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June 27, 2016

File No: 01.00171521.42

Massachusetts Department of Environmental Protection Bureau of Waste Site Cleanup Northeast Regional Office 205B Lowell Street Wilmington, Massachusetts 01887

Re: Release Abatement Measure Status Report No. 2
Pre-Construction Remediation Activities
(Former) Everett Staging Yard
1 Horizon Way
Everett, Massachusetts
Release Tracking Number (RTN) 3-13341

To Whom It May Concern:

GZA GeoEnvironmental, Inc. (GZA), on behalf of Wynn MA, LLC (Wynn MA), has prepared this Release Abatement Measure (RAM) Status Report to document the status of preconstruction RAM activities completed as of May 11, 2016, on the land-side portion of the above-referenced Disposal Site (the Site).

EXECUTIVE SUMMARY

Soil, groundwater, and sediment at the Site have been contaminated by historic activities, including the former use of the Site for chemical manufacturing. On August 18, 2015, Wynn MA and GZA submitted a RAM Plan documenting Massachusetts Contingency Plan (MCP) Response Actions to be completed prior to the redevelopment of the Site. The objective of the activities described in the RAM Plan was to reduce the risks associated with soil and groundwater contamination in the three areas of the Site previously identified as the A-5 Area, the CES-2 Area, and the Low pH Area.

RAM activities performed during this reporting period included:

- Excavation and disposal¹ of PCB, lead, and arsenic-impacted soils within the A-5 Area:
- Excavation and disposal of arsenic-impacted soils in the CES-2 Area;
- Treatment of soil within the Low pH Area using in-situ solidification/stabilization (ISS);
- Treatment of extracted groundwater, decontamination fluid, and runoff within the materials management area (MMA);
- Continuous perimeter air monitoring via AirLogics stations;
- Maintenance of site erosion controls; and
- Removal of miscellaneous materials (concrete obstructions, wood debris, steel, etc.) to off-Site facilities.

 $^{^{1}}$ Certain soils were stabilized within the boundaries of the disposal Site to decrease the leaching tendency prior to off-Site disposal.



INTRODUCTION

A Site Locus Map is presented as Figure 1; an Exploration Location Plan is included as Figure 2; and the areas that are subject to the provisions of the RAM Plan are delineated on Figure 3. This RAM Status Report has been prepared in accordance with section 310 CMR 40.0445 of the MCP, and with the Limitations in Appendix A. This RAM Status Report will be submitted electronically through the Massachusetts Department of Environmental Protection's (MassDEP's) eDEP online filing system. A copy of the RAM Transmittal Form BWSC-106 is included in Appendix B.

DESCRIPTION OF RELEASE, SITE CONDITIONS AND SURROUNDING RECEPTORS

The following sections provide a description of the Site and surrounding area conditions and the Site's regulatory history, including a description of the release being addressed by the RAM.

SITE AND SURROUNDING AREA CONDITIONS

The RAM activities address certain conditions on the land-side portion of the Site, which includes approximately 25 acres of land within the City of Everett (Figure 1). The latitude and longitude for the approximate center of the land-side portion of the Site are 42.395 degrees north and 71.069 degrees west, respectively. The Universal Transverse Mercator (UTM) coordinates are 4,695,683 meters north and 329,684 meters east. Access to the land-side portion of the Site is limited by the presence of a chain-link fence with two gates: one gate is in the eastern portion of the Site, along Horizon Way, and the second gate is located on the northern portion of the Site across an extension of Horizon Way. The ground surface at the Site is generally bituminous pavement (center), unpaved, or compacted coarse gravel. The ground surface of the land-side portion of the Site is generally flat with a gentle slope toward the southwest. Based on an April 2013 survey prepared by Harry R. Feldman, Inc. (Professional Land Surveyors), ground surface elevations on the land-side portion of the Site range from approximately 8 to 13 feet NAVD88.

The Site is adjoined to the northeast by a vehicle maintenance and repair facility operated by the Massachusetts Bay Transportation Authority (MBTA); to the southeast by properties along Alford Street, including a vacant commercial building and facilities operated by the Boston Water and Sewer Commission (BWSC) and the Massachusetts Water Resources Authority (MWRA); to the southwest by the Mystic River; and to the northwest by railroad tracks for the MBTA Commuter Rail, beyond which are several large commercial/retail buildings associated with the Gateway Center.

The Site is located within the Boston Basin, a regional depression of bedrock consisting primarily of Cambridge Argillite, a partially metamorphosed siltstone. Site subsurface conditions generally consist of fill over a variable sequence of naturally deposited organics, sand and gravel, and silty clay over weathered rock and bedrock. Filling over naturally deposited materials occurred in the area of the Site from the late 1800s through the early 1960s. More recent naturally deposited sediments along the shoreline include sand, silt, and organics.

Depth to groundwater ranges from approximately 4 to 10 feet. Groundwater at the Site flows generally toward the east on the southern portion of the Site and generally toward the south on the northern portion of the Site.

According to a Massachusetts Geographic Information System (MassGIS) map, the Site is not located in or within 500 feet of a Zone II public water supply, a potentially productive aquifer, a Zone A surface water body, an Interim Wellhead Protection Area, a protected wetlands habitat, or an Area of Critical Environmental Concern. Protected open space associated with Gateway Park is located approximately 400 feet to the northwest of the Site.



SITE AND REGULATORY HISTORY

Investigations conducted between 1995 and the present have identified several contaminants in soil, groundwater, and sediments at the Site, including metals, volatile organic compounds (VOCs), volatile petroleum hydrocarbon (VPH) fractions and target analytes, semi-volatile organic compounds (SVOCs), extractable petroleum hydrocarbon (EPH) fractions and target analytes, and polychlorinated biphenyls (PCBs). The sources of contamination at the Site include past industrial operations, leakage from a former aboveground storage tank (AST), and the placement of contaminated fill. According to historic reports, the Site was occupied by the Cochrane Chemical Company, the Merrimac Chemical Company and the Monsanto Chemical Company from the late 1800s until the late 1960s. The buildings on the land-side portion of the Site were razed in the 1970s. The land-side portion of the Site has been used primarily as a material storage and staging yard since the mid-1990s, when rock and fine-grained sediment ("tunnel muck") from the construction of the Deer Island Outfall was placed on it in a 1- to 7-foot thick layer. There are currently no buildings at the Site.

In 1995, Consulting Engineers and Scientists, Inc. (CES) of Lakeville, Massachusetts, performed a limited subsurface investigation at the Site prior to it being used as the tunnel muck stockpile area. Arsenic and lead concentrations in soil samples collected during the investigation exceeded the applicable MCP Reportable Concentrations (RCS-2). On January 18, 1996, O'Donnell Sand and Gravel ("O'Donnell"), the property owner at the time, submitted a Release Notification Form (RNF) to MassDEP, and MassDEP assigned RTN 3-13341 to the release. Later in 1996, the excavated tunnel muck and rock were stockpiled and/or spread across the upland portion of the Site. In mid-1999, tunnel muck from the Site was used to cap a separate portion of the former Monsanto property, located across the railroad tracks and west of the Site, as part of the construction of the Gateway Center Mall, but a 1- to 7-foot thick layer of the tunnel muck remains at the Site.

In December 1996, CES conducted a Phase I Initial Site Investigation (ISI). Arsenic and lead concentrations detected in soil samples exceeded the applicable RCS-2 standards, and dissolved arsenic and lead detected in groundwater samples exceeded the RCGW-2 standard. In January 1997, on behalf of O'Donnell, CES submitted a Phase I ISI and Tier Classification (Phase I report) to MassDEP. The Disposal Site was classified as a Tier II Disposal Site. The Phase I report identified arsenic, lead, and low pH as contaminants of concern (COCs). O'Donnell submitted a Phase II Extension Request to MassDEP in February 1999 and sold the property to Mystic Landing, LLC ("Mystic Landing") in 2001.

In 2001, on behalf of Mystic Landing, Rizzo Associates (a predecessor to Tetra Tech Rizzo, Inc. of Framingham, Massachusetts ("Tetra Tech Rizzo")) performed a limited subsurface investigation at the Site, including the collection and analysis of soil and groundwater samples. The findings of the subsurface investigation were similar to CES's findings. Between 2005 and 2007, Tetra Tech Rizzo conducted additional subsurface investigations, including the collection and analysis of soil, groundwater and sediment samples. The results of these investigations were also generally consistent with those from previous sampling rounds.

In June and July 2007, Williams Environmental, Inc. (Williams) conducted a supplemental subsurface investigation at the Site, including the excavation of 40 test pits and the collection of soil, groundwater and sediment samples. As with the results for previous analyses of environmental media conducted at the Site, lead and arsenic were the contaminants detected at the highest concentrations and with the greatest frequency.

In December 2007, on behalf of Mystic Landing, Tetra Tech Rizzo submitted a Phase II Comprehensive Site Assessment (Phase II CSA) and Tier II Extension Request to MassDEP. The Human Health Risk Assessment included in Tetra Tech Rizzo's CSA concluded that there was No Significant Risk (NSR) and No Substantial Hazard associated with the current use of the Site as a construction material storage yard or for similar uses that did not disturb the surficial layer of tunnel muck.



FBT Everett Realty, LLC (FBT) purchased the Site from Mystic Landing in October 2009. On February 11, 2010, GEI Consultants, Inc. (GEI) submitted an Eligible Person Certification and Revised Tier Classification Submittal to MassDEP on behalf of FBT. The Disposal Site remained a Tier II Disposal Site based on the Revised Tier Classification Submittal and, pursuant to 310 CMR 40.0570, the deadlines for conducting response actions at the Disposal Site were re-established.

In February 2012, GEI submitted a Phase II CSA based solely on data previously developed by others because GEI's access to the Site was reportedly denied by the Site occupant. As part of the Phase II CSA, GEI conducted a Method 3 Risk Characterization which concluded that a Condition of NSR to human health existed at the Site for most of the then current uses of the Site, but that NSR could not be demonstrated for foreseeable future Site uses. NSR could not be demonstrated for future commercial workers or future visitors exposed to Site-wide soils, for future construction workers exposed to Site-wide soils or shallow groundwater, or for utility workers exposed to soil, shallow groundwater, or ambient air within a potential utility trench in a specific area near the northern corner of the Site.

Because of the delay in obtaining access to the Site, FBT filed a Notification of Delay with MassDEP, requesting that the deadline for the Phase III – Remedial Action Plan (RAP) be extended from February 2013 to June 2013, and that the deadline for the Phase IV – Remedy Implementation Plan (RIP) be extended from February 2014 to June 2014. FBT subsequently filed a second Notification of Delay requesting that the Phase III RAP deadline be extended to September 2013, and the Phase IV deadline be extended to June 11, 2015.

GEI conducted additional soil and groundwater investigations in December 2012 and March 2013. These investigations included the installation of a series of soil borings and monitoring wells on the land-side portion of the Site, and the collection and analysis of soil and groundwater samples. The results of the additional investigations were generally consistent with those previously documented. GEI also conducted a bench scale evaluation of in-situ solidification/stabilization of soils as a remedial alternative for certain areas of the Site. On August 30, 2013, FBT filed a Phase III RAP for the Site outlining the selected Remedial Action Alternatives (RAAs). The Phase III RAP identified three areas of concern to be addressed to reach a Permanent Solution under the MCP on the land-side portion of the Site. These areas are depicted on Figure 3, and are described as follows:

- A-5 Area: The A-5 area is situated in the northern portion of the Site in the vicinity of previous exploration location
 A-5, where elevated lead and arsenic concentrations² were detected in a soil sample obtained in 2007. Groundwater
 samples collected from this area have not indicated concentrations of metals above the applicable Method 1 GW-3
 Standards.
- CES-2 Area: The CES-2 area is situated in the northern portion of the peninsula, in the vicinity of previous exploration CES-2. Elevated concentrations of arsenic have been detected in both soil and groundwater in this area. Unlike the Low pH area (see below), soil and groundwater pH levels in the CES-2 area are relatively neutral.
- Low pH Area: The Low pH Area includes the southern corner of the peninsula where the pH has been measured to be
 at or below 4. As indicated in the Phase III RAP, a plot of dissolved lead concentrations against pH indicates a strong
 correlation between pH levels below 4 and dissolved lead concentrations above the Upper Concentration Limited
 (UCL).

² According to the 2007 Phase II report submitted by Tetra Tech/Rizzo, a material used to dry sulfur for the production of sulfuric acid contained arsenic and a "lead storage house" formerly occupied portions of the Site.



On January 2, 2015, Wynn MA acquired the portion of the Site in Everett, Massachusetts. On February 5, 2015, Wynn MA filed an Eligible Person Submittal and a Revised Tier II Classification with MassDEP for RTN 3-13341. The Eligible Person Submittal outlined plans to address the three areas described above, along with the removal of additional contaminated fill materials in conjunction with Site redevelopment, as part of RAM Plans.

On August 18, 2015, Wynn MA and GZA submitted a RAM Plan documenting proposed MCP Response Actions to be completed in the A-5, CES-2 and Low pH Areas. On December 21, 2015, Wynn MA and GZA submitted RAM Status Report No. 1. Beyond documenting Site activities since the submission of the RAM Plan, this report included a RAM Plan Modification to clarify the procedures in place for the management of contaminated soils from the CES-2 Area, Low pH Area and groundwater recharge areas; to provide an estimate of the volume of contaminated soil that would be excavated as part of the RAM activities in these areas; and to describe the exploratory test pits performed to assess the status and location of existing underground utilities at the Site.

RELEASE ABATEMENT MEASURE STATUS REPORT

The following sections of this document are intended to address the specific requirements for RAM Status Reports as outlined in the MCP at 310 CMR 40.0445 (2) (a) through (e).

(a) The Status of Response Actions

A-5 EXCAVATION

The A-5 area is situated in the northern portion of the Site in the vicinity of previous exploration location A-5, where elevated lead and arsenic concentrations were detected in soil. GZA conducted additional soil sampling³ in the A-5 Area to further delineate the extent of impacts in the area, as described in the RAM Plan.

Excavation of the A-5 Area was initiated in November 2015. Excavated material from this area was initially stockpiled within the northern MMA (on 20-mil polyethylene sheeting and covered with 10-mil polyethylene sheeting) pending off-Site disposal. Soil within the A-5 Area was excavated to an average depth of approximately 8 feet below ground surface, or approximately 1 foot into the underlying peat layer, whichever was shallower. An existing 115 kV utility line, with two smaller utility lines adjacent to it, runs through the eastern portion of the A-5 Area; the utility required appropriate protection from the excavation of contaminated material as discussed below.

A cell containing an elevated concentration of PCBs was excavated from the center of the A-5 Area, between approximately 3 and 9 feet below ground surface (bgs). The top 3 feet of excavated material was transported to the MMA for future off-Site disposal. The excavated material located between 3 and 9 feet bgs was transported to the MMA for future stabilization⁴ and subsequent off-Site disposal. Initial excavation limits were set based on the pre-characterization data of PCB-impacted soils. Once material had been removed from this area, confirmatory samples were collected from each of the side walls and from the bottom of the excavation area. The samples were analyzed for PCBs, lead, and arsenic to evaluate whether or not the PCB-impacted material had been removed from the delineated area. After the initial excavation, laboratory results indicated that soil containing PCBs was still present on the east wall of the excavation, but that soils remaining along the western wall of the excavation were below the relevant Upper Concentration Limits (UCLs) for the three contaminants of concern. Iterative excavation and laboratory analysis were performed in this manner until the remaining PCB-impacted material had been removed from the A-5 Area. The remaining lead and arsenic-impacted

³ Unless otherwise noted, soil and groundwater samples were collected by GZA personnel and analyzed by ESS Laboratory in Cranston, Rhode Island.

⁴ As described in further detail in subsequent sections of this report, ex-situ stabilization included applying stabilizing reagents to the stockpiled soils and the mixing of those soils to reduce concentrations in the leachate to those which were acceptable to the disposal facility.



material was then excavated to the predetermined extents of the A-5 Area⁵, as shown on Figure 3 and stabilized in the MMA prior to off-Site disposal. Details and documentation regarding soil handling and disposal⁶ are included⁷ in Section (c).

Upon completion of the excavation of contaminated soils within the A-5 Area limits, backfilling with on-Site material commenced. Tunnel muck material was placed in controlled lifts and compacted with a double drum vibratory sheeps foot roller. To adequately support the adjacent utility lines and minimize equipment working around the utilities, Controlled Density Fill (CDF, flowable fill, cementitious fill) was placed as backfill material below the exposed utilities. This material was placed to approximately 1 foot below the utility lines. A clean sand fill was then placed around the utility lines (1 foot in all directions). A small vibratory plate compactor was used to compact the material surrounding the utility. Tunnel muck fill material was then used to bring the A-5 Area back to its previously existing grade. The placed lifts of soil fill were compacted with vibratory compaction equipment and the fill material appeared firm and stable during compaction. GZA performed in-situ density testing of soils using a Troxler nuclear density gage. Test results indicated that the minimum specified in-situ density (90% of the maximum dry density of the soil) had been achieved.

Water⁸ entered the excavation area at approximately 4 to five 5 bgs. Sump pumps were installed to remove the water from the excavation to allow work to be performed in dry conditions. Water extracted from the excavation area was pumped to an on-Site water treatment facility prior to being discharged back into the recharge area, as shown on Figure 3.

CES-2 EXCAVATION

The CES-2 Area is situated in the northern portion of the peninsula, in the vicinity of previous exploration CES-2. GZA conducted additional explorations around the edges of the CES-2 Area to better define the extent of arsenic impacts. Remediation in the CES-2 area involved the excavation of the contaminated soil material from approximately 6 feet to 15 feet bgs. Due to the depth of the excavation extending below the groundwater table and its proximity to the Mystic River, a support of excavation (SOE) and dewatering system were required. In addition, floating sedimentation curtains were installed parallel to the SOE along the edge of the water at the CES-2 excavation area as a precautionary measure to mitigate potential sedimentation that may have occurred during SOE installation. Loss of soil/sedimentation was not observed during SOE installation or removal.

As described in the first RAM Status Report, soils within this area were precharacterized through a soil boring program completed prior to excavation. In addition, prior to the installation of the proposed SOE and excavation of any material, pre-trenching activities were performed along the proposed line of the SOE to a depth of approximately 15 feet bgs to locate potential obstructions that would interfere with the installation of the SOE. As discussed in RAM Status Report No. 1, an underground storage tank (UST) was encountered along the western wall of the proposed SOE; this tank, and associated soil contamination, were subsequently removed from the Site as an Immediate Response Action (RTN 3-33284; IRA Plan submitted on January 22, 2016 followed by an IRA Status Report submitted on March 23, 2016).

⁵ A 115 kV utility line encountered within the remediation area required support during excavation activities. Vacuum excavation was performed to confirm the location of the utility line, and hand excavation techniques were employed to remove material from around and underneath the utility lines. Two steel H-beams were used to suspend the utility lines while the excavation was open and to support the line during backfilling.

⁶ PCB-impacted soils were transported to U.S. Ecology in Belleville, MI.

⁷ The analytical data sheets documenting soil disposal parameters will be included in the RAM Completion report which will be submitted to MassDEP in July 2016.

⁸ The source of the water appeared to be groundwater; however, abandoned utilities were also encountered that may have contributed the subsurface water infiltration.



Upon completion of the pre-trenching work, interlocking hot-rolled steel sheet piles were installed to a depth of approximately 45 feet bgs around the perimeter of the CES-2 Area. Two rows of internal bracing were installed in the northeast and southeast corners of the SOE. The support system on the north and south sides of the SOE included sheet pile deadman instead of bracing because the depth of excavation of soil in those areas was not anticipated to extend beyond 15 feet bgs.

To dewater the CES-2 Area, four 8-inch diameter PVC dewatering wells were installed to depths ranging between 38 and 45 feet bgs. Groundwater extracted from the dewatering wells was passed through a frac tank to allow solid particulates to settle out and then pumped through an on-Site treatment facility (described in detail in subsequent sections) prior to being discharged back onto the Site upgradient of the excavation.

The top 6 feet of fill material consisted of tunnel muck and overburden fill. The tunnel muck material was stockpiled separately, to be re-used as on-Site fill during backfilling operations. The overburden fill material below the tunnel muck was approved to be used as on-Site fill during backfilling operations. Overburden fill was stockpiled in a separate MMA area and covered with polyethylene sheeting when the stockpile was inactive.

Soils encountered below the tunnel muck and overburden fill were classified as either Type I or Type II material. Type I material was suitable for transport and off-Site disposal without requiring stabilization. Type II materials required on-Site stabilization, due to the high levels of leachable lead and arsenic, prior to transport and off-Site disposal. To further define the limits of the Type II material excavation Area, test pit explorations were performed at the limits of the precharacterization cells for each type of material. Sidewall samples were collected from four test pits and analyzed for Toxicity Characteristic Leaching Procedure (TCLP) lead and arsenic⁹. Testing results indicated that the proposed delineation lines needed to be expanded.

Type I material was then excavated from approximately 6 to 15 feet bgs within the CES Area, or 6 to 12 feet bgs in the area of the Type II material, and stockpiled in 500 ton (+/-) polyethylene lined bins at the MMA. The material was covered with polyethylene sheeting until it was shipped off-Site. Details and documentation regarding soil handling and disposal are included in section (e).

Type II Material was excavated from approximately 12 to 15 feet bgs within the previously delineated Type II area within the CES-2 Area. This material was stockpiled in separate bins at the MMA pending treatment and confirmatory sampling. Treatment consisted of the application of stabilizing reagents to the stockpiled soils and mixing of those soils in individual cells of no greater than approximately 350 cubic yards (approximately 500 tons). After mixing, representative samples of the materials were collected for additional TCLP analysis. If TCLP concentrations remained above disposal facility acceptance criteria, the materials were retreated. Following the receipt of acceptable post-treatment TCLP analytical results, these soils were transported off-Site for disposal.

Upon completion of the excavation within the CES-2 Area, confirmatory samples were collected from the excavation bottom by GZA and tested for total RCRA-8 metals. The results from this first round of confirmatory samples indicated that contaminated material, above the UCLs, was still present in some sections of the CES-2 Area excavation. The excavation in these areas was carried approximately 1.5 feet deeper in an attempt to remove the existing contaminated material, followed by a second round of confirmatory samples. Results from the second round of analyses indicated that contaminated material, above the UCLs, was still present in two of the sections of the CES-2 Area. The excavation in these areas was then extended approximately 1.5 feet deeper followed by a third round of confirmatory samples. Although

⁹ Analytical data sheets will be included in the RAM Completion Report.



elevated levels were still encountered in the third round of confirmatory samples¹⁰, the excavation in this area was terminated at this depth of approximately 18 feet; this was the design depth of the SOE around the area. In addition, soils at depths greater than 15 feet are considered "isolated" under the MCP.

Following the completion of excavation activities, backfilling operations were begun to restore the area to its previously existing grade. Previously excavated overburden fill from the area was placed in controlled lifts in the northeastern and southeastern corners of the excavation area, under the SOE bracing. Compaction was completed by multiple passes of a double-drum vibratory sheeps foot roller. Once the grade was brought up to the bottom of the SOE bracing, the bracing supports were removed from within the SOE. Backfilling of overburden fill material continued in controlled lifts and was compacted with the large single-drum vibratory roller. After the overburden fill material was used, tunnel muck fill was placed over the compacted fill to achieve previously existing grades. The placed lifts of soil fill were compacted with vibratory compaction equipment and the fill material appeared firm and stable during compaction. GZA performed in-situ density testing of soils using a Troxler nuclear density gage. Test results indicated that the minimum specified in-situ density (90% of the maximum dry density of the soil) had been achieved. Overburden material and tunnel muck within the on-Site stockpiles were used as backfill.

Upon completion of the excavation, sheeting installed around the perimeter of the CES-2 excavation area, including the along the water-side length of the excavation, was removed¹¹ and the excavation area was returned (backfilled) to pre-remediation grades.

Low pH Area

The Low pH Area includes the southern corner of the peninsula where the groundwater pH has been measured to be at or below 4. Dissolved arsenic, cadmium, chromium, lead, nickel and zinc, along with total cyanide, have been detected above the applicable Method 1 GW-3 Standards, with the concentrations of arsenic, cadmium and lead in groundwater samples from certain wells above their respective UCLs. Remediation in this area consisted of the use of ISS to create a low-permeability zone and to raise the groundwater pH. As described in the RAM Plan, GZA had previously conducted explorations in this area to evaluate the extent of groundwater exhibiting low pH. Concurrent with the ISS work performed within the area, GZA monitored the pH in the groundwater from monitoring wells surrounding the Low pH Area.

Prior to proceeding with the ISS work, steel sheet piles were installed just inland of the top of coastal bank. Pre-trenching was performed to a depth of approximately 15 feet along the proposed line of the SOE. Multiple obstructions in the form of concrete and wood debris were observed during pre-trenching. Obstructions and debris were removed from area and stockpiled on site for future off-Site disposal at an appropriate facility. In addition, a large concrete obstruction (likely a stationary crane foundation) was observed at the northeastern corner of the proposed ISS work. Due to the size of the concrete mass and its location relative to the Mystic River, the concrete obstruction was left in place and the orientation of the SOE, as well as the limits of the ISS work, were altered slightly landward (westerly). Twenty-three foot long sheet piles were installed, using a vibratory hammer, in two phases along the top of coastal bank. The first phase of sheeting was installed along the southern, and southeastern edge of the Low pH Area. Upon substantial completion of the ISS work along the southern portion of the peninsula, the SOE was removed and reinstalled as phase two along the eastern edge of the Low pH Area.

¹⁰ Arsenic concentrations observed within the round three confirmatory samples were 1,910 and 1,180 mg/Kg.

¹¹ All sheets removed from the CES-2 Area were pressure washed prior to being stacked and removed from the Site. Decontamination fluids were containerized and processed through an on-Site treatment system.





Similar to the conditions encountered within the CES-2 Area, tunnel muck and overburden fill material overlaid the upper 4 feet of fill material in the low pH area. Approximately 4 feet of tunnel muck and overburden material were excavated and stored in the appropriate stockpiles during the implementation of the ISS work. Overburden fill was covered with polyethylene sheeting when the stockpile was not active.

The ISS process involved using an excavator to mix the stabilizing grout slurry into the soil from approximately 4 feet to 15 feet bgs. The Low pH Area was divided into cells, generally 10 feet by 15 in size. Work was generally performed by two excavators working in a primary/secondary fashion so that no two adjacent cells were stabilized simultaneously.

Throughout the ISS process, GZA performed pH screening on surface water samples and on groundwater from monitoring wells surrounding the Low pH Area. During the ISS process, GZA noted that the pH within wells surrounding the ISS Area began to drop below 4. These wells (GZ-202, GZ-209, and Shore-7), and the surrounding areas, were incorporated into the limits of the proposed Low pH Area, which expanded to the west. Approximately 8,471 additional square feet were added to the originally-delineated Low pH Area.

Cell mixing was performed in the following manner:

- The center of the cell was excavated to the termination depth. The grout mixture was pumped into the pit created by this initial excavation as cell mixing began. A predetermined volume of the grout mixture was then added to the cell based on the size of the cell being mixed.
- Grout was continuously added to the cell as the excavation continued to the limits of the proposed cell.
- The soils previously excavated from the center of the cell were added back to the cell and mixed with the grout/soil mixture.
- Once all previously excavated soils had been re-added to the cell, the excavator bucket was used to blend the grout
 and soil into a homogeneous soil-mix material. The mixing of the material continued until the cell appeared visually
 homogeneous as observed by the Field Engineer.

The cement grout mixture was produced in a high speed/high sheer colloidal batch plant on Site. Silos were equipped with an auger or rotary vane/feeder to control the amount of cement included in each mix. The mixer had a capacity of 5 cubic yards and was equipped with high speed mixing paddles and load cells with direct read-out of weight in pounds. A mud balance was used to test each batch of grout for confirmation that the mix was in compliance with the mix design. The grout was delivered to each cell via positive displacement pumps and hoses. The batch plant was equipped with a recirculating grout manifold containing independent flow meters that enabled the operator to send grout to one or more cells independently and document the quantity of grout delivered to each location.

The cells were tested to confirm that the stabilized soil met the performance specifications for the ISS, as shown in Appendix C. Samples were collected from a pre-determined depth using a hydraulic sampling tool consisting of a sampling chamber that was remotely opened and closed by a hydraulic cylinder. This allowed discrete samples from any depth to be collected. The discrete samples were used to make cylinders for unconfined compression strength testing which were broken at 7-, 14-, and 28-days after stabilization. Results from the strength testing can be found in Table 1. The average 14-day compression strength was 117 psi, which exceeded the 50 psi minimum requirement described in the RAM Plan.



The pH of the soil-mix from the cells was also tested to evaluate the potential increase in pH. The pH value is all of the treated cells within the Low pH Area ranged from 9 to 12¹².

Approximately 22,700 cubic yards of soil was treated via ISS during this phase of remediation work, including approximately 3,700 cubic yards resulting from the expansion of the ISS Area.

Once the ISS work was completed and the soil mix had cured, on-Site backfill (over burden fill material as well as 4 to 6 inches of tunnel muck) was used to bring the area back to its previously existing grade. The placed lifts of soil fill were compacted with vibratory compaction equipment and the fill material appeared firm and stable during compaction. GZA performed in-situ density testing of soils using a Troxler nuclear density gage. Test results indicated that the minimum specified in-situ density (90% of the maximum dry density of the soil) had been achieved. The SOE along the northeastern top of bank around the Low pH Area was removed upon completion of backfilling and compaction efforts. The vibratory hammer was used to remove each of the sheet piles. Sheet piles were pressure washed on-Site prior to being stacked and prepared for removal from the site.

WATER TREATMENT

Groundwater from the CES-2 and A-5 Areas, as well as water collected within the MMA and truck wash, were pumped and treated by an on-Site treatment system. The water was first stored in an 18,000-gallon weir tank where aeration was performed. The water was then pumped by a duplex centrifugal pump through a multi-bag filter skid with two multi-bag filters plumbed in parallel. The water was then pumped through two liquid carbon vessels (each filled with 4,000 pounds of carbon, plumbed in series) and an 80-cubic foot ion exchange resin vessel. The treated water passed through a storage tank prior to being released into the on-Site water infiltration/recharge area. Residual material (sediment, fines, etc.) as well as treatment media were disposed of off-Site to an appropriately licensed facility as containerized remediation waste. A dewatering sump detail and process flow diagram are included in Appendix D.

As described in Sections (b) and (c) below, extracted groundwater was sampled and analyzed after treatment in accordance with the RAM Plan. In addition, groundwater collected from monitoring wells surrounding the water recharge area was analyzed to confirm that the water quality remained consistent with baseline testing results collected prior to discharging water back onto the site.

(b) Any Significant New Site Information or Data

Significant new Site information or data was not generated during the current reporting period; however, the following section summarizes monitoring data collected during the reporting period.

PERIMETER AIR MONITORING DATA

As described in the first RAM Status Report, perimeter dust and VOC monitoring was conducted on a continuous, 24-hour basis for the duration of the RAM activities. The automated perimeter air monitoring system consisted of eight individual AirLogics SolarLite monitoring stations with associated analytical instrumentation, a meteorological station, a computer control system, and an alarm system linked to the analytical instrumentation by an integrated communication/telemetry package. The meteorological station was used to identify which stations were upwind, downwind, or crosswind of Site activities on a real-time basis.

¹² The pH was measured in the field by the Subcontractor (GeoSolutions) using pH testing strips.



The data collected by the AirLogics system was used to evaluate compliance with the Site perimeter limits for total VOCs and dust developed as part of the RAM Plan, and to identify any need to suspend or modify remediation activities as a result of RAM-related air emissions.

The analytical instrumentation within each perimeter station consisted of a photoionization detector (PID) for the measurement of total VOCs (TVOCs), and a respirable particulate meter for the measurement of dust as a surrogate for polynuclear aromatic hydrocarbons (PAHs) and metals. The PIDs, along with the Respirable Particulate Meters, are housed in weather-tight enclosures. The system operates on solar power, and is configured with on-board battery backup.

The system used at the Site was configured to generate 15-minute time-weighted averages of TVOC and particulate levels. The system was programmed based on action levels for TVOCs of 1 part per million by volume (ppmv) and for Respirable Particulate Matter (up to 10 micrometers in size (PM10)) of either 75 μ g/m3 over upwind background (for the CES-2 Area) or 150 μ g/m3 over upwind background (for the A-5 and Low pH Areas), along with warning level alarms set at lower thresholds designed to provide project personnel with an advance warning of potential air quality issues.

Weekly summary sheets for the week beginning December 21, 2015, are included in Appendix E. No action levels were exceeded for TVOCs during the monitoring period related to the RAM work on Site. Action levels for PM10 were exceeded related to the RAM work on Site on three occasions¹³ and appropriate actions were taken by the Contractor to reduce dust.

RAM GROUNDWATER MONITORING

The existing wells surrounding the recharge area (W-4, RIZ-105, B-MW-207, and RIZ-5) were sampled using USEPA low stress (low flow) methodology and analyzed for the presence of dissolved metals on a monthly basis while the on-Site treatment system was operating. Dissolved metals concentrations observed in January and February 2016 below the Method 1 GW-3 standard¹⁴ were compared to the data collected as part of the baseline sampling performed in October 2015, documented in the first RAM Status Report. Although concentrations observed during system operation were greater than those observed during the baseline round when compared on a point-by-point basis, metals concentrations remained below the Method 1 GW-3 standard.

(c) Details of and/or Plans for the Management of Remediation Waste, Remedial Wastewater and/or Remedial Additives

The following sections present plans for the management of remediation waste, remedial wastewater and remedial additives.

REMEDIATION WASTE

Between December 28, 2015 and May 11, 2016, approximately 10,530 tons of impacted material was removed from the Site and transported to Turnkey Landfill Management Facility in Rochester, New Hampshire and approximately 150 tons of PCB-impacted soil was transported to U.S. Ecology in Belleville, MI for disposal. The material was transported under a bills-of-lading (BOLs), which will be included with the RAM Completion report.

¹³ On January 19th, a crane was observed idling immediately upwind of a monitoring station during a PM10 exceedance; on January 21st, PM10 levels exceeded the action level during loading of tunnel muck; and on February 23rd, PM10 levels exceeded the action level due to the movement of wood debris and brush.

¹⁴ Although the dissolved concentration of arsenic increased above the baseline concentration in two of the surrounding wells, the concentrations remained below the relevant MCP Method 1 standard.



Certain soils required stabilization with a reagent to reduce the leachability of the heavy metals prior off-Site disposal. The stabilization process is described below:

- 1. Type II and Type III soils that exceeded TCLP (Lead and Arsenic) and PCB regulatory requirements were segregated into 350 cubic yard (500 ton) cells within the MMA.
- 2. A 4% to 16% (4% base mix, additional amounts added as needed) by weight dry reagent (EnviroBlend® HXD Premier Magnesia, LLC) was added to the stockpiled material in the appropriate cell. Please see Appendix C for manufacturer's data for the soil stabilization reagent that was used on the lead and/or arsenic impacted soils.
- 3. The soil and reagent were thoroughly mixed within the cell with an excavator bucket until the soil was uniformly blended.
- 4. GZA collected samples of the soil/reagent mix shortly after mixing was completed submitted them for laboratory analysis of PCBs and leachable arsenic and/or lead using TCLP procedures.
- 5. If the analyzed concentrations of PCBs or lead and/or arsenic were below characteristic hazardous waste regulatory levels, the soil could be loaded into lined dump trailers and transported to the appropriate landfill facility.
- 6. If leachate concentrations were still above characteristic hazardous waste levels, addition reagent was added, and the mixing process was repeated. This process continued until laboratory analysis indicated that the concentrations of lead and/or arsenic in the soil material was below the characteristic hazardous waste levels.

GROUNDWATER MANAGEMENT

As described above, groundwater from the CES-2 and A-5 Areas, as well as water collected within the MMA and truck wash, was pumped and treated by an on-Site treatment system before being recharged in the upgradient portion of the Site. Groundwater was extracted at a rate that averaged approximately 10 gallons per minute from the A-5 and CES-2 excavations. This amount was below the estimated 50 gallons per minute described in GZA's initial groundwater flow model. The water was first stored in an 18,000-gallon weir tank where aeration was performed. The water was then pumped by a duplex centrifugal pump through a multi-bag filter skid with two multi-bag filters plumbed in parallel. The water was then pumped through two liquid carbon vessels (each filled with 4,000 pounds of carbon, plumbed in series) and an 80-cubic foot ion exchange resin vessel. The treated water passed through a storage tank prior to being released into the on-Site water recharge area. The effluent discharged to the on-Site recharge area was sampled and analyzed for the presence of dissolved metals on the first day after system startup and then on day 3, day 6, weekly for the first month of discharge, and approximately monthly thereafter. As shown on Table 2, detected concentrations in treated effluent discharged to the recharge area were all below the Method 1 GW-3 Standards.

In accordance with the MCP (310 CMR 40.0045 [4][a]&[b]), hydraulic containment of groundwater was maintained by discharging dewatering effluent to the recharge area along the upgradient portion of the Site boundary. A total of 1,078,095 gallons was treated by the system prior to being discharged back onto the Site, as measured by an inline flow meter. A dewatering sump detail and process flow diagram are included in Appendix D.

APPLICATION OF REMEDIAL ADDITIVES

The ISS process conducted at the Site included the application of Portland cement, which can be considered a Remedial Additive, and since the Mystic River adjoins the Site to the southwest, as required by 310 CMR 40.0046(3)(a)(4) and 40.0046(3)(b), the RAM Plan included a written plan for the application of Remedial Additives within 50 feet of the Mystic



River. To complete the ISS work within the Low pH Area, approximately 2,300 tons of cement reagent were mixed with approximately 760,000 gallons of water.

(d) Any other information that the Department during its review and evaluation of a Status Report determines to be necessary to complete said Status Report, in view of Site specific circumstances and conditions

No other specific information has been requested by the MassDEP.

(e) An LSP Opinion as to whether the Release Abatement Measure is being conducted in conformance with the Release Abatement Measure Plan and any conditions of approval established by the Department

The LSP Opinion concerning whether the Release Abatement Measure is being conducted in conformance with the RAM Plan is included on the Transmittal Form (BWSC106) attached to this RAM Status Report as Appendix B. With the shipment of the last truckload of contaminated soil off the Site on May 11, the work under the RAM Plan has been completed; a RAM Completion Report will be submitted in mid-July.

POST-RAM GROUNDWATER MONITORING WELL INSTALLATION AND SAMPLING

Subsequent to completion of the RAM activities, a network of groundwater monitoring wells were installed within the remediation areas, as shown on Figure 3. On April 14, 2016, six 2-inch PVC monitoring wells (GZ-601 through GZ-606) were installed by New England Boring using direct-push drilling techniques with a Geoprobe rig. GZ-601 through GZ-604 were installed proximate to/within the Low pH area and GZ-605 and GZ-606 were installed within the CES-2 Area. Boring logs are included in Appendix F. Groundwater samples were collected from each of the newly-installed wells on May 13, 2016, and analyzed for RCRA-8 metals and the presence of EPH and VPH constituents. The groundwater pH was also reported for each groundwater sample. This data is included in Table 3. The only groundwater sample with a reported pH of less than 4 was GZ-601, directly outside of the low pH area. In addition, this sample exhibited a dissolved lead concentration in excess of the UCL. Additional monitoring of these wells will continue during future Site redevelopment work, which is being conducted under a separate RAM Plan.

We trust this information suits your needs. Please feel free to contact the undersigned with any questions or concerns.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.

Maryann Sapanara Senior Project Manager

Lawrence Feldman, LSP

Senior Principal

Matthew M. Smith, P.E., LSP

Associate Principal



Attachments:

Table 1 Strength Data Table 2 **Dewatering Data** Table 3 Post ISS Groundwater Monitoring Data Figure 1 Site Locus Figure 2 **Exploration Location Plan** Figure 3 Remediation Plan Appendix A Limitations Appendix B Transmittal Form BWSC106 Appendix C **ISS Documentation** Appendix D **Dewatering Documentation**

AirLogics Weekly Reports

Boring Logs

Appendix E

Appendix F



TABLES

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UNCONFINED COMPRESSION STRENGTH TESTING Phase 1 Remediation Wynn Casino

Everett, Massachusetts

Call ID	Data		Strength (psi)	
Cell ID	Date	7-Day	14-Day	28-Day
5/8	12/9/15	50	65	90
122	12/10/15	54	110	120
87	12/11/15	50	110	125
222	12/12/15	55	85	130
49	12/14/15	90	205	175
140	12/15/15	40	105	150
15	12/16/15	75	120	130
197	12/17/15	120	230	300
58	12/18/15	60	90	115
22	12/19/15	80	100	140
30	12/21/15	35	65	110
124	12/22/15	70	145	185
91	12/29/15	30	50	80
174	12/30/15	70	110	180
63	12/31/15	35	85	85
199	1/4/16	100	155	220
165	1/5/16	100	130	160
129	1/7/16	75	125	165
227	1/8/16	95	170	285
245	1/11/16	65	95	125
226	1/12/16	60	90	125
248	1/13/16	40	75	115
327	1/14/16	120	190	210
275	1/15/16	50	105	125
289	1/19/16	70	145	220
306	1/20/16	50	160	250
302	1/20/16	30	65	100
251	1/21/16	55	105	140
257	1/22/16	40	155	105
336	1/23/16	40	70	80
282	1/25/16	40	80	125
366	1/29/16	130	195	195
349	1/30/16	70	95	105
376	2/1/16	45	90	125

Notes:

- 1. Cylinders molded into 4-inch by 8-inch cylinders in accordance with ASTM 4832.
- ${\bf 2.\; Unconfined\; Compressive\; Strength\; (UCS)\; testing\; performed\; in\; accordance\; with\; ASTM\; D1633.}$

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Date	12/15/2015	12/17/2015	12/21/2015	12/30/2015	1/6/2016	2/5/2016	Method 1 GW-3
Arsenic	6	< 2.5	< 2.5	5.7	7.6	86.7	900
Barium	< 25.0	< 25.0	< 25.0	55.8	37.3	31.4	50,000
Cadmium	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	4
Chromium	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	300
Lead	< 10.0	< 10.0	< 2.5	< 2.5	< 2.5	< 10.0	10
Mercury	0.25	1.33	< 0.20	< 0.20	< 0.20	< 0.20	20
Selenium	< 25.0	< 10.0	< 50.0	< 5.0	< 10.0	< 25.0	100
Silver	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	7.7	7

Notes:

- 1. Sampleswere collected by GZA personnel and analyzed by ESS Laboratory in Cranston, Rhode Island.
- 2.RCRA-8 metals are presented in micrograms per liter ($\mu g/L$).
- 3. "<" indicates an analyte was not detected above laboratory reporting limits.

File No. 171521.42 Page 1 of 1 6/22/2016

POST-ISS GROUNDWATER DATA Phase 1 Remediation Wynn Casino Everett, Massachusetts

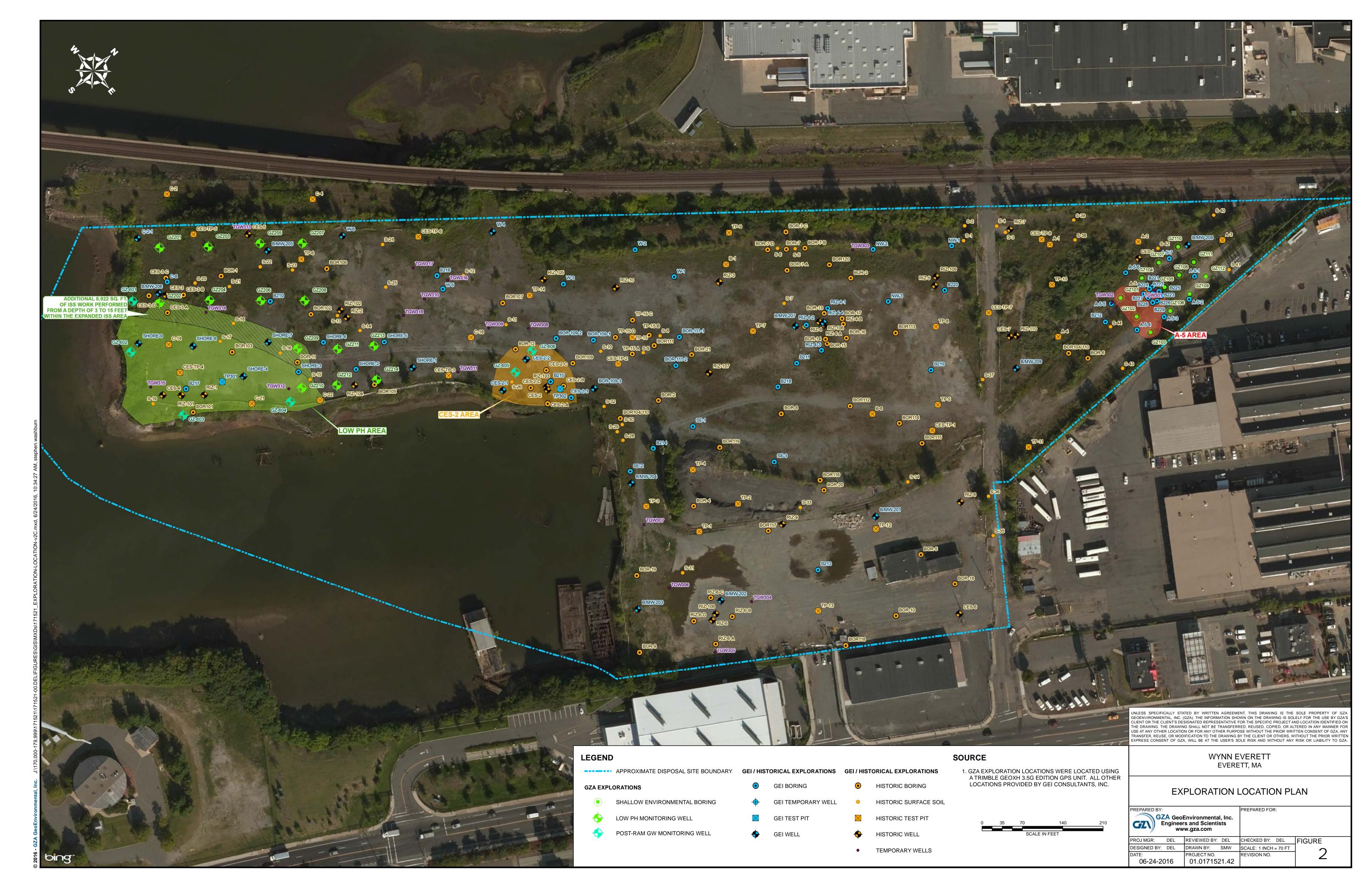
Sample Date	05/13/2016	05/17/2016	05/18/2016	05/17/2016	05/13/2016	05/13/2016
Sample ID	GZ-601	GZ-602	GZ-603	GZ-604	GZ-605	GZ-606
Arsenic	177	19.9	1160	158	106	70.1
Barium	<25.0	118	47.6	273	89.3	71.8
Cadmium	3.8	<2.5	<2.5	<2.5	<2.5	<2.5
Chromium	106	<10.0	<10.0	<10.0	<10.0	<10.0
Lead	339	<10.0	<2.5	<2.5	<20.0	<20.0
Mercury	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Selenium	<5.0	9.7	<5.0	<5.0	<5.0	<5.0
Silver	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Corrosivity (pH)	2.54	6.07	6.32	11.5	-	=

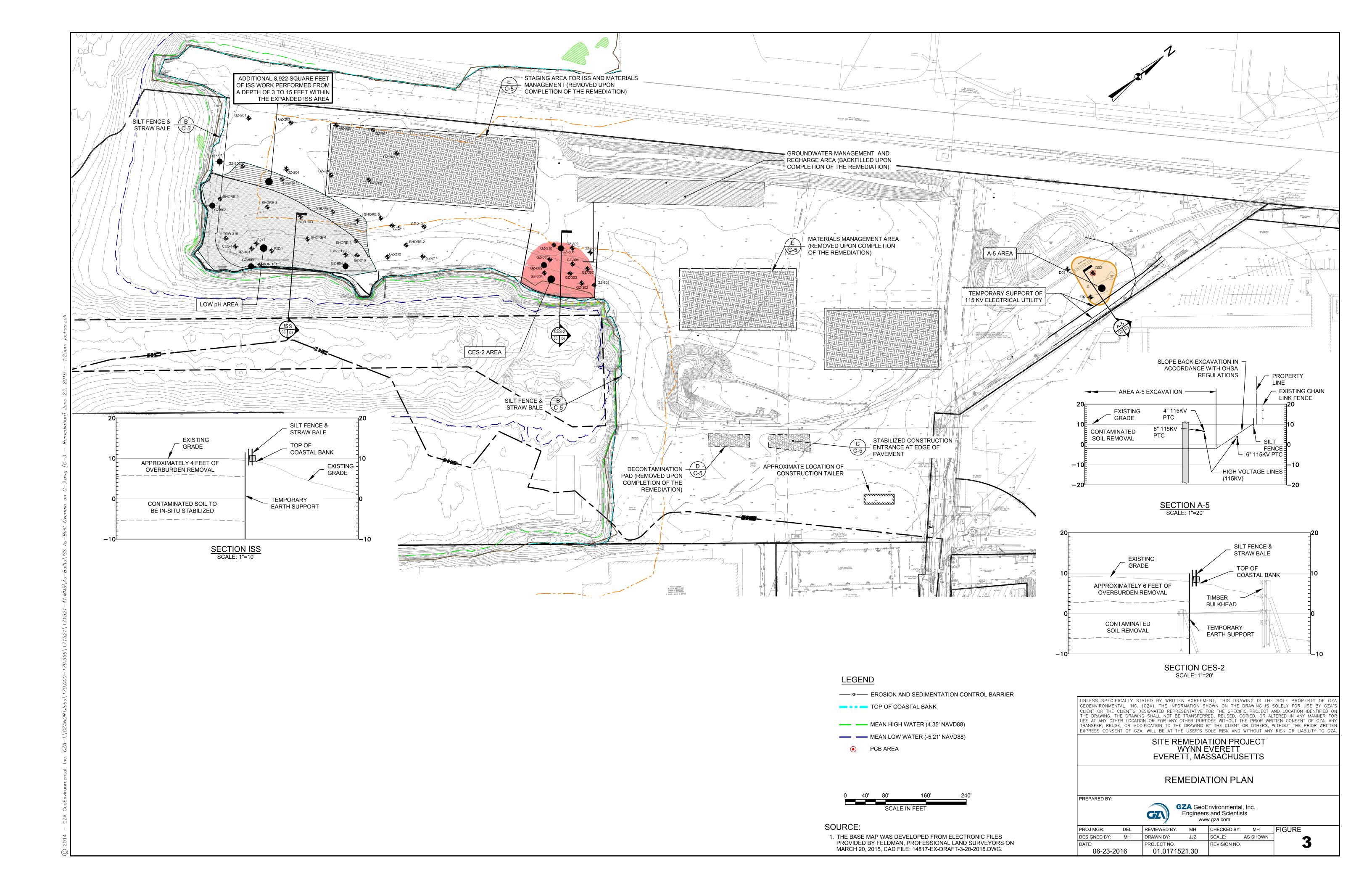
Notes:

- 1. Sampleswere collected by GZA personnel and analyzed by ESS Laboratory in Cranston, Rhode Island.
- 2.RCRA-8 metals are presented in micrograms per liter ($\mu g/L$).
- 3. "<" indicates an analyte was not detected above laboratory reporting limits.
- 4. -- = Not Analyzed



FIGURES







APPENDIX A - LIMITATIONS

GEOHYDROLOGICAL LIMITATIONS



USE OF REPORT

1. GZA GeoEnvironmental, Inc. (GZA) prepared this report on behalf of, and for the exclusive use of our Client for the stated purpose(s) and location(s) identified in the Proposal for Services and/or Report. Use of this report, in whole or in part, at other locations, or for other purposes, may lead to inappropriate conclusions; and we do not accept any responsibility for the consequences of such use(s). Further, reliance by any party not expressly identified in the agreement, for any use, without our prior written permission, shall be at that party's sole risk, and without any liability to GZA.

STANDARD OF CARE

- 2. GZA's findings and conclusions are based on the work conducted as part of the Scope of Services set forth in the Proposal for Services and/or Report and reflect our professional judgment. These findings and conclusions must be considered not as scientific or engineering certainties, but rather as our professional opinions concerning the limited data gathered during the course of our work. Conditions other than described in this report may be found at the subject location(s).
- 3. GZA's services were performed using the degree of skill and care ordinarily exercised by qualified professionals performing the same type of services, at the same time, under similar conditions, at the same or a similar property. No warranty, expressed or implied, is made. Specifically, GZA does not and cannot represent that the Site contains no hazardous material, oil, or other latent condition beyond that observed by GZA during its study. Additionally, GZA makes no warranty that any response action or recommended action will achieve all of its objectives or that the findings of this study will be upheld by a local, state or federal agency.
- 4. In conducting our work, GZA relied upon certain information made available by public agencies, Client and/or others. GZA did not attempt to independently verify the accuracy or completeness of that information. Inconsistencies in this information which we have noted, if any, are discussed in the Report.

SUBSURFACE CONDITIONS

- 5. The generalized soil profile(s) provided in our Report are based on widely-spaced subsurface explorations and are intended only to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized, and were based on our assessment of subsurface conditions. The composition of strata, and the transitions between strata, may be more variable and more complex than indicated. For more specific information on soil conditions at a specific location refer to the exploration logs. The nature and extent of variations between these explorations may not become evident until further exploration or construction. If variations or other latent conditions then become evident, it will be necessary to reevaluate the conclusions and recommendations of this report.
- 6. Water level readings have been made, as described in this Report, in and monitoring wells at the specified times and under the stated conditions. These data have been reviewed and interpretations have been made in this report. Fluctuations in the level of the groundwater however occur due to temporal or spatial variations in areal recharge rates, soil heterogeneities, the presence of subsurface utilities, and/or natural or artificially induced perturbations. The observed water table may be other than indicated in the Report.

COMPLIANCE WITH CODES AND REGULATIONS

7. We used reasonable care in identifying and interpreting applicable codes and regulations necessary to execute our scope of work. These codes and regulations are subject to various, and possibly contradictory, interpretations. Interpretations and compliance with codes and regulations by other parties is beyond our control.

GEOHYDROLOGICAL LIMITATIONS



SCREENING AND ANALYTICAL TESTING

- 8. GZA collected environmental samples at the locations identified in the Report. These samples were analyzed for the specific parameters identified in the report. Additional constituents, for which analyses were not conducted, may be present in soil, groundwater, surface water, sediment and/or air. Future Site activities and uses may result in a requirement for additional testing.
- 9. Our interpretation of field screening and laboratory data is presented in the Report. Unless otherwise noted, we relied upon the laboratory's QA/QC program to validate these data.
- 10. Variations in the types and concentrations of contaminants observed at a given location or time may occur due to release mechanisms, disposal practices, changes in flow paths, and/or the influence of various physical, chemical, biological or radiological processes. Subsequently observed concentrations may be other than indicated in the Report.

INTERPRETATION OF DATA

11. Our opinions are based on available information as described in the Report, and on our professional judgment. Additional observations made over time, and/or space, may not support the opinions provided in the Report.

ADDITIONAL INFORMATION

12. In the event that the Client or others authorized to use this report obtain additional information on environmental or hazardous waste issues at the Site not contained in this report, such information shall be brought to GZA's attention forthwith. GZA will evaluate such information and, on the basis of this evaluation, may modify the conclusions stated in this report.

ADDITIONAL SERVICES

13. GZA recommends that we be retained to provide services during any future investigations, design, implementation activities, construction, and/or property development/ redevelopment at the Site. This will allow us the opportunity to: i) observe conditions and compliance with our design concepts and opinions; ii) allow for changes in the event that conditions are other than anticipated; iii) provide modifications to our design; and iv) assess the consequences of changes in technologies and/or regulations.

CONCEPTUAL SITE MODEL

14. Our opinions were developed, in part, based upon a comparison of site data to conditions anticipated within our Conceptual Site Model (CSM). The CSM is based on available information, and professional judgment. There are rarely sufficient data to develop a unique CSM. Therefore observations over time, and/or space, may vary from those depicted in the CSM provided in this report. In addition, the CSM should be evaluated and refined (as appropriate) whenever significant new information and/or data is obtained.

RISK CHARACTERIZATION

15. Our risk evaluation was performed in accordance with generally accepted practices of appropriate Federal and/or state regulatory agencies, and of other consultants undertaking similar studies at the same time, for similar purposes, and under similar circumstances. The findings of the risk evaluation are dependent on the numerous assumptions and uncertainties inherent in the risk characterization process. Sources of the uncertainty may include Site conditions; Site use; the nature, extent, concentration and distribution of contaminants; and the available toxicity and/or health/risk based regulatory information. Consequently, the findings of the risk characterization are not an absolute



GEOHYDROLOGICAL LIMITATIONS

characterization of actual risks; but rather serve to highlight potential incremental risks associated with activities indicated in the Report. Actual risks may be other than indicated in the Report.



APPENDIX B - TRANSMITTAL FORM BWSC106



BWSC 106

RELEASE ABATEMENT MEASURE (RAM) TRANSMITTAL FORM Release Tracking Number
3 - 13341

Pursuant to 310 CMR 40.0444 - 0446 (Subpart D)

. Site Name/Location Aid					
2. Street Address:	1 HORIZON WAY				
3. City/Town:	EVERETT	4. Zip C	ode:	021490000	
b 5. Check here if the d Category.	isposal site that is the source	ce of the release is Tier C	Classified. (Check the current Tie	er Classification
ê a. Tier I	e b. Tier I	D	Ъ с.	Γier II	
B. THIS FORM IS	BEING USED TO: (c	check all that apply)			
. List Submittal Date of 1	Initial RAM Plan (if previo	usly submitted):	8/18/2015	;	
				(mm/dd/y	ууу)
2. Submit an Initial R	elease Abatement Measur	e (RAM) Plan.			
	e RAM is being conducted ermanent structure is to be				
b. Specify type of perr	nanent structure: (check al	l that apply)	i. School	ê ii. Residential	ê iii. Commercial
ê iv. Industrial	ê v. Other Speci	ify:			
3. Submit a Modified l	RAM Plan of a previously	submitted RAM Plan.			
4. Submit a RAM Stat	tus Report.				
5. Submit a Remedial Report.)	Monitoring Report. (This	report can only be subm	nitted throu	gh eDEP, concurrent	with a RAM Status
a. Type of Report: (cho	eck one)	al Report	Interim Rep	ort ê iii. Fina	al Report
b. Frequency of Submi	ttal:				
ê i. A Remedial Mor	nitoring Report(s) submitte	ed every six months, cond	current with	n a RAM Status Repo	ort.
ê ii. A Remedial Mo	nitoring Report(s) submitte	ed annually, concurrent v	with a RAN	I Status Report.	
c. Number of Remedia	l Systems and/or Monitorii	ng Programs:			
	A, RAM Remedial Monitor gram addressed by this tra		ed out for ea	ach Remedial System	
6. Submit a RAM Cor	npletion Statement.				
7. Submit a Revised R	AM Completion Statemen	ıt.			
. Provide Additional RT	Ns:				
linked to a Primary Tie	is RAM Submittal covers a er Classified RTN do not n and not show permanent li	eed to be listed here. Thi	is section is	s intended to allow a	
b. Provide the addition covered by this RAM	al Release Tracking Numb Submittal.	per(s)]	
9. Include in the RAM ursuant to 310 CMR 40.0	I Plan or Modified RAM P 0046(3).	lan a Plan for the Applic	cation of Re	e medial Additives nea	ar a sensitive receptor,
(All se	ections of this transmi	ittal form must be fi	lled out 1	ınless otherwise ı	noted above)

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BWSC 106

ê b. Basement

RELEASE ABATEMENT MEASURE (RAM)

Release Tracking Number 13341

€ c. School

Pursuant to 310 CMR 40.0444 - 0446 (Subpart D)

1. Media Impacted and Receptors Affected: (check all that apply)

		_			
$\boldsymbol{\Gamma}$	DELEVEE	Δ D	TITORAT	OF DELEVEE	CONDITIONS THAT WARRANT RAM:
. .	RELEASE	UK	IHKEAL	UP KELEASE	ttinini ittins i hat wakkani kaw:

e d. Public Water Supply	e e. Surface Water	ê f. Zone 2	ê g. Private Well	ê h. Residence	b i. Soil
Б j. Ground Water	ê k. Sediments	ê l. Wetland	ê m. Storm Drain	ê n. Indoor Air	€ o. Air
€ p. Soil Gas	ê q. Sub-Slab Soil Gas	e r. Critical	l Exposure Pathway	€ s. NAPL	ê t. Unknown
ê u. Others Specify:					
2. Sources of the Release or TO	OR: (check all that apply)		ê a. Transformer	€ b. Fuel Tank	ê c. Pipe
ê d. OHM Delivery	ê e. AST ê i	f. Drums	ê g. Tanker Truck	ê h. Hose	ê i. Line
ê j. UST Desc	ribe:		ê l	a. Vehicle	Boat/Vessel
ê m. Unknown	b n. Other: HIST	ORIC FILL AND MA	NUFACTURING		
3. Type of Release or TOR: (ch	neck all that apply)	ê a. Dumping	ê b. Fire	c. AST Removal	ê d. Overfill
ê e. Rupture	ê f. Vehicle Accident	e g. Leak	ê h. Spill	i. Test Failure	€ j. TOR Only
€ k. UST Removal	Describe:				
ê 1. Unknown	6 m. Other: HISTO	ORIC FILL AND MAN	IUFACTURING		
Б с. Heavy Б d. О	others Specify: LOW PHIN (GROUNDWATER	₿ a. Oils	€ b. Chlorinate	ed Solvents
Metals	valets 2				
-	RESPONSE ACTION	S: (check all t		s list cumulative amour	
Metals D. DESCRIPTION OF 1	RESPONSE ACTION	S: (check all t ê 2.	hat apply, for volume	s list cumulative amour r Caps	
D. DESCRIPTION OF 1	RESPONSE ACTION nitoring Only ent or Containment Material	[S: (check all t	hat apply, for volume Temporary Covers of Temporary Water Su	s list cumulative amour r Caps	nts)
D. DESCRIPTION OF I 1. Assessment and/or Mor 3. Deployment of Absorbe	RESPONSE ACTION initoring Only ent or Containment Material m/HVAC Modification Syst	(check all t	hat apply, for volume Temporary Covers of Temporary Water Su	s list cumulative amour r Caps pplies on or Relocation of Res	nts)
Metals D. DESCRIPTION OF I 1. Assessment and/or Mor 3. Deployment of Absorbe 5. Structure Venting System	RESPONSE ACTION nitoring Only ent or Containment Material m/HVAC Modification Syst	(check all t ê 2. s ê 4. em ê 6. ê 8.	hat apply, for volume Temporary Covers o Temporary Water Su Temporary Evacuation	s list cumulative amour r Caps pplies on or Relocation of Res	nts)
Metals D. DESCRIPTION OF I 1. Assessment and/or Mor 3. Deployment of Absorbe 5. Structure Venting System 7. Product or NAPL Recovery	RESPONSE ACTION nitoring Only ent or Containment Material m/HVAC Modification Syst	(check all t ê 2. s ê 4. em ê 6. ê 8. ê 10	hat apply, for volume Temporary Covers o Temporary Water Su Temporary Evacuation Fencing and Sign Po	s list cumulative amour r Caps pplies on or Relocation of Res	nts)
Metals D. DESCRIPTION OF I 1. Assessment and/or Mor 3. Deployment of Absorbe 5. Structure Venting Syster 7. Product or NAPL Recov 9. Groundwater Treatment	RESPONSE ACTION nitoring Only ent or Containment Material m/HVAC Modification Syst very Systems	(check all t ê 2. s ê 4. em ê 6. ê 8. ê 10. ê 12.	hat apply, for volume Temporary Covers o Temporary Water Su Temporary Evacuatio Fencing and Sign Po D. Soil Vapor Extractio Air Sparging	s list cumulative amour r Caps pplies on or Relocation of Res	nts) sidents

ê a. Paved Surface

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BWSC 106

RELEASE ABATEMENT MEASURE (RAM) TRANSMITTAL FORM

Release Tracking Number

3 - 13341

Pursuant to 310 CMR 40.0444 - 0446 (Subpart D)

D. DESCRIPTION OF RESPONSE ACTIONS (cont.): (check all that apply, for volumes list cumulative amounts)

	t b i. On Site	Estimated volume in cubic yards	37700
	€ ii. Off Site	Estimated volume in cubic yards	
iia. Receiving Facility:		Town:	State:
iib. Receiving Facility:		Town:	State:
		SOLIDIFICATION/STABILIZATION OF SOILS; REM BET REMEDIATION ZONES THAT WILL BE RE-US	
ê b. Store	ê i. On Site	Estimated volume in cubic yards	
	ê ii. Off Site	Estimated volume in cubic yards	
iia. Receiving Facility:		Town:	State:
iib. Receiving Facility:		Town:	State:
b c. Landfill	e i. Cover	Estimated volume in cubic yards	
Receiving Facility:		Town:	State:
	Б ii. Disposal	Estimated volume in cubic yards	10,000
Receiving Facility: WM-TREE		Town: ROCHESTER	State: N
a. Describe Quantity and Amount: b. Receiving Facility:		Town:	State:
c. Receiving Facility:		Town:	State:
19. Removal of Other Contaminated a. Specify Type and Volume:	Media:		
b. Receiving Facility:		Town:	State:
c. Receiving Facility:		Town:	State:
20. Other Response Actions:			

Revised: 8/5/2013 Page 3 of 6



1. LSP#:

Massachusetts Department of Environmental Protection Rureau of Waste Site Cleanup

Bureau of Waste Site Cleanup RELEASE ABATEMENT MEASURE (RAM)

Pursuant to 310 CMR 40.0444 - 0446 (Subpart D)

TRANSMITTAL FORM

BWSC 106

Release Tracking Nu	mber
---------------------	------

3	-	13341

E. LSP SIGNATURE AND STAMP:

8107

I attest under the pains and penalties of perjury that I have personally examined and am familiar with this transmittal form, including any and all documents accompanying this submittal. In my professional opinion and judgment based upon application of (i) the standard of care in 309 CMR 4.02(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and 309 CMR 4.03(2), and (iii) the provisions of 309 CMR 4.03(3), to the best of my knowledge, information and belief,

- > if Section B of this form indicates that a **Release Abatement Measure Plan** is being submitted, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal;
- > if Section B of this form indicates that a **Release Abatement Measure Status Report** and/or **Remedial Monitoring Report** is being submitted, the response action(s) that is (are) the subject of this submittal (i) is (are) being implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) comply (ies) with the identified provisions of all orders, permits, and approvals identified in this submittal;
- > if Section B of this form indicates that a **Release Abatement Measure Completion Statement** is being submitted, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed and implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal:

I am aware that significant penalties may result, including, but not limited to, possible fines and imprisonment, if I submit information which I know to be false, inaccurate or materially incomplete.

2. First Name:	LAWRENCE		3. Last Name:	FELDMAN
4. Telephone:	781-278-3700		5. Ext.:	6. Email:
7. Signature:	LAWRENCE FELDMA	AN		
8. Date:	6/27/2016 (mm/dd/yyyy)	9. LSP Stamp:		Electronic Seal

Revised: 8/5/2013 Page 4 of 6



Massachusetts Department of Environmental Protection

Bureau of Waste Site Cleanup

RELEASE ABATEMENT MEASURE (RAM) TRANSMITTAL FORM

Pursuant to 310 CMR 40.0444 - 0446 (Subpart D)

BWSC 106

Rele	ase T	racking Nun	nber
3	-	13341	

T.	DEBC	ON	TIN	1D	$\mathbf{F}\mathbf{P}^{\gamma}$	$\Gamma \Lambda$	KINC	RAM:	
Г.				NI,		I /	NING	NA WI	

1. Check all that apply:	е́а.	change in contact name	b b. chan	ge of address	e c. change in tesponse actions	the person undertaking
2. Name of Organization	:	WYNN MA LLC				
3. Contact First Name:		ROBERT		4. Last Name:	DESALVIO	
5. Street:	101 ST	ATION LANDING 2ND FLOOI	R 6. Ti	tle:	PRESIDENT	
7. City/Town:	MEDFO	ORD	8. State:	MA	9. ZIP Code:	021550000
10. Telephone:	857-77	70-7801	 11. Ext.:		 12. Email:	
G. RELATIONSHI	РТО	RELEASE OR THR	REAT OF R	ELEASE OF P		RTAKING RAM: to change relationship
b 1. RP or PRP			b. Operator	€ c.	Generator OPERATOR	€ d. Transporter
ê 2. Fiduciary, Secured	l Lende	r or Municipality with Exe	mpt Status (as	defined by M.G.L.	c. 21E, s. 2)	
€ 3. Agency or Public	Utility o	on a Right of Way (as defin	ned by M.G.L.	c. 21E, s. 5(j))		

H. REQUIRED ATTACHMENT AND SUBMITTALS:

6 4. Any Other Person Undertaking RAM

€ 1. Check here if any Remediation Waste, generated as a result of this RAM, will be stored, treated, managed, recycled or reused at the site following submission of the RAM Completion Statement. You must submit a Phase IV Remedy Implementation Plan along with the appropriate transmittal form (BWSC108).

Specify Relationship:

- € 2. Check here if the Response Action(s) on which this opinion is based, if any, are (were) subject to any order(s), permit(s) and/or approval(s) issued by DEP or EPA. If the box is checked, you MUST attach a statement identifying the applicable provisions thereof.
- 5 3. Check here to certify that the Chief Municipal Officer and the Local Board of Health have been notified of the implementation of a Release Abatement Measure.
- 6 4. Check here if any non-updatable information provided on this form is incorrect, e.g. Release Address/Location Aid. Send corrections to bwsc.edep@state.ma.us.
- 6 5. If a RAM Compliance Fee is required for this RAM, check here to certify that a RAM Compliance Fee was submitted to DEP, P. O. Box 4062, Boston, MA 02211.
- **b** 6. Check here to certify that the LSP Opinion containing the material facts, data, and other information is attached.

Revised: 8/5/2013 Page 5 of 6



BWSC 106

RELEASE ABATEMENT MEASURE (RAM) TRANSMITTAL FORM Pursuant to 310 CMR 40.0444 - 0446 (Subpart D)

Release Tracking Number 13341

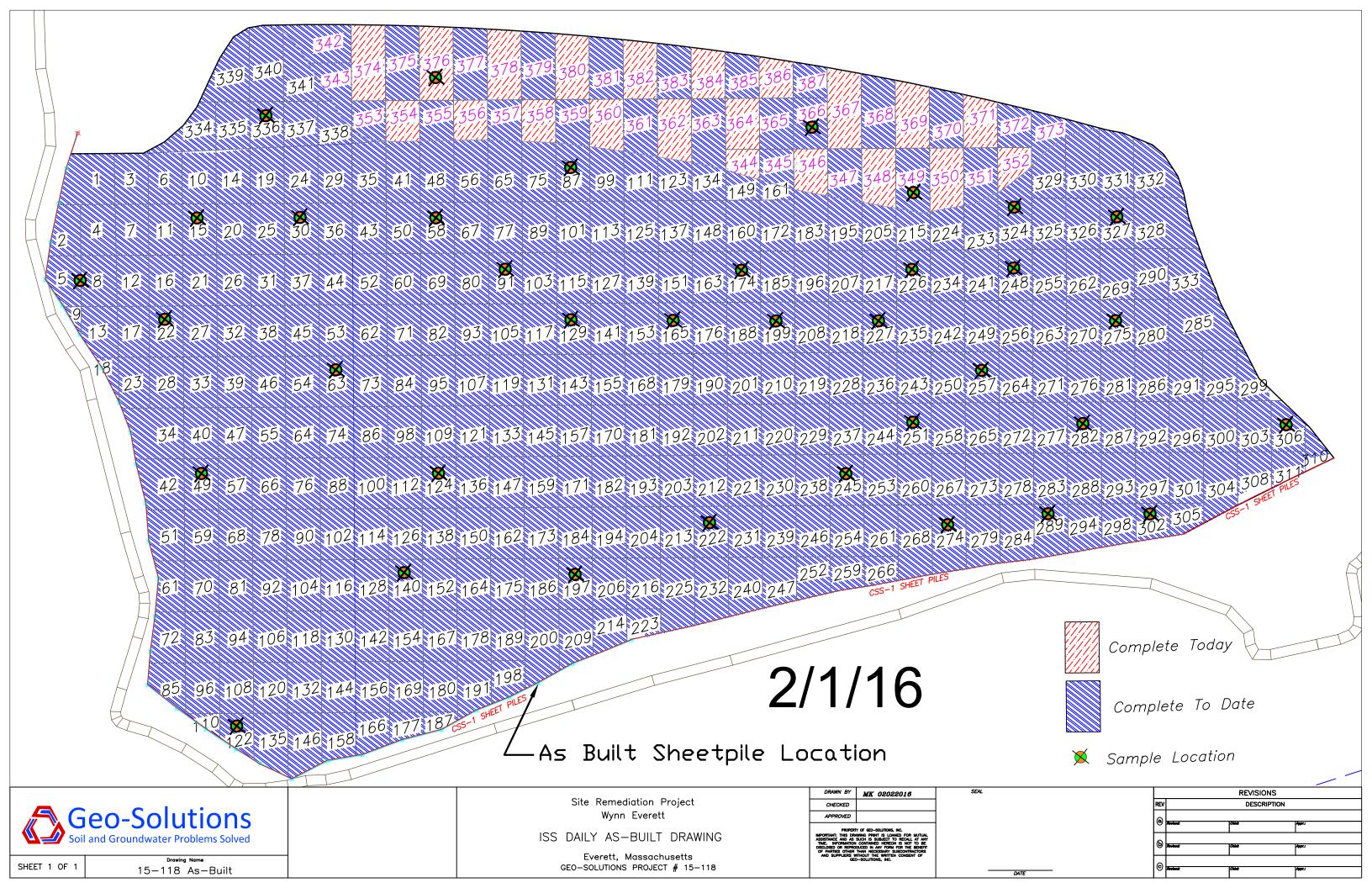
I. CERTIFICATION OF PERSON UNDERTAKING RAM:

2. By:	ROBERT DESALVIO	3. Title:	PRESIDENT
4. For:	(Signature) WYNN MA LLC	5. Date:	6/27/2016
·. 1'01.	(Name of person or entity recorded in Section F)	J. Date.	(mm/dd/yyyy)
. Street:	f the address of the person providing certification is different f		P Code:
3. City/Town: 1. Telephone:		10. ZII 13. Email:	Code:
	YOU ARE SUBJECT TO AN ANNUAL COMPLIANCE AS	SURANCE FEE	OF UP TO \$10,000 PER
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APPENDIX C - ISS DOCUMENTATION



LAFARGE PORTLAND CEMENT





A versatile, cost-effective quality building material

Lafarge Portland Cement is a high quality, cost-effective basic building material used in virtually all forms of construction, from hospitals and homes to schools, tunnels and airports. Lafarge Portland Cement meets or exceeds all applicable chemical and physical requirements of ASTM C 150 and CSA A3000-08.

Product Description

Portland Cement

ASTM C 150 Type I, Type IA, Type II, Type II, Type V CSA A3000-08, GU, GUL, MH, MHL, MS, HE, HEL, LH, LHL, HS

Basic Use: Lafarge Portland Cement is a cost-effective basic building material. It can be used in a wide variety of commercial and architectural concrete construction applications. Uses include cast-in-place, pre-cast, tilt-up, water tanks, drains, bridges, roads, pipes, concrete masonry units, pre-stressed concrete members, masonry mortars and grouts.

Lafarge **Portland Cement**

U.S.

Type I > This is a general-purpose cement suitable for all uses where the special properties of other types of portland cement are not required.

Type IA > This cement contains an additive that will entrain air to aid in durability when concrete is exposed to freezing temperatures.

Type II > For general use, especially when moderate sulfate resistance or moderate heat of hydration is desired.

Type III > This cement provides high early strength when compared with Type I.

Type V > This is for use when high sulfate resistance is desired. Type V generally gains strength more slowly than Type I.

Canada

GU, GUL* > General use cement, suitable for all applications where the special properties of any other type of portland cement are not required.

MS > Moderate sulphate resistant cement for use in applications requiring moderate levels of sulphate resistance.

MH, MHL* > Moderate heat cement for use in applications requiring moderately low levels of heat generation during the hydration process.

HE, HEL* > High early strength cement for use where high early strengths are required.

LH, LHL* > Low heat cement for use in applications that require significantly low levels of heat generation during the hydration process.

HS > High sulphate resistant cement for use in applications that require high levels of sulphate resistance. HS cement generally gains strength more slowly than the other types.

* NOTE: The suffix "L" indicates a portlandlimestone cement

Options

Select Lafarge manufacturing plants produce air-entrained (Type IA) portland cement that contains an additive that will entrain air to aid in durability when concrete is exposed to freezing temperatures. Certain locations manufacture cements meeting the optional physical and chemical requirements of ASTM and CSA. AASHTO cements are available in certain geographic areas. Contact your Lafarge Cement representative for product use and availability.

Technical data

Lafarge Portland Cement meets or exceeds all applicable chemical and physical requirements of ASTM C 150 and CSA A3000-08.

Use and limitations

Lafarge manufactures all products in accordance with strict QA/QC (quality assurance and quality control) procedures to ensure optimum product performance and uniformity. However, there are many variables that affect concrete performance that are beyond the control of the cement manufacturer. Good concreting practices in accordance with the American Concrete Institute, The National Building Code, Provincial, Municipal and other local building codes are required to achieve desired results. Skilled persons should use these products with special attention given to formwork, batching, mixing, placing, finishing and curing. In most applications, quality aggregates, admixtures and additives should be utilized. For detailed information, contact your Lafarge sales office.

Product Name

Lafarge Portland Cement

Manufacturer

Lafarge North America Inc. 12018 Sunrise Valley Drive Suite 500 Reston, VA 20191

Lafarge Canada Inc. 334 avenue Avro Pointe-Claire, Quebec H9R 5W5

www.lafarge-na.com

Precautions

Direct contact with wet cement should be avoided. If contact occurs, the skin should be washed with water as soon as possible. Exposure can cause serious, potentially irreversible tissue destruction in the form of chemical (caustic) burns. If cement gets into the eyes, immediately rinse thoroughly with water and seek medical attention. For more information, reference the applicable Lafarge Material Safety Data Sheet (MSDS). The MSDS should be consulted prior to use of this product and is available upon request and online at www.lafarge-na.com.

Limited Warranty

Lafarge warrants that Lafarge Portland Cement meets all applicable requirements of ASTM C 150 and CSA A3000-08. Lafarge makes no other warranty, whether of merchantability or fitness for a particular purpose, with respect to Lafarge Portland Cement. Having no control over its use, Lafarge will not guarantee finished work in which Lafarge Portland Cement is used.

Contact your Lafarge Cement office for specific product information, availability and ordering.

Lakes and Seaway **Business Unit** Bingham Farms, Michigan Phone: 816-251-2100 Phone: 248-594-1991

River Business Unit Lee's Summit, Missouri

U.S. East Business Unit Alpharetta, Georgia Phone: 678-746-2000

Western Business Unit Calgary, Alberta Phone: 403-271-9110





Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Revision Date: 04/23/2015 Date of issue: 03/01/2014 Supersedes Date: 03/01/2014

SECTION 1: IDENTIFICATION

Product Identifier

Product Name: Lafarge Portland Cement (cement)

Synonyms: Cement, Portland Cement, Hydraulic Cement, Oil Well Cement, Trinity® White Cement, Antique White Cement, Portland Limestone Cement, Portland Cement Type I, IA, IE, II, I/II, IIA, II L.A., III, IIIA, IV, IVA, V, VA, 10, 20, 30, 40, 50, GU, GUL, MS, MH, HE, LH, HS, OWH, OWG Cement, OW Class G HSR, InfiniCem™

Note: This SDS covers many types of Portland cement. Individual composition of hazardous constituents will vary between types of Portland cement.

Intended Use of the Product

Cement is used as a binder in concrete and mortars that are widely used in construction. Cement is distributed in bags, totes and bulk shipment.

Name, Address, and Telephone of the Responsible Party

Company

Lafarge North America Inc.

8700 West Bryn Mawr Avenue, Suite 300

Chicago, IL 60631

Information: 773-372-1000 (9am to 5pm CST)

email: SDSinfo@Lafarge.com
Website: www.lafarge-na.com
Emergency Telephone Number

Emergency number : 1-800-451-8346 (3E Hotline)

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

Classification (GHS-US)

 Skin Corr. 1C
 H314

 Eye Dam. 1
 H318

 Skin Sens. 1
 H317

 Carc. 1A
 H350

 STOT SE 3
 H335

Label Elements

GHS-US Labeling
Hazard Pictograms (GHS-US)



Signal Word (GHS-US) : Danger

Hazard Statements (GHS-US) : H314 - Causes severe skin burns and eye damage

H317 - May cause an allergic skin reaction H318 - Causes serious eye damage H335 - May cause respiratory irritation H350 - May cause cancer (Inhalation)

Precautionary Statements (GHS-US) : P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood.

P260 - Do not breathe dust.

P264 - Wash hands, forearms, and exposed areas thoroughly after handling.

P271 - Use only outdoors or in a well-ventilated area.

P272 - Contaminated work clothing should not be allowed out of the workplace. P280 - Wear protective gloves, protective clothing, face protection, eye protection.

P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting. P303+P361+P353+P352 - IF ON SKIN (or hair): Remove/Take off immediately all

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contaminated clothing. Rinse skin with water/shower. Wash with plenty of soap and water. P304+P340 - IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.

P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 - Immediately call a POISON CENTER or doctor/physician.

P321 - Specific treatment (see Section 4).

P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.

P362+P364 - Take off contaminated clothing and wash it before reuse.

P403+P233 - Store in a well-ventilated place. Keep container tightly closed.

P405 - Store locked up.

P501 - Dispose of contents/container according to local, regional, state, national, territorial, provincial, and international regulations.

Other Hazards

Other Hazards Not Contributing to the Classification: Inhalation can cause serious, potentially irreversible lung/respiratory tract tissue damage due to chemical (caustic) burns, including third degree burns. Individuals with lung disease (e.g. bronchitis, emphysema, COPD, pulmonary disease) or sensitivity to hexavalent chromium can be aggravated by exposure.

Unknown Acute Toxicity (GHS-US) Not available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Name	Product identifier	% (w/w)	Classification (GHS-US)
Cement, portland, chemicals	(CAS No) 65997-15-1	100	Skin Irrit. 2, H315
			Eye Dam. 1, H318
			Skin Sens. 1, H317
			STOT SE 3, H335
Limestone	(CAS No) 1317-65-3	0 - 15	Not classified
Gypsum (Ca(SO4).2H2O)	(CAS No) 13397-24-5	2 - 10	Not classified
Calcium oxide	(CAS No) 1305-78-8	0 - 5	Skin Corr. 1C, H314
			Eye Dam. 1, H318
			STOT SE 3, H335
Magnesium oxide (MgO)	(CAS No) 1309-48-4	0 - 4	Not classified
Quartz	(CAS No) 14808-60-7	0 - 0.2	Carc. 1A, H350
			STOT SE 3, H335
			STOT RE 1, H372

Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label if possible). **Inhalation:** When symptoms occur: go into open air and ventilate suspected area. Keep at rest and in a position comfortable for breathing. If you feel unwell, seek medical advice.

Skin Contact: Remove contaminated clothing. Immediately flush skin with plenty of water for at least 60 minutes. Immediately call a POISON CENTER or doctor/physician.

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 60 minutes. Immediately call a POISON CENTER or doctor/physician.

Ingestion: Rinse mouth. Do not induce vomiting. Immediately call a POISON CENTER or doctor/physician.

Most Important Symptoms and Effects Both Acute and Delayed

General: Corrosive to eyes, respiratory system and skin. Exposure may produce an allergic reaction.

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Inhalation: The three types of silicosis include: 1) Simple chronic silicosis – which results from long-term exposure (more than 20 years) to low amounts of respirable crystalline silica. Nodules of chronic inflammation and scarring provoked by the respirable crystalline silica form in the lungs and chest lymph nodes. This disease may feature breathlessness and may resemble chronic obstructive pulmonary disease (COPD); 2) Accelerated silicosis – occurs after exposure to larger amounts of respirable crystalline silica over a shorter period of time (5-15 years); 3) Acute silicosis – results from short-term exposure to very large amounts of respirable crystalline silica. The lungs become very inflamed and may fill with fluid, causing severe shortness of breath and low blood oxygen levels. Inflammation, scarring, and symptoms progress faster in accelerated silicosis than in simple silicosis. Progressive massive fibrosis may occur in simple or accelerated silicosis, but is more common in the accelerated form. Progressive massive fibrosis results from severe scarring and leads to the destruction of normal lung structures. Some studies show that exposure to respirable crystalline silica (without silicosis) or that the disease silicosis may be associated with the increased incidence of several autoimmune disorders such as scleroderma (thickening of the skin), systemic lupus erythematosus, rheumatoid arthritis and diseases affecting the kidneys. Silicosis increases the risk of tuberculosis. Some studies show an increased incidence of chronic kidney disease and end-stage renal disease in workers exposed to respirable crystalline silica. Corrosive to the respiratory tract. Skin Contact: Cement may cause dry skin, discomfort, irritation, severe burns, and dermatitis. Exposure of sufficient duration to wet cement, or to dry cement on moist areas of the body, can cause serious, potentially irreversible damage to skin, eye, respiratory and digestive tracts due to chemical (caustic) burns, including third degree burns. A skin exposure may be hazardous even if there is no pain or discomfort. Cement is capable of causing dermatitis by irritation and allergy. Skin affected by dermatitis may include symptoms such as, redness, itching, rash, scaling, and cracking. Irritant dermatitis is caused by the physical properties of cement including alkalinity and abrasion. Allergic contact dermatitis is caused by sensitization to hexavalent chromium (chromate) present in cement. The reaction can range from a mild rash to severe skin ulcers. Persons already sensitized may react to the first contact with cement. Others may develop allergic dermatitis after years of repeated contact with cement.

Eye Contact: Airborne dust may cause immediate or delayed irritation or inflammation. Eye contact with large amounts of dry powder or with wet cement can cause moderate eye irritation, chemical burns and blindness. Eye exposures require immediate first aid and medical attention to prevent significant damage to the eye.

Ingestion: May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

Chronic Symptoms: If dust is generated, repeated exposure through inhalation may cause cancer or lung disease.

Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Use extinguishing media appropriate for surrounding fire.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not flammable.

Explosion Hazard: Product is not explosive.

Reactivity: Wet cement is alkaline and is incompatible with acids, ammonium salts and aluminum metal. Cement dissolves in hydrofluoric acid, producing corrosive silicon tetrafluoride gas. Cement reacts with water to form silicates and calcium hydroxide. Silicates react with powerful oxidizers such as fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride, and oxygen difluoride.

Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Do not get water inside containers. Do not apply water stream directly at source of leak.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: None.

Reference to Other Sections

Refer to section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Do not breathe dust. Do not get in eyes, on skin, or on clothing.

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

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For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Ventilate area.

Environmental Precautions

Prevent entry to sewers and public waters.

Methods and Material for Containment and Cleaning Up

For Containment: Place spilled material into a container. Avoid actions that cause the cement to become airborne. Avoid inhalation of cement and contact with skin. Wear appropriate protective equipment as described in Section 8. Scrape wet cement and place in container. Allow material to dry or solidify before disposal. Do not wash cement down sewage and drainage systems or into bodies of water (e.g. streams).

Methods for Cleaning Up: Avoid actions that cause dust to become airborne during clean-up such as dry sweeping or using compressed air. Use HEPA vacuum or thoroughly wet with water to clean-up dust. Use PPE described in Section 8.

Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection. Concerning disposal elimination after cleaning, see item 13.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Additional Hazards When Processed: Keep bulk and bagged cement dry until used. Stack bagged material in a secure manner to prevent falling. Bagged cement is heavy and poses risks such as sprains and strains to the back, arms, shoulders and legs during lifting and mixing. Handle with care and use appropriate control measures. Engulfment hazard. To prevent burial or suffocation, do not enter a confined space, such as a silo, bin, bulk truck, or other storage container or vessel that stores or contains cement. Cement can buildup or adhere to the walls of a confined space. The cement can release, collapse or fall unexpectedly. Properly ground all pneumatic conveyance systems. The potential exists for static build-up and static discharge when moving cement powders through a plastic, non-conductive, or non-grounded pneumatic conveyance system. The static discharge may result in damage to equipment and injury to workers. Cutting, crushing or grinding hardened cement, concrete or other crystalline silicabearing materials will release respirable crystalline silica. Use all appropriate measures of dust control or suppression, and Personal Protective Equipment (PPE) described in Section 8 below.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Wash contaminated clothing before reuse.

Conditions for Safe Storage, Including Any Incompatibilities

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use.

Incompatible Materials: Wet cement is alkaline and is incompatible with acids, ammonium salts and aluminum metal. Cement dissolves in hydrofluoric acid, producing corrosive silicon tetrafluoride gas. Cement reacts with water to form silicates and calcium hydroxide. Silicates react with powerful oxidizers such as fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride, and oxygen difluoride.

Storage Temperature: Unlimited

Specific End Use(s) Cement is used as a binder in concrete and mortars that are widely used in construction. Cement is distributed in bags, totes and bulk shipment.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Limestone (1317-65-3)		
Mexico	OEL TWA (mg/m³)	10 mg/m³
Mexico	OEL STEL (mg/m³)	20 mg/m³
USA OSHA	OSHA PEL (TWA) (mg/m³)	5 mg/m³
USA NIOSH	NIOSH REL (TWA) (mg/m³)	5 mg/m³
Alberta	OEL TWA (mg/m³)	10 mg/m³
British Columbia	OEL STEL (mg/m³)	20 mg/m³
British Columbia	OEL TWA (mg/m³)	3 mg/m³
New Brunswick	OEL TWA (mg/m³)	10 mg/m³
Nunavut	OEL TWA (mg/m³)	10 mg/m³ (total mass)
Northwest Territories	OEL TWA (mg/m³)	10 mg/m³ (total mass)
Québec	VEMP (mg/m³)	10 mg/m³ (Limestone, containing no Asbestos and <1% Crystalline silica)

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Saskatchewan	OEL STEL (mg/m³)	20 mg/m³
Saskatchewan	OEL TWA (mg/m³)	10 mg/m ³
Yukon	OEL STEL (mg/m³)	20 mg/m ³
Yukon	OEL TWA (mg/m³)	10 mg/m ³
		10 mg/m
Cement, portland, chemical		10 /3
Mexico	OEL TWA (mg/m³)	10 mg/m³
Mexico	OEL STEL (mg/m³)	20 mg/m ³
USA ACGIH	ACGIH TWA (mg/m³)	1 mg/m ³
USA NICCII	OSHA PEL (TWA) (mg/m³)	5 mg/m ³
USA NIOSH	NIOSH REL (TWA) (mg/m³)	5 mg/m³ 5000 mg/m³
USA IDLH	US IDLH (mg/m³)	
Alberta	OEL TWA (mg/m³)	10 mg/m³
British Columbia	OEL TWA (mg/m³)	3 mg/m³ (particulate matter containing no Asbestos and <1% Crystalline silica)
Manitoba	OEL TWA (mg/m³)	1 mg/m³ (particulate matter containing no Asbestos and <1% Crystalline silica)
New Brunswick	OEL TWA (mg/m³)	10 mg/m³
Newfoundland & Labrador	OEL TWA (mg/m³)	1 mg/m³ (particulate matter containing no Asbestos and <1% Crystalline silica)
Nova Scotia	OEL TWA (mg/m³)	1 mg/m³ (particulate matter containing no Asbestos and <1% Crystalline silica)
Nunavut	OEL TWA (mg/m³)	10 mg/m³ (total mass)
Northwest Territories	OEL TWA (mg/m³)	10 mg/m³ (total mass)
Ontario	OEL TWA (mg/m³)	1 mg/m³ (containing no Asbestos and <1% Crystalline silica)
Prince Edward Island	OEL TWA (mg/m³)	1 mg/m³ (particulate matter containing no Asbestos and <1% Crystalline silica)
Québec	VEMP (mg/m³)	5 mg/m³ (containing no Asbestos and <1% Crystalline silica)
Saskatchewan	OEL STEL (mg/m³)	20 mg/m ³
Saskatchewan	OEL TWA (mg/m³)	10 mg/m ³
Yukon	OEL STEL (mg/m³)	20 mg/m ³
Yukon	OEL TWA (mg/m³)	10 mg/m ³
Gypsum (Ca(SO4).2H2O) (13	· · · · ·	
Mexico	OEL TWA (mg/m³)	10 mg/m³
USA ACGIH	ACGIH TWA (mg/m³)	10 mg/m³
USA OSHA	OSHA PEL (TWA) (mg/m³)	5 mg/m ³
USA NIOSH	NIOSH REL (TWA) (mg/m³)	5 mg/m³
Alberta	OEL TWA (mg/m³)	10 mg/m³
British Columbia	OEL STEL (mg/m³)	20 mg/m³
British Columbia	OEL TWA (mg/m³)	3 mg/m³
Manitoba	OEL TWA (mg/m³)	10 mg/m³
Newfoundland & Labrador	OEL TWA (mg/m³)	10 mg/m³
Nova Scotia	OEL TWA (mg/m³)	10 mg/m³
Nunavut	OEL TWA (mg/m³)	10 mg/m³ (total mass)
Northwest Territories	OEL TWA (mg/m³)	10 mg/m³ (total mass)
Ontario	OEL TWA (mg/m³)	10 mg/m³
Prince Edward Island	OEL TWA (mg/m³)	10 mg/m³
Québec	VEMP (mg/m³)	5 mg/m³ (containing no Asbestos and <1% Crystalline silica)
Saskatchewan	OEL STEL (mg/m³)	20 mg/m³
Saskatchewan	OEL TWA (mg/m³)	10 mg/m ³
Yukon	OEL STEL (mg/m³)	20 mg/m ³
Yukon	OEL TWA (mg/m³)	10 mg/m ³
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Calcium oxide (1305-78-8) Mexico OEL TWA (mg/m³) 2 mg/m³ USA ACGIH ACGIH TWA (mg/m³) 2 mg/m³ USA OSHA OSHA PEL (TWA) (mg/m³) 5 mg/m³ USA NIOSH NIOSH REL (TWA) (mg/m³) 2 mg/m³ USA IDLH US IDLH (mg/m³) 25 mg/m³ Alberta OEL TWA (mg/m³) 2 mg/m³ Alberta OEL TWA (mg/m³) 2 mg/m³ Manitoba OEL TWA (mg/m³) 2 mg/m³ New Brunswick OEL TWA (mg/m³) 2 mg/m³ New Foundland & Labrador OEL TWA (mg/m³) 2 mg/m³ Newfoundland & Labrador OEL TWA (mg/m³) 2 mg/m³ Nova Scotia OEL TWA (mg/m³) 2 mg/m³ Nunavut OEL TWA (mg/m³) 2 mg/m³ Nunavut OEL TWA (mg/m³) 2 mg/m³ Northwest Territories OEL STEL (mg/m³) 4 mg/m³ Northwest Territories OEL TWA (mg/m³) 2 mg/m³ Ontario OEL TWA (mg/m³) 2 mg/m³ Prince Edward Island OEL TWA (mg/m³) 2 mg/m³ Saskatchewan <th></th>	
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USA ACGIH ACGIH TWA (mg/m³) 0.025 mg/m³	
USA OSHA	
USA NIOSH NIOSH REL (TWA) (mg/m³) 0.05 mg/m³	

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USA IDLH	US IDLH (mg/m³)	50 mg/m³
Alberta	OEL TWA (mg/m³)	0.025 mg/m³
British Columbia	OEL TWA (mg/m³)	0.025 mg/m³
Manitoba	OEL TWA (mg/m³)	0.025 mg/m³
New Brunswick	OEL TWA (mg/m³)	0.1 mg/m³
Newfoundland & Labrador	OEL TWA (mg/m³)	0.025 mg/m³
Nova Scotia	OEL TWA (mg/m³)	0.025 mg/m³
Nunavut	OEL TWA (mg/m³)	0.3 mg/m³ (total mass)
Northwest Territories	OEL TWA (mg/m³)	0.3 mg/m³ (total mass)
Ontario	OEL TWA (mg/m³)	0.10 mg/m³ (designated substances regulation)
Prince Edward Island	OEL TWA (mg/m³)	0.025 mg/m³
Québec	VEMP (mg/m³)	0.1 mg/m³
Saskatchewan	OEL TWA (mg/m³)	0.05 mg/m³
Yukon	OEL TWA (mg/m³)	300 particle/mL

Exposure Controls

Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Use local exhaust or general dilution ventilation or other suppression methods to maintain dust levels below exposure limits. Power equipment should be equipped with proper dust collection devices.

Personal Protective Equipment: Gloves. In case of dust production: protective goggles. Dust formation: dust mask.







Materials for Protective Clothing: Chemically resistant materials and fabrics.

Hand Protection: Wear gloves impervious to water to prevent skin contact. Do not rely on barrier creams, in place of impervious gloves.

Eye Protection: Wear ANSI approved glasses or safety goggles when handling dust to prevent contact with eyes. Wearing contact lenses when using Limestone and Dolomite, under dusty conditions, is not recommended.

Skin and Body Protection: Wear gloves, boot covers and protective clothing impervious to water to prevent skin contact. Do not rely on barrier creams, in place of impervious gloves.

Respiratory Protection: Wear a NIOSH approved respirator that is properly fitted and is in good condition when exposed to dust above exposure limits.

Other Information: When using, do not eat, drink or smoke

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic I	<u>Physical an</u>	<u>nd Chemical</u>	<u>Properties</u>
Physical State			: Solid

Appearance : Gray, off white or white powder

Odor : Odorless
Odor Threshold : Not available
pH : 12 - 13 (in water)
Relative Evaporation Rate (butylacetate=1) : Not available
Melting Point : Not available
Freezing Point : Not available

Boiling Point : $> 1000 \,^{\circ}\text{C} \,(> 1832 \,^{\circ}\text{F})$

Flash Point : Not available
Auto-ignition Temperature : Not available
Decomposition Temperature : Not available
Flammability (solid, gas) : Not available
Lower Flammable Limit : Not available
Upper Flammable Limit : Not available
Vapor Pressure : Not available

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Relative Vapor Density at 20 °C : Not available

Relative Density/Specific Gravity : 3.15

Solubility : Water: 0.1 - 1 % (slightly soluble)

Partition coefficient: n-octanol/water: Not availableViscosity: Not available

Explosion Data – Sensitivity to Mechanical Impact : Not expected to present an explosion hazard due to mechanical impact. Explosion Data – Sensitivity to Static Discharge : Not expected to present an explosion hazard due to static discharge.

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Wet cement is alkaline and is incompatible with acids, ammonium salts and aluminum metal. Cement dissolves in hydrofluoric acid, producing corrosive silicon tetrafluoride gas. Cement reacts with water to form silicates and calcium hydroxide. Silicates react with powerful oxidizers such as fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride, and oxygen difluoride.

Chemical Stability: Stable under recommended handling and storage conditions (see section 7).

Possibility of Hazardous Reactions: Hazardous polymerization will not occur. **Conditions to Avoid:** Extremely high or low temperatures. Incompatible materials.

Incompatible Materials: Acids. Ammonium salts. Aluminum. Hydrofluoric acid. Water. Oxidizers.

Hazardous Decomposition Products: None known.

SECTION 11: TOXICOLOGICAL INFORMATION

<u>Information on Toxicological Effects - Product</u>

Acute Toxicity: Not classified LD50 and LC50 Data: Not available

Skin Corrosion/Irritation: Causes severe skin burns and eye damage. (pH: 12 - 13 (in water))

Serious Eye Damage/Irritation: Causes serious eye damage. (pH: 12 - 13 (in water))

Respiratory or Skin Sensitization: May cause an allergic skin reaction.

Germ Cell Mutagenicity: Not classified

Teratogenicity: Not available

Carcinogenicity: May cause cancer (Inhalation).

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): May cause respiratory irritation.

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: The three types of silicosis include: 1) Simple chronic silicosis – which results from long-term exposure (more than 20 years) to low amounts of respirable crystalline silica. Nodules of chronic inflammation and scarring provoked by the respirable crystalline silica form in the lungs and chest lymph nodes. This disease may feature breathlessness and may resemble chronic obstructive pulmonary disease (COPD); 2) Accelerated silicosis – occurs after exposure to larger amounts of respirable crystalline silica over a shorter period of time (5-15 years); 3) Acute silicosis – results from short-term exposure to very large amounts of respirable crystalline silica. The lungs become very inflamed and may fill with fluid, causing severe shortness of breath and low blood oxygen levels. Inflammation, scarring, and symptoms progress faster in accelerated silicosis than in simple silicosis. Progressive massive fibrosis may occur in simple or accelerated silicosis, but is more common in the accelerated form. Progressive massive fibrosis results from severe scarring and leads to the destruction of normal lung structures. Some studies show that exposure to respirable crystalline silica (without silicosis) or that the disease silicosis may be associated with the increased incidence of several autoimmune disorders such as scleroderma (thickening of the skin), systemic lupus erythematosus, rheumatoid arthritis and diseases affecting the kidneys. Silicosis increases the risk of tuberculosis. Some studies show an increased incidence of chronic kidney disease and end-stage renal disease in workers exposed to respirable crystalline silica. Corrosive to the respiratory tract.

Symptoms/Injuries After Skin Contact: Cement may cause dry skin, discomfort, irritation, severe burns, and dermatitis. Exposure of sufficient duration to wet cement, or to dry cement on moist areas of the body, can cause serious, potentially irreversible damage to skin, eye, respiratory and digestive tracts due to chemical (caustic) burns, including third degree burns. A skin exposure may be hazardous even if there is no pain or discomfort. Cement is capable of causing dermatitis by irritation and allergy. Skin affected by dermatitis may include symptoms such as, redness, itching, rash, scaling, and cracking. Irritant dermatitis is caused by the physical properties of cement including alkalinity and abrasion. Allergic contact dermatitis is caused by sensitization to hexavalent chromium

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(chromate) present in cement. The reaction can range from a mild rash to severe skin ulcers. Persons already sensitized may react to the first contact with cement. Others may develop allergic dermatitis after years of repeated contact with cement.

Symptoms/Injuries After Eye Contact: Airborne dust may cause immediate or delayed irritation or inflammation. Eye contact with large amounts of dry powder or with wet cement can cause moderate eye irritation, chemical burns and blindness. Eye exposures require immediate first aid and medical attention to prevent significant damage to the eye.

Symptoms/Injuries After Ingestion: May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

Chronic Symptoms: If dust is generated, repeated exposure through inhalation may cause cancer or lung disease.

Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Calcium oxide (1305-78-8)	
ATE CLP (oral)	500.000 mg/kg
Quartz (14808-60-7)	
LD50 Oral Rat	> 5000 mg/kg
Quartz (14808-60-7)	
IARC Group	1
National Toxicity Program (NTP) Status	Known Human Carcinogens.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity Not classified

Calcium oxide (1305-78-8)		
LC50 Fish 1	1070 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [static])	

Persistence and Degradability Not available

Bioaccumulative Potential

Calcium oxide (1305-78-8)	
BCF fish 1	(no bioaccumulation)

Mobility in Soil Not available

Other Adverse Effects Not available

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, state, national, provincial, territorial and international regulations.

Additional Information: If discarded in its purchased form, this product would not be a hazardous waste either by listing or characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

SECTION 14: TRANSPORT INFORMATION

14.1 In Accordance with DOT Not regulated for transport

14.2 In Accordance with IMDG Not regulated for transport

14.3 In Accordance with IATA Not regulated for transport

14.4 In Accordance with TDG Not regulated for transport

SECTION 15: REGULATORY INFORMATION

US Federal Regulations

Lafarge Portland Cement (cement)		
SARA Section 311/312 Hazard Classes Immediate (acute) health hazard		
	Delayed (chronic) health hazard	
Limestone (1317-65-3)		

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Cement, portland, chemicals (65997-15-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Calcium oxide (1305-78-8)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

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Magnesium oxide (MgO) (1309-48-4)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Quartz (14808-60-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

US State Regulations

Quartz (14808-60-7)

U.S. - California - Proposition 65 - Carcinogens List

WARNING: This product contains chemicals known to the State of California to cause cancer.

Limestone (1317-65-3)

- RTK U.S. Massachusetts Right To Know List
- RTK U.S. New Jersey Right to Know Hazardous Substance List
- RTK U.S. Pennsylvania RTK (Right to Know) List

Cement, portland, chemicals (65997-15-1)

- RTK U.S. Massachusetts Right To Know List
- RTK U.S. New Jersey Right to Know Hazardous Substance List
- RTK U.S. Pennsylvania RTK (Right to Know) List

Gypsum (Ca(SO4).2H2O) (13397-24-5)

- RTK U.S. New Jersey Right to Know Hazardous Substance List
- RTK U.S. Pennsylvania RTK (Right to Know) List

Calcium oxide (1305-78-8)

- RTK U.S. Massachusetts Right To Know List
- RTK U.S. New Jersey Right to Know Hazardous Substance List
- RTK U.S. Pennsylvania RTK (Right to Know) List

Magnesium oxide (MgO) (1309-48-4)

- RTK U.S. Massachusetts Right To Know List
- RTK U.S. New Jersey Right to Know Hazardous Substance List
- RTK U.S. Pennsylvania RTK (Right to Know) List

Quartz (14808-60-7)

- RTK U.S. Massachusetts Right To Know List
- RTK U.S. New Jersey Right to Know Hazardous Substance List
- RTK U.S. Pennsylvania RTK (Right to Know) List

Canadian Regulations

Lafarge Portland Cement (cement)

WHMIS Classification

Class D Division 2 Subdivision A - Very toxic material causing other toxic effects Class E - Corrosive Material





Limestone (1317-65-3)

Listed on Non-Domestic Substances List (NDSL)

WHMIS Classification Class D Division 2 Subdivision A - Very toxic material causing other toxic effects

Cement, portland, chemicals (65997-15-1)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Listed on the Canadian Ingredient Disclosure List

WHMIS Classification Class E - Corrosive Material

Calcium oxide (1305-78-8)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Listed on the Canadian Ingredient Disclosure List

WHMIS Classification Class E - Corrosive Material

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Safety Data Sheet

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Magnesium oxide (MgO) (1309-48-4)		
Listed on the Canadian DSL (Domestic Substances List) inventory.		
Listed on the Canadian Ingredient Disclosure List		
WHMIS Classification Uncontrolled product according to WHMIS classification criteria		
Quartz (14808-60-7)		
Listed on the Canadian DSL (Domestic Substances List) inventory.		
Listed on the Canadian Ingredient Disclosure List		
WHMIS Classification Class D Division 2 Subdivision A - Very toxic material causing other toxic effects		

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision date : 04/23/2015

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA

Hazard Communication Standard 29 CFR 1910.1200.

GHS Full Text Phrases:

Carc. 1A	Carcinogenicity Category 1A
Eye Dam. 1	Serious eye damage/eye irritation Category 1
<u> </u>	
Skin Corr. 1C	Skin corrosion/irritation Category 1C
Skin Irrit. 2	Skin corrosion/irritation Category 2
Skin Sens. 1	Skin sensitization Category 1
STOT RE 1	Specific target organ toxicity (repeated exposure) Category 1
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H335	May cause respiratory irritation
H350	May cause cancer
H372	Causes damage to organs through prolonged or repeated exposure

Party Responsible for the Preparation of This Document

Lafarge North America Inc.

+1 773-372-1000 (9am to 5pm CST)

An electronic version of this SDS is available at: www.lafarge-na.com under the Sustainability and Products sections. Please direct any inquiries regarding the content of this SDS to SDSinfo@Lafarge.com.

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North America GHS US 2012 & WHMIS

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02 55 00 In-Situ Stabilization Solidification Plan – Low pH Area REV01 Phase 1 Remediation Construction Wynn Everett Casino Project, Everett, MA
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GRAYMONT DOLIME (OH) INC.

Building Lime Products

Description

MORTASEAL® Mason's Lime is a fine-grind, white, high-purity dolomitic lime, fully hydrated for immediate use. When properly combined with portland cement and sand, it creates a lime mortar having superior performance and ageless durability.

MORTASEAL® Mason's Lime complies with ASTM C207, Type S. This product is available in durable 3ply, weather-resistant and poly-lined 50-lb. bags.

Uses

Recommended for all Type M, S, N and 0 cementlime mortar (ASTM C270) applications in interior and exterior masonry walls.

Advantages

High Plasticity

MORTASEAL® Mason's Lime develops exceptional plasticity and workability immediately upon mixing with water by machine or hand. Carries more sand than most masonry cements or mortar cements for better yield without sacrificing workability.

Excellent Water Retentivity

Increases workability and bonding characteristics, reduces segregation of materials, requires less retempering of mortar during use. MORTASEAL® Mason's Lime mortar resists suction, even from dry masonry, leaves ample time to strike joints.

Balanced Strength

Permits optimum balance between workability and bond strength; provides adequate compressive and tensile strength to accommodate structural movement, plus flexibility to absorb normal stresses from winds and vibration.

Weather Resistance

Offers tight, uniform bond to resist water penetration, helps prevent efflorescence, leaky walls and frost damage, Self-healing properties of MORTASEAL® Mason's Lime repair fine cracks for many years after construction.

Lower Costs

Easily mixed, makes a richer mortar that carries more sand, works easier, and can save on cementitious material cost. Masonry units lay up faster with less waste and "shake-up" time for greater on-site production.

Technical Data

ASTM C270 Specifications

Physical Properties			Proportions by Volume			
Mortar Type	Min. Ave. Comp. Strength —PSI 28 Days	Water Retention % Min.	Cement (1,2)	Lime (3)	Sand (4)	
М	2500	75	1	1/4	2.8 to 3 3/4	
S	1800	75	1	1/4 to 1/2	2.8 to 4 1/2	
N	750	75	1	1/2 to 1 1/4	3.4 to 6 3/4	
0	350	75	1	11/4 to 2 1/2	5.1 to 10 1/2	

NOTES: (1) Portland Cement-To comply with ASTM C150, Type I,II,III.
(2) Blended Hydraulic Cements - to comply with ASTM C595,
Types IS, IP or I(PM).

- (3) Lime-To comply with ASTM C207 (Hydrated) Type S.
- (4) Sand Aggregate-To comply with ASTM C144.

Average Test Results

Prope		MORTASEAL® Mason's Lime						
Mortar Volume Type Proportions (1)		Comp. Stre	Comp. Strength-PSI 7 Days 28 Days					
S ⁽³⁾	1:1/2: 4 1/2	4370	4984	87				
N	1:1:6	2026	2532	89				
0	1:2:9	648	904	90				

NOTES: (1) Cement: Mason's Lime: sand.

(2) Based on materials having an initial flow of 110± 5%.

(3) Test results exceed requirements for Type M mortar.

Letters of certification of compliance of MORTASEAL® Mason's Lime to ASTM C207 Type S specifications are available.



GRAYMONT DOLIME (OH) INC.

P.O. Box 158 Genoa, OH, USA 43430 1.800.537.4489 www.graymont-oh.com



Good Design Practices

- Specifications below are offered as desirable inclusions in any masonry specifications, but are not intended to be complete.
- Generally, masons consider a 94-lb. bag of Portland Cement and a 50-lb. bag of hydrated lime to each equal one cu. ft. and would add 6 cu. ft. sand to make a 1: 1: 6 mix. Actually, a bag of hydrated lime equals about 1 1/4 cu. ft.
- Environmental Conditions -- Refer to the Masonry Industry Council Publication "Hot & Cold Weather Masonry Construction" (1999).

Architectural Specification

Part 1: General

1.1 Scope

Specify to meet project requirements.

1.2 Delivery and Storage of Materials

All materials shall be delivered in their original unopened packages, containers or bundles, and stored in a place providing protection from damage, deterioration and contamination. Damaged, deteriorated or contaminated materials shall be removed from the premises.

1.3 Environmental Conditions

In cold weather, temperature of masonry materials shall be above freezing when placed. Masonry shall be protected from freezing for 48 hrs. after placing. Unless precautions against freezing are taken, masonry shall not be erected when temperature is below 32° F on a rising temperature, or below 40° F on a falling temperature. Masonry shall not be laid on walls or footings that are frozen or contain frost. (See good design practices note 3 above.)

Part 2: Products

2.1 Materials

- a. Portland Cement—Conforming to ASTM C15O, Type I.
- b. Hydrated Lime—MORTASEAL® Mason's Lime, conforming to ASTM C207, Type S.
- c. Aggregate—Sand conforming to ASTM C144.
- d. Water-Clean and free of deleterious amounts of acids, alkalies and organic materials.

2.2 Mixes

- a. Type M Mortar, shall be mixed in proportion of one bag Portland Cement, one-quarter bag MORTASEAL® Mason's Lime, to not more than 3 3/4 cu. ft. sand (1: 1/4: 3 3/4).
- b. Type S Mortar shall be mixed in proportion of one bag Portland Cement, one-half bag MORTASEAL® Mason's Lime, to not more than 4 1/2 cu. ft. sand (1: 1/2: 4 1/2).
- c. Type N Mortar shall be mixed in proportion of one bag Portland Cement, one bag MORTASEAL® Mason's Lime, to not more than 6 cu. ft. sand (1: 1: 6).
- d. Type 0 Mortar shall be mixed in proportion of one bag Portland Cement, 2 bags MORTASEAL® Mason's Lime, to not more than 9 cu. ft. sand (1: 2: 9).

Part 3: Execution

3.1 Mixing Mortar

Proportion ingredients accurately and mix for at least 5 minutes in mechanical batch mixer with enough water to produce a workable consistency.

3.2 Mortar Application

Lay mortar in a uniform bed and completely fill joints between masonry units.

WARNING:

MAY CAUSE EYE OR SKIN BURNS. HARMFUL IF SWALLOWED.

CONTAINS: Hydrated Lime (calcium magnesium hydroxide) Avoid contact with eyes or akin. Do not take internally. Avoid breathing lime dust.

Always wear NIOSH approved eye goggles when handling lime. In case of eye contact flush eyes thoroughly, including under eyelids, with water for 15 minutes. CALL PHYSICIAN IMMEDIATELY.

Wear protective clothing to prevent skin contact. If skin contact occurs, wash with water. Should skin irritation continue, SEE PHYSICIAN.

If swallowed CALL PHYSICIAN IMMEDIATELY.

Ventilate or use dust collector to prevent airborne lime dust. If there is airborne lime dust use a NIOSH approved dust respirator.

Do not use this material on playing fields or children's play areas.

KEEP OUT OF REACH OF CHILDREN.

Hazardous ingredient info—(419) 855-8336

NOTICE: There are no warranties which extend beyond the description contained herein. We shall not be liable for incidental and consequential damages, directly or indirectly sustained, nor for any loss caused by application of these goods not in accordance with current printed instructions or for other than the intended use. Our liability is expressly limited to replacement of defective goods. Any claim shall be deemed waived unless made in writing to us within 30 days from the earlier of the date it was or reasonably should have been discovered.



SAFETY DATA SHEET

DOLOMITIC HYDRATED LIME

GRAYMONT

Section 1. Identification

GHS product identifier

: DOLOMITIC HYDRATED LIME

Other means of

: Hydrated dolomitic lime (Ca(OH)₂MgO), Double hydrated dolomitic lime (CaMg(OH)₄)

identification **Product code**

: Not available.

Product type

: Solid.

Identified uses

Neutralization, flocculation, stabilization, polishing, masonry mortar, plaster, stucco, fresco paints and lime wash.

Supplier/Manufacturer

: GRAYMONT

#200-10991 Shellbridge Way Richmond, BC V6X 3C6

Canada

Phone: 1 604 207-4292 Toll free: 1866 207-4292 Fax: 1 604 207-9014

Web Site: http://www.graymont.com/

Emergency telephone number (with hours of

operation)

: CANUTEC (613-996-6666) CHEMTREC, US (800-424-9300 INTERNATIONAL: (703-527-3887)

Section 2. Hazards identification

OSHA/HCS status

: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1

CARCINOGENICITY (inhalation) - Category 1A

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract

irritation) - Category 3

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1

GHS label elements

Hazard pictograms







Signal word : Danger

Hazard statements : H318 - Causes serious eye damage.

H315 - Causes skin irritation.

H350 - May cause cancer if inhaled. H335 - May cause respiratory irritation.

H372 - Causes damage to organs through prolonged or repeated exposure.

Precautionary statements





Section 2. Hazards identification

Prevention

: P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood.

P281 - Use personal protective equipment as required. P280 - Wear protective gloves. Wear eye or face protection.

P271 - Use only outdoors or in a well-ventilated area.

P260 - Do not breathe dust.

P270 - Do not eat, drink or smoke when using this product.

P264 - Wash hands thoroughly after handling.

Response

: P314 - Get medical attention if you feel unwell.

P308 + P313 - IF exposed or concerned: Get medical attention.

P304 + P340 + P312 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel

unwell

P302 + P352 + P362 + P363 - IF ON SKIN: Wash with plenty of soap and water. Take

off contaminated clothing. Wash contaminated clothing before reuse.

P332 + P313 - If skin irritation occurs: Get medical attention.

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

Storage: P401 - Store to minimize dust generation.

Disposal : P501 - Dispose of contents and container in accordance with all local, regional, national

and international regulations.

Hazards not otherwise classified (HNOC)

Physical hazards not otherwise classified

(PHNOC)

: None known.

Health hazards not otherwise classified

(HHNOC)

: None known.

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Other means of identification

: Hydrated dolomitic lime (Ca(OH)₂MgO), Double hydrated dolomitic lime (CaMg(OH)₄)

CAS number/other identifiers

CAS number : Not applicable.

Product code : Not available.

Ingredient name	%	CAS number
Calcium Magnesium Tetrahydroxide Calcium Magnesium Dihydroxide Oxide Calcium Hydroxide Crystalline silica, quartz	60 - 100 60 - 100 30 - 60 0.0001 - 1	39445-23-3 58398-71-3 1305-62-0 14808-60-7

Crystalline silica has been found in some products at or above detection level 0.1%. Concentration is dependent upon limestone source.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.





Section 4. First aid measures

Description of necessary first aid measures

Eye contact

: Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Chemical burns must be treated promptly by a physician. Get medical attention immediately. Call a poison center or physician.

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact

: Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 20 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion

: Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye damage. **Inhalation** : May cause respiratory irritation.

Skin contact : Causes skin irritation.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:

pain watering redness

Inhalation : Adverse symptoms may include the following:

respiratory tract irritation

coughing

burning sensation

Skin contact: Adverse symptoms may include the following:

pain or irritation

redness

blistering may occur

Ingestion : Adverse symptoms may include the following:

burning sensation

abdominal cramps and pain

vomiting





Section 4. First aid measures

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician

: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments

: No specific treatment.

Protection of first-aiders

: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

: Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing

: None known.

media

Specific hazards arising from the chemical

: No specific fire or explosion hazard.

Hazardous thermal decomposition products

: None.

Special protective actions for fire-fighters

: No special measures are required.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For nonemergency personnel".

Environmental precautions

: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Spill

: Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.





Section 7. Handling and storage

Precautions for safe handling

Protective measures

: Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous.

Advice on general occupational hygiene

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store to minimize dust generation. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

United States

Occupational exposure limits

Ingredient name	Exposure limits
Calcium Hydroxide	OSHA PEL (United States, 2/2013).
	TWA: 5 mg/m³ 8 hours. Form: Respirable fraction
	TWA: 15 mg/m³ 8 hours. Form: Total dust
	ACGIH TLV (United States, 4/2014).
	TWA: 5 mg/m³ 8 hours.
	NIOSH REL (United States, 10/2013).
	TWA: 5 mg/m³ 10 hours.
	MSHA PEL
	TWA 8/40 hours: 5 mg/m ³
Crystalline silica, quartz	OSHA PEL Z3 (United States, 2/2013).
	TWA: 10 mg/m³ 8 hours. Form: Respirable
	TWA: 250 mppcf 8 hours. Form: Respirable
	NIOSH REL (United States, 10/2013).
	TWA: 0.05 mg/m³ 10 hours. Form: Respirable dust
	ACGIH TLV (United States, 4/2014).
	TWA: 0.025 mg/m³ 8 hours. Form: Respirable fraction
	MSHA PEL
	TWA 8/40 hours: 30 mg/m³/(%SiO2)+2 mg/m³ Form: Total dust
	10 mg/m³/(%SiO2)+2 mg/m³ Form: Respirable dust

Canada

Occupational exposure limits		TWA (8 hours)		STEL (15 mins)		Ceiling					
Ingredient	List name	ppm	mg/m³	Other	ppm	mg/m³	Other	ppm	mg/m³	Other	Notations
Magnesium oxide	US ACGIH 4/2014	-	10	-	-	-	-	-	-	-	[a]
· ·	AB 4/2009	_	10	-	-	-	-	-	-	ŀ	[b]
	BC 7/2013	-	10	l-	-	-	-	-	-	-	[c]
		-	3	-	-	10	-	-	-	ŀ	[d]
Magnesium oxide, Mg	ON 1/2013	-	10	-	-	-	-	-	-	ŀ	[a]
Magnesium oxide, as Mg	QC 1/2014	-	10	-	-	-	-	-	-	-	[b]
Calcium dihydroxide	US ACGIH 4/2014	-	5	-	-	-	-	-	-	-	
-	AB 4/2009	-	5	-	-	-	-	-	-	ŀ	[3]
	BC 7/2013	-	5	-	-	-	-	-	-	-	
	ON 1/2013	-	5	-	-	-	-	-	-	ŀ	





Section 8. Exposure controls/personal protection

	QC 1/2014	-	5		10 0 45	-	=:	0	5	5	
Crystalline silica, quartz	US ACGIH 4/2014	÷	0.025	=		-	-1	2	2	4	[e]
	AB 4/2009	77	0.025	-	050	-	75	=	-	-	[f]
	BC 7/2013	+	0.025	-		-	-9	-	-	-	[g]
	ON 1/2013	2	0.1	=	-	-	20	=	=	2	[e] [h]
	QC 1/2014	Ti.	0.1	E .	(5)	70	-	50	-		[h]

[3]Skin sensitization

Form: [a]Inhalable fraction [b]Fume [c]Inhalable fume [d]Respirable dust and fume. [e]Respirable fraction [f]Respirable particulate. [g]Respirable [h]Respirable dust

Appropriate engineering controls

: Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. Engineering controls may be required to control the primary or secondary risks associated with this product.

Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.

Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/ or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

Hand protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

: Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Wear an appropriate NIOSH approved respirator if concentration levels exceed the safe exposure limits.





Section 9. Physical and chemical properties

Appearance

Physical state : Solid. [Fine powder.]

Color : White

Odor : Sweet, soil like odor.

Odor threshold : Not available.

pH : 12.45 [Sat. soln.] at 25°C

Melting point : Not available. : Not available. **Boiling point** : Not applicable. Flash point **Evaporation rate** : Not available. Flammability (solid, gas) : Not applicable.

Lower and upper explosive

(flammable) limits

: Not applicable.

: Not available. Vapor pressure Vapor density : Not available. Relative density : 2.2 to 2.6 : Not available. Solubility : 0.1 g/100 g at 20°C Solubility in water

Partition coefficient: n-

octanol/water

: Not available.

: Not applicable. **Auto-ignition temperature Decomposition temperature** : 345°C (653°F) **Viscosity** : Not available. Volatility : Not available. VOC (w/w) : 0 % (w/w)

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous

reactions

: None.

Conditions to avoid : Do not allow quicklime to come into contact with incompatible materials, e.g. Water,

acids, reactive fluoridated compounds, reactive brominated compounds. reactive powered metals, organic acid anhydrides, nitro-organic compounds, reactive

phosphorous compounds, interhalogenated compounds.

Incompatible materials : Reactive or incompatible with the following materials: oxidizing materials and acids.

Hazardous decomposition

products

: None.





Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Calcium Hydroxide	LD50 Oral	Rat	7340 mg/kg	20

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Calcium Hydroxide	Eyes - Severe irritant	Rabbit	0.20 0.20	10 mg	2

Sensitization

There is no data available.

Carcinogenicity

Classification

Product/ingredient name	OSHA	IARC	NTP	ACGIH	EPA	NIOSH
Magnesium oxide Crystalline silica, quartz	-	- 1	- Known to be a human carcinogen.	A4	-	-
Crystalline silica, quartz	_	'	Known to be a numan carcinogen.	~ <u>~</u>	_	

Specific target organ toxicity (single exposure)

Name		Route of exposure	Target organs
Calcium Magnesium Tetrahydroxide Calcium Magnesium Dihydroxide Oxide Calcium Hydroxide	Category 3	Not applicable.	Respiratory tract irritation Respiratory tract irritation Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Crystalline silica, quartz	Category 1		kidneys, respiratory tract and testes

Aspiration hazard

There is no data available.

Information on the likely routes of exposure

: Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

Eye contact : Causes serious eye damage. **Inhalation** : May cause respiratory irritation.

Skin contact : Causes skin irritation.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact: Adverse symptoms may include the following:

pain watering redness

Inhalation : Adverse symptoms may include the following:

respiratory tract irritation

coughing

burning sensation





Section 11. Toxicological information

Skin contact : Adverse symptoms may include the following:

pain or irritation

redness

blistering may occur

Ingestion : Adverse symptoms may include the following:

burning sensation

abdominal cramps and pain

vomiting

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate : No known significant effects or critical hazards.

effects

Potential delayed effects : No known significant effects or critical hazards.

Long term exposure

Potential immediate : No known significant effects or critical hazards.

effects

Potential delayed effects : No known significant effects or critical hazards.

Potential chronic health effects

General : Causes damage to organs through prolonged or repeated exposure.

Carcinogenicity: May cause cancer if inhaled. Risk of cancer depends on duration and level of exposure.

Mutagenicity: No known significant effects or critical hazards.Teratogenicity: No known significant effects or critical hazards.Developmental effects: No known significant effects or critical hazards.Fertility effects: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

There is no data available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Calcium Hydroxide	Acute LC50 33884.4 μg/L Fresh water	Fish - Clarias gariepinus - Fingerling	96 hours

Persistence and degradability

There is no data available.

Bioaccumulative potential

There is no data available.

Mobility in soil

Soil/water partition : Not available. coefficient (Koc)

Other adverse effects : No known significant effects or critical hazards.





Section 13. Disposal considerations

Disposal methods

: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT	TDG	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-	-
Transport hazard class(es)	-	-	-	-
Packing group	-	-	-	-
Environmental hazards	No.	No.	No.	No.
Additional information	-	-	-	-

AERG: Not applicable.

Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according: Not available. to Annex II of MARPOL 73/78 and the IBC Code

Section 15. Regulatory information

U.S. Federal regulations

: TSCA 8(a) CDR Exempt/Partial exemption: Not determined

United States inventory (TSCA 8b): Dolomitic Hydrated Lime is subject to inventory update reporting (IUR).

RCRA classification: Dolomitic Hydrated Lime is not listed or classified.

CWA-311: Dolomitic Hydrated Lime is not listed. CERCLA: Dolomitic Hydrated Lime is not listed.

FDA: Not applicable

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)

: Not listed





Section 15. Regulatory information

Clean Air Act Section 602

Class I Substances

: Not listed

Clean Air Act Section 602

Class II Substances

: Not listed

DEA List I Chemicals

: Not listed

(Precursor Chemicals)

DEA List I Chemicals

(Precursor Chemicals)

: Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Immediate (acute) health hazard

Delayed (chronic) health hazard

Composition/information on ingredients

Name	%	082700	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Calcium Magnesium Tetrahydroxide Calcium Magnesium Dihydroxide Oxide Calcium Hydroxide Crystalline silica, quartz	60 - 100	No. No. No. No.	No. No.	No. No. No. No.	Yes. Yes. Yes. No.	No. No. No. Yes.

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	Not listed	-	-
Supplier notification	Not listed	-	-

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts

: The following components are listed: Magnesium oxide; Calcium Hydroxide; Crystalline silica, quartz

New York

: None of the components are listed.

New Jersey

: The following components are listed: Magnesium oxide; Calcium Hydroxide; Crystalline

Pennsylvania

: The following components are listed: Magnesium oxide; Calcium Hydroxide; Crystalline silica, quartz

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

Ingredient name	Cancer		level	Maximum acceptable dosage level
Crystalline silica, quartz	Yes.	No.	No.	No.





Section 15. Regulatory information

Canada

Canadian lists

Canadian NPRI : None of the components are listed.

CEPA Toxic substances : None of the components are listed.

Canada inventory : At least one component is not listed in DSL but all such components are listed in NDSL.

International lists

National inventory

Australia : Not determined.

China : All components are listed or exempted.

Europe : All components are listed or exempted.

Japan : Not determined.

Malaysia : Not determined.

New Zealand : Not determined.

Philippines : Not determined.

Republic of Korea : All components are listed or exempted.

Taiwan : Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health: 3 * Flammability: 0 Physical hazards: 1

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)

Health: 3 Flammability: 0 Instability: 1

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

History

Date of issue mm/dd/yyyy : 04/15/2015

Version : 1

Prepared by : KMK Regulatory Services Inc.

Key to abbreviations : ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships,

1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

UN = United Nations







Section 16. Other information

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



02 55 00 In-Situ Stabilization Solidification Plan – Low pH Area REV01 Phase 1 Remediation Construction Wynn Everett Casino Project, Everett, MA
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CERTIFICATION OF MATERIAL

JOB:

ARCHITECT:

GENERAL CONTRACTOR:

SUB CONTRACTOR:

We the undersigned certify that the following hydrated lime products supplied by us comply with the requirements and tests of the American Society of Testing Materials Specifications as stated below and is so guaranteed by us.

MASONS LIME

Mortaseal Mason's Lime

ASTM C-207, Type S

Bondcrete Air Entrained

ASTM C-207, Type SA

Edward M. Jensen

Quality Control Supervisor

Graymont Dolime (OH) Inc.

P.O. Box 158 Genoa, OH 43430 1-800-537-4489

GRAYMONT DOLIME (OH) INC.

HEAD OFFICE / PLANT

21880 West State Route 163 P.O. Box 158

Genoa, Ohio 43430

(419) 855-8336

(800) 537-4489 (419) 855-4602

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BONDCRETE®

MASON'S PRE-BLEND®

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GRAND PRIZE®

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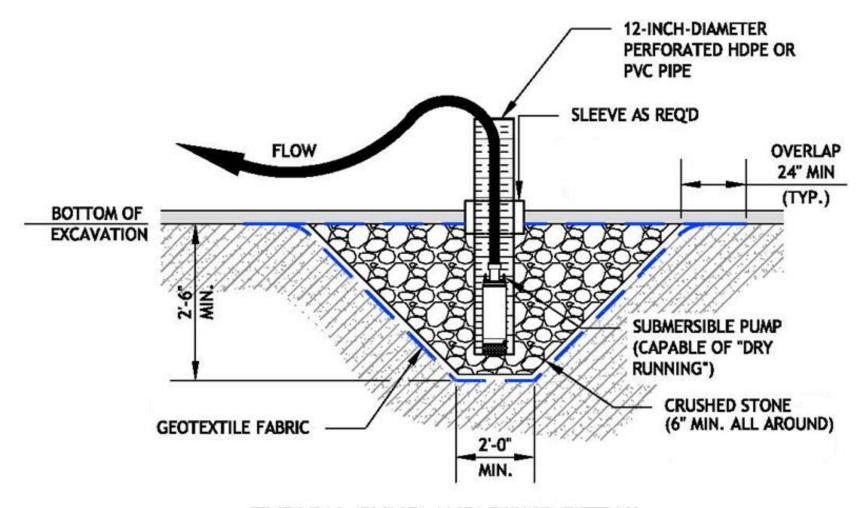
SUPER LIMOID®

LIMOID®

HI-MAG®



APPENDIX D - DEWATERING DOCUMENTATION



TYPICAL SUMP AND PUMP DETAIL SCALE: NTS

Notes:

- 1.) Figure is not to scale.
- 2.) Sumps should be packed with $\frac{3}{4}$ " stone.



Lockwood Remediation Technologies, LLC 89 Crawford Street Leominster, MA 01453 Office: 774-450-7177

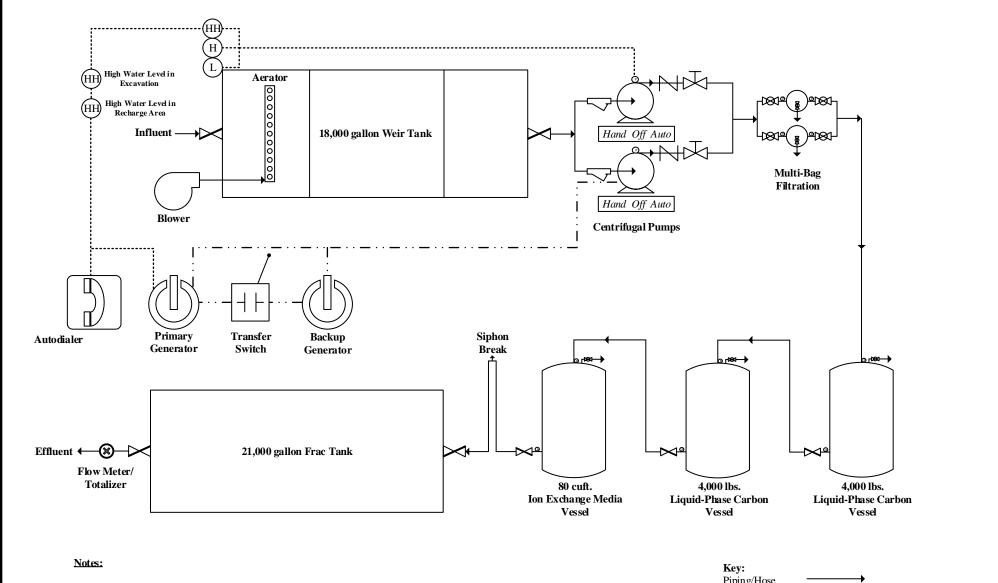
DESIGNED BY: LRT DRAWN BY: B. Watkins
CHECKED BY: T. Hagie DATE: October 7, 2015

Figure 4 – Dewatering Sump Detail

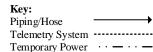
Wynn Casino One Horizon Way Everett, Massachusetts

Charter Environmental
500 Harrison Avenue
Boston, Massachusetts 02118

PROJECT No. 2-1297



- 1.) Figure is not to scale
- 2.) System rated for 200 GPM
- 3.) Sampling ports located on all treatment system components





Lockwood Remediation Technologies, LLC 89 Crawford Street Leominster, MA 01453

Office: 774-450-7177

DESIGNED BY: LRT DRAWN BY: B. Watkins

CHECKED BY: T. Hagie DATE: October 7, 2015

Figure 5 – Water Treatment System Schematic Area CES-2

Wynn Casino
One Horizon Way
Everett, Massachusetts

Charter Environmental
500 Harrison Avenue
Boston, Massachusetts 02118

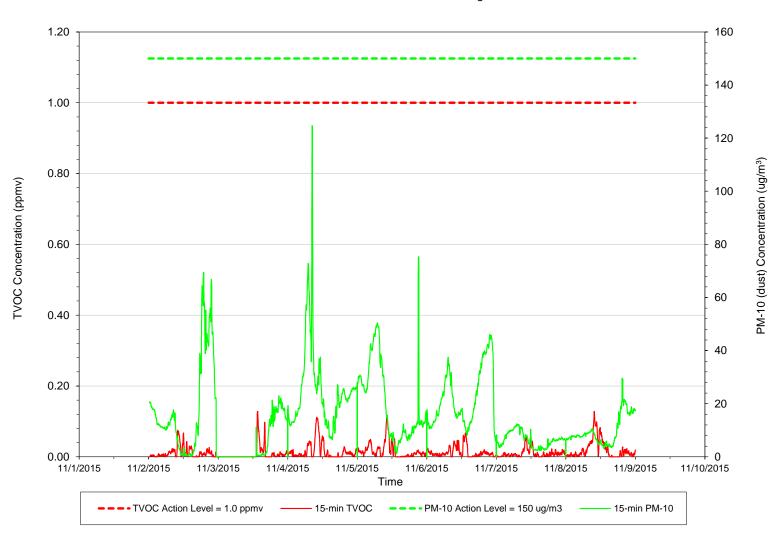


APPENDIX E - AIRLOGICS WEEKLY REPORTS

AirLogics Perimeter Air Monitoring System - Weekly Results Wynn Casino and Resort Site Everett, Massachusetts

Perimeter Air Monitoring Station - STA 1

15-minute average concentrations



vveekiy	
Data Summary Statistics	3

TVOC Avg =	0.01
PM-10 Avg =	17.18

Daily

Data Summary Statistics		
TVOC max =	(15Min Avg)	
11/2/2015	0.07	
11/3/2015	0.13	
11/4/2015	0.11	
11/5/2015	0.11	
11/6/2015	0.07	
11/7/2015	0.06	
11/8/2015	0.13	
PM10 max=	(15Min Avg)	
11/2/2015	#DIV/0!	
11/2/2015 11/3/2015	#DIV/0! 23.02	
11/3/2015	23.02	
11/3/2015 11/4/2015	23.02 124.76	
11/3/2015 11/4/2015 11/5/2015	23.02 124.76 75.33	
11/3/2015 11/4/2015 11/5/2015 11/6/2015	23.02 124.76 75.33 46.14	

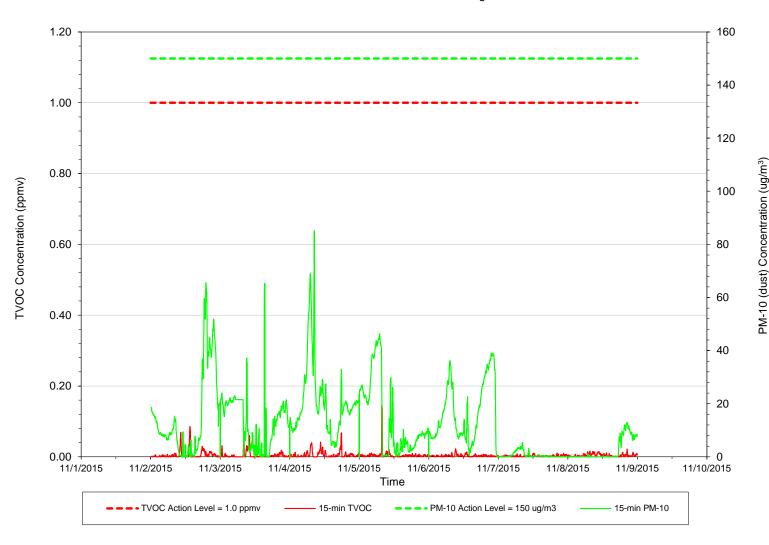
Wind Summary Statistics		
CALM	0%	
UW	8%	
UW/CW	0%	
CW	73%	
CW/DW	0%	
DW	7%	
DW/CW	10%	
CW/UW	1%	
TOTAL	100%	



AirLogics Perimeter Air Monitoring System - Weekly Results Wynn Casino and Resort Site Everett, Massachusetts

Perimeter Air Monitoring Station - STA 2

15-minute average concentrations



TVOC Avg = PM-10 Avg =	0.01 12.01
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
11/2/2015	0.09
11/3/2015	0.06
11/4/2015	0.07
11/5/2015	0.14
11/6/2015	0.02
11/7/2015	0.01

11/8/2015

11/2/2015

11/3/2015

11/4/2015

11/5/2015

11/6/2015

11/7/2015

11/8/2015

PM10 max= (15Min Avg)

0.02

65.58

65.25

85.00

46.40

38.99

13.02

5.44

Data Summary Statistics

Weekly

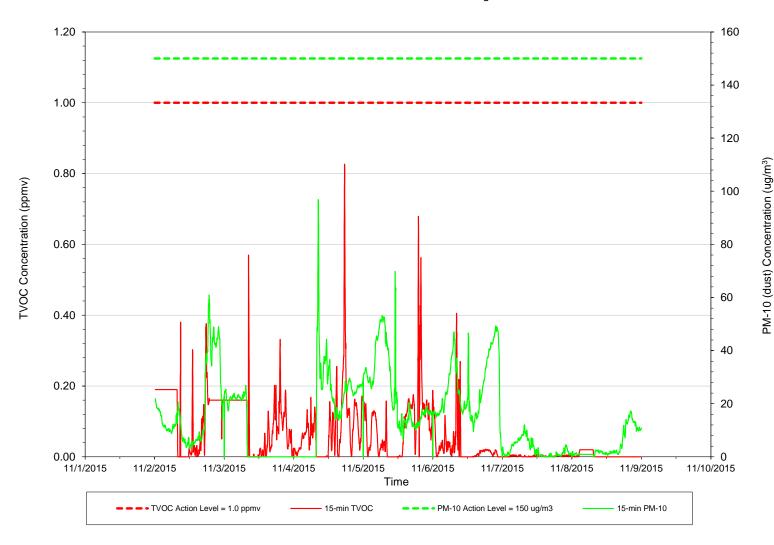
Wind Summary Statistics		
CALM	0%	
UW	8%	
UW/CW	0%	
CW	0%	
CW/DW	0%	
DW	80%	
DW/CW	4%	
CW/UW	8%	
TOTAL	100%	

AIRLOGICS, LLC
PERIMETER AIR MONITORING SYSTEMS
PROACTIVE BY DESIGN

Filename: J:\170,000-179,999\171521\171521-41.MMS\Field Work\Air Monitoring\AirLogics Weekly Summary Reports\11.2&9.2015 WeeklyData\STA2_WEEKLYDEMAND.xls

Perimeter Air Monitoring Station - STA 3

15-minute average concentrations



Weekly
Data Summary Statistics

TVOC Avg = 0.10 PM-10 Avg = 14.63

Daily

Data Summary	Statistics
TVOC max =	(15Min Avg)
11/2/2015	0.38
11/3/2015	0.57
11/4/2015	0.83
11/5/2015	0.68
11/6/2015	0.41
11/7/2015	0.01
11/8/2015	0.02
PM10 max=	(15Min Avg)
PM10 max= 11/2/2015	(15Min Avg) 60.91
	٠,
11/2/2015	60.91
11/2/2015 11/3/2015	60.91 26.91
11/2/2015 11/3/2015 11/4/2015	60.91 26.91 96.86
11/2/2015 11/3/2015 11/4/2015 11/5/2015	60.91 26.91 96.86 69.79
11/2/2015 11/3/2015 11/4/2015 11/5/2015 11/6/2015	60.91 26.91 96.86 69.79 49.17

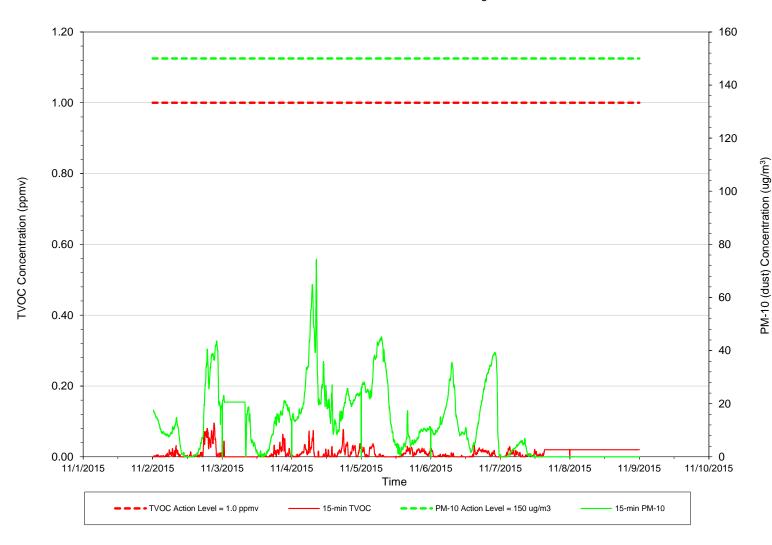
Wind Summary Statistics	
CALM	0%
UW	5%
UW/CW	0%
CW	3%
CW/DW	5%
DW	86%
DW/CW	1%
CW/UW	0%
TOTAL	100%



Filename: J:\170,000-179,999\171521\171521-41.MMS\Field Work\Air Monitoring\AirLogics Weekly Summary Reports\11.2&9.2015 WeeklyData\STA3_WEEKLYDEMAND.xls

Perimeter Air Monitoring Station - STA 4

15-minute average concentrations



Weekly
Data Summary Statistics

TVOC Avg =	0.01
PM-10 Avg =	12.27

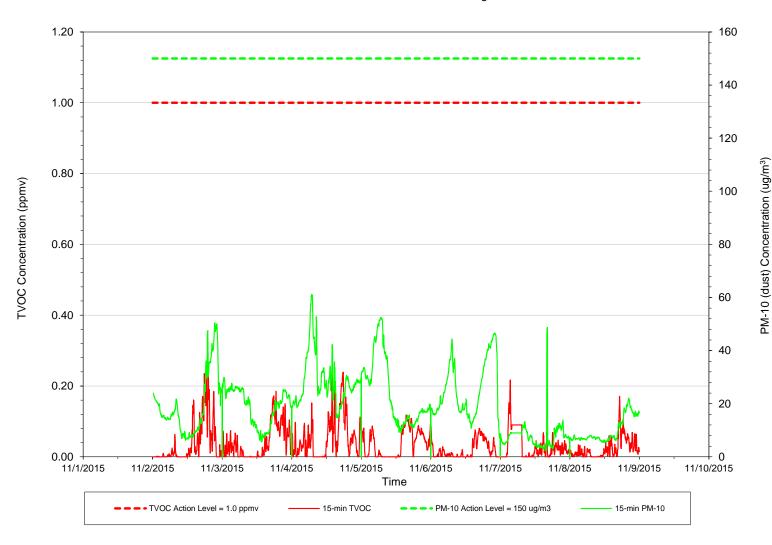
Data Summary	Statistics
TVOC max =	(15Min Avg)
11/2/2015	0.10
11/3/2015	0.06
11/4/2015	0.08
11/5/2015	0.04
11/6/2015	0.03
11/7/2015	0.03
11/8/2015	0.02
PM10 max=	(15Min Avg)
PM10 max= 11/2/2015	(15Min Avg) 43.64
11/2/2015	43.64
11/2/2015 11/3/2015	43.64 23.06
11/2/2015 11/3/2015 11/4/2015	43.64 23.06 74.43
11/2/2015 11/3/2015 11/4/2015 11/5/2015	43.64 23.06 74.43 45.12
11/2/2015 11/3/2015 11/4/2015 11/5/2015 11/6/2015	43.64 23.06 74.43 45.12 39.28

Wind Summary Statistics	
CALM	0%
UW	36%
UW/CW	0%
CW	0%
CW/DW	0%
DW	4%
DW/CW	0%
CW/UW	60%
TOTAL	100%



Perimeter Air Monitoring Station - STA 5

15-minute average concentrations



Weekly
Data Summary Statistics

TVOC Avg = 0.04 PM-10 Avg = 19.16

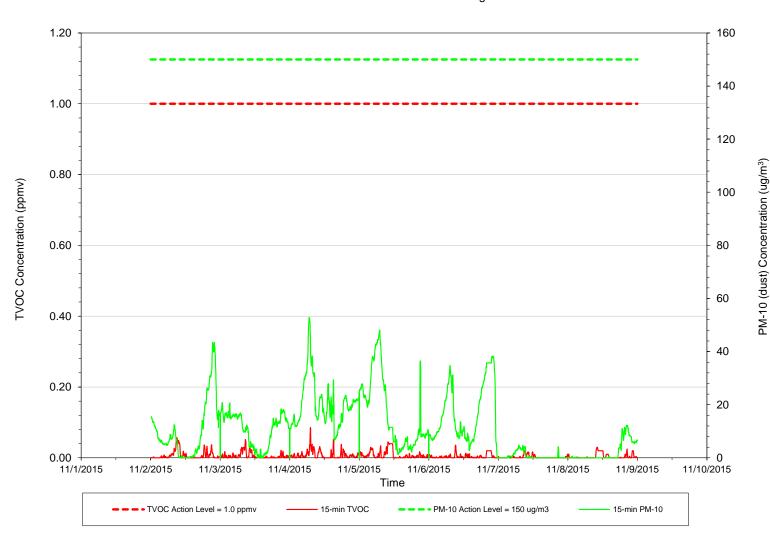
Data Summary	Statistics
TVOC max =	(15Min Avg)
11/2/2015	0.26
11/3/2015	0.19
11/4/2015	0.24
11/5/2015	0.12
11/6/2015	0.10
11/7/2015	0.22
11/8/2015	0.17
PM10 max=	(15Min Avg)
11/2/2015	50.44
11/3/2015	29.92
11/4/2015	61.17
11/5/2015	52.51
11/6/2015	46.59
11/7/2015	48.70
11/8/2015	22.03

Wind Summary Statistics	
CALM	0%
UW	10%
UW/CW	0%
CW	0%
CW/DW	0%
DW	3%
DW/CW	0%
CW/UW	87%
TOTAL	100%



Perimeter Air Monitoring Station - STA 6

15-minute average concentrations



Weekly
Data Summary Statistics

TVOC Avg =	0.01
PM-10 Avg =	11.15

Daily

,	
Data Summary	
TVOC max =	(15Min Avg)
11/2/2015	0.06
11/3/2015	0.05
11/4/2015	0.08
11/5/2015	0.04
11/6/2015	0.04
11/7/2015	0.02
11/8/2015	0.03
PM10 max=	(15Min Avg)
11/2/2015	43.52
11/3/2015	20.79
11/4/2015	52.82
11/5/2015	48.13
11/6/2015	38.27
11/7/2015	4.76
11/8/2015	12.21

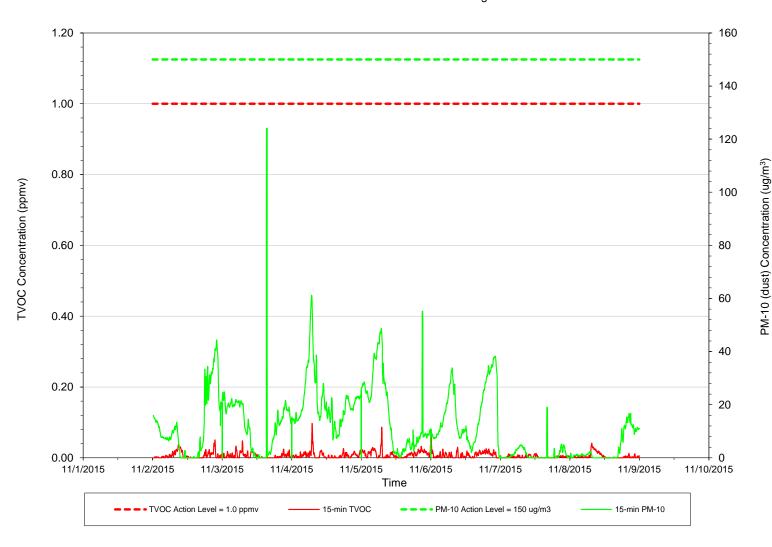
Wind Summary	Statistics
CALM	0%
UW	0%
UW/CW	0%
CW	11%
CW/DW	0%
DW	4%
DW/CW	0%
CW/UW	84%
TOTAL	100%



AIRLOGICS, LLC
PERIMETER AIR MONITORING SYSTEMS
PROACTIVE BY DESIGN

Perimeter Air Monitoring Station - STA 7

15-minute average concentrations



Weekly	
Data Summary Statistic	s

TVOC Avg =	0.01
PM-10 Avg =	12.05

Daily

Data Summary	Statistics
TVOC max =	(15Min Avg)
11/2/2015	0.05
11/3/2015	0.05
11/4/2015	0.10
11/5/2015	0.09
11/6/2015	0.07
11/7/2015	0.01
11/8/2015	0.04
PM10 max=	(15Min Avg)
11/2/2015	44.35
11/3/2015	124.10
11/4/2015	61.19
11/5/2015	55.22
11/6/2015	38.19
11/7/2015	18.96
11/8/2015	16.71

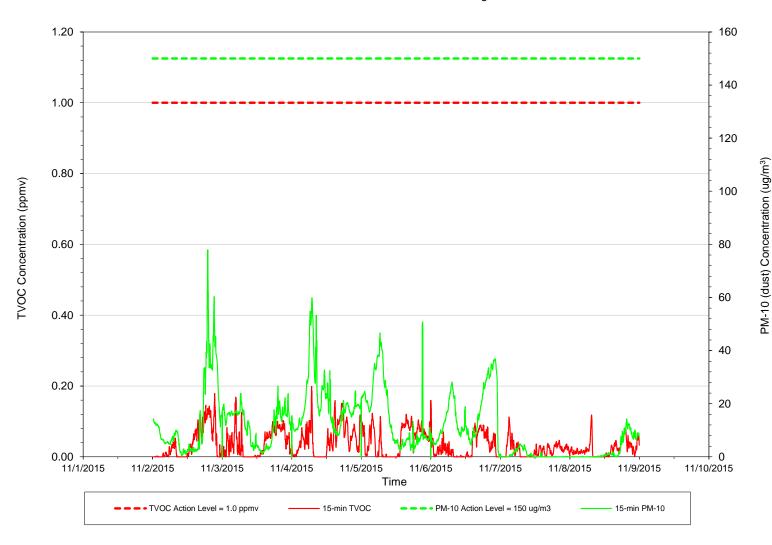
Wind Summary	y Statistics
CALM	0%
UW	3%
UW/CW	0%
CW	0%
CW/DW	0%
DW	10%
DW/CW	7%
CW/UW	80%
TOTAL	100%



Filename: J:\170,000-179,999\171521\171521-41.MMS\Field Work\Air Monitoring\AirLogics Weekly Summary Reports\11.2&9.2015 WeeklyData\STA7_WEEKLYDEMAND.xls

Perimeter Air Monitoring Station - STA 8

15-minute average concentrations

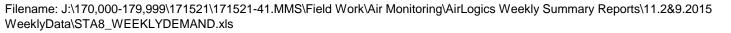


Weekly
Data Summary Statistics

TVOC Avg = 0.04 PM-10 Avg = 11.58

Data Summary	Statistics
TVOC max =	(15Min Avg)
11/2/2015	0.18
11/3/2015	0.17
11/4/2015	0.20
11/5/2015	0.16
11/6/2015	0.16
11/7/2015	0.11
11/8/2015	0.12
PM10 max=	(15Min Avg)
11/2/2015	77.98
11/3/2015	26.62
11/4/2015	59.89
11/5/2015	50.76
11/6/2015	36.85
11/7/2015	4.96
11/8/2015	
11/6/2015	14.23

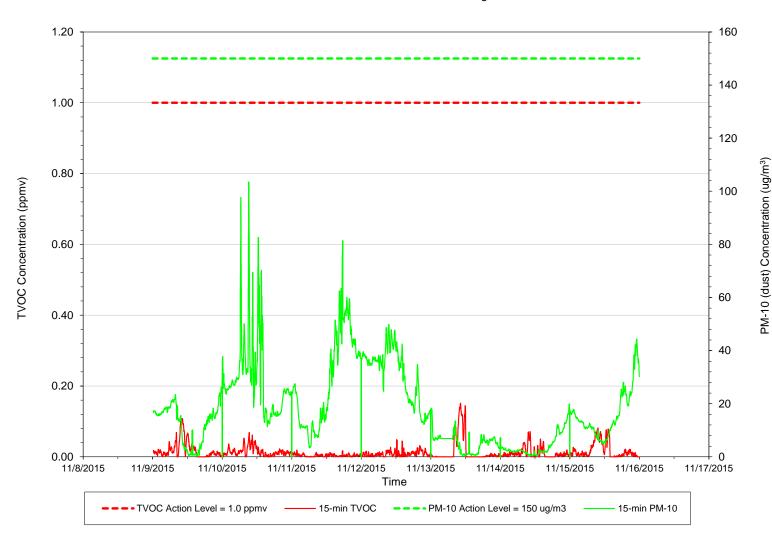
Wind Summary	y Statistics
CALM	0%
UW	3%
UW/CW	0%
CW	0%
CW/DW	0%
DW	10%
DW/CW	7%
CW/UW	80%
TOTAL	100%





Perimeter Air Monitoring Station - STA 1

15-minute average concentrations



Weekly
Data Summary Statistics

TVOC Avg =	0.01
PM-10 Avg =	18.21

Daily

Data Summary	Statistics
TVOC max =	(15Min Avg)
11/9/2015	0.11
11/10/2015	0.07
11/11/2015	0.02
11/12/2015	0.05
11/13/2015	0.15
11/14/2015	0.07
11/15/2015	0.08
PM10 max=	(15Min Avg)
PM10 max= 11/9/2015	(15Min Avg) 28.55
	٠,
11/9/2015	28.55
11/9/2015 11/10/2015	28.55 103.54
11/9/2015 11/10/2015 11/11/2015	28.55 103.54 81.39
11/9/2015 11/10/2015 11/11/2015 11/12/2015	28.55 103.54 81.39 49.87
11/9/2015 11/10/2015 11/11/2015 11/12/2015 11/13/2015	28.55 103.54 81.39 49.87 18.34

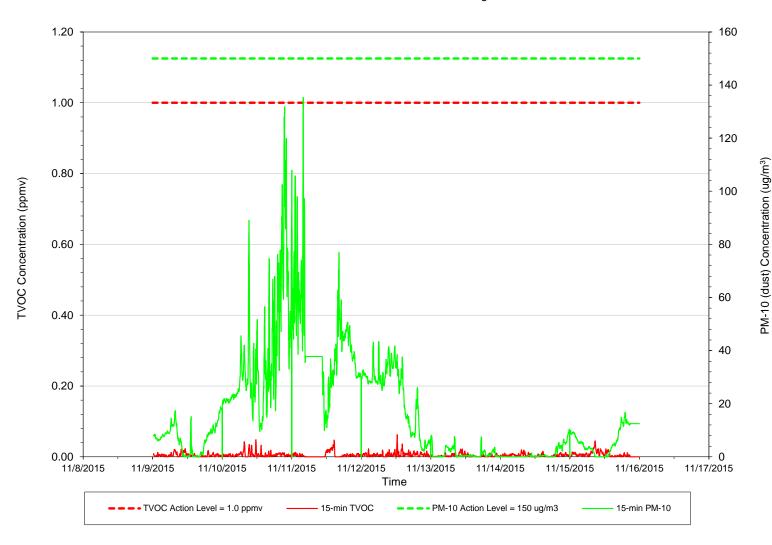
Wind Summary Statistics	
CALM	0%
UW	28%
UW/CW	0%
CW	62%
CW/DW	1%
DW	5%
DW/CW	3%
CW/UW	1%
TOTAL	100%



Filename: J:\170,000-179,999\171521\171521-41.MMS\Field Work\Air Monitoring\AirLogics Weekly Summary Reports\11.2&9.2015 WeeklyData\STA1_WEEKLYDEMAND.xls

Perimeter Air Monitoring Station - STA 2

15-minute average concentrations



vveekiy	
Data Summary Statistic	S

TVOC Avg =	0.01
PM-10 Avg =	17.13

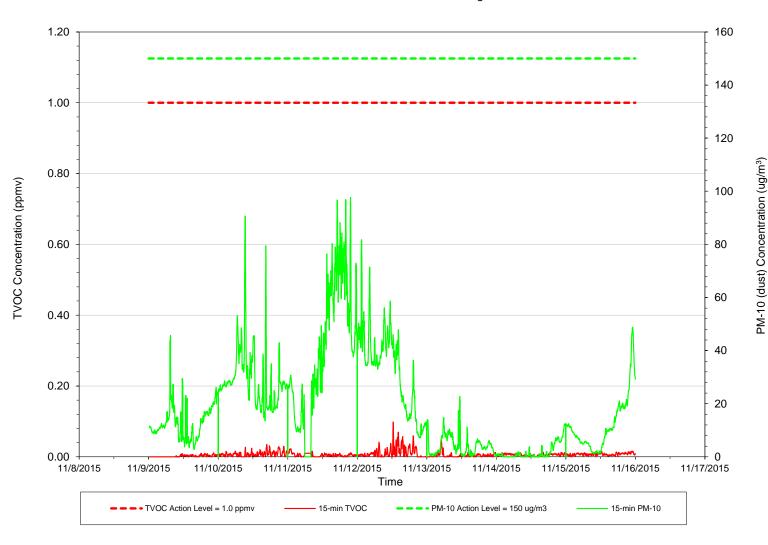
Data Summary	Statistics
TVOC max =	(15Min Avg)
11/9/2015	0.02
11/10/2015	0.05
11/11/2015	0.05
11/12/2015	0.06
11/13/2015	0.02
11/14/2015	0.02
11/15/2015	0.05
,,	0.00
PM10 max=	(15Min Avg)
PM10 max=	(15Min Avg)
PM10 max= 11/9/2015	(15Min Avg) 18.85
PM10 max= 11/9/2015 11/10/2015	(15Min Avg) 18.85 131.79
PM10 max= 11/9/2015 11/10/2015 11/11/2015	(15Min Avg) 18.85 131.79 135.32
PM10 max= 11/9/2015 11/10/2015 11/11/2015 11/12/2015	(15Min Avg) 18.85 131.79 135.32 43.37
PM10 max= 11/9/2015 11/10/2015 11/11/2015 11/12/2015 11/13/2015	(15Min Avg) 18.85 131.79 135.32 43.37 8.14

147: 10	0
Wind Summary Statistics	
CALM	0%
UW	27%
UW/CW	0%
CW	0%
CW/DW	0%
DW	65%
DW/CW	2%
CW/UW	6%
TOTAL	100%



Perimeter Air Monitoring Station - STA 3

15-minute average concentrations



Weekly
Data Summary Statistics

TVOC Avg = 0.01PM-10 Avg = 19.02

Daily

Data Summary Statistics TVOC max = (15Min Avg) 11/9/2015 0.01 11/10/2015 0.03 0.02 11/11/2015 11/12/2015 0.10 11/13/2015 0.05 11/14/2015 0.01 11/15/2015 0.02 PM10 max= (15Min Avg) 11/9/2015 45.66 90.65 11/10/2015 11/11/2015 97.61 81.78 11/12/2015 11/13/2015 22.72 12.60 11/14/2015 11/15/2015 48.84

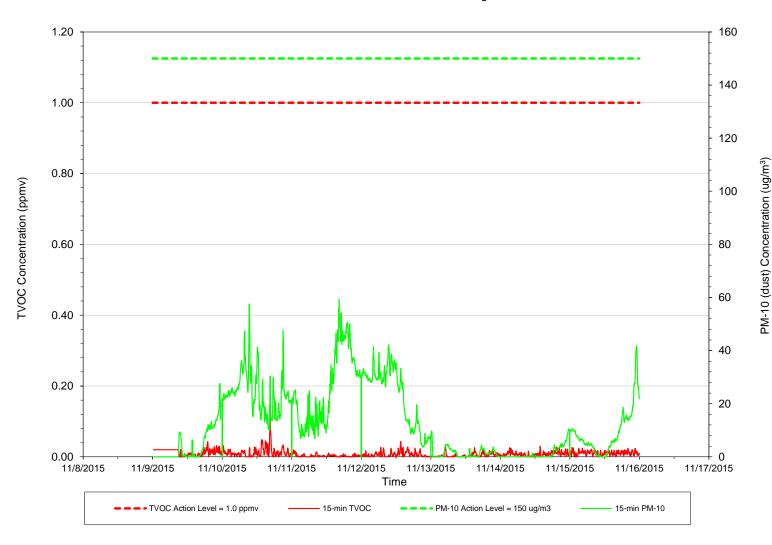
Wind Summary Statistics	
CALM	0%
UW	13%
UW/CW	0%
CW	4%
CW/DW	1%
DW	79%
DW/CW	2%
CW/UW	0%
ΤΟΤΔΙ	100%



Filename: J:\170,000-179,999\171521\171521-41.MMS\Field Work\Air Monitoring\AirLogics Weekly Summary Reports\11.2&9.2015 WeeklyData\STA3_WEEKLYDEMAND.xls

Perimeter Air Monitoring Station - STA 4

15-minute average concentrations



vveekiy	
Data Summary Statistic	S

TVOC Avg = 0.01 PM-10 Avg = 12.70

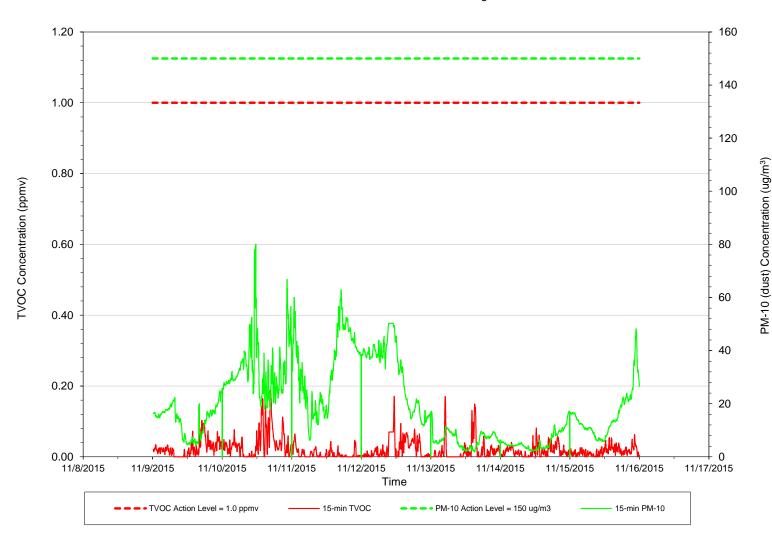
Data Summary	Statistics
TVOC max =	(15Min Avg)
11/9/2015	0.04
11/10/2015	0.11
11/11/2015	0.02
11/12/2015	0.04
11/13/2015	0.03
11/14/2015	0.03
11/15/2015	0.03
PM10 max=	(15Min Avg)
11/9/2015	27.69
11/10/2015	57.50
11/11/2015	59.23
11/12/2015	42.13
11/13/2015	9.65
11/14/2015	10.41
11/15/2015	41.63

Wind Summary Statistics	
CALM	0%
UW	24%
UW/CW	0%
CW	0%
CW/DW	0%
DW	21%
DW/CW	0%
CW/UW	55%
TOTAL	100%



Perimeter Air Monitoring Station - STA 5

15-minute average concentrations



Data Summary Statistics

TVOC Avg = 0.02 PM-10 Avg = 19.88

Daily

Weekly

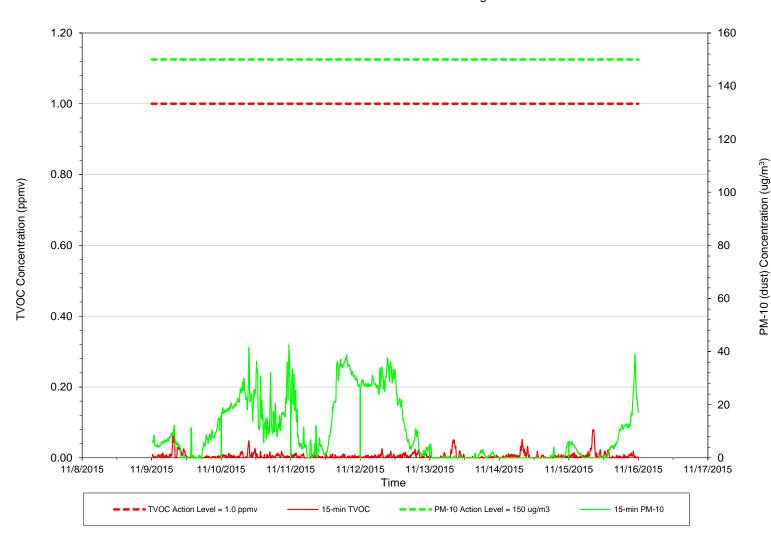
Data Summary	Statistics
TVOC max =	(15Min Avg)
11/9/2015	0.10
11/10/2015	0.19
11/11/2015	0.06
11/12/2015	0.17
11/13/2015	0.17
11/14/2015	0.08
11/15/2015	0.06
PM10 max=	(15Min Avg)
11/9/2015	25.53
11/10/2015	80.02
11/11/2015	62.91
11/12/2015	50.27
11/13/2015	17.20
11/14/2015	17.19
11/15/2015	48.23

Wind Summary Statistics	
CALM	0%
UW	17%
UW/CW	0%
CW	0%
CW/DW	0%
DW	16%
DW/CW	0%
CW/UW	67%
TOTAL	100%



Perimeter Air Monitoring Station - STA 6

15-minute average concentrations



Data Summary Statistics TVOC Avg = 0.01 PM-10 Avg = 9.69 Daily **Data Summary Statistics** TVOC max = (15Min Avg) 11/9/2015 0.07 11/10/2015 0.05 11/11/2015 0.01 0.03 11/12/2015 11/13/2015 0.05 11/14/2015 0.05 11/15/2015 0.08 PM10 max= (15Min Avg) 11/9/2015 15.84 42.50 11/10/2015 11/11/2015 38.79 37.56 11/12/2015 11/13/2015 5.31 6.05 11/14/2015 11/15/2015 39.03

Weekly

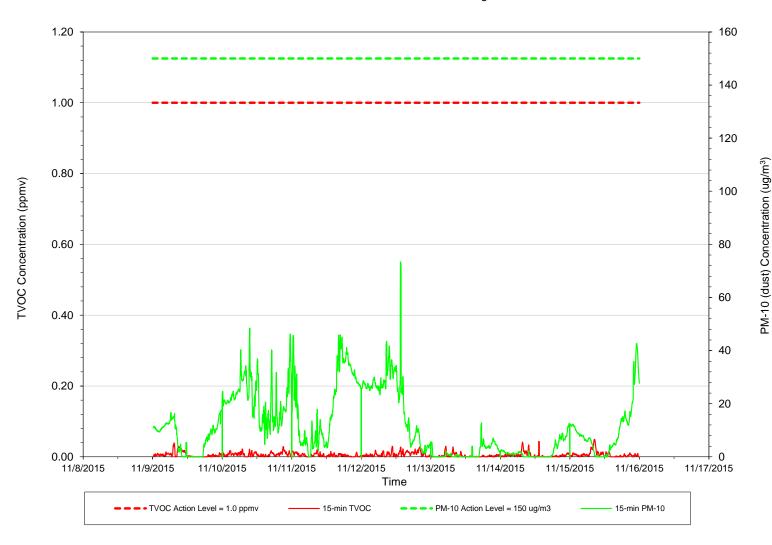
Wind Summary Statistics	
CALM	0%
UW	0%
UW/CW	0%
CW	22%
CW/DW	2%
DW	10%
DW/CW	0%
CW/UW	66%
TOTAL	100%

Filename: J:\170,000-179,999\171521\171521-41.MMS\Field Work\Air Monitoring\AirLogics Weekly Summary Reports\11.2&9.2015 WeeklyData\STA6_WEEKLYDEMAND.xls



Perimeter Air Monitoring Station - STA 7

15-minute average concentrations



vveekiy	
Data Summary Statistics	

TVOC Avg =	0.01
PM-10 Avg =	11.79

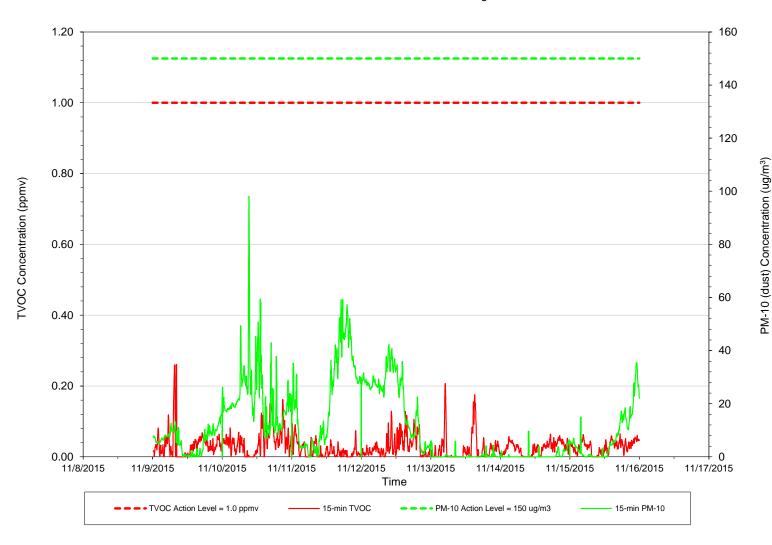
,	
Data Summary Statistics	
TVOC max =	(15Min Avg)
11/9/2015	0.04
11/10/2015	0.03
11/11/2015	0.02
11/12/2015	0.03
11/13/2015	0.03
11/14/2015	0.04
11/15/2015	0.05
PM10 max=	(15Min Avg)
11/9/2015	21.28
11/10/2015	48.43
11/11/2015	45.90
11/12/2015	73.47
11/13/2015	12.78
11/14/2015	12.59
11/15/2015	42.63

Wind Summary Statistics	
CALM	0%
UW	14%
UW/CW	0%
CW	0%
CW/DW	2%
DW	17%
DW/CW	2%
CW/UW	65%
TOTAL	100%



Perimeter Air Monitoring Station - STA 8

15-minute average concentrations

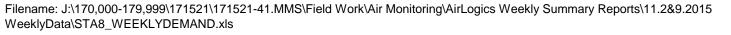


Weekly
Data Summary Statistics

TVOC Avg = 0.03 PM-10 Avg = 11.53

Data Summary	Statistics
TVOC max =	(15Min Avg)
11/9/2015	0.26
11/10/2015	0.16
11/11/2015	0.09
11/12/2015	0.13
11/13/2015	0.21
11/14/2015	0.06
11/15/2015	0.07
PM10 max=	(15Min Avg)
PM10 max= 11/9/2015	(15Min Avg) 21.81
	٠,
11/9/2015	21.81
11/9/2015 11/10/2015	21.81 98.13
11/9/2015 11/10/2015 11/11/2015	21.81 98.13 59.16
11/9/2015 11/10/2015 11/11/2015 11/12/2015	21.81 98.13 59.16 42.39
11/9/2015 11/10/2015 11/11/2015 11/12/2015 11/13/2015	21.81 98.13 59.16 42.39 6.03

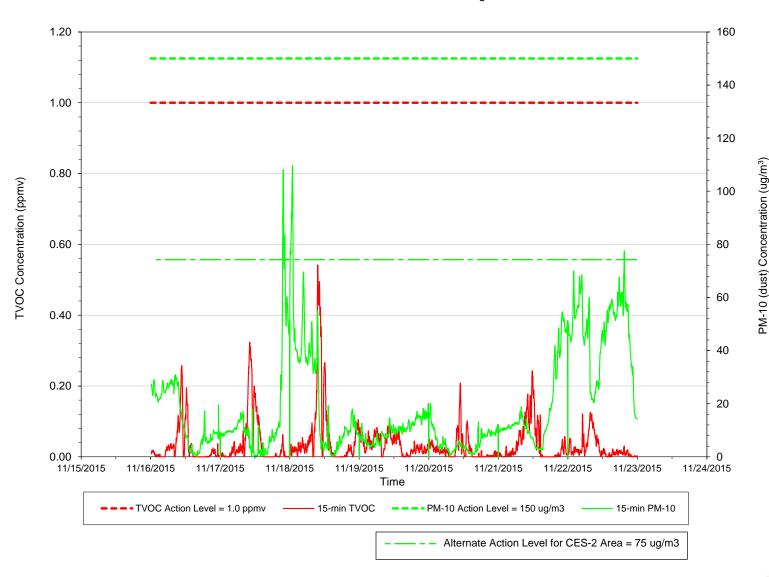
Wind Summary Statistics	
CALM	0%
UW	14%
UW/CW	0%
CW	0%
CW/DW	2%
DW	17%
DW/CW	2%
CW/UW	65%
TOTAL	100%





Perimeter Air Monitoring Station - STA 1

15-minute average concentrations



Weekly	
Data Summary Sta	tistics

TVOC Avg = 0.04 PM-10 Avg = 18.84

Daily

Data Summary	Statistics
TVOC max =	(15Min Avg)
11/16/2015	0.26
11/17/2015	0.32
11/18/2015	0.54
11/19/2015	0.10
11/20/2015	0.21
11/21/2015	0.24
11/22/2015	0.13
PM10 max=	(15Min Avg)
PM10 max= 11/16/2015	(15Min Avg) 31.00
	٠
11/16/2015	31.00
11/16/2015 11/17/2015	31.00 108.03
11/16/2015 11/17/2015 11/18/2015	31.00 108.03 109.75
11/16/2015 11/17/2015 11/18/2015 11/19/2015	31.00 108.03 109.75 20.02
11/16/2015 11/17/2015 11/18/2015 11/19/2015 11/20/2015	31.00 108.03 109.75 20.02 20.05

Wind Summary Statistics	
CALM	20%
UW	38%
UW/CW	0%
CW	32%
CW/DW	2%
DW	5%
DW/CW	0%
CW/UW	2%
TOTAL	100%

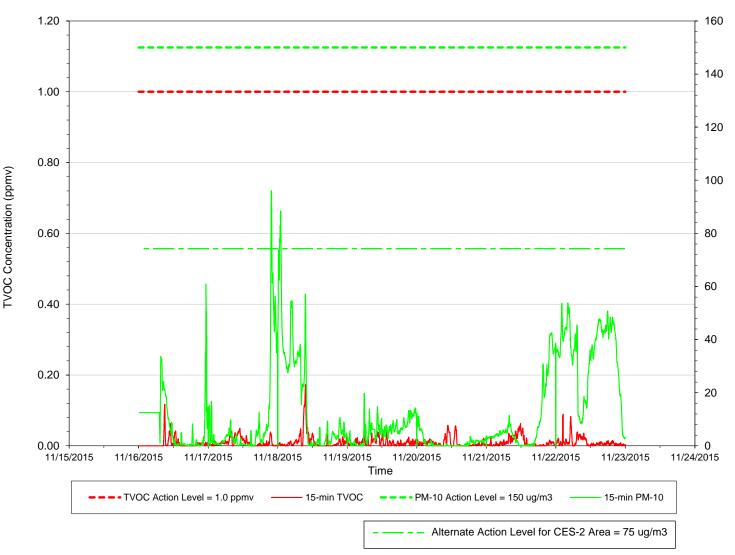


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Perimeter Air Monitoring Station - STA 2

15-minute average concentrations



Weekly
Data Summary Statistics

TVOC Avg = 0.01PM-10 Avg = 12.16

Daily

PM-10 (dust) Concentration (ug/m³)

Data Summary Statistics TVOC max = (15Min Avg) 11/16/2015 0.12 11/17/2015 0.05 11/18/2015 0.17 11/19/2015 0.04 11/20/2015 0.06 11/21/2015 0.06 11/22/2015 0.09 PM10 max= (15Min Avg) 11/16/2015 60.84 11/17/2015 96.12 11/18/2015 88.34 11/19/2015 19.71 11/20/2015 12.33 42.57 11/21/2015 11/22/2015 53.82

Wind Summary Statistics	
CALM	20%
UW	30%
UW/CW	0%
CW	0%
CW/DW	2%
DW	24%
DW/CW	4%
CW/UW	18%
ΤΟΤΔΙ	100%



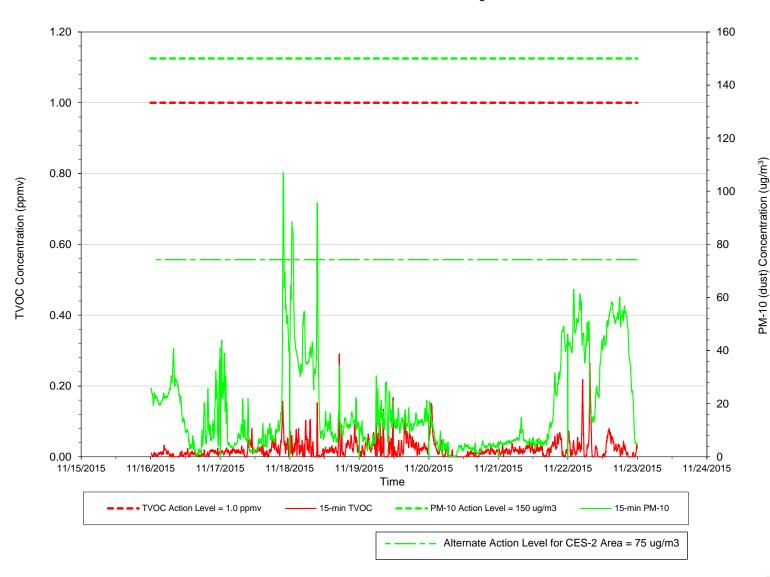
Filename: J:\170,000-179,999\171521\171521-41.MMS\Field Work\Air Monitoring\AirLogics Weekly Summary Reports\11.16.2015 We Data\STA2_WEEKLY111615.xls

Data\STA3_WEEKLY111615.xls

AirLogics Perimeter Air Monitoring System - Weekly Results **Wynn Casino and Resort Site Everett, Massachusetts**

Perimeter Air Monitoring Station - STA 3

15-minute average concentrations

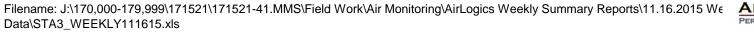


Weekly	
Data Summary Statistics	s

TVOC Avg =	0.02
PM-10 Avg =	18.15

,	
Data Summary Statistics	
TVOC max =	(15Min Avg)
11/16/2015	0.03
11/17/2015	0.16
11/18/2015	0.29
11/19/2015	0.17
11/20/2015	0.15
11/21/2015	0.07
11/22/2015	0.27
PM10 max=	(15Min Avg)
11/16/2015	40.95
11/17/2015	107.04
11/18/2015	95.53
11/19/2015	30.49
11/20/2015	20.86
11/21/2015	49.15
11/22/2015	63.06

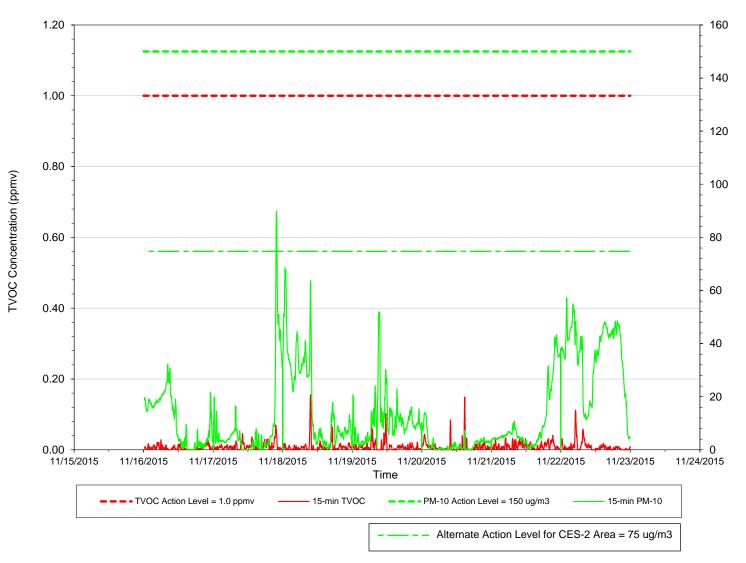
Wind Summary Statistics	
CALM	20%
UW	26%
UW/CW	2%
CW	6%
CW/DW	0%
DW	41%
DW/CW	4%
CW/UW	0%
TOTAL	100%





Perimeter Air Monitoring Station - STA 4

15-minute average concentrations



Weekly
Data Summary Statistics

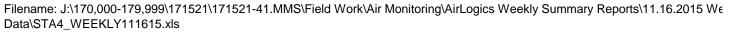
TVOC Avg = 0.01PM-10 Avg = 13.78

Daily

PM-10 (dust) Concentration (ug/m³)

Data Summary Statistics	
TVOC max =	(15Min Avg)
11/16/2015	0.03
11/17/2015	0.07
11/18/2015	0.16
11/19/2015	0.10
11/20/2015	0.15
11/21/2015	0.04
11/22/2015	0.11
PM10 max=	(15Min Avg)
11/16/2015	32.22
11/17/2015	89.79
11/18/2015	68.59
11/19/2015	51.85
11/20/2015	14.00
11/21/2015	43.36
11/22/2015	57.12

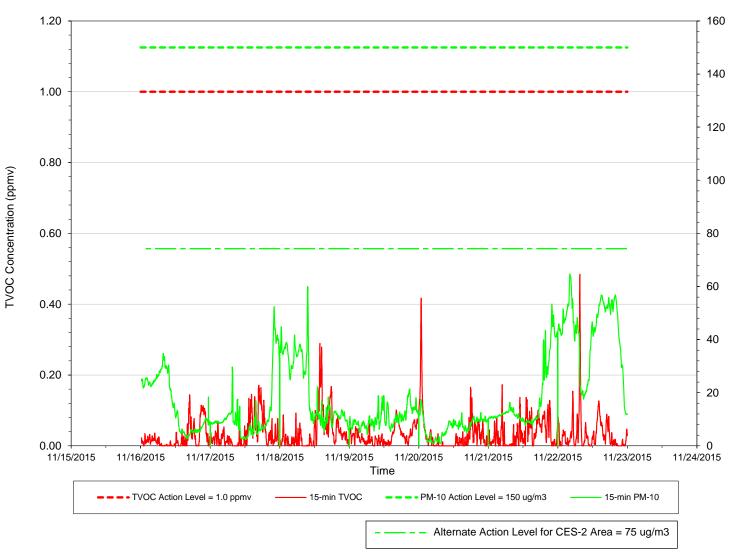
Wind Summary Statistics	
CALM	20%
UW	33%
UW/CW	0%
CW	0%
CW/DW	0%
DW	13%
DW/CW	0%
CW/UW	34%
TOTAL	100%





Perimeter Air Monitoring Station - STA 5

15-minute average concentrations



Weekly
Data Summary Statistics

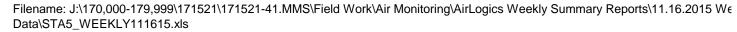
TVOC Avg = 0.04 PM-10 Avg = 17.97

Daily

PM-10 (dust) Concentration (ug/m³)

Data Summary Statistics TVOC max = (15Min Avg) 11/16/2015 0.14 11/17/2015 0.17 11/18/2015 0.29 11/19/2015 0.10 11/20/2015 0.42 11/21/2015 0.17 11/22/2015 0.48 PM10 max= (15Min Avg) 11/16/2015 34.86 11/17/2015 52.39 11/18/2015 59.99 11/19/2015 21.41 11/20/2015 17.39 53.42 11/21/2015 11/22/2015 64.74

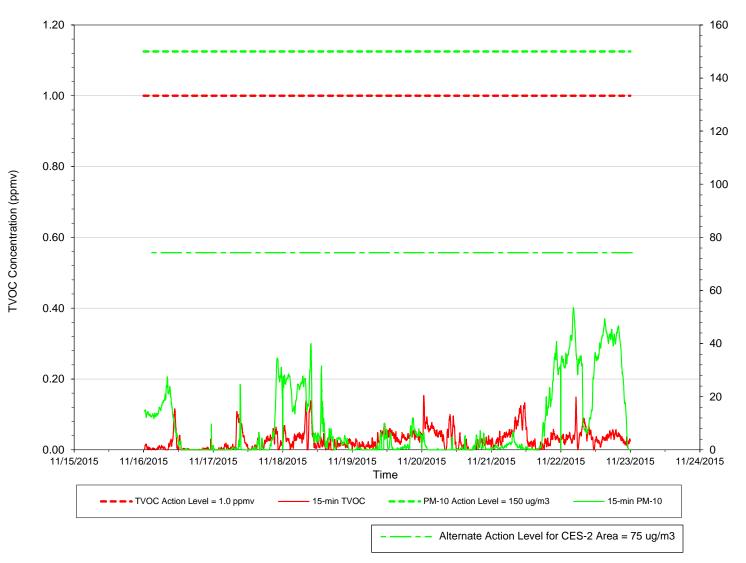
Wind Summary Statistics	
CALM	20%
UW	34%
UW/CW	0%
CW	0%
CW/DW	0%
DW	11%
DW/CW	0%
CW/UW	35%
TOTAL	100%





Perimeter Air Monitoring Station - STA 6

15-minute average concentrations



Data Summary Statistics	
0.03	
9.35	
Statistics	
(15Min Avg)	
0.12	
0.11	
0.14	
0.07	
0.15	
0.13	
0.15	
(15Min Avg)	
27.48	
34.54	
40.04	
12.01	
7.24	
40.79	

Weekly

PM-10 (dust) Concentration (ug/m³)

Wind Summary Statistics	
CALM	20%
UW	0%
UW/CW	0%
CW	24%
CW/DW	1%
DW	18%
DW/CW	2%
CW/UW	34%
TOTAL	100%

53.53

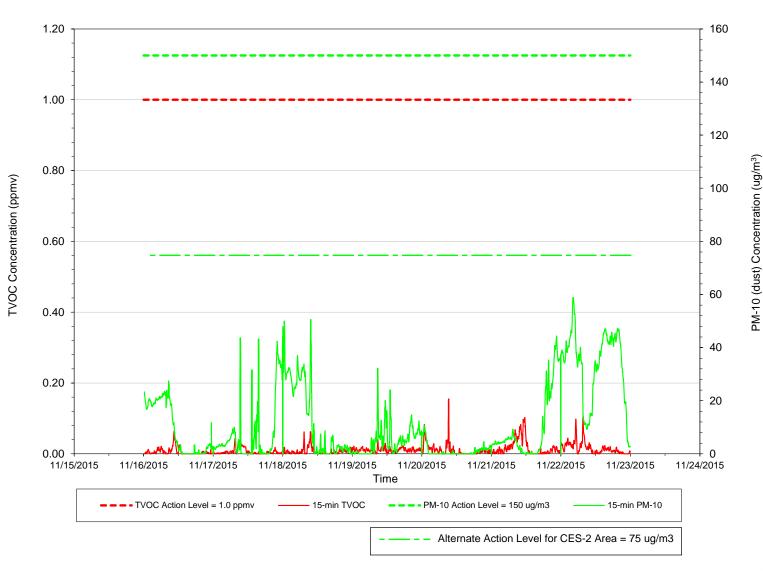
11/22/2015





Perimeter Air Monitoring Station - STA 7

15-minute average concentrations



Weekly
Data Summary Statistics

TVOC Avg =	0.01
PM-10 Avg =	11.39

Daily Data Summary Statistics

Data Summary	Statistics
TVOC max =	(15Min Avg)
11/16/2015	0.06
11/17/2015	0.04
11/18/2015	0.06
11/19/2015	0.04
11/20/2015	0.15
11/21/2015	0.10
11/22/2015	0.10
PM10 max=	(15Min Avg)
PM10 max= 11/16/2015	(15Min Avg) 27.44
	`
11/16/2015	27.44
11/16/2015 11/17/2015	27.44 44.23
11/16/2015 11/17/2015 11/18/2015	27.44 44.23 50.54
11/16/2015 11/17/2015 11/18/2015 11/19/2015	27.44 44.23 50.54 32.23
11/16/2015 11/17/2015 11/18/2015 11/19/2015 11/20/2015	27.44 44.23 50.54 32.23 10.87

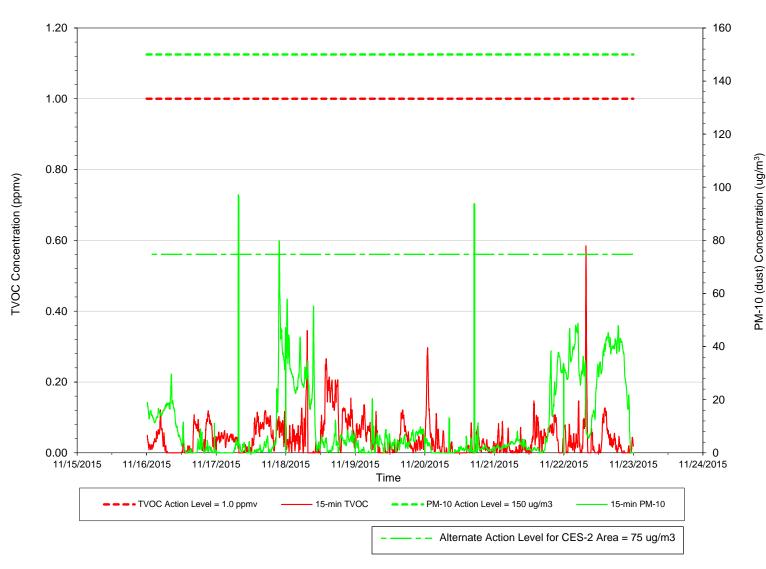
Wind Summary Statistics	
CALM	20%
UW	10%
UW/CW	0%
CW	0%
CW/DW	1%
DW	34%
DW/CW	0%
CW/UW	34%
TOTAL	100%



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Perimeter Air Monitoring Station - STA 8

15-minute average concentrations



,
Data Summary Statistics
zata carrinary ctanonico

TVOC Avg = 0.04 PM-10 Avg = 10.68

Daily

Weekly

Data Summary	Statistics
TVOC max =	(15Min Avg)
11/16/2015	0.12
11/17/2015	0.12
11/18/2015	0.34
11/19/2015	0.14
11/20/2015	0.30
11/21/2015	0.15
11/22/2015	0.58
PM10 max=	(15Min Avg)
11/16/2015	29.64
11/17/2015	97.17
11/18/2015	57.86
11/19/2015	20.42
11/20/2015	93.77
11/21/2015	38.36
11/22/2015	48.82

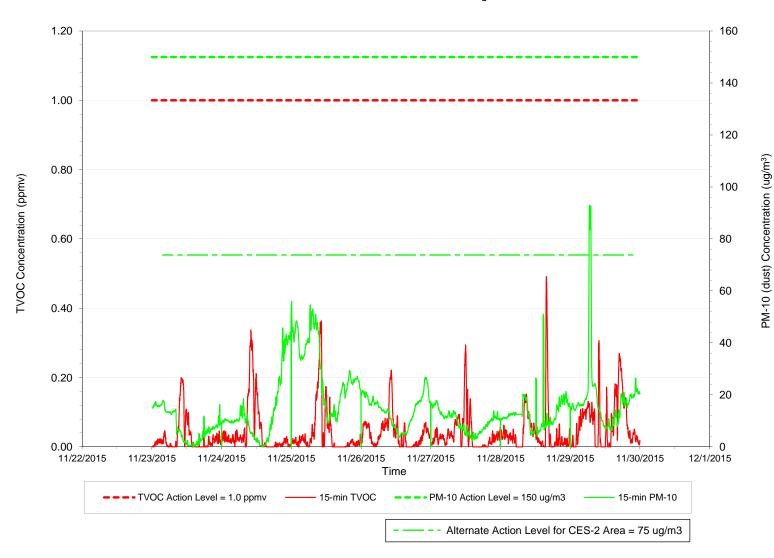
Wind Summary Statistics	
CALM	20%
UW	10%
UW/CW	0%
CW	0%
CW/DW	1%
DW	34%
DW/CW	0%
CW/UW	34%
TOTAL	100%



Filename: J:\170,000-179,999\171521\171521-41.MMS\Field Work\Air Monitoring\AirLogics Weekly Summary Reports\11.16.2015 W€ Data\STA8_WEEKLY111615.xls

Perimeter Air Monitoring Station - STA 1

15-minute average concentrations



TVOC Avg = PM-10 Avg =	0.05 15.14
Daily Data Summary	Statistics
TVOC max =	
11/23/2015	0.20
11/24/2015	0.34
11/25/2015	0.36
11/26/2015	0.22
11/27/2015	0.29
11/28/2015	0.49
11/29/2015	0.31
PM10 max=	(15Min Avg)
11/23/2015	17.80
11/24/2015	51.58
11/25/2015	56.04
11/26/2015	26.80

Weekly

Data Summary Statistics

Wind Summary Statistics	
CALM	7%
UW	23%
UW/CW	0%
CW	48%
CW/DW	1%
DW	12%
DW/CW	7%
CW/UW	2%
TOTAL	100%

17.79

51.03

93.02

11/27/2015

11/28/2015

11/29/2015

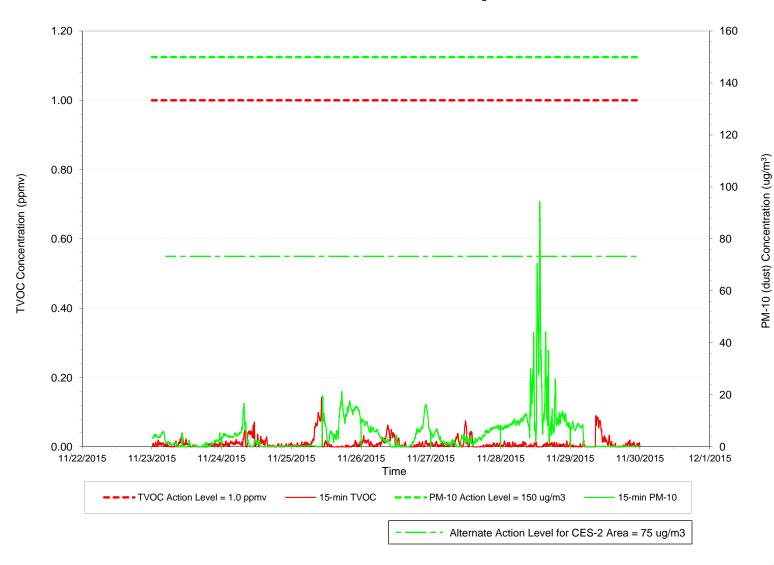


PERIMETER AIR MONITORING SYSTEMS PROACTIVE BY DESIGN

Filename: J:\170,000-179,999\171521\171521-41.MMS\Field Work\Air Monitoring\AirLogics Weekly Summary Reports\11.23.2015 We Data\STA1_WEEKLY112315.xls

Perimeter Air Monitoring Station - STA 2

15-minute average concentrations



TVOC Avg =	0.01
PM-10 Avg =	4.87
Daily	
•	
Data Summary :	Statistics
TVOC max =	(15Min Avg)
11/23/2015	0.03
11/24/2015	0.07
11/25/2015	0.14
11/26/2015	0.06
11/27/2015	0.08
11/28/2015	0.02
11/29/2015	0.09
PM10 max=	(15Min Avg)
11/23/2015	6.12
11/24/2015	16.70
11/25/2015	21.27
11/26/2015	16.27

8.30

94.32

9.87

Weekly

Data Summary Statistics

Wind Summary Statistics	
CALM	7%
UW	19%
UW/CW	0%
CW	0%
CW/DW	1%
DW	50%
DW/CW	3%
CW/UW	19%
TOTAL	100%

11/27/2015

11/28/2015

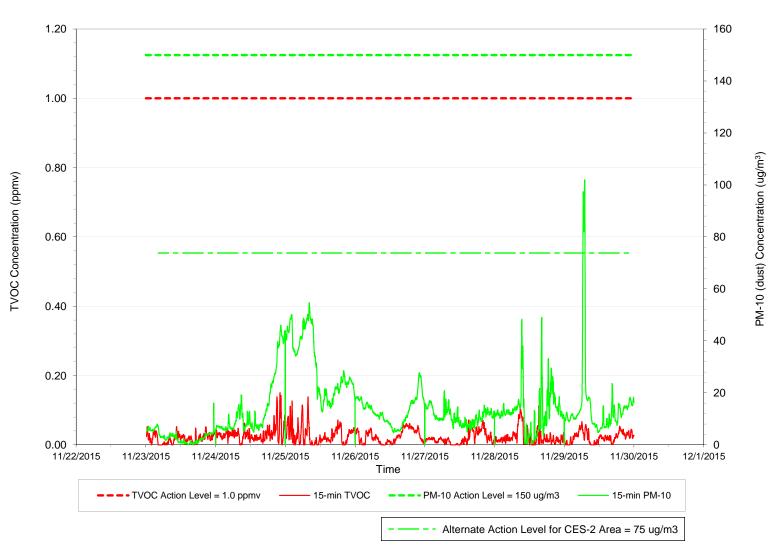
11/29/2015



Filename: J:\170,000-179,999\171521\171521-41.MMS\Field Work\Air Monitoring\AirLogics Weekly Summary Reports\11.23.2015 We Data\STA2_WEEKLY112315.xls

Perimeter Air Monitoring Station - STA 3

15-minute average concentrations



TVOC Avg = PM-10 Avg =	0.02 14.23
1 W 10 7Wg =	14.20
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
11/23/2015	0.05
11/24/2015	0.15
11/25/2015	0.14
11/26/2015	0.06
11/27/2015	0.07
11/28/2015	0.11
11/29/2015	0.07
PM10 max=	(15Min Avg)
11/23/2015	16.04
11/24/2015	45.97
11/25/2015	54.69
11/26/2015	27.70

Weekly

Data Summary Statistics

Wind Summary Statistics	
CALM	7%
UW	13%
UW/CW	1%
CW	7%
CW/DW	5%
DW	61%
DW/CW	4%
CW/UW	0%
TOTAL	100%

20.88

48.99

101.95

11/27/2015

11/28/2015

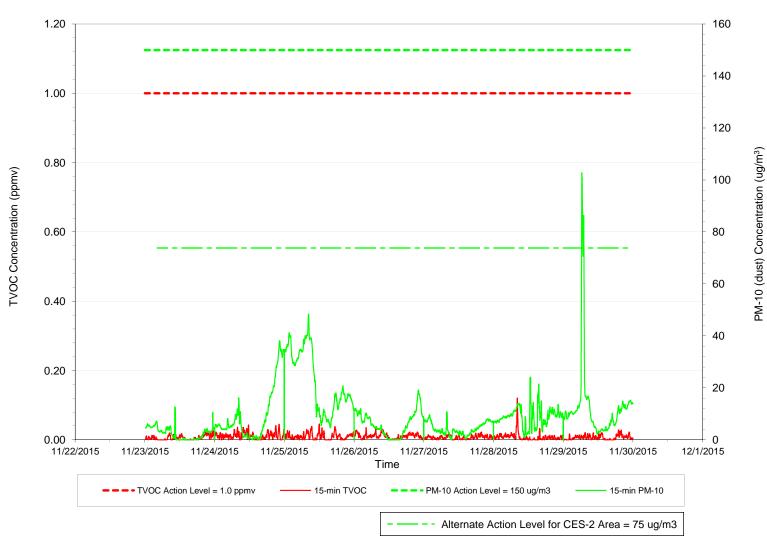
11/29/2015

Filename: J:\170,000-179,999\171521\171521-41.MMS\Field Work\Air Monitoring\AirLogics Weekly Summary Reports\11.23.2015 We Data\STA3_WEEKLY112315.xls



Perimeter Air Monitoring Station - STA 4

15-minute average concentrations



Data Summary	Statistics
TVOC Avg = PM-10 Avg =	0.01 9.50
Daily Data Summary	Statistics
TVOC max =	
11/23/2015	0.03
11/24/2015	0.04
11/25/2015	0.05
11/26/2015	0.04
11/27/2015	0.02
11/28/2015	0.12
11/29/2015	0.03
PM10 max=	(15Min Avg)
11/23/2015	12.70
11/24/2015	38.13
11/25/2015	48.40
11/26/2015	19.12
11/27/2015	10.80
11/28/2015	24.11
11/29/2015	102.74
11/29/2015	102.74

Weekly

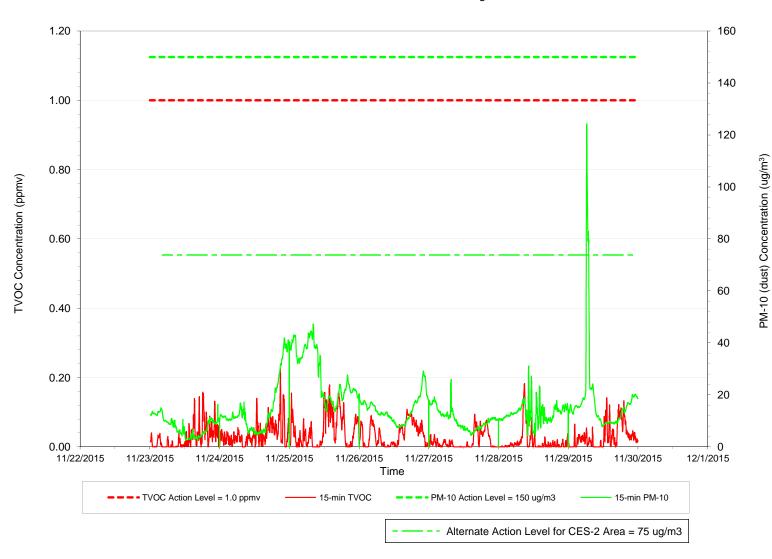
Wind Summary	Statistics
CALM	7%
UW	38%
UW/CW	0%
CW	0%
CW/DW	0%
DW	11%
DW/CW	0%
CW/UW	44%
TOTAL	100%

Filename: J:\170,000-179,999\171521\171521-41.MMS\Field Work\Air Monitoring\AirLogics Weekly Summary Reports\11.23.2015 We Data\STA4_WEEKLY112315.xls



Perimeter Air Monitoring Station - STA 5

15-minute average concentrations



TVOC Avg = PM-10 Avg =	0.03 15.19
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
11/23/2015	0.16
11/24/2015	0.22
11/25/2015	0.18
11/26/2015	0.11
11/27/2015	0.09

PM10 max= (15Min Avg)

0.18

0.14

16.34

41.94

47.27

29.21

25.89

31.11

124.31

11/28/2015

11/29/2015

11/23/2015

11/24/2015

11/25/2015

11/26/2015

11/27/2015

11/28/2015

11/29/2015

Data Summary Statistics

Weekly

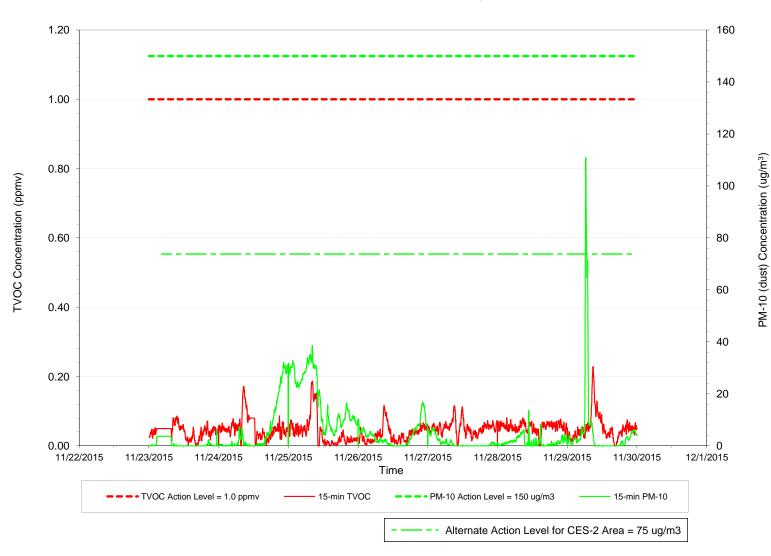
Wind Summary	Statistics
CALM	7%
UW	24%
UW/CW	0%
CW	0%
CW/DW	0%
DW	9%
DW/CW	0%
CW/UW	59%
TOTAL	100%

AIRLOGICS, LLC PERIMETER AIR MONITORING SYSTEMS PROACTIVE BY DESIGN

Filename: J:\170,000-179,999\171521\171521-41.MMS\Field Work\Air Monitoring\AirLogics Weekly Summary Reports\11.23.2015 We Data\STA5_WEEKLY112315.xls

Perimeter Air Monitoring Station - STA 6

15-minute average concentrations



Data Summary :	Statistics
TVOC Avg =	0.05
PM-10 Avg =	5.32
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
11/23/2015	0.09
11/24/2015	0.17
11/25/2015	0.19
11/26/2015	0.12
11/27/2015	0.12
11/28/2015	0.08
11/29/2015	0.23
PM10 max=	(15Min Avg)
11/23/2015	6.04
11/24/2015	32.16
11/25/2015	38.65
11/26/2015	16.85
11/27/2015	7.01
11/28/2015	13.58
11/29/2015	110.85

Weekly

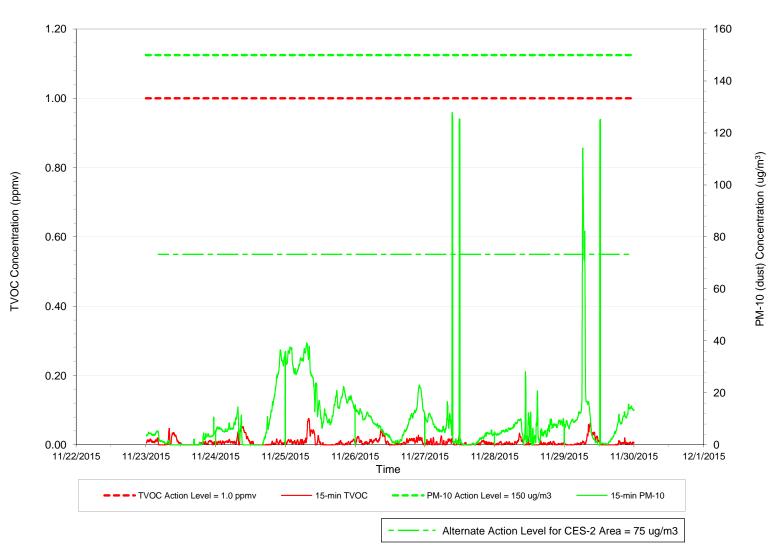
Wind Summary	Statistics
CALM	7%
UW	0%
UW/CW	0%
CW	25%
CW/DW	1%
DW	9%
DW/CW	1%
CW/UW	57%
TOTAL	100%

 $Filename: J:\170,000-179,999\\171521-171521-41.MMS\\Field\ Work\\Air\ Monitoring\\AirLogics\ Weekly\ Summary\ Reports\\11.23.2015\ We\ Data\\STA6_WEEKLY112315.xls$



Perimeter Air Monitoring Station - STA 7

15-minute average concentrations



Data Summary	Statistics
TVOC Avg =	0.01
PM-10 Avg =	9.48
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
11/23/2015	0.05
11/24/2015	0.05
11/25/2015	0.08
11/26/2015	0.04
11/27/2015	0.03
11/28/2015	0.03
11/29/2015	0.06
PM10 max=	(15Min Avg)
11/23/2015	10.74
11/24/2015	36.58
11/25/2015	39.19
11/26/2015	23.00
11/27/2015	127.83
11/28/2015	28.13
11/29/2015	125.19

Weekly

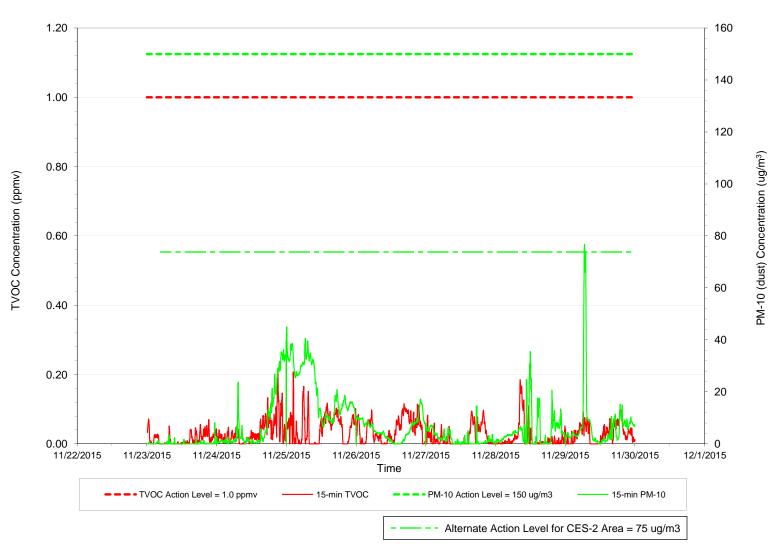
Wind Summary	Statistics
CALM	7%
UW	9%
UW/CW	0%
CW	0%
CW/DW	1%
DW	24%
DW/CW	6%
CW/UW	53%
TOTAL	100%

 $Filename: J:\170,000-179,999\\171521-171521-41.MMS\\Field\ Work\\Air\ Monitoring\\AirLogics\ Weekly\ Summary\ Reports\\11.23.2015\ We\ Data\\STA7_WEEKLY112315.xls$



Perimeter Air Monitoring Station - STA 8

15-minute average concentrations



Data Summary	Statistics
TVOC Avg =	0.03
PM-10 Avg =	7.04
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
11/23/2015	0.07
11/24/2015	0.20
11/25/2015	0.21
11/26/2015	0.12
11/27/2015	0.10
11/28/2015	0.18
11/29/2015	0.10
PM10 max=	(15Min Avg)
11/23/2015	8.15
11/24/2015	39.72
11/25/2015	44.95
11/26/2015	17.22
11/27/2015	14.56
11/28/2015	35.52
11/29/2015	76.76

Weekly

Wind Summar	y Statistics
CALM	7%
UW	9%
UW/CW	0%
CW	0%
CW/DW	1%
DW	24%
DW/CW	6%
CW/UW	53%
TOTAL	100%

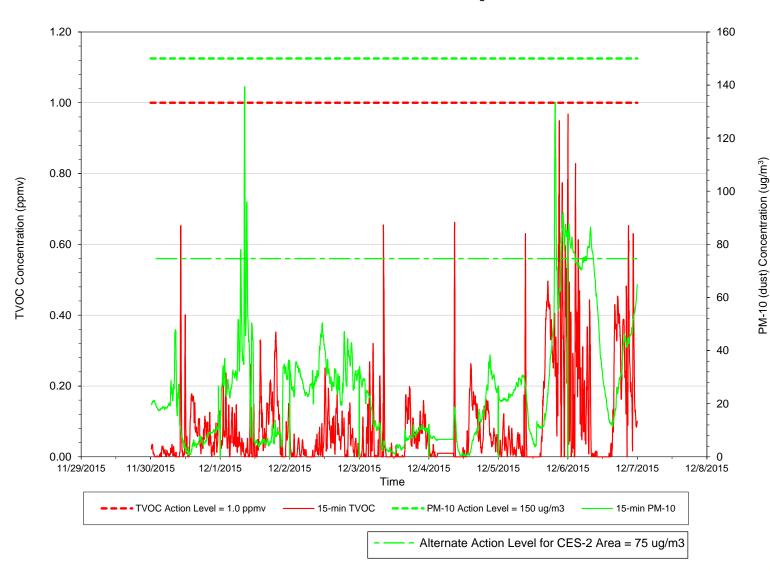


PERIMETER AIR MONITORING SYSTEMS PROACTIVE BY DESIGN

Filename: J:\170,000-179,999\171521\171521-41.MMS\Field Work\Air Monitoring\AirLogics Weekly Summary Reports\11.23.2015 We Data\STA8_WEEKLY112315.xls

Perimeter Air Monitoring Station - STA 1

15-minute average concentrations



vveekiy	
Data Summary Statistics	3

TVOC Avg =	0.09
PM-10 Avg =	24.96

Daily **Data Summary Statistics**

Data Summary	Statistics
TVOC max =	(15Min Avg)
11/30/2015	0.65
12/1/2015	0.35
12/2/2015	0.25
12/3/2015	0.65
12/4/2015	0.66
12/5/2015	0.95
12/6/2015	0.97
PM10 max=	(15Min Avg)
PM10 max= 11/30/2015	(15Min Avg) 47.87
	`
11/30/2015	47.87
11/30/2015 12/1/2015	47.87 139.39
11/30/2015 12/1/2015 12/2/2015	47.87 139.39 50.41
11/30/2015 12/1/2015 12/2/2015 12/3/2015	47.87 139.39 50.41 34.13
11/30/2015 12/1/2015 12/2/2015 12/3/2015 12/4/2015	47.87 139.39 50.41 34.13 38.40

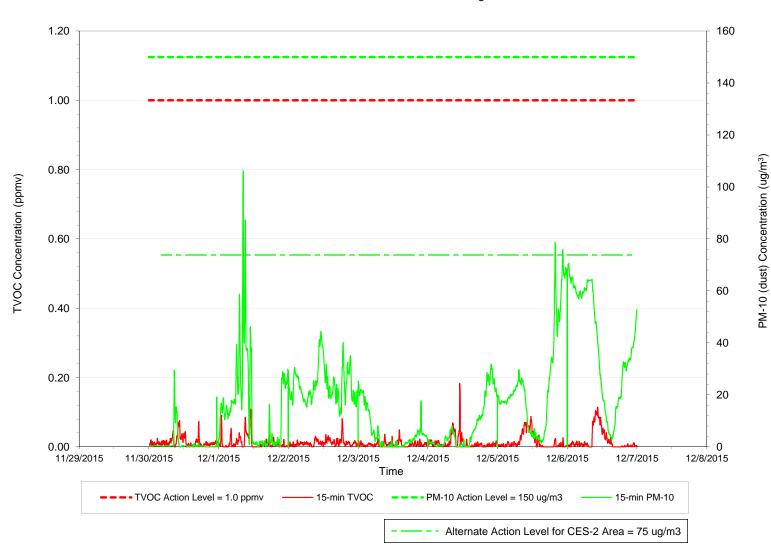
Wind Summary Statistics	
CALM	14%
UW	18%
UW/CW	0%
CW	60%
CW/DW	0%
DW	5%
DW/CW	3%
CW/UW	1%
TOTAL	100%

PROACTIVE BY DESIGN



Perimeter Air Monitoring Station - STA 2

15-minute average concentrations



Data Summary Statistics	
TVOC Avg = PM-10 Avg =	0.02 16.78

Weekly

Daily

Data Summary Statistics	
TVOC max =	(15Min Avg)
11/30/2015	0.08
12/1/2015	0.11
12/2/2015	0.08
12/3/2015	0.05
12/4/2015	0.18
12/5/2015	0.09
12/6/2015	0.11
PM10 max=	(15Min Avg)
PM10 max= 11/30/2015	(15Min Avg) 29.48
	`
11/30/2015	29.48
11/30/2015 12/1/2015	29.48 106.11
11/30/2015 12/1/2015 12/2/2015	29.48 106.11 44.40
11/30/2015 12/1/2015 12/2/2015 12/3/2015	29.48 106.11 44.40 25.30
11/30/2015 12/1/2015 12/2/2015 12/3/2015 12/4/2015	29.48 106.11 44.40 25.30 31.71

Wind Summary Statistics	
CALM 14%	
UW	17%
UW/CW	0%
CW	0%
CW/DW	0%
DW	58%
DW/CW	4%
CW/UW	8%
TOTAL	100%

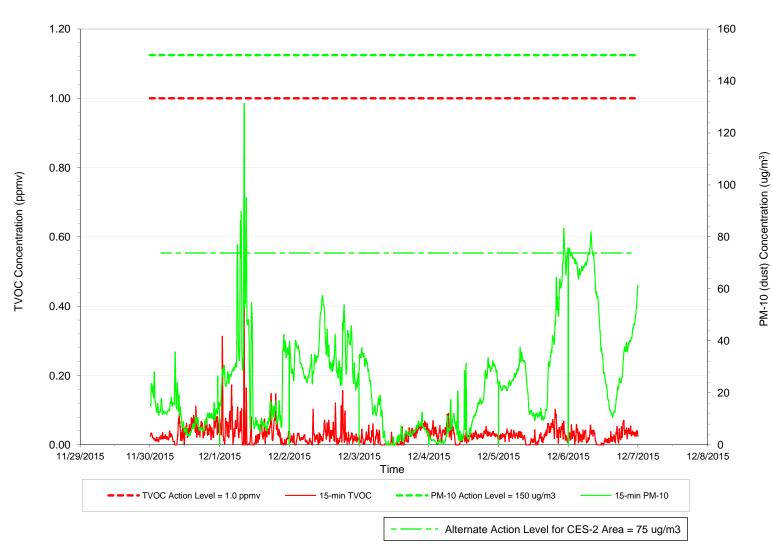


PERIMETER AIR MONITORING SYSTEMS PROACTIVE BY DESIGN

Filename: J:\170,000-179,999\171521\171521-41.MMS\Field Work\Air Monitoring\AirLogics Weekly Summary Reports\11.30.2015 We Data\STA2_WEEKLY113015.xls

Perimeter Air Monitoring Station - STA 3

15-minute average concentrations



TVOC Avg = PM-10 Avg =	0.03 24.63
Daily Data Summary	Statistics
TVOC max =	
11/30/2015	0.11
12/1/2015	0.40
12/2/2015	0.16
12/3/2015	0.07
12/4/2015	0.09
12/5/2015	0.10
12/6/2015	0.07
PM10 max=	(15Min Avg)
11/30/2015	35.75
12/1/2015	131.31
12/2/2015	57.46

12/3/2015

12/4/2015

12/5/2015

12/6/2015

37.41

33.48

83.36

82.01

Data Summary Statistics

Weekly

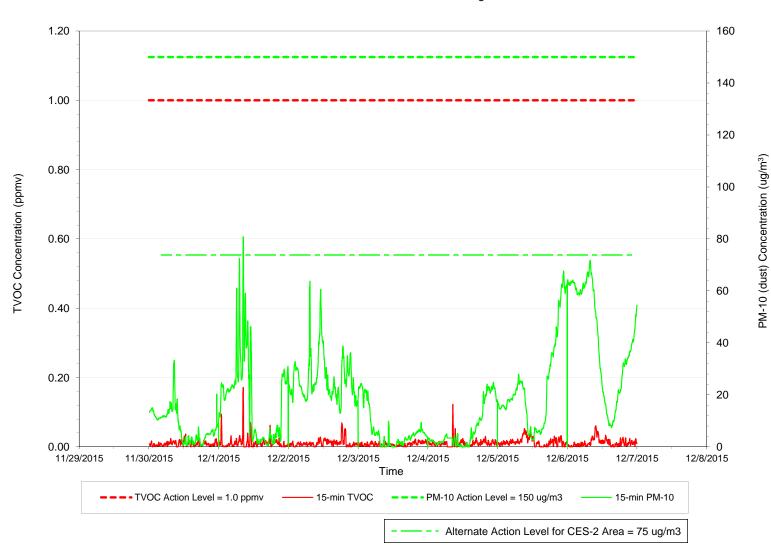
Wind Summary Statistics	
CALM	14%
UW	10%
UW/CW	0%
CW	3%
CW/DW	2%
DW	70%
DW/CW	1%
CW/UW	0%
TOTAL	100%

Filename: J:\170,000-179,999\171521\171521-41.MMS\Field Work\Air Monitoring\AirLogics Weekly Summary Reports\11.30.2015 We Data\STA3_WEEKLY113015.xls



Perimeter Air Monitoring Station - STA 4

15-minute average concentrations



TVOC Avg = PM-10 Avg =	0.01 18.72
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
11/30/2015	0.04
12/1/2015	0.17
12/2/2015	0.07
12/3/2015	0.02
12/4/2015	0.12
12/5/2015	0.05
12/6/2015	0.06
PM10 max=	(15Min Avg)
11/30/2015	33.31
12/1/2015	80.83
12/2/2015	63.72
12/3/2015	24.40

Weekly

Data Summary Statistics

Wind Summary Statistics	
CALM	14%
UW	22%
UW/CW	0%
CW	0%
CW/DW	0%
DW	9%
DW/CW	0%
CW/UW	55%
TOTAL	100%

24.88

67.64

71.75

12/4/2015

12/5/2015

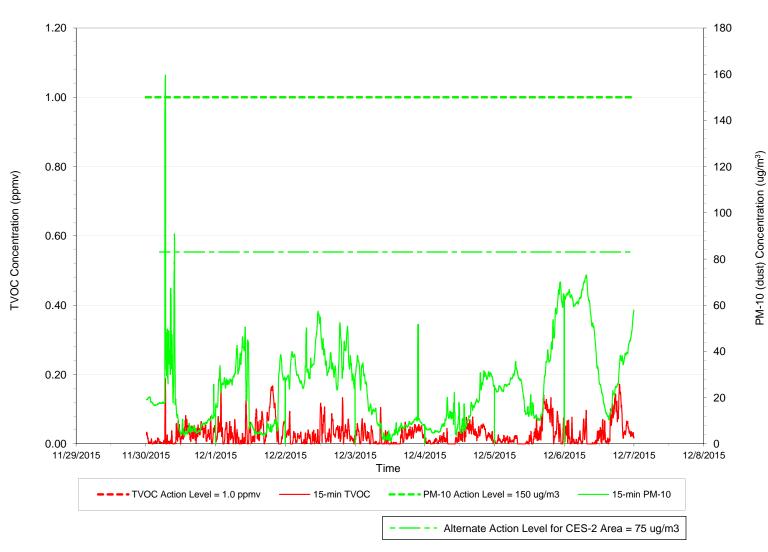
12/6/2015



Filename: J:\170,000-179,999\171521\171521-41.MMS\Field Work\Air Monitoring\AirLogics Weekly Summary Reports\11.30.2015 We Data\STA4_WEEKLY113015.xls

Perimeter Air Monitoring Station - STA 5

15-minute average concentrations

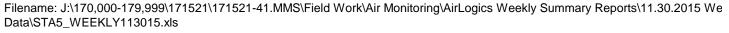


Weekl	y
Data Su	ummary Statistic

TVOC Avg =	0.03
PM-10 Avg =	24.75

Data Summary Statistics	
TVOC max = (15Min Avg)	
0.19	
0.17	
0.13	
0.11	
0.08	
0.14	
0.17	
(15Min Avg)	
159.57	
50.56	
57.39	
51.64	
31.68	
70.05	
72.99	

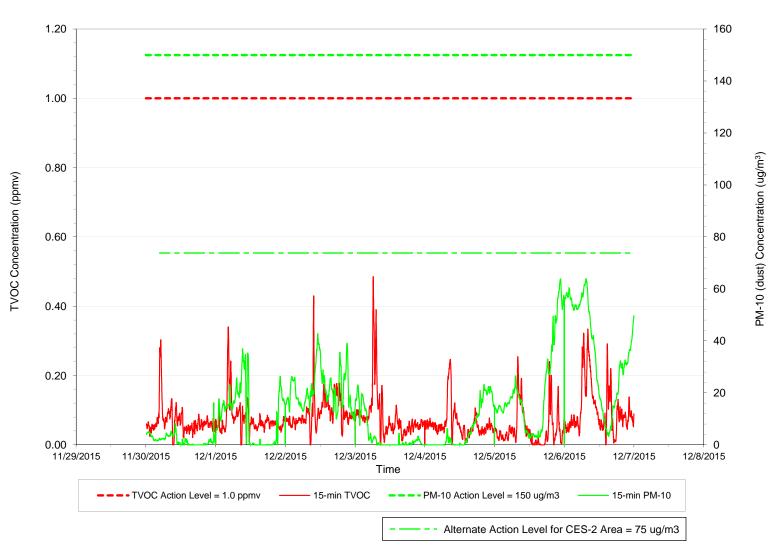
Wind Summary Statistics	
CALM	14%
UW	14%
UW/CW	0%
CW	0%
CW/DW	0%
DW	7%
DW/CW	0%
CW/UW	65%
TOTAL	100%





Perimeter Air Monitoring Station - STA 6

15-minute average concentrations



Data Summary Statistics	
TVOC Ava –	0.08
TVOC Avg =	
PM-10 Avg =	14.34
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
11/30/2015	0.30
12/1/2015	0.34
12/2/2015	0.43
12/3/2015	0.49
12/4/2015	0.25
12/5/2015	0.25
12/6/2015	0.33
PM10 max=	(15Min Avg)
11/30/2015	16.20
12/1/2015	37.02
12/2/2015	42.80
12/3/2015	23.05
12/4/2015	23.28
12/5/2015	63.85
. =, 0, 2010	00.00

Weekly

Wind Summary Statistics	
CALM	14%
UW	0%
UW/CW	0%
CW	13%
CW/DW	0%
DW	9%
DW/CW	0%
CW/UW	64%
TOTAL	100%

63.92

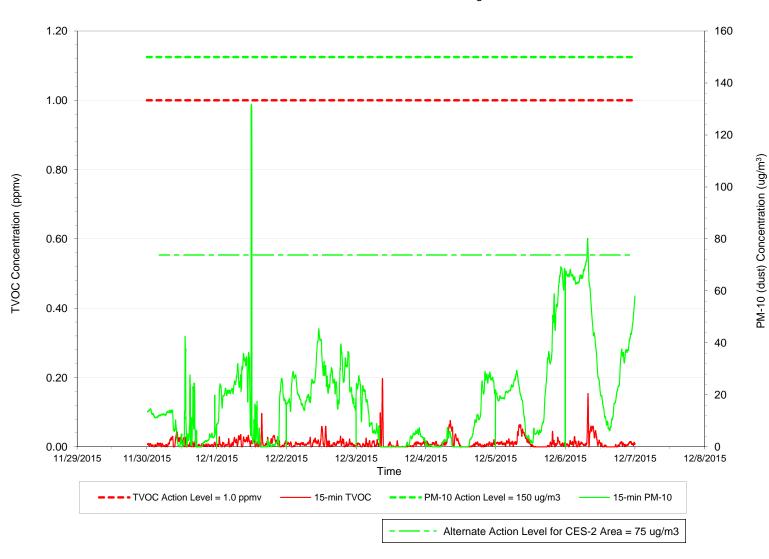
12/6/2015

Filename: J:\170,000-179,999\171521\171521-41.MMS\Field Work\Air Monitoring\AirLogics Weekly Summary Reports\11.30.2015 We Data\STA6_WEEKLY113015.xls



Perimeter Air Monitoring Station - STA 7

15-minute average concentrations



TVOC Avg = PM-10 Avg =	0.01 18.42
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
11/30/2015	0.04
12/1/2015	0.10
12/2/2015	0.06
12/3/2015	0.20
12/4/2015	0.08
12/5/2015	0.06
12/6/2015	0.15

PM10 max= (15Min Avg)

42.56 131.85

45.40

27.40

29.02

69.33

80.22

11/30/2015

12/1/2015 12/2/2015

12/3/2015

12/4/2015

12/5/2015

12/6/2015

Data Summary Statistics

Weekly

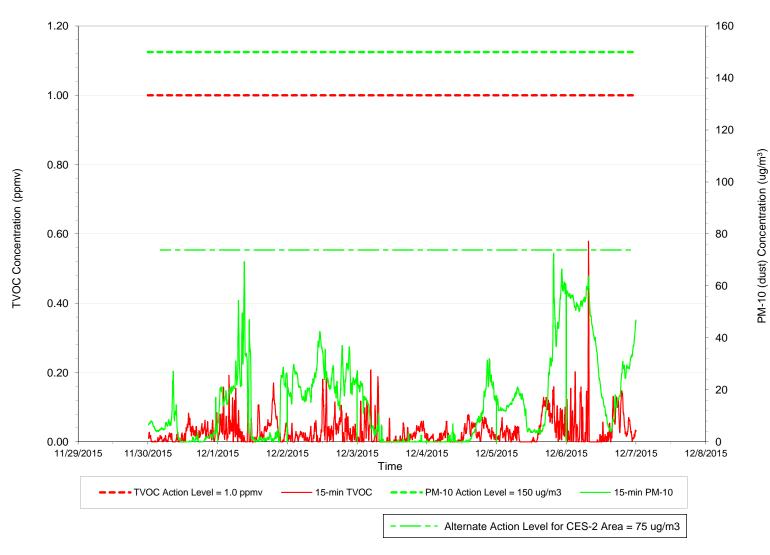
Wind Summary Statistics	
CALM	14%
UW	7%
UW/CW	0%
CW	0%
CW/DW	0%
DW	14%
DW/CW	2%
CW/UW	63%
TOTAL	100%

AIRLOGICS, LLC PERIMETER AIR MONITORING SYSTEMS PROACTIVE BY DESIGN

Filename: J:\170,000-179,999\171521\171521-41.MMS\Field Work\Air Monitoring\AirLogics Weekly Summary Reports\11.30.2015 We Data\STA7_WEEKLY113015.xls

Perimeter Air Monitoring Station - STA 8

15-minute average concentrations



TVOC Avg = PM-10 Avg =	0.03 15.41
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
11/30/2015	0.08
12/1/2015	0.19
12/2/2015	0.18
12/3/2015	0.21
12/4/2015	0.08
12/5/2015	0.16
12/6/2015	0.58
PM10 max=	(15Min Avg)

27.17

69.30

42.47

27.42

32.03

72.57

63.79

11/30/2015

12/1/2015

12/2/2015

12/3/2015

12/4/2015

12/5/2015

12/6/2015

Data Summary Statistics

Weekly

Wind Summary Statistics	
CALM	14%
UW	7%
UW/CW	0%
CW	0%
CW/DW	0%
DW	14%
DW/CW	2%
CW/UW	63%
TOTAL	100%

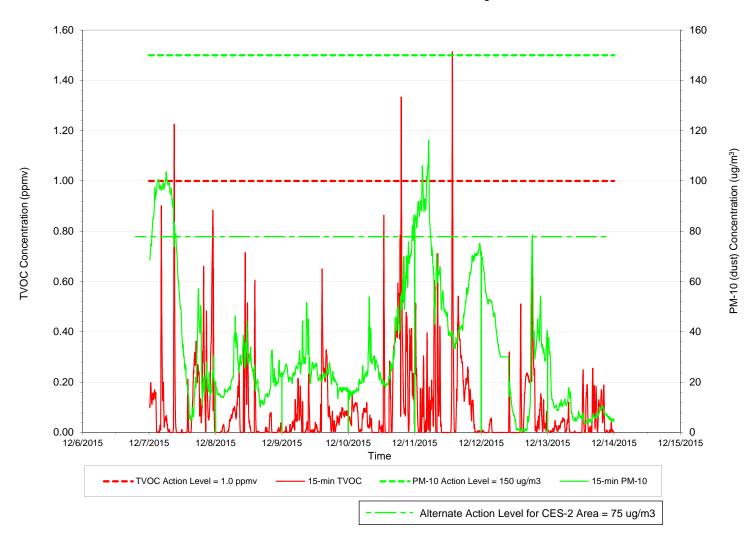


AIRLOGICS, LLC PERIMETER AIR MONITORING SYSTEMS PROACTIVE BY DESIGN

Filename: J:\170,000-179,999\171521\171521-41.MMS\Field Work\Air Monitoring\AirLogics Weekly Summary Reports\11.30.2015 We Data\STA8_WEEKLY113015.xls

Perimeter Air Monitoring Station - STA 1

15-minute average concentrations



W	ee	k	ly
• •	-	•	,

Data Summary Statistics

TVOC Avg =	0.09
PM-10 Avg =	33.71

Daily

Data Summary Statistics

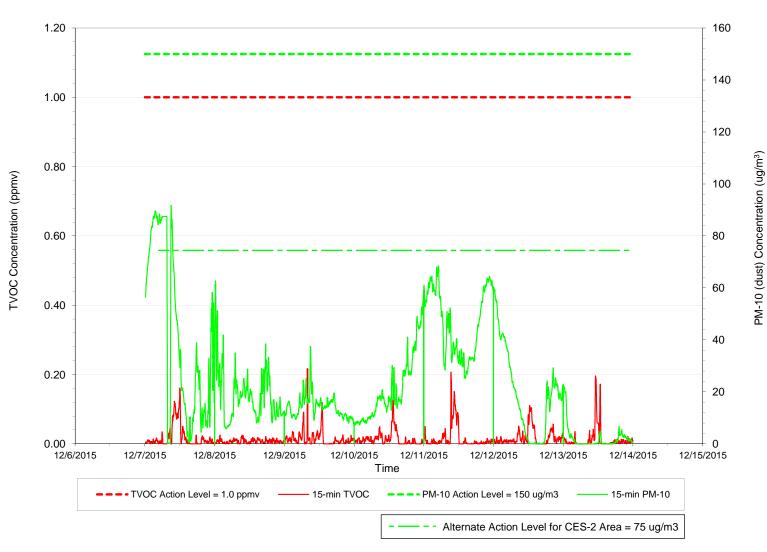
TVOC max =	(15Min Avg)
12/7/2015	1.23
12/8/2015	0.71
12/9/2015	0.65
12/10/2015	1.33
12/11/2015	1.51
12/12/2015	0.71
12/13/2015	0.25
D1440	
PM10 max=	(15Min Avg)
PM10 max= 12/7/2015	(15Min Avg) 103.56
	\
12/7/2015	103.56
12/7/2015 12/8/2015	103.56 46.23
12/7/2015 12/8/2015 12/9/2015	103.56 46.23 51.74
12/7/2015 12/8/2015 12/9/2015 12/10/2015	103.56 46.23 51.74 86.51
12/7/2015 12/8/2015 12/9/2015 12/10/2015 12/11/2015	103.56 46.23 51.74 86.51 116.26

Wind Summary Statistics	
CALM	17%
UW	28%
UW/CW	0%
CW	33%
CW/DW	2%
DW	15%
DW/CW	4%
CW/UW	1%
TOTAL	100%



Perimeter Air Monitoring Station - STA 2

15-minute average concentrations



Data Summary	Statistics
TVOC Avg =	0.01
PM-10 Avg =	23.53
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
12/7/2015	0.16
12/8/2015	0.03
12/9/2015	0.22
12/10/2015	0.13
12/11/2015	0.21
12/12/2015	0.11
12/13/2015	0.20
PM10 max=	(15Min Avg)
12/7/2015	91.80
12/8/2015	62.68
12/9/2015	37.50
12/10/2015	59.05
12/11/2015	68.44
12/12/2015	60.25
12/13/2015	22.74

Weekly

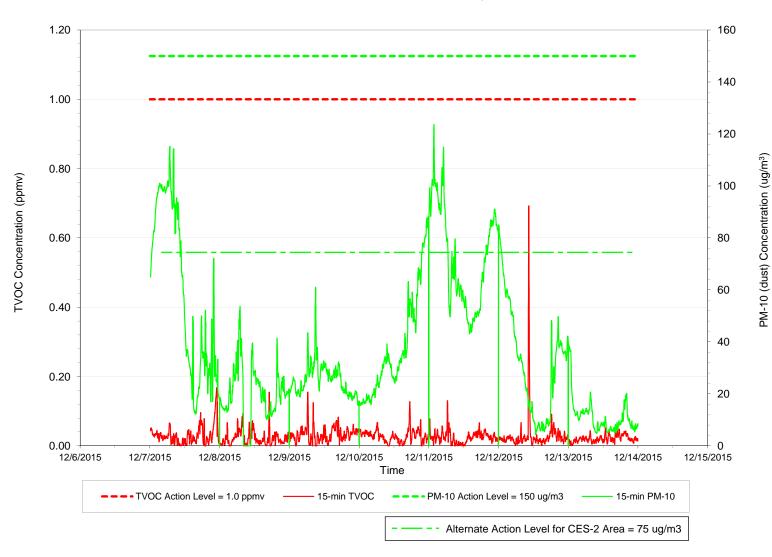
Wind Summary Statistics	
17%	
26%	
0%	
0%	
0%	
48%	
1%	
7%	
100%	

Filename: J:\170,000-179,999\171521\171521-41.MMS\Field Work\Air Monitoring\AirLogics Weekly Summary Reports\12.07.2015 We Data\STA2_WEEKLY120715.xls



Perimeter Air Monitoring Station - STA 3

15-minute average concentrations



TVOC Avg = PM-10 Avg =	0.03 36.96
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
12/7/2015	0.17
12/8/2015	0.15
12/9/2015	0.16
12/10/2015	0.13
12/11/2015	0.13
12/12/2015	0.69
12/13/2015	0.05
PM10 max=	(15Min Avg)

115.20

53.69

60.99

88.16

84.95

39.68

123.58

12/7/2015

12/8/2015

12/9/2015

12/10/2015

12/11/2015

12/12/2015

12/13/2015

Data Summary Statistics

Weekly

Wind Summary Statistics	
CALM	17%
UW	13%
UW/CW	1%
CW	12%
CW/DW	3%
DW	50%
DW/CW	2%
CW/UW	0%
TOTAL	100%

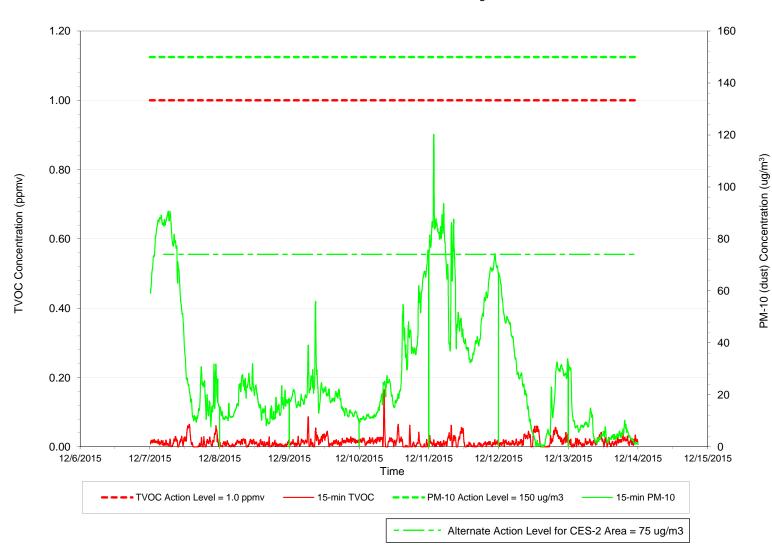


AIRLOGICS, LLC

Filename: J:\170,000-179,999\171521\171521-41.MMS\Field Work\Air Monitoring\AirLogics Weekly Summary Reports\12.07.2015 We Data\STA3_WEEKLY120715.xls

Perimeter Air Monitoring Station - STA 4

15-minute average concentrations



TVOC Avg = PM-10 Avg =	0.02 29.05
Daily Data Summary :	Statistics
TVOC max =	(15Min Avg)
12/7/2015	0.07
12/8/2015	0.03
12/9/2015	0.09
12/10/2015	0.16
12/11/2015	0.06
12/12/2015	0.06
12/13/2015	0.04
PM10 max=	(15Min Avg)
12/7/2015	90.70
12/8/2015	32.04

55.97

75.70

120.21

66.86

31.84

12/9/2015

12/10/2015

12/11/2015

12/12/2015

12/13/2015

Weekly

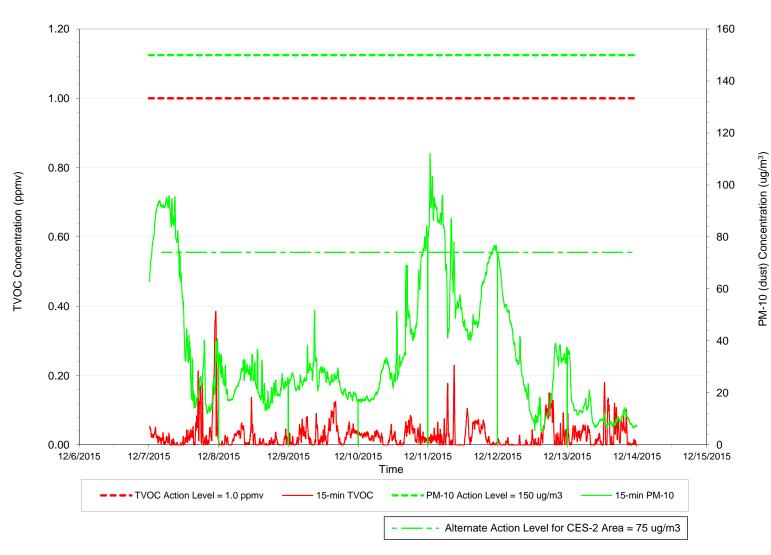
Data Summary Statistics

Wind Summary Statistics	
CALM	17%
UW	37%
UW/CW	0%
CW	0%
CW/DW	0%
DW	18%
DW/CW	0%
CW/UW	28%
TOTAL	100%



Perimeter Air Monitoring Station - STA 5

15-minute average concentrations



TVOC Avg = PM-10 Avg =	0.03 34.99
Daily	
Data Summary :	Statistics
TVOC max =	(15Min Avg)
12/7/2015	0.38
12/8/2015	0.14
12/9/2015	0.12
12/10/2015	0.08
12/11/2015	0.23
12/12/2015	0.15
12/13/2015	0.18
PM10 max=	(15Min Avg)
12/7/2015	95.95
12/8/2015	36.72
12/9/2015	51.77

84.12

74.26

36.82

112.14

Weekly

Data Summary Statistics

Wind Summary Statistics	
CALM	17%
UW	28%
UW/CW	0%
CW	0%
CW/DW	0%
DW	14%
DW/CW	0%
CW/UW	40%
TOTAL	100%

12/10/2015

12/11/2015

12/12/2015

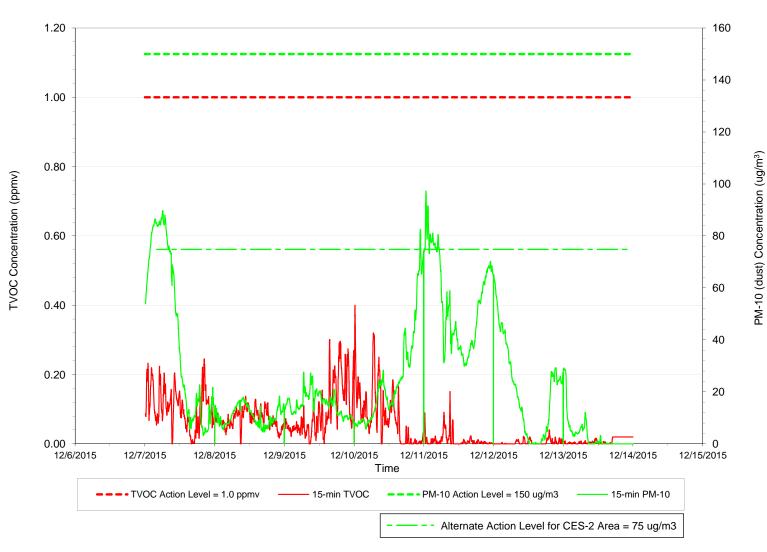
12/13/2015

Filename: J:\170,000-179,999\171521\171521-41.MMS\Field Work\Air Monitoring\AirLogics Weekly Summary Reports\12.07.2015 We Data\STA5_WEEKLY120715.xls



Perimeter Air Monitoring Station - STA 6

15-minute average concentrations



TVOC Avg = PM-10 Avg =	0.06 24.70
Daily Data Summary S	Statistics
TVOC max =	
12/7/2015	0.25
12/8/2015	0.14
12/9/2015	0.30
12/10/2015	0.40
12/11/2015	0.15
12/12/2015	0.04
12/13/2015	0.02
PM10 max=	(15Min Avg)
12/7/2015	89.78
12/8/2015	18.37
12/9/2015	27.60

82.48

97.27

65.07

29.20

12/10/2015

12/11/2015

12/12/2015

12/13/2015

Weekly

Data Summary Statistics

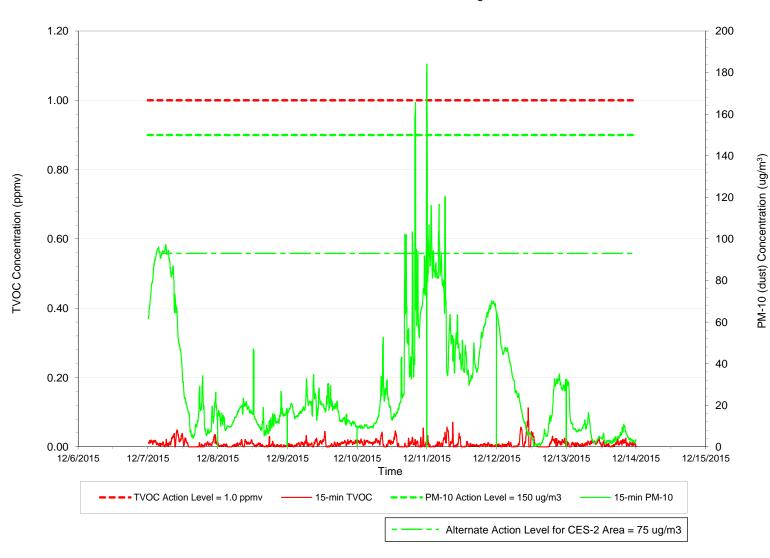
Wind Summary Statistics	
CALM	17%
UW	0%
UW/CW	0%
CW	32%
CW/DW	1%
DW	11%
DW/CW	0%
CW/UW	38%
TOTAL	100%

Filename: J:\170,000-179,999\171521\171521-41.MMS\Field Work\Air Monitoring\AirLogics Weekly Summary Reports\12.07.2015 We Data\STA6_WEEKLY120715.xls



Perimeter Air Monitoring Station - STA 7

15-minute average concentrations



TVOC Avg = PM-10 Avg =	0.01 29.04
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
12/7/2015	0.05
12/8/2015	0.03
12/9/2015	0.04
12/10/2015	0.05
12/11/2015	0.07
12/12/2015	0.11
12/13/2015	0.03
PM10 max=	(15Min Ava)

97.28

47.13

34.78

180.17

184.04

64.62

32.28

12/7/2015

12/8/2015

12/9/2015

12/10/2015

12/11/2015

12/12/2015

12/13/2015

Data Summary Statistics

Weekly

Wind Summary Statistics	
CALM	17%
UW	13%
UW/CW	0%
CW	0%
CW/DW	1%
DW	28%
DW/CW	4%
CW/UW	36%
TOTAL	100%

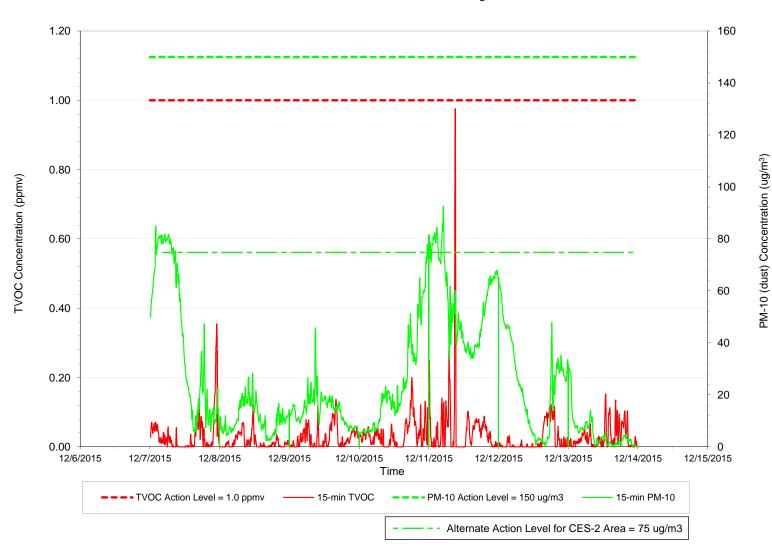


AIRLOGICS, LLC PERIMETER AIR MONITORING SYSTEMS PROACTIVE BY DESIGN

Filename: J:\170,000-179,999\171521\171521-41.MMS\Field Work\Air Monitoring\AirLogics Weekly Summary Reports\12.07.2015 We Data\STA7_WEEKLY120715.xls

Perimeter Air Monitoring Station - STA 8

15-minute average concentrations



)3 44
3
Avg)
0.35
0.12
0.14
0.20
0.98
0.12
0.15

PM10 max= (15Min Avg)

84.93

28.33

45.81

81.13

92.55

64.76

31.34

12/7/2015

12/8/2015

12/9/2015

12/10/2015

12/11/2015

12/12/2015

12/13/2015

Data Summary Statistics

Weekly

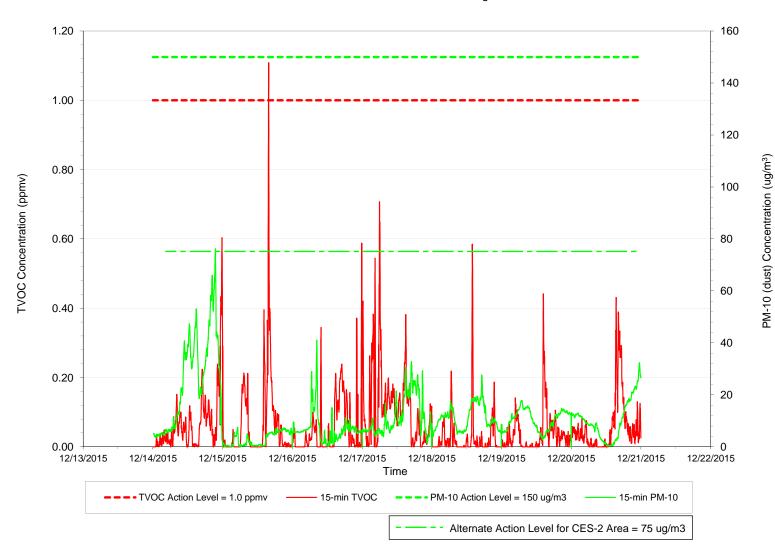
Wind Summary Statistics	
CALM	17%
UW	13%
UW/CW	0%
CW	0%
CW/DW	1%
DW	28%
DW/CW	4%
CW/UW	36%
TOTAL	100%

PROACTIVE BY DESIGN

AIRLOGICS, LLC PERIMETER AIR MONITORING SYSTEMS

Perimeter Air Monitoring Station - STA 1

15-minute average concentrations



TVOC Avg = PM-10 Avg =	0.06 11.25
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
12/14/2015	0.60
12/15/2015	1.11
12/16/2015	0.59
12/17/2015	0.71
12/18/2015	0.58
12/19/2015	0.44
12/20/2015	0.43
PM10 max=	(15Min Avg)

76.20 7.50

41.08

32.80

27.63

17.83

32.41

12/14/2015

12/15/2015 12/16/2015

12/17/2015

12/18/2015

12/19/2015

12/20/2015

Data Summary Statistics

Weekly

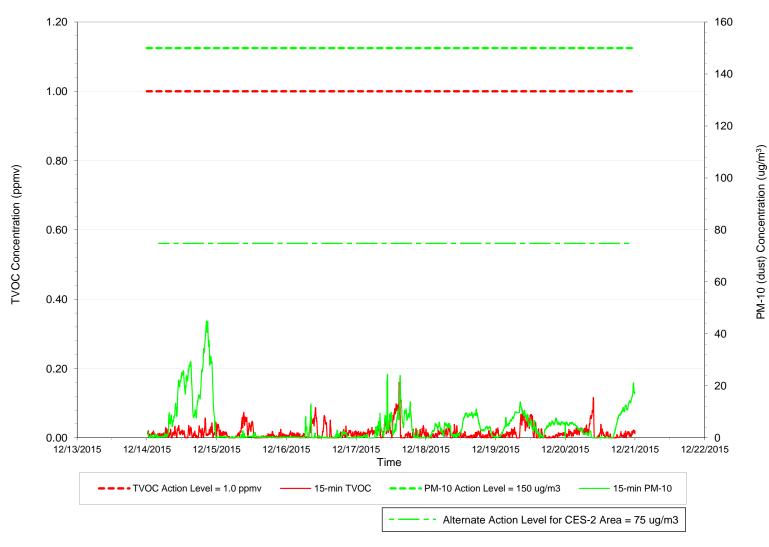
Wind Summary Statistics	
CALM	7%
UW	21%
UW/CW	0%
CW	55%
CW/DW	1%
DW	13%
DW/CW	3%
CW/UW	1%
TOTAL	100%



Filename: J:\170,000-179,999\171521\171521-41.MMS\Field Work\Air Monitoring\AirLogics Weekly Summary Reports\12.14.2015 We Data\STA1_WEEKLY121415.xls

Perimeter Air Monitoring Station - STA 2

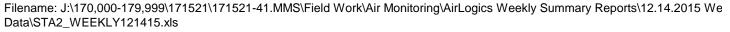
15-minute average concentrations



Data Summary	Statistics
TVOC Avg =	0.01
PM-10 Avg =	4.65
Daily	
Data Summary	Statistics
TVOC max =	
12/14/2015	0.06
12/15/2015	0.07
12/16/2015	0.09
12/17/2015	0.16
12/17/2015	0.04
12/19/2015	0.08
12/19/2015	0.12
PM10 max=	(15Min Avg)
	\
12/14/2015	44.91
12/15/2015	2.73
12/16/2015	13.03
12/17/2015	24.40
12/18/2015	11.09
12/19/2015	13.85
12/20/2015	21.16

Weekly

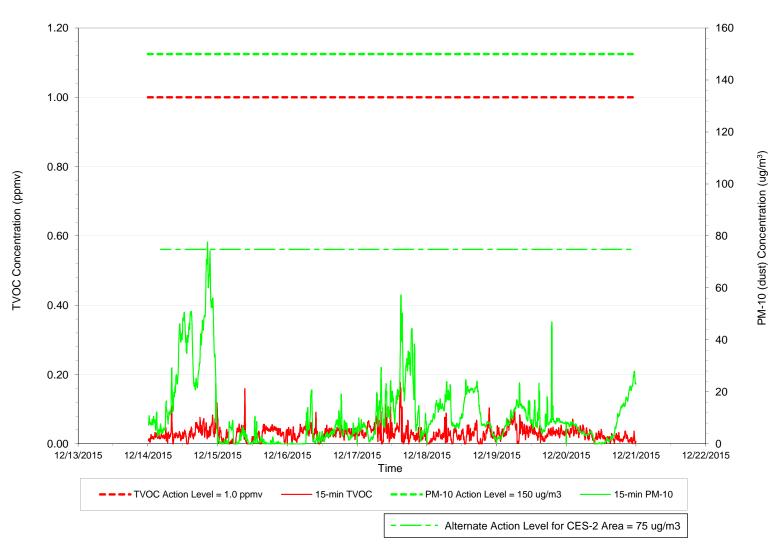
Wind Summary Statistics	
CALM	7%
UW	19%
UW/CW	0%
CW	0%
CW/DW	0%
DW	60%
DW/CW	3%
CW/UW	11%
TOTAL	100%





Perimeter Air Monitoring Station - STA 3

15-minute average concentrations



TVOC Avg = PM-10 Avg =	0.03 11.21
Daily Data Summary :	Statistics
TVOC max =	
12/14/2015	0.12
12/15/2015	0.16
12/16/2015	0.09
12/17/2015	0.18
12/18/2015	0.10
12/19/2015	0.09
12/20/2015	0.07
PM10 max=	(15Min Avg)
12/14/2015	77.59
12/15/2015	10.59
12/16/2015	20.82
12/17/2015	57.39
12/18/2015	24.70

Weekly

Data Summary Statistics

Wind Summary Statistics	
CALM	7%
UW	15%
UW/CW	1%
CW	10%
CW/DW	3%
DW	62%
DW/CW	2%
CW/UW	0%
TOTAL	100%

46.90

27.96

12/19/2015

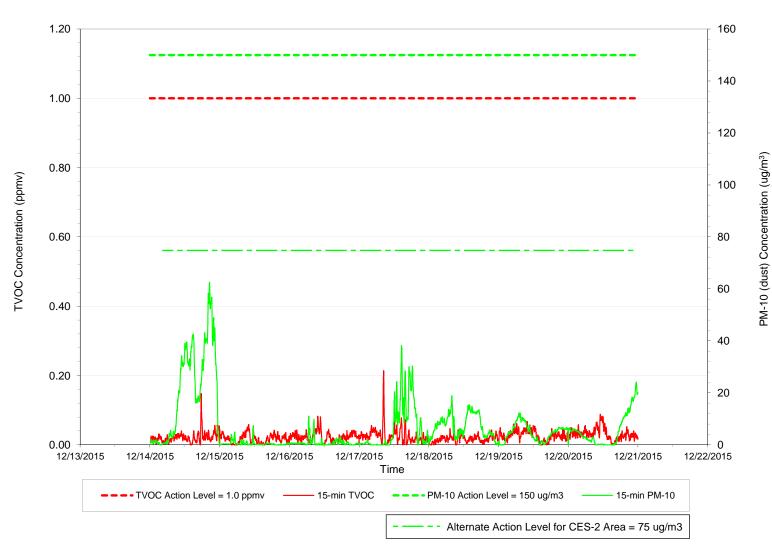
12/20/2015

Filename: J:\170,000-179,999\171521\171521-41.MMS\Field Work\Air Monitoring\AirLogics Weekly Summary Reports\12.14.2015 We Data\STA3_WEEKLY121415.xls



Perimeter Air Monitoring Station - STA 4

15-minute average concentrations



Data Summary	Statistics
TVOC Avg =	0.03
PM-10 Avg =	6.57
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
12/14/2015	0.15
12/15/2015	0.06
12/16/2015	0.08
12/17/2015	0.21
12/18/2015	0.05
12/19/2015	0.07
12/20/2015	0.09
PM10 max=	(15Min Avg)
12/14/2015	62.52
12/15/2015	7.37
12/16/2015	11.04
12/17/2015	38.24
12/18/2015	18.87
12/19/2015	12.25
12/20/2015	24.12

Weekly

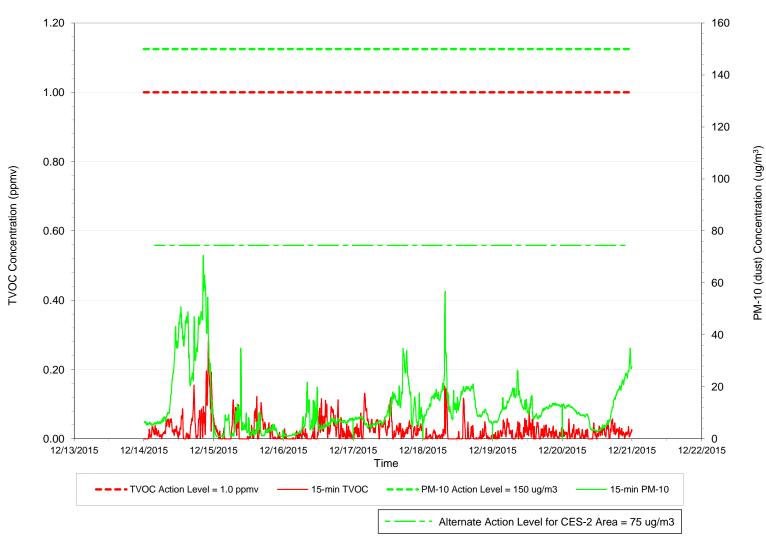
Wind Summary Statistics	
CALM	7%
UW	32%
UW/CW	0%
CW	0%
CW/DW	0%
DW	8%
DW/CW	0%
CW/UW	53%
TOTAL	100%

Filename: J:\170,000-179,999\171521\171521-41.MMS\Field Work\Air Monitoring\AirLogics Weekly Summary Reports\12.14.2015 We Data\STA4_WEEKLY121415.xls



Perimeter Air Monitoring Station - STA 5

15-minute average concentrations



Data Summary Statis	stic	25
	_	

Weekly

TVOC Avg =	0.02
PM-10 Avg =	12.14

Daily
Data Summary Statistics

TVOC max =	(15Min Avg)
12/14/2015	0.29
12/15/2015	0.12
12/16/2015	0.12
12/17/2015	0.13
12/18/2015	0.15
12/19/2015	0.09
12/20/2015	0.06
PM10 max=	(15Min Avg)
PM10 max= 12/14/2015	(15Min Avg) 70.55
12/14/2015	70.55
12/14/2015 12/15/2015	70.55 34.83
12/14/2015 12/15/2015 12/16/2015	70.55 34.83 21.82
12/14/2015 12/15/2015 12/16/2015 12/17/2015	70.55 34.83 21.82 34.79
12/14/2015 12/15/2015 12/16/2015 12/17/2015 12/18/2015	70.55 34.83 21.82 34.79 56.73

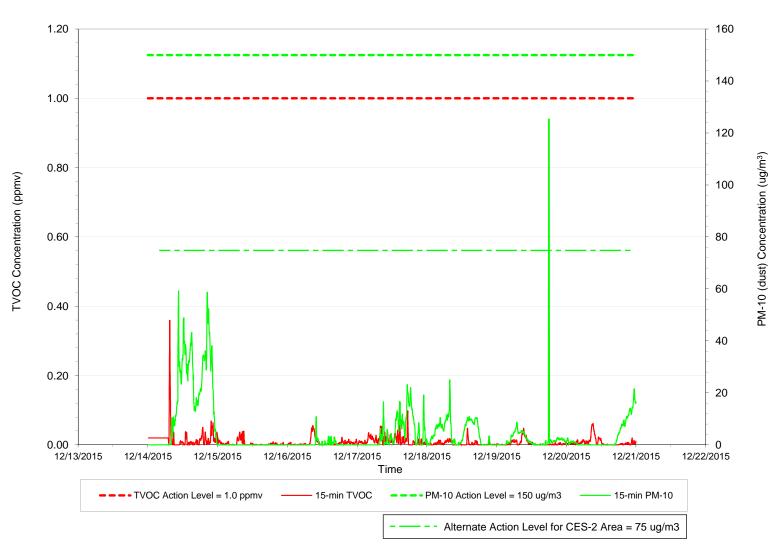
Wind Summary Statistics	
CALM	7%
UW	28%
UW/CW	0%
CW	0%
CW/DW	0%
DW	5%
DW/CW	0%
CW/UW	60%
TOTAL	100%



Filename: J:\170,000-179,999\171521\171521-41.MMS\Field Work\Air Monitoring\AirLogics Weekly Summary Reports\12.14.2015 We Data\STA5_WEEKLY121415.xls

Perimeter Air Monitoring Station - STA 6

15-minute average concentrations



Data Summary	Statistics
TVOC Avg =	0.01
PM-10 Avg =	4.69
Ü	
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
12/14/2015	0.36
12/15/2015	0.04
12/16/2015	0.06
12/17/2015	0.10
12/18/2015	0.05
12/19/2015	0.05
12/20/2015	0.06
PM10 max=	(15Min Avg)
12/14/2015	59.23
12/15/2015	0.35
12/16/2015	10.86
12/17/2015	23.18
12/18/2015	24.97
12/19/2015	125.35
12/20/2015	21.55

Weekly

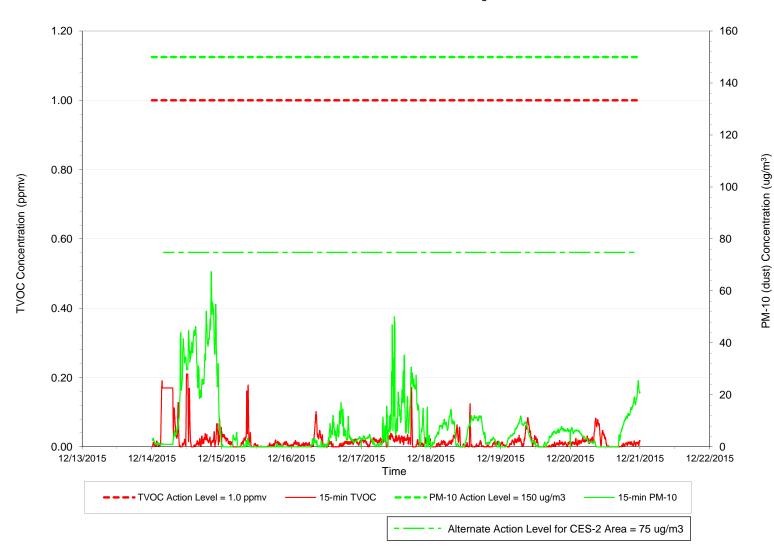
Wind Summary Statistics	
CALM	7%
UW	0%
UW/CW	0%
CW	21%
CW/DW	1%
DW	13%
DW/CW	0%
CW/UW	59%
TOTAL	100%

Filename: J:\170,000-179,999\171521\171521-41.MMS\Field Work\Air Monitoring\AirLogics Weekly Summary Reports\12.14.2015 We Data\STA6_WEEKLY121415.xls



Perimeter Air Monitoring Station - STA 7

15-minute average concentrations



Data Summary Statistics	
0.02	
7.13	
Statistics	
(15Min Avg)	
0.21	
0.18	
0.10	
0.17	
0.12	
0.08	
0.08	
(15Min Avg)	
67.38	
5.54	
17.10	
50.04	
14.40	
11.87	
25.42	

Weekly

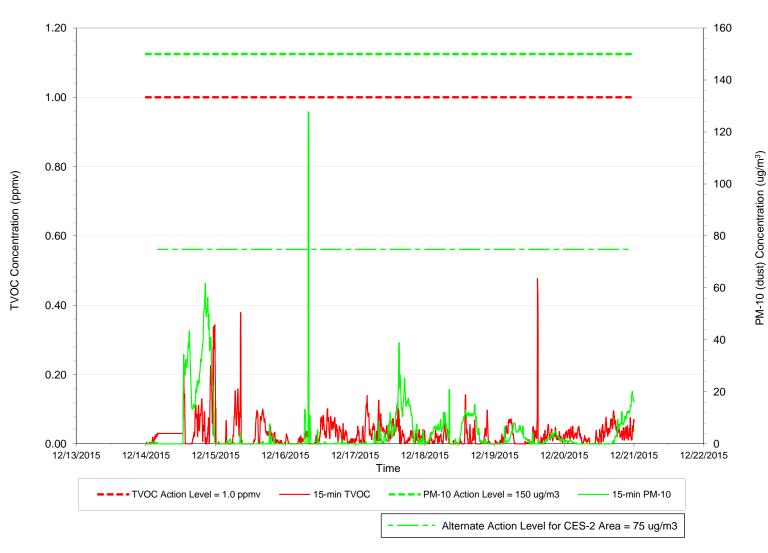
Wind Summary Statistics	
CALM	7%
UW	5%
UW/CW	0%
CW	0%
CW/DW	0%
DW	28%
DW/CW	3%
CW/UW	58%
TOTAL	100%



Filename: J:\170,000-179,999\171521\171521-41.MMS\Field Work\Air Monitoring\AirLogics Weekly Summary Reports\12.14.2015 We Data\STA7_WEEKLY121415.xls

Perimeter Air Monitoring Station - STA 8

15-minute average concentrations



Data Summary Statistics	
TVOC Avg =	0.03
PM-10 Avg =	4.57
_	
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
12/14/2015	0.34
12/15/2015	0.38
12/16/2015	0.10
12/17/2015	0.14
12/18/2015	0.14
12/19/2015	0.48
12/20/2015	0.10
PM10 max=	(15Min Avg)
12/14/2015	61.70
12/15/2015	7.65
12/16/2015	127.75
12/17/2015	38.84
12/18/2015	20.95
12/19/2015	8.15

Weekly

Wind Summary Statistics	
CALM	7%
UW	5%
UW/CW	0%
CW	0%
CW/DW	0%
DW	28%
DW/CW	3%
CW/UW	58%
TOTAL	100%

20.10

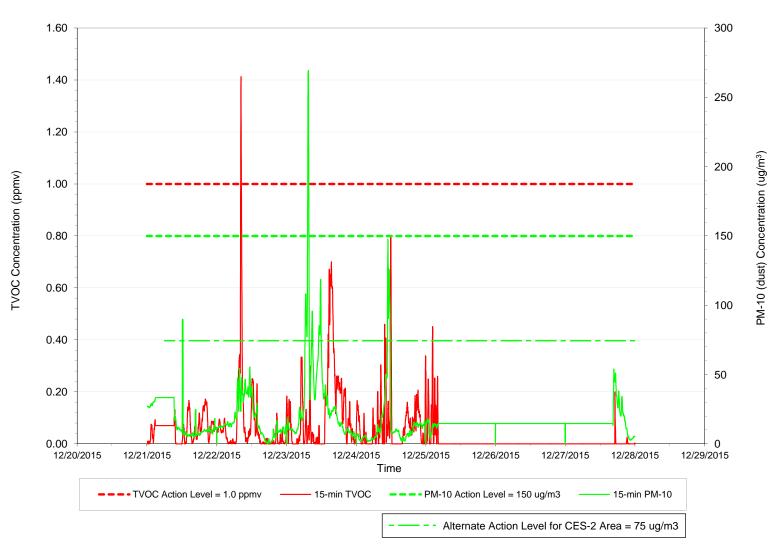
12/20/2015

Filename: J:\170,000-179,999\171521\171521-41.MMS\Field Work\Air Monitoring\AirLogics Weekly Summary Reports\12.14.2015 We Data\STA8_WEEKLY121415.xls



Perimeter Air Monitoring Station - STA 1

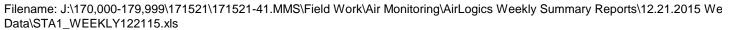
15-minute average concentrations



Data Summary Statistics	
	_
TVOC Avg =	0.06
PM-10 Avg =	18.33
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
12/21/2015	0.17
12/22/2015	1.41
12/23/2015	0.70
12/24/2015	0.79
12/25/2015	0.45
12/26/2015	0.00
12/27/2015	0.20
PM10 max=	(15Min Avg)
12/21/2015	89.83
12/22/2015	55.38
12/23/2015	269.28
12/24/2015	147.63
12/25/2015	18.07
12/26/2015	14.68
12/27/2015	53.92

Weekly

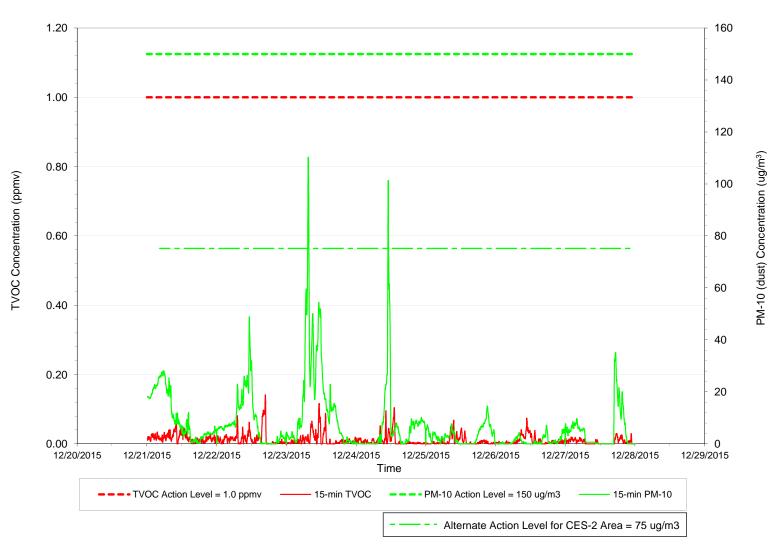
Wind Summary Statistics	
CALM	17%
UW	26%
UW/CW	0%
CW	37%
CW/DW	1%
DW	9%
DW/CW	9%
CW/UW	2%
TOTAL	100%





Perimeter Air Monitoring Station - STA 2

15-minute average concentrations



Data Summary	Statistics
TVOC Avg = PM-10 Avg =	0.01 7.37
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
12/21/2015	0.06
12/22/2015	0.14
12/23/2015	0.12
12/24/2015	0.10
12/25/2015	0.07
12/26/2015	0.07
12/27/2015	0.03
PM10 max=	(15Min Avg)
12/21/2015	28.11
12/22/2015	48.89
12/23/2015	110.28
12/24/2015	101.32
12/25/2015	14.52
12/26/2015	7.23
12/27/2015	35.11

Weekly

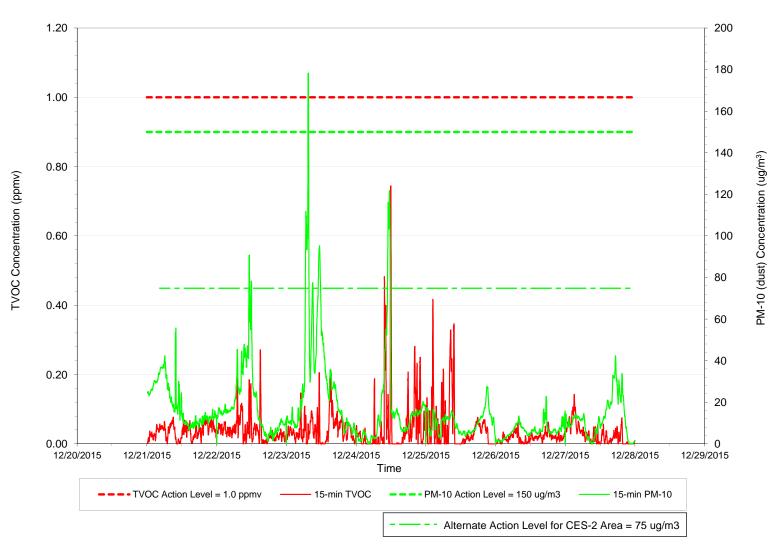
Wind Summary Statistics	
CALM	17%
UW	22%
UW/CW	0%
CW	0%
CW/DW	1%
DW	49%
DW/CW	1%
CW/UW	9%
TOTAL	100%

Filename: J:\170,000-179,999\171521\171521-41.MMS\Field Work\Air Monitoring\AirLogics Weekly Summary Reports\12.21.2015 We Data\STA2_WEEKLY122115.xls



Perimeter Air Monitoring Station - STA 3

15-minute average concentrations



TVOC Avg =	0.04
PM-10 Avg =	16.35
•	
Daily	
Data Summary	
TVOC max =	(15Min Avg)
12/21/2015	0.08
12/22/2015	0.27
12/23/2015	0.21
12/24/2015	0.74
12/25/2015	0.42
12/26/2015	0.06
12/27/2015	0.14
PM10 max=	(15Min Avg)
12/21/2015	55.69
12/22/2015	90.82
12/23/2015	178.25
12/24/2015	121.82
12/25/2015	27.52

Weekly

Data Summary Statistics

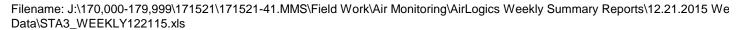
Wind Summary Statistics	
CALM	17%
UW	20%
UW/CW	1%
CW	5%
CW/DW	4%
DW	49%
DW/CW	3%
CW/UW	0%
TOTAL	100%

22.74

42.35

12/26/2015

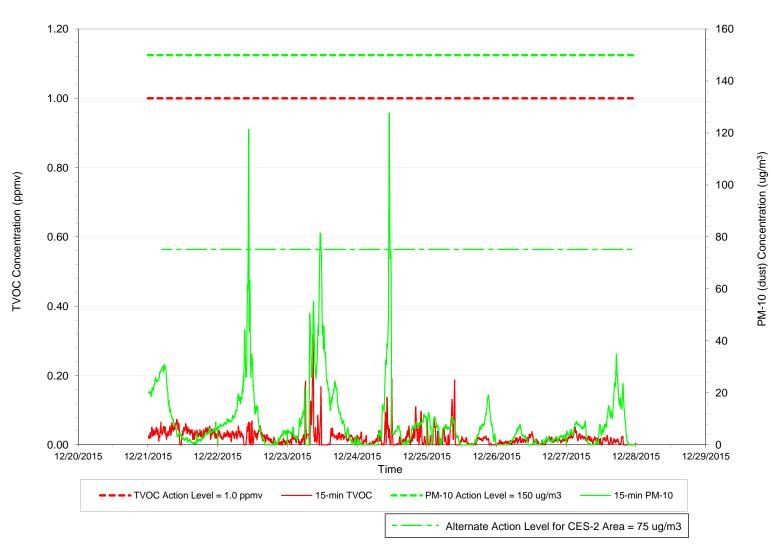
12/27/2015





Perimeter Air Monitoring Station - STA 4

15-minute average concentrations



Data Summary Statistics	
TVOC Avg =	0.02
PM-10 Avg =	9.10
· ·	
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
12/21/2015	0.07
12/22/2015	0.07
12/23/2015	0.32
12/24/2015	0.19
12/25/2015	0.19
12/26/2015	0.04
12/27/2015	0.05
PM10 max=	(15Min Avg)
12/21/2015	30.91
12/22/2015	121.40
12/23/2015	81.45
12/24/2015	127.68
12/25/2015	19.09
12/26/2015	7.78
12/27/2015	34.98

Weekly

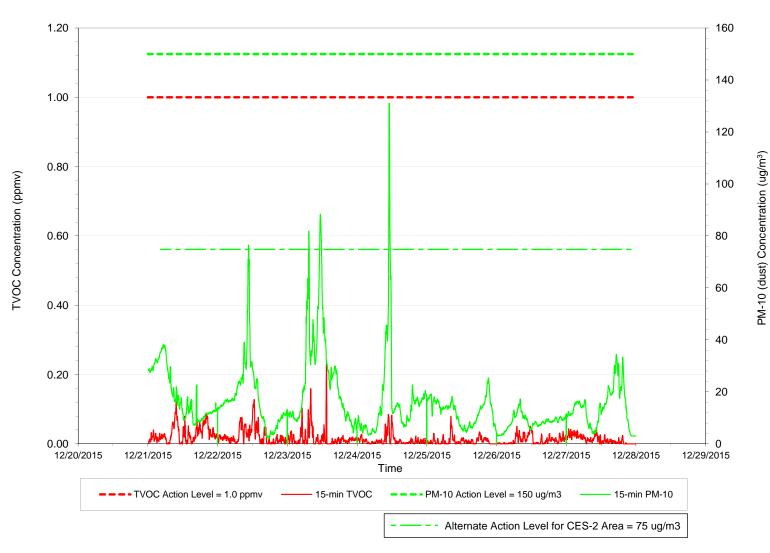
Wind Summary Statistics	
CALM	17%
UW	50%
UW/CW	0%
CW	0%
CW/DW	0%
DW	6%
DW/CW	0%
CW/UW	26%
TOTAL	100%

Filename: J:\170,000-179,999\171521\171521-41.MMS\Field Work\Air Monitoring\AirLogics Weekly Summary Reports\12.21.2015 We Data\STA4_WEEKLY122115.xls



Perimeter Air Monitoring Station - STA 5

15-minute average concentrations



TVOC Avg = PM-10 Avg =	0.02 16.15
Daily Data Summary :	Statistics
TVOC max =	(15Min Avg)
12/21/2015	0.12
12/22/2015	0.13
12/23/2015	0.23
12/24/2015	0.08
12/25/2015	0.08
12/26/2015	0.05
12/27/2015	0.05
PM10 max=	(15Min Avg)
12/21/2015	38.19
12/22/2015	76.43
12/23/2015	88.35

12/24/2015

12/25/2015

12/26/2015

12/27/2015

131.00

25.31

17.30

34.41

Weekly

Data Summary Statistics

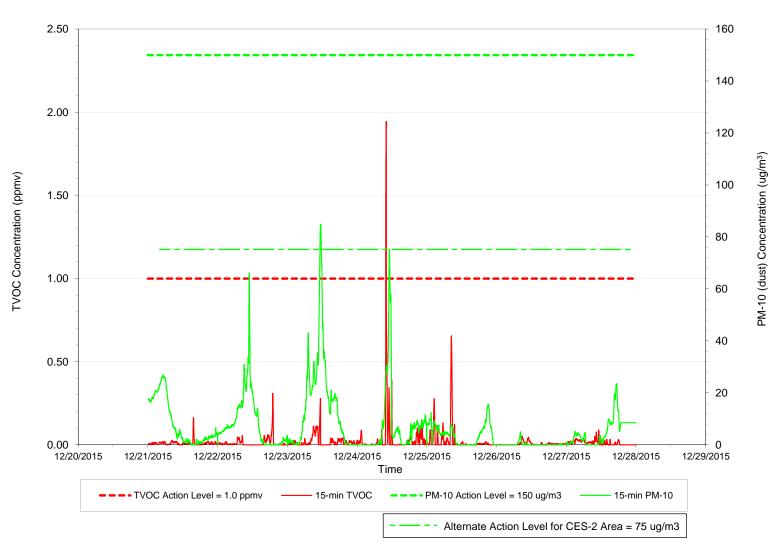
Wind Summary Statistics	
CALM	17%
UW	28%
UW/CW	0%
CW	0%
CW/DW	0%
DW	5%
DW/CW	0%
CW/UW	50%
TOTAL	100%

Filename: J:\170,000-179,999\171521\171521-41.MMS\Field Work\Air Monitoring\AirLogics Weekly Summary Reports\12.21.2015 We Data\STA5_WEEKLY122115.xls



Perimeter Air Monitoring Station - STA 6

15-minute average concentrations



Data Summary	Statistics
TVOC Avg =	0.03
PM-10 Avg =	6.87
Daily	
Data Summary	
TVOC max =	(15Min Avg)
12/21/2015	0.16
12/22/2015	0.31
12/23/2015	0.28
12/24/2015	1.94
12/25/2015	0.66
12/26/2015	0.05
12/27/2015	0.09
PM10 max=	(15Min Avg)
12/21/2015	26.99
12/22/2015	66.07
12/23/2015	84.89
12/24/2015	75.23
12/25/2015	15.71
12/26/2015	5.05
12/27/2015	23.53

Weekly

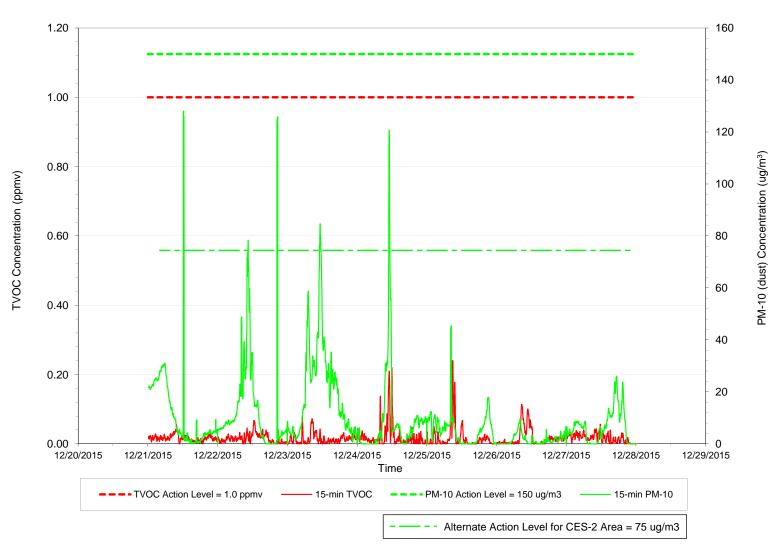
Wind Summary Statistics	
CALM	17%
UW	0%
UW/CW	0%
CW	18%
CW/DW	0%
DW	16%
DW/CW	1%
CW/UW	47%
TOTAL	100%

Filename: J:\170,000-179,999\171521\171521-41.MMS\Field Work\Air Monitoring\AirLogics Weekly Summary Reports\12.21.2015 We Data\STA6_WEEKLY122115.xls



Perimeter Air Monitoring Station - STA 7

15-minute average concentrations



Data Summary Statistics	
TVOC Avg =	0.02
PM-10 Avg =	9.71
· ·	
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
12/21/2015	0.06
12/22/2015	0.07
12/23/2015	0.08
12/24/2015	0.22
12/25/2015	0.24
12/26/2015	0.11
12/27/2015	0.06
PM10 max=	(15Min Avg)
12/21/2015	128.03
12/22/2015	125.84
12/23/2015	84.66
12/24/2015	120.67
12/25/2015	45.42
12/26/2015	9.84
, _ 0, _ 0 10	

Weekly

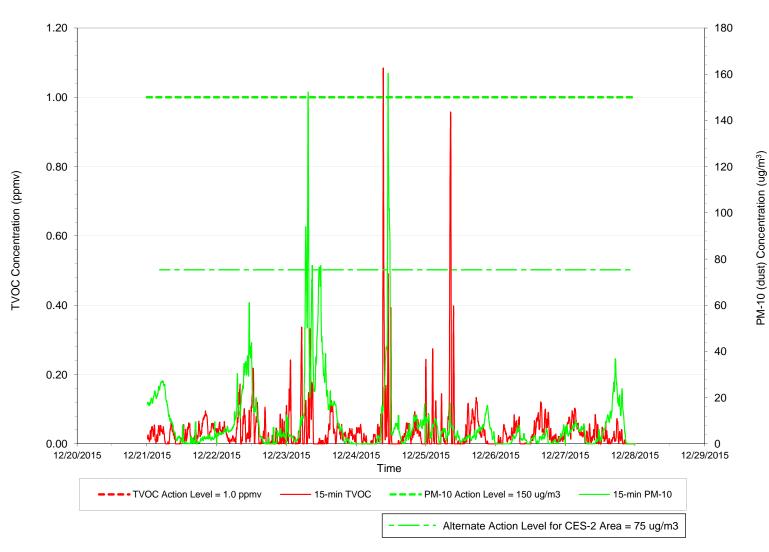
Wind Summary Statistics	
CALM	17%
UW	5%
UW/CW	0%
CW	0%
CW/DW	0%
DW	28%
DW/CW	6%
CW/UW	44%
TOTAL	100%

Filename: J:\170,000-179,999\171521\171521-41.MMS\Field Work\Air Monitoring\AirLogics Weekly Summary Reports\12.21.2015 We Data\STA7_WEEKLY122115.xls



Perimeter Air Monitoring Station - STA 8

15-minute average concentrations



TVOC Avg = 0.04 PM-10 Avg = 9.36	
G	
PM-10 Avg = 9.36	
Daily	
Data Summary Statistics	
TVOC max = (15Min Avg))
12/21/2015 0.0	9
12/22/2015 0.2	2
12/23/2015 0.3	4
12/24/2015 1.0	8
12/25/2015 0.9	6
12/26/2015 0.1	2
12/27/2015 0.1	0
PM10 max= (15Min Avg))
12/21/2015 27.3	5
12/22/2015 61.1	7
12/23/2015 152.3	2
12/24/2015 160.4	0
12/25/2015 17.6	4
12/26/2015 8.2	2
12/27/2015 36.8	1

Weekly

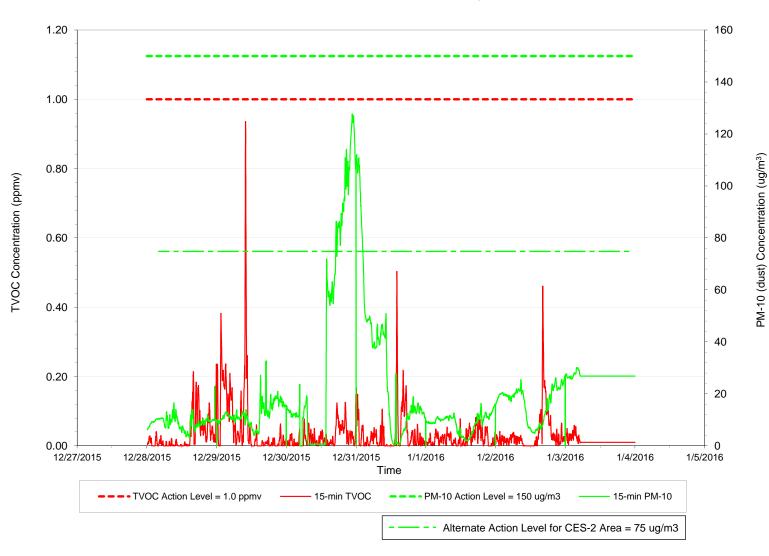
Wind Summary Statistics	
CALM	17%
UW	5%
UW/CW	0%
CW	0%
CW/DW	0%
DW	28%
DW/CW	6%
CW/UW	44%
TOTAL	100%

 $Filename: J:\170,000-179,999\\171521-171521-41.MMS\\Field\ Work\\Air\ Monitoring\\AirLogics\ Weekly\ Summary\ Reports\\12.21.2015\ We\ Data\\STA8_WEEKLY122115.xls$



Perimeter Air Monitoring Station - STA 1

15-minute average concentrations



TVOC Avg = PM-10 Avg =	0.03 20.97
Daily	
Data Summary	
TVOC max =	(15Min Avg)
12/28/2015	0.24
12/29/2015	0.94
12/30/2015	0.15
12/31/2015	0.50
1/1/2016	0.08
1/2/2016	0.46
1/3/2016	0.06
PM10 max=	(15Min Avg)
12/28/2015	22.92
12/29/2015	32.70
12/30/2015	127.66
12/31/2015	112.11

Weekly

Data Summary Statistics

Wind Summary Statistics	
CALM	2%
UW	24%
UW/CW	0%
CW	66%
CW/DW	0%
DW	1%
DW/CW	3%
CW/UW	3%
TOTAL	100%

1/1/2016

1/2/2016

1/3/2016

16.39

26.98

30.09

Filename: J:\170,000-179,999\171521\171521-41.MMS\Field Work\Air Monitoring\AirLogics Weekly Summary Reports\12.28.2015 We Data\STA1_WEEKLY122815.xls



Perimeter Air Monitoring Station - STA 2

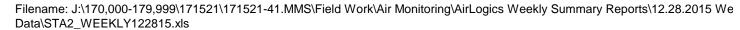
15-minute average concentrations



Data Summary	Statistics
Data Summary	otatistics
TVOC Avg =	0.01
PM-10 Avg =	8.84
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
12/28/2015	0.04
12/29/2015	0.03
12/30/2015	0.07
12/31/2015	0.06
1/1/2016	0.14
1/2/2016	0.02
1/3/2016	0.00
PM10 max=	(15Min Avg)
12/28/2015	10.48
12/29/2015	17.75
12/30/2015	106.95
12/31/2015	81.47
1/1/2016	3.92
1/2/2016	0.40
1/3/2016	0.86

Weekly

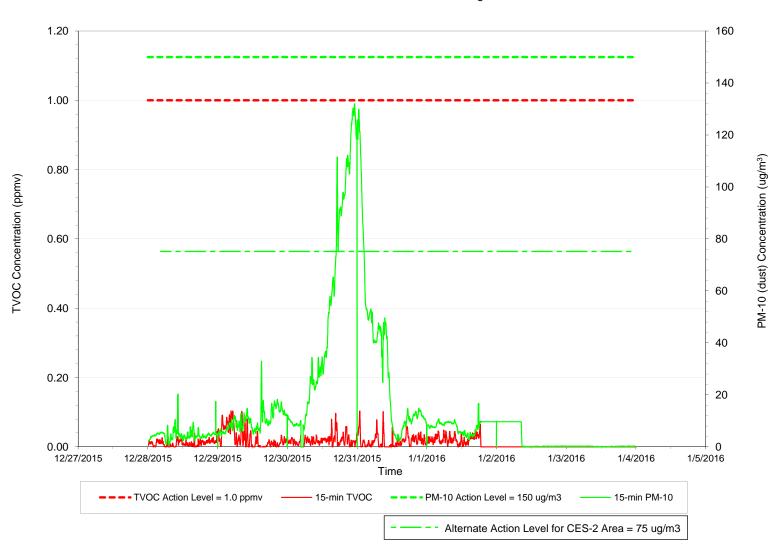
Wind Summary Statistics		
CALM	2%	
UW	24%	
UW/CW	0%	
CW	0%	
CW/DW	0%	
DW	50%	
DW/CW	3%	
CW/UW	21%	
TOTAL	100%	





Perimeter Air Monitoring Station - STA 3

15-minute average concentrations



TVOC Avg = PM-10 Avg =	0.01 15.58
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
12/28/2015	0.04
12/29/2015	0.10
12/30/2015	0.10
12/31/2015	0.10
1/1/2016	0.07
1/2/2016	0.00
1/3/2016	0.00
PM10 max=	(15Min Avg)
12/28/2015	20.30
12/29/2015	32.92
12/30/2015	131.99
12/31/2015	129.88
1/1/2016	16.70

Weekly

Data Summary Statistics

Wind Summary Statistics	
CALM	2%
UW	15%
UW/CW	0%
CW	0%
CW/DW	1%
DW	77%
DW/CW	4%
CW/UW	0%
TOTAL	100%

9.67

0.34

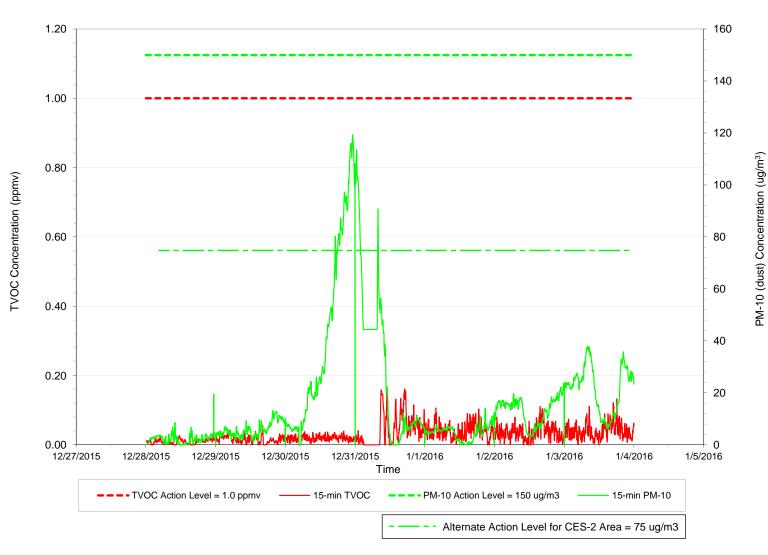
1/2/2016

1/3/2016



Perimeter Air Monitoring Station - STA 4

15-minute average concentrations



TVOC Avg = PM-10 Avg =	0.03 17.09
Daily Data Summary :	Statistics
TVOC max =	(15Min Avg)
12/28/2015	0.03
12/29/2015	0.05
12/30/2015	0.04
12/31/2015	0.17
1/1/2016	0.11
1/2/2016	0.11
1/3/2016	0.13
PM10 max=	(15Min Avg)
12/28/2015	19.48
12/29/2015	13.26
12/30/2015	119.32

113.59

13.97

23.82

37.85

12/31/2015

1/1/2016

1/2/2016

1/3/2016

Weekly

Data Summary Statistics

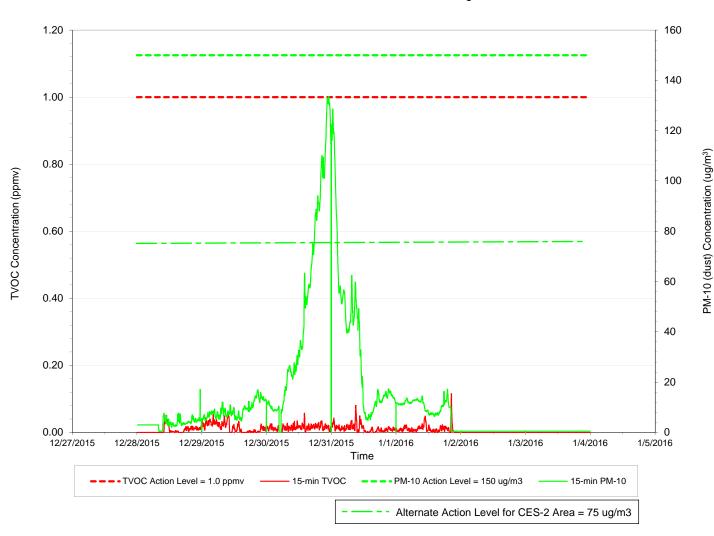
Wind Summary Statistics	
CALM	2%
UW	21%
UW/CW	0%
CW	0%
CW/DW	0%
DW	14%
DW/CW	0%
CW/UW	63%
TOTAL	100%

Filename: J:\170,000-179,999\171521\171521-41.MMS\Field Work\Air Monitoring\AirLogics Weekly Summary Reports\12.28.2015 We Data\STA4_WEEKLY122815.xls



Perimeter Air Monitoring Station - STA 5

15-minute average concentrations



W	e	ekly	
_		_	

Data Summary Statistics

TVOC Avg =	0.01
PM-10 Avg =	15.14

Daily

Data Summary Statistics

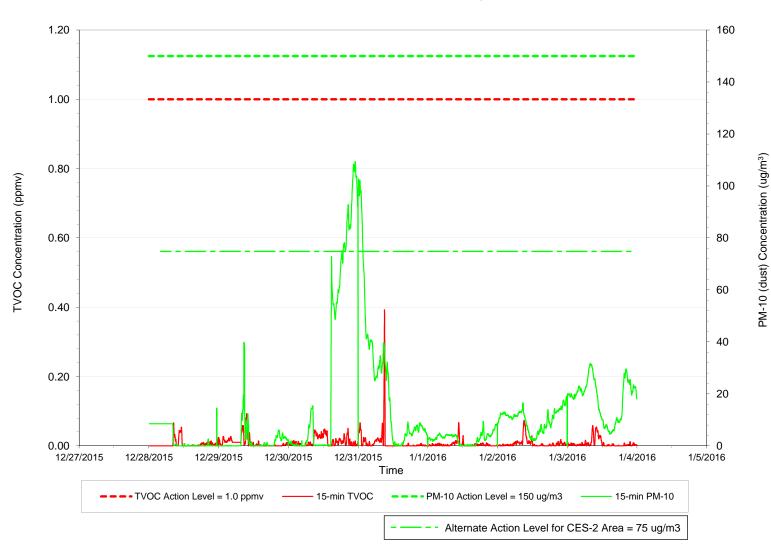
Min Avg)
0.05
0.06
0.06
0.08
0.12
0.00
0.00
Min Avg)
17.12
16.98
133.64
128.59
17.26
17.20
0.49

Wind Summary Statistics	
CALM	2%
UW	15%
UW/CW	0%
CW	0%
CW/DW	0%
DW	10%
DW/CW	0%
CW/UW	73%
TOTAL	100%



Perimeter Air Monitoring Station - STA 6

15-minute average concentrations



TVOC Avg = PM-10 Avg =	0.01 12.97
Daily Data Summary :	Statistics
TVOC max =	(15Min Avg)
12/28/2015	0.07
12/29/2015	0.09
12/30/2015	0.05
12/31/2015	0.39
1/1/2016	0.07
1/2/2016	0.07
1/3/2016	0.06
PM10 max=	(15Min Avg)
12/28/2015	14.55
12/29/2015	39.85
12/30/2015	109.39

102.70

9.39

19.15

31.73

12/31/2015

1/1/2016

1/2/2016

1/3/2016

Weekly

Data Summary Statistics

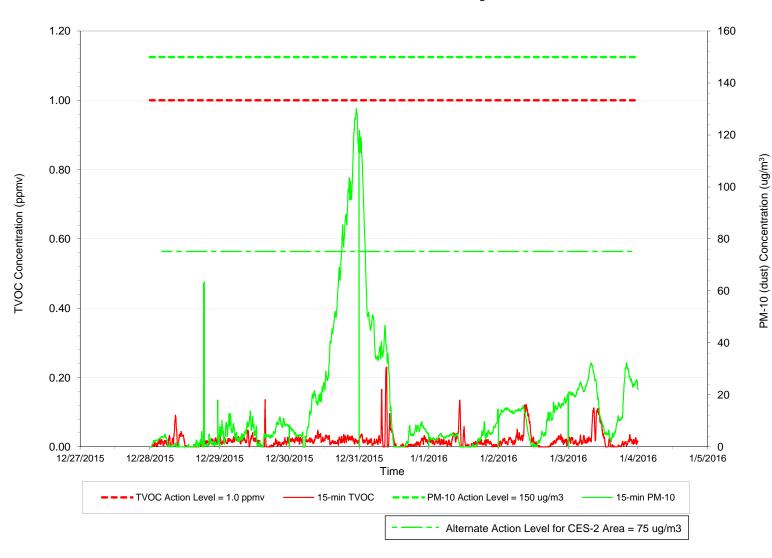
Wind Summary Statistics		
CALM	2%	
UW	0%	
UW/CW	0%	
CW	11%	
CW/DW	1%	
DW	13%	
DW/CW	0%	
CW/UW	72%	
TOTAL	100%	

Filename: J:\170,000-179,999\171521\171521-41.MMS\Field Work\Air Monitoring\AirLogics Weekly Summary Reports\12.28.2015 We Data\STA6_WEEKLY122815.xls



Perimeter Air Monitoring Station - STA 7

15-minute average concentrations



Data Summary Statistics

TVOC Avg =	0.02
PM-10 Avg =	15.77

Daily

Weekly

•		
Data Summary Statistics		
TVOC max =	(15Min Avg)	
12/28/2015	0.09	
12/29/2015	0.14	
12/30/2015	0.05	
12/31/2015	0.23	
1/1/2016	0.13	
1/2/2016	0.12	
1/3/2016	0.11	
PM10 max=	(15Min Avg)	
12/28/2015	63.40	
12/29/2015	13.80	
12/30/2015	130.07	
12/31/2015	121.83	
1/1/2016	14.52	
1/2/2016	20.24	
1/3/2016	32.29	

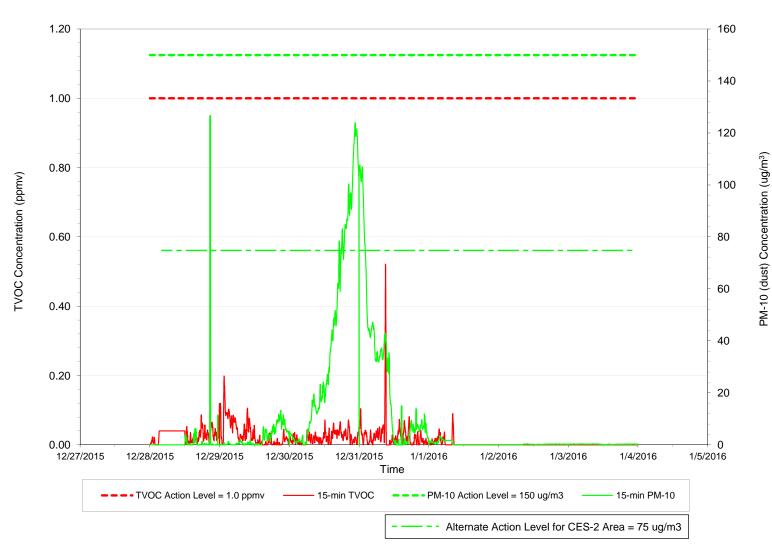
Wind Summary Statistics		
CALM	2%	
UW	9%	
UW/CW	0%	
CW	0%	
CW/DW	1%	
DW	15%	
DW/CW	2%	
CW/UW	70%	
TOTAL	100%	



Filename: J:\170,000-179,999\171521\171521-41.MMS\Field Work\Air Monitoring\AirLogics Weekly Summary Reports\12.28.2015 We Data\STA7_WEEKLY122815.xls

Perimeter Air Monitoring Station - STA 8

15-minute average concentrations



Data Summary Statistics		
TVOC Avg = PM-10 Avg =	0.02 10.04	
Daily	10.04	
,		
Data Summary	Statistics	
TVOC max =	(15Min Avg	
12/28/2015	0.1	
40/00/0045	0.0	

Weekly

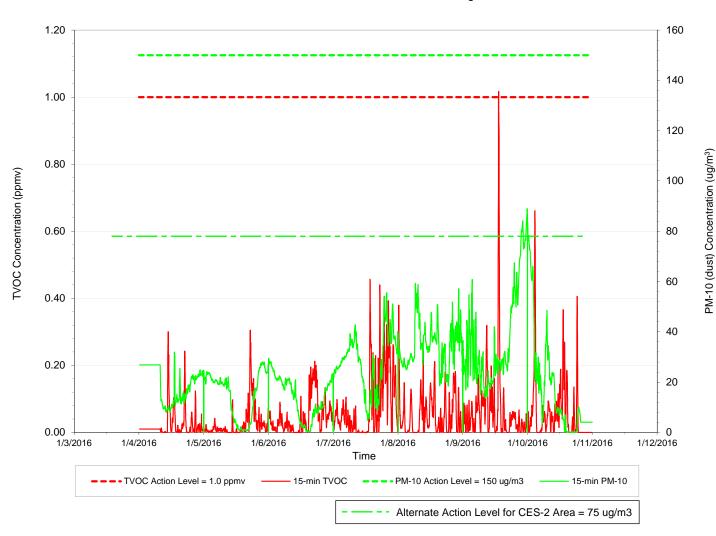
TVOC max =	(15Min Avg)
12/28/2015	0.12
12/29/2015	0.20
12/30/2015	0.07
12/31/2015	0.52
1/1/2016	0.09
1/2/2016	0.00
1/3/2016	0.00
PM10 max=	(15Min Avg)
r wiro max–	(13Milli Avg)
12/28/2015	126.66
	`
12/28/2015	126.66
12/28/2015 12/29/2015	126.66 13.30
12/28/2015 12/29/2015 12/30/2015	126.66 13.30 123.92
12/28/2015 12/29/2015 12/30/2015 12/31/2015	126.66 13.30 123.92 107.64
12/28/2015 12/29/2015 12/30/2015 12/31/2015 1/1/2016	126.66 13.30 123.92 107.64 3.36

Wind Summary Statistics	
CALM	2%
UW	9%
UW/CW	0%
CW	0%
CW/DW	1%
DW	15%
DW/CW	2%
CW/UW	70%
TOTAL	100%



Perimeter Air Monitoring Station - STA 1

15-minute average concentrations



Weekly			
_		_	

Data Summary Statistics

TVOC Avg =	0.09
PM-10 Avg =	23.67

Daily

Data Summary Statistics

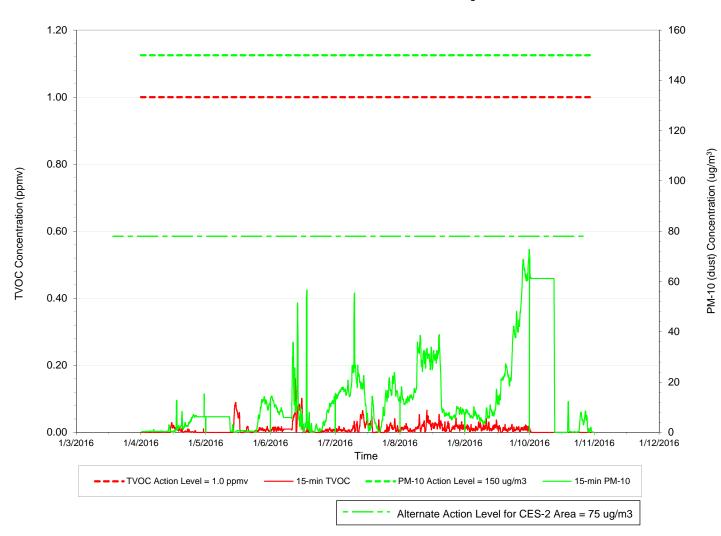
	,	
TVOC max =	:	(15Min Avg)
	1/4/2016	0.30
	1/5/2016	0.30
	1/6/2016	0.21
	1/7/2016	0.46
	1/8/2016	0.38
	1/9/2016	1.02
	1/10/2016	0.66
PM10 max=		(15Min Avg)
PM10 max=	1/4/2016	(15Min Avg) 31.93
PM10 max=	1/4/2016 1/5/2016	\
PM10 max=	., .,	31.93
PM10 max=	1/5/2016	31.93 28.02
PM10 max=	1/5/2016 1/6/2016	31.93 28.02 29.46
PM10 max=	1/5/2016 1/6/2016 1/7/2016	31.93 28.02 29.46 55.51
PM10 max=	1/5/2016 1/6/2016 1/7/2016 1/8/2016	31.93 28.02 29.46 55.51 59.28

Wind Summary Statistics	
CALM	10%
UW	36%
UW/CW	0%
CW	45%
CW/DW	0%
DW	2%
DW/CW	2%
CW/UW	5%
TOTAL	100%



Perimeter Air Monitoring Station - STA 2

15-minute average concentrations



Weekly	
D-4- 0	_

Data Summary Statistics

TVOC Avg =	1.04
PM-10 Avg =	13.46

Daily

Data Summary Statistics

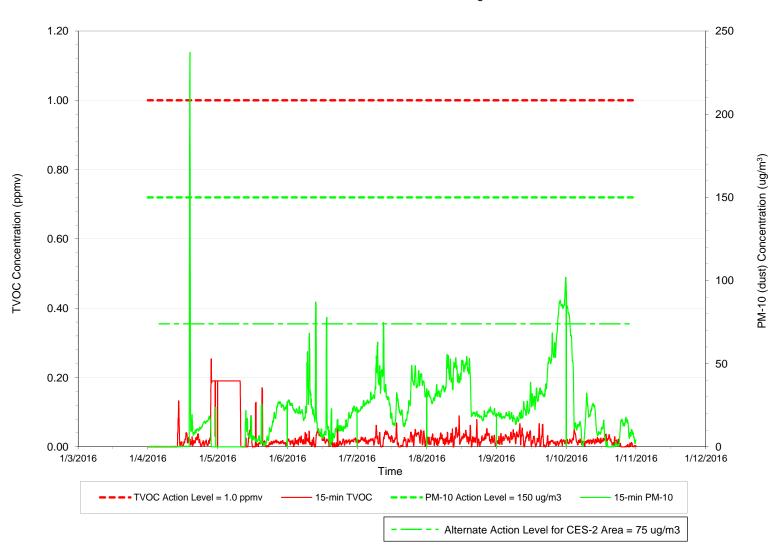
Data Gaiiiiiai	,	
TVOC max =	:	(15Min Avg)
	1/4/2016	0.03
	1/5/2016	0.09
	1/6/2016	0.16
	1/7/2016	0.07
	1/8/2016	0.07
	1/9/2016	0.04
	1/10/2016	0.01
PM10 max=		(15Min Avg)
PM10 max=	1/4/2016	(15Min Avg) 15.34
PM10 max=	1/4/2016 1/5/2016	\
PM10 max=		15.34
PM10 max=	1/5/2016	15.34 14.18
PM10 max=	1/5/2016 1/6/2016	15.34 14.18 56.67
PM10 max=	1/5/2016 1/6/2016 1/7/2016	15.34 14.18 56.67 55.43
PM10 max=	1/5/2016 1/6/2016 1/7/2016 1/8/2016	15.34 14.18 56.67 55.43 38.85

Wind Summary Statistics	
CALM	10%
UW	35%
UW/CW	0%
CW	0%
CW/DW	0%
DW	32%
DW/CW	2%
CW/UW	21%
TOTAL	100%



Perimeter Air Monitoring Station - STA 3

15-minute average concentrations



١	/Vee	kly	
Г	Jata	Summary	Statistic

TVOC Avg =	0.03
PM-10 Avg =	21.24

Daily

Data Summary Statistics		
TVOC max =	(15Min Avg)	
1/4/2016	0.25	
1/5/2016	0.19	
1/6/2016	0.08	
1/7/2016	0.07	
1/8/2016	0.09	
1/9/2016	0.07	
1/10/2016	0.05	
PM10 max=	(15Min Avg)	
1/4/2016	237.23	
1/5/2016	27.23	
1/6/2016	87.07	
1/7/2016	74.71	
1/8/2016	55.62	
1/9/2016	101.88	
1/10/2016	93.71	

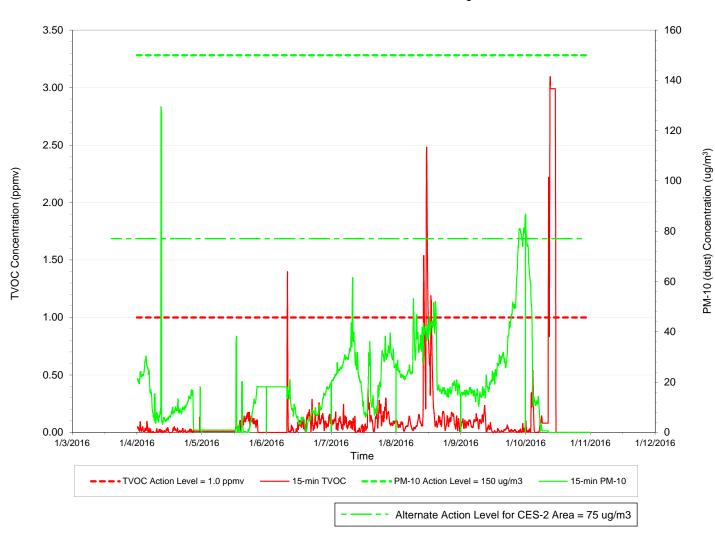
Wind Summary Statistics		
CALM	10%	
UW	21%	
UW/CW	0%	
CW	1%	
CW/DW	1%	
DW	59%	
DW/CW	7%	
CW/UW	1%	
TOTAL	100%	



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Perimeter Air Monitoring Station - STA 4

15-minute average concentrations



W	eekly	
_		

Data Summary Statistics

TVOC Avg =	0.12
PM-10 Avg =	17.24

Daily

Data Summary Statistics

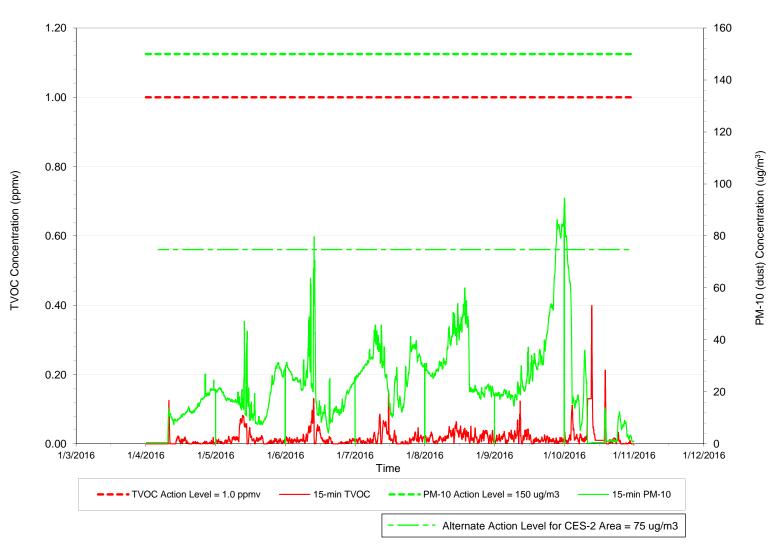
TVOC max =	:	(15Min Avg)
	1/4/2016	0.13
	1/5/2016	0.18
	1/6/2016	1.40
	1/7/2016	0.38
	1/8/2016	2.48
	1/9/2016	0.23
	1/10/2016	3.09
PM10 max=		(15Min Avg)
PM10 max=	1/4/2016	(15Min Avg) 129.53
PM10 max=	1/4/2016 1/5/2016	\
PM10 max=		129.53
PM10 max=	1/5/2016	129.53 38.29
PM10 max=	1/5/2016 1/6/2016	129.53 38.29 21.03
PM10 max=	1/5/2016 1/6/2016 1/7/2016	129.53 38.29 21.03 61.58
PM10 max=	1/5/2016 1/6/2016 1/7/2016 1/8/2016	129.53 38.29 21.03 61.58 53.15

Wind Summary Statistics	
CALM	10%
UW	26%
UW/CW	0%
CW	0%
CW/DW	0%
DW	20%
DW/CW	0%
CW/UW	44%
TOTAL	100%



Perimeter Air Monitoring Station - STA 5

15-minute average concentrations



Weekly	
Data Summary Statis	tic

TVOC Avg = 0.02 PM-10 Avg = 22.38

Daily

•	
Data Summary	Statistics
TVOC max =	(15Min Avg)
1/4/2016	0.13
1/5/2016	0.08
1/6/2016	0.13
1/7/2016	0.15
1/8/2016	0.06
1/9/2016	0.12
1/10/2016	0.40
PM10 max=	(15Min Avg)
1/4/2016	26.82
1/5/2016	47.08
1/6/2016	79.73
1/7/2016	45.76
1/8/2016	60.00
1/9/2016	90.76

Wind Summary Statistics		
CALM	10%	
UW	22%	
UW/CW	0%	
CW	0%	
CW/DW	0%	
DW	15%	
DW/CW	0%	
CW/UW	53%	
TOTAL	100%	

94.47

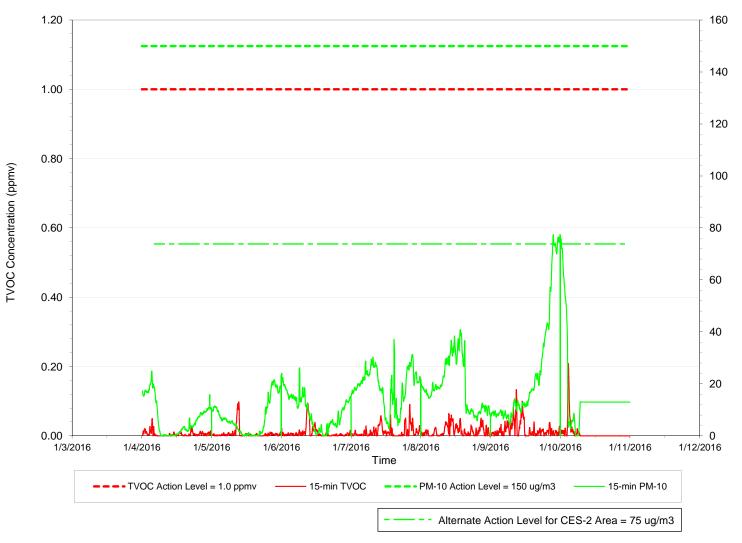
1/10/2016



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Perimeter Air Monitoring Station - STA 6

15-minute average concentrations



Data Summary Statistics		
TVOC Avg = PM-10 Avg =	0.01 14.5	
Daily		

Weekly

PM-10 (dust) Concentration (ug/m³)

•		
Data Summary Statistics		
TVOC max =	(15Min Avg)	
1/4/2016	0.05	
1/5/2016	0.10	
1/6/2016	0.09	
1/7/2016	0.09	
1/8/2016	0.06	
1/9/2016	0.13	
1/10/2016	0.21	
PM10 max=	(15Min Avg)	
1/4/2016	24.92	
1/5/2016	23.35	
1/6/2016	26.19	
1/7/2016	37.13	
1/8/2016	40.89	
1/9/2016	77.38	
1/10/2016	76.84	

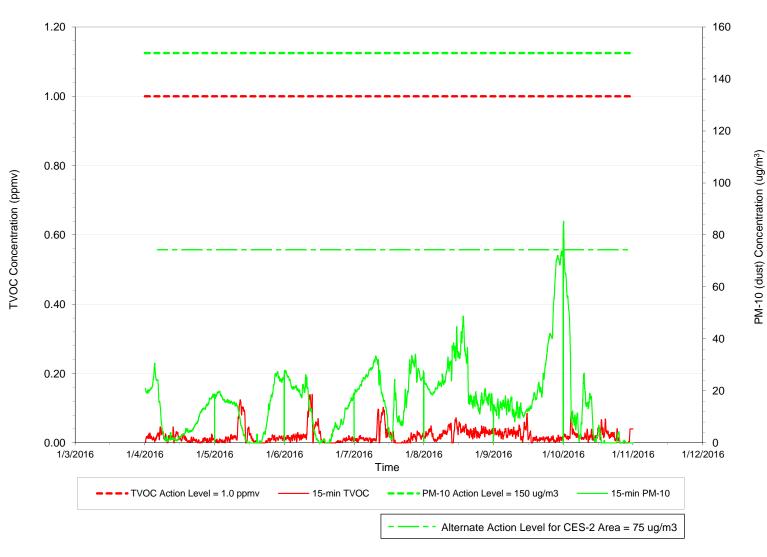
Wind Summary Statistics	
CALM	10%
UW	0%
UW/CW	0%
CW	17%
CW/DW	1%
DW	19%
DW/CW	0%
CW/UW	52%
TOTAL	100%



 $Filename: J:\\170,000-179,999\\171521\\171521-41.MMS\\Field Work\\Air Monitoring\\AirLogics Weekly Summary Reports\\01_04_2016_Weekly_Data\\STA6_WEEKLY010416.xls$

Perimeter Air Monitoring Station - STA 7

15-minute average concentrations



Weekly
Data Summary Statistics

TVOC Avg = 0.02 PM-10 Avg = 16.36

Daily

Data Summary Statistics		
TVOC max =	(15Min Avg)	
1/4/2016	0.05	
1/5/2016	0.12	
1/6/2016	0.14	
1/7/2016	0.10	
1/8/2016	0.07	
1/9/2016	0.09	
1/10/2016	0.09	
PM10 max=	(15Min Avg)	
1/4/2016	30.66	
1/5/2016	27.32	
1/6/2016	27.88	
1/7/2016	34.10	
1/8/2016	48.78	
1/9/2016	79.07	
1/10/2016	85.23	
1/5/2016 1/6/2016 1/7/2016 1/8/2016 1/9/2016	27.32 27.88 34.10 48.78 79.07	

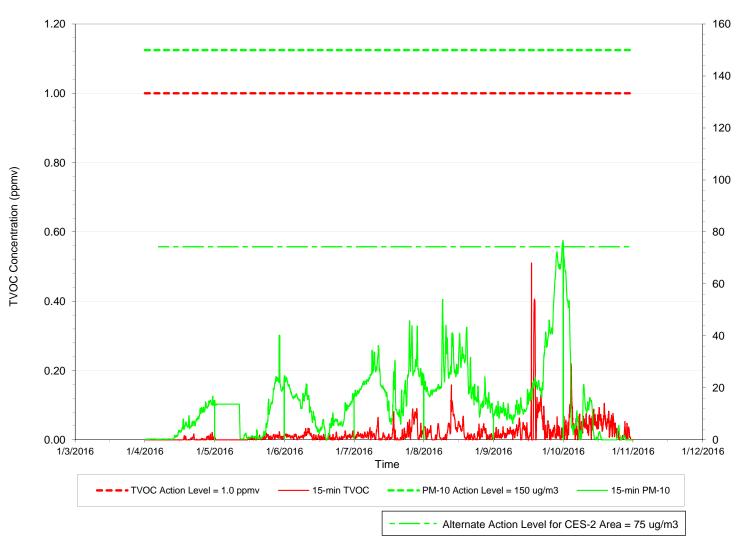
Wind Summary Statistics	
CALM	10%
UW	14%
UW/CW	0%
CW	0%
CW/DW	1%
DW	22%
DW/CW	2%
CW/UW	51%
TOTAL	100%



 $Filename: J:\\170,000-179,999\\171521\\171521-41.MMS\\Field Work\\Air Monitoring\\AirLogics Weekly Summary Reports\\01_04_2016_Weekly_Data\\STA7_WEEKLY010416.xls$

Perimeter Air Monitoring Station - STA 8

15-minute average concentrations



١	Weekly
ı	Data Summary Statistic
_	

TVOC Avg =	0.02
PM-10 Avg =	15.01

Daily

PM-10 (dust) Concentration (ug/m³)

Data Summary Statistics		
TVOC max =	(15Min Avg)	
1/4/2016	0.02	
1/5/2016	0.02	
1/6/2016	0.03	
1/7/2016	0.09	
1/8/2016	0.16	
1/9/2016	0.51	
1/10/2016	0.22	
PM10 max=	(15Min Avg)	
1/4/2016	16.79	
1/5/2016	40.26	
1/6/2016	24.62	
1/7/2016	45.78	
1/8/2016	54.04	
1/9/2016	76.75	
1/10/2016	75.34	

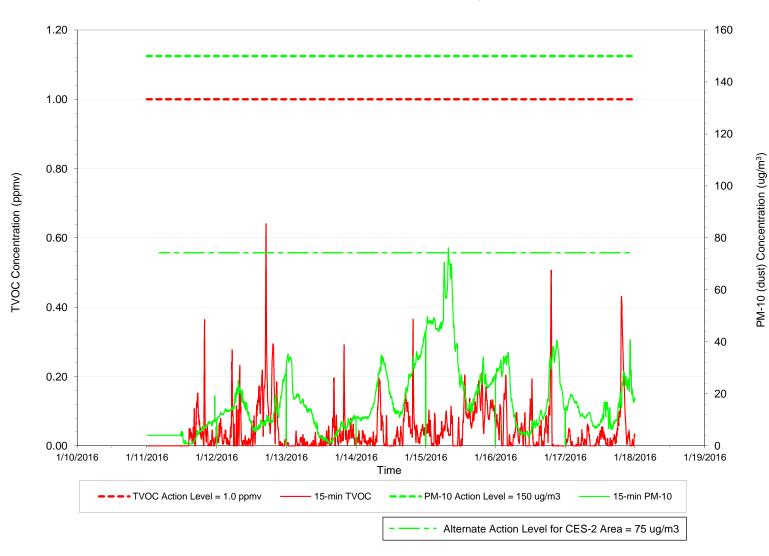
Wind Summary Statistics	
CALM 10%	
UW	14%
UW/CW	0%
CW	0%
CW/DW	1%
DW	22%
DW/CW	2%
CW/UW	51%
TOTAL	100%



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Perimeter Air Monitoring Station - STA 1

15-minute average concentrations



Weekly
Data Summary Statistic

TVOC Avg =	0.04
PM-10 Avg =	17.12

Daily

Data Summary Statistics		
TVOC max =	(15Min Avg)	
1/11/2016	0.36	
1/12/2016	0.64	
1/13/2016	0.29	
1/14/2016	0.37	
1/15/2016	0.21	
1/16/2016	0.51	
1/17/2016	0.43	
PM10 max=	(15Min Avg)	
1/11/2016	19.18	
1/12/2016	30.03	
1/13/2016	35.32	
1/14/2016	44.05	
1/15/2016	76.20	
1/16/2016	40.65	
1/17/2016	40.88	

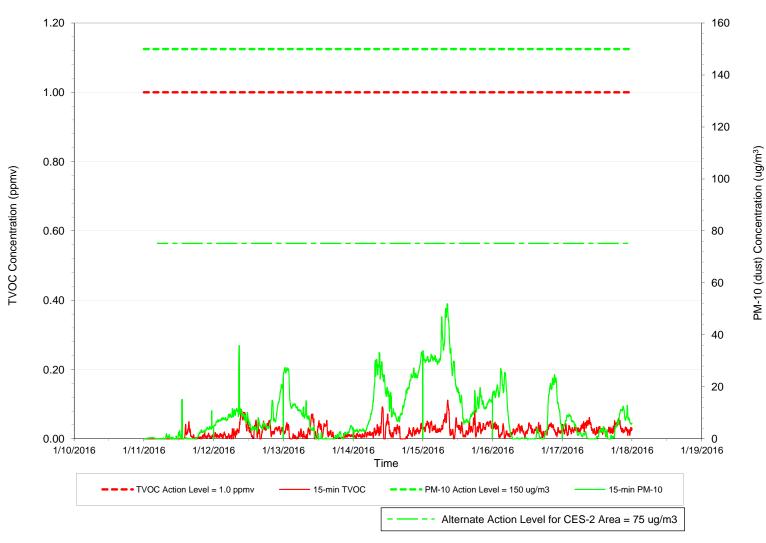
Wind Summary Statistics	
CALM	6%
UW	30%
UW/CW	0%
CW	54%
CW/DW	1%
DW	5%
DW/CW	1%
CW/UW	2%
TOTAL	100%





Perimeter Air Monitoring Station - STA 2

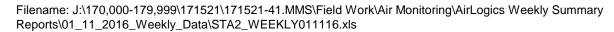
15-minute average concentrations



Data Summary	Statistics
TVOC Avg =	0.02
PM-10 Avg =	9.45
Daily	
Data Summary	Statistics
TVOC max =	
1/11/2016	0.05
1/12/2016	0.08
1/13/2016	0.07
1/14/2016	0.09
1/15/2016	0.11
1/16/2016	0.05
1/17/2016	0.06
PM10 max=	(15Min Avg)
1/11/2016	15.15
1/12/2016	35.90
1/13/2016	27.54
1/14/2016	33.50
1/15/2016	51.97
1/16/2016	27.07 12.91
1/17/2016	12.91

Weekly

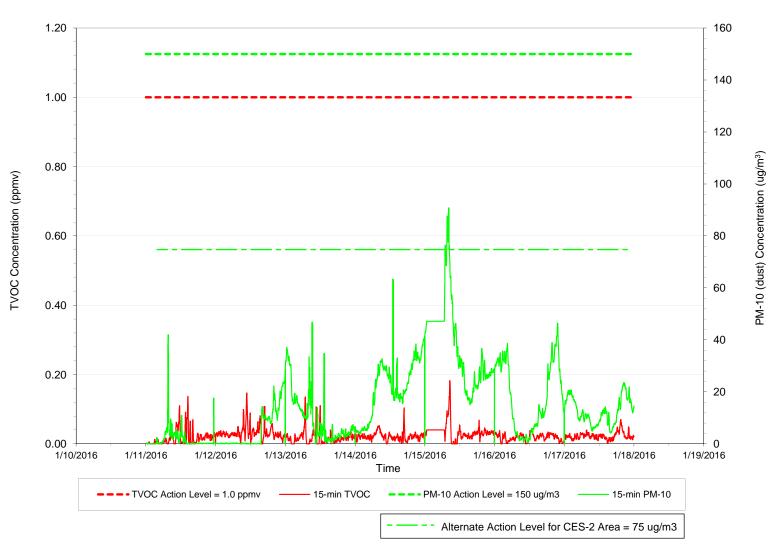
Wind Summary Statistics	
CALM	6%
UW	29%
UW/CW	0%
CW	0%
CW/DW	0%
DW	53%
DW/CW	2%
CW/UW	9%
TOTAL	100%





Perimeter Air Monitoring Station - STA 3

15-minute average concentrations



Data Summary Statistics	
TVOC Avg =	0.03
PM-10 Avg =	15.38
•	
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
1/11/2016	0.14
1/12/2016	0.15

Weekly

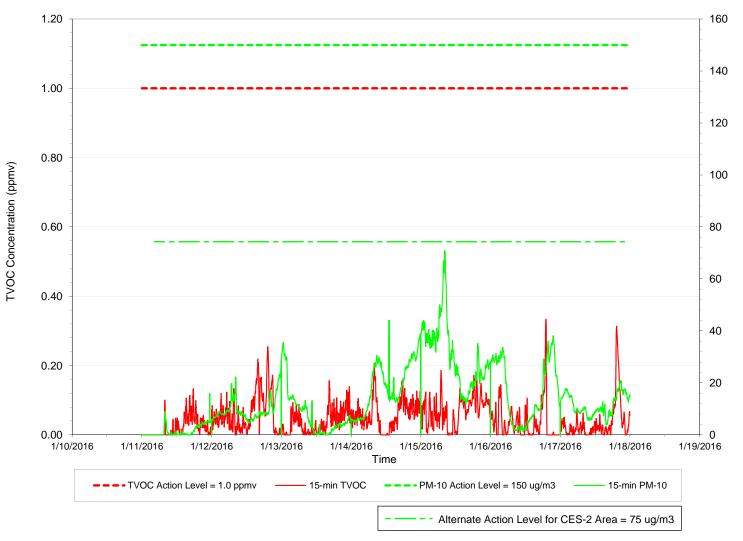
I VOC max =	(Tolviin Avg)
1/11/2016	0.14
1/12/2016	0.15
1/13/2016	0.14
1/14/2016	0.10
1/15/2016	0.18
1/16/2016	0.04
1/17/2016	0.07
PM10 max=	(15Min Avg)
rivito iliax=	(13WIII AVG)
1/11/2016	41.98
	٠,
1/11/2016	41.98
1/11/2016 1/12/2016	41.98 28.56
1/11/2016 1/12/2016 1/13/2016	41.98 28.56 46.84
1/11/2016 1/12/2016 1/13/2016 1/14/2016	41.98 28.56 46.84 63.34
1/11/2016 1/12/2016 1/13/2016 1/14/2016 1/15/2016	41.98 28.56 46.84 63.34 90.78

Wind Summary Statistics	
CALM	6%
UW	11%
UW/CW	1%
CW	5%
CW/DW	1%
DW	73%
DW/CW	2%
CW/UW	1%
TOTAL	100%



Perimeter Air Monitoring Station - STA 4

15-minute average concentrations



Data Summary Statistics TVOC Avg = 0.05 PM-10 Avg =13.90 Daily **Data Summary Statistics** TVOC max = (15Min Avg)1/11/2016 0.13 1/12/2016 0.25 1/13/2016 0.16 1/14/2016 0.21 1/15/2016 0.19 1/16/2016 0.33 1/17/2016 0.31 PM10 max= (15Min Avg) 1/11/2016 15.95 1/12/2016 28.52 1/13/2016 35.50

1/14/2016

1/15/2016

1/16/2016

1/17/2016

Weekly

PM-10 (dust) Concentration (ug/m³)

Wind Summary Statistics	
CALM	6%
UW	20%
UW/CW	0%
CW	0%
CW/DW	0%
DW	22%
DW/CW	0%
CW/UW	52%
TOTAL	100%

44.07

70.76

38.15

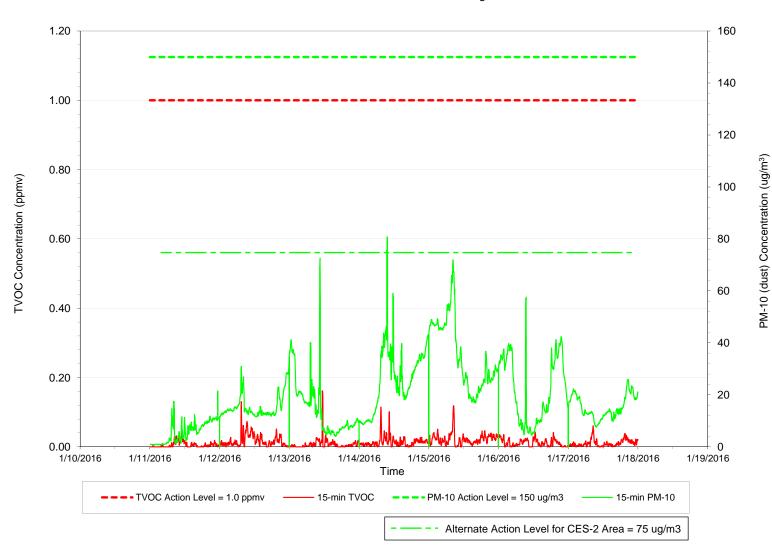
20.87



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Perimeter Air Monitoring Station - STA 5

15-minute average concentrations



	Weekly
	Data Summary Statistic
-	

TVOC Avg =	0.01
PM-10 Avg =	19.26

Daily

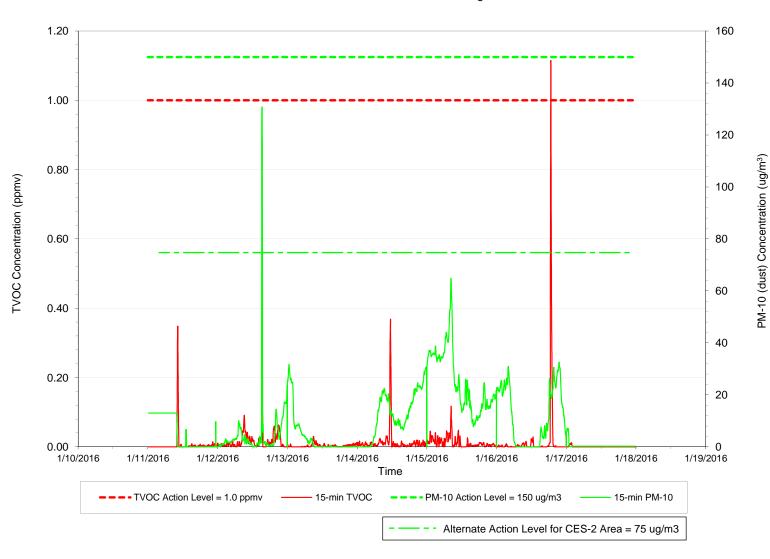
Data Summary Statistics	
(15Min Avg)	
0.04	
0.13	
0.16	
0.11	
0.12	
0.04	
0.06	
(15Min Avg)	
21.49	
34.61	
72.55	
80.73	
71.97	
57.58	
26.00	

Wind Summary Statistics	
CALM	6%
UW	16%
UW/CW	0%
CW	0%
CW/DW	0%
DW	19%
DW/CW	0%
CW/UW	58%
TOTAL	100%



Perimeter Air Monitoring Station - STA 6

15-minute average concentrations



Data Summary Statistics	
TVOC Avg =	0.01
PM-10 Avg =	9.10
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
1/11/2016	0.35
1/12/2016	0.33
1/13/2016	0.03
1/14/2016	0.37
1/15/2016	0.12
1/16/2016	1.11
1/17/2016	0.01
PM10 max=	(15Min Avg)
1/11/2016	12.97
1/12/2016	130.74
1/13/2016	31.79
1/14/2016	30.70
1/15/2016	64.89
1/16/2016	32.56

Weekly

Wind Summary Statistics	
CALM	6%
UW	0%
UW/CW	0%
CW	26%
CW/DW	0%
DW	9%
DW/CW	0%
CW/UW	58%
TOTAL	100%

7.16

1/17/2016

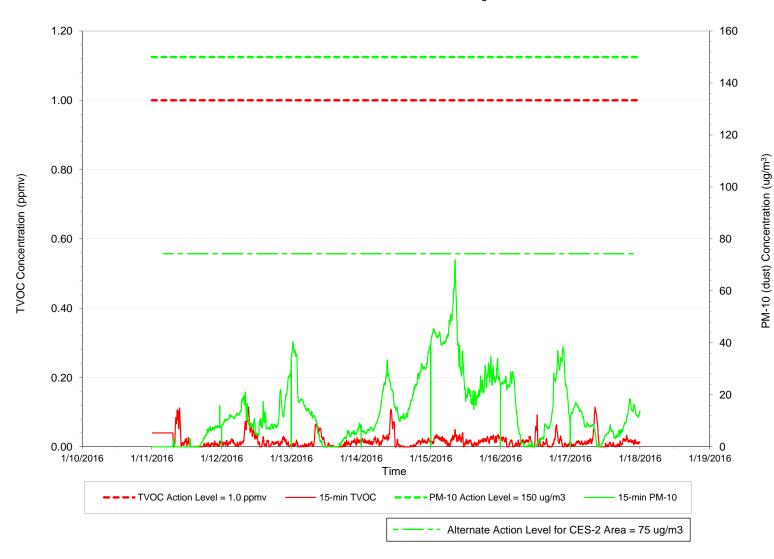


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Perimeter Air Monitoring Station - STA 7

15-minute average concentrations



Data Summary Statisti	Weekly	
	Data Summary Statis	sti

TVOC Avg =	0.02
PM-10 Avg =	13.87

Daily

Data Summary Statistics	
(15Min Avg)	
0.11	
0.12	
0.07	
0.11	
0.05	
0.09	
0.11	
(15Min Avg)	
15.85	
33.10	
40.45	
39.40	
72.18	
38.46	
18.54	

Wind Summary Statistics	
CALM	6%
UW	19%
UW/CW	0%
CW	0%
CW/DW	1%
DW	16%
DW/CW	1%
CW/UW	57%
TOTAL	100%

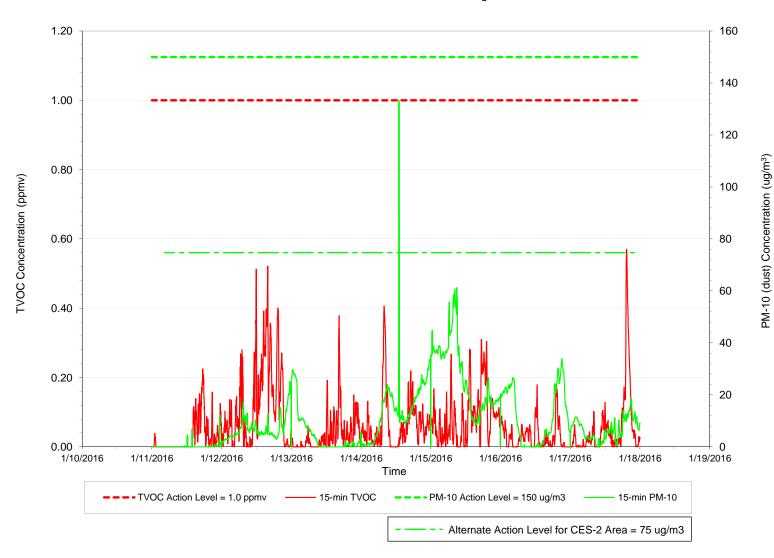


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Perimeter Air Monitoring Station - STA 8

15-minute average concentrations



Data Summary Statistics

TVOC Avg = 0.06

PM-10 Avg = 10.47

Daily

Data Summary Statistics

Weekly

Data Guillillary	Jianones
TVOC max =	(15Min Avg)
1/11/2016	0.22
1/12/2016	0.52
1/13/2016	0.38
1/14/2016	0.41
1/15/2016	0.31
1/16/2016	0.18
1/17/2016	0.57
PM10 max=	(15Min Avg)
1/11/2016	12.16
1/12/2016	25.12
1/13/2016	29.77
1/14/2016	133.31
1/15/2016	61.27
1/16/2016	33.90
1/17/2016	18.81

Wind Summary Statistics	
CALM	6%
UW	19%
UW/CW	0%
CW	0%
CW/DW	1%
DW	16%
DW/CW	1%
CW/UW	57%
TOTAL	100%

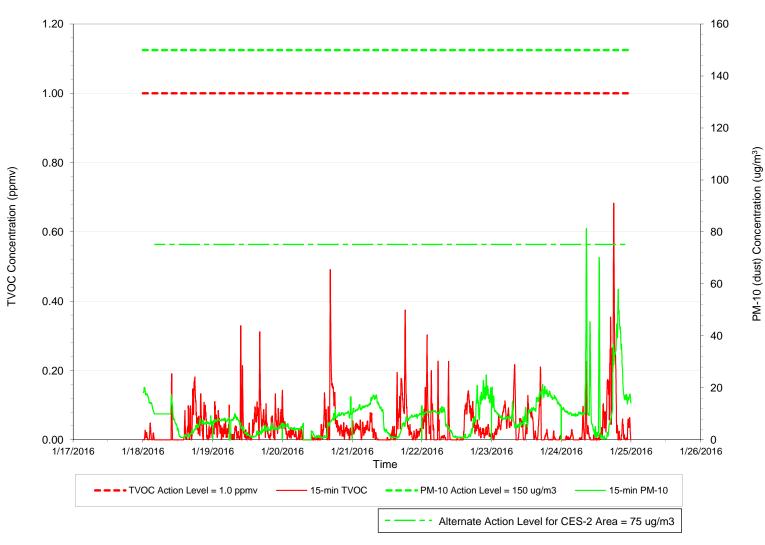


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Perimeter Air Monitoring Station - STA 1

15-minute average concentrations



Data Summary Statistics	
0.04	
9.13	
Statistics	
(15Min Avg)	
0.19	
0.33	
0.49	
0.37	
0.30	
0.22	
0.68	
(15Min Avg)	
20.18	
10.03	
16.62	
17.32	
24.98	
21.39	

Weekly

Wind Summary Statistics	
CALM	3%
UW	23%
UW/CW	0%
CW	70%
CW/DW	0%
DW	0%
DW/CW	0%
CW/UW	3%
TOTAL	100%

81.35

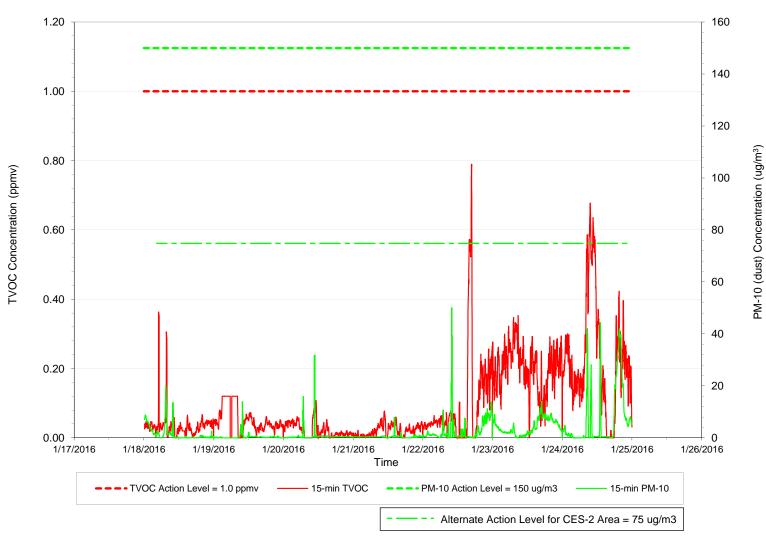
1/24/2016

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Perimeter Air Monitoring Station - STA 2

15-minute average concentrations



TVOC Avg = 0.10 PM-10 Avg =2.54 Daily **Data Summary Statistics** TVOC max = (15Min Avg)1/18/2016 0.36 1/19/2016 0.12 1/20/2016 0.11 1/21/2016 0.08 0.79 1/22/2016 1/23/2016 0.35 1/24/2016 0.68 PM10 max= (15Min Avg)

20.02

13.90

31.86

7.79

50.07

13.97

44.36

1/18/2016

1/19/2016

1/20/2016

1/21/2016

1/22/2016

1/23/2016

1/24/2016

Data Summary Statistics

Weekly

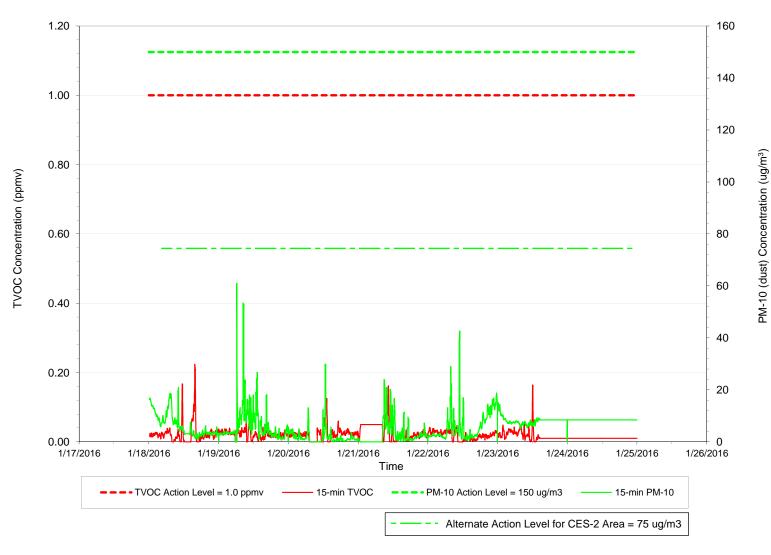
Wind Summary Statistics	
CALM	3%
UW	23%
UW/CW	0%
CW	0%
CW/DW	0%
DW	40%
DW/CW	8%
CW/UW	26%
TOTAL	100%



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Perimeter Air Monitoring Station - STA 3

15-minute average concentrations



Data Summary Statistics	
TVOC Avg =	0.03
PM-10 Avg =	5.94
Daily	
Data Summary	
TVOC max =	(15Min Avg)
1/18/2016	0.22
1/19/2016	0.13
1/20/2016	0.13
1/21/2016	0.16
1/22/2016	0.05
1/23/2016	0.16
1/24/2016	0.01
PM10 max=	(15Min Avg)
1/18/2016	20.92
1/19/2016	60.98
1/20/2016	29.85
1/21/2016	23.99
1/22/2016	42.66
1/23/2016	15.10

Weekly

Wind Summary Statistics	
CALM	3%
UW	5%
UW/CW	0%
CW	0%
CW/DW	0%
DW	87%
DW/CW	5%
CW/UW	0%
TOTAL	100%

8.42

1/24/2016

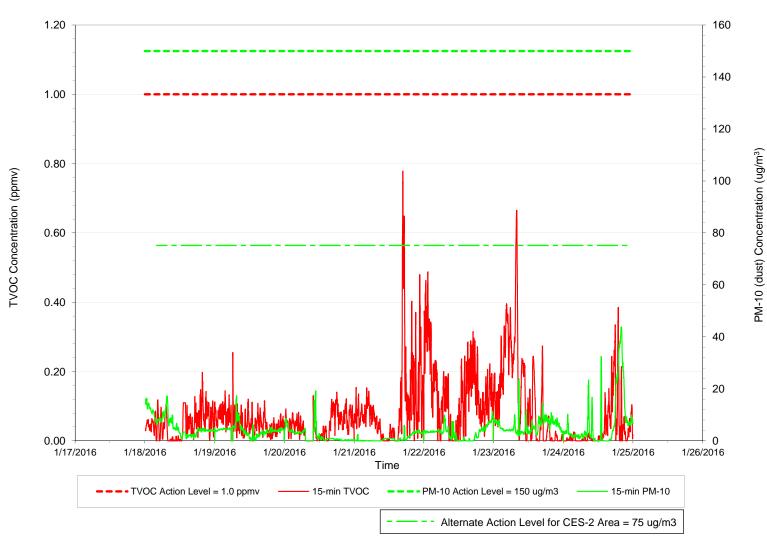


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Perimeter Air Monitoring Station - STA 4

15-minute average concentrations



TVOC Avg = 0.09 PM-10 Avg =4.26 Daily **Data Summary Statistics** TVOC max = (15Min Avg)1/18/2016 0.20 1/19/2016 0.25 1/20/2016 0.14 1/21/2016 0.78 0.49 1/22/2016 1/23/2016 0.66 1/24/2016 0.38 PM10 max= (15Min Avg) 1/18/2016 17.26 1/19/2016 17.35 1/20/2016 19.23 6.00 1/21/2016 1/22/2016 11.34

Weekly

Data Summary Statistics

Wind Summary Statistics	
CALM	3%
UW	4%
UW/CW	0%
CW	0%
CW/DW	0%
DW	21%
DW/CW	0%
CW/UW	72%
TOTAL	100%

23.88

43.82

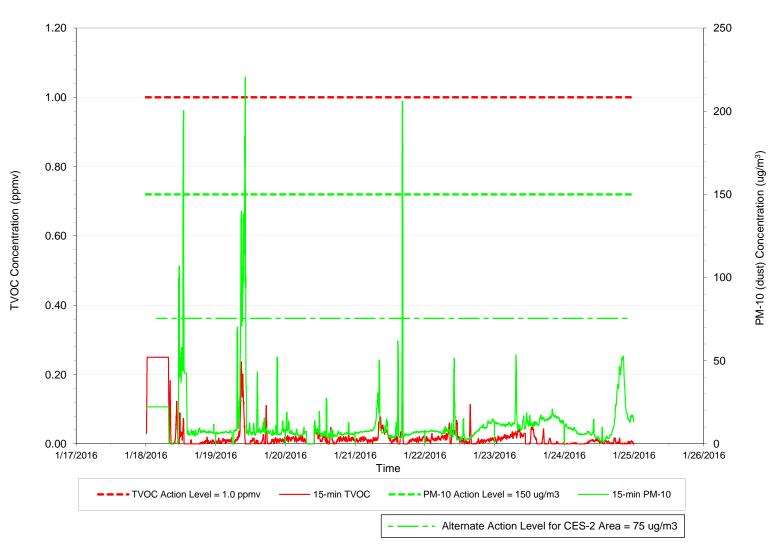
1/23/2016

1/24/2016



Perimeter Air Monitoring Station - STA 5

15-minute average concentrations



	Weekly
	Data Summary Statistic
-	

TVOC Avg = 0.03 PM-10 Avg = 12.72

Daily

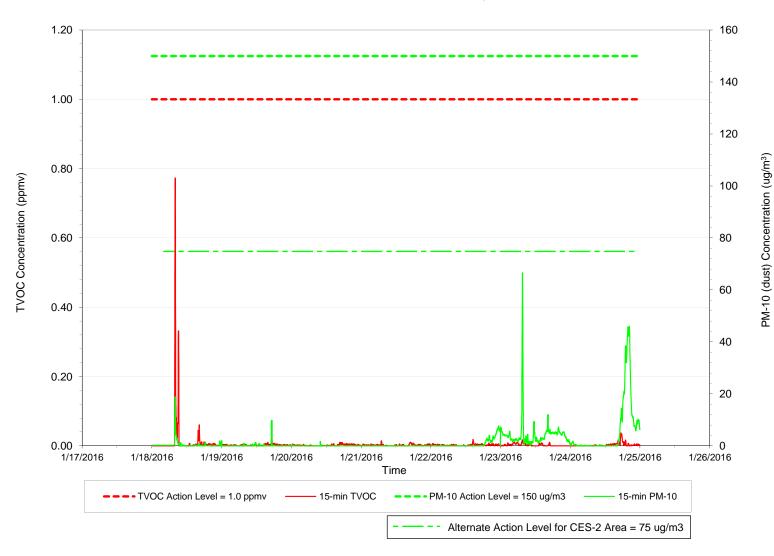
Data Summary :	otationioo
TVOC max =	(15Min Avg)
1/18/2016	0.25
1/19/2016	0.24
1/20/2016	0.05
1/21/2016	0.11
1/22/2016	0.11
1/23/2016	0.05
1/24/2016	0.02
PM10 max=	(15Min Avg)
1/18/2016	200.46
1/19/2016	220.52
1/20/2016	07.00
1/20/2010	27.20
1/20/2016	27.20 206.06
1/21/2016	206.06
1/21/2016 1/22/2016	206.06 51.36

Wind Summary Statistics	
CALM	3%
UW	5%
UW/CW	0%
CW	0%
CW/DW	0%
DW	19%
DW/CW	0%
CW/UW	73%
TOTAL	100%



Perimeter Air Monitoring Station - STA 6

15-minute average concentrations



Data Summary	Statistics
TVOC Avg =	0.01
PM-10 Avg =	1.70
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
1/18/2016	0.77
1/19/2016	0.02
1/20/2016	0.01
1/21/2016	0.01
1/22/2016	0.02
1/23/2016	0.02
1/24/2016	0.04
PM10 max=	(15Min Avg)
1/18/2016	18.87
1/19/2016	9.81
1/20/2016	1.71
1/21/2016	0.03
1/22/2016	7.64
1/23/2016	66.56

Weekly

Wind Summary Statistics	
CALM	3%
UW	0%
UW/CW	0%
CW	19%
CW/DW	1%
DW	4%
DW/CW	0%
CW/UW	73%
TOTAL	100%

46.00

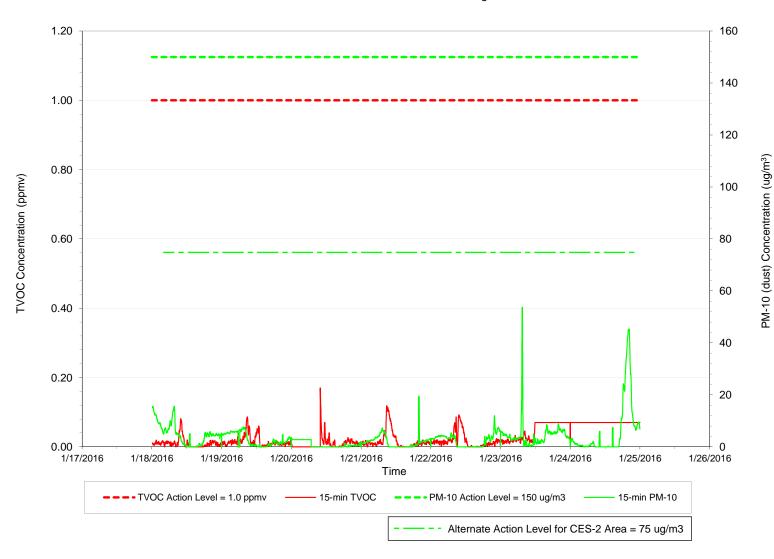
1/24/2016





Perimeter Air Monitoring Station - STA 7

15-minute average concentrations



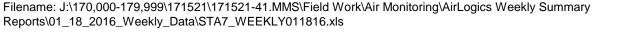
Data Summary Statistics TVOC Avg = 0.03 PM-10 Avg = 3.45 Daily **Data Summary Statistics** TVOC max = (15Min Avg)1/18/2016 0.08 1/19/2016 0.09 1/20/2016 0.17 1/21/2016 0.12 0.09 1/22/2016 1/23/2016 0.07 1/24/2016 0.07 PM10 max= (15Min Avg) 1/18/2016 15.63 1/19/2016 7.66 1/20/2016 3.34 1/21/2016 19.47 1/22/2016 12.00 1/23/2016 53.65

Weekly

Wind Summary Statistics	
CALM	3%
UW	18%
UW/CW	0%
CW	0%
CW/DW	1%
DW	5%
DW/CW	0%
CW/UW	73%
TOTAL	100%

45.35

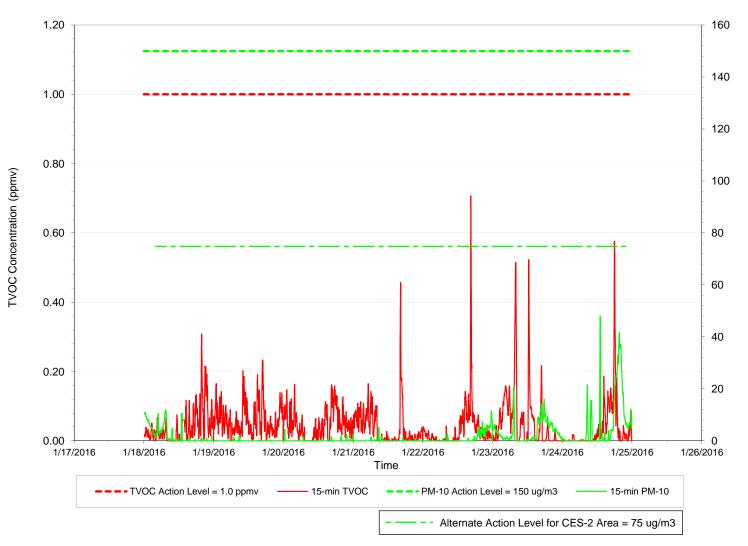
1/24/2016





Perimeter Air Monitoring Station - STA 8

15-minute average concentrations



Data Summary Statistics TVOC Avg = 0.05 PM-10 Avg =1.94 Daily **Data Summary Statistics** TVOC max = (15Min Avg)1/18/2016 0.31 1/19/2016 0.23 1/20/2016 0.16 1/21/2016 0.46 1/22/2016 0.71 1/23/2016 0.52 1/24/2016 0.58 PM10 max= (15Min Avg) 1/18/2016 11.84 1/19/2016 1.85 1/20/2016 4.37 5.03 1/21/2016 1/22/2016 11.52 1/23/2016 20.80 1/24/2016 48.06

Weekly

PM-10 (dust) Concentration (ug/m³)

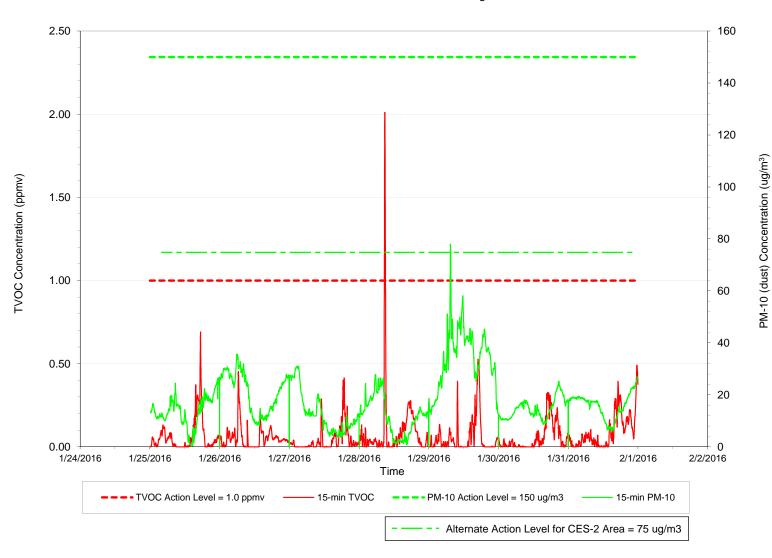
Wind Summary Statistics	
CALM	3%
UW	18%
UW/CW	0%
CW	0%
CW/DW	1%
DW	5%
DW/CW	0%
CW/UW	73%
TOTAL	100%

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Perimeter Air Monitoring Station - STA 1

15-minute average concentrations



Weekly
Data Summary Statistic

TVOC Avg = 0.07PM-10 Avg = 17.83

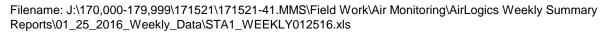
Daily

•	
Data Summary	Statistics
TVOC max =	(15Min Avg)
1/25/2016	0.69
1/26/2016	0.45
1/27/2016	0.41
1/28/2016	2.01
1/29/2016	0.53
1/30/2016	0.33
1/31/2016	0.49
PM10 max=	(15Min Avg)
1/25/2016	26.62
1/26/2016	35.65
1/27/2016	31.16
1/28/2016	27.76
1/29/2016	77.99
1/30/2016	25.24

Wind Summary Statistics	
CALM	8%
UW	3%
UW/CW	0%
CW	57%
CW/DW	1%
DW	20%
DW/CW	11%
CW/UW	1%
TOTAL	100%

26.88

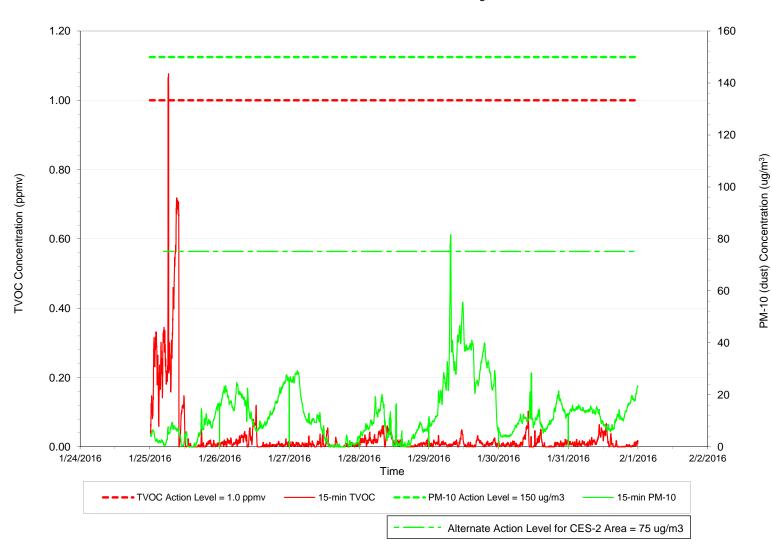
1/31/2016





Perimeter Air Monitoring Station - STA 2

15-minute average concentrations



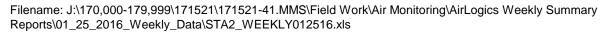
Weekly
Data Summary Statistics

TVOC Avg =	0.04
PM-10 Avg =	12.70

Daily

Data Summary	Statistics
TVOC max =	(15Min Avg)
1/25/2016	1.08
1/26/2016	0.12
1/27/2016	0.05
1/28/2016	0.06
1/29/2016	0.05
1/30/2016	0.10
1/31/2016	0.07
PM10 max=	(15Min Avg)
1/25/2016	16.76
1/26/2016	27.68
1/27/2016	29.24
1/28/2016	20.18
1/29/2016	81.63
1/30/2016	28.46
1/31/2016	23.33
	20.00

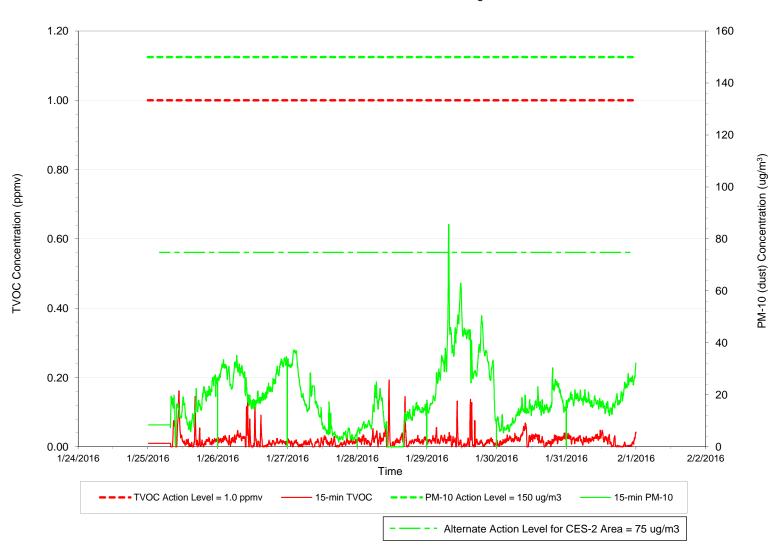
Wind Summary	/ Statistics
CALM	8%
UW	2%
UW/CW	0%
CW	0%
CW/DW	0%
DW	80%
DW/CW	3%
CW/UW	7%
TOTAL	100%





Perimeter Air Monitoring Station - STA 3

15-minute average concentrations



0.02 18.59
Statistics
(15Min Avg)
0.16
0.13
0.03
0.19
0.14
0.07
0.05

PM10 max= (15Min Avg)

27.69 35.16

37.25

25.00

85.54

30.43

32.24

1/25/2016

1/26/2016 1/27/2016

1/28/2016

1/29/2016

1/30/2016

1/31/2016

Data Summary Statistics

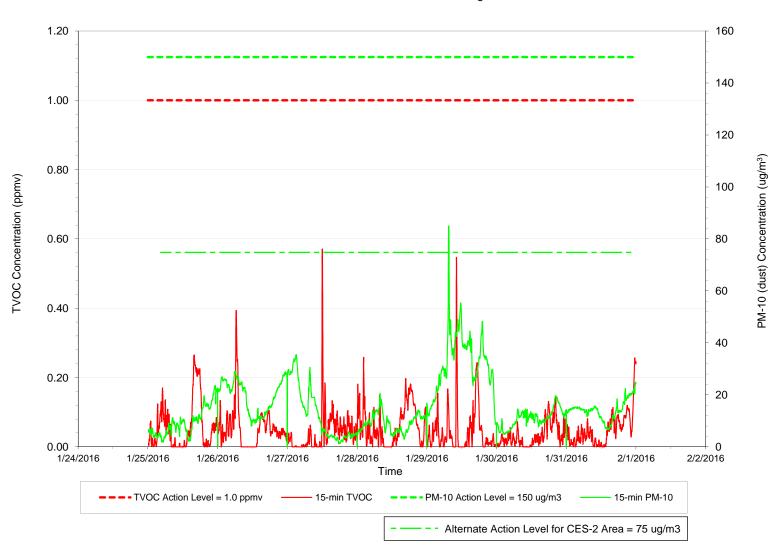
Weekly

Wind Summary	/ Statistics
CALM	8%
UW	1%
UW/CW	1%
CW	12%
CW/DW	9%
DW	68%
DW/CW	1%
CW/UW	0%
TOTAL	100%

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Perimeter Air Monitoring Station - STA 4

15-minute average concentrations



TVOC Avg = PM-10 Avg =	0.05 15.44
Daily Data Summary S	Statistics
TVOC max =	
1/25/2016	0.26
1/26/2016	0.39
1/27/2016	0.57
1/28/2016	0.26
1/29/2016	0.55
1/30/2016	0.14
1/31/2016	0.26
PM10 max=	(15Min Avg)
1/25/2016	23.66
1/26/2016	29.09
1/27/2016	35.44

20.64

84.92

19.63

24.84

1/28/2016

1/29/2016

1/30/2016

1/31/2016

Weekly

Data Summary Statistics

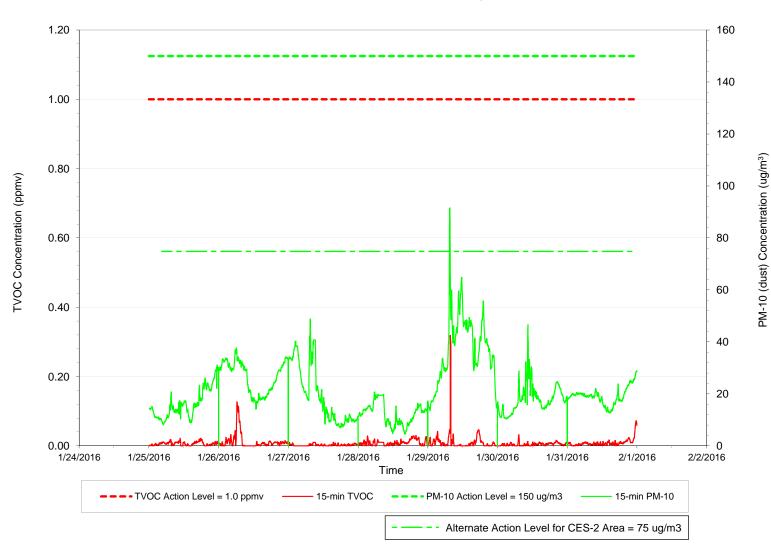
Wind Summary	Statistics
CALM	8%
UW	44%
UW/CW	0%
CW	0%
CW/DW	0%
DW	1%
DW/CW	0%
CW/UW	47%
TOTAL	100%



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Perimeter Air Monitoring Station - STA 5

15-minute average concentrations



TVOC Avg = PM-10 Avg =	0.01 21.24
Daily	01-11-11
Data Summary	Statistics
TVOC max =	(15Min Avg)
1/25/2016	0.02
1/26/2016	0.13
1/27/2016	0.01
1/28/2016	0.03
1/29/2016	0.32
1/30/2016	0.03
1/31/2016	0.07
PM10 max=	(15Min Avg)
1/25/2016	31.09

37.61

48.81

20.75

91.52

46.58

28.86

1/26/2016

1/27/2016

1/28/2016

1/29/2016

1/30/2016

1/31/2016

Data Summary Statistics

Weekly

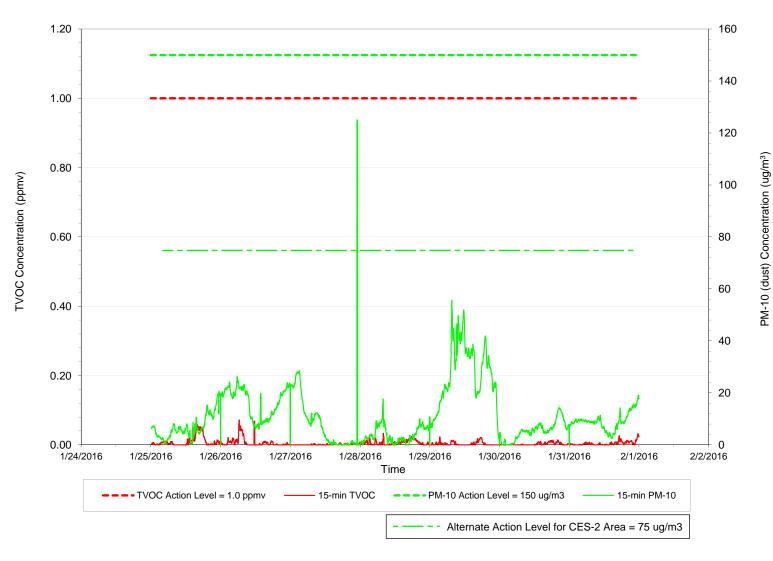
Wind Summary	Statistics
CALM	8%
UW	18%
UW/CW	0%
CW	0%
CW/DW	0%
DW	1%
DW/CW	0%
CW/UW	73%
TOTAL	100%



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Perimeter Air Monitoring Station - STA 6

15-minute average concentrations



	Weekly
_	Data Summary Statistic

TVOC Avg =	0.01
PM-10 Avg =	11.15

Daily

Data Summary	otatiotico
TVOC max =	(15Min Avg)
1/25/2016	0.06
1/26/2016	0.07
1/27/2016	0.01
1/28/2016	0.03
1/29/2016	0.02
1/30/2016	0.01
1/31/2016	0.03
PM10 max=	(15Min Avg)
PM10 max= 1/25/2016	(15Min Avg) 20.66
1/25/2016	20.66
1/25/2016 1/26/2016	20.66 26.20
1/25/2016 1/26/2016 1/27/2016	20.66 26.20 124.97
1/25/2016 1/26/2016 1/27/2016 1/28/2016	20.66 26.20 124.97 17.71
1/25/2016 1/26/2016 1/27/2016 1/28/2016 1/29/2016	20.66 26.20 124.97 17.71 55.65

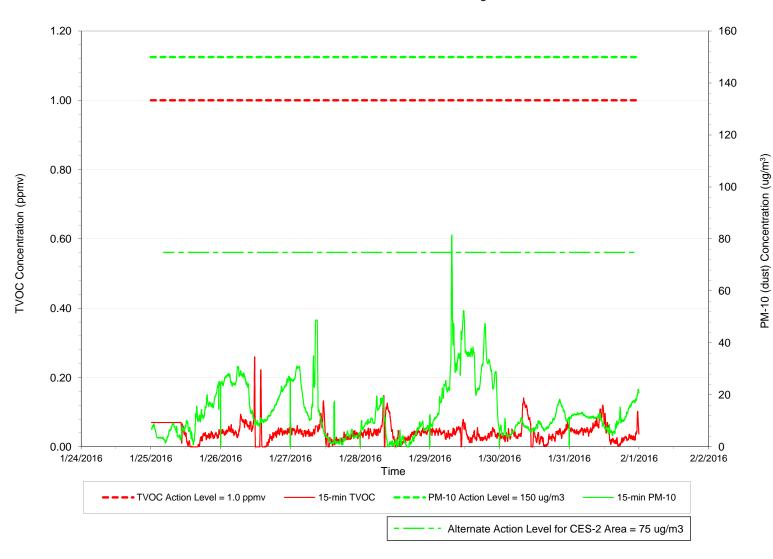
Wind Summary Statistics	
CALM	8%
UW	0%
UW/CW	0%
CW	23%
CW/DW	0%
DW	1%
DW/CW	0%
CW/UW	68%
TOTAL	100%



 $Filename: J:\170,000-179,999\\171521\\171521-41.MMS\\Field\ Work\\Air\ Monitoring\\AirLogics\ Weekly\ Summary\ Reports\\01_25_2016_Weekly_Data\\STA6_WEEKLY012516.xls$

Perimeter Air Monitoring Station - STA 7

15-minute average concentrations



Weekly
Data Summary Statistic

TVOC Avg =	0.05
PM-10 Avg =	13.76

Daily

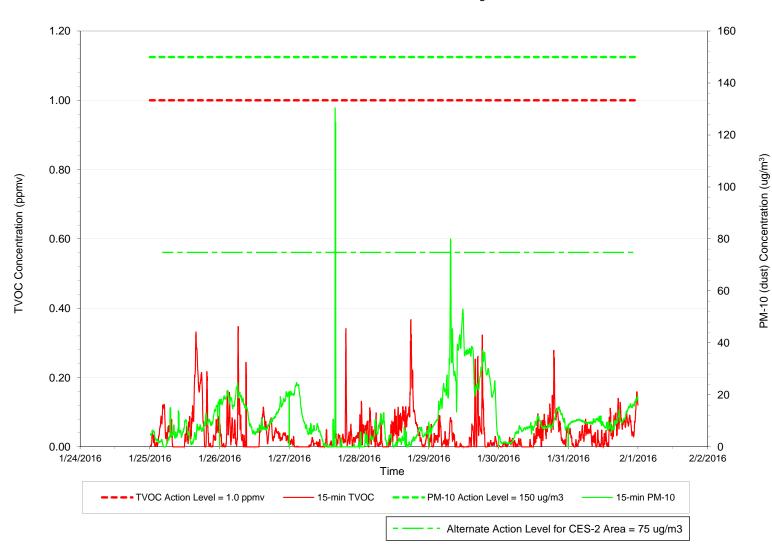
Data Summary	Statistics
TVOC max =	(15Min Avg)
1/25/2016	0.07
1/26/2016	0.26
1/27/2016	0.13
1/28/2016	0.15
1/29/2016	0.08
1/30/2016	0.14
1/31/2016	0.12
PM10 max=	(15Min Avg)
PM10 max= 1/25/2016	(15Min Avg) 25.19
	,
1/25/2016	25.19
1/25/2016 1/26/2016	25.19 30.98
1/25/2016 1/26/2016 1/27/2016	25.19 30.98 48.74
1/25/2016 1/26/2016 1/27/2016 1/28/2016	25.19 30.98 48.74 19.55
1/25/2016 1/26/2016 1/27/2016 1/28/2016 1/29/2016	25.19 30.98 48.74 19.55 81.51

Wind Summary Statistics	
CALM	8%
UW	1%
UW/CW	0%
CW	0%
CW/DW	0%
DW	18%
DW/CW	11%
CW/UW	63%
TOTAL	100%



Perimeter Air Monitoring Station - STA 8

15-minute average concentrations



Weekly
Data Summary Statistic

TVOC Avg =	0.05
PM-10 Avg =	10.79

Daily

Data Summary Statistics		
TVOC max =	(15Min Avg)	
1/25/2016	0.33	
1/26/2016	0.35	
1/27/2016	0.34	
1/28/2016	0.37	
1/29/2016	0.32	
1/30/2016	0.28	
1/31/2016	0.16	
PM10 max=	(15Min Avg)	
1/25/2016	18.09	
1/26/2016	24.64	
1/27/2016	130.41	
1/28/2016	13.20	
1/29/2016	79.95	
1/30/2016	15.39	
1/31/2016	19.37	

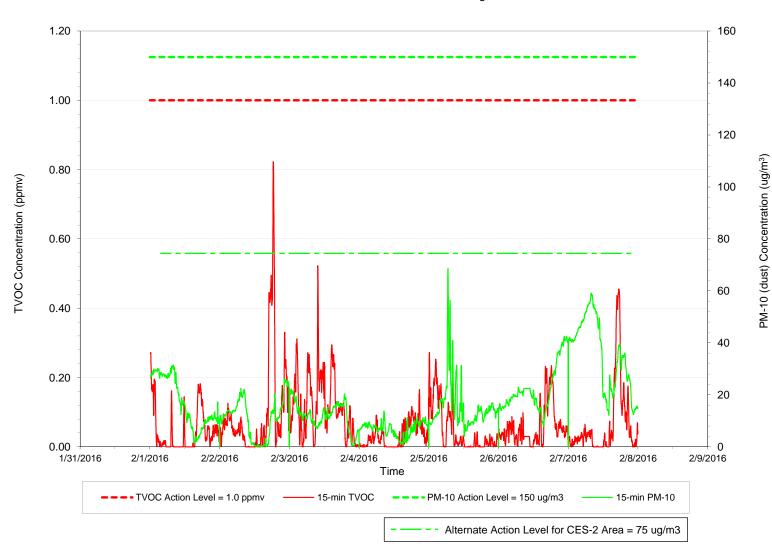
Wind Summary Statistics	
CALM	8%
UW	1%
UW/CW	0%
CW	0%
CW/DW	0%
DW	18%
DW/CW	11%
CW/UW	63%
TOTAL	100%





Perimeter Air Monitoring Station - STA 1

15-minute average concentrations



Weekly
Data Summary Statistics

TVOC Avg = 0.07PM-10 Avg = 17.23

Daily

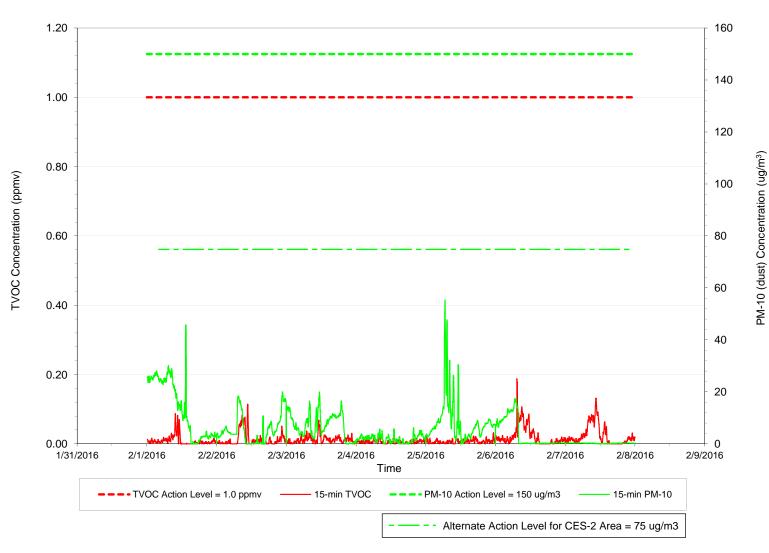
Data Summary Statistics TVOC max = (15Min Avg)2/1/2016 0.27 2/2/2016 0.82 2/3/2016 0.52 2/4/2016 0.17 2/5/2016 0.27 2/6/2016 0.23 2/7/2016 0.45 PM10 max= (15Min Avg) 2/1/2016 31.37 2/2/2016 26.21 2/3/2016 22.21 2/4/2016 13.80 2/5/2016 68.57 2/6/2016 42.54 2/7/2016 59.18

Wind Summary Statistics	
CALM	8%
UW	20%
UW/CW	0%
CW	47%
CW/DW	2%
DW	14%
DW/CW	7%
CW/UW	1%
TOTAL	100%



Perimeter Air Monitoring Station - STA 2

15-minute average concentrations

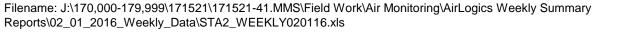


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Data Summary Statistics		
T\/00 A	0.00	
TVOC Avg =	0.02	
PM-10 Avg =	5.89	
Daily		
Data Summary		
TVOC max =	(15Min Avg)	
2/1/2016	0.09	
2/2/2016	0.11	
2/3/2016	0.07	
2/4/2016	0.02	
2/5/2016	0.03	
2/6/2016	0.19	
2/7/2016	0.13	
PM10 max=	(15Min Avg)	
2/1/2016	45.80	
2/2/2016	20.04	
2/3/2016	19.94	
2/4/2016	6.24	
2/5/2016	55.41	
2/6/2016	17.42	
2/7/2016	0.34	

Weekly

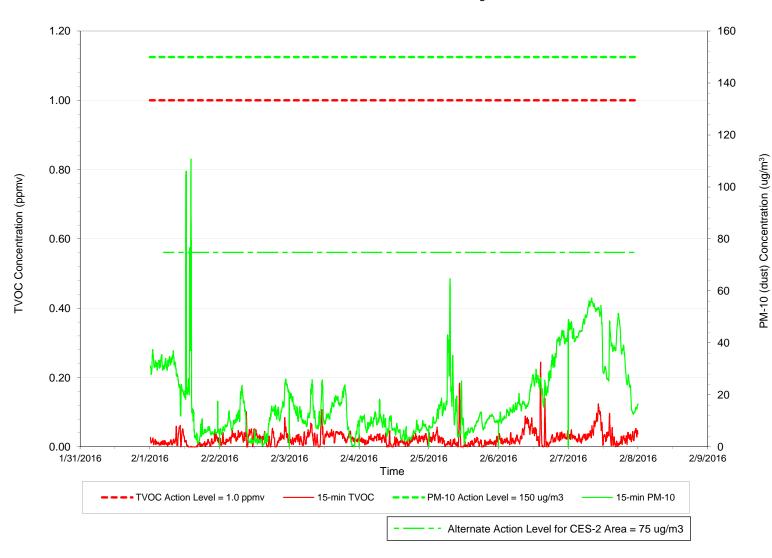
Wind Summary Statistics	
CALM	8%
UW	18%
UW/CW	0%
CW	0%
CW/DW	0%
DW	59%
DW/CW	3%
CW/UW	11%
TOTAL	100%





Perimeter Air Monitoring Station - STA 3

15-minute average concentrations



TVOC Avg = 0.03 PM-10 Avg =18.19 Daily **Data Summary Statistics** TVOC max = (15Min Avg)2/1/2016 0.06 2/2/2016 0.10 2/3/2016 0.11 2/4/2016 0.05 2/5/2016 0.18 2/6/2016 0.24 2/7/2016 0.12 PM10 max= (15Min Avg) 2/1/2016 110.76

26.02

25.88

18.37

64.67

46.39

57.23

2/2/2016

2/3/2016

2/4/2016

2/5/2016

2/6/2016

2/7/2016

Weekly

Data Summary Statistics

Wind Summary Statistics		
CALM	8%	
UW	10%	
UW/CW	1%	
CW	10%	
CW/DW	5%	
DW	63%	
DW/CW	2%	
CW/UW	0%	
TOTAL	100%	

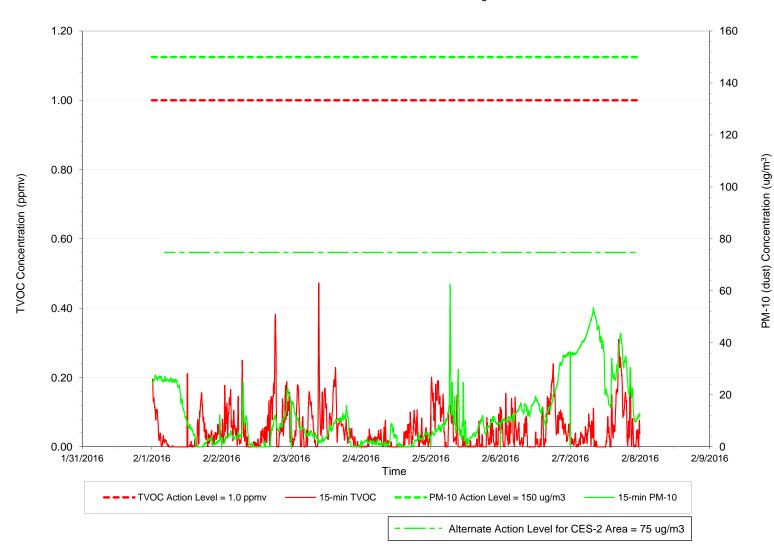


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Perimeter Air Monitoring Station - STA 4

15-minute average concentrations



Data Summary Statistics TVOC Avg = 0.05 PM-10 Avg =12.43 Daily **Data Summary Statistics** TVOC max = (15Min Avg)2/1/2016 0.21 2/2/2016 0.38 2/3/2016 0.47 2/4/2016 0.11 2/5/2016 0.20 2/6/2016 0.24 2/7/2016 0.31 PM10 max= (15Min Avg) 2/1/2016 27.62 2/2/2016 25.21 2/3/2016 17.50 2/4/2016 9.02 2/5/2016 62.68

Weekly

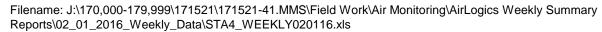
Wind Summary Statistics		
CALM	8%	
UW	39%	
UW/CW	0%	
CW	0%	
CW/DW	0%	
DW	13%	
DW/CW	0%	
CW/UW	40%	
TOTAL	100%	

36.67

53.53

2/6/2016

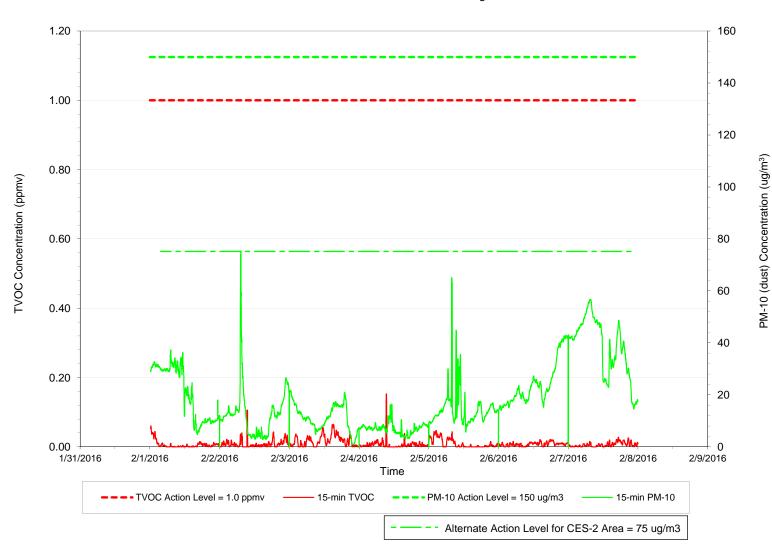
2/7/2016





Perimeter Air Monitoring Station - STA 5

15-minute average concentrations



Weekly
Data Summary Statistic

TVOC Avg = 0.01PM-10 Avg = 18.48

Daily

Data Summary Statistics		
(15Min Avg)		
0.06		
0.11		
0.06		
0.15		
0.05		
0.02		
0.03		
(15Min Avg)		
37.33		
75.24		
21.72		
16.43		
65.14		
42.97		
56.70		

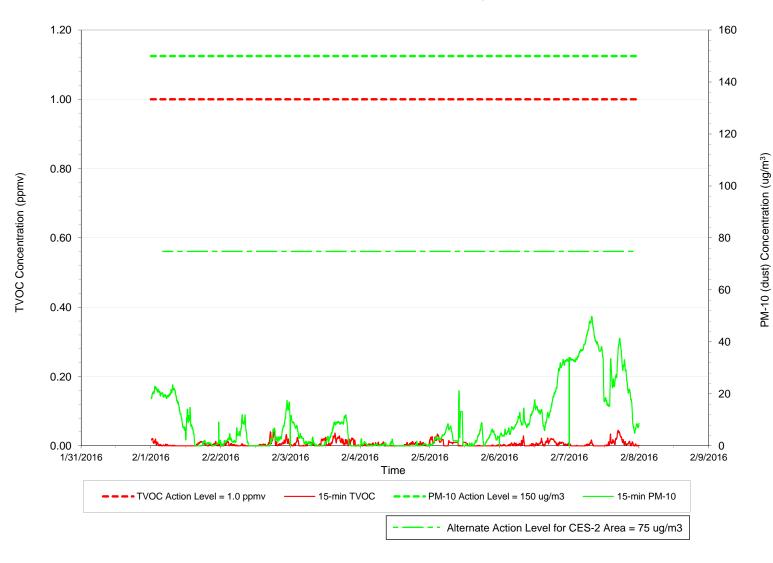
Wind Summary Statistics		
CALM	8%	
UW	23%	
UW/CW	0%	
CW	0%	
CW/DW	0%	
DW	10%	
DW/CW	0%	
CW/UW	59%	
TOTAL	100%	



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Perimeter Air Monitoring Station - STA 6

15-minute average concentrations



Data Summary Statistics		
TVOC Avg =	0.01	
PM-10 Avg =	9.34	
Daily		
Data Summary	Statistics	
TVOC max =	(15Min Avg)	
2/1/2016	0.02	
2/2/2016	0.04	
2/3/2016	0.04	
2/4/2016	0.02	
2/5/2016	0.03	
2/6/2016	0.03	
2/7/2016	0.04	
PM10 max=	(15Min Avg)	
2/1/2016	23.44	
2/2/2016	17.50	
2/3/2016	11.92	
2/4/2016	2.74	

Weekly

Wind Summary Statistics		
CALM	8%	
UW	0%	
UW/CW	0%	
CW	28%	
CW/DW	0%	
DW	7%	
DW/CW	0%	
CW/UW	56%	
TOTAL	100%	

2/5/2016

2/6/2016

2/7/2016

21.22

33.98

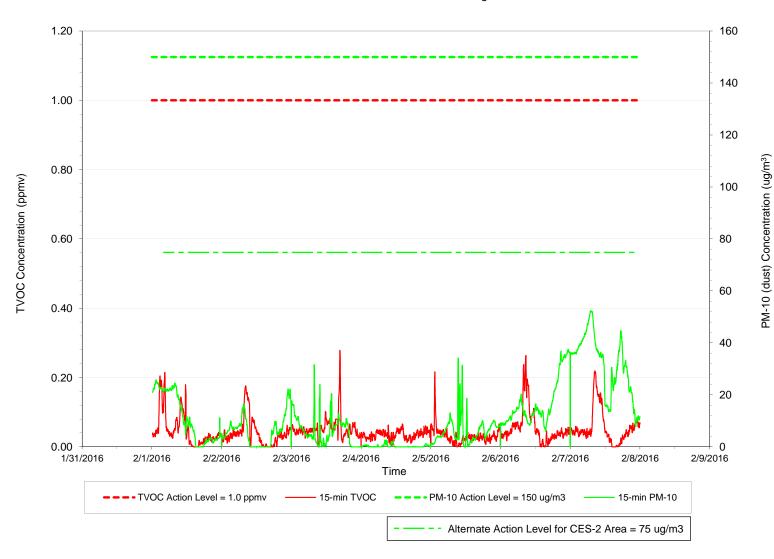
49.80



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Perimeter Air Monitoring Station - STA 7

15-minute average concentrations



TVOC Avg = 0.05 PM-10 Avg = 11.31 Daily **Data Summary Statistics** TVOC max = (15Min Avg)2/1/2016 0.21 2/2/2016 0.18 2/3/2016 0.28 2/4/2016 0.07 2/5/2016 0.22 2/6/2016 0.26 2/7/2016 0.22 PM10 max= (15Min Avg) 2/1/2016 25.82 2/2/2016 22.31 2/3/2016 31.57 2/4/2016 2.62 2/5/2016 34.17

Weekly

Data Summary Statistics

Wind Summary Statistics		
CALM 8%		
UW	10%	
UW/CW	0%	
CW	0%	
CW/DW	0%	
DW	23%	
DW/CW	6%	
CW/UW	52%	
TOTAL	100%	

37.47

52.33

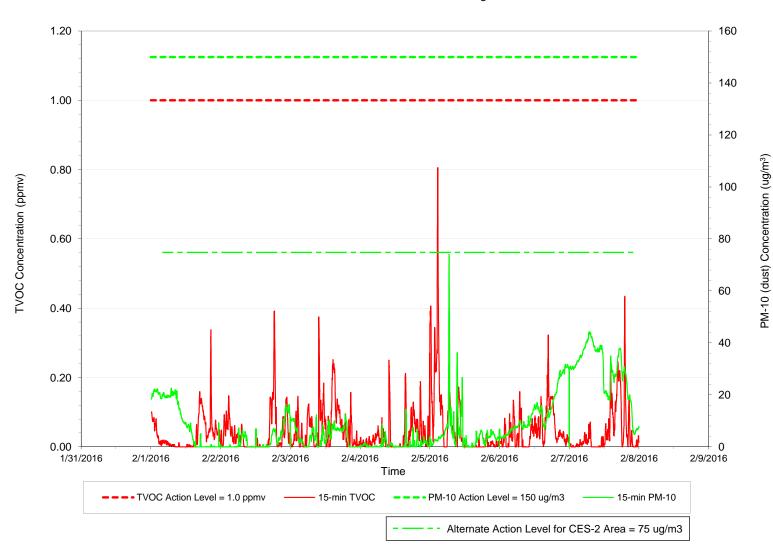
2/6/2016

2/7/2016



Perimeter Air Monitoring Station - STA 8

15-minute average concentrations



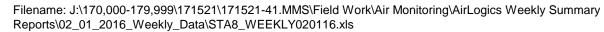
Data Summary Statistics TVOC Avg = 0.07 PM-10 Avg =9.40 Daily **Data Summary Statistics** TVOC max = (15Min Avg)2/1/2016 0.34 2/2/2016 0.39 2/3/2016 0.37 2/4/2016 0.27 2/5/2016 0.81 2/6/2016 0.32 2/7/2016 0.43 PM10 max= (15Min Avg) 2/1/2016 22.61 2/2/2016 16.31 2/3/2016 12.50 2/4/2016 14.46 2/5/2016 73.99 2/6/2016 31.79

Weekly

Wind Summary Statistics		
CALM	8%	
UW	10%	
UW/CW	0%	
CW	0%	
CW/DW	0%	
DW	23%	
DW/CW	6%	
CW/UW	52%	
TOTAL	100%	

44.30

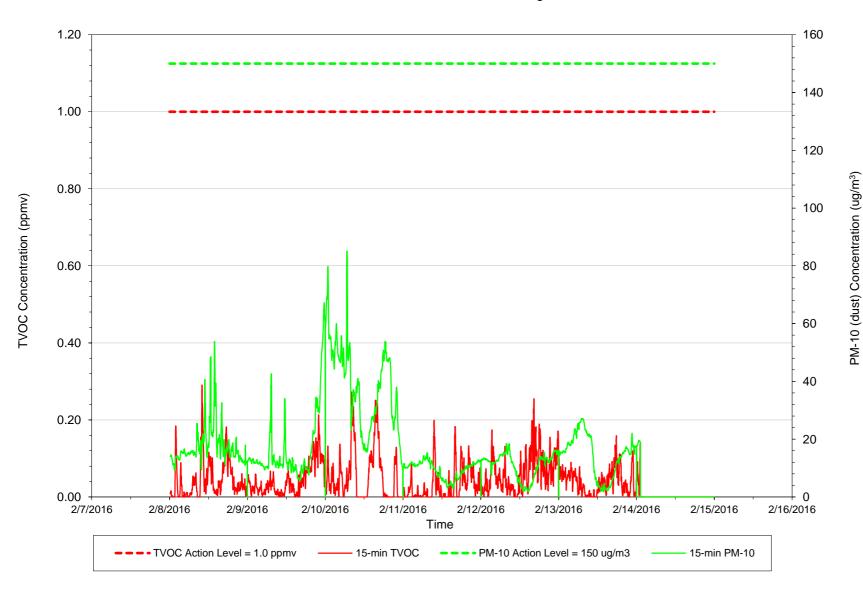
2/7/2016





Perimeter Air Monitoring Station - STA 1

15-minute average concentrations



٧V	ee	KI	y
\Box	1	C	ımn

Data Summary Statistics

TVOC Avg = 0.06PM-10 Avg = 17.89

Daily

Data Summary Statistics

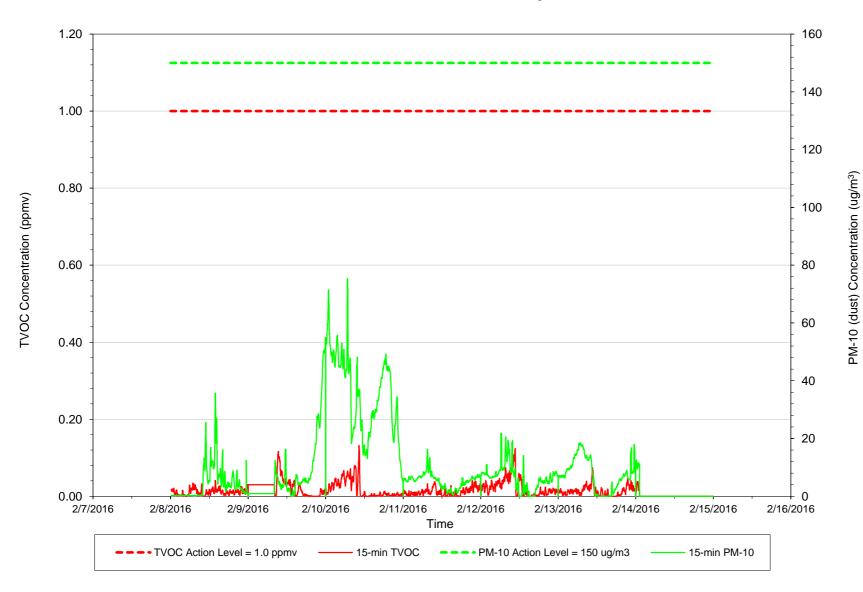
Data Garrinary	Otationioo
TVOC max =	(15Min Avg)
2/8/2016	0.29
2/9/2016	0.21
2/10/2016	0.27
2/11/2016	0.20
2/12/2016	0.25
2/13/2016	0.16
2/14/2016	0.14
_,,	• • • •
PM10 max=	
PM10 max=	(15Min Avg)
PM10 max= 2/8/2016	(15Min Avg) 53.78
PM10 max= 2/8/2016 2/9/2016	(15Min Avg) 53.78 67.31
PM10 max= 2/8/2016 2/9/2016 2/10/2016	(15Min Avg) 53.78 67.31 85.06
PM10 max= 2/8/2016 2/9/2016 2/10/2016 2/11/2016	(15Min Avg) 53.78 67.31 85.06 15.31
PM10 max= 2/8/2016 2/9/2016 2/10/2016 2/11/2016 2/12/2016	(15Min Avg) 53.78 67.31 85.06 15.31 18.46

Wind Summary Statistics		
CALM	0%	
UW	100%	
UW/CW	0%	
CW	0%	
CW/DW	0%	
DW	0%	
DW/CW	0%	
CW/UW	0%	
TOTAL	100%	



Perimeter Air Monitoring Station - STA 2

15-minute average concentrations



Data Summary Statistics		
T) (00 A	2.22	
TVOC Avg =	0.02	
PM-10 Avg =	11.16	
Daily		
Data Summary	Statistics	
TVOC max =	(15Min Avg)	
2/8/2016	0.04	
2/9/2016	0.12	
2/10/2016	0.13	
2/11/2016	0.04	
2/12/2016	0.12	
2/13/2016	0.07	
2/14/2016	0.04	
PM10 max=	(15Min Avg)	
2/8/2016	35.77	
2/9/2016	54.93	
2/10/2016	75.33	
2/11/2016	16.27	

Weekly

Wind Summary Statistics			
CALM	0%		
UW	100%		
UW/CW	0%		
CW	0%		
CW/DW	0%		
DW	0%		
DW/CW	0%		
CW/UW	0%		
TOTAL	100%		

21.89

18.43

12.69

2/12/2016

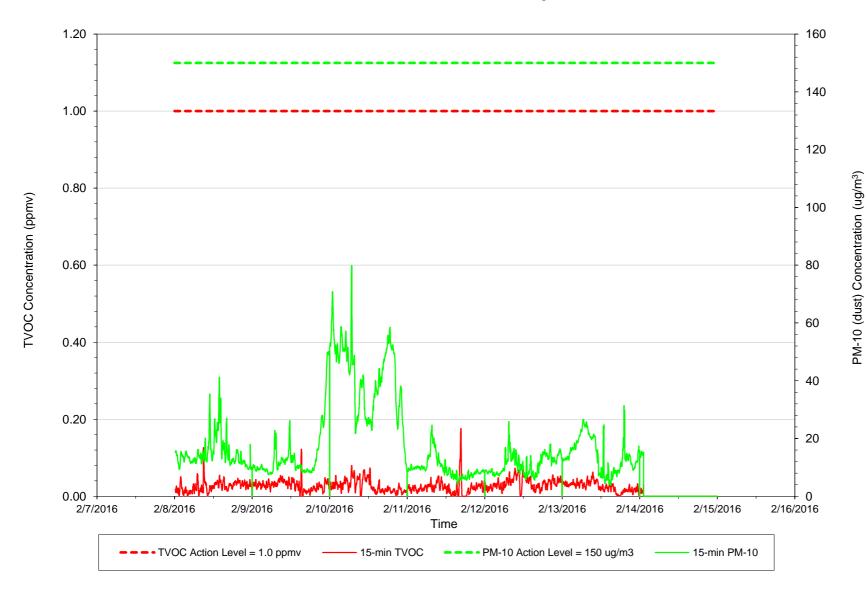
2/13/2016

2/14/2016



Perimeter Air Monitoring Station - STA 3

15-minute average concentrations



Weekly
Data Summary Statistics

TVOC Avg =	0.03
PM-10 Avg =	17.48

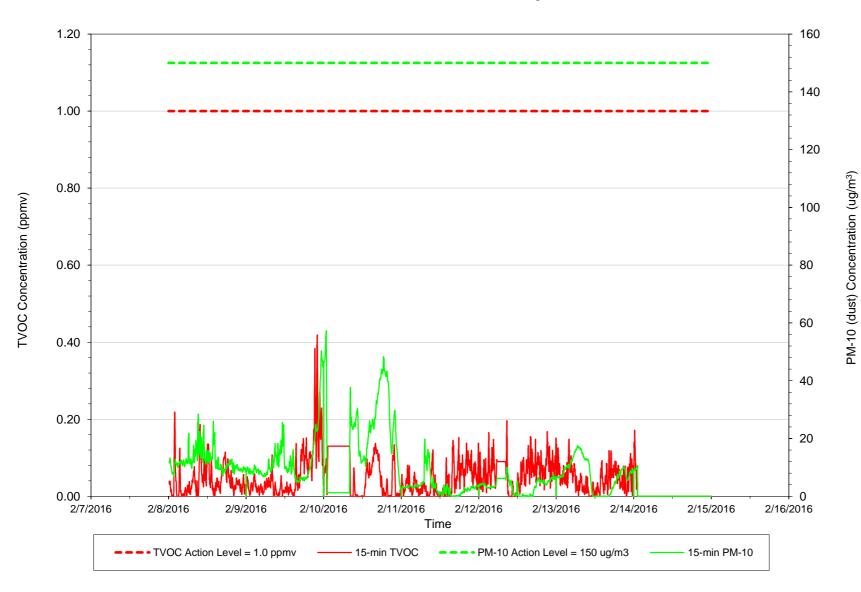
Daily	/		
Data	Summary	Stat	tistic

Data Summary Statistics			
TVOC max =	(15Min Avg)		
2/8/2016	0.13		
2/9/2016	0.12		
2/10/2016	0.08		
2/11/2016	0.18		
2/12/2016	0.07		
2/13/2016	0.06		
2/14/2016	0.03		
PM10 max=	(15Min Avg)		
	(10111111119)		
2/8/2016	41.21		
2/8/2016 2/9/2016			
_, _, _, _	41.21		
2/9/2016	41.21 50.31		
2/9/2016 2/10/2016	41.21 50.31 79.91		
2/9/2016 2/10/2016 2/11/2016	41.21 50.31 79.91 24.53		
2/9/2016 2/10/2016 2/11/2016 2/12/2016	41.21 50.31 79.91 24.53 25.87		

Wind Summary Statistics		
CALM 0%		
UW	0%	
UW/CW	0%	
CW	0%	
CW/DW	0%	
DW	100%	
DW/CW	0%	
CW/UW	0%	
TOTAL	100%	

Perimeter Air Monitoring Station - STA 4

15-minute average concentrations



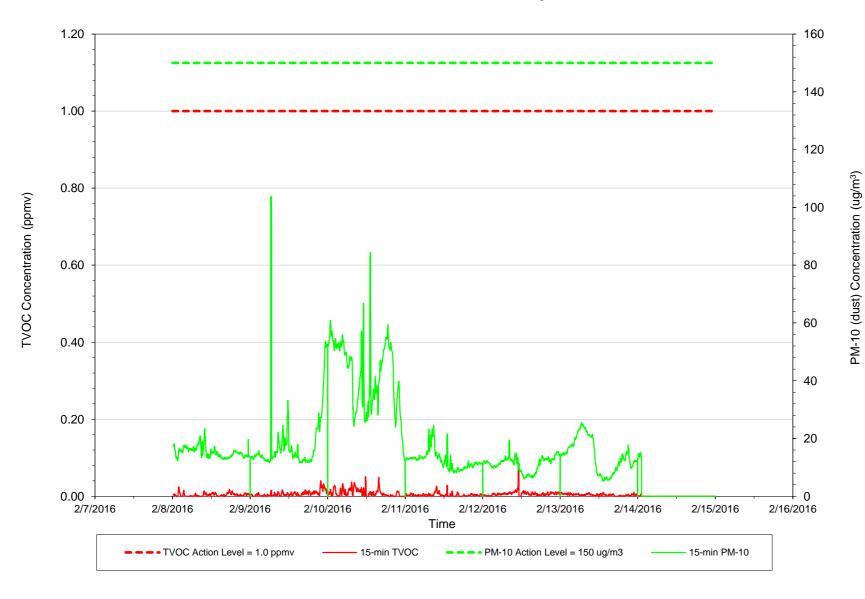
vvoortiy	
Data Summary Statistics	
TVOC Avg =	0.33
PM-10 Avg =	9.75
	00
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
2/8/2016	0.22
2/9/2016	0.42
2/10/2016	0.14
2/11/2016	0.15
2/12/2016	0.20
2/13/2016	0.15
2/13/2016	0.13
_,, _ 0 . 0	
PM10 max=	(15Min Avg)
2/8/2016	28.42
2/9/2016	50.33
2/10/2016	57.34
2/11/2016	19.78
2/12/2016	10.07
2/13/2016	17.46
2/14/2016	10.62
2, 14/2010	10.02

Wind Summary Statistics	
CALM	0%
UW	0%
UW/CW	0%
CW	0%
CW/DW	0%
DW	100%
DW/CW	0%
CW/UW	0%
TOTAL	100%



Perimeter Air Monitoring Station - STA 5

15-minute average concentrations



0.01 19.01
Statistics
(15Min Avg)
0.02
0.04
0.05
0.03
0.09
0.01

PM10 max= (15Min Avg)

0.01

23.48

103.82

84.44

24.54

19.43

25.41

15.20

2/14/2016

2/8/2016

2/9/2016

2/10/2016

2/11/2016

2/12/2016

2/13/2016

2/14/2016

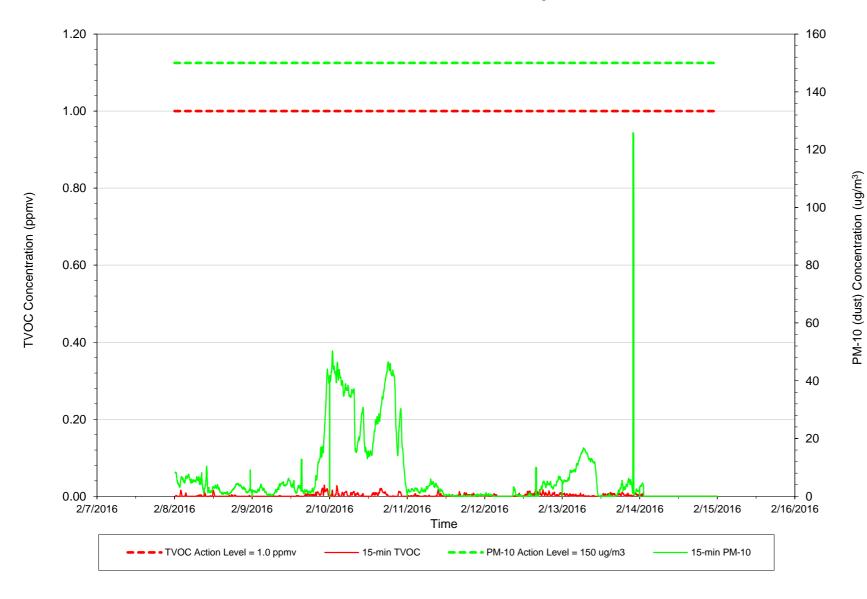
Data Summary Statistics

Wind Summary Statistics	
CALM	0%
UW	0%
UW/CW	0%
CW	0%
CW/DW	0%
DW	100%
DW/CW	0%
CW/UW	0%
TOTAL	100%



Perimeter Air Monitoring Station - STA 6

15-minute average concentrations



Data Summary Statistics	
TVOC Avg = PM-10 Avg =	0.01 8.22
Daily Data Summary	Statistics
TVOC max =	(15Min Avg)
2/8/2016	0.02
2/9/2016	0.03
2/10/2016	0.03
2/11/2016	0.02

2/12/2016 2/13/2016

2/14/2016

2/8/2016

2/9/2016

2/10/2016

2/11/2016

2/12/2016

2/13/2016

2/14/2016

PM10 max= (15Min Avg)

0.02

0.01

0.01

10.45

44.05

50.38

10.04

125.83

4.60

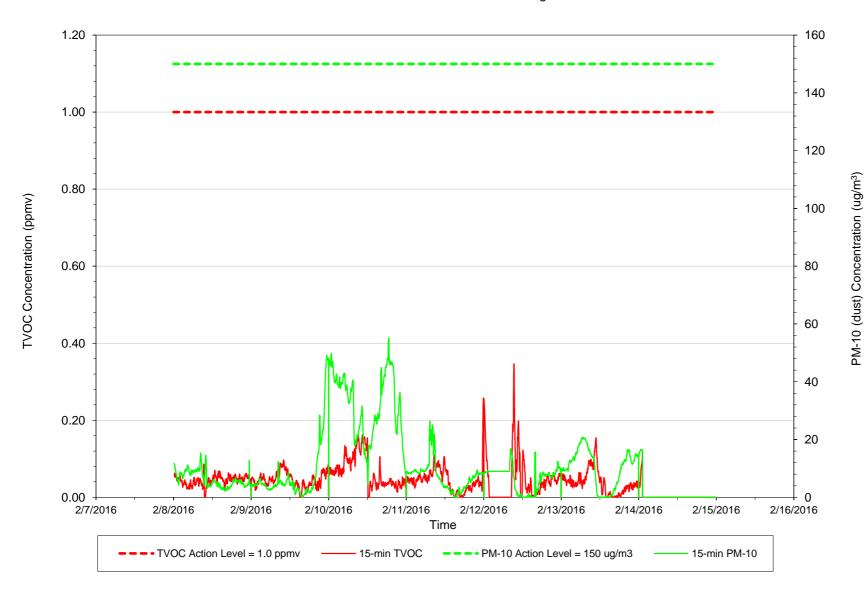
5.95

Wind Summary Statistics	
CALM	0%
UW	0%
UW/CW	0%
CW	100%
CW/DW	0%
DW	0%
DW/CW	0%
CW/UW	0%
TOTAL	100%



Perimeter Air Monitoring Station - STA 7

15-minute average concentrations



Data Summary	Statistics
ΓVOC Avg =	0.05
PM-10 Avg =	11.71
Daily	
Data Summary	Statistics
ΓVOC max =	(15Min Avg)
2/8/2016	0.09
2/9/2016	0.10
2/10/2016	0.16
2/11/2016	0.26
2/12/2016	0.35
2/13/2016	0.15
2/14/2016	0.12
PM10 max=	(15Min Avg)
2/8/2016	15.26
2/9/2016	49.12
2/10/2016	55.17

Weekly

Wind Summary Statistics	
CALM	0%
UW	100%
UW/CW	0%
CW	0%
CW/DW	0%
DW	0%
DW/CW	0%
CW/UW	0%
TOTAL	100%

2/11/2016

2/12/2016

2/13/2016

2/14/2016

26.28

16.81

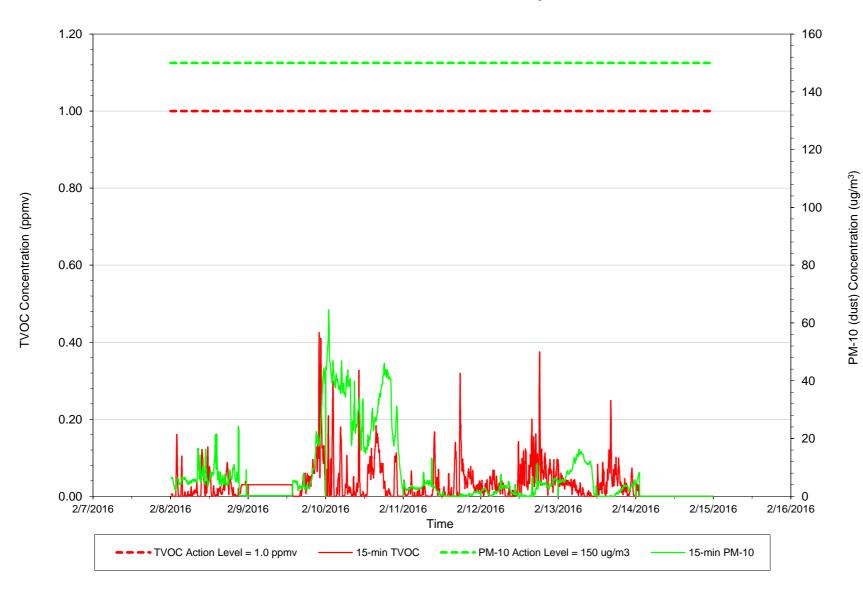
20.79

16.54



Perimeter Air Monitoring Station - STA 8

15-minute average concentrations



Data Summary Statistics	
TVOC Avg =	0.04
PM-10 Avg =	8.76
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
2/8/2016	0.16
2/9/2016	0.42
2/10/2016	0.33
2/11/2016	0.32
2/12/2016	0.37
2/13/2016	0.25
2/14/2016	0.03
PM10 max=	(15Min Avg)
2/8/2016	24.23
2/9/2016	44.47
2/10/2016	64.52
2/11/2016	13.19
2/12/2016	11.44
2/13/2016	16.34

Weekly

Wind Summary Statistics	
CALM	0%
UW	100%
UW/CW	0%
CW	0%
CW/DW	0%
DW	0%
DW/CW	0%
CW/UW	0%
TOTAL	100%

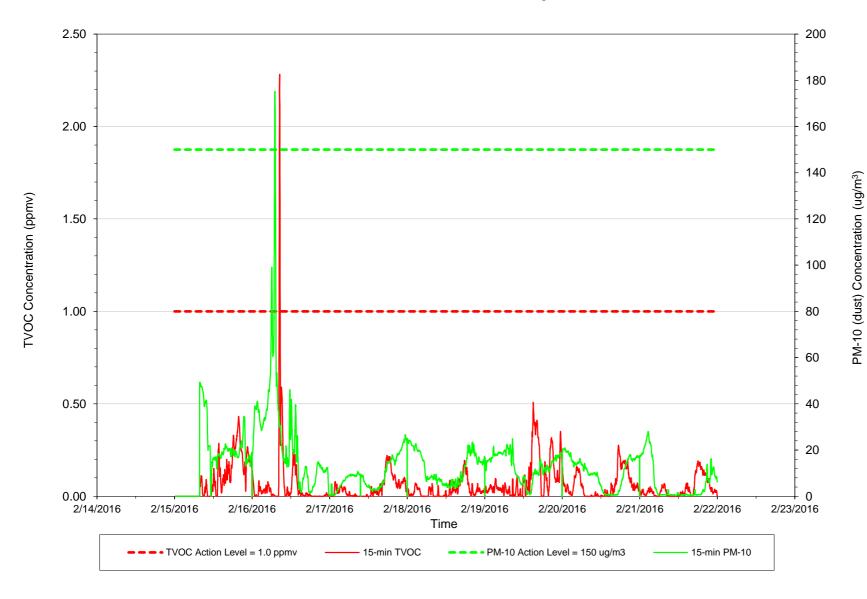
8.17

2/14/2016



Perimeter Air Monitoring Station - STA 1

15-minute average concentrations

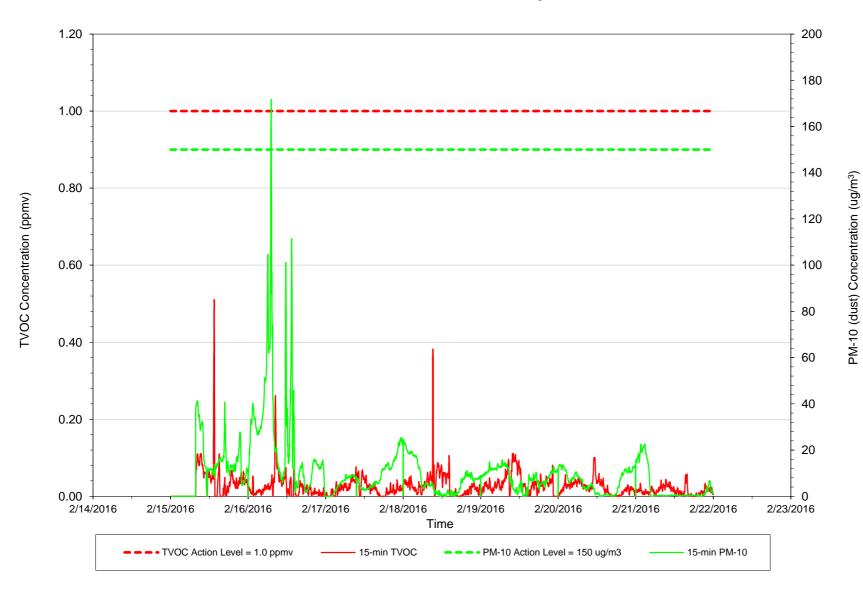


Data Summary Statistics	
TVOC Avg =	0.07
PM-10 Avg =	13.78
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
2/15/2016	0.43
2/16/2016	2.28
2/17/2016	0.22
2/18/2016	0.19
2/19/2016	0.51
2/20/2016	0.28
2/21/2016	0.19
PM10 max=	(15Min Avg)
2/15/2016	49.35
2/16/2016	175.23
2/17/2016	26.72
2/18/2016	25.07
2/19/2016	24.83
2/20/2016	21.00
2/21/2016	28.11

Wind Summary Statistics	
CALM	7%
UW	14%
UW/CW	0%
CW	53%
CW/DW	2%
DW	18%
DW/CW	5%
CW/UW	1%
TOTAL	100%

Perimeter Air Monitoring Station - STA 2

15-minute average concentrations



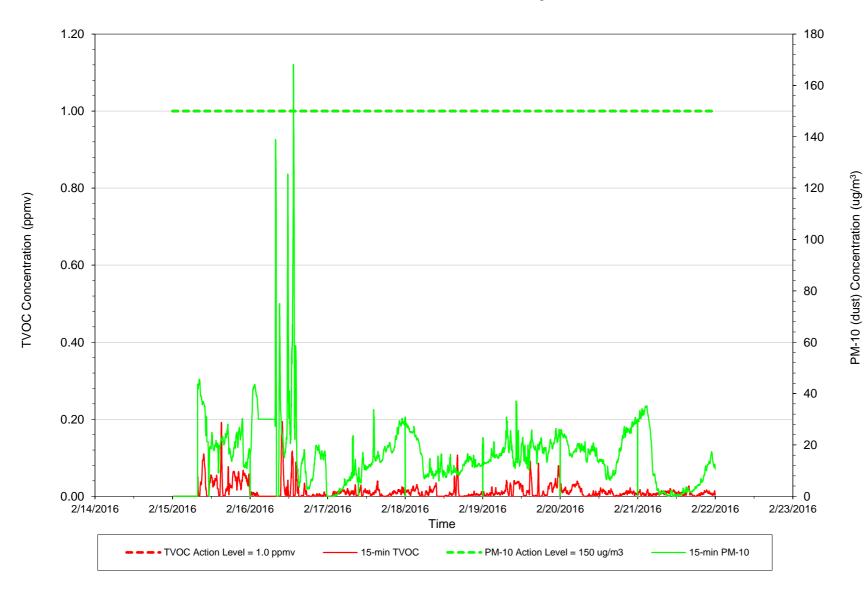
VVCCRIY	
Statistics	
0.03	
10.58	
10.00	
Statistics	
(15Min Avg)	
, -,	
0.51	
0.26	
0.08	
0.38	
0.11	
0.10	
0.06	
(15Min Avg)	
41.23	
171.78	
_	
25.39	
24.67	
15.75	
13.69	
22.72	

Wind Summary Statistics	
CALM	7%
UW	11%
UW/CW	0%
CW	0%
CW/DW	0%
DW	61%
DW/CW	4%
CW/UW	17%
TOTAL	100%



Perimeter Air Monitoring Station - STA 3

15-minute average concentrations



Data Summary Statistics	
TVOC Avg = PM-10 Avg =	0.01 16.96
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
2/15/2016	0.19
2/16/2016	0.19
2/17/2016	0.04
2/18/2016	0.11
2/19/2016	0.09
2/20/2016	0.04
2/21/2016	0.03
PM10 max=	(15Min Avg)
2/15/2016	45.59
2/16/2016	168.11
2/17/2016	33.71
2/18/2016	30.87
2/19/2016	37.11
2/20/2016	30.72

Weekly

Wind Summary Statistics	
CALM	7%
UW	6%
UW/CW	1%
CW	15%
CW/DW	5%
DW	64%
DW/CW	3%
CW/UW	0%
TOTAL	100%

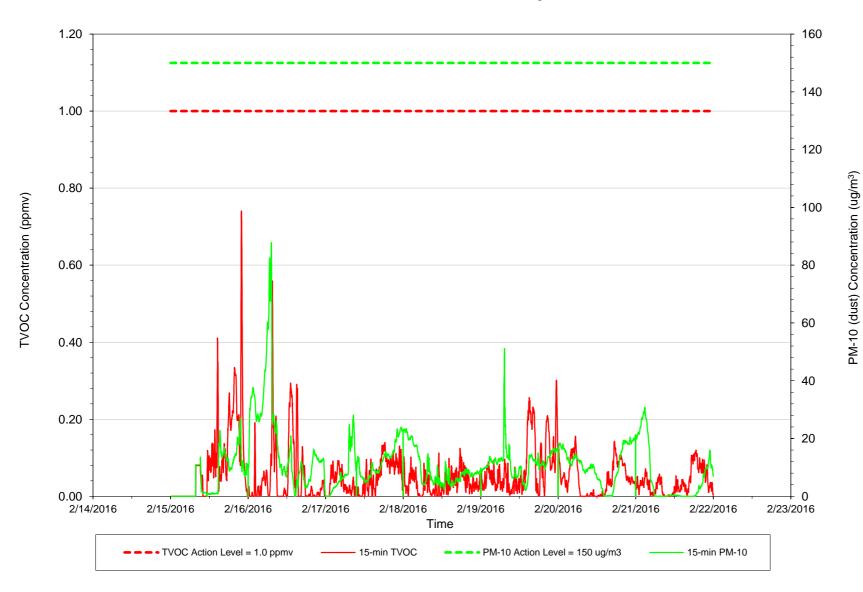
35.16

2/21/2016



Perimeter Air Monitoring Station - STA 4

15-minute average concentrations



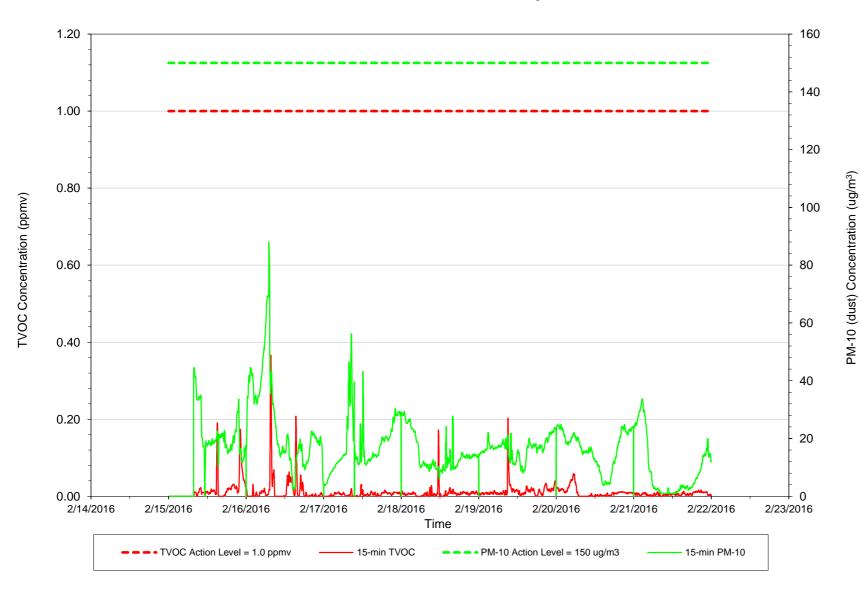
Data Summary Statistics	
TVOC Avg =	0.06
PM-10 Avg =	11.20
Daily	
Data Summary	
TVOC max =	
2/15/2016	0.74
2/16/2016	0.56
2/17/2016	0.14
2/18/2016	0.12
2/19/2016	0.30
2/20/2016	0.16
2/21/2016	0.12
PM10 max=	(15Min Avg)
2/15/2016	27.20
2/16/2016	87.82
2/17/2016	28.11
2/18/2016	23.48
2/19/2016	51.10
2/20/2016	21.30
2/21/2016	30.83

Wind Summary Statistics	
CALM	7%
UW	35%
UW/CW	0%
CW	0%
CW/DW	0%
DW	8%
DW/CW	0%
CW/UW	50%
TOTAL	100%



Perimeter Air Monitoring Station - STA 5

15-minute average concentrations

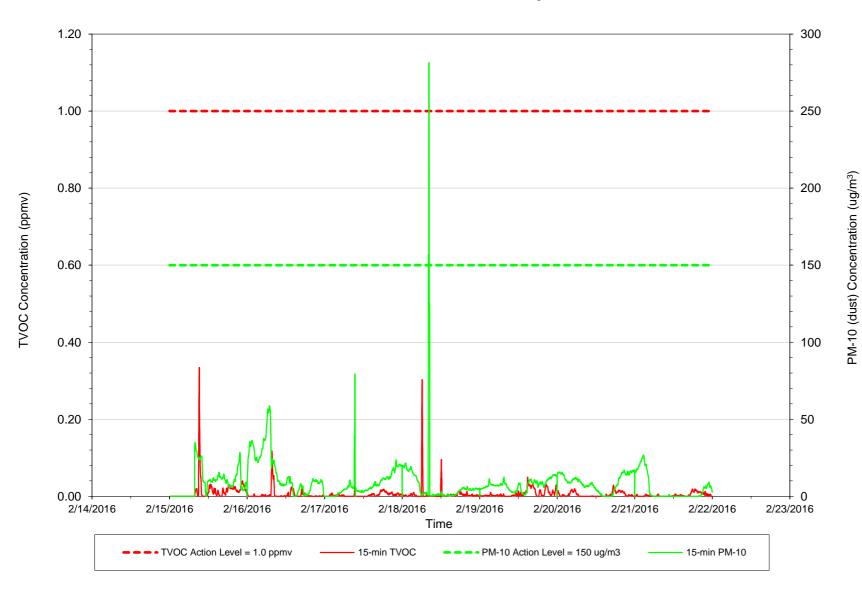


,	
Data Summary Statistics	
0.01	
17.14	
Statistics	
(15Min Avg)	
0.19	
0.37	
0.03	
0.17	
0.20	
0.06	
0.02	
(15Min Avg)	
44.59	
87.88	
56.25	
29.41	
23.84	
24.82	
33.72	

Wind Summary Statistics	
CALM	7%
UW	24%
UW/CW	0%
CW	0%
CW/DW	0%
DW	7%
DW/CW	0%
CW/UW	62%
TOTAL	100%

Perimeter Air Monitoring Station - STA 6

15-minute average concentrations



Data Summary	Statistics
TVOC Ava –	0.02
TVOC Avg =	0.02
PM-10 Avg =	9.13
Daily Data Summary	Statistics
TVOC max =	
2/15/2016	0.33
2/16/2016	0.12
2/17/2016	0.02
2/18/2016	0.30
2/19/2016	0.05
2/20/2016	0.03
2/21/2016	0.02
PM10 max=	(15Min Avg)
2/15/2016	35.02
2/16/2016	58.78
2/17/2016	79.44
2/18/2016	281.45
2/19/2016	14.14
2/20/2016	17.07
2/21/2016	26.67
2,21,2010	20.07

Wind Summary Statistics

7%

0%

0%

30%

0%

4%

0%

59%

100%

CALM

UW/CW

CW/DW

DW/CW

CW/UW

TOTAL

UW

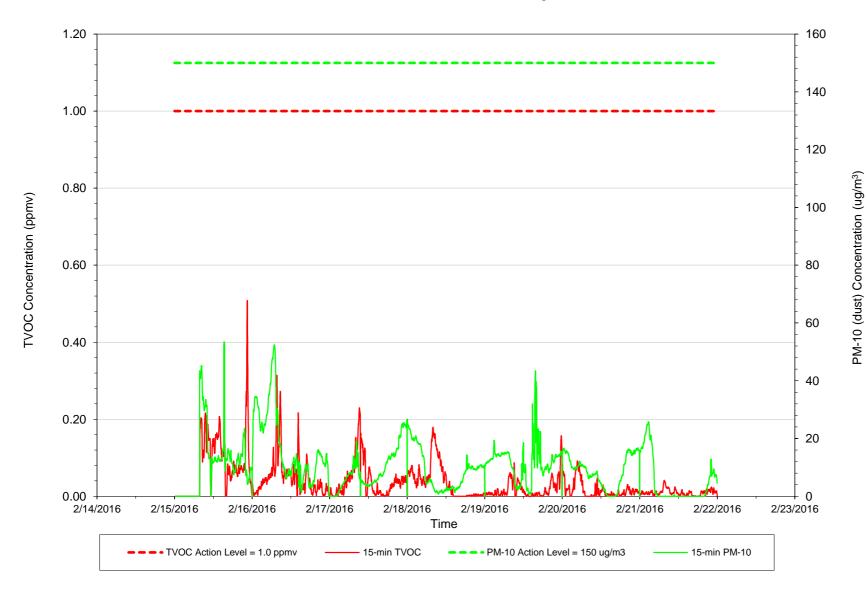
CW

DW



Perimeter Air Monitoring Station - STA 7

15-minute average concentrations



Data Summary Statistics	
TVOC Avg =	0.04
PM-10 Avg =	10.63
J	
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg
2/15/2016	0.5
2/16/2016	0.3

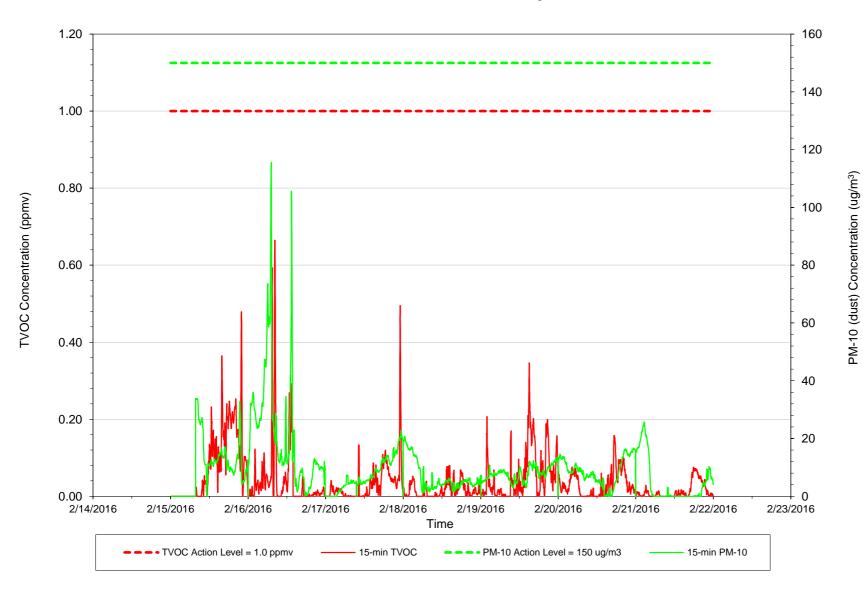
TVOC max =	(15Min Avg)
2/15/2016	0.51
2/16/2016	0.31
2/17/2016	0.23
2/18/2016	0.18
2/19/2016	0.16
2/20/2016	0.09
2/21/2016	0.04
	/ 4 = B 4: A \
PM10 max=	(15Min Avg)
PM10 max= 2/15/2016	(15Min Avg) 53.41
	`
2/15/2016	53.41
2/15/2016 2/16/2016	53.41 52.46
2/15/2016 2/16/2016 2/17/2016	53.41 52.46 26.52
2/15/2016 2/16/2016 2/17/2016 2/18/2016	53.41 52.46 26.52 26.73
2/15/2016 2/16/2016 2/17/2016 2/18/2016 2/19/2016	53.41 52.46 26.52 26.73 43.40

Wind Summary Statistics	
CALM	7%
UW	7%
UW/CW	0%
CW	0%
CW/DW	0%
DW	24%
DW/CW	5%
CW/UW	57%
TOTAL	100%



Perimeter Air Monitoring Station - STA 8

15-minute average concentrations



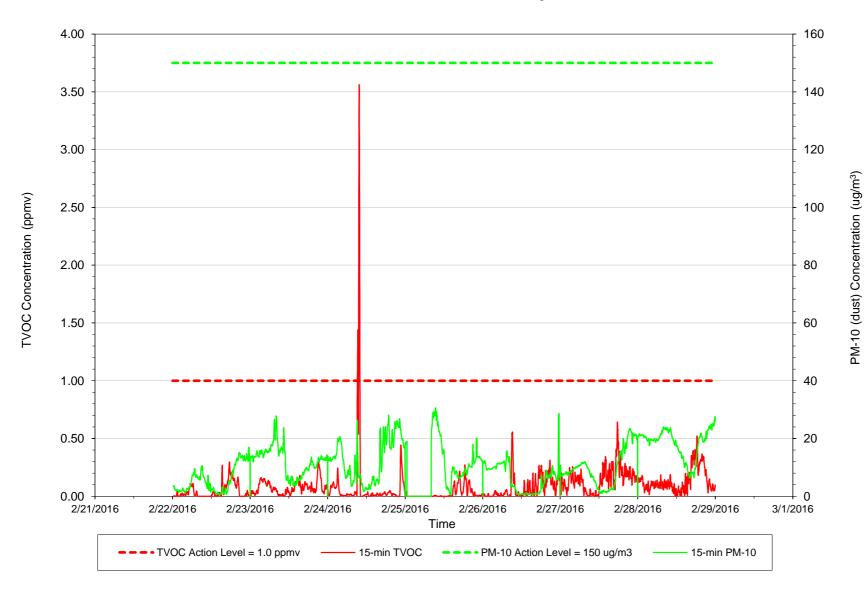
Data Summary	Statistics
TVOC Avg =	0.05
•	
PM-10 Avg =	9.82
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
2/15/2016	0.48
2/16/2016	0.66
_,	
2/17/2016	0.49
2/18/2016	0.08
2/19/2016	0.35
2/20/2016	0.16
2/21/2016	0.08
PM10 max=	(15Min Avg)
2/15/2016	33.87
2/16/2016	115.47
2/17/2016	22.55
2/18/2016	20.74
2/19/2016	13.61
2/20/2016	16.77
2/21/2016	25.70
_,,_5.0	_50

Wind Summary Statistics	
CALM	7%
UW	7%
UW/CW	0%
CW	0%
CW/DW	0%
DW	24%
DW/CW	5%
CW/UW	57%
TOTAL	100%



Perimeter Air Monitoring Station - STA 1

15-minute average concentrations



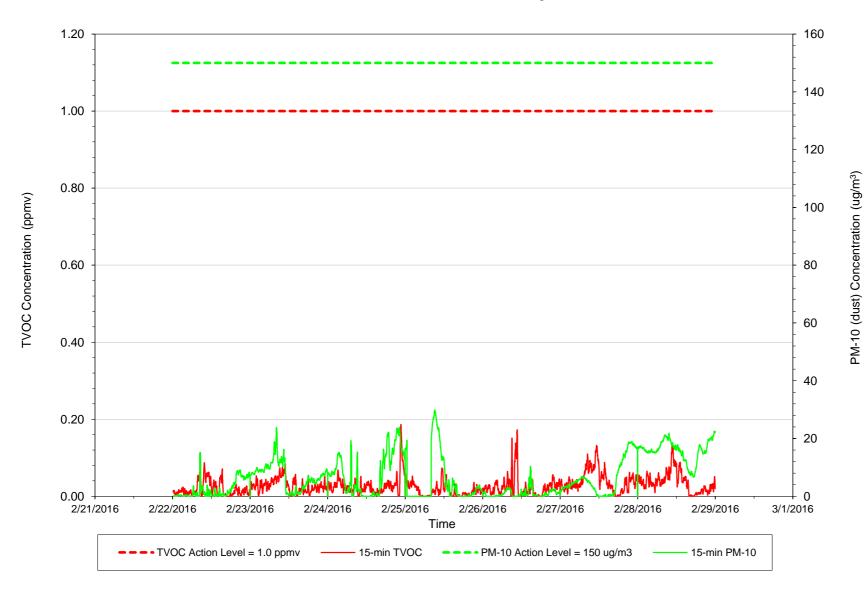
Data Summary Statistics	
TVOC Avg =	0.10
PM-10 Avg =	11.12
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
2/22/2016	0.30
2/23/2016	0.30
2/24/2016	3.56
2/25/2016	0.27
2/26/2016	0.56
2/27/2016	0.64
2/28/2016	0.52
PM10 max=	(15Min Avg)
2/22/2016	16.99
2/23/2016	27.85
2/24/2016	28.04
2/25/2016	30.62
2/26/2016	28.55
2/27/2016	23.46
2/28/2016	27.55

Wind Summary Statistics	
CALM	4%
UW	34%
UW/CW	0%
CW	46%
CW/DW	0%
DW	8%
DW/CW	6%
CW/UW	1%
TOTAL	100%



Perimeter Air Monitoring Station - STA 2

15-minute average concentrations

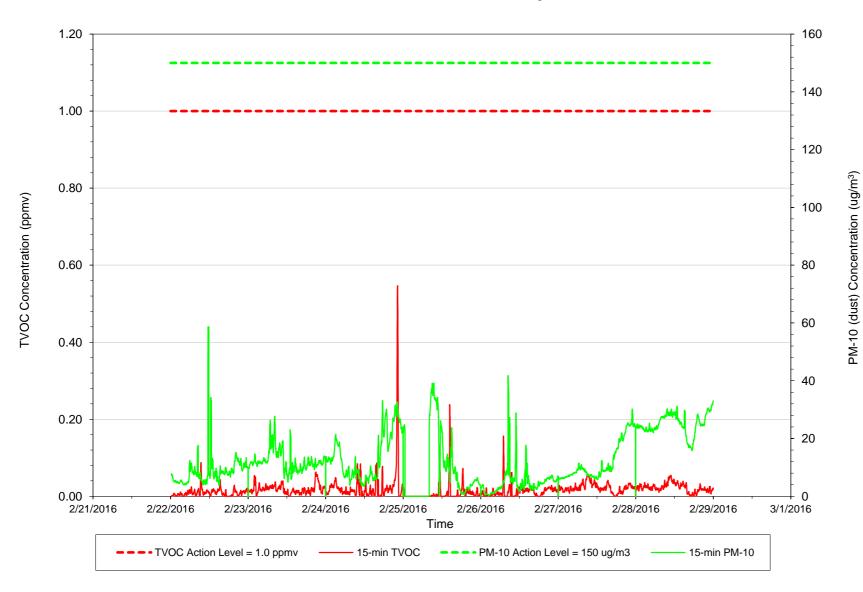


Data Summary Statistics	
TVOC Avg =	0.03
PM-10 Avg =	6.83
· ·	
Daily	
Data Summary	Statistics
TVOC max =	
2/22/2016	0.09
2/23/2016	0.08
2/24/2016	0.19
2/25/2016	0.07
2/26/2016	0.17
2/27/2016	0.13
2/28/2016	0.13
PM10 max=	(15Min Avg)
2/22/2016	15.11
2/23/2016	23.85
2/24/2016	23.76
2/25/2016	29.95
2/26/2016	10.43
2/27/2016	18.92
2/28/2016	22.55

Wind Summary Statistics	
CALM	4%
UW	33%
UW/CW	0%
CW	0%
CW/DW	0%
DW	48%
DW/CW	3%
CW/UW	12%
TOTAL	100%

Perimeter Air Monitoring Station - STA 3

15-minute average concentrations



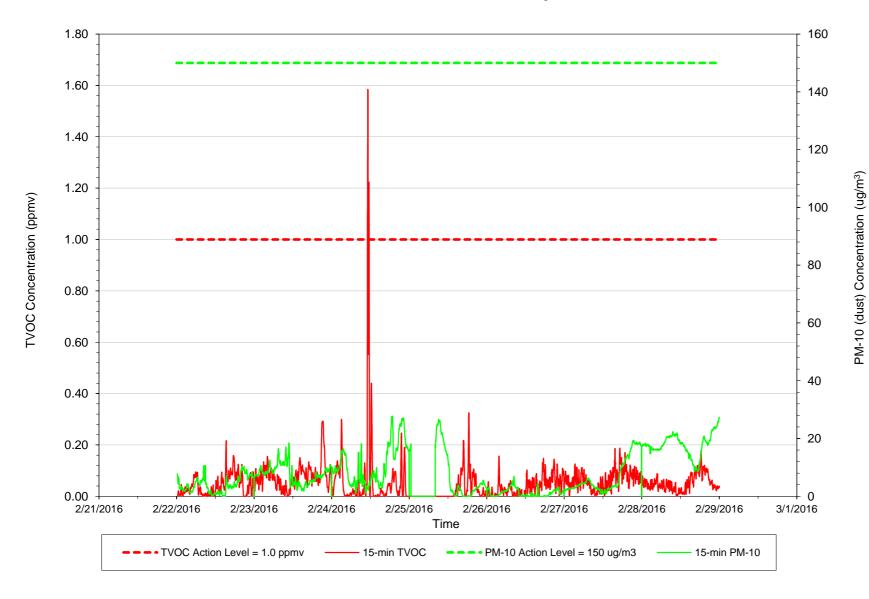
Data Summary Statistics	
TVOC Avg = PM-10 Avg =	0.02 12.83
Daily	Ctatiation
Data Summary	
TVOC max =	` "
2/22/2016	0.09
2/23/2016	0.06
2/24/2016	0.55
2/25/2016	0.24
2/26/2016	0.16
2/27/2016	0.06
2/28/2016	0.05
PM10 max=	(15Min Avg)
2/22/2016	58.67
2/23/2016	27.67
2/24/2016	33.04
2/25/2016	39.15
2/26/2016	41.74
2/27/2016	30.18
2/28/2016	33.08

Wind Summary Statistics	
CALM	4%
UW	18%
UW/CW	0%
CW	5%
CW/DW	4%
DW	66%
DW/CW	2%
CW/UW	0%
TOTAL	100%



Perimeter Air Monitoring Station - STA 4

15-minute average concentrations



Data Summary Statistics	
TVOC Avg =	0.06
PM-10 Avg =	7.99
Daily	0
Data Summary	
TVOC max =	` ",
2/22/2016	0.22
2/23/2016	0.29
2/24/2016	1.58
2/25/2016	0.32
2/26/2016	0.16
2/27/2016	0.19
2/28/2016	0.18
PM10 max=	(15Min Avg)
2/22/2016	10.62
2/23/2016	18.45
2/24/2016	27.73
2/25/2016	26.57
2/26/2016	6.87
2/27/2016	19.25

Weekly

Wind Summary Statistics	
CALM	4%
UW	35%
UW/CW	0%
CW	0%
CW/DW	0%
DW	22%
DW/CW	0%
CW/UW	39%
TOTAL	100%

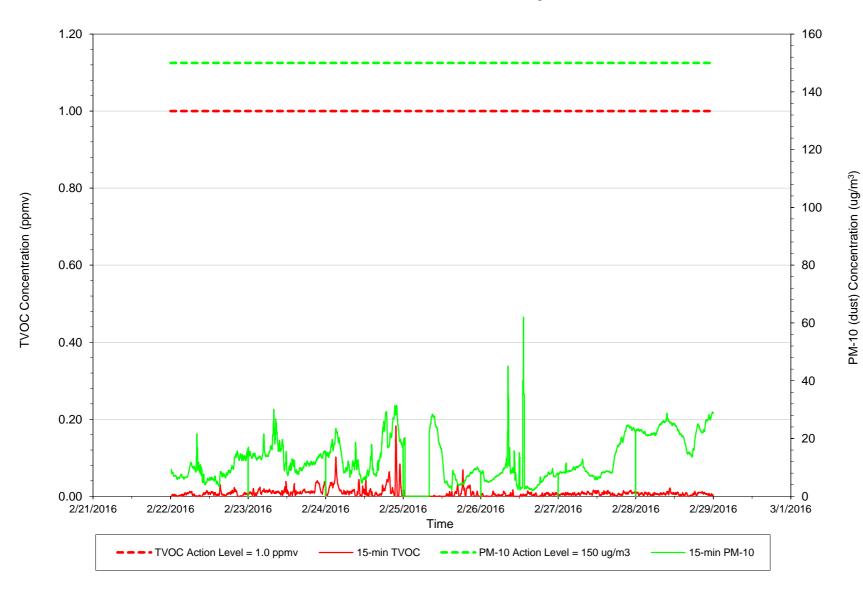
27.39

2/28/2016



Perimeter Air Monitoring Station - STA 5

15-minute average concentrations



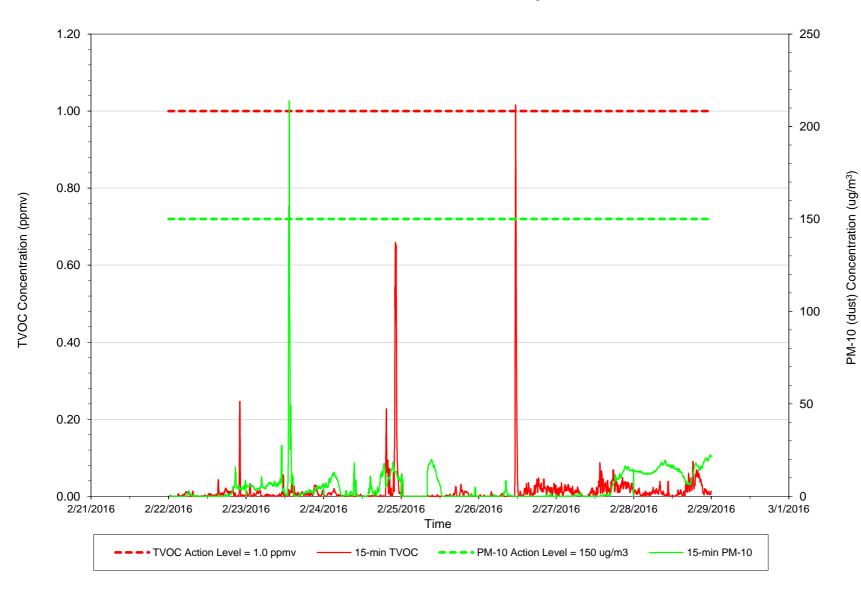
Data Summary Statistics	
TVOC Avg =	0.01
PM-10 Avg =	13.00
Daily	
Data Summary	
TVOC max =	(15Min Avg)
2/22/2016	0.03
2/23/2016	0.04
2/24/2016	0.18
2/25/2016	0.07
2/26/2016	0.02
2/27/2016	0.02
2/28/2016	0.02
PM10 max=	(15Min Avg)
2/22/2016	21.61
2/23/2016	30.12
2/24/2016	31.44
2/25/2016	28.46
2/26/2016	62.01
2/27/2016	24.64
2/28/2016	29.19

Wind Summary Statistics	
CALM	4%
UW	24%
UW/CW	0%
CW	0%
CW/DW	0%
DW	16%
DW/CW	0%
CW/UW	56%
TOTAL	100%



Perimeter Air Monitoring Station - STA 6

15-minute average concentrations



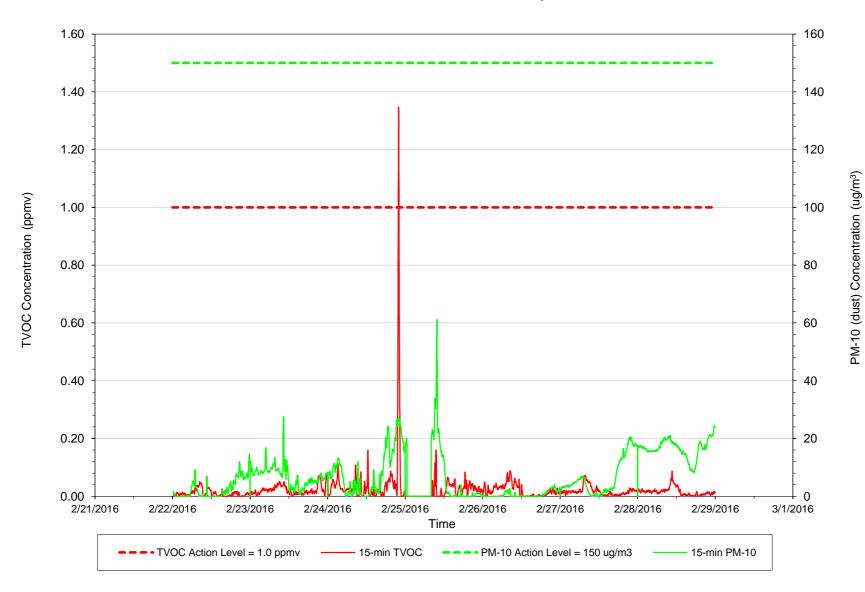
Data Summary	Statistics
TVOC Avg =	0.01
PM-10 Avg =	5.37
Daily Data Summary	
2/22/2016	0.25
2/23/2016	0.06
2/24/2016	0.66
2/25/2016	0.03
2/26/2016	1.02
2/27/2016	0.09
2/28/2016	0.09
PM10 max=	(15Min Avg)
2/22/2016	15.81
2/23/2016	213.82
2/24/2016	18.42
2/25/2016	19.82
2/26/2016	8.33
2/27/2016	16.28
2/28/2016	22.45

Wind Summary Statistics	
CALM	4%
UW	0%
UW/CW	0%
CW	25%
CW/DW	1%
DW	17%
DW/CW	0%
CW/UW	53%
TOTAL	100%



Perimeter Air Monitoring Station - STA 7

15-minute average concentrations



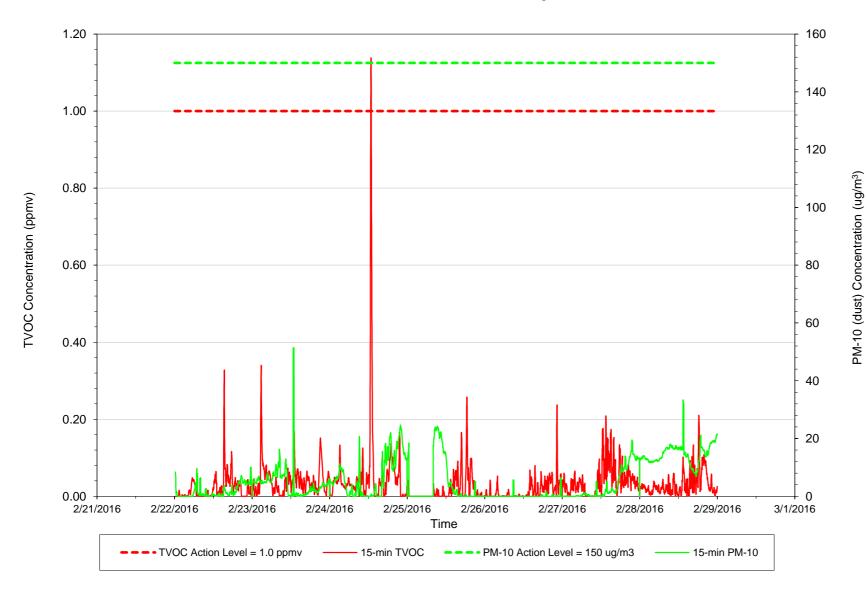
Data Summary Statistics	
TVOC Avg =	0.03
PM-10 Avg =	7.00
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
2/22/2016	0.05
2/23/2016	0.08
2/24/2016	1.35
2/25/2016	0.16
2/26/2016	0.09
2/27/2016	0.07
2/28/2016	0.09
PM10 max=	(15Min Avg)
2/22/2016	14.58
2/23/2016	27.58
2/24/2016	27.32
2/25/2016	61.10
2/26/2016	4.10
2/27/2016	20.59
2/28/2016	24.46

Wind Summary Statistics	
CALM	4%
UW	15%
UW/CW	0%
CW	0%
CW/DW	1%
DW	24%
DW/CW	5%
CW/UW	51%
TOTAL	100%



Perimeter Air Monitoring Station - STA 8

15-minute average concentrations



TVOC Avg = PM-10 Avg =	0.04 5.44
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
2/22/2016	0.33
2/23/2016	0.34
2/24/2016	1.14
2/25/2016	0.26
2/26/2016	0.24
2/27/2016	0.21
2/28/2016	0.21
PM10 max=	(15Min Ava)

10.08

51.38

24.61

24.23

6.34

19.44

33.35

2/22/2016

2/23/2016

2/24/2016

2/25/2016

2/26/2016

2/27/2016

2/28/2016

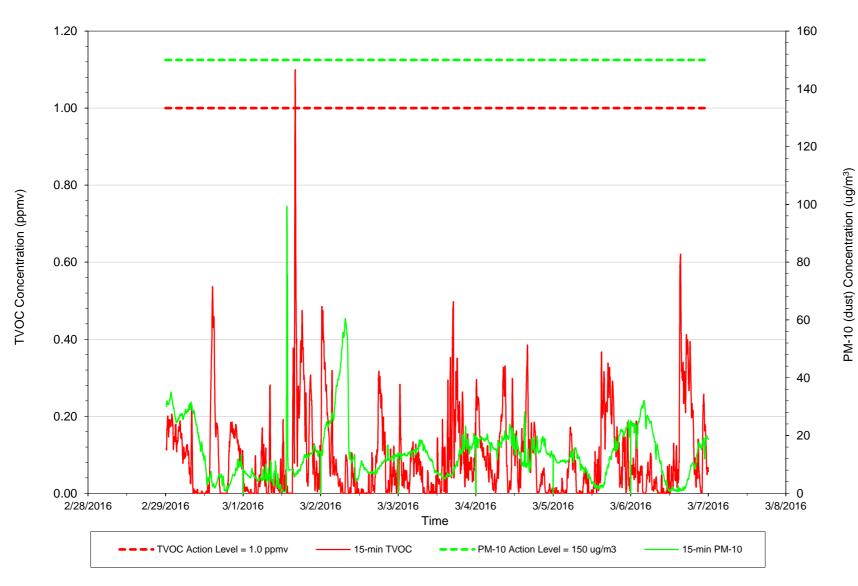
Data Summary Statistics

Wind Summary Statistics	
CALM	4%
UW	15%
UW/CW	0%
CW	0%
CW/DW	1%
DW	24%
DW/CW	5%
CW/UW	51%
TOTAL	100%



Perimeter Air Monitoring Station - STA 1

15-minute average concentrations



Data Summary Statistics	
TVOC Avg =	0.09
PM-10 Avg =	13.79
Daily	
Data Summary	
TVOC max =	(15Min Avg)
2/29/2016	0.54
3/1/2016	1.10
3/2/2016	0.48
3/3/2016	0.50
3/4/2016	0.38
3/5/2016	0.37
3/6/2016	0.62
PM10 max=	(15Min Avg)
2/29/2016	35.03
3/1/2016	99.31
3/2/2016	60.45
3/3/2016	23.28
3/4/2016	28.24
3/5/2016	25.34
3/6/2016	32.04

Wind Summary Statistics

4%

28%

0%

49%

1%

12%

4% 2%

100%

Weekly



CALM

UW/CW

CW/DW

DW/CW

CW/UW

TOTAL

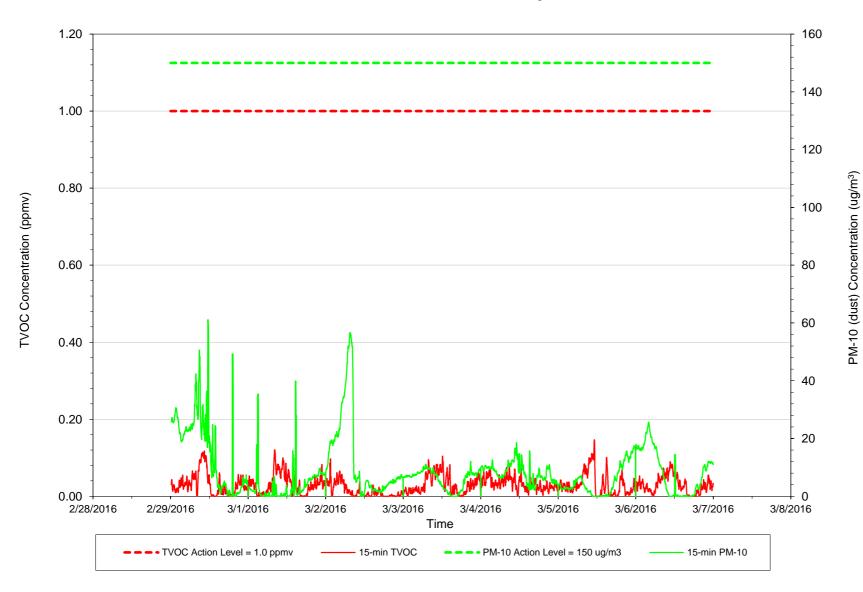
UW

CW

DW

Perimeter Air Monitoring Station - STA 2

15-minute average concentrations



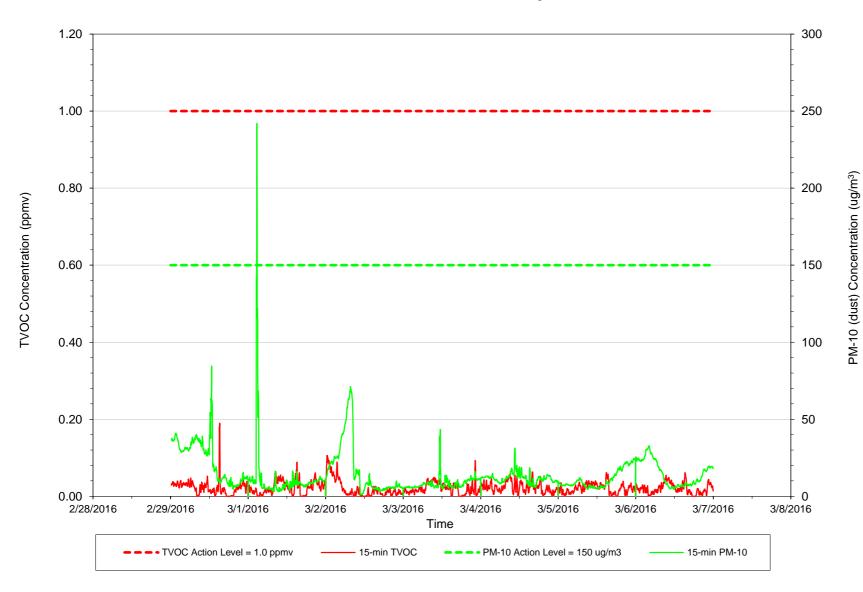
Data Summary	Statistics
TVOC Avg =	0.03
PM-10 Avg =	8.74
Daily	
Data Summary S	
TVOC max =	(15Min Avg)
2/29/2016	0.12
3/1/2016	0.12
3/2/2016	0.10
3/3/2016	0.10
3/4/2016	0.08
3/5/2016	0.15
3/6/2016	0.09
PM10 max=	(15Min Avg)
2/29/2016	61.07
3/1/2016	39.89
3/2/2016	56.71
3/3/2016	12.07
3/4/2016	18.58
3/5/2016	17.49
3/6/2016	25.61

Wind Summary Statistics	
CALM	4%
UW	26%
UW/CW	0%
CW	0%
CW/DW	0%
DW	49%
DW/CW	4%
CW/UW	17%
TOTAL	100%



Perimeter Air Monitoring Station - STA 3

15-minute average concentrations

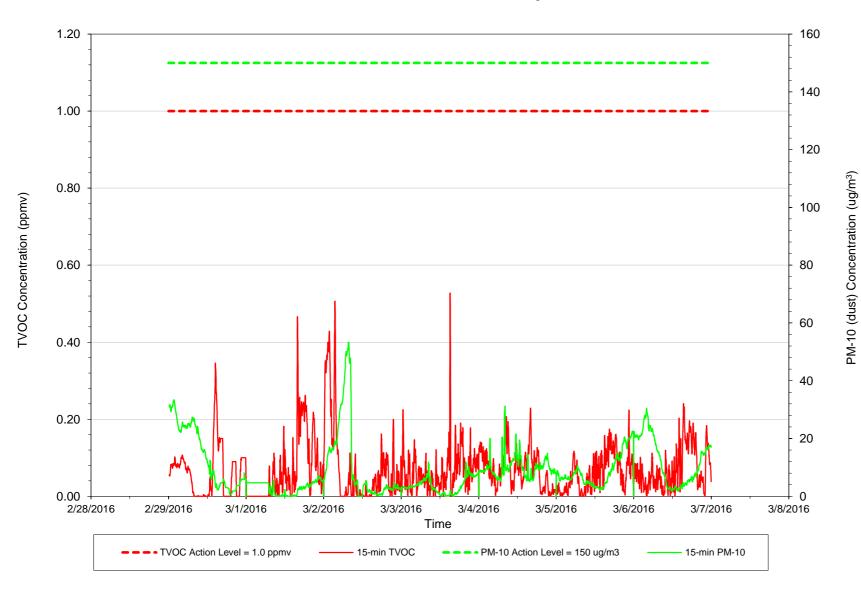


Data Summary Statistics	
TVOC Avg = PM-10 Avg =	0.02 14.16
Daily Data Summary S	
TVOC max =	(15Min Avg)
2/29/2016	0.19
3/1/2016	0.09
3/2/2016	0.11
3/3/2016	0.09
3/4/2016	0.06
3/5/2016	0.06
3/6/2016	0.06
PM10 max=	(15Min Avg)
2/29/2016	84.34
3/1/2016	241.92
3/2/2016	71.27
3/3/2016	43.38
3/4/2016	31.16
3/5/2016	25.04
3/6/2016	32.80
0,0,20.0	02.00
Wind Summary	Statistics

Wind Summary Statistics	
CALM	4%
UW	11%
UW/CW	1%
CW	8%
CW/DW	4%
DW	68%
DW/CW	4%
CW/UW	0%
TOTAL	100%

Perimeter Air Monitoring Station - STA 4

15-minute average concentrations



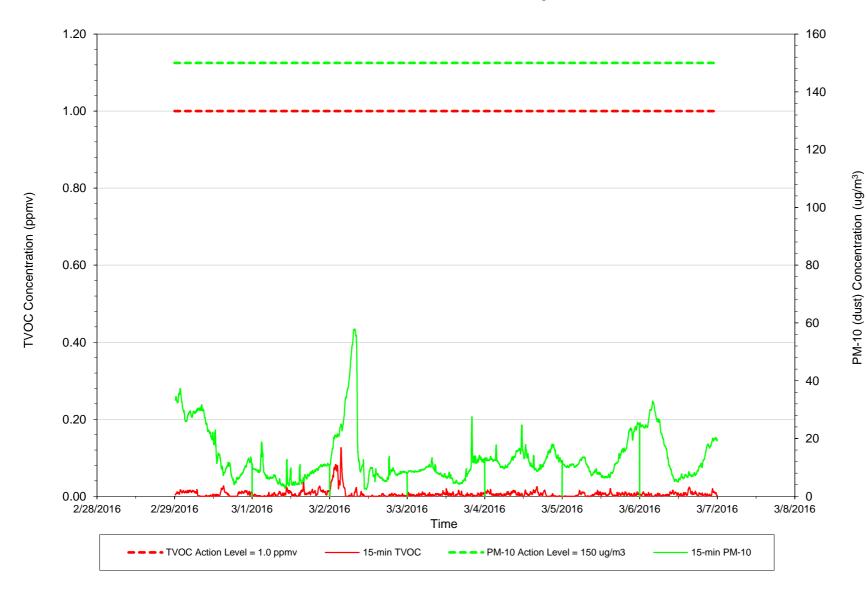
Data Summary Statistics	
TVOC Avg =	0.07
PM-10 Avg =	9.06
Daily	
Data Summary	
TVOC max =	(15Min Avg)
2/29/2016	0.35
3/1/2016	0.47
3/2/2016	0.51
3/3/2016	0.53
3/4/2016	0.23
3/5/2016	0.22
3/6/2016	0.24
PM10 max=	(15Min Avg)
2/29/2016	33.42
3/1/2016	7.03
3/2/2016	53.32
3/3/2016	11.82
3/4/2016	31.12
3/5/2016	22.63
3/6/2016	30.46

Wind Summary Statistics	
CALM	4%
UW	29%
UW/CW	0%
CW	0%
CW/DW	0%
DW	18%
DW/CW	0%
CW/UW	48%
TOTAL	100%



Perimeter Air Monitoring Station - STA 5

15-minute average concentrations



Data Summary Statistics	
•	
TVOC Avg =	0.01

Weekly

Daily		

13.31

PM-10 Avg =

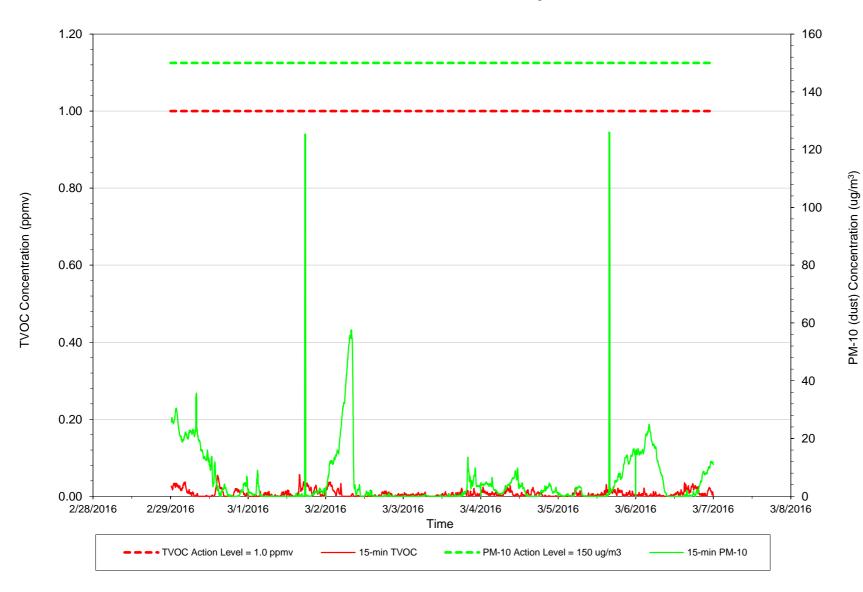
Data Summary Statistics		
Data Summary Statistics		
(15Min Avg)		
0.03		
0.04		
0.13		
0.02		
0.02		
0.02		
0.02		
(15Min Avg)		
37.31		
18.86		
57.89		
27.51		
24.63		
25.59		
32.94		

Wind Summary Statistics	
CALM	4%
UW	22%
UW/CW	0%
CW	0%
CW/DW	0%
DW	17%
DW/CW	0%
CW/UW	58%
TOTAL	100%



Perimeter Air Monitoring Station - STA 6

15-minute average concentrations

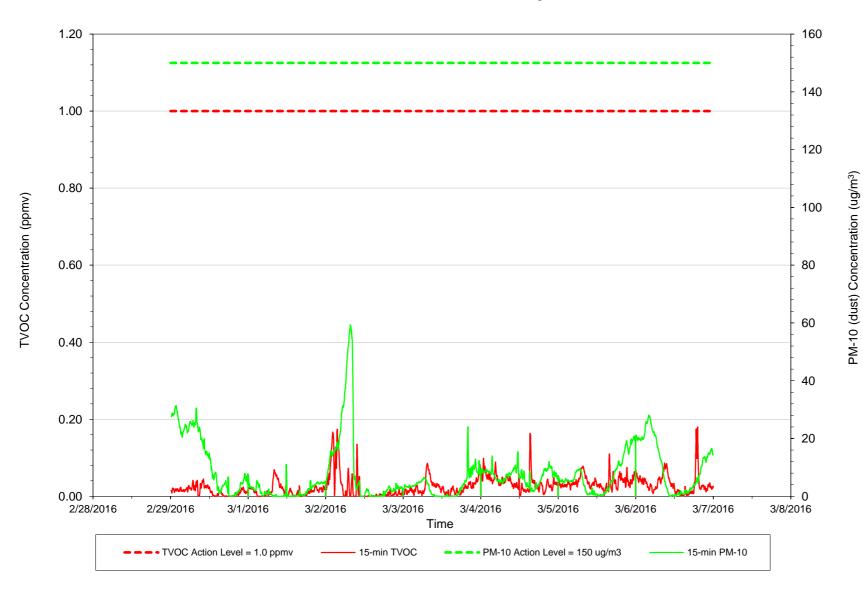


Data Summary Statistics		
TVOC Ava	0.01	
TVOC Avg =	0.01	
PM-10 Avg =	5.64	
Daily		
Data Summary	Statistics	
TVOC max =	(15Min Avg)	
2/29/2016	0.05	
3/1/2016	0.06	
3/2/2016	0.04	
3/3/2016	0.02	
3/4/2016	0.03	
3/5/2016	0.03	
3/6/2016	0.04	
PM10 max=	(15Min Avg)	
2/29/2016	35.68	
3/1/2016	125.38	
3/2/2016	57.58	
3/3/2016	13.53	
3/4/2016	9.71	
3/5/2016	126.03	
3/6/2016	24.86	

Wind Summary Statistics	
CALM	4%
UW	0%
UW/CW	0%
CW	30%
CW/DW	1%
DW	9%
DW/CW	0%
CW/UW	56%
TOTAL	100%

Perimeter Air Monitoring Station - STA 7

15-minute average concentrations



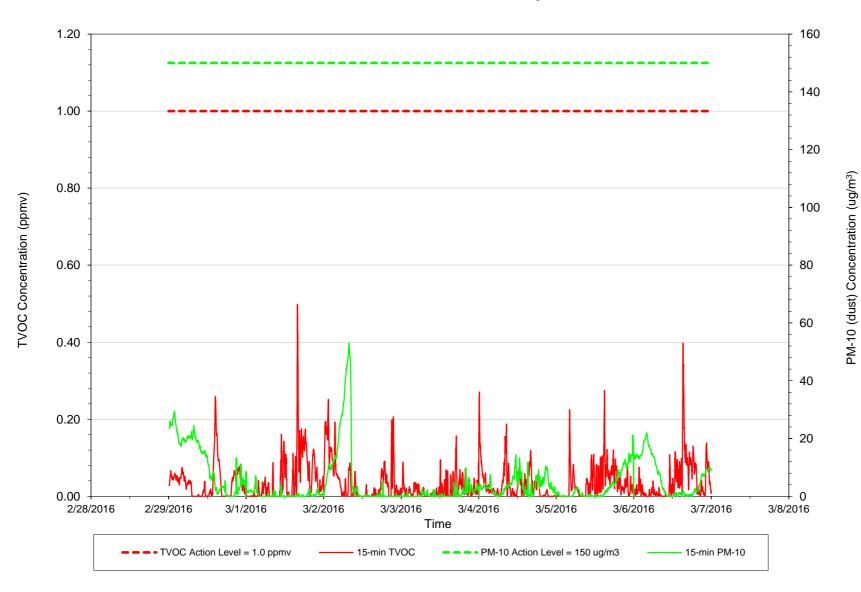
Data Summary Statistics		
TVOC Avg =	0.03	
PM-10 Avg =	7.84	
_		
Daily		
Data Summary	Statistics	
TVOC max =	(15Min Avg)	
2/29/2016	0.04	
3/1/2016	0.07	
3/2/2016	0.17	
3/3/2016	0.09	
3/4/2016	0.16	
3/5/2016	0.11	
3/6/2016	0.18	
PM10 max=	(15Min Avg)	
2/29/2016	31.40	
3/1/2016	11.04	
3/2/2016	59.33	
3/3/2016	24.04	
3/4/2016	15.44	
3/5/2016	20.85	
3/6/2016	28.14	

Wind Summary Statistics	
CALM	4%
UW	16%
UW/CW	0%
CW	0%
CW/DW	1%
DW	22%
DW/CW	4%
CW/UW	53%
TOTAL	100%



Perimeter Air Monitoring Station - STA 8

15-minute average concentrations



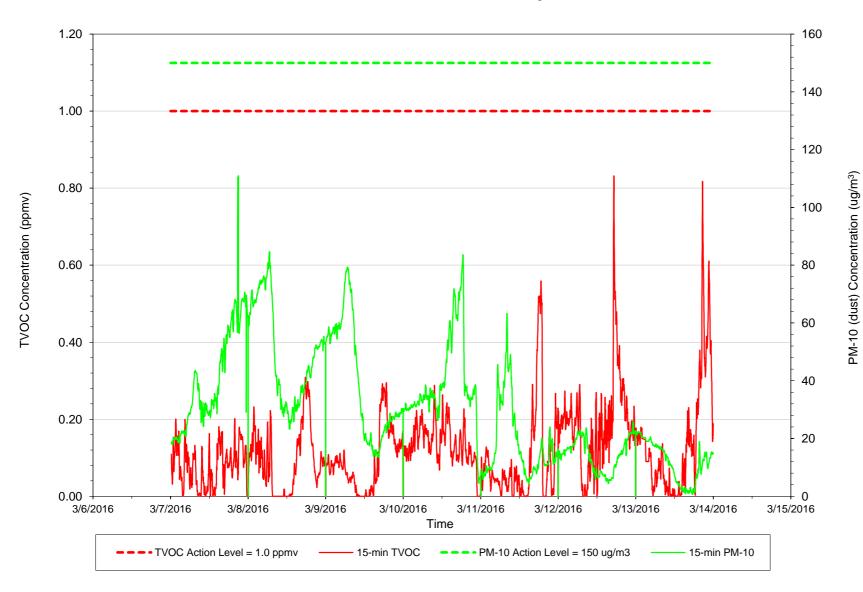
Data Summary	Statistics
TVOC Avg =	0.04
PM-10 Avg =	5.10
Daily	
Data Summary	
TVOC max =	` ",
2/29/2016	0.26
3/1/2016	0.50
3/2/2016	0.25
3/3/2016	0.16
3/4/2016	0.27
3/5/2016	0.27
3/6/2016	0.40
PM10 max=	(15Min Avg)
2/29/2016	29.48
3/1/2016	8.33
3/2/2016	52.95
3/3/2016	9.86
3/4/2016	14.36
3/5/2016	21.15
3/6/2016	21.96

Wind Summary Statistics	
CALM	4%
UW	16%
UW/CW	0%
CW	0%
CW/DW	1%
DW	22%
DW/CW	4%
CW/UW	53%
TOTAL	100%



Perimeter Air Monitoring Station - STA 1

15-minute average concentrations



Data Summary Statistics		
T) (OC A	0.40	
TVOC Avg =	0.12	
PM-10 Avg =	30.62	
Daily		
Data Summary	Statistics	
TVOC max =	(15Min Avg)	
3/7/2016	0.20	
3/8/2016	0.31	
3/9/2016	0.29	
3/10/2016	0.29	
3/11/2016	0.56	
3/12/2016	0.83	
3/13/2016	0.82	
PM10 max=	(15Min Avg)	
3/7/2016	110.92	
3/8/2016	84.58	
3/9/2016	79.32	
3/10/2016	83.58	
3/11/2016	63.33	

Weekly

Wind Summary Statistics	
CALM	14%
UW	19%
UW/CW	0%
CW	43%
CW/DW	1%
DW	14%
DW/CW	9%
CW/UW	1%
TOTAL	100%

25.79

22.43

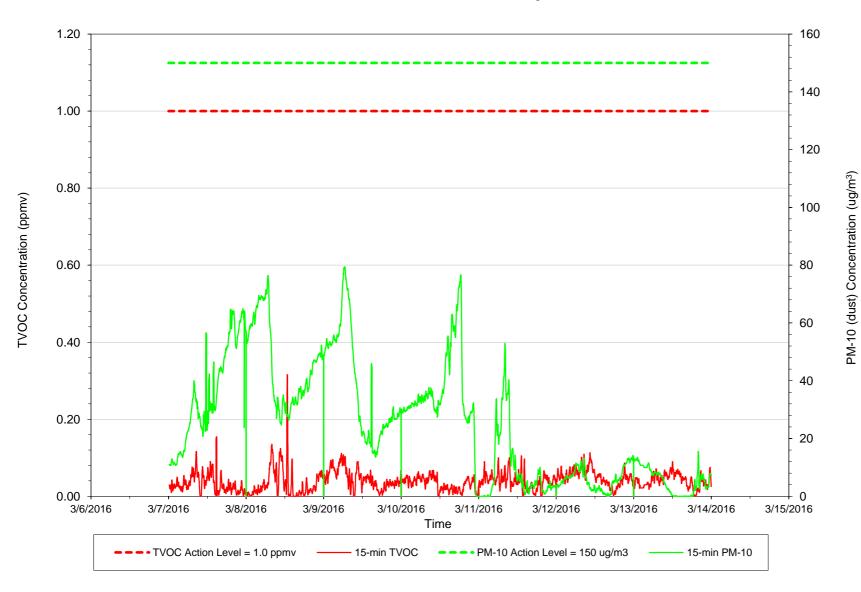
3/12/2016

3/13/2016



Perimeter Air Monitoring Station - STA 2

15-minute average concentrations



Data Summary Statistics		
TVOC Avg =	0.04	
PM-10 Avg =	25.29	
-		
Daily		
Data Summary	Statistics	
TVOC max =	(15Min Avg)	
3/7/2016	0.15	
3/8/2016	0.32	
3/9/2016	0.11	
3/10/2016	0.07	
3/11/2016	0.11	
3/12/2016	0.11	
3/13/2016	0.09	
PM10 max=	(15Min Avg)	
3/7/2016	64.85	
3/8/2016	76.39	
3/9/2016	79.44	
3/10/2016	76.63	
3/11/2016	52.85	
3/12/2016	14.18	
	_	

Weekly

Wind Summary Statistics	
CALM	14%
UW	17%
UW/CW	0%
CW	0%
CW/DW	0%
DW	58%
DW/CW	1%
CW/UW	10%
TOTAL	100%

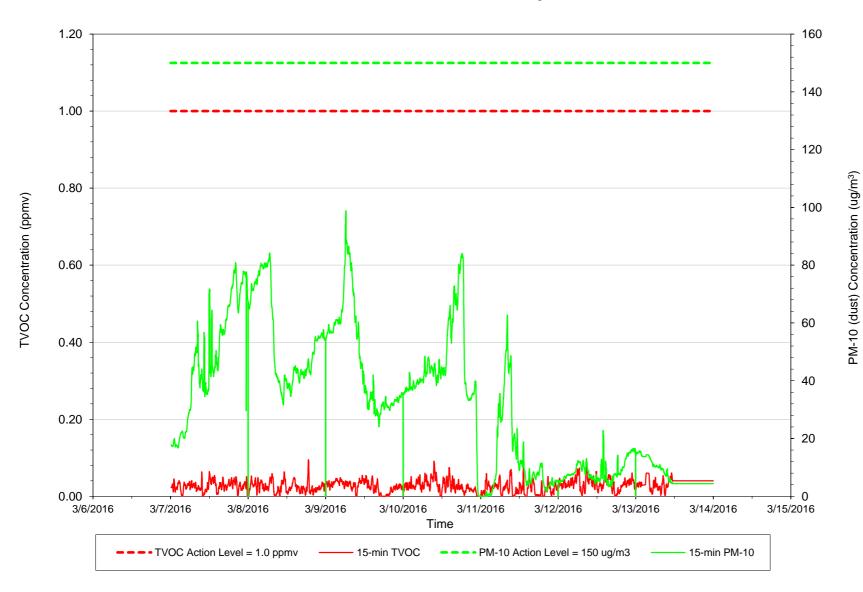
15.51

3/13/2016



Perimeter Air Monitoring Station - STA 3

15-minute average concentrations



Data Summary Statistics	
TVOC Ava –	0.03
TVOC Avg =	
PM-10 Avg =	32.02
Daily Data Summary	Statistics
TVOC max =	
3/7/2016	0.06
3/8/2016	0.10
3/9/2016	0.05
3/10/2016	0.09
3/11/2016	0.07
3/12/2016	0.09
3/13/2016	0.06
PM10 max=	(15Min Avg)
3/7/2016	80.81
3/8/2016	84.16
3/9/2016	98.78
3/10/2016	84.10
3/11/2016	62.72
3/12/2016	22.82

Weekly

Wind Summary Statistics	
CALM	14%
UW	13%
UW/CW	1%
CW	8%
CW/DW	7%
DW	55%
DW/CW	2%
CW/UW	0%
TOTAL	100%

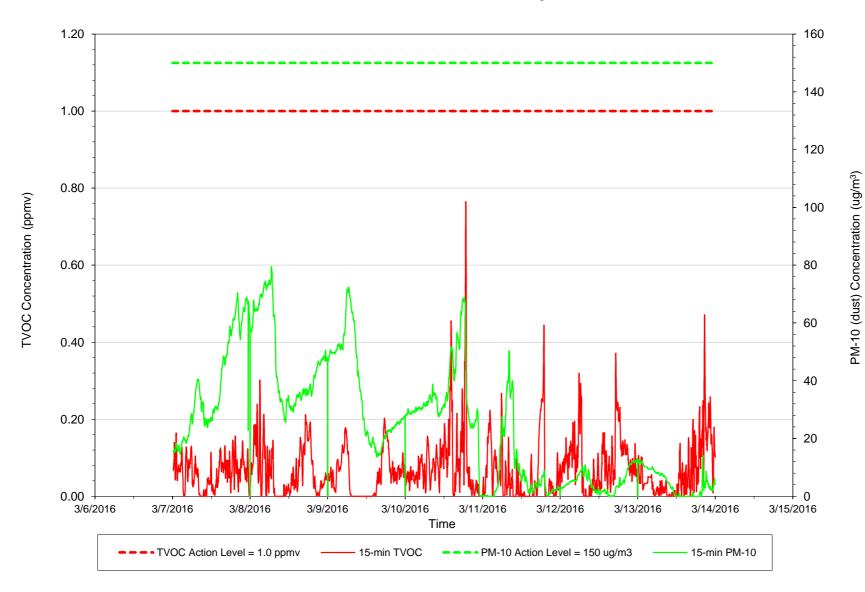
15.72

3/13/2016



Perimeter Air Monitoring Station - STA 4

15-minute average concentrations



Jata Summary Statistics	
TVOC Avg =	0.07
PM-10 Avg =	24.95
Daily	
Data Summary	
TVOC max =	(15Min Avg)
3/7/2016	0.16
3/8/2016	0.30
3/9/2016	0.20
3/10/2016	0.77
3/11/2016	0.44
3/12/2016	0.37
3/13/2016	0.47
PM10 max=	(15Min Avg)
3/7/2016	70.44
3/8/2016	79.50
3/9/2016	72.41
3/10/2016	68.91

Weekly

Wind Summary Statistics	
CALM	14%
UW	46%
UW/CW	0%
CW	0%
CW/DW	0%
DW	6%
DW/CW	0%
CW/UW	34%
TOTAL	100%

50.35

13.11

14.24

3/11/2016

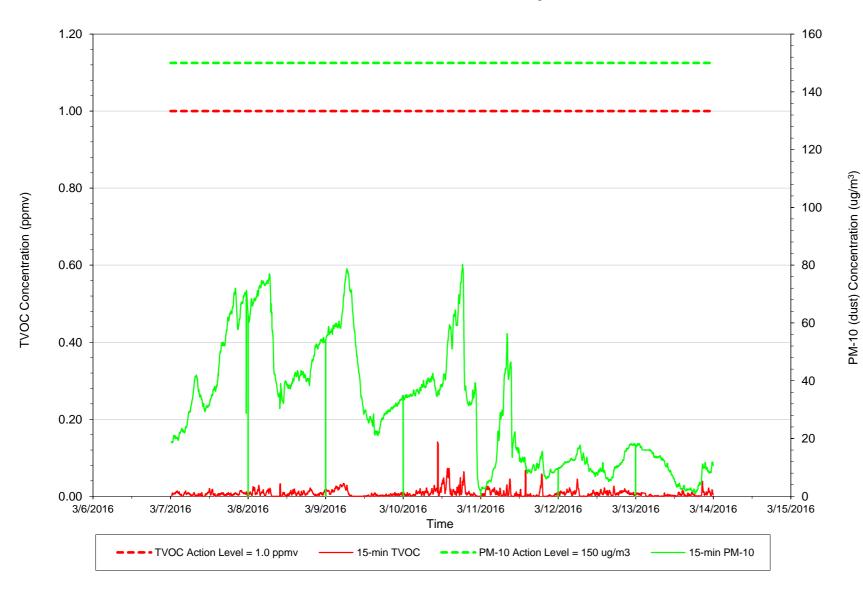
3/12/2016

3/13/2016



Perimeter Air Monitoring Station - STA 5

15-minute average concentrations



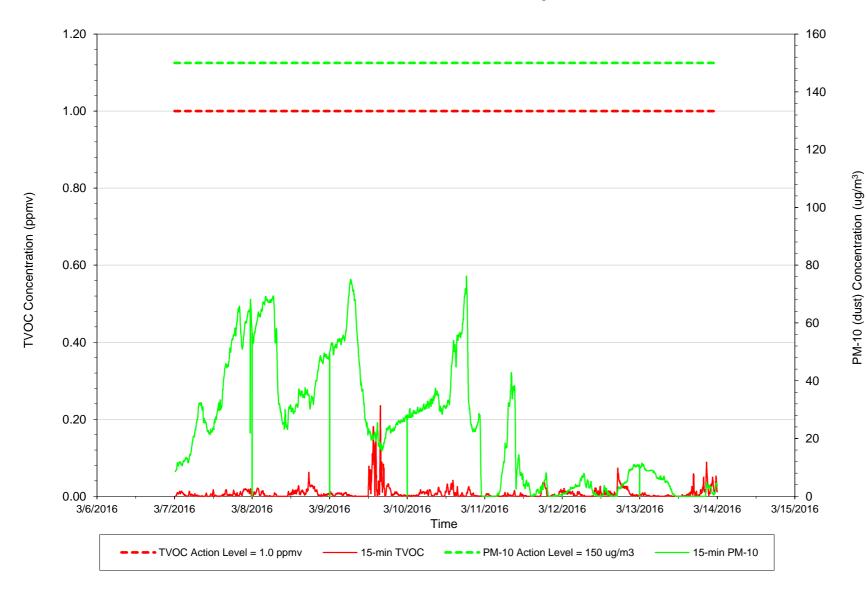
Data Summary Statistics	
TVOC Avg =	0.01
PM-10 Avg =	30.50
Daily	
Data Summary	
TVOC max =	(15Min Avg)
3/7/2016	0.02
3/8/2016	0.03
3/9/2016	0.03
3/10/2016	0.14
3/11/2016	0.07
3/12/2016	0.04
3/13/2016	0.04
PM10 max=	(15Min Avg)
3/7/2016	72.04
3/8/2016	77.00
3/9/2016	78.73
3/10/2016	80.24
3/11/2016	56.24
3/12/2016	18.21
3/13/2016	18.30

Wind Summary Statistics	
CALM	14%
UW	25%
UW/CW	0%
CW	0%
CW/DW	0%
DW	5%
DW/CW	0%
CW/UW	57%
TOTAL	100%



Perimeter Air Monitoring Station - STA 6

15-minute average concentrations



Data Summary Sta	atistics
TVOC Avg =	0.01

Weekly

PM-10 Avg =	23.5

Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
3/7/2016	0.02
3/8/2016	0.06
3/9/2016	0.24
3/10/2016	0.04
3/11/2016	0.04
3/12/2016	0.07
3/13/2016	0.09
PM10 max=	(15Min Avg)
3/7/2016	68.21
3/8/2016	69.38
3/9/2016	75.09
3/10/2016	76.19
3/11/2016	42.82

3/12/2016

3/13/2016

Wind Summary Statistics	
CALM	14%
UW	0%
UW/CW	0%
CW	21%
CW/DW	0%
DW	11%
DW/CW	1%
CW/UW	53%
TOTAL	100%

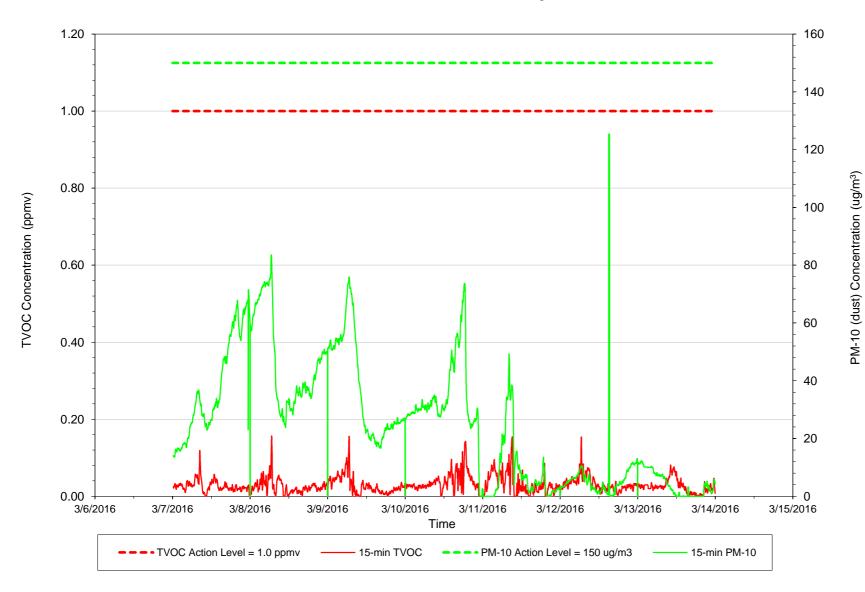
11.05

11.48



Perimeter Air Monitoring Station - STA 7

15-minute average concentrations



Data Summary Statistics	
TVOC Avg =	0.03
•	
PM-10 Avg =	25.02
Daily	.
Data Summary	
TVOC max =	(15Min Avg)
3/7/2016	0.12
3/8/2016	0.16
3/9/2016	0.16
3/10/2016	0.14
3/11/2016	0.15
3/12/2016	0.15
3/13/2016	0.08
PM10 max=	(15Min Avg)
3/7/2016	71.49
3/8/2016	83.58
3/9/2016	75.99
3/10/2016	73.73
3/11/2016	49.25
3/12/2016	125.39

Weekly

Wind Summary Statistics	
CALM	14%
UW	5%
UW/CW	0%
CW	0%
CW/DW	0%
DW	25%
DW/CW	8%
CW/UW	49%
TOTAL	100%

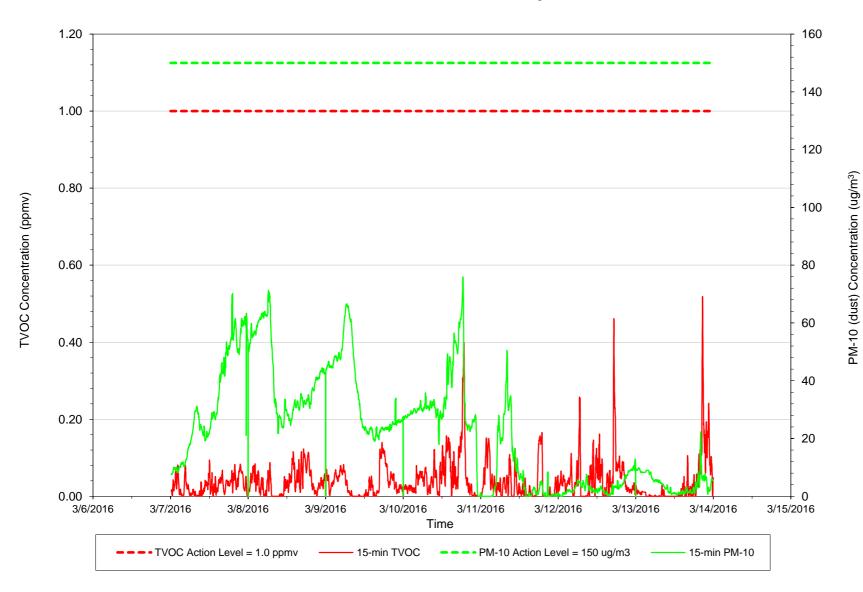
12.25

3/13/2016



Perimeter Air Monitoring Station - STA 8

15-minute average concentrations



Data Summary Statistics	
TVOC Avg =	0.04
PM-10 Avg =	22.58
· ·	
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
3/7/2016	0.09
3/8/2016	0.12

0.14

0.40

0.17

0.46

0.52

70.17

71.31

66.61

75.96

50.50

12.89

22.33

3/9/2016

3/10/2016

3/11/2016

3/12/2016

3/13/2016

3/7/2016

3/8/2016

3/9/2016

3/10/2016

3/11/2016

3/12/2016

3/13/2016

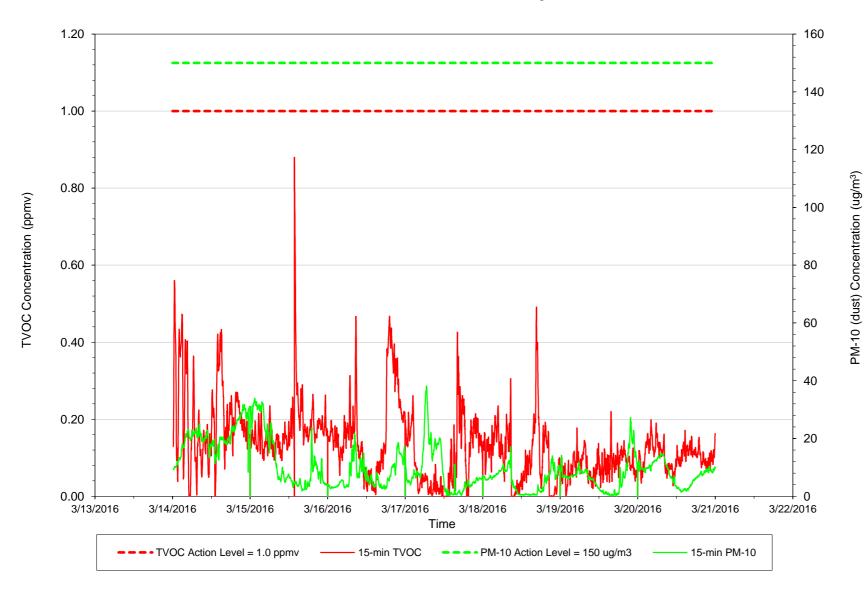
PM10 max= (15Min Avg)

Statistics
14%
5%
0%
0%
0%
25%
8%
49%
100%



Perimeter Air Monitoring Station - STA 1

15-minute average concentrations



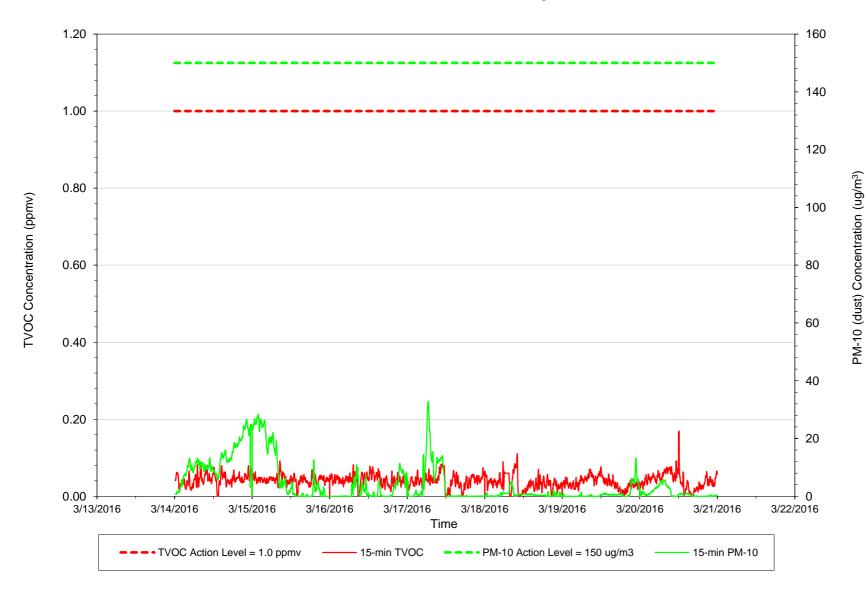
Weekly		
Data Summary	Statistics	
TVOC Avg =	0.14	
PM-10 Avg =	9.96	
Daily		
Data Summary	Statistics	
TVOC max =	(15Min Avg)	
3/14/2016	0.56	
3/15/2016	0.88	
3/16/2016	0.47	
3/17/2016	0.43	
3/18/2016	0.49	
3/19/2016	0.22	
3/20/2016	0.20	
PM10 max=	(15Min Avg)	
3/14/2016	31.83	
3/15/2016	33.91	
3/16/2016	21.92	
3/17/2016	38.19	
3/18/2016	17.23	
3/19/2016	27.25	
3/20/2016	14.87	
	_	

Wind Summary Statistics	
CALM	0%
UW	100%
UW/CW	0%
CW	0%
CW/DW	0%
DW	0%
DW/CW	0%
CW/UW	0%
TOTAL	100%



Perimeter Air Monitoring Station - STA 2

15-minute average concentrations



Data Summary Statistics	
TVOC Avg =	0.04
PM-10 Avg =	4.27
· ·	
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
3/14/2016	0.08
3/15/2016	0.09
3/16/2016	0.08
3/17/2016	0.08
3/18/2016	0.11
3/19/2016	0.08
3/20/2016	0.17
PM10 max=	(15Min Avg)
3/14/2016	26.59
3/15/2016	28.47
3/16/2016	11.43
3/17/2016	32.95
3/18/2016	5.12
3/19/2016	13.26

Weekly

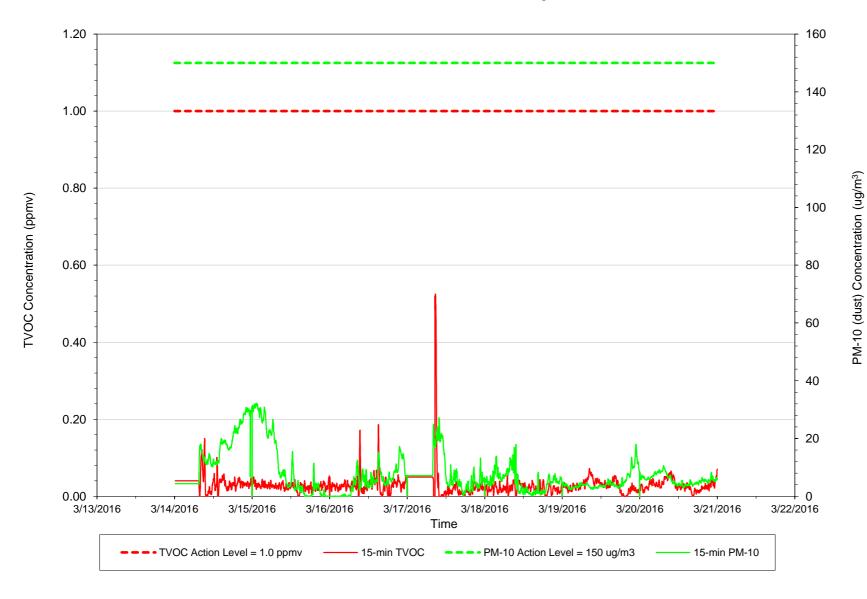
Wind Summary Statistics	
CALM	0%
UW	100%
UW/CW	0%
CW	0%
CW/DW	0%
DW	0%
DW/CW	0%
CW/UW	0%
TOTAL	100%

5.69



Perimeter Air Monitoring Station - STA 3

15-minute average concentrations



Data Summary Statistics	
TVOC Avg =	0.05
PM-10 Avg =	7.75
Daily	
Data Summary S	
TVOC max =	(15Min Avg)
3/14/2016	0.15
3/15/2016	0.05
3/16/2016	0.19
3/17/2016	0.52
3/18/2016	0.05
3/19/2016	0.07
3/20/2016	0.07
PM10 max=	(15Min Avg)
3/14/2016	30.93
3/15/2016	32.19
3/16/2016	17.17
3/17/2016	27.23
3/18/2016	17.95
3/19/2016	18.05

Weekly

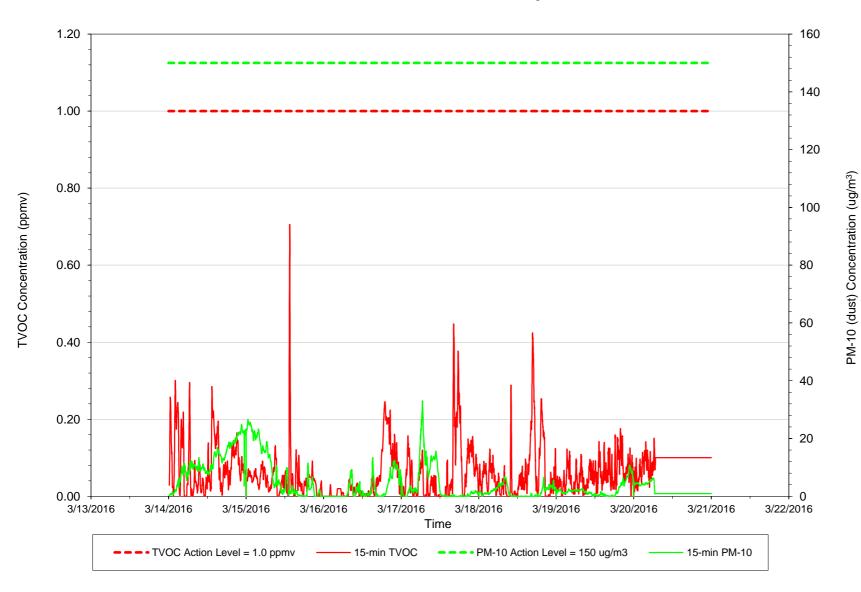
Wind Summary Statistics	
CALM	0%
UW	0%
UW/CW	0%
CW	0%
CW/DW	0%
DW	100%
DW/CW	0%
CW/UW	0%
TOTAL	100%

10.64



Perimeter Air Monitoring Station - STA 4

15-minute average concentrations



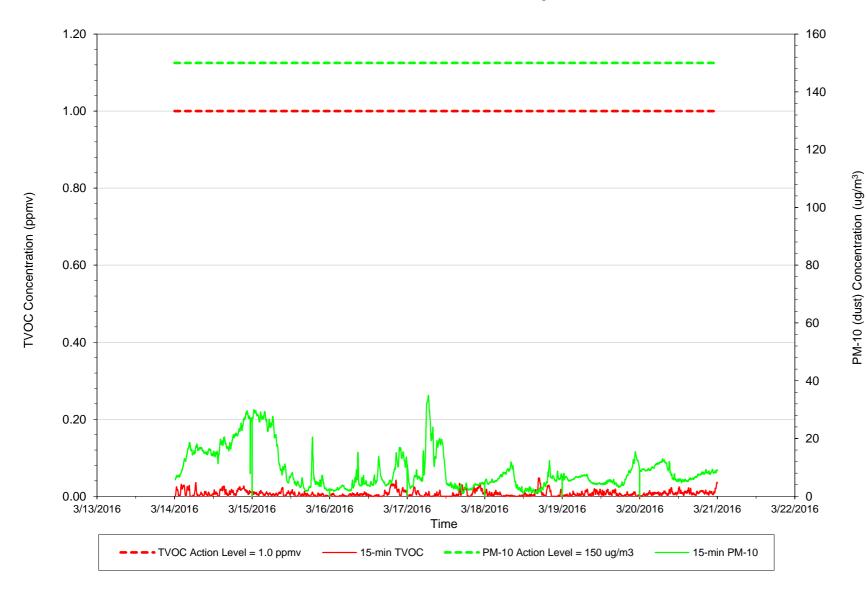
Data Summary Statistics		
TVOC Avg =	0.06	
PM-10 Avg =	4.65	
J		
Daily		
Data Summary	Statistics	
TVOC max =	(15Min Avg)	
3/14/2016	0.30	
3/15/2016	0.71	
3/16/2016	0.25	
3/17/2016	0.45	
3/18/2016	0.42	
3/19/2016	0.18	
3/20/2016	0.15	
PM10 max=	(15Min Avg)	
3/14/2016	24.76	
3/15/2016	26.66	
3/16/2016	13.37	
3/17/2016	32.97	
3/18/2016	6.76	
3/19/2016	10.80	
3/20/2016	6.43	

Wind Summary Statistics	
CALM	0%
UW	0%
UW/CW	0%
CW	0%
CW/DW	0%
DW	100%
DW/CW	0%
CW/UW	0%
TOTAL	100%



Perimeter Air Monitoring Station - STA 5

15-minute average concentrations



Data Summary Statistics	
TVOC Avg =	0.01
PM-10 Avg =	9.09
ŭ	
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
3/14/2016	0.04
3/15/2016	0.02
3/16/2016	0.04
3/17/2016	0.03
3/18/2016	0.05
3/19/2016	0.02
3/20/2016	0.04
PM10 max=	(15Min Avg)
3/14/2016	29.59
3/15/2016	30.01
3/16/2016	16.87
3/17/2016	34.90
3/18/2016	12.39
3/19/2016	15.48
0/10/2010	10.40

Weekly

Wind Summary Statistics	
CALM	0%
UW	0%
UW/CW	0%
CW	0%
CW/DW	0%
DW	100%
DW/CW	0%
CW/UW	0%
TOTAL	100%

13.02



Perimeter Air Monitoring Station - STA 6

15-minute average concentrations



Data Summary Statistics	
	_
TVOC Avg =	0.01
PM-10 Avg =	2.76
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
3/14/2016	0.05
3/15/2016	0.01
3/16/2016	0.03
3/17/2016	0.09
3/18/2016	0.09
3/19/2016	0.04
3/20/2016	0.03
PM10 max=	(15Min Avg)
3/14/2016	18.92
3/15/2016	20.90
3/16/2016	7.94
3/17/2016	26.44
3/18/2016	4.59
3/19/2016	7.26

Weekly

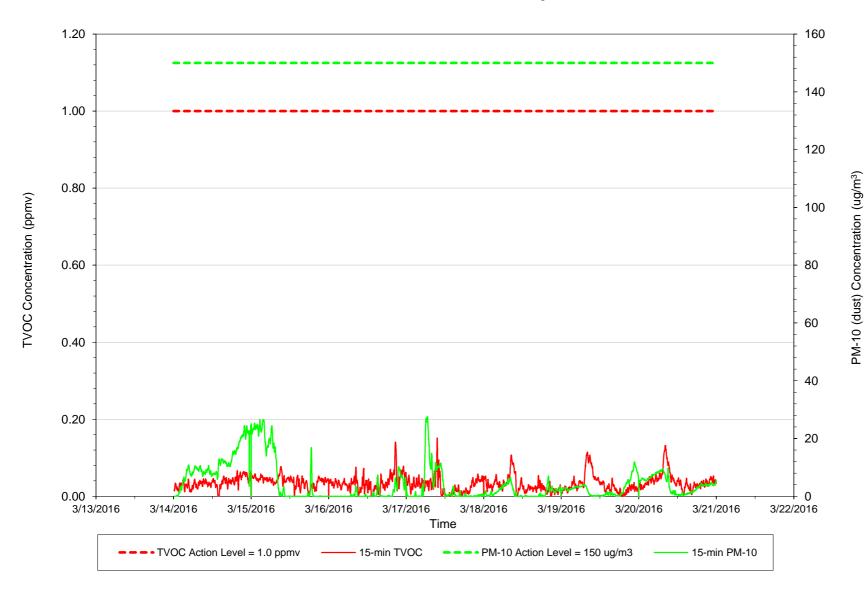
Wind Summary Statistics	
CALM	0%
UW	0%
UW/CW	0%
CW	100%
CW/DW	0%
DW	0%
DW/CW	0%
CW/UW	0%
TOTAL	100%

14.71



Perimeter Air Monitoring Station - STA 7

15-minute average concentrations



Data Summary Statistics	
TVOC Avg =	0.04
PM-10 Avg =	4.46
J	
Daily	
Data Summary S	Statistics
TVOC max =	
3/14/2016	0.07
3/15/2016	0.08
3/16/2016	0.14
3/17/2016	0.15
3/18/2016	0.11
3/19/2016	0.11
3/20/2016	0.13
PM10 max=	(15Min Avg)
3/14/2016	24.69
3/15/2016	26.59
3/16/2016	10.31
3/17/2016	27.49
3/18/2016	6.94

Weekly

Wind Summary Statistics	
CALM	0%
UW	100%
UW/CW	0%
CW	0%
CW/DW	0%
DW	0%
DW/CW	0%
CW/UW	0%
TOTAL	100%

11.89

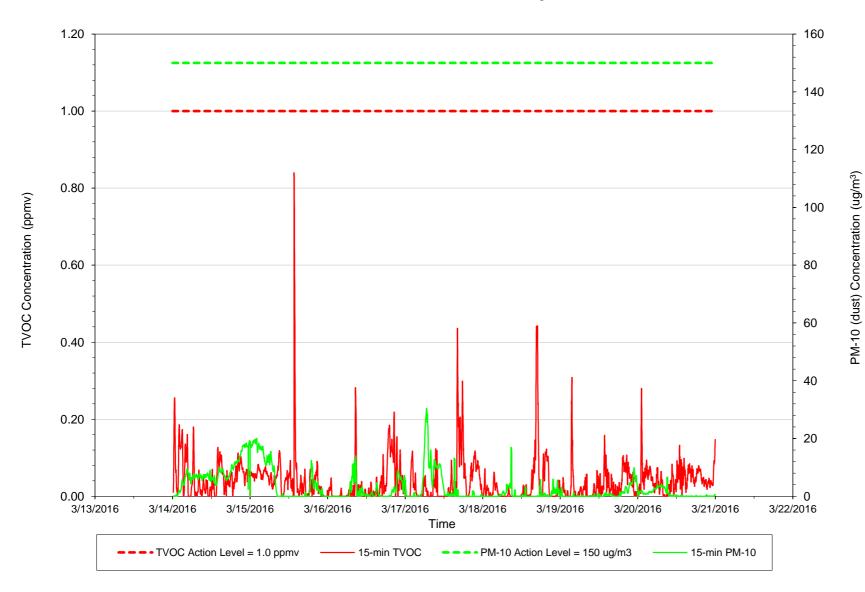
9.86

3/19/2016



Perimeter Air Monitoring Station - STA 8

15-minute average concentrations



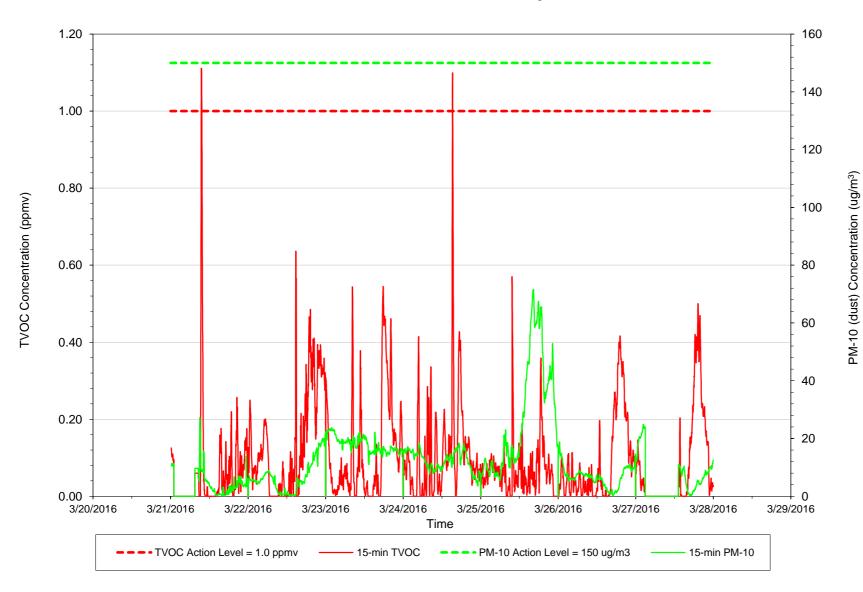
VVCCINIY	
Data Summary	Statistics
TVOC Avg =	0.05
PM-10 Avg =	3.14
FIVI-TO AVY =	3.14
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
3/14/2016	0.26
3/15/2016	0.84
3/16/2016	0.28
3/17/2016	0.44
3/18/2016	0.44
3/19/2016	0.31
3/20/2016	0.28
PM10 max=	(15Min Avg)
3/14/2016	19.24
3/15/2016	20.05
3/16/2016	13.95
3/17/2016	30.41
3/18/2016	16.98
3/19/2016	9.91
3/20/2016	6.64

Wind Summary Statistics	
CALM	0%
UW	100%
UW/CW	0%
CW	0%
CW/DW	0%
DW	0%
DW/CW	0%
CW/UW	0%
TOTAL	100%



Perimeter Air Monitoring Station - STA 1

15-minute average concentrations



Wooldy		
Data Summary	Statistics	
TVOC Avg =	0.12	
PM-10 Avg =	12.74	
Daily		
Data Summary	Statistics	
TVOC max =	(15Min Avg)	
3/21/2016	1.11	
3/22/2016	0.64	
3/23/2016	0.54	
0 0 0		
3/24/2016 1.1		
3/25/2016 0.5		
3/26/2016 0.42		
3/27/2016	0.50	
PM10 max=	(15Min Avg)	
3/21/2016	27.18	
3/22/2016	21.91	
3/23/2016	23.75	
0 0 0		
3/24/2016	18.40	
3/25/2016	71.58	
3/26/2016	18.75	
3/27/2016	24.86	

Weekly

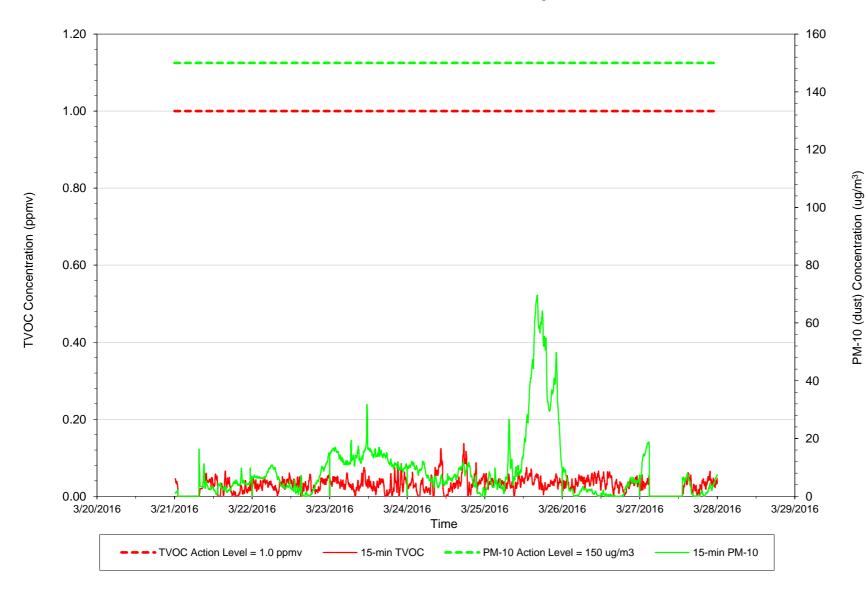
	/
CALM	5%
UW	53%
UW/CW	0%
CW	32%
CW/DW	0%
DW	4%
DW/CW	4%
CW/UW	2%
TOTAL	100%

Wind Summary Statistics



Perimeter Air Monitoring Station - STA 2

15-minute average concentrations



Data Summary Statistics	
TVOC Avg =	0.03
PM-10 Avg =	9.17
_	
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
3/21/2016	0.07
3/22/2016	0.06
3/23/2016	0.09
3/24/2016	0.14
3/25/2016	0.07
3/26/2016	0.07
3/27/2016	0.06
PM10 max=	(15Min Avg)
3/21/2016	16.29

15.04

31.73

12.22

69.63

9.95

18.86

3/22/2016

3/23/2016

3/24/2016

3/25/2016

3/26/2016

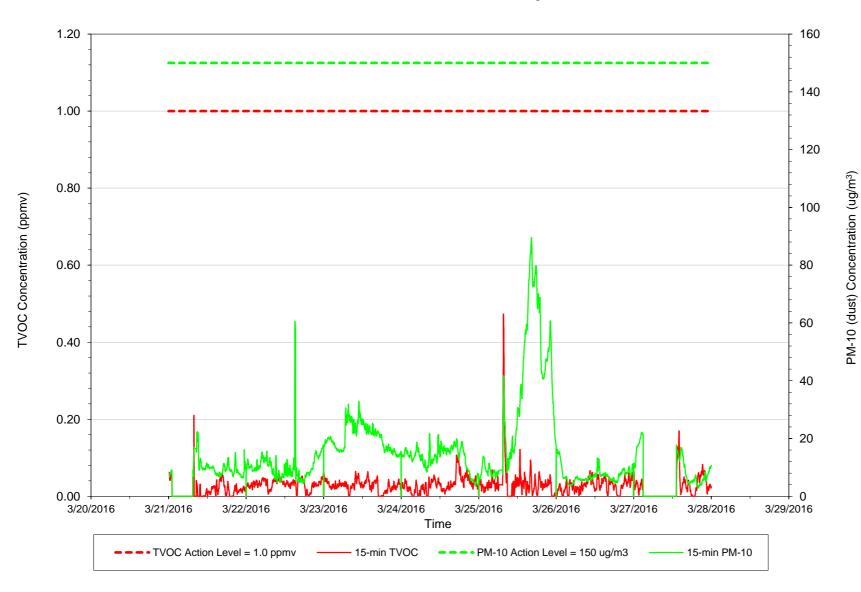
3/27/2016

Wind Summary Statistics	
CALM	5%
UW	52%
UW/CW	0%
CW	0%
CW/DW	0%
DW	30%
DW/CW	2%
CW/UW	11%
TOTAL	100%



Perimeter Air Monitoring Station - STA 3

15-minute average concentrations



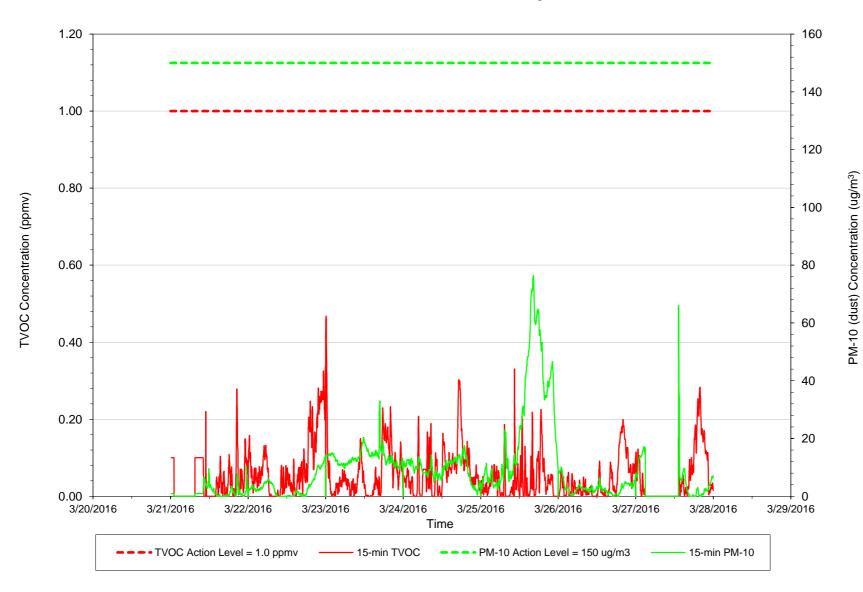
Data Summary	Statistics
TVOC Avg =	0.04
PM-10 Avg =	15.43
Daily	
Data Summary	
TVOC max =	(15Min Avg)
3/21/2016	0.21
3/22/2016	0.06
3/23/2016	0.06
3/24/2016	0.11
3/25/2016	0.47
3/26/2016	0.07
3/27/2016	0.17
PM10 max=	(15Min Avg)
3/21/2016	22.43
3/22/2016	60.51
3/23/2016	32.76
3/24/2016	21.70
3/25/2016	89.57
3/26/2016	16.68
3/27/2016	22.13

Wind Summary Statistics	
CALM	5%
UW	35%
UW/CW	0%
CW	2%
CW/DW	2%
DW	52%
DW/CW	3%
CW/UW	0%
TOTAL	100%



Perimeter Air Monitoring Station - STA 4

15-minute average concentrations



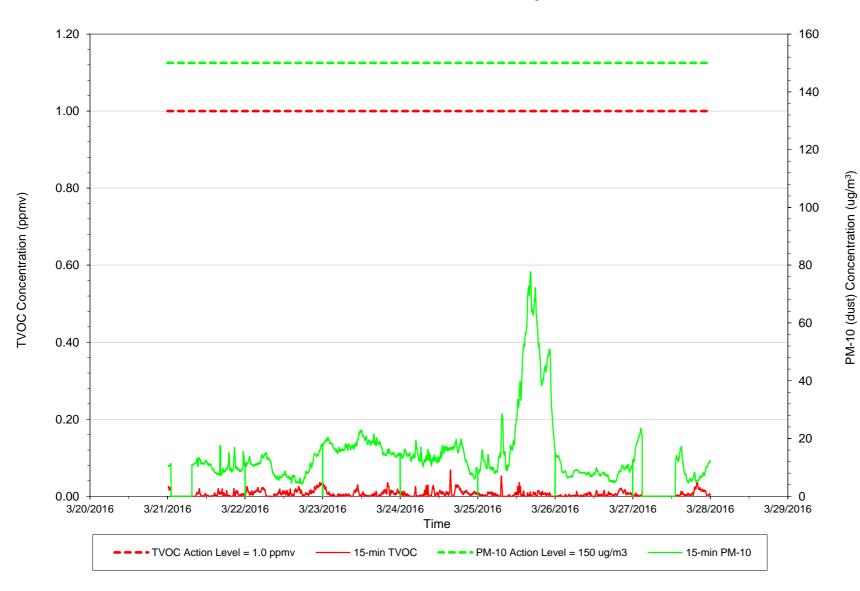
Data Summary	Statistics	
TVOC Avg =	0.07	
PM-10 Avg =	9.48	
1 W 10 7 Wg =	0.10	
Daily		
Data Summary	Statistics	
TVOC max =		
	,	
3/21/2016	0.28	
3/22/2016	0.34	
3/23/2016	0.47	
3/24/2016	0.30	
3/25/2016	0.33	
3/26/2016	0.20	
3/27/2016	0.28	
PM10 max=	(15Min Avg)	
3/21/2016	10.49	
3/22/2016	13.68	
3/23/2016	33.01	
3/24/2016	17.56	
3/25/2016	76.39	
3/26/2016	10.08	
3/27/2016	65.97	
3/21/2010	05.97	

Wind Summary Statistics	
CALM	5%
UW	39%
UW/CW	0%
CW	0%
CW/DW	0%
DW	26%
DW/CW	0%
CW/UW	31%
TOTAL	100%



Perimeter Air Monitoring Station - STA 5

15-minute average concentrations



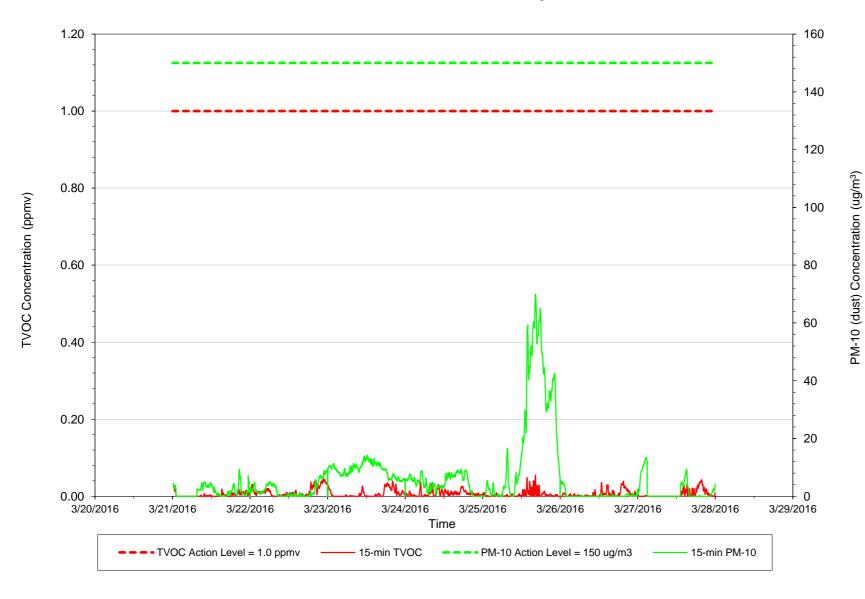
Data Summary Statistics		
TVOC Avg = PM-10 Avg =	0.01 14.94	
I W-10 Avg =	14.54	
Daily		
Data Summary		
TVOC max =	(15Min Avg)	
3/21/2016	0.03	
3/22/2016	0.04	
3/23/2016	0.04	
3/24/2016	0.07	
3/25/2016	0.05	
3/26/2016	0.02	
3/27/2016	0.04	
PM10 max=	(15Min Avg)	
3/21/2016	17.49	
3/22/2016	18.09	
3/23/2016	23.02	
3/24/2016	19.80	
3/25/2016	77.66	
3/26/2016	15.11	
3/27/2016	23.49	

Wind Summary Statistics	
CALM	5%
UW	38%
UW/CW	0%
CW	0%
CW/DW	0%
DW	18%
DW/CW	0%
CW/UW	39%
TOTAL	100%



Perimeter Air Monitoring Station - STA 6

15-minute average concentrations



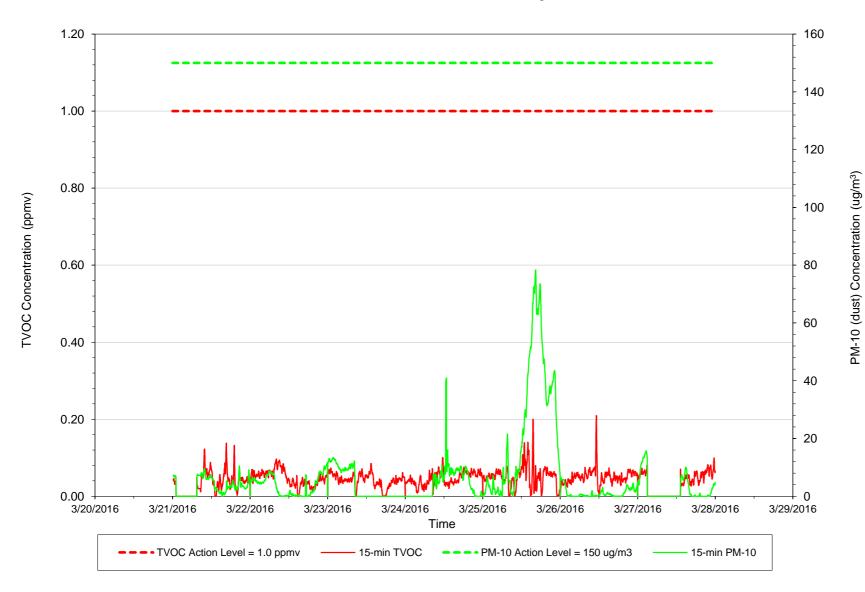
Data Summary Statistics		
TVOC Avg =	0.01	
PM-10 Avg =	6.58	
Daily		
Data Summary	Statistics	
TVOC max =	(15Min Avg)	
3/21/2016	0.03	
3/22/2016	0.05	
3/23/2016	0.04	
3/24/2016	0.04	
3/25/2016 0.0		
3/26/2016	0.04	
3/27/2016	0.04	
PM10 max=	(15Min Avg)	
3/21/2016	9.30	
3/22/2016	9.33	
3/23/2016	14.14	
3/24/2016	9.45	
3/25/2016	69.85	
3/26/2016	5.72	
3/27/2016	13.44	

Wind Summary Statistics	
CALM	5%
UW	0%
UW/CW	0%
CW	22%
CW/DW	1%
DW	33%
DW/CW	1%
CW/UW	38%
TOTAL	100%



Perimeter Air Monitoring Station - STA 7

15-minute average concentrations



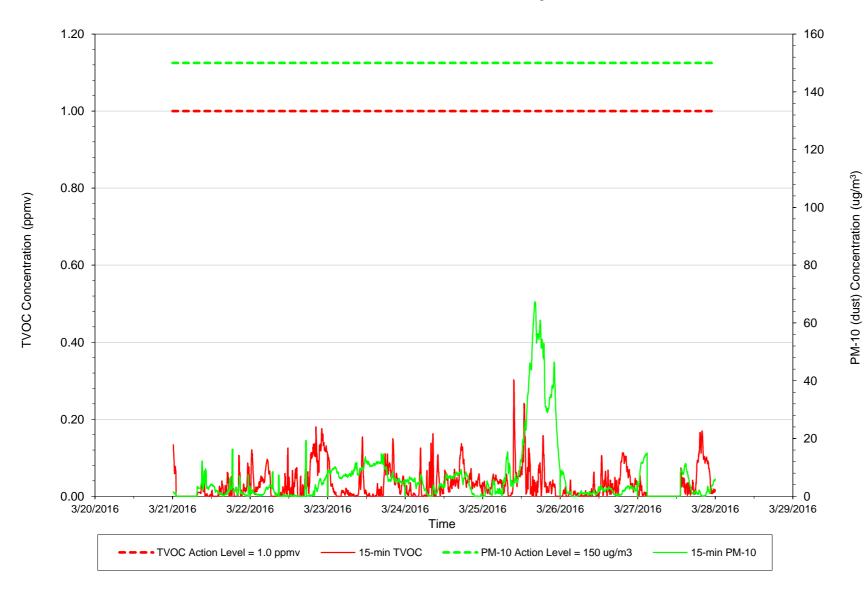
Data Summary Statistics	
TVOC Avg =	0.05
PM-10 Avg =	6.77
Daily	
Data Summary	
TVOC max =	
3/21/2016	0.14
3/22/2016	0.10
3/23/2016	0.09
3/24/2016	0.10
3/25/2016	0.20
3/26/2016	0.21
3/27/2016	0.10
PM10 max=	(15Min Avg)
3/21/2016	10.53
3/22/2016	11.60
3/23/2016	13.43
3/24/2016	40.98
3/25/2016	78.34
3/26/2016	6.81
3/27/2016	15.76

Wind Summary Statistics	
CALM	5%
UW	17%
UW/CW	0%
CW	0%
CW/DW	1%
DW	38%
DW/CW	3%
CW/UW	36%
TOTAL	100%



Perimeter Air Monitoring Station - STA 8

15-minute average concentrations



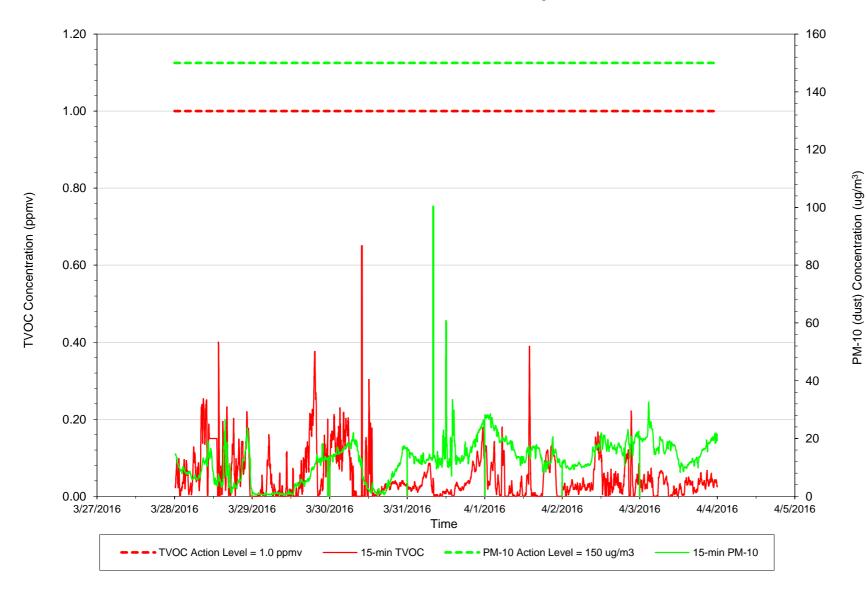
VVCCKIY		
Data Summary	Statistics	
TVOC Avg =	0.04	
PM-10 Avg =	6.85	
J		
Daily		
Data Summary	Statistics	
TVOC max =		
3/21/2016	0.13	
3/22/2016	0.18	
3/23/2016	0.15	
3/24/2016	0.16	
3/25/2016	0.30	
3/26/2016	0.11	
3/27/2016	0.17	
PM10 max=	(15Min Avg)	
3/21/2016	16.33	
3/22/2016	19.34	
3/23/2016	14.71	
3/24/2016	9.28	
3/25/2016	67.36	
3/26/2016	9.02	
3/27/2016	14.98	

Wind Summary Statistics	
CALM	5%
UW	17%
UW/CW	0%
CW	0%
CW/DW	1%
DW	38%
DW/CW	3%
CW/UW	36%
TOTAL	100%



Perimeter Air Monitoring Station - STA 1

15-minute average concentrations



11001119
Data Summary Statistics
•

TVOC Avg =	0.06
PM-10 Avg =	12.70

Daily
Data Summary Statistic

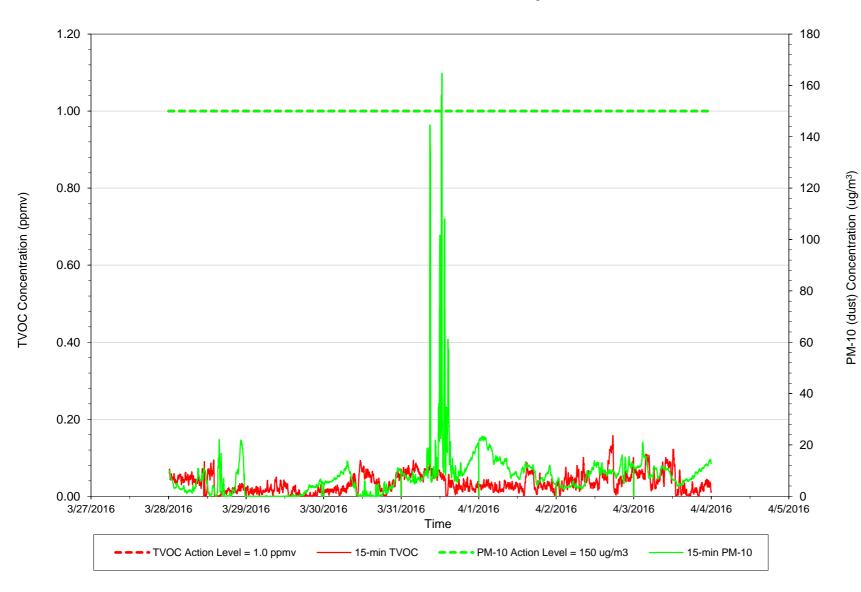
Data Summary	Statistics
TVOC max =	(15Min Avg)
3/28/2016	0.40
3/29/2016	0.38
3/30/2016	0.65
3/31/2016	0.18
4/1/2016	0.39
4/2/2016	0.22
4/3/2016	0.07
PM10 max=	(15Min Avg)
PM10 max= 3/28/2016	(15Min Avg) 26.51
	`
3/28/2016	26.51
3/28/2016 3/29/2016	26.51 18.27
3/28/2016 3/29/2016 3/30/2016	26.51 18.27 21.98
3/28/2016 3/29/2016 3/30/2016 3/31/2016	26.51 18.27 21.98 100.46
3/28/2016 3/29/2016 3/30/2016 3/31/2016 4/1/2016	26.51 18.27 21.98 100.46 28.56

Wind Summary Statistics		
CALM	1%	
UW	9%	
UW/CW	0%	
CW	58%	
CW/DW	1%	
DW	19%	
DW/CW	11%	
CW/UW	1%	
TOTAL	100%	



Perimeter Air Monitoring Station - STA 2

15-minute average concentrations



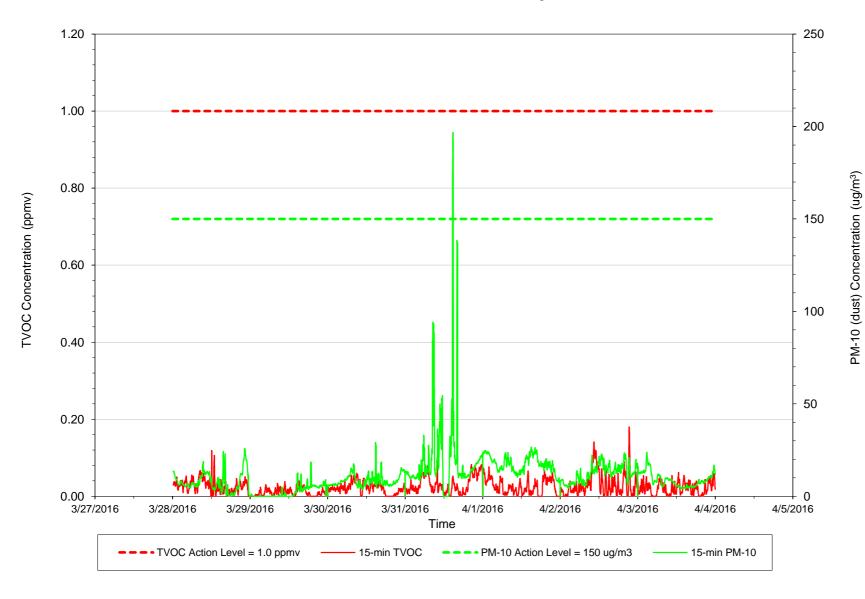
VVCCINIY			
Data Summary	Statistics		
TVOC Avg =	0.04		
PM-10 Avg =	8.16		
- 3			
Daily			
Data Summary	Statistics		
TVOC max =	(15Min Avg)		
3/28/2016	0.09		
3/29/2016	0.05		
3/30/2016	0.09		
3/31/2016	0.09		
4/1/2016	0.09		
4/2/2016	0.16		
4/3/2016	0.12		
PM10 max=	(15Min Avg)		
3/28/2016	22.09		
3/29/2016	6.74		
3/30/2016	13.74		
3/31/2016	164.77		
	_		
4/1/2016	23.51		
4/2/2016	16.16		
4/3/2016	21.16		

Wind Summary Statistics	
CALM	1%
UW	9%
UW/CW	0%
CW	0%
CW/DW	0%
DW	74%
DW/CW	4%
CW/UW	13%
TOTAL	100%



Perimeter Air Monitoring Station - STA 3

15-minute average concentrations



W	eekly
Da	ta Summary Statistic

TVOC Avg = 0.03PM-10 Avg = 11.31

Daily

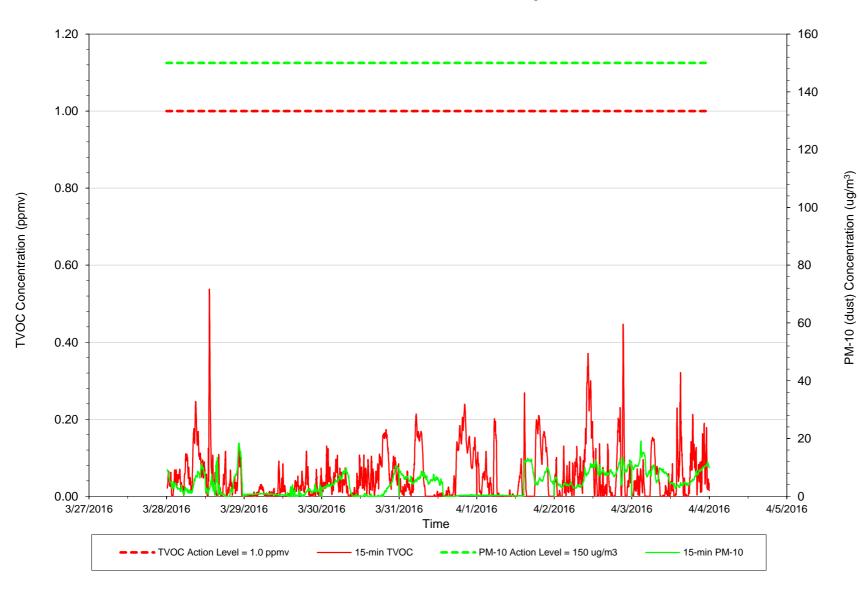
Data Summary Statistics		
TVOC max =	(15Min Avg)	
3/28/2016	0.12	
3/29/2016	0.04	
3/30/2016	0.06	
3/31/2016	0.09	
4/1/2016	0.08	
4/2/2016	0.18	
4/3/2016	0.06	
PM10 max=	(15Min Avg)	
3/28/2016	25.84	
3/29/2016	18.50	
3/30/2016	29.11	
3/31/2016	196.65	
4/1/2016	26.72	
4/2/2016	23.53	
4/3/2016	23.84	

Wind Summary Statistics		
CALM	1%	
UW	7%	
UW/CW	0%	
CW	10%	
CW/DW	10%	
DW	71%	
DW/CW	2%	
CW/UW	0%	
TOTAL	100%	



Perimeter Air Monitoring Station - STA 4

15-minute average concentrations



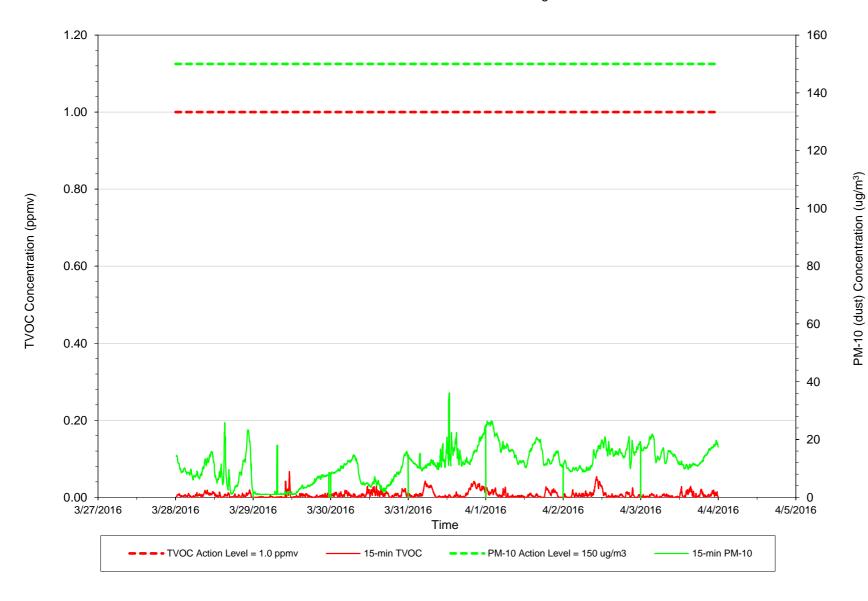
Data Summary Statistics		
	_	
TVOC Avg =	0.05	
PM-10 Avg =	4.35	
Daily		
Data Summary		
TVOC max =	(15Min Avg)	
3/28/2016	0.54	
3/29/2016	0.12	
3/30/2016	0.17	
3/31/2016	0.24	
4/1/2016	0.27	
4/2/2016	0.45	
4/3/2016	0.32	
PM10 max=	(15Min Avg)	
3/28/2016	18.41	
3/29/2016	4.23	
3/30/2016	10.56	
3/31/2016	9.01	
4/1/2016	13.09	
4/2/2016	13.60	
4/3/2016	19.12	

Wind Summary Statistics		
CALM	1%	
UW	47%	
UW/CW	0%	
CW	0%	
CW/DW	0%	
DW	4%	
DW/CW	0%	
CW/UW	49%	
TOTAL	100%	



Perimeter Air Monitoring Station - STA 5

15-minute average concentrations



_	Data Summary	Statistics
_		

TVOC Avg =	0.01
PM-10 Avg =	11.37

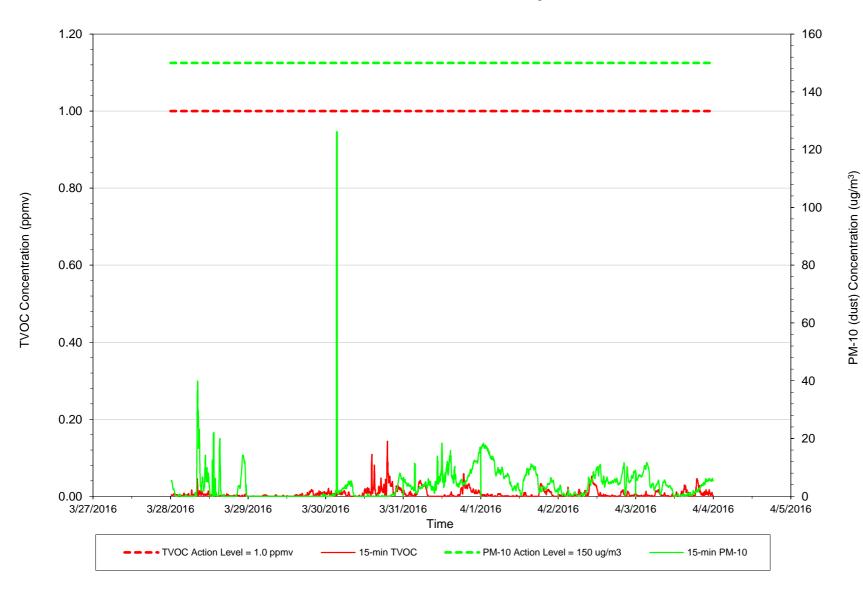
Daily
Data Summary Statistic

Data Summary :	Statistics
TVOC max =	(15Min Avg)
3/28/2016	0.02
3/29/2016	0.07
3/30/2016	0.03
3/31/2016	0.04
4/1/2016	0.03
4/2/2016	0.05
4/3/2016	0.03
PM10 max=	(15Min Avg)
PM10 max= 3/28/2016	(15Min Avg) 25.86
	` "
3/28/2016	25.86
3/28/2016 3/29/2016	25.86 18.07
3/28/2016 3/29/2016 3/30/2016	25.86 18.07 15.91
3/28/2016 3/29/2016 3/30/2016 3/31/2016	25.86 18.07 15.91 36.14
3/28/2016 3/29/2016 3/30/2016 3/31/2016 4/1/2016	25.86 18.07 15.91 36.14 26.36

Wind Summary	y Statistics
CALM	1%
UW	21%
UW/CW	0%
CW	0%
CW/DW	0%
DW	3%
DW/CW	0%
CW/UW	75%
TOTAL	100%

Perimeter Air Monitoring Station - STA 6

15-minute average concentrations



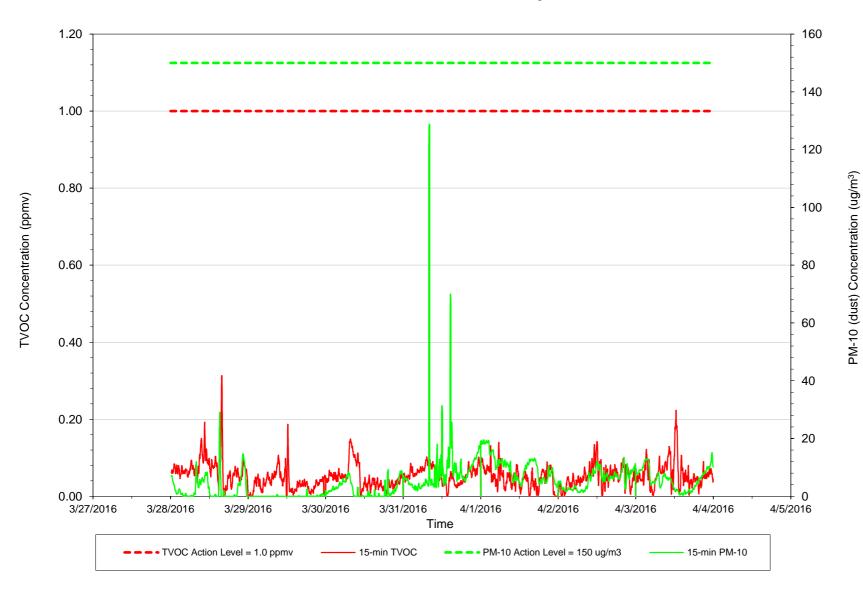
Data Summary	Statistics
TVOC Avg =	0.01
PM-10 Avg =	3.96
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
3/28/2016	0.05
3/29/2016	0.02
3/30/2016	0.14
3/31/2016	0.06
4/1/2016	0.03
4/2/2016	0.05
4/3/2016	0.05
PM10 max=	(15Min Avg)
3/28/2016	39.98
3/29/2016	1.06
3/30/2016	126.27
3/31/2016	18.40
4/1/2016	18.39
4/2/2016	11.61
4/3/2016	11.71

Wind Summary	/ Statistics
CALM	1%
UW	0%
UW/CW	0%
CW	23%
CW/DW	0%
DW	6%
DW/CW	0%
CW/UW	70%
TOTAL	100%



Perimeter Air Monitoring Station - STA 7

15-minute average concentrations



Data Summary :	Statistics
TVOC Avg =	0.05
PM-10 Avg =	5.31
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
3/28/2016	0.31
3/29/2016	0.19
3/30/2016	0.15
3/31/2016	0.11
4/1/2016	0.14
4/2/2016	0.14
4/3/2016	0.22
PM10 max=	(15Min Avg)
3/28/2016	29.12
3/29/2016	2.47
3/30/2016	9.28
3/31/2016	128.85
4/1/2016	19.57

Weekly

Wind Summary	/ Statistics
CALM	1%
UW	2%
UW/CW	0%
CW	0%
CW/DW	0%
DW	21%
DW/CW	11%
CW/UW	64%
TOTAL	100%

13.54

15.14

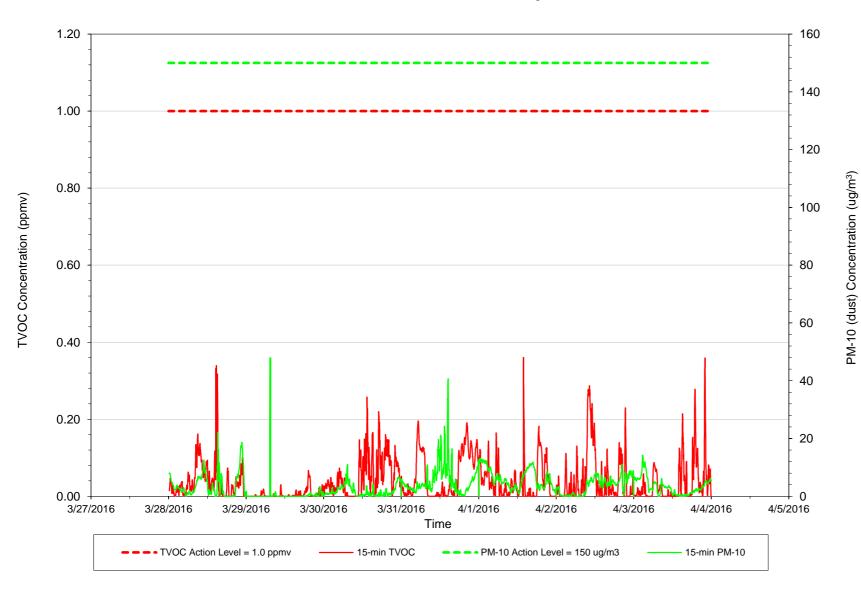
4/2/2016

4/3/2016



Perimeter Air Monitoring Station - STA 8

15-minute average concentrations



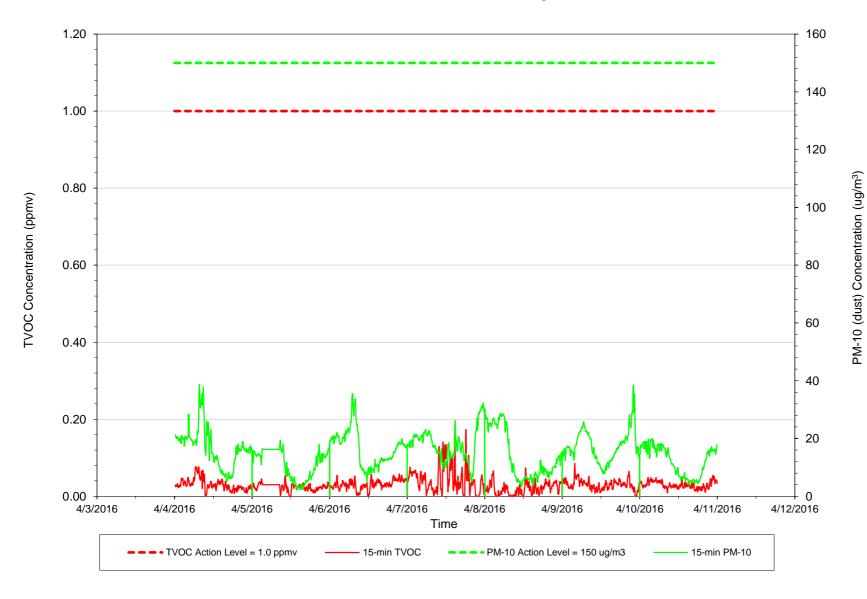
Data Summary	Statistics
TVOC Avg =	0.04
PM-10 Avg =	3.65
· ·	
Daily	
Data Summary	Statistics
TVOC max =	
3/28/2016	0.34
3/29/2016	0.07
3/30/2016	0.26
3/31/2016	0.20
4/1/2016	0.36
4/2/2016	0.29
4/3/2016	0.36
PM10 max=	(15Min Avg)
3/28/2016	22.18
3/29/2016	47.90
3/30/2016	10.99
3/31/2016	40.68
4/1/2016	13.15
4/2/2016	11.00
4/3/2016	14.17

Wind Summary	/ Statistics
CALM	1%
UW	2%
UW/CW	0%
CW	0%
CW/DW	0%
DW	21%
DW/CW	11%
CW/UW	64%
TOTAL	100%



Perimeter Air Monitoring Station - STA 1

15-minute average concentrations



	,	
Data	Summary	Statistics

Weekly

TVOC Avg =	0.03
PM-10 Avg =	15.19

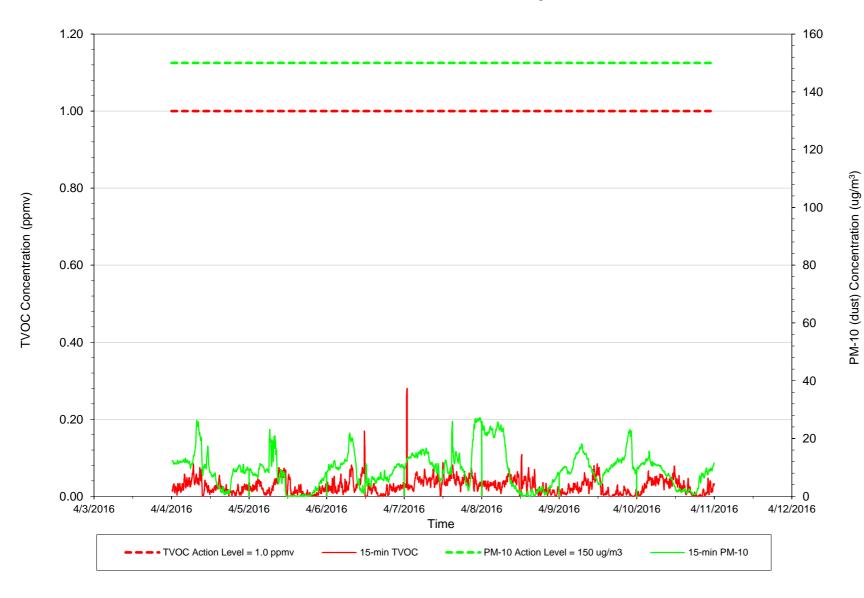
Daily Data Summary Statistics

Data Summary	Statistics
TVOC max =	(15Min Avg)
4/4/2016	0.08
4/5/2016	0.05
4/6/2016	0.06
4/7/2016	0.17
4/8/2016	0.07
4/9/2016	0.08
4/10/2016	0.05
PM10 max=	(15Min Avg)
PM10 max= 4/4/2016	(15Min Avg) 38.79
	` ",
4/4/2016	38.79
4/4/2016 4/5/2016	38.79 19.43
4/4/2016 4/5/2016 4/6/2016	38.79 19.43 35.56
4/4/2016 4/5/2016 4/6/2016 4/7/2016	38.79 19.43 35.56 32.26
4/4/2016 4/5/2016 4/6/2016 4/7/2016 4/8/2016	38.79 19.43 35.56 32.26 30.08

Wind Summary Statistics	
CALM	6%
UW	22%
UW/CW	0%
CW	45%
CW/DW	3%
DW	18%
DW/CW	4%
CW/UW	2%
TOTAL	100%

Perimeter Air Monitoring Station - STA 2

15-minute average concentrations



Data Summary Statistics	
TVOC Avg =	0.03
PM-10 Avg =	9.25
J	
Daily	
Data Summary S	Statistics
TVOC max =	(15Min Avg)
4/4/2016	0.08
4/5/2016	0.07
4/6/2016	0.17
4/7/2016	0.28
4/8/2016	0.11
4/9/2016	0.08
4/10/2016	0.08
PM10 max=	(15Min Avg)
4/4/2016	26.28
4/5/2016	23.14
4/6/2016	21.87
4/7/2016	27.24
4/8/2016	25.98
4/9/2016	23.04

Weekly

Wind Summary Statistics	
CALM	6%
UW	20%
UW/CW	0%
CW	0%
CW/DW	0%
DW	57%
DW/CW	2%
CW/UW	15%
TOTAL	100%

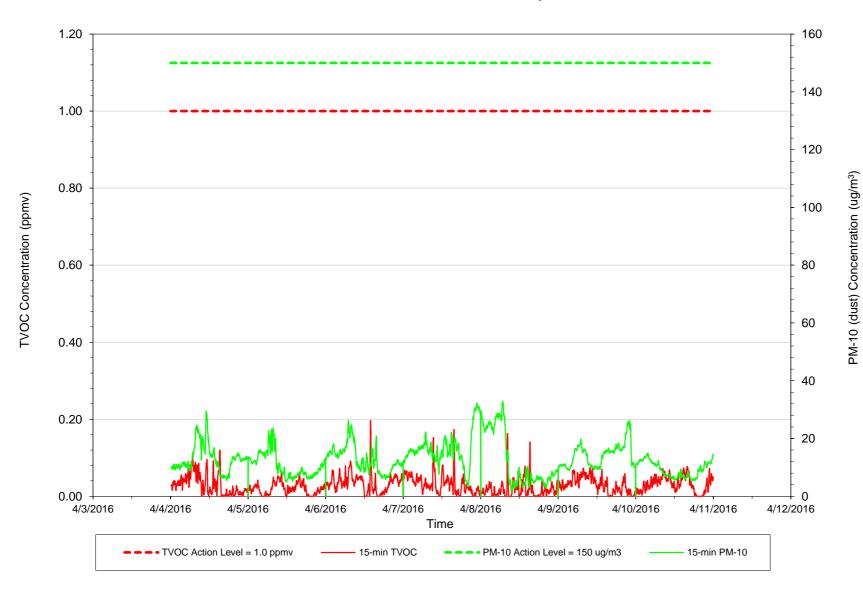
15.59

4/10/2016



Perimeter Air Monitoring Station - STA 3

15-minute average concentrations



Data Summary Statistics	
0.03 12.74	
atistics	
5Min Avg)	
0.12	
0.07	
0.20	
0.17	
0.16	
0.07	

0.08

29.41

23.67

26.18

32.31

32.93

26.23

14.96

4/10/2016

4/4/2016

4/5/2016

4/6/2016

4/7/2016

4/8/2016

4/9/2016

4/10/2016

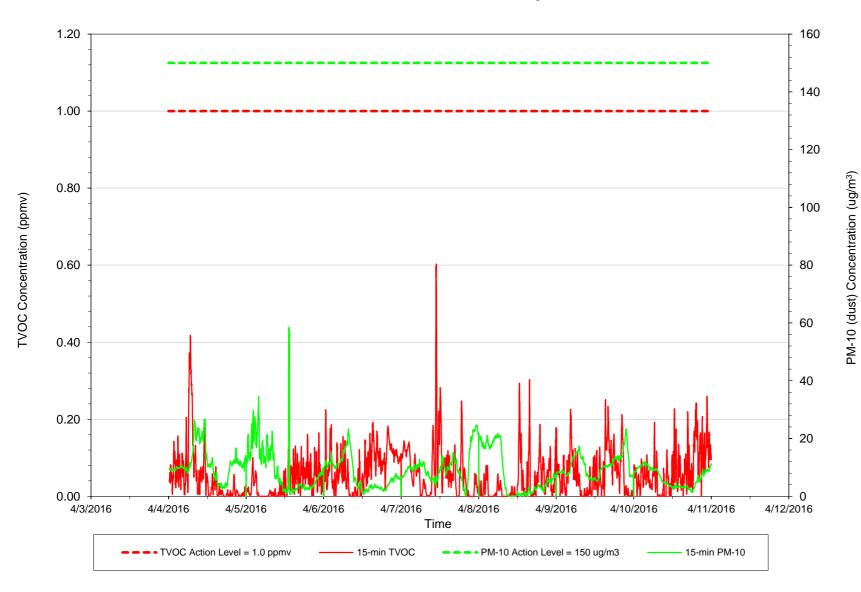
PM10 max= (15Min Avg)

Wind Summary Statistics	
CALM	6%
UW	9%
UW/CW	2%
CW	15%
CW/DW	4%
DW	60%
DW/CW	4%
CW/UW	0%
TOTAL	100%



Perimeter Air Monitoring Station - STA 4

15-minute average concentrations



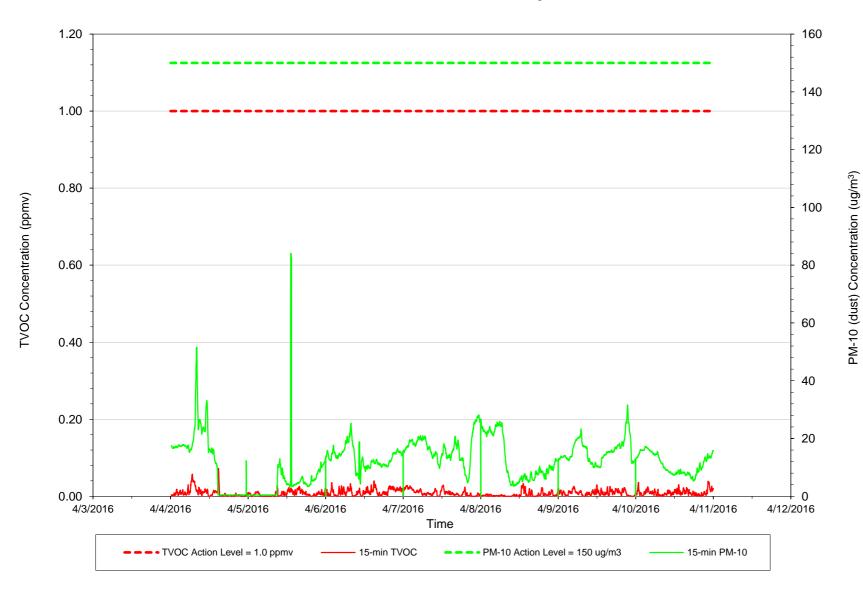
Data Summary Statistics	
	_
TVOC Avg =	0.06
PM-10 Avg =	9.06
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
4/4/2016	0.42
4/5/2016	0.16
4/6/2016	0.22
4/7/2016	0.60
4/8/2016	0.30
4/9/2016	0.25
4/10/2016	0.26
PM10 max=	(15Min Avg)
4/4/2016	26.73
4/5/2016	58.39
4/6/2016	23.25
4/7/2016	24.63
4/8/2016	21.81
4/9/2016	23.38
4/10/2016	12.05

Wind Summary Statistics	
CALM	6%
UW	36%
UW/CW	0%
CW	0%
CW/DW	0%
DW	15%
DW/CW	0%
CW/UW	43%
TOTAL	100%



Perimeter Air Monitoring Station - STA 5

15-minute average concentrations



TVOC Avg = 0.01	
PM-10 Avg = 12.36	
Daily	
Data Summary Statistics	
TVOC max = $(15Min Avg)$)
4/4/2016 0.0	7
4/5/2016 0.0	3
4/6/2016 0.0	4
4/7/2016 0.0	3
4/8/2016 0.0	3
4/9/2016 0.0	3
4/10/2016 0.0	4
PM10 max= (15Min Avg))
4/4/2016 51.5	8
4/5/2016 84.0	9
4/6/2016 25.2	9
4/7/2016 28.2	2
4/8/2016 26.7	4

Weekly

Wind Summary Statistics	
CALM	6%
UW	28%
UW/CW	0%
CW	0%
CW/DW	0%
DW	12%
DW/CW	0%
CW/UW	54%
TOTAL	100%

31.59

17.22

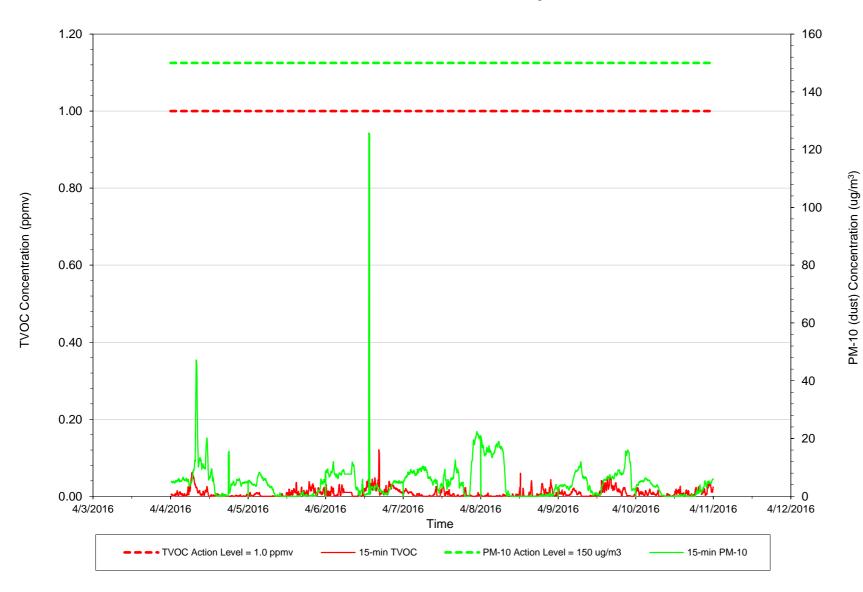
4/9/2016

4/10/2016



Perimeter Air Monitoring Station - STA 6

15-minute average concentrations



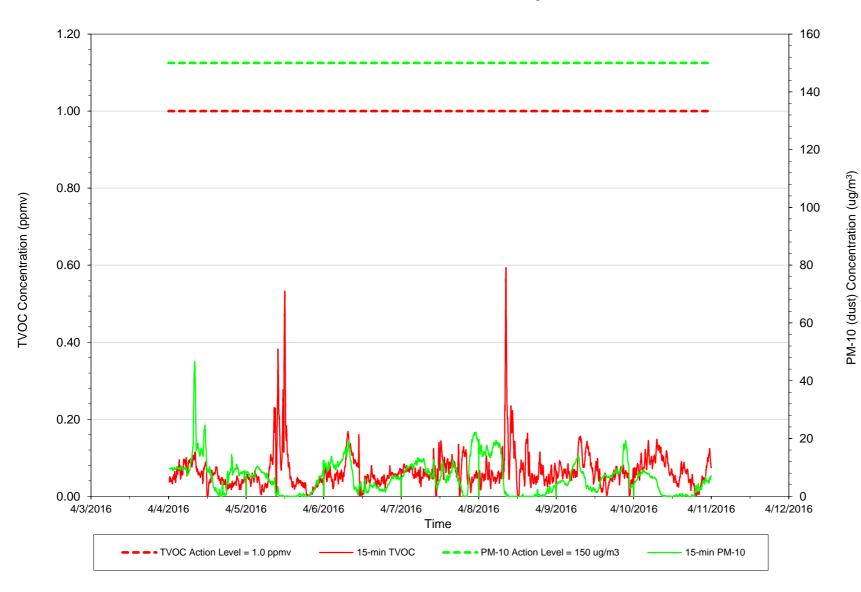
Statistics
0.02
5.12
Statistics
(15Min Avg)
0.06
0.04
0.12
0.03
0.06
0.05
0.04
(15Min Avg)
47.18
8.48
125.73
22.35
20.60
16.06
6.28

Wind Summary Statistics	
CALM	6%
UW	0%
UW/CW	0%
CW	34%
CW/DW	1%
DW	7%
DW/CW	0%
CW/UW	52%
TOTAL	100%



Perimeter Air Monitoring Station - STA 7

15-minute average concentrations



Data Summary Statistics	
0.07	
6.49	
Statistics	
(15Min Avg)	
0.11	
0.53	
0.17	
0.14	
0.59	
0.16	
0.15	
(15Min Avg)	
46.63	
12.33	

4/6/2016

4/7/2016

4/8/2016

4/9/2016

4/10/2016

19.29

22.23

19.67

19.27

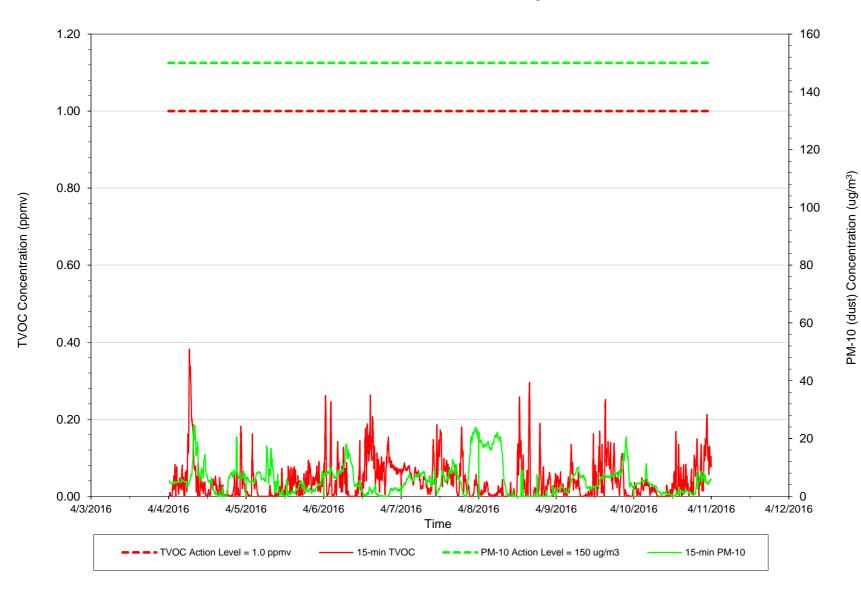
9.30

Wind Summary Statistics	
CALM	6%
UW	11%
UW/CW	0%
CW	0%
CW/DW	1%
DW	28%
DW/CW	4%
CW/UW	49%
TOTAL	100%



Perimeter Air Monitoring Station - STA 8

15-minute average concentrations



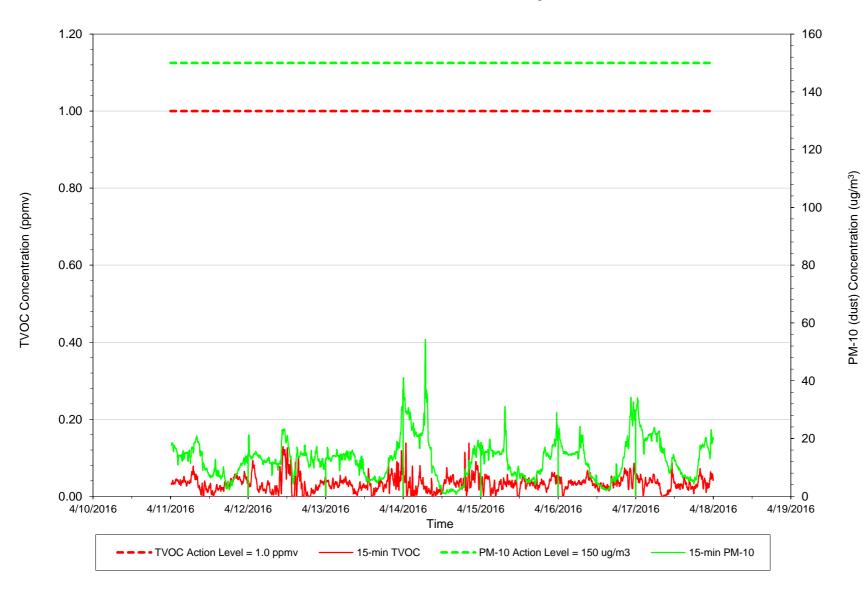
Data Summary Statistics	
TVOC Avg =	0.04
PM-10 Avg =	5.54
_	
Daily	
Data Summary	Statistics
TVOC max =	
4/4/2016	0.38
4/5/2016	0.16
4/6/2016	0.26
4/7/2016	0.19
4/8/2016	0.30
4/9/2016	0.25
4/10/2016	0.21
PM10 max=	(15Min Avg)
4/4/2016	24.87
4/5/2016	17.51
4/6/2016	18.10
4/7/2016	23.85
4/8/2016	22.14
4/9/2016	20.50
4/10/2016	11.33

Wind Summary Statistics	
CALM	6%
UW	11%
UW/CW	0%
CW	0%
CW/DW	1%
DW	28%
DW/CW	4%
CW/UW	49%
TOTAL	100%



Perimeter Air Monitoring Station - STA 1

15-minute average concentrations



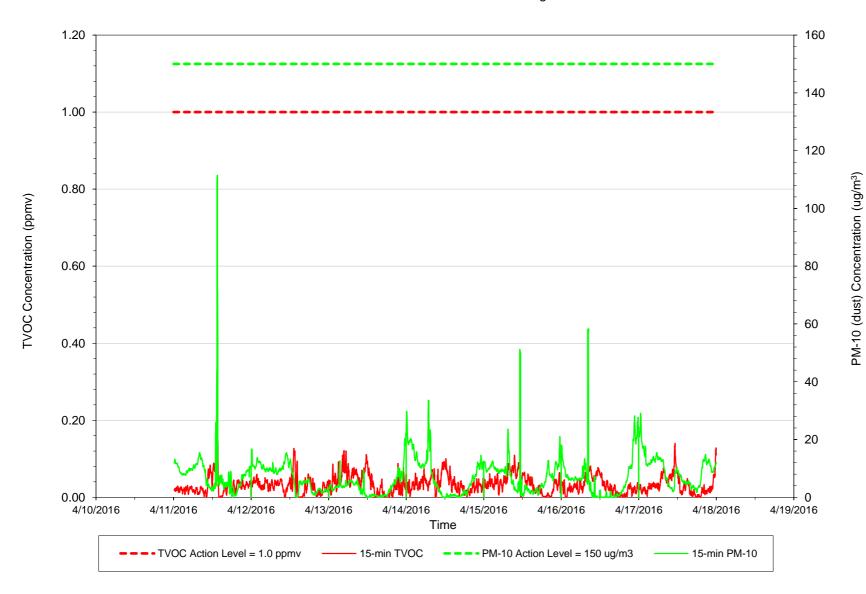
Data Summary Statistics	
TVOC Avg =	0.04
PM-10 Avg =	12.85
Daily	
Data Summary	
TVOC max =	, -,
4/11/2016	0.08
4/12/2016	0.13
4/13/2016	0.12
4/14/2016	0.14
4/15/2016	0.06
4/16/2016	0.09
4/17/2016	0.09
PM10 max=	(15Min Avg)
4/11/2016	20.93
4/12/2016	23.21
4/13/2016	37.10
4/14/2016	54.32
4/15/2016	31.00
4/16/2016	34.22
4/17/2016	34.13

Wind Summary Statistics	
CALM	8%
UW	48%
UW/CW	0%
CW	21%
CW/DW	1%
DW	14%
DW/CW	6%
CW/UW	2%
TOTAL	100%



Perimeter Air Monitoring Station - STA 2

15-minute average concentrations



Data Summary Statistics	
TVOC Avg =	0.03
PM-10 Avg =	7.27
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
4/11/2016	0.14
4/12/2016	0.13
4/13/2016	0.12
4/14/2016	0.10
4/15/2016	0.11
4/16/2016	0.08
4/17/2016	0.14
PM10 max=	(15Min Avg)
4/11/2016	111.46
4/12/2016	16.61
4/13/2016	22.29
4/14/2016	33.62
4/15/2016	51.24
4/16/2016	58.38

Weekly

Wind Summary Statistics	
CALM	8%
UW	46%
UW/CW	0%
CW	0%
CW/DW	0%
DW	30%
DW/CW	2%
CW/UW	13%
TOTAL	100%

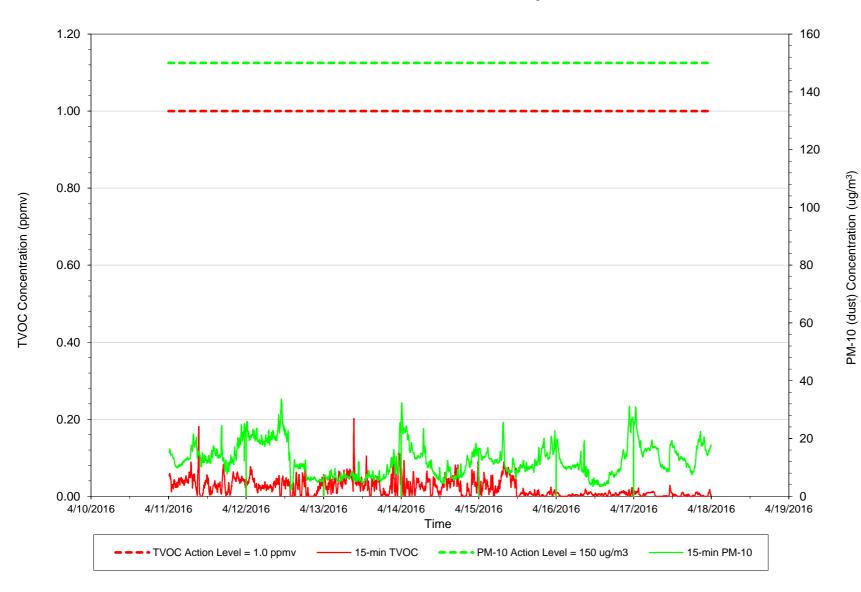
29.11

4/17/2016



Perimeter Air Monitoring Station - STA 3

15-minute average concentrations



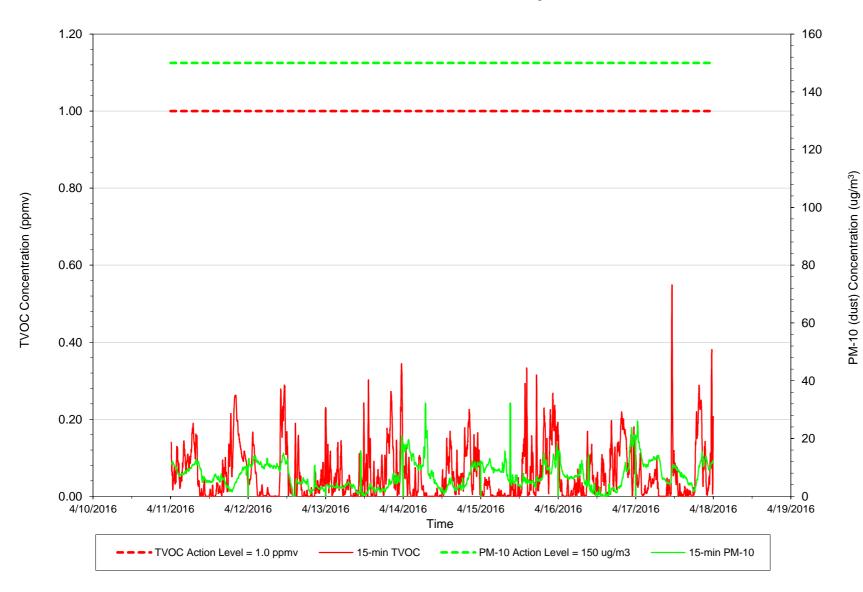
Data Summary Statistics	
TVOC Avg = PM-10 Avg =	0.02 12.52
Daily Data Summary	Statistics
TVOC max = 4/11/2016	(15Min Avg) 0.18
4/12/2016	0.08
4/13/2016	0.20
4/14/2016 4/15/2016	0.09 0.09
4/16/2016	0.02
4/17/2016	0.03
PM10 max= 4/11/2016	(15Min Avg) 25.19
4/12/2016	33.69
4/13/2016	25.72
4/14/2016	32.29
4/15/2016 4/16/2016	25.53 31.16
4/17/2016	30.95

Wind Summary Statistics	
CALM	8%
UW	32%
UW/CW	1%
CW	9%
CW/DW	6%
DW	42%
DW/CW	4%
CW/UW	0%
TOTAL	100%



Perimeter Air Monitoring Station - STA 4

15-minute average concentrations



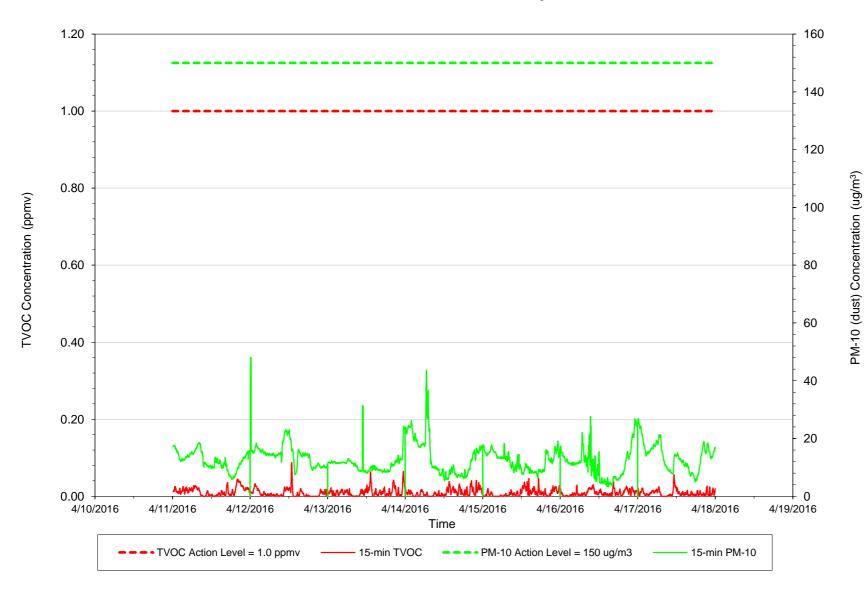
Data Summary Statistics	
TVOC Avg =	0.06
PM-10 Avg =	7.38
D-9.	
Daily	
Data Summary	
TVOC max =	(15Min Avg)
4/11/2016	0.26
4/12/2016	0.29
4/13/2016	0.34
4/14/2016	0.23
4/15/2016	0.33
4/16/2016	0.22
4/17/2016	0.55
PM10 max=	(15Min Avg)
4/11/2016	12.89
4/12/2016	14.97
4/13/2016	20.99
4/14/2016	32.29
4/15/2016	32.24
4/16/2016	23.83
4/17/2016	26.13
1, 17/2010	20.10

Wind Summary Statistics	
CALM	8%
UW	47%
UW/CW	0%
CW	0%
CW/DW	0%
DW	24%
DW/CW	0%
CW/UW	21%
TOTAL	100%



Perimeter Air Monitoring Station - STA 5

15-minute average concentrations



Data Summary	Statistics
TVOC Avg =	0.01
PM-10 Avg =	12.80
_	
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
4/11/2016	0.04
4/12/2016	0.09
4/13/2016	0.06
4/14/2016	0.04
4/15/2016	0.05
4/16/2016	0.04
4/17/2016	0.06
PM10 max=	(15Min Avg)
4/11/2016	18.55
4/12/2016	48.01
4/13/2016	31.35

Weekly

Wind Summary Statistics	
CALM	8%
UW	42%
UW/CW	0%
CW	0%
CW/DW	0%
DW	17%
DW/CW	0%
CW/UW	32%
TOTAL	100%

43.65

19.09

27.65

26.89

4/14/2016

4/15/2016

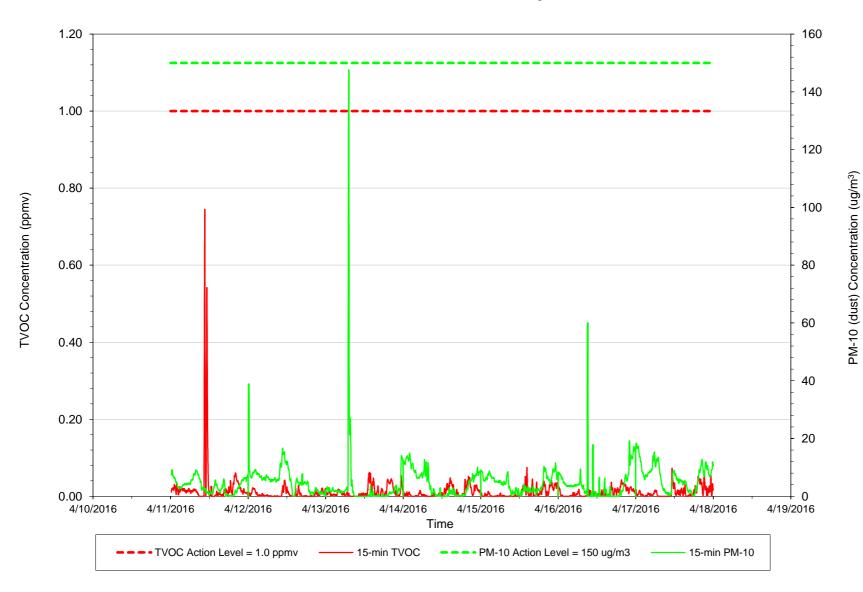
4/16/2016

4/17/2016



Perimeter Air Monitoring Station - STA 6

15-minute average concentrations



Wind Summary Statistics

8%

0%

0%

32%

2%

28%

1%

29%

100%

Weekly



CALM

UW/CW

CW/DW

DW/CW

CW/UW

TOTAL

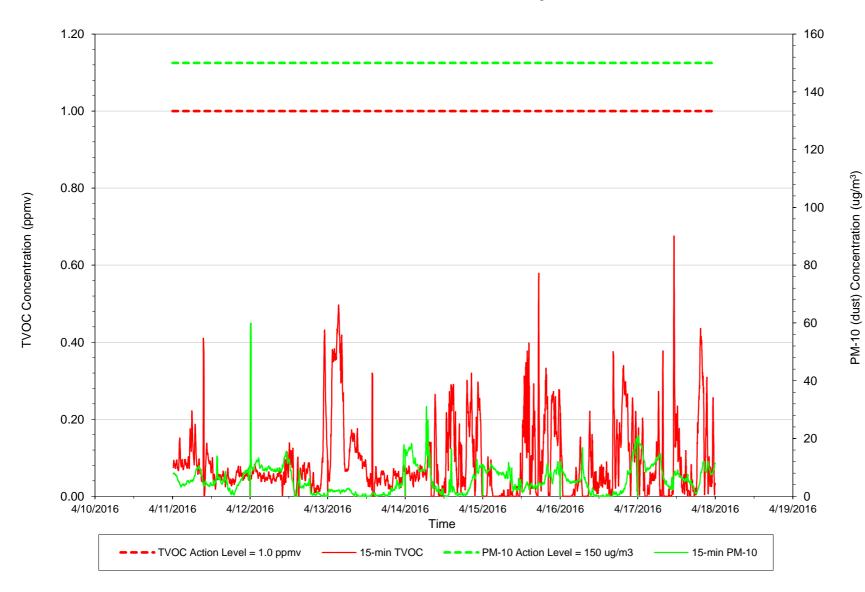
UW

CW

DW

Perimeter Air Monitoring Station - STA 7

15-minute average concentrations



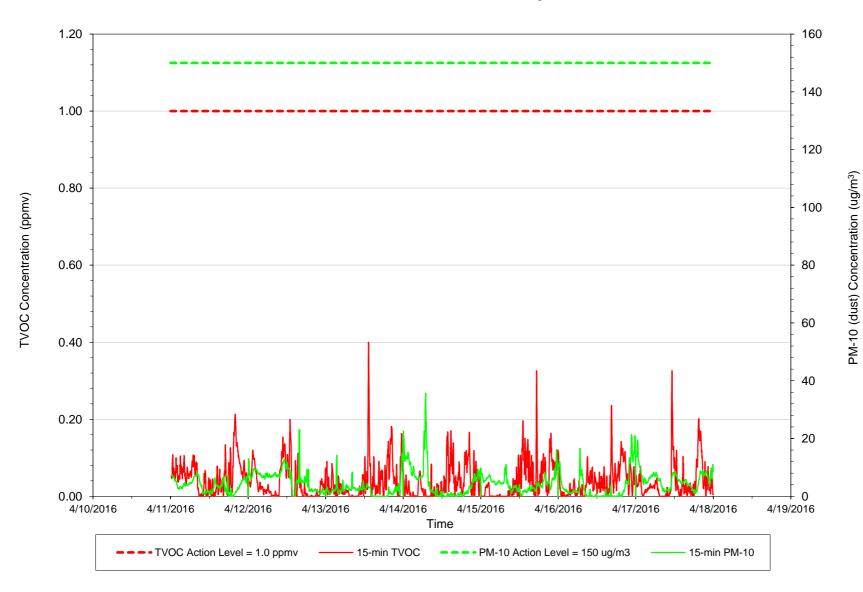
Data Summary Statistics		
Data Summary	Statistics	
TV/00 A	0.40	
TVOC Avg =	0.10	
PM-10 Avg =	5.77	
Daily		
Data Summary	Statistics	
TVOC max =	(15Min Avg)	
4/11/2016	0.41	
4/12/2016	0.43	
4/13/2016	0.50	
4/14/2016	0.32	
4/15/2016	0.58	
4/16/2016	0.38	
4/17/2016	0.68	
PM10 max=	(15Min Avg)	
4/11/2016	13.91	
4/12/2016	59.94	
4/13/2016	17.83	
4/14/2016	31.12	
4/15/2016	12.03	
4/16/2016	19.98	
4/17/2016	20.96	

Wind Summary Statistics	
CALM	8%
UW	15%
UW/CW	0%
CW	0%
CW/DW	1%
DW	42%
DW/CW	6%
CW/UW	26%
TOTAL	100%



Perimeter Air Monitoring Station - STA 8

15-minute average concentrations

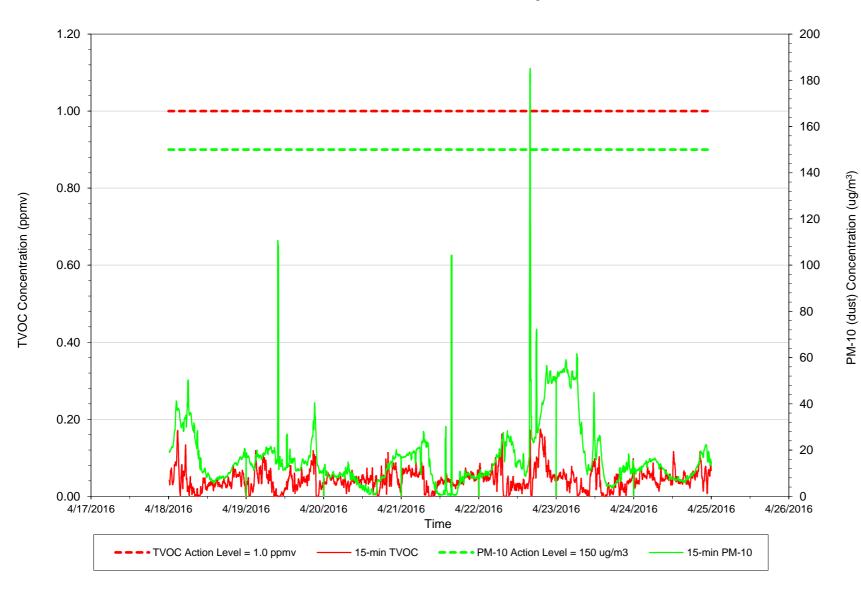


Data Summary Statistics	
TVOC Avg = PM-10 Avg =	0.04 4.43
Daily	Otatiatiaa
Data Summary	
TVOC max =	(15Min Avg)
4/11/2016	0.21
4/12/2016	0.20
4/13/2016	0.40
4/14/2016	0.17
4/15/2016	0.33
4/16/2016	0.24
4/17/2016	0.33
PM10 max=	(15Min Avg)
4/11/2016	8.24
4/12/2016	23.01
4/13/2016	19.56
4/14/2016	35.69
4/15/2016	16.20
4/16/2016	21.37
4/17/2016	19.54

Wind Summary Statistics	
CALM	8%
UW	15%
UW/CW	0%
CW	0%
CW/DW	1%
DW	42%
DW/CW	6%
CW/UW	26%
TOTAL	100%

Perimeter Air Monitoring Station - STA 1

15-minute average concentrations



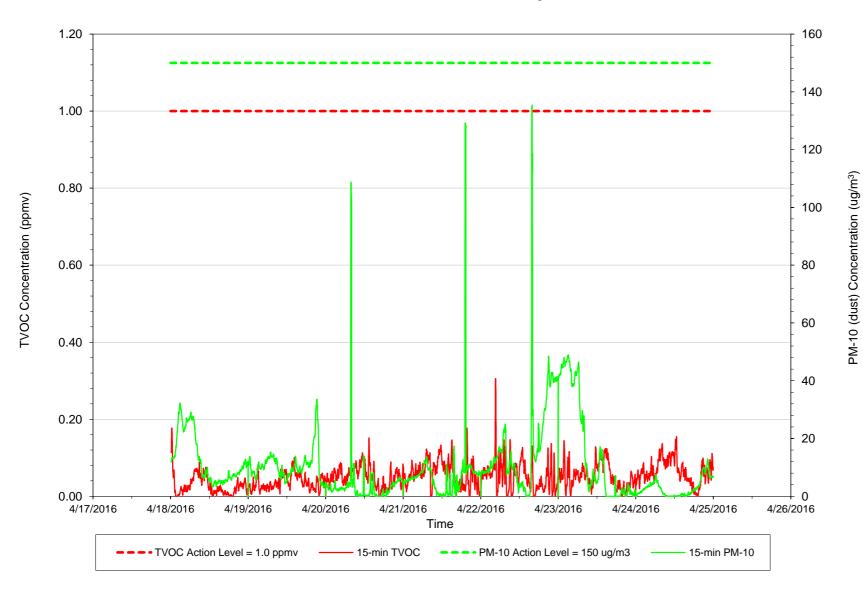
Data Summary Statistics	
TVOC Avg =	0.04
PM-10 Avg =	17.14
Daily Data Summary S	Statistics
TVOC max =	
4/18/2016	0.17
4/19/2016	0.12
4/20/2016	0.11
4/21/2016	0.09
4/22/2016	0.17
4/23/2016	0.10
4/24/2016	0.12
	(15Min Avg)
4/18/2016	50.36
4/19/2016	110.65
4/20/2016	20.14
4/21/2016	104.28
4/22/2016	185.12
4/23/2016	61.70
4/24/2016	22.38
Wind Summary S	Statistics

CALM	11%
UW	35%
UW/CW	0%
CW	43%
CW/DW	1%
DW	5%
DW/CW	3%
CW/UW	2%
TOTAL	100%



Perimeter Air Monitoring Station - STA 2

15-minute average concentrations



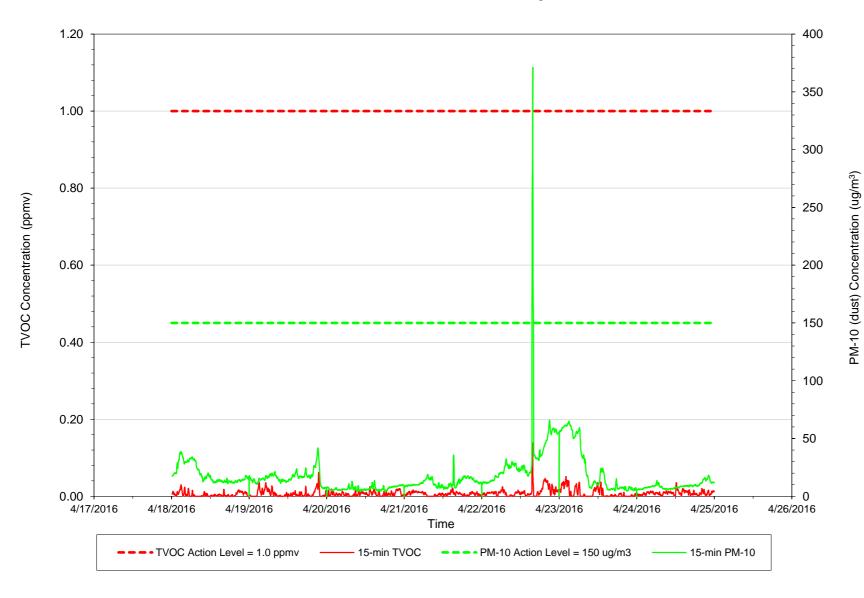
Data Summary Statistics	
TVOC Avg =	0.05
PM-10 Avg =	10.25
Daily	
Data Summary	
TVOC max =	(15Min Avg)
4/18/2016	0.18
4/19/2016	0.10
4/20/2016	0.15
4/21/2016	0.18
4/22/2016	0.31
4/23/2016	0.14
4/24/2016	0.15
PM10 max=	(15Min Avg)
4/18/2016	32.35
4/19/2016	33.61
4/20/2016	108.66
4/21/2016	129.14
4/22/2016	135.38
4/23/2016	48.93
4/24/2016	12.92

Wind Summary Statistics	
CALM	11%
UW	30%
UW/CW	0%
CW	0%
CW/DW	1%
DW	40%
DW/CW	2%
CW/UW	16%
TOTAL	100%



Perimeter Air Monitoring Station - STA 3

15-minute average concentrations



Data Summary Statistics	
TVOC Ava –	0.01
TVOC Avg =	
PM-10 Avg =	17.40
Daily	
•	Otatiatiaa
Data Summary	
TVOC max =	(15Min Avg)
4/18/2016	0.03
4/19/2016	0.06
4/20/2016	0.02
4/21/2016	0.02
4/22/2016	0.14
4/23/2016	0.05
4/24/2016	0.04
PM10 max=	(15Min Avg)
4/18/2016	38.74
4/19/2016	41.88
4/20/2016	13.60
4/21/2016	35.49
4/22/2016	371.14

Weekly

Wind Summary Statistics	
CALM	11%
UW	28%
UW/CW	1%
CW	4%
CW/DW	2%
DW	50%
DW/CW	4%
CW/UW	0%
TOTAL	100%

64.98

18.11

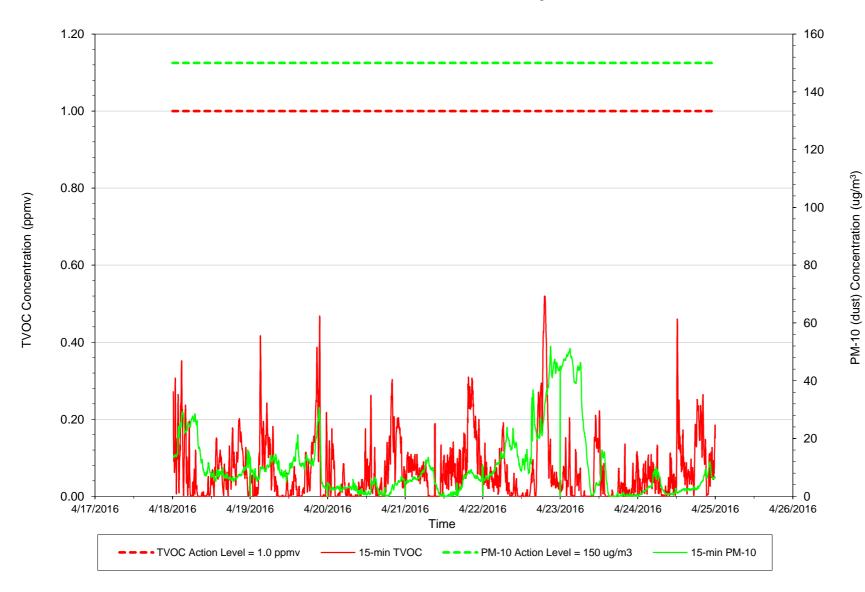
4/23/2016

4/24/2016



Perimeter Air Monitoring Station - STA 4

15-minute average concentrations



Data Summary Statistics	
TVOC Avg =	0.07
PM-10 Avg =	10.33
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
4/18/2016	0.35
4/19/2016	0.47
4/20/2016	0.30
4/21/2016	0.31
4/22/2016	0.52
4/23/2016	0.22
4/24/2016	0.46
PM10 max=	(15Min Avg)
4/18/2016	29.20
4/19/2016	30.78
4/20/2016	7.01
4/21/2016	13.51

Weekly

Wind Summary Statistics	
CALM	11%
UW	39%
UW/CW	0%
CW	0%
CW/DW	0%
DW	10%
DW/CW	0%
CW/UW	40%
TOTAL	100%

51.95

51.15

11.94

4/22/2016

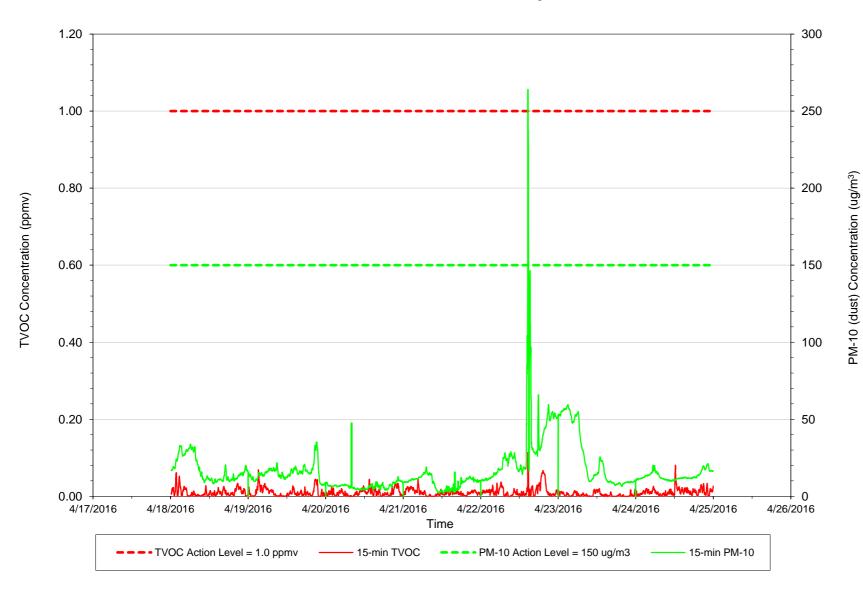
4/23/2016

4/24/2016



Perimeter Air Monitoring Station - STA 5

15-minute average concentrations



Data Summary Statistics		
TVOC Avg = PM-10 Avg =	0.01 17.05	
Daily Data Summary	Statistics	
TVOC max = 4/18/2016 4/19/2016 4/20/2016 4/21/2016 4/23/2016 4/24/2016 PM10 max= 4/18/2016 4/19/2016	0.06 0.07 0.04 0.04 0.11 0.02 0.08 (15Min Avg) 33.87 35.24 47.68	
4/21/2016 4/22/2016 4/23/2016 4/24/2016	19.03 264.06 59.45 21.08	

Wind Summary Statistics

11%

33%

0%

0%

0%

7%

0%

49%

100%

CALM

UW/CW

CW/DW

DW/CW

CW/UW

TOTAL

UW

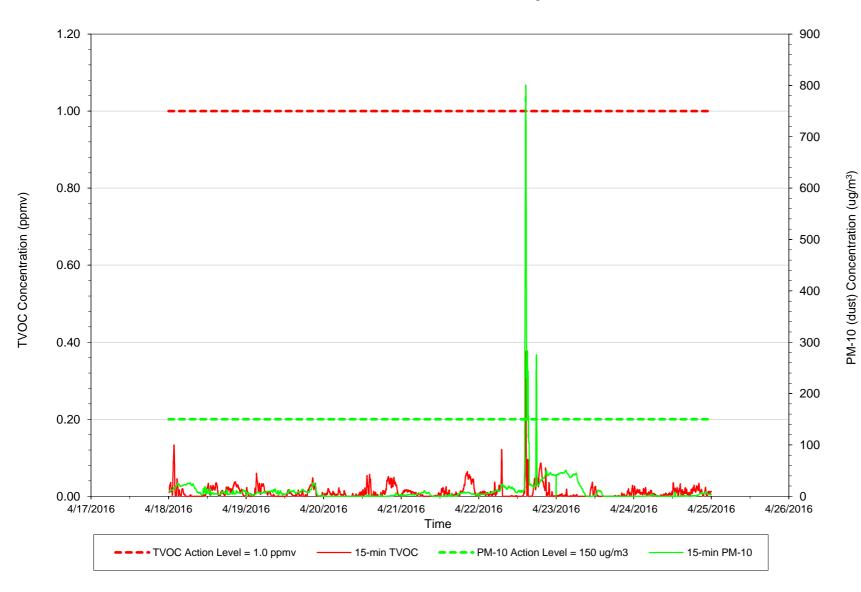
CW

DW



Perimeter Air Monitoring Station - STA 6

15-minute average concentrations

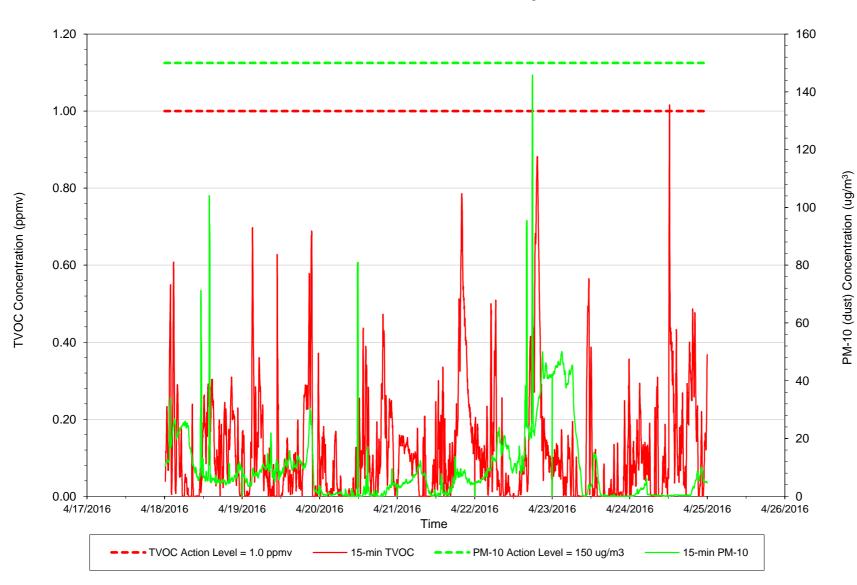


Data Summary Statistics	
TVOC Avg =	0.01
PM-10 Avg =	11.29
Daily	
Data Summary	
TVOC max =	, -,
4/18/2016	0.13
4/19/2016	0.06
4/20/2016	0.06
4/21/2016	0.06
4/22/2016	0.38
4/23/2016	0.04
4/24/2016	0.04
PM10 max=	(15Min Avg)
4/18/2016	25.90
4/19/2016	26.22
4/20/2016	6.60
4/21/2016	11.03
4/22/2016	800.90
4/23/2016	50.82
4/24/2016	8.67

Wind Summary Statistics	
CALM	11%
UW	0%
UW/CW	0%
CW	16%
CW/DW	1%
DW	23%
DW/CW	1%
CW/UW	48%
TOTAL	100%

Perimeter Air Monitoring Station - STA 7

15-minute average concentrations



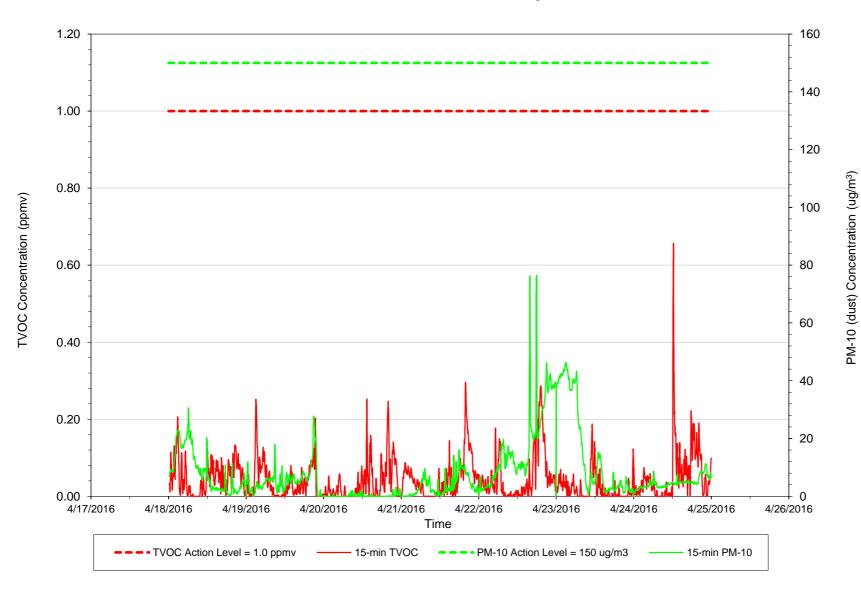
Data Summary Statistics		
TVOC Avg =	0.13	
PM-10 Avg =	9.82	
Daily		
Data Summary	Statistics	
TVOC max =	(15Min Avg)	
4/18/2016	0.61	
4/19/2016	0.70	
4/20/2016	0.47	
4/21/2016	0.79	
4/22/2016	0.88	
4/23/2016	0.56	
4/24/2016	1.02	
PM10 max=	(15Min Avg)	
4/18/2016	104.02	
4/19/2016	30.51	
4/20/2016	80.98	
4/21/2016	13.78	
4/22/2016	145.77	
4/23/2016	50.04	
4/24/2016	10.13	
4/24/2016	10.13	

Wind Summary Statistics	
CALM	11%
UW	6%
UW/CW	0%
CW	0%
CW/DW	1%
DW	33%
DW/CW	2%
CW/UW	47%
TOTAL	100%



Perimeter Air Monitoring Station - STA 8

15-minute average concentrations



Data Summary Statistics		
Data Gammary	Cialibilios	
TVOC Avg =	0.04	
PM-10 Avg =	8.14	
1 W 10 7 Wg =	0.11	
Daily		
Data Summary	Statistics	
TVOC max =		
4/18/2016	0.21	
4/19/2016	0.25	
4/20/2016	0.25	
4/21/2016	0.30	
4/22/2016	0.29	
4/23/2016	0.29	
	0	
4/24/2016	0.66	
PM10 max=	(15Min Avg)	
4/18/2016	30.63	
4/19/2016	27.79	
4/20/2016	3.14	
4/21/2016	16.05	
4/22/2016	76.47	
4/23/2016	46.33	
4/24/2016	11.34	

Wind Summary Statistics

11%

6%

0%

0%

1%

33%

2%

47%

100%

Weekly



CALM

UW/CW

CW/DW

DW/CW

CW/UW

TOTAL

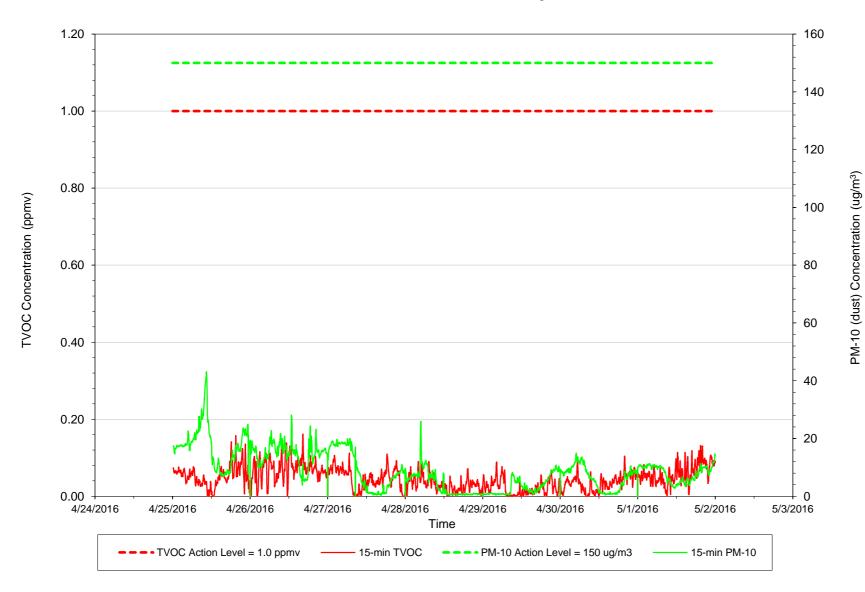
UW

CW

DW

Perimeter Air Monitoring Station - STA 1

15-minute average concentrations



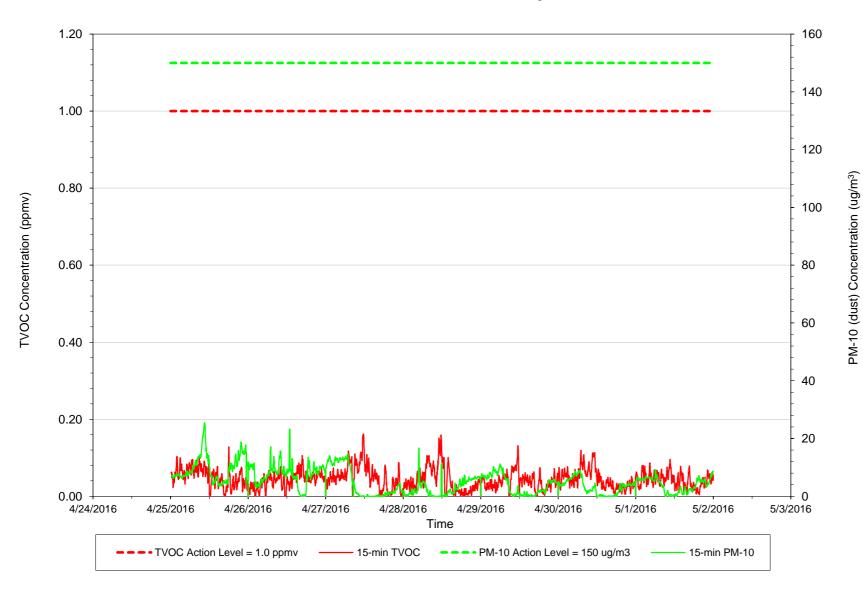
TTOOKIY		
Data Summary Statistics		
TVOC Avg =	0.05	
PM-10 Avg =	9.06	
J		
Daily		
Data Summary	Statistics	
TVOC max =	(15Min Avg)	
4/25/2016	0.16	
4/26/2016	0.16	
4/27/2016	0.11	
4/28/2016	0.09	
4/29/2016	0.09	
4/30/2016	0.10	
5/1/2016	0.13	
PM10 max=	(15Min Avg)	
4/25/2016	43.16	
4/26/2016	28.13	
4/27/2016	20.02	
4/28/2016	25.97	
4/29/2016	10.79	
4/30/2016	14.96	
5/1/2016	14.65	

Wind Summary Statistics	
CALM	11%
UW	36%
UW/CW	0%
CW	29%
CW/DW	2%
DW	16%
DW/CW	5%
CW/UW	1%
TOTAL	100%



Perimeter Air Monitoring Station - STA 2

15-minute average concentrations



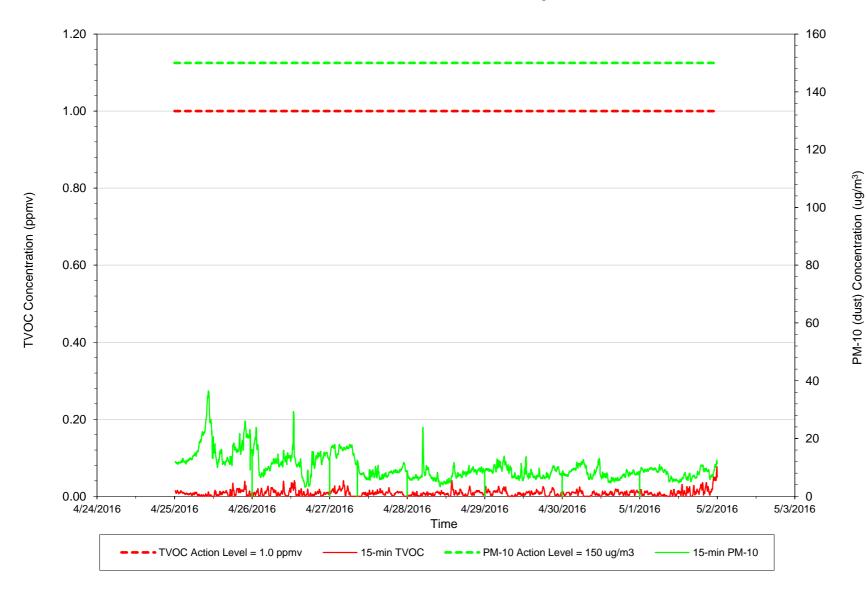
Data Summary Statistics	
TVOC Avg = PM-10 Avg =	0.05 5.22
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
4/25/2016	0.13
4/26/2016	0.11
4/27/2016	0.16
4/28/2016	0.16
4/29/2016	0.13
4/30/2016	0.12
5/1/2016	0.10
PM10 max=	(15Min Avg)
4/25/2016	25.43
4/26/2016	23.22
4/27/2016	14.69
4/28/2016	16.72
4/29/2016	11.22
4/30/2016	8.84
5/1/2016	9.16

Wind Summary Statistics	
CALM	11%
UW	32%
UW/CW	0%
CW	0%
CW/DW	1%
DW	48%
DW/CW	1%
CW/UW	7%
TOTAL	100%



Perimeter Air Monitoring Station - STA 3

15-minute average concentrations



Data Summary Statistics	
TVOC Avg = PM-10 Avg =	0.01 10.13
Daily Data Summary Sta	itistics

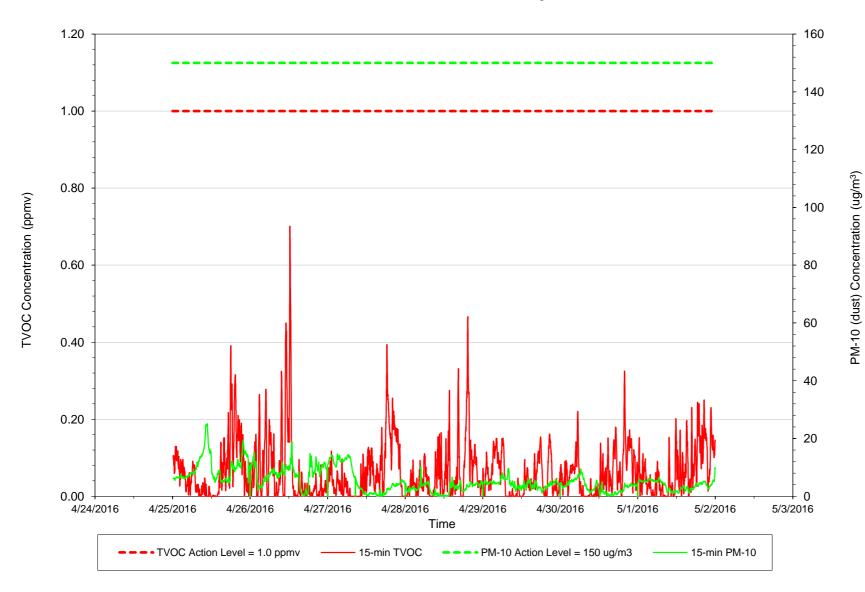
Data Summary	Statistics
TVOC max =	(15Min Avg)
4/25/2016	0.04
4/26/2016	0.04
4/27/2016	0.04
4/28/2016	0.04
4/29/2016	0.03
4/30/2016	0.02
5/1/2016	0.08
PM10 max=	(15Min Avg)
PM10 max= 4/25/2016	(15Min Avg) 36.46
	` "
4/25/2016	36.46
4/25/2016 4/26/2016	36.46 29.38
4/25/2016 4/26/2016 4/27/2016	36.46 29.38 18.05
4/25/2016 4/26/2016 4/27/2016 4/28/2016	36.46 29.38 18.05 23.90
4/25/2016 4/26/2016 4/27/2016 4/28/2016 4/29/2016	36.46 29.38 18.05 23.90 13.88

Wind Summary Statistics	
CALM	11%
UW	30%
UW/CW	2%
CW	12%
CW/DW	5%
DW	38%
DW/CW	2%
CW/UW	0%
TOTAL	100%



Perimeter Air Monitoring Station - STA 4

15-minute average concentrations



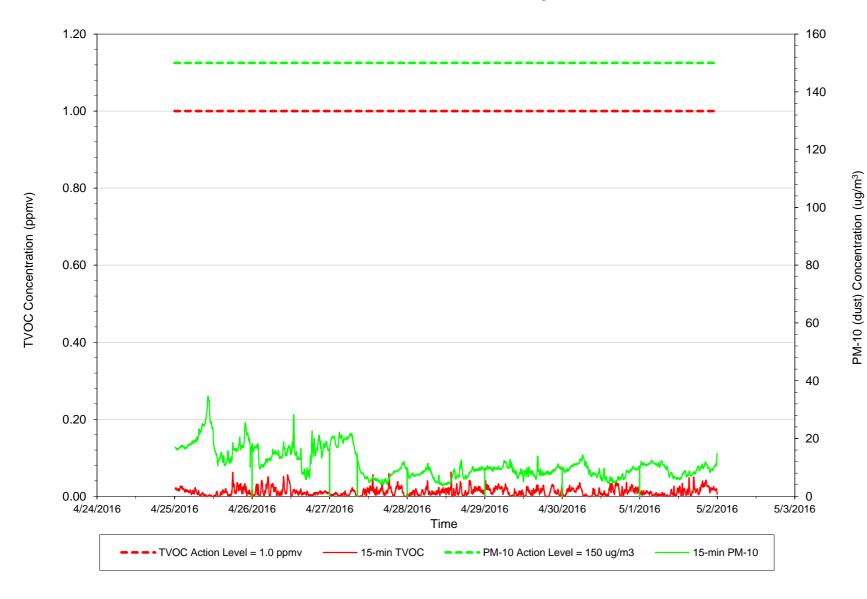
Data Summary Statistics	
0.06	
5.41	
Statistics	
(15Min Avg)	
0.39	
0.70	
0.39	
0.47	
0.16	
0.32	
0.25	
(15Min Avg)	
25.12	
18.93	
14.72	
10.45	
9.68	
9.46	
9.92	

Wind Summary Statistics	
CALM	11%
UW	54%
UW/CW	0%
CW	0%
CW/DW	0%
DW	10%
DW/CW	0%
CW/UW	25%
TOTAL	100%



Perimeter Air Monitoring Station - STA 5

15-minute average concentrations



TVOC Avg = PM-10 Avg =	0.01 11.24
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
4/25/2016	0.06
4/26/2016	0.06
4/27/2016	0.06
4/28/2016	0.06
4/29/2016	0.04
4/30/2016	0.04
5/1/2016	0.05
PM10 max=	(15Min Avg)
4/25/2016	34.58

28.30

22.18

12.55

13.93

14.39

14.81

4/26/2016

4/27/2016

4/28/2016

4/29/2016

4/30/2016

5/1/2016

Weekly

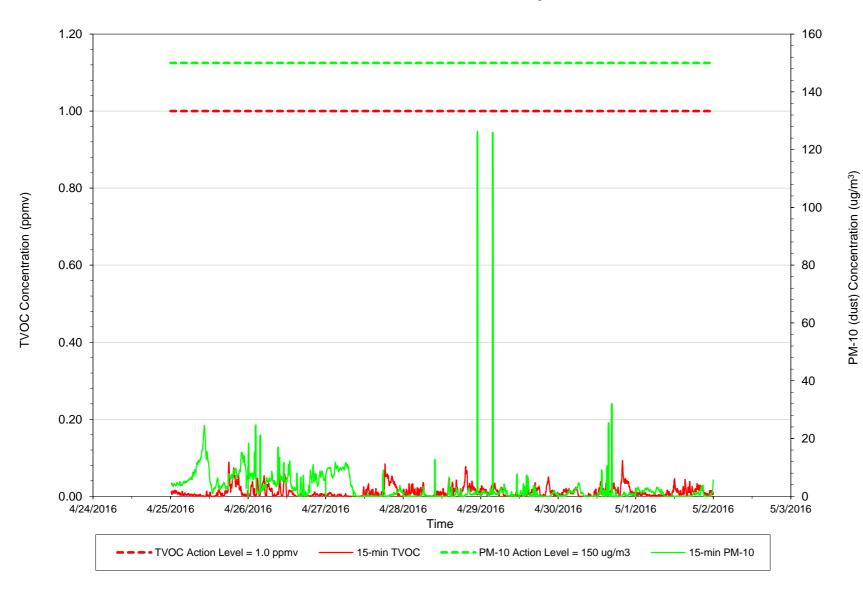
Data Summary Statistics

Wind Summary Statistics	
CALM	11%
UW	46%
UW/CW	0%
CW	0%
CW/DW	0%
DW	5%
DW/CW	0%
CW/UW	37%
TOTAL	100%



Perimeter Air Monitoring Station - STA 6

15-minute average concentrations



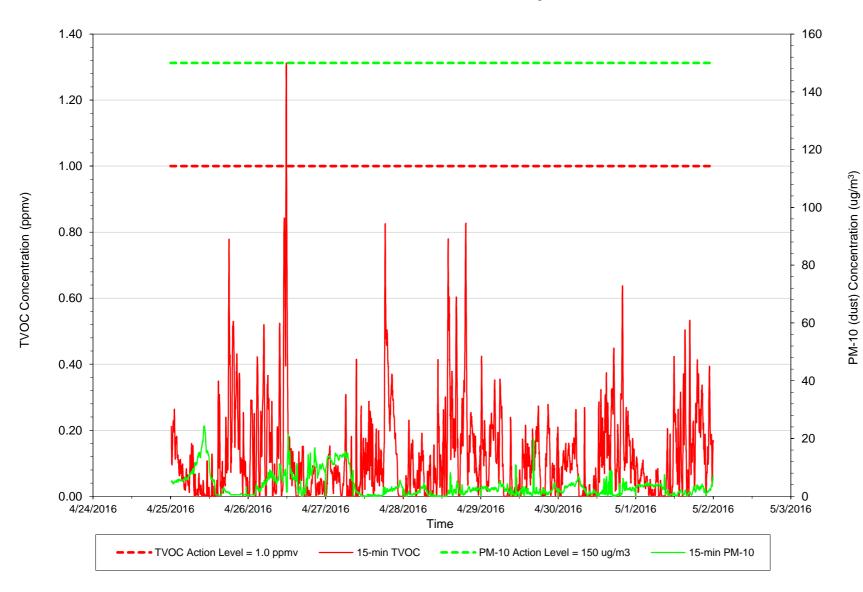
Data Summary Statistics	
TVOC Avg = PM-10 Avg =	0.01 3.40
Daily Data Summary	Statistics
TVOC max =	(15Min Avg)
4/25/2016	0.09
4/26/2016	0.06
4/27/2016	0.08
4/28/2016	0.08
4/29/2016	0.05
4/30/2016	0.09
5/1/2016	0.05
PM10 max=	(15Min Avg)
4/25/2016	24.41
4/26/2016	24.76
4/27/2016	11.85
4/28/2016	126.31
4/29/2016	125.96
4/30/2016	32.06
5/1/2016	5.65

Wind Summary Statistics	
CALM	11%
UW	0%
UW/CW	0%
CW	27%
CW/DW	1%
DW	26%
DW/CW	1%
CW/UW	35%
TOTAL	100%



Perimeter Air Monitoring Station - STA 7

15-minute average concentrations



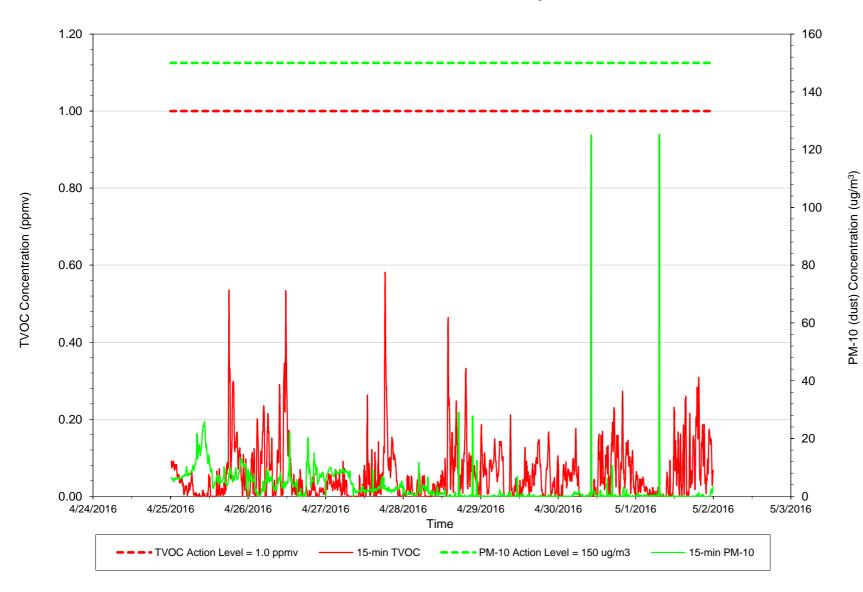
vvooray		
Data Summary Statistics		
_		
0.12		
3.75		
0.70		
Statistics		
(15Min Avg)		
0.78		
1.31		
0.83		
0.83		
0.42		
0.64		
0.53		
(15Min Avg)		
24.39		
21.49		
15.45		
8.17		
19.80		
9.05		
7.42		

Wind Summary Statistics	
CALM	11%
UW	5%
UW/CW	0%
CW	0%
CW/DW	1%
DW	46%
DW/CW	5%
CW/UW	32%
TOTAL	100%



Perimeter Air Monitoring Station - STA 8

15-minute average concentrations



TVOC Avg = PM-10 Avg =	0.06 3.47
Daily	Otatiatiaa
Data Summary	
TVOC max =	(15Min Avg)
4/25/2016	0.53
4/26/2016	0.53
4/27/2016	0.58
4/28/2016	0.46
4/29/2016	0.21
4/30/2016	0.27
5/1/2016	0.31
PM10 max=	(15Min Avg)
4/25/2016	25.88
4/26/2016	22.17
4/27/2016	9.99
4/28/2016	29.12
4/29/2016	6.78
4/30/2016	125.03

Weekly

Data Summary Statistics

Wind Summary	/ Statistics
CALM	11%
UW	5%
UW/CW	0%
CW	0%
CW/DW	1%
DW	46%
DW/CW	5%
CW/UW	32%
TOTAL	100%

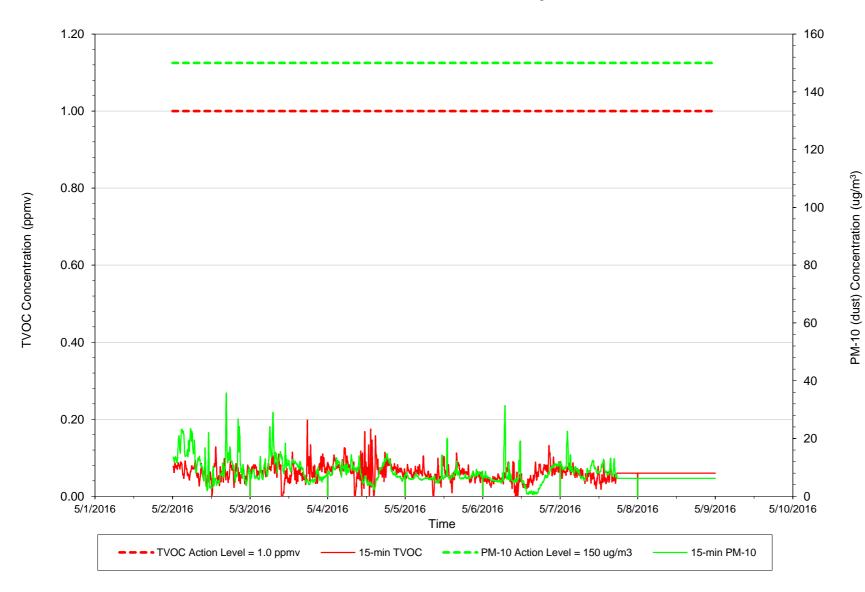
125.33

5/1/2016



Perimeter Air Monitoring Station - STA 1

15-minute average concentrations



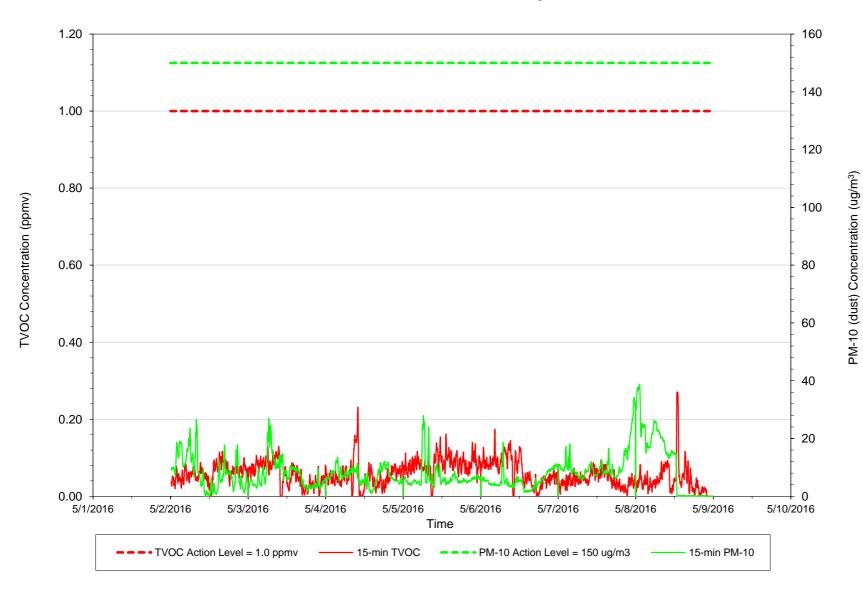
Data Summary Statistics	
TVOC Avg =	0.06
PM-10 Avg =	8.26
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
5/2/2016	0.13
5/3/2016	0.20
5/4/2016	0.17
5/5/2016	0.11
5/6/2016	0.13
5/7/2016	0.09
5/8/2016	0.06
PM10 max=	(15Min Avg)
5/2/2016	35.74
5/3/2016	29.08
5/4/2016	14.74
5/5/2016	20.13
5/6/2016	31.35
5/7/2016	22.53
5/8/2016	6.23

Wind Summar	y Statistics
CALM	15%
UW	66%
UW/CW	0%
CW	12%
CW/DW	0%
DW	4%
DW/CW	2%
CW/UW	1%
TOTAL	100%



Perimeter Air Monitoring Station - STA 2

15-minute average concentrations



TVOC Avg =	0.06
PM-10 Avg =	8.18
Ü	
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
5/2/2016	0.12
5/3/2016	0.13
5/4/2016	0.23
5/5/2016	0.16
5/6/2016	0.17
5/7/2016	0.09
5/8/2016	0.27
PM10 max=	(15Min Avg)
5/2/2016	26.47

5/3/2016

5/4/2016

5/5/2016

5/6/2016

5/7/2016

5/8/2016

26.91

13.51

27.88

18.62

34.31

38.76

Weekly

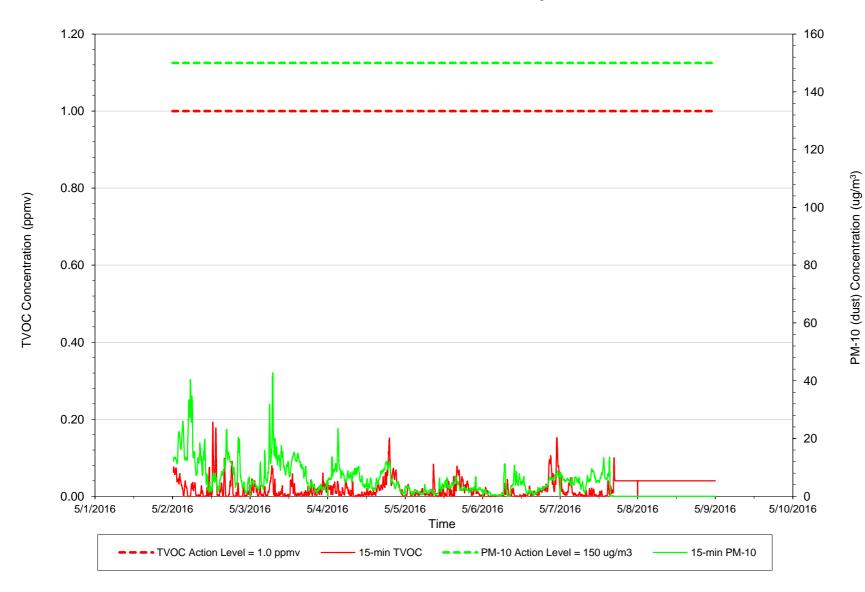
Data Summary Statistics

Wind Summary	Statistics
CALM	15%
UW	65%
UW/CW	0%
CW	0%
CW/DW	0%
DW	14%
DW/CW	1%
CW/UW	5%
TOTAL	100%



Perimeter Air Monitoring Station - STA 3

15-minute average concentrations



Woolkiy	
Data Summary	Statistics
TVOC Avg =	0.03
PM-10 Avg =	5.15
·	0.10
Daily	
Data Summary	Statistics
TVOC max =	
5/2/2016	0.19
5/3/2016	
	0.08
5/4/2016	0.15
5/5/2016	0.08
5/6/2016	0.15
5/7/2016	0.10
5/8/2016	0.04
PM10 max=	(15Min Avg)
	` ",
5/2/2016	40.39
5/3/2016	42.81
5/4/2016	23.41
5/5/2016	7.06
5/6/2016	11.20
5/7/2016	13.63
5/8/2016	0.00
5/6/2016	0.00

Weekly

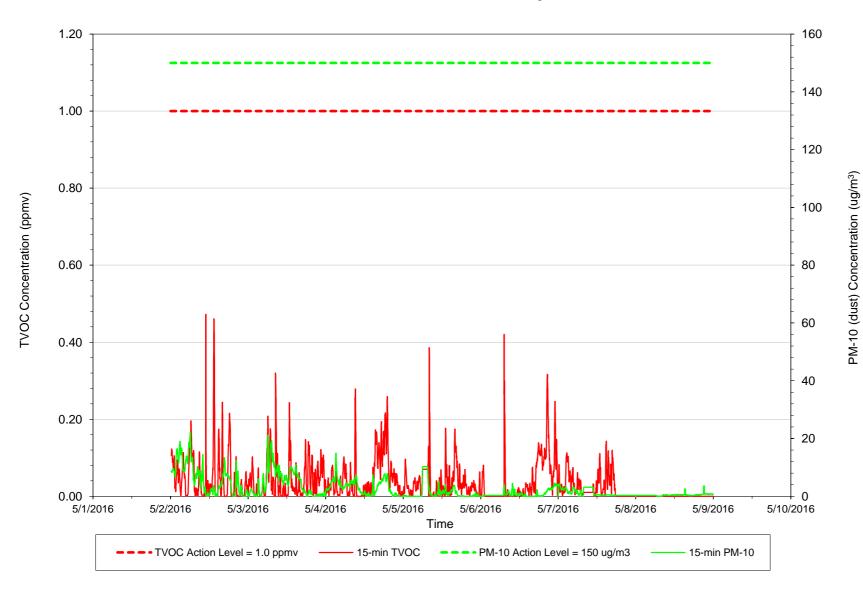
vvina Summary	Statistics
CALM	15%
UW	49%
UW/CW	0%
CW	2%
CW/DW	2%
DW	30%
DW/CW	2%
CW/UW	0%
TOTAL	100%

Wind Summary Statistics



Perimeter Air Monitoring Station - STA 4

15-minute average concentrations



Data Summary Statistics	
TVOC Avg =	0.05
PM-10 Avg =	2.61
I W-10 Avg =	2.01
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
5/2/2016	0.47
5/3/2016	0.32
5/4/2016	0.28
5/5/2016	0.39
5/6/2016	0.42
5/7/2016	0.14
5/8/2016	0.00
PM10 max=	(15Min Avg)
5/2/2016	22.30
5/3/2016	21.26
5/4/2016	14.90
5/5/2016	10.28
5/6/2016	4.62
5/7/2016	4.25
5/8/2016	3.56
Wind Summary	Statistics

15%

38%

0%

0%

0%

36%

0%

11%

100%

Weekly



CALM

UW/CW

CW/DW

DW/CW

CW/UW

TOTAL

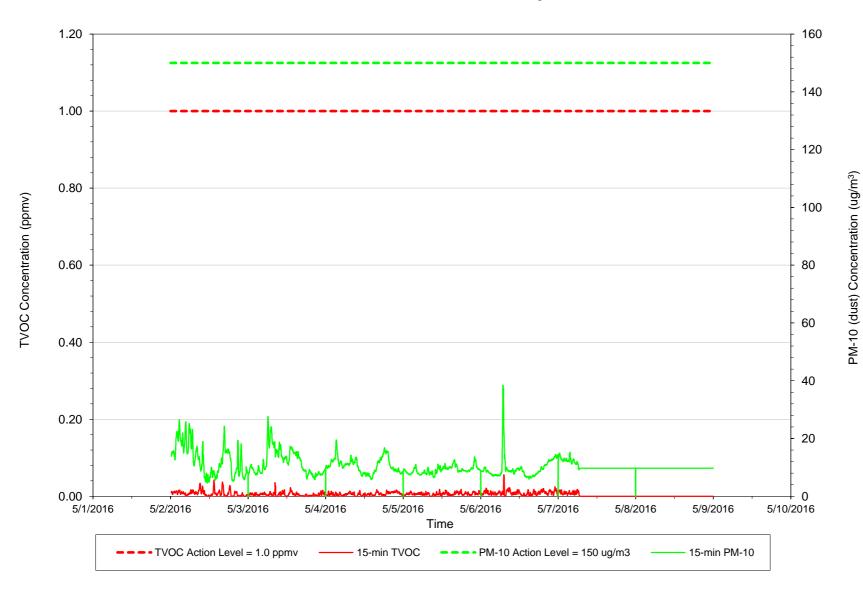
UW

CW

DW

Perimeter Air Monitoring Station - STA 5

15-minute average concentrations



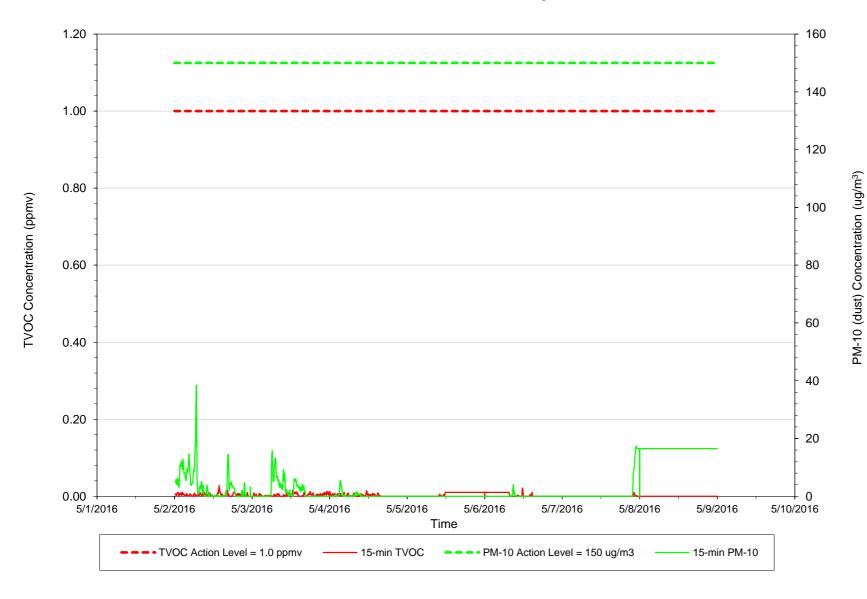
Data Summary	Statistics
TVOC Avg = PM-10 Avg =	0.01 10.61
Daily Data Summary	Statistics
TVOC max =	
5/2/2016	0.04
5/3/2016	
	0.04
5/4/2016	0.02
5/5/2016	0.02
5/6/2016	0.06
5/7/2016	0.02
5/8/2016	0.00
PM10 max=	(15Min Avg)
5/2/2016	26.45
5/3/2016	27.62
5/4/2016	19.55
5/5/2016	13.66
5/6/2016	38.42
5/7/2016	15.26
5/8/2016	9.74

Wind Summary	Statistics
CALM	15%
UW	50%
UW/CW	0%
CW	0%
CW/DW	0%
DW	19%
DW/CW	0%
CW/UW	16%
TOTAL	100%



Perimeter Air Monitoring Station - STA 6

15-minute average concentrations



Data Gairman Garanone	Data Summary Statistics	
	0.00 3.39	•

Weekly

Daily

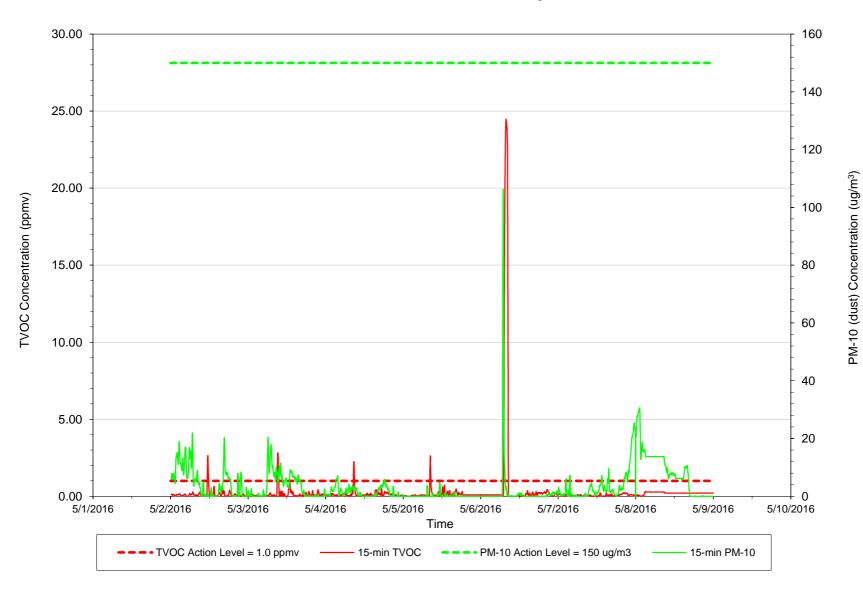
Dany	
Data Summary Statistics	
TVOC max =	(15Min Avg)
5/2/2016	0.03
5/3/2016	0.02
5/4/2016	0.01
5/5/2016	0.01
5/6/2016	0.02
5/7/2016	0.01
5/8/2016	0.00
PM10 max=	(15Min Avg)
5/2/2016	38.37
5/3/2016	15.69
5/4/2016	5.43
5/5/2016	0.31
5/6/2016	4.09
5/7/2016	17.45
5/8/2016	16.48

Wind Summary Statistics	
CALM	15%
UW	0%
UW/CW	0%
CW	22%
CW/DW	4%
DW	44%
DW/CW	0%
CW/UW	15%
TOTAL	100%



Perimeter Air Monitoring Station - STA 7

15-minute average concentrations



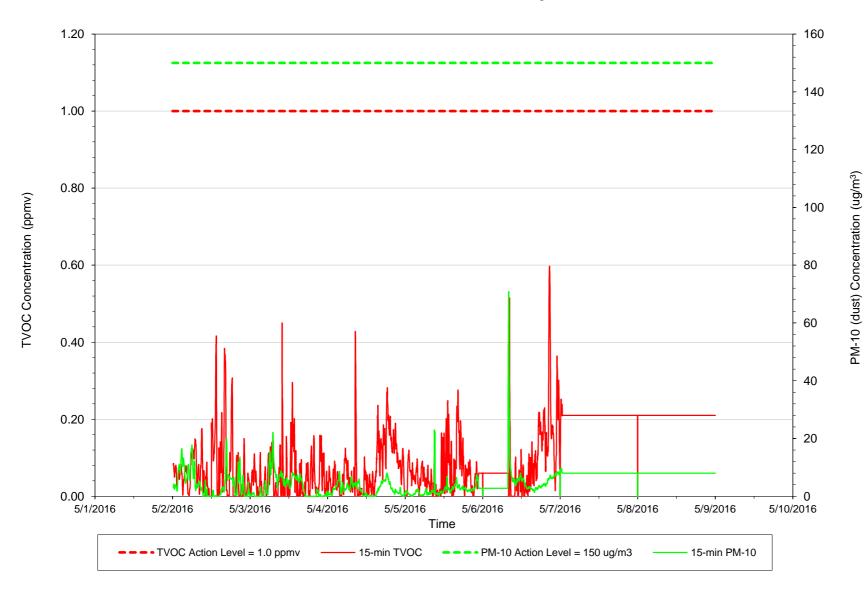
Data Summary Statistics	
TVOC Avg =	0.29
PM-10 Avg =	3.48
1 W 10 7 Wg =	0.10
Daily	
Data Summary	Statistics
TVOC max =	
5/2/2016	2.64
5/3/2016	2.82
5/4/2016	2.26
5/5/2016	2.64
5/6/2016	24.47
5/7/2016	0.24
5/8/2016	0.31
PM10 max=	(15Min Avg)
5/2/2016	21.82
5/3/2016	20.45
5/4/2016	7.12
5/5/2016	4.73
5/6/2016	106.27
5/7/2016	25.58
5/8/2016	30.58
3/3/2010	30.30
Wind Summary	Statistics
CALM	15%

Willa Sulfilliary Statistics	
CALM	15%
UW	15%
UW/CW	0%
CW	0%
CW/DW	4%
DW	50%
DW/CW	2%
CW/UW	14%
TOTAL	100%



Perimeter Air Monitoring Station - STA 8

15-minute average concentrations



Wooldy	
Data Summary Statistics	
TVOC Avg =	0.13
PM-10 Avg =	4.88
- 3	
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
5/2/2016	0.42
5/3/2016	0.45
5/4/2016	0.43
5/5/2016	0.28
5/6/2016	0.60
5/7/2016	0.25
5/8/2016	0.23
	∵.
PM10 max=	(15Min Avg)
5/2/2016	19.97
5/3/2016	22.08
5/4/2016	8.66
5/5/2016	22.99
5/6/2016	70.86
5/7/2016	9.76
5/8/2016	8.00
0,0,2010	0.00

Wind Summary Statistics	
CALM	15%
UW	15%
UW/CW	0%
CW	0%
CW/DW	4%
DW	50%
DW/CW	2%
CW/UW	14%
TOTAL	100%

Perimeter Air Monitoring Station - STA 1

15-minute average concentrations



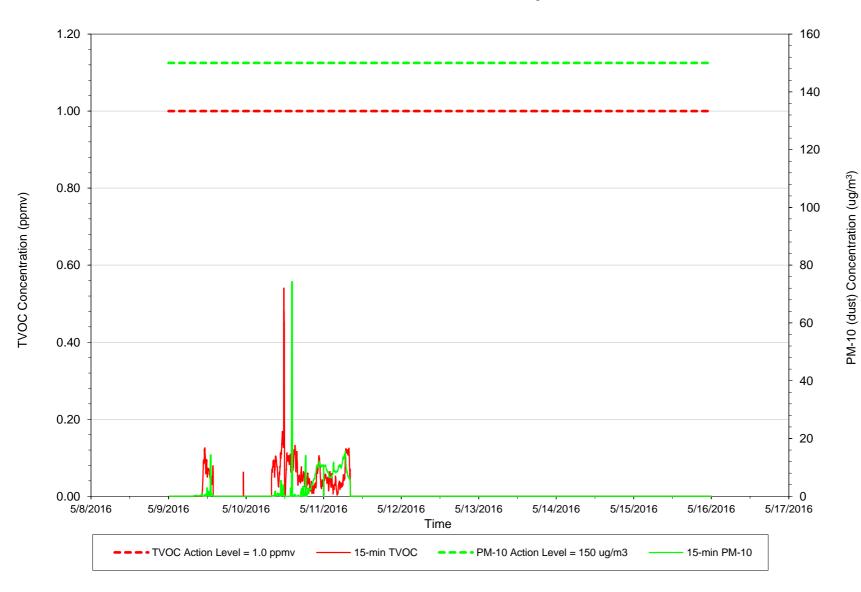
Data Summary Statistics	
	_
TVOC Avg =	0.06
PM-10 Avg =	5.45
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
5/9/2016	#DIV/0!
5/10/2016	0.14
5/11/2016	0.10
5/12/2016	0.00
5/13/2016	0.00
5/14/2016	0.00
5/15/2016	0.00
PM10 max=	(15Min Avg)
5/9/2016	#DIV/0!
5/10/2016	11.89
5/11/2016	44.90
5/12/2016	0.00
5/13/2016	0.00
5/14/2016	0.00
5/15/2016	0.00

Wind Summary Statistics	
CALM	0%
UW	100%
UW/CW	0%
CW	0%
CW/DW	0%
DW	0%
DW/CW	0%
CW/UW	0%
TOTAL	100%



Perimeter Air Monitoring Station - STA 2

15-minute average concentrations



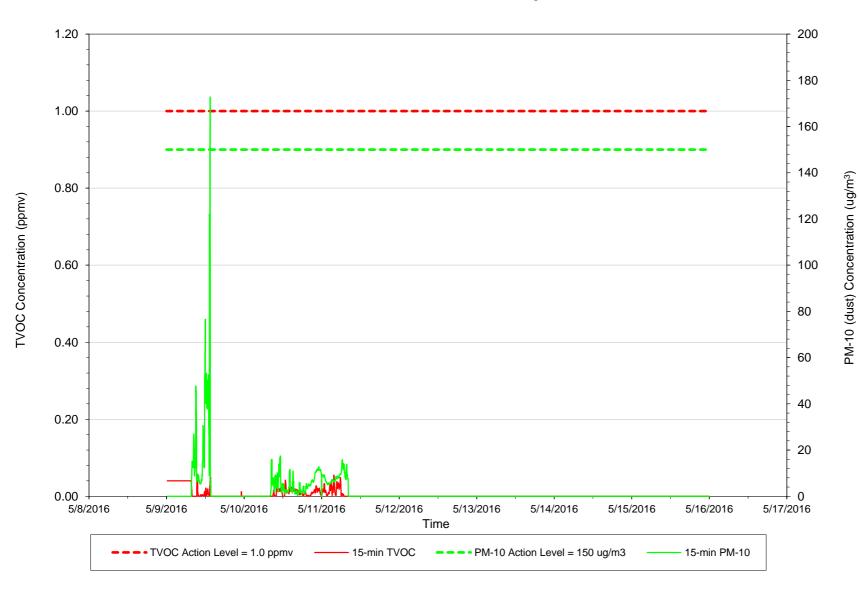
Data Summary Statistics	
Data Summary	Statistics
TVOC Avg =	0.05
PM-10 Avg =	4.00
_	
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
5/9/2016	#DIV/0!
5/10/2016	0.54
5/11/2016	0.12
5/12/2016	0.00
5/13/2016	0.00
5/14/2016	0.00
5/15/2016	0.00
PM10 max=	(15Min Avg)
5/9/2016	#DIV/0!
5/10/2016	74.29
5/11/2016	15.59
5/12/2016	0.00
5/13/2016	0.00
5/14/2016	0.00
5/15/2016	0.00
Wind Summary Statistics	

Wind Summary Statistics	
CALM	0%
UW	100%
UW/CW	0%
CW	0%
CW/DW	0%
DW	0%
DW/CW	0%
CW/UW	0%
TOTAL	100%



Perimeter Air Monitoring Station - STA 3

15-minute average concentrations



Data Summary	Statistics
T. (00 A	0.00
TVOC Avg =	0.02
PM-10 Avg =	8.27
Daily	
Data Summary	Statistics
TVOC max =	
5/9/2016	#DIV/0!
5/10/2016	0.05
5/11/2016	0.05
5/12/2016	0.00
5/13/2016	0.00
5/14/2016	0.00
5/15/2016	0.00
PM10 max=	(15Min Avg)
5/9/2016	#DIV/0!
5/10/2016	17.44
5/11/2016	15.75
5/12/2016	0.00
5/13/2016	0.00
5/14/2016	0.00
5/15/2016	0.00
Wind Summary Statistics	
CALM	0%
UW	0%

0%

0%

0%

100%

0%

0%

100%

Weekly



UW/CW

CW/DW

DW/CW

CW/UW

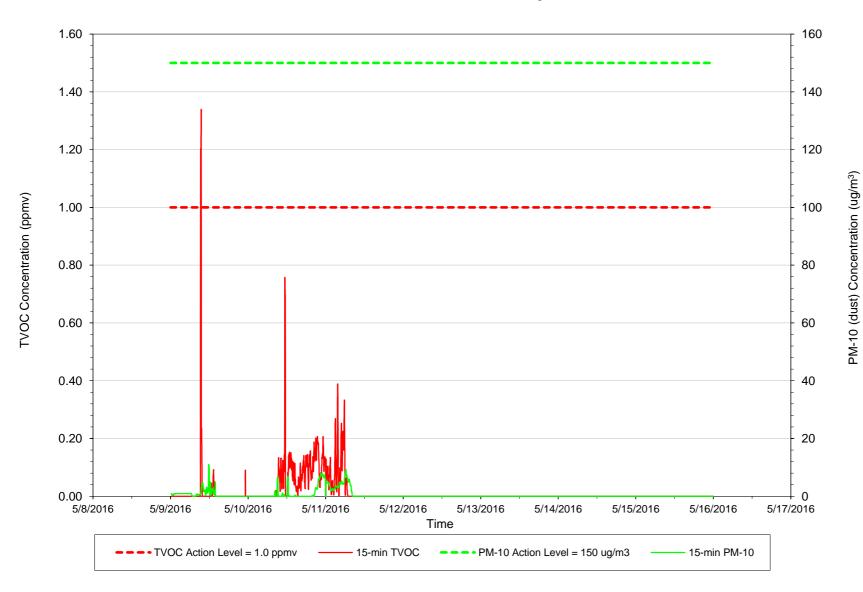
TOTAL

CW

DW

Perimeter Air Monitoring Station - STA 4

15-minute average concentrations



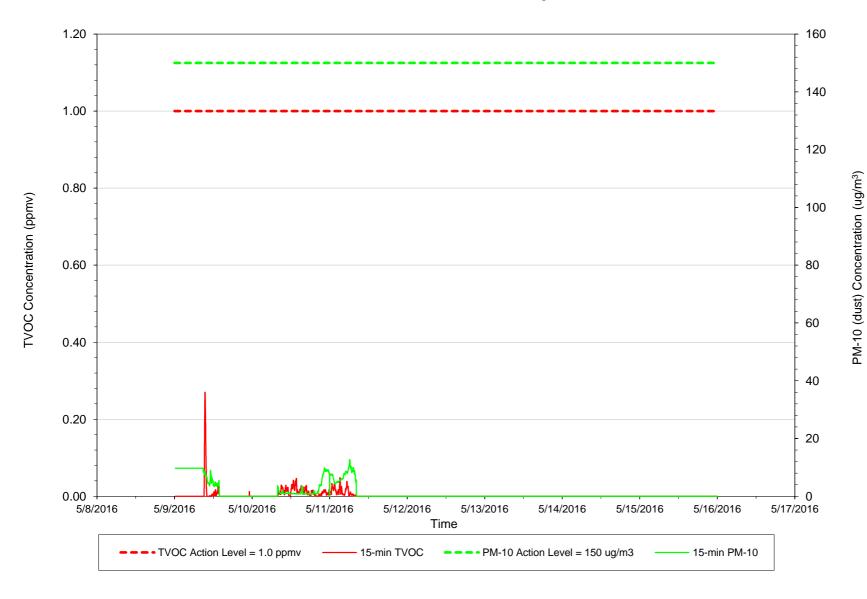
Data Summary	Statistics
	_
TVOC Avg =	0.07
PM-10 Avg =	2.02
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
5/9/2016	#DIV/0!
5/10/2016	0.76
5/11/2016	0.39
5/12/2016	0.00
5/13/2016	0.00
5/14/2016	0.00
5/15/2016	0.00
PM10 max=	(15Min Avg)
5/9/2016	#DIV/0!
5/10/2016	7.95
5/11/2016	9.27
5/12/2016	0.00
5/13/2016	0.00
5/14/2016	0.00
5/15/2016	0.00

Wind Summary Statistics	
CALM 0%	
UW	0%
UW/CW	0%
CW	0%
CW/DW	0%
DW	100%
DW/CW	0%
CW/UW	0%
TOTAL	100%



Perimeter Air Monitoring Station - STA 5

15-minute average concentrations



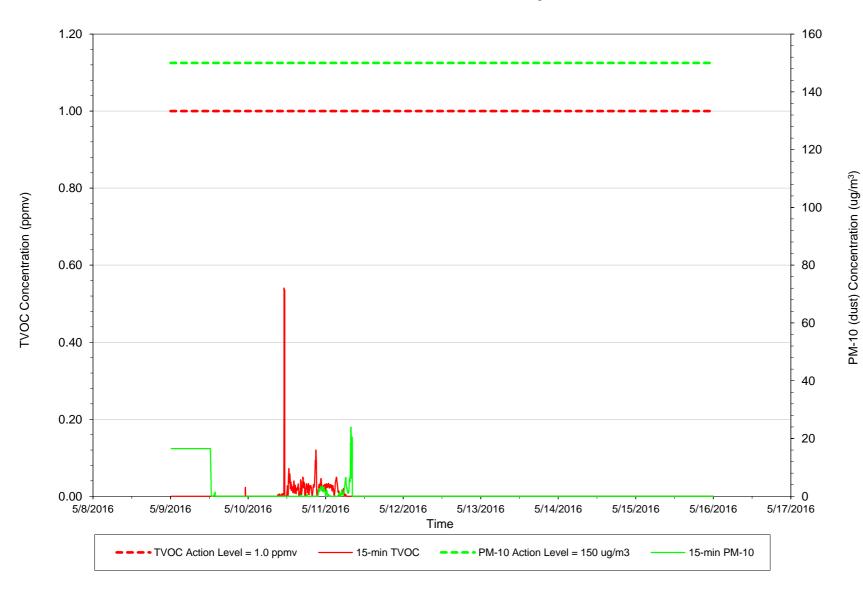
Data Summary	Statistics
TVOC Avg =	0.01
PM-10 Avg =	5.53
DII	
Daily	
Data Summary	
TVOC max =	(15Min Avg)
5/9/2016	#DIV/0!
5/10/2016	0.05
5/11/2016	0.05
5/12/2016	0.00
5/13/2016	0.00
5/14/2016	0.00
5/15/2016	0.00
PM10 max=	(15Min Avg)
5/9/2016	#DIV/0!
5/10/2016	9.86
5/11/2016	12.61
5/12/2016	0.00
5/13/2016	0.00
5/14/2016	0.00
5/15/2016	0.00

Wind Summary Statistics	
CALM	0%
UW	0%
UW/CW	0%
CW	0%
CW/DW	0%
DW	100%
DW/CW	0%
CW/UW	0%
TOTAL	100%



Perimeter Air Monitoring Station - STA 6

15-minute average concentrations



TVOC Avg = 0.01 PM-10 Avg = 6.01 Daily Data Summary Statistics TVOC max = (15Min Avg) 5/9/2016 #DIV/0! 5/10/2016 0.54 5/11/2016 0.05 5/12/2016 0.00 5/13/2016 0.00 5/14/2016 0.00 5/15/2016 0.00 PM10 max= (15Min Avg) 5/9/2016 #DIV/0! 5/10/2016 3.44 5/11/2016 23.86 5/12/2016 0.00 5/13/2016 0.00 5/13/2016 0.00 5/13/2016 0.00 5/13/2016 0.00 5/13/2016 0.00 5/15/2016 0.00 5/15/2016 0.00	Data Summary Statistics	
Data Summary Statistics TVOC max = (15Min Avg) 5/9/2016 #DIV/0! 5/10/2016 0.54 5/11/2016 0.05 5/12/2016 0.00 5/13/2016 0.00 5/14/2016 0.00 5/15/2016 0.00 PM10 max= (15Min Avg) 5/9/2016 #DIV/0! 5/10/2016 3.44 5/11/2016 23.86 5/12/2016 0.00 5/13/2016 0.00 5/13/2016 0.00 5/13/2016 0.00 5/15/2016 0.00 5/15/2016 0.00	_	
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5/9/2016 #DIV/0! 5/10/2016 0.54 5/11/2016 0.05 5/12/2016 0.00 5/13/2016 0.00 5/14/2016 0.00 5/15/2016 0.00 PM10 max= (15Min Avg) 5/9/2016 #DIV/0! 5/10/2016 3.44 5/11/2016 23.86 5/12/2016 0.00 5/13/2016 0.00 5/13/2016 0.00 5/15/2016 0.00 5/15/2016 0.00		
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5/12/2016 0.00 5/13/2016 0.00 5/14/2016 0.00 5/15/2016 0.00 PM10 max= (15Min Avg) 5/9/2016 #DIV/0! 5/10/2016 3.44 5/11/2016 23.86 5/12/2016 0.00 5/13/2016 0.00 5/14/2016 0.00 5/15/2016 0.00	5/10/2016	0.54
5/13/2016 0.00 5/14/2016 0.00 5/15/2016 0.00 PM10 max= (15Min Avg) 5/9/2016 #DIV/0! 5/10/2016 3.44 5/11/2016 23.86 5/12/2016 0.00 5/13/2016 0.00 5/14/2016 0.00 5/15/2016 0.00	5/11/2016	0.05
5/14/2016 0.00 5/15/2016 0.00 PM10 max= (15Min Avg) 5/9/2016 #DIV/0! 5/10/2016 3.44 5/11/2016 23.86 5/12/2016 0.00 5/13/2016 0.00 5/14/2016 0.00 5/15/2016 0.00	5/12/2016	0.00
5/15/2016 0.00 PM10 max= (15Min Avg) 5/9/2016 #DIV/0! 5/10/2016 3.44 5/11/2016 23.86 5/12/2016 0.00 5/13/2016 0.00 5/14/2016 0.00 5/15/2016 0.00	5/13/2016	0.00
PM10 max= (15Min Avg) 5/9/2016 #DIV/0! 5/10/2016 3.44 5/11/2016 23.86 5/12/2016 0.00 5/13/2016 0.00 5/14/2016 0.00 5/15/2016 0.00 Wind Summary Statistics	5/14/2016	0.00
5/9/2016 #DIV/0! 5/10/2016 3.44 5/11/2016 23.86 5/12/2016 0.00 5/13/2016 0.00 5/14/2016 0.00 5/15/2016 0.00	5/15/2016	0.00
5/10/2016 3.44 5/11/2016 23.86 5/12/2016 0.00 5/13/2016 0.00 5/14/2016 0.00 5/15/2016 0.00 Wind Summary Statistics	PM10 max=	(15Min Avg)
5/11/2016 23.86 5/12/2016 0.00 5/13/2016 0.00 5/14/2016 0.00 5/15/2016 0.00 Wind Summary Statistics	5/9/2016	#DIV/0!
5/12/2016 0.00 5/13/2016 0.00 5/14/2016 0.00 5/15/2016 0.00 Wind Summary Statistics	5/10/2016	3.44
5/13/2016 0.00 5/14/2016 0.00 5/15/2016 0.00 Wind Summary Statistics	5/11/2016	23.86
5/14/2016 0.00 5/15/2016 0.00 Wind Summary Statistics	5/12/2016	0.00
5/15/2016 0.00 Wind Summary Statistics	5/13/2016	0.00
Wind Summary Statistics	5/14/2016	0.00
	5/15/2016	0.00
	Wind Summary Statistics	

0%

0%

100%

0%

0%

0%

0%

100%

Weekly



UW/CW

CW

DW

CW/DW

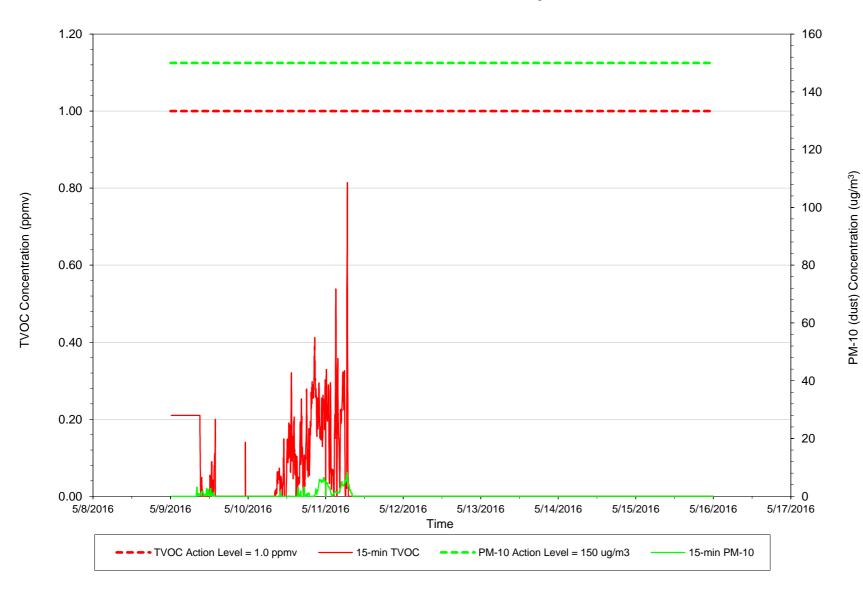
DW/CW

CW/UW

TOTAL

Perimeter Air Monitoring Station - STA 7

15-minute average concentrations



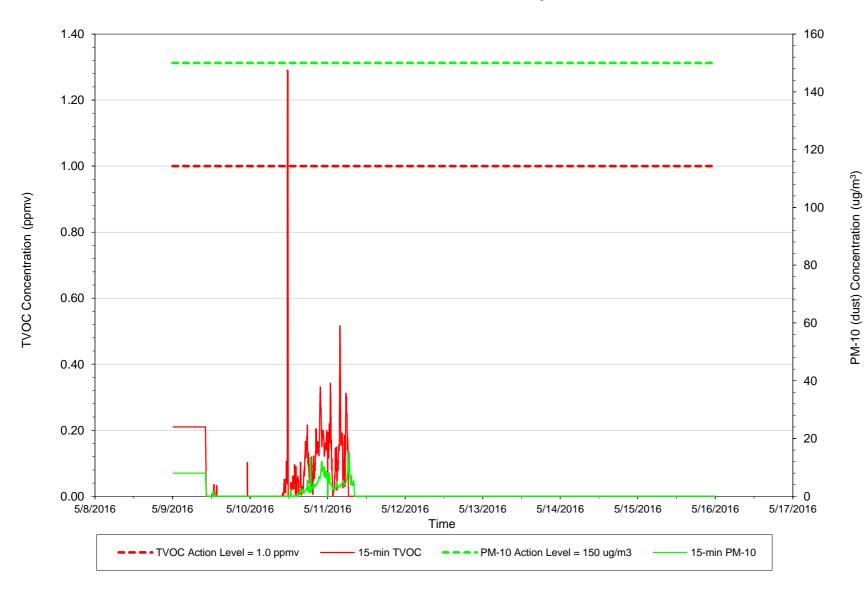
VVCCKIY	
Data Summary	Statistics
TVOC Avg =	0.14
PM-10 Avg =	1.25
· ·	
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
5/9/2016	#DIV/0!
5/10/2016	0.41
5/11/2016	0.81
5/12/2016	0.00
5/13/2016	0.00
5/14/2016	0.00
5/15/2016	0.00
PM10 max=	(15Min Avg)
5/9/2016	`#DIV/0!
5/10/2016	6.54
5/11/2016	8.30
5/12/2016	0.00
5/13/2016	0.00
5/14/2016	0.00
5/15/2016	0.00
5, .5, _5 . 6	2.00

Wind Summary Statistics	
CALM 0%	
UW	100%
UW/CW	0%
CW	0%
CW/DW	0%
DW	0%
DW/CW	0%
CW/UW	0%
TOTAL	100%



Perimeter Air Monitoring Station - STA 8

15-minute average concentrations



VVCCINIY	
Data Summary	Statistics
TVOC Avg =	0.12
PM-10 Avg =	4.44
· ·	
Daily	
Data Summary	Statistics
TVOC max =	(15Min Avg)
5/9/2016	#DIV/0!
5/10/2016	1.29
5/11/2016	0.52
5/12/2016	0.00
5/13/2016	0.00
5/14/2016	0.00
5/15/2016	0.00
PM10 max=	(15Min Avg)
5/9/2016	*#DIV/0!
5/10/2016	13.25
5/11/2016	15.31
5/12/2016	0.00
5/13/2016	0.00
5/14/2016	0.00
5/15/2016	0.00

Wind Summary Statistics	
CALM	0%
UW	100%
UW/CW	0%
CW	0%
CW/DW	0%
DW	0%
DW/CW	0%
CW/UW	0%
TOTAL	100%





APPENDIX F - BORING LOGS

TEST BORING LOG Wynn BORING NO.: GZ-601 Wynn Everett SHEET: 1 of 1 PROJECT NO: 01.0171521.10 GeoEnvironmental, Inc. 1 Horizon Way REVIEWED BY: Engineers and Scientists Everett, MA H. Datum: Boring Location: Type of Rig:Geoprobe See Plan Drilling Co.: New England Boring Ground Surface Elev. (ft.): Rig Model: Foreman: Carl Downing V. Datum: Final Boring Depth (ft.): 15 Drilling Method: Direct Push Logged By: J. Tupper Date Start - Finish: 4/14/2016 - 4/14/2016 Auger/Casing Type: Sampler Type: 5' Sleeve Groundwater Depth (ft.) I.D./O.D (in.): 2-1/4" O.D. I.D./O.D.: Date Time Water Depth Casing Stab. Time Sampler Hmr Wt: Hmr Weight (lb.): 4/14/16 0800 Hmr Fall (in.): Sampler Hmr Fall: Other: Casino Sample Remark Field Stratum Depth Blows E Description Sample Description - 3' Steel Standpipe Depth Pen. Rec. Blows SPT Test <u>€</u> Core (ft) No. Modified Burmister (ft.) (in) (in) (per 6 in.) Value Data Rate S-1 0-5.5 60 38 S-1: Dry, dark brown, fine to coarse Sand 0-1' SAND, little Gravel, trace Silt, trace -Bentonite 1-2' Concrete, trace Brick. FILL 5 -Sand 2-13' 5.5 5.5-S-2 60 48 S-2: Wet, gray, Clayey SILT, strong 10 organic odor, red staining on outline of sample. 2" PVC Screen 3-13' 10 10-15 60 60 S-3: Wet, gray, Clayey SILT, strong PEAT organic odor, red staining on outline of sample. 15 15' Bottom of boring at 15 feet. 20 25 30 REMARKS

171521.10 WYNN EVERETT 1 HORIZONWAY.GPJ; STANDARD BORING W/E W/O SMP 2PG2; 6/16/2016

See log key for explanation of sample descriptions and identification procedures. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

TEST BORING LOG Wynn BORING NO.: GZ-602 Wynn Everett SHEET: 1 of 1 GeoEnvironmental, Inc. PROJECT NO: 01.0171521.10 1 Horizon Way REVIEWED BY: Engineers and Scientists Everett, MA H. Datum: Boring Location: Type of Rig:Geoprobe See Plan Drilling Co.: New England Boring Ground Surface Elev. (ft.): Rig Model: Foreman: Carl Downing V. Datum: Final Boring Depth (ft.): 15 Drilling Method: Direct Push Logged By: J. Tupper Date Start - Finish: 4/14/2016 - 4/14/2016 Auger/Casing Type: Sampler Type: 5' Sleeve Groundwater Depth (ft.) I.D./O.D (in.): 2-1/4" O.D. I.D./O.D.: Date Time Water Depth Casing Stab. Time Sampler Hmr Wt: Hmr Weight (lb.): 0900 4/14/16 Hmr Fall (in.): Sampler Hmr Fall: Other: Casino Sample Remark Stratum Field Depth Blows E Description Sample Description Blows - 3' Steel Standpipe Depth Pen. Rec. SPT Test (∰ (€ Core (ft) No. Modified Burmister (in) (in) (ft.) (per 6 in.) Value Data Rate S-1 0-6 60 60 S-1: Dry, dark brown, gray with red Sand 0-1' staining, fine SAND, little Gravel, little ■Bentonite 1-2' Silt, trace Brick, Concrete, Asphalt. 5 -Sand 2-13' S-2 6-12 60 48 S-2: Moist, dark brown with red staining, fine SAND, little Gravel, little FILL Silt, trace Brick, Concrete, Asphalt. 2" PVC Screen 3-13' 10 S-3 12-15 60 60 S-3: Wet, dark brown with red staining, fine SAND, trace Gravel, trace Silt, slight organic odor, trace flaky white debris (gypsum?). 15 15' Bottom of boring at 15 feet. 20 25 30 REMARKS See log key for explanation of sample descriptions and identification procedures. Stratification lines represent approximate boundaries between soil and bedrock

171521.10 WYNN EVERETT 1 HORIZONWAY.GPJ; STANDARD BORING W/E W/O SMP 2PG2; 6/16/2016

See log Key for explanation of sample descriptions and identification procedures. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

TEST BORING LOG Wynn BORING NO.: GZ-603 Wynn Everett SHEET: 1 of 1 GeoEnvironmental, Inc. PROJECT NO: 01.0171521.10 1 Horizon Way REVIEWED BY: Engineers and Scientists Everett, MA H. Datum: Boring Location: Type of Rig:Geoprobe See Plan Drilling Co.: New England Boring Ground Surface Elev. (ft.): Rig Model: Foreman: Carl Downing V. Datum: Final Boring Depth (ft.): 15 Drilling Method: Direct Push Logged By: J. Tupper Date Start - Finish: 4/14/2016 - 4/14/2016 Auger/Casing Type: Sampler Type: 5' Sleeve Groundwater Depth (ft.) I.D./O.D (in.): 2-1/4" O.D. I.D./O.D.: Date Time Water Depth Casing Stab. Time Sampler Hmr Wt: Hmr Weight (lb.): 4/14/16 1000 Hmr Fall (in.): Sampler Hmr Fall: Other: Casino Sample Remark Stratum Field Depth Blows E Description Sample Description - 3' Steel Standpipe Depth Pen. Rec. Blows SPT Test (∰ (€ Core (ft) No. Modified Burmister (in) (in) (ft.) (per 6 in.) Value Data Rate S-1 0-6 60 60 S-1: Dry, brown/orange with red -Sand 0-2' streaking, fine to coarse SAND, trace Gravel, Silt, Brick. ■Bentonite 2-3' 5 -Sand 3-14' S-2 6-9 60 60 S-2: Moist, brown/orange with red and black on outline of sample, medium to FILL fine SAND, trace Gravel, trace Silt. 2" PVC Screen S-3 9-15 60 37 S-3: Wet, brown/gray/orange/red, fine 10 SAND, little Silt, trace Gravel, slight organic odor. 15 15' Bottom of boring at 15 feet. 20 25 30 REMARKS See log key for explanation of sample descriptions and identification procedures. Stratification lines represent approximate boundaries between soil and bedrock

171521.10 WYNN EVERETT 1 HORIZONWAY.GPJ; STANDARD BORING W/E W/O SMP 2PG2; 6/16/2016

See log key for explanation or sample descriptions and identification procedures. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

TEST BORING LOG Wynn BORING NO.: GZ-604 Wynn Everett SHEET: 1 of 1 GeoEnvironmental, Inc. PROJECT NO: 01.0171521.10 1 Horizon Way REVIEWED BY: Engineers and Scientists Everett, MA H. Datum: Boring Location: Type of Rig:Geoprobe See Plan Drilling Co.: New England Boring Ground Surface Elev. (ft.): Rig Model: Foreman: Carl Downing V. Datum: Final Boring Depth (ft.): 15 Drilling Method: Direct Push Logged By: J. Tupper Date Start - Finish: 4/14/2016 - 4/14/2016 Auger/Casing Type: Sampler Type: 5' Sleeve Groundwater Depth (ft.) I.D./O.D (in.): 2-1/4" O.D. I.D./O.D.: Date Time Water Depth Casing Stab. Time Sampler Hmr Wt: Hmr Weight (lb.): 1100 4/14/16 Hmr Fall (in.): Sampler Hmr Fall: Other: Casino Sample Remark Stratum Field Depth Blows E Description Sample Description Blows - 3' Steel Standpipe Depth Pen. Rec. SPT Test (∰ (€ Core (ft) No. Modified Burmister (in) (in) (ft.) (per 6 in.) Value Data Rate S-1 0-6 60 60 S-1: Dry, brown/gray/orange/red, fine -Sand 0-2' to coarse SAND, trace Gravel, Silt, Brick, Concrete. ■Bentonite 2-3' 5 -Sand 3-14' S-2 6-9 60 60 S-2: Moist, brown/gray/orange/red, 6-7' mostly black on outsied of FILL sample, fine to coarse SAND, trace 2" PVC Screen Gravel, Silt, Brick, Concrete. S-3 9-15 60 38 S-3: Wet, gray/black/red/orange, fine 10 SAND, little Silt, trace Gravel, trace Wood Fibers, slight organic odor. 15 15' Bottom of boring at 15 feet. 20 25 30 REMARKS See log key for explanation of sample descriptions and identification procedures. Stratification lines represent approximate boundaries between soil and bedrock

171521.10 WYNN EVERETT 1 HORIZONWAY.GPJ; STANDARD BORING W/E W/O SMP 2PG2; 6/16/2016

See log key for explanation of sample descriptions and identification procedures. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

TEST BORING LOG Wynn BORING NO.: GZ-605 Wynn Everett SHEET: 1 of 1 GeoEnvironmental, Inc. PROJECT NO: 01.0171521.10 1 Horizon Way REVIEWED BY: Engineers and Scientists Everett, MA H. Datum: Boring Location: Type of Rig:Geoprobe See Plan Drilling Co.: New England Boring Ground Surface Elev. (ft.): Rig Model: Foreman: Carl Downing V. Datum: Final Boring Depth (ft.): 20 Drilling Method: Direct Push J. Tupper Logged By: Date Start - Finish: 4/14/2016 - 4/14/2016 Sampler Type: 5' Sleeve Groundwater Depth (ft.) Auger/Casing Type: I.D./O.D (in.): 2-1/4" O.D. I.D./O.D.: Date Time Water Depth Casing Stab. Time Sampler Hmr Wt: Hmr Weight (lb.): 1200 14.5' 4/14/16 Hmr Fall (in.): Sampler Hmr Fall: Other: Other: Casino Sample Remark Stratum Field Depth Blows E Description Sample Description Blows -3' Steel Standpipe Depth Pen. Rec. SPT Test (∰ (€ Core (ft) No. Modified Burmister (in) (in) (ft.) (per 6 in.) Value Data Rate S-1 0-5 60 26 S-1: Dry, dark brown, fine to coarse SAND, some Gravel, little Concrete, -Sand 0-3' trace Silt. -Bentonite 3-4' 5 S-2 5-10 60 36 S-2: Moist, dark brown/orange, fine to coarse SAND, some Concrete, trace Gravel, Silt, Wood Fragments. -Sand 4-15' FILL 10 2" PVC Screen S-3 10-15 60 40 S-3: Moist (wet 14-15'?), fine to 5-15' coarse SAND, little Brick, trace Wood, Silt, Gravel, Gypsum. 15 S-4 15-20 60 47 S-4: First 6": Wet, gray, Clayey SILT, 16' little Fine Sand, slight organic odor. ORGANIC SILT 20 Bottom of boring at 20 feet. 25 30 REMARKS

See log key for explanation of sample descriptions and identification procedures. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

TEST BORING LOG Wynn BORING NO.: GZ-606 Wynn Everett SHEET: 1 of 1 PROJECT NO: 01.0171521.10 GeoEnvironmental, Inc. 1 Horizon Way REVIEWED BY: Engineers and Scientists Everett, MA H. Datum: Boring Location: Type of Rig:Geoprobe See Plan Drilling Co.: New England Boring Ground Surface Elev. (ft.): Rig Model: Foreman: Carl Downing V. Datum: Final Boring Depth (ft.): 15 Drilling Method: Direct Push Logged By: J. Tupper Date Start - Finish: 4/14/2016 - 4/14/2016 Auger/Casing Type: Sampler Type: 5' Sleeve Groundwater Depth (ft.) I.D./O.D (in.): 2-1/4" O.D. I.D./O.D.: Date Time Water Depth Casing Stab. Time Sampler Hmr Wt: Hmr Weight (lb.): 4/14/16 1300 14.5' Hmr Fall (in.): Sampler Hmr Fall: Other: Other: Casino Sample Remark Stratum Field Depth Blows E Description Sample Description - 3' Steel Standpipe Depth Pen. Rec. Blows SPT Test (∰ (€ Core (ft) No. Modified Burmister (ft.) (in) (in) (per 6 in.) Value Data Rate S-1 0-5 S-1: Dry, dark brown/gray, fine to coarse SAND, some Gravel, trace -Sand 0-3' Brick, Concrete, Silt. -Bentonite 3-4' 5 S-2 5-10 S-2: Dry (8-10' moist), dark brown/orange/red streaking, fine to coarse SAND, some Gravel, little Brick, trace Silt, trace Asphalt. FILL -Sand 4-15' 10 2" PVC Screen 10-15 S-3: Moist (wet approx. 14.5'), dark 5-15' brown, fine to coarse SAND, little Gravel, trace Wood, trace Gypsum, trace Metal, Silt. 15 15' Bottom of boring at 15 feet. 20 25 30 REMARKS See log key for explanation of sample descriptions and identification procedures. Stratification lines represent approximate boundaries between soil and bedrock **Boring No.:** types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may

GZ-606

171521.10 WYNN EVERETT 1 HORIZONWAY.GPJ; STANDARD BORING W/E W/O SMP 2PG2; 6/16/2016

occur due to other factors than those present at the times the measurements were made.