULFBLOWERS

Work Order: 0000018790

Complete?	Step	Tasks	OK	Adjust	Repair	Replace	Comments
12/19	1	Gas- Check belts visually for tightness.	✓				
	2	Gas- Tighten belts if necessary					
	3	Gas- Check bearings for proper greasing.	✓				
	4	Gas- Grease if necessary,					
	5	Gas- Listen to impeller to see if alignm	✓				
	6	Gas- Report any failure to lead					

10m

~~10m~~

WO Company: Gas King County Landfill Gas

WO Department: 7572 Waste Water, LF Gas

WO Shop: Gas Landfill Gas

Equipment: CHAREA6 License: na

Location: 20

Color:

Year: 2006

Serial: na

Make: UD

Engine:

Model: UD

Class: ZZZZZZGS: Landfill Gas - not classified

TECHNICIAN COPY

**WO#: 0000018789**

Date In: 11/28/2017 11:13

Date Promised: 11/29/2017 11:13

Date Out: 00:00

WO Status: A Last WO#: 0000018739

WO Priority: Last WO Date: 11/28/2017

Track DownTime: Y Operator: WG

Tire Size 1:

GVW: 0

Tire Size 2:

EAC: 24

Transmission:

Department: 7572:Waste Water, LF Gas

Fuel Type1:

Company: Gas King County Landfill Gas

Fuel Type2:

Site: 20:20- Cedar Hills

Fuel Type3:

Monitor Group:

Oil Capacity: 0.000

Comments:

Fuel Cap1: 0.000

CH Area 6

Fuel Cap2: 0.000

METERS

WO Meter Reading Override? Eq Meter Actual LTD

PM SERVICE

Type	Cycle	Next Due	Description
G	0 - MONTHS	12/10/2017	Gas System
S	0 - MONTHS	12/28/2017	Scheduled Inspection
T	0 - MONTHS	12/10/2017	Stormwater
V	0 - MONTHS	12/10/2017	Cover System
W	W - WEEKS	12/11/2017	Weekly Inspection

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description
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REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMW BS	PM Service PMW per list Billable Scheduled, Target	0	763	0.00000	Gas

NOTES

Work Order Task List

Repair Code: PMW BS

Equipment: CHAREA6

Work Order: 0000018789

Complete?	Step	Tasks	OK	Adjust	Repair	Replace	Comments
12/20	1	Gas- Inspect valves for any abnormality	✓				
	2	Gas- Do not operate valves to inspect	✓				
	3	Gas- Ck for damage at sample ports	✓				
	4	Gas- Ck for damage to flex hose	✓				
	5	Gas- Note any deficiencies					
	6	Gas- Check condensate drain traps					

4.5 c.w. ~

WO Company: Gas King County Landfill Gas

WO Department: 7572 Waste Water, LF Gas

WO Shop: Gas Landfill Gas

Equipment: CHAREA4 License: na

Location: 20

Color:

Year: 2006

Serial: na

Make: UD

Engine:

Model: UD

Class: ZZZZZZZGS: Landfill Gas - not classified

TECHNICIAN COPY

**WO#: 0000018788**

Date In: 11/28/2017 11:09

Date Promised: 11/29/2017 11:09

Date Out: 00:00

WO Status: A Last WO#: 0000018738

WO Priority: Last WO Date: 11/28/2017

Track DownTime: Y Operator: WG

Tire Size 1:

GVW: 0

Tire Size 2:

EAC: 24

Transmission:

Department: 7572:Waste Water, LF Gas

Fuel Type1:

Company: Gas King County Landfill Gas

Fuel Type2:

Site: 20:20- Cedar Hills

Fuel Type3:

Monitor Group:

Oil Capacity: 0.000

Comments:

Fuel Cap1: 0.000

CH Area 4

Fuel Cap2: 0.000

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD

PM SERVICE

Type	Cycle	Next Due	Description
G	0 - MONTHS	12/10/2017	Gas System
S	0 - MONTHS	12/28/2017	Scheduled Inspection
T	0 - MONTHS	12/10/2017	Stormwater
V	0 - MONTHS	12/10/2017	Cover System
W	W - WEEKS	12/11/2017	Weekly Inspection

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description

REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMW BS	PM Service PMW per list Billable Scheduled, Target	0	763	0.00000	Gas

NOTES

Work Order Task List

Repair Code: PMW B5

Equipment: CHAREA4

Work Order: 0000018788

Complete?	Step	Tasks	OK	Adjust	Repair	Replace	Comments
12/21	1	Gas- Biweekly Riser PM Area4 and WW	/				
	2	Gas- Inspect valves for any abnormality	/				
	3	Gas- Do not operate valves to inspect	/				
	4	Gas- Ck for damage at sample ports	/				
	5	Gas- Ck for damage to flex hose	/				
	6	Gas- Note any deficiencies					
	7	Gas- Check condensate drain traps					

30m