

BADGER BLUFF SANDS LLC

AMBIENT AIR MONITORING PLAN

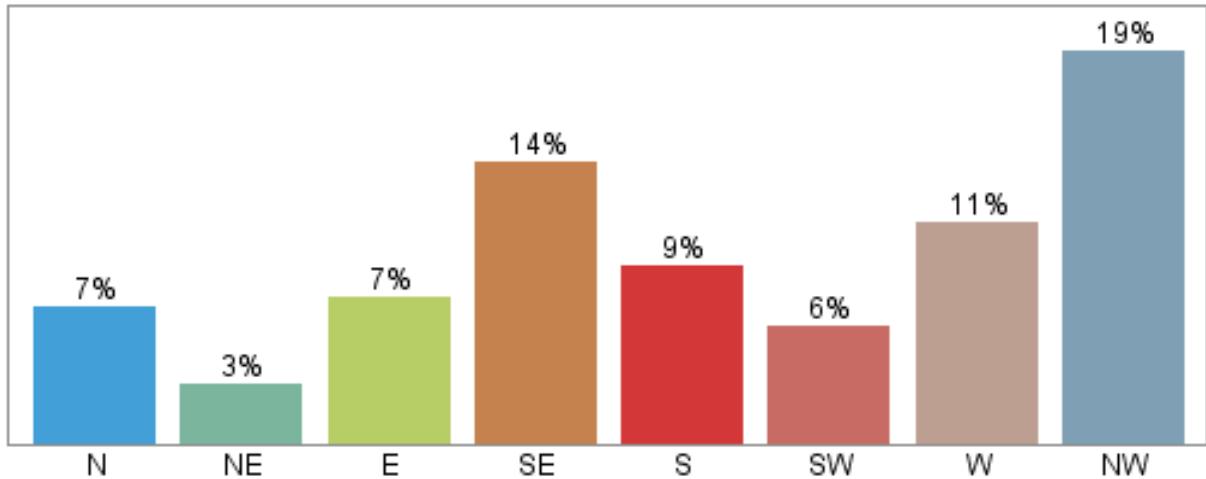
1.0 Introduction

Badger Bluff Sands LLC (Badger Bluff Sands) has voluntarily committed to conduct ambient air monitoring. Badger Bluff Sands will conduct ambient air monitoring for particulate matter less than 10 microns (PM10) to determine ambient concentrations. Those less than 10 micrometers in diameter are a potential concern for health problems. Badger Bluff Sands is committed to protect its employees and neighbors from any potential air emissions concerns.

2.0 Monitoring Stations

The overall strategy for assessing impacts from potential PM10 emissions at Badger Bluff Sands is to monitor ambient air between the site and nearby properties. Monitoring stations will be placed at two locations. One PM10 monitoring station will be placed on the Northwest corner of the property near the property line. Placing monitors near the facility property line will give the earliest possible indication of any airborne contaminant migration moving off property. Another monitoring station will be placed on the South East corner of the property near the property line. At these monitoring stations, Badger Bluff Sands will monitor for PM10. The location of these monitors is based on wind data typical weather at the Winona Municipal Airport (Max Conrad Field), Winona Minnesota, weather station over course of an average year. It is based on the historical records from 1992 to 2012. Prevailing wind direction is North West and second leading wind direction is South East. Prevailing wind directions is shown in below. Based on the prevailing wind directions, placement of the monitors will allow us to monitor the air moving through the site. Mining is planned to progress through 3 phases. As mining progresses in each phase; the monitors will be moved appropriately throughout the mine. The locations of the proposed ambient air monitors are shown on the attached map.

Wind Directions Over the Entire Year



The fraction of time spent with the wind blowing from the various directions over the entire year. Values do not sum to 100% because the wind direction is undefined when the wind speed is zero.

3.0 Sampling

Sampler

Badger Bluff Sands will use two ADR1500 Area Dust Monitors from Thermo Scientific. The ADR1500 uses nephelometer technology. The sampler height will be 6 feet above the ground, and at least 60 feet away from the nearest trees or obstructions. The ADR1500 specifications are attached.

Frequency

It is expected that PM10 concentrations will be below the National Ambient Air Quality Standards (NAAQS). The ADR1500 is a continuous monitoring station and will provide data throughout Badger Bluff Sands operations. Badger Bluff Sands will collect data weekly and review the results internally. If at any point, Badger Bluff Sands is within 80% of the NAAQS limit; Badger Bluff Sands will make appropriate changes to reduce airborne particulates. Badger Bluff will begin PM10 monitoring upon the commencement of mining and will continue to monitor for the life of the mine. The ADR1500 operating temperature range is between 14 and 122 degrees Fahrenheit, when temperatures are outside that range, readings will be considered not valid. It is not expected that Badger Bluff Sands will be operating during winter months.

4.0 REPORTING

Badger Bluffs will submit an annual report to Buffalo County Department of Land Resources and to the Town of Waumandee board summarizing the ambient air monitoring results. The reports will be submitted by February 15th of each calendar year.