

Dust Monitoring Daily Logs

May 6 to August 6, 2004

McCoy Field / Keith Middle School Project

Dust Monitoring Summary
June 11, 2004 through August 10, 2004

Summary of Construction Activities Performed

Construction activities conducted to date on the Site include the following, listed below. The activities referenced below are listed in the approximate order in which they were conducted.

- 1-Mobilization to Site, including delivery of construction equipment, materials, and supplies, construction of clean gravel roadways, installation of wetland protection measures, and installation of security fence around perimeter of Site. (May 2004)
- 2-Excavation and off-site management of contaminated soil along southwestern wetland embankment. (Mid-June 2004)
- 3-Stabilization, backfilling, and grading of northern and western wetland embankment areas. (Mid-June 2004)
- 4-Excavation and off-site management of contaminated soil within utility corridor during drain and sewer line installation projects. (Mid-June through mid-July 2004)
- 5-Installation of sewer and drain pipelines and associated manhole structures. (Mid-June through mid-July 2004)
- 6-Backfill and compaction of utility corridor after installation of sewer and drain pipe. (Mid-June through mid-July 2004)
- 7-Excavation and off-site management of contaminated soil along northern and northwestern wetland embankments. (Mid to late-July 2004)
- 8-Installation of roof drain outfall structures along western embankment. (Late-July to early-August 2004)
- 8-Stabilization, backfilling, and grading of northern and northwestern wetland embankment areas. Loaming of all embankment areas. (Late-July 2004, loaming early August 2004)
- 9-Clearing of utility corridor extension which connects McCoy Field to Summit Street (west of Site). (Early-August 2004)
- 10-Tie-in to sewer line and replacement of drain line within utility corridor extension, backfilled with clean fill excavated from the same area. (Tie-in to sewer line late-July 2004. Replacement of drain line early to mid-August 2004)

Summary of Dust Monitoring Results

Dust monitoring on-site has been conducted since June 11, 2004, which was the first day of excavation and management of contaminated soil. Real-time readings have been collected by BETA personnel using a Personal Data Ram (PDR) dust monitoring unit. Readings are collected approximately every 15 minutes during contaminated soil management activities, and approximately every 30 minutes during periods without

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contaminated soil management activities. Readings are collected by BETA personnel in an approximate triangular formation, in an attempt to gauge concentrations at upwind, crosswind, and downwind locations, relative to the primary work area on-site.

A second dust monitoring unit was brought to the Site for the purpose of conducting automatic logging at regular 15-minute intervals within an area considered to be in close proximity to the working area, preferably downwind or crosswind from the working area.

Throughout the project-to-date, manual dust monitoring readings have generally averaged between zero (on dry mornings and at times when there is no activity on Site) up to .200 mg/m³ (during foggy mornings, or during periods of excessive nuisance dust generated from clean sandy roadways). Manual readings most consistently read between .010 and .080 mg/m³.

Automatic dust monitoring logging has been conducted regularly since June 14, 2004. The automatic logging feature of this unit collects continuous readings over a 15-minute period, and reports the average for that period. The unit continues to log in 15-minute intervals, and reports a daily log sheet, representing up to 32 data pieces over a typical 8-hour working day. The unit also calculates a daily average for dust concentrations. With few exceptions, daily averages are significantly below 0.100 mg/m³. On four days, the average dust concentration was over 0.100 mg/m³. The daily average never exceeded 0.200 mg/m³.

Discreet measurements collected on both the manual PDR and the logging unit have occasionally exceeded the risk-based concentration thresholds of 0.404 mg/m³ for on-site construction workers, and 0.692 mg/m³ for off-site residents. These elevated measurements are momentary inflated concentrations, and the readings on both units do not maintain these elevated levels for more than 10 to 15 seconds. Reasons observed for these occasional elevated readings include diesel fuel emissions from nearby equipment, momentary drive-by of large construction vehicles which generate temporary nuisance dust, and on one occasion a temporary malfunction of the dust monitoring unit itself.

BETA personnel have kept a close eye on dust monitoring concentrations throughout the project-to-date, and have been diligent about recognizing situations when dust concentrations begin to rise. WES Construction personnel have been thorough in their actions to provide wetting operations during periods of dry site conditions (particularly in the afternoon hours), both with and without direction from BETA personnel.

Overall, dust generation has been kept under control by BETA and WES personnel throughout the project-to-date. Dust monitoring efforts will continue throughout the remainder of soil excavation-related site activities.

McCoy Field-Keith Middle School Construction Project New Bedford, MA

Daily Field Notes and Dust Monitoring

Date: May 6, 2004

Field Personnel: Christian Alarie, BETA Group, Inc.

Time on Site: 7:00-12:00

Weather: AM- Sunny 60°

PM-

Wind: Not Gauged

Summary of Activities Performed

WES Construction worked on surveying quadrants, inspecting grounds and laying geotextile fabric and gravel on the access road. No excavation activities took place today.

Summary of Dust Monitoring Results

Due to the limited activity and type of activities occurring at the site, dust monitoring did not occur today.

McCoy Field-Keith Middle School Construction Project New Bedford, MA

Daily Field Notes and Dust Monitoring

Date: June 1, 2004

Field Personnel: Christian Alarie, BETA Group, Inc.

Time on Site: 7:00-10:00

Weather: AM- Cloudy 70°

PM-

Wind: 7 am- Light, from North

Summary of Activities Performed

Very little work was done in the morning. WES Construction worked on the silt fence along the embankments near the wetlands and completed some minor surveying work.

No excavation activities took place and no soil was removed from the Site today.

Summary of Dust Monitoring Results

Dust monitoring was not conducted today. No excavation or soil removal activities took place at the Site today.

McCoy Field-Keith Middle School Construction Project New Bedford, MA

Daily Field Notes and Dust Monitoring

Date: June 10, 2004

Field Personnel: Jim Smith-BETA Group, Inc.
Wendy Hicks-Smith & Wessel

Time on Site: 8:00-11:15

Weather: AM- sunny, 55°
Wind:

PM- 60°

Summary of Activities Performed

Trained to use dust monitoring unit by Wendy Hicks. One dust monitoring unit on-site.

Land Planning on-site to stake out boring locations.

WES Construction extending stone loading ramp from Hathaway Road to western portion of Site.

Wes conducting other site preparation activities.

No soil excavation/hazardous material generation today.

Summary of Dust Monitoring Results

Dust monitoring not conducted today, based on type of activities conducted and lack of soil excavation work.

McCoy Field-Keith Middle School Construction Project New Bedford, MA

Daily Field Notes and Dust Monitoring

Date: June 11, 2004

Field Personnel: Jim Smith-BETA Group, Inc.
Wendy Hicks-Smith & Wessel

Time on Site: 7:00-15:00

Weather: AM- sunny, 55°
Wind:

PM- 60°

Summary of Activities Performed

WES Construction excavating soil from southern portion of embankment. Generated soil being transported from Site in 30-yard trailer trucks.

WES grading, terracing, and lining embankment slope after the required amount of contaminated soil is removed. Terracing conducted in step formation, lined with semi-permeable filter fabric, then backfilled with clean fill.

Total of 8 truck loads hauled from Site today.

Summary of Dust Monitoring Results

One dust monitoring unit on-site.

Dust monitoring conducted in approximate ½ hour intervals, particularly during the excavation, stockpiling, and loading of contaminated soil.

Obtain copy of field notes from Wendy Hicks for measurements and average concentration, etc.

McCoy Field-Keith Middle School Construction Project New Bedford, MA

Daily Field Notes and Dust Monitoring

Date: June 14, 2004

Field Personnel: Christian Alarie, BETA Group, Inc.

Time on Site: 7:00-15:15

Weather: AM- Overcast, 60 to 70°

PM- Overcast, Rainy, 70°

Wind:

Summary of Activities Performed

WES Construction worked on excavating soil from embankment quadrants Q-2 and Q-3. Contaminated soil from Q-2 and Q-3 were loaded into trailer trucks for off-site management. WES worked on laying geotextile fabric, backfilling (clean sand and gravel), grading, and compacting Q-2 and Q-3 as appropriate.

WES worked on surveying the embankment quadrants to determine precise measurements for soil removal and terracing.

Total of 8 truck loads of contaminated soil were removed from the Site today.

Summary of Dust Monitoring Results

McCoy Field-Keith Middle School Construction Project New Bedford, MA

Daily Field Notes and Dust Monitoring

Date: June 15, 2004

Field Personnel: Christian Alarie, BETA Group, Inc.

Time on Site: 7:00-14:45

Weather: AM- Overcast, 70°

PM- Hot, Humid, 80 to 90°

Wind:

Summary of Activities Performed

WES Construction worked on excavating soil from embankment quadrants Q-2 and Q-3. Contaminated soil from Q-2 and Q-3 were loaded into trailer trucks for off-site management. WES worked on laying geotextile fabric, backfilling (clean sand and gravel), grading, and compacting Q-2 and Q-3 as appropriate.

Total of 5 truck loads of contaminated soil were removed from the Site today.

Summary of Dust Monitoring Results

McCoy Field-Keith Middle School Construction Project New Bedford, MA

Daily Field Notes and Dust Monitoring

Date: June 16, 2004

Field Personnel: Christian Alarie, BETA Group, Inc.

Time on Site: 6:50-14:50

Weather: AM- Sunny, Warm 70°

PM- Hot, Humid, Sunny 80 to 90°

Wind:

Summary of Activities Performed

WES Construction worked on excavating soil from embankment quadrants Q-3 and Q-4. Excavation activities reached the utility corridor before stopping today. Contaminated soil from Q-3 and Q-4 were loaded into trailer trucks for off-site management. WES worked on laying geotextile fabric, backfilling (clean sand and gravel), grading, and compacting Q-3 and Q-4 as appropriate.

WES worked on surveying the embankment quadrants to determine precise measurements for soil removal and terracing.

Total of 2 truck loads of contaminated soil were removed from the Site today.

Summary of Dust Monitoring Results

McCoy Field-Keith Middle School Construction Project New Bedford, MA

Daily Field Notes and Dust Monitoring

Date: June 18, 2004

Field Personnel: Jim Smith, BETA Group, Inc.

Time on Site: 6:30-15:00

Weather: AM- foggy, damp, 70° PM- drier, 75°

Wind: light, from N/NE

Summary of Activities Performed

WES Construction excavating soil from utility corridor quadrants Q-39, Q-38. A portion of the topsoil excavated from this area appeared clean but was considered clean but was considered contaminated based on conversation with Jackie Huggins (BETA) regarding soil sampling precharacterization data. Contaminated soil being loaded into trailer trucks for off-site management.

WES backfilling, grading, and compacting southern portion of embankment.

Lead stabilization conducted by WES for soil located in Q-36. Samples collected by BETA after stabilization mixing was complete. Sample to be submitted to lab for 24-hour turnaround. Results will indicate method for off-site management.

Layer of asphalt (approximately 10" thick) located at 3 feet below ground surface in Q-39. WES mixed with contaminated soil for off-site management.

Total of 4 truck loads of contaminated soil hauled from Site today.

Summary of Dust Monitoring Results

Two dust monitoring units on-site. One unit for manual logging, and one unit set up for automatic logging (every 15 minutes). Logging unit TAG # 1.

All dust monitoring locations exhibited elevated levels of particulates in the morning. The likely cause for this was the foggy, humid conditions in the air. This was confirmed with a conversation to Wendy Hicks of Smith & Wessel.

Average concentrations from manual logging in the morning were in the .100-.200 mg/m³ range. Average concentrations in the afternoon were approximately .030-.040 mg/m³.

Today's automatic dust monitoring logging data is identified as TAG # 1. The logging unit compiled average dust concentrations every fifteen minutes throughout the day. The fifteen-minute averages ranged between approximately 0.02-0.381 mg/m³. The overall average concentration for the day was less than 0.107 mg/m³.

McCoy Field-Keith Middle School Construction Project New Bedford, MA

Daily Field Notes and Dust Monitoring

Date: June 21, 2004

Field Personnel: Barbara Markley, BETA Group, Inc.

Time on Site: 6:30-15:30

Weather: AM- Sunny, 60 to 70°

PM-

Wind: Light, South to Northwest

Summary of Activities Performed

WES Construction excavated soil from utility corridor quadrants Q-36, Q-37 and Q-38. Contaminated soil was loaded into trailer trucks for off-site management.

Total of 2 truck loads of contaminated soil were hauled from the Site today.

Summary of Dust Monitoring Results

Two dust monitoring units on-site. One unit for manual logging and one unit set up for automatic logging (every 15 minutes). Logging unit TAG #4

All dust monitoring locations exhibited low ($<0.100 \text{ mg/m}^3$) to moderate levels (0.100 to 0.400 mg/m^3) of particulates with the exception of a cross wind reading of 0.417 mg/m^3 recorded at 11:30 am. The moderate to high readings were as a result of either laying clean gravel in the excavated areas, the compaction of said material, dust and/or diesel fumes generated by the movement of construction vehicles along the dirt access road. The access road and clean sand and gravel being moved and placed in the utility corridor were wet down several times during the course of the day.

Concentrations from manual logging in the morning ranged from $.003$ - $.035 \text{ mg/m}^3$, with a one time spike of 0.417 mg/m^3 and an average concentration of 0.029 mg/m^3 . Concentrations from manual logging in the afternoon ranged from $.000$ - $.154 \text{ mg/m}^3$, with an average concentration of 0.025 mg/m^3 .

McCoy Field-Keith Middle School Construction Project New Bedford, MA

Daily Field Notes and Dust Monitoring

Date: June 22, 2004

Field Personnel: Barbara Markley, BETA Group, Inc.

Time on Site: 6:30-14:45

Weather: AM- Cloudy, Rainy, 60 to 70° PM- Cloudy, 60 to 70°

Wind: Light, North to South

Summary of Activities Performed

WES Construction excavated soil from utility corridor quadrant Q-37. Contaminated soil was loaded into trailer trucks for off-site management. A sewer pipe was placed in quadrant Q-37. Quadrant Q-37 was backfilled with clean fill (sand and gravel). Utility corridor quadrant Q-36 could not be excavated due to a waste management acceptance issue, WES therefore concentrated on backfilling previously excavated portions of the utility corridor. WES placed portions of the manhole for the drain in Q-37.

Total of 2 truck loads of contaminated soil were hauled from the Site today.

Summary of Dust Monitoring Results

Two dust monitoring units on-site. One unit for manual logging and one unit set up for automatic logging (every 15 minutes). Logging unit TAG #12

All dust monitoring locations exhibited low (<0.100 mg/m³) to moderate levels (0.100 to 0.400 mg/m³) of particulates. The moderately high readings were as a result of either laying clean gravel in the excavated areas, the compaction of said material, or dust and/or diesel fumes generated by the movement of construction vehicles along the dirt access road. The access road and clean sand and gravel being moved and placed in the utility corridor were wet down several times during the course of the day.

Concentrations from manual logging in the morning ranged from .003-.260 mg/m³, with an average concentration of 0.037 mg/m³. Concentrations from manual logging in the afternoon ranged from .003-.145 mg/m³, with an average concentration of 0.069 mg/m³.

McCoy Field-Keith Middle School Construction Project New Bedford, MA

Daily Field Notes and Dust Monitoring

Date: June 23, 2004

Field Personnel: Barbara Markley, BETA Group, Inc.

Time on Site: 6:20-14:45

Weather: AM- Overcast, Humid, 60 to 70° PM-

Wind: Light, South to North

Summary of Activities Performed

WES Construction excavated soil from utility corridor quadrants Q-36 and Q-37. Contaminated soil was loaded into trailer trucks for off-site management. Removed soil from Q-37 stockpile. Backfilled and compacted Q-37 and previously excavated portions of the utility corridor with clean fill (sand and gravel). Soil excavated from Q-36 was stockpiled on-Site for later disposal.

Total of 4 truck loads of contaminated soil were hauled from the Site today.

Summary of Dust Monitoring Results

Two dust monitoring units on-site. One unit for manual logging and one unit set up for automatic logging (every 15 minutes). Logging unit TAG #2 and #3.

All dust monitoring locations exhibited low ($<0.100 \text{ mg/m}^3$) to moderate levels (0.100 to 0.400 mg/m^3) of particulates. The moderately high readings were as a result of either laying clean gravel in the excavated areas, the compaction of said material, or dust and/or diesel fumes generated by the movement of construction vehicles along the dirt access road. The access road and clean sand and gravel being moved and placed in the utility corridor were wet down several times during the course of the day.

Concentrations from manual logging in the morning ranged from $.009$ -. 152 mg/m^3 , with an average concentration of 0.034 mg/m^3 . Concentrations from manual logging in the afternoon ranged from $.000$ -. 164 mg/m^3 , with an average concentration of 0.037 mg/m^3 .

McCoy Field-Keith Middle School Construction Project New Bedford, MA

Daily Field Notes and Dust Monitoring

Date: June 24, 2004

Field Personnel: Jim Smith, BETA Group, Inc.

Time on Site: 6:30-15:00

Weather: AM- sunny, 70°

PM- sunny, 80°

Wind: light, from NE

Summary of Activities Performed

WES Construction excavating soil from utility corridor quadrants Q-35, Q-34. Contaminated soil being loaded into trailer trucks for off-site management.

WES backfilling, grading, and compacting in quadrants Q-38, Q-37.

Additional soil sampling in quadrants Q-28 and Q-27 was conducted by WES and BETA. Samples were submitted to lab for 24-hour turnaround. Results will be required by receiving facility prior to disposal of soil in subject area.

Total of 7 truck loads of contaminated soil hauled from Site today.

Summary of Dust Monitoring Results

Two dust monitoring units on-site. One unit (02352) for manual logging, and one unit (04701) set up for automatic logging (every 15 minutes).

Manual dust monitoring readings averaged .020-.030 mg/m³ in the morning. The readings averaged between .040-.050 mg/m³ for much of the afternoon, due to drying, slightly dusty site conditions. Dust registering on the monitoring units was primarily clean nuisance dust from vehicle driving, etc. WES conducted occasional wetting operations to suppress nuisance dust.

Today's automatic dust monitoring logging data is identified as TAG # 4. The logging unit compiled average dust concentrations every fifteen minutes throughout the day. The fifteen-minute averages ranged between approximately 0.01-0.03 mg/m³. The overall average concentration for the day was 0.015 mg/m³.

McCoy Field-Keith Middle School Construction Project New Bedford, MA

Daily Field Notes and Dust Monitoring

Date: June 25, 2004

Field Personnel: Jim Smith, BETA Group, Inc.

Time on Site: 6:30-15:00

Weather: AM- cloudy, foggy, 65° PM- cloudy, 80°

Wind: light, from S

Summary of Activities Performed

WES Construction excavating soil from utility corridor quadrants Q-34, Q-33, Q-28. Contaminated soil being loaded into trailer trucks for off-site management.

WES installing sewer and drain pipes, backfilling, and compacting in quadrants Q-38, Q-37.

Frac tank delivered to Site around 7:00 for dewatering containment. Dewatering efforts were conducted during excavation to install sewer line (approximately 14' deep).

Based on laboratory results, soil from 0-6' depth in Q-28 was excavated and loaded for off-site management. Soil from 6'-12' was left in place for lead stabilization on 6/28/04. WES excavated top 5' in Q-33 to provide buffer to contain soil in Q-28 during stabilization efforts.

Total of 7 truck loads of contaminated soil hauled from Site today.

Summary of Dust Monitoring Results

Two dust monitoring units on-site. One unit (02352) for manual logging, and one unit (04701) set up for automatic logging (every 15 minutes). Manual dust monitoring readings averaged .030-.050 mg/m³ during the day.

Today's automatic dust monitoring logging data is identified as both TAG # 5 and TAG # 6. Two information TAGs were saved because a change of battery in the unit around 10:00 necessitated the creation of a new TAG after restarting the unit. The logging unit compiled average dust concentrations every fifteen minutes throughout the day. The fifteen-minute averages ranged between approximately 0-0.02 mg/m³. The overall average concentration for the day was less than 0.01 mg/m³.

McCoy Field-Keith Middle School Construction Project New Bedford, MA

Daily Field Notes and Dust Monitoring

Date: June 29, 2004

Field Personnel: Christian Alarie, BETA Group, Inc.

Time on Site: 6:15-14:45

Weather: AM- Rainy, Foggy, Damp, 60° PM- Warm, Sunny, 75°

Wind: 7 am-Light, from North
8:30 am-Light, from West
11 am-Strong, from South
12:45 pm-Strong, from North

Summary of Activities Performed

WES Construction worked on the silt fence along sections of the embankments near the wetlands, excavated and stockpiled soils from embankment quadrants Q-4 and Q-5, worked on surveying sections of the embankments and moved clean fill (sand) towards the utility corridor.

No soil was removed from the site for off-site disposal.

Summary of Dust Monitoring Results

Two dust monitoring units on-site. One unit for manual logging and one unit set up for automatic logging (every 15 minutes). Logging unit TAG # 8.

All dust monitoring locations exhibited low levels ($<0.100 \text{ mg/m}^3$) of particulates with the exception of one reading (0.179 mg/m^3) that was recorded at 2:10 pm.

Concentrations from manual logging in the morning were in the $.009-.071 \text{ mg/m}^3$ range. Concentrations in the afternoon were in the $.000-.098 \text{ mg/m}^3$ range.

McCoy Field-Keith Middle School Construction Project New Bedford, MA

Daily Field Notes and Dust Monitoring

Date: June 30, 2004

Field Personnel: Christian Alarie, BETA Group, Inc.

Time on Site: 6:55-14:45

Weather: AM- Warm, Sunny 70°

PM- Warm, Sunny, 80 to 85°

Wind: 7 am-Light, from South
7:30-Strong, from North

Summary of Activities Performed

WES Construction excavated soil from utility corridor quadrants Q-27 and Q-28.

Contaminated soil was loaded into trailer trucks for off-site management from utility corridor quadrants Q-27 and Q-28.

WES laid drain and sewer pipes in utility corridor Q-27 and Q-28 as well as laid geotextile fabric, backfilled (clean sand and gravel), graded, and compacted area as appropriate.

Total of 7 truck loads of contaminated soil were removed from the Site today.

Summary of Dust Monitoring Results

Two dust monitoring units on-site. One unit for manual logging and one unit set up for automatic logging (every 15 minutes). Logging unit TAG # 9.

All dust monitoring locations exhibited low ($<0.100 \text{ mg/m}^3$) to moderate levels (0.100 to 0.400 mg/m^3) of particulates. The down wind readings recorded at 9:40, 10:06, 10:35, the cross reading recording at 11:45 and the up wind measurement recorded at 12:58 exhibited particulate concentrations of 0.108 to 0.206 mg/m^3 . The cause of the moderate levels of particulates were as a result of either laying clean gravel in the excavated areas or dust and/or diesel fumes generated by the movement of construction vehicles along the dirt access road. The road and gravel were wet down following the moderate readings, so as to prevent the generation of dust. The resulting particulate concentrations were less than 0.032 mg/m^3 .

Concentrations from manual logging in the morning ranged from .000-.206 mg/m³, with an average concentration of 0.043 mg/m³. Concentrations from manual logging in the afternoon ranged from .014-.097 mg/m³, with an average concentration of 0.049 mg/m³.

McCoy Field-Keith Middle School Construction Project New Bedford, MA

Daily Field Notes and Dust Monitoring

Date: July 2, 2004

Field Personnel: Christian Alarie, BETA Group, Inc.

Time on Site: 6:35-14:00

Weather: AM- Overcast, 70°
9:45 am- Foggy, Rainy

PM- Warm, Sunny, 70 to 80°

Wind: 7 am-Light, from South
8:45 am-Strong, from South

Summary of Activities Performed

WES Construction excavated soil from utility corridor quadrants Q-23, Q-24, Q-25 and Q-26.

Contaminated soil was loaded into trailer trucks for off-site management from utility corridor quadrants Q-25 and Q-26. Stockpiled soil from utility corridor quadrants Q-23, Q-24 and Q-25 were placed at grade adjacent to their respective quadrant for later disposal.

WES laid drain and sewer pipes in utility corridor quadrants Q-25 and Q-26, as well as laid geotextile fabric, backfilled (clean sand and gravel), graded, and compacted each area as appropriate. WES also, worked on laying geotextile fabric, backfilling (clean sand and gravel), grading, and compacting utility quadrants Q-27, Q-28, Q-33 and Q-34 as appropriate.

Manholes were installed in utility quadrant Q-27.

Total of 4 truck loads of contaminated soil were removed from the Site today.

Summary of Dust Monitoring Results

Two dust monitoring units on-site. One unit for manual logging and one unit set up for automatic logging (every 15 minutes). Logging unit TAG # 12.

All dust monitoring locations exhibited low (<0.100 mg/m³) to moderate (0.100 to 0.400 mg/m³) levels of particulates with the exception of the down wind reading collected at 10:45 am which exhibited a reading of 0.623 mg/m³. That down wind reading and all

moderately high readings ($>0.100 \text{ mg/m}^3$) were as a result of either laying clean gravel in the excavated areas, the compaction of said material, dust and/or diesel fumes generated by the movement of construction vehicles along the dirt access road, or as a result of dust generated during manhole saw cutting activities. The road and clean sand and gravel being moved and placed in the utility corridor were wet down several times during the course of the day including immediately after the detection of significant concentrations of airborne particulates.

Concentrations from manual logging in the morning ranged from $.000-.124 \text{ mg/m}^3$, with an average concentration of 0.064 mg/m^3 and a one time spike of 0.623 mg/m^3 . Concentrations from manual logging in the afternoon ranged from $.062-.137 \text{ mg/m}^3$, with an average concentration of 0.094 mg/m^3 .

McCoy Field-Keith Middle School Construction Project New Bedford, MA

Daily Field Notes and Dust Monitoring

Date: July 7, 2004

Field Personnel: Christian Alarie, BETA Group, Inc.

Time on Site: 6:35-15:15

Weather: AM- Sunny 60 to 70°

PM- Warm, Sunny, 70 to 80°

Wind: 7 am-Light, from Northeast
12:25 pm-light, from South

Summary of Activities Performed

WES Construction excavated and/or removed soil from utility corridor quadrants Q-18 through Q-21. Contaminated soil was loaded into trailer trucks for off-Site management from utility corridor quadrants Q-20 through Q-22. WES also excavated and stockpiled soil from utility corridor quadrants Q-18 and Q-19 for later disposal.

WES laid drain and sewer pipes in utility corridor Q-20 as well as laid geotextile fabric, backfilled (clean sand and gravel), graded, and compacted that area as appropriate. WES also worked on laying geotextile fabric, backfilling (clean sand and gravel), grading, and compacting utility quadrants Q-21, Q-22 and Q-23 as appropriate.

Total of 6 truck loads of contaminated soil were removed from the Site today.

Summary of Dust Monitoring Results

Two dust monitoring units on-site. One unit for manual logging and one unit set up for automatic logging (every 15 minutes). Logging unit TAG # 15.

All dust monitoring locations exhibited low ($<0.100 \text{ mg/m}^3$) to moderate ($<0.400 \text{ mg/m}^3$) levels of particulates. All moderately high particulate readings were as a result of either laying clean gravel in the excavated areas, the compaction of said material or dust and/or diesel fumes generated by the movement of construction vehicles along the dirt access road. The road and clean sand and gravel being moved and placed in the utility corridor were wet down several times during the course of the day including immediately after the detection of significant concentrations of airborne particulates.

Concentrations from manual logging in the morning ranged from .000-.166 mg/m³, with an average concentration of 0.024 mg/m³. Concentrations from manual logging in the afternoon ranged from .062-.277 mg/m³, with an average concentration of 0.057 mg/m³.

McCoy Field-Keith Middle School Construction Project New Bedford, MA

Daily Field Notes and Dust Monitoring

Date: July 14, 2004

Field Personnel: Christian Alarie, BETA Group, Inc.

Time on Site: 6:45-14:45

Weather: AM- Overcast, Rainy 60 to 70° PM-

Wind: 7 am-Strong, from North

Summary of Activities Performed

WES Construction excavated soil from utility corridor quadrants Q-3 through Q-6.

Contaminated soil was loaded into trailer trucks for off-site management from utility corridor quadrants Q-3 through Q-6. WES also, excavated and stockpiled soil from utility corridor quadrants Q-3 and Q-4 for later disposal.

WES laid drain and sewer pipes in utility corridor quadrants Q-3 through Q-7, as well as laid geotextile fabric, backfilled (clean sand and gravel), graded, and compacted those areas as appropriate.

Total of 8 truck loads of contaminated soil were removed from the Site today.

Summary of Dust Monitoring Results

Two dust monitoring units on-site. One unit for manual logging and one unit set up for automatic logging (every 15 minutes). Logging unit TAG # 25.

All dust monitoring locations exhibited low ($<0.100 \text{ mg/m}^3$) levels of particulates.

Concentrations from manual logging in the morning ranged from .001-.035 mg/m^3 , with an average concentration of 0.014 mg/m^3 . Concentrations from manual logging in the afternoon ranged from .000-.067 mg/m^3 , with an average concentration of 0.013 mg/m^3 .

McCoy Field-Keith Middle School Construction Project New Bedford, MA

Daily Field Notes and Dust Monitoring

Date: July 21, 2004

Field Personnel: Christian Alarie, BETA Group, Inc.

Time on Site: 6:50-14:45

Weather: AM- Sunny, Warm, Humid 80° PM- Warm, Sunny, 80 to 90°

Wind: 7 am-Light, from North
11:50 am light, from South

Summary of Activities Performed

WES Construction excavated soil from embankment quadrants Q-4 through Q-6.

Contaminated soil was loaded into trailer trucks for off-Site management from embankment quadrants Q-4 through Q-6.

WES worked on sloping embankment sections Q-4 through Q-6 as well as excavated and stockpiled soil from embankment Q-5 and Q-6 for later disposal.

WES laid geotextile fabric, backfilled (clean sand and gravel), graded, and compacted embankment section Q-5 and portions of Q-4 and Q-6 as appropriate and worked on compacting clean fill in sections of the utility corridor.

Total of 4 truck loads of contaminated soil were removed from the Site today.

Summary of Dust Monitoring Results

Two dust monitoring units on-site. One unit for manual logging and one unit set up for automatic logging (every 15 minutes). Logging unit TAG # 33.

All dust monitoring locations exhibited low (<0.100 mg/m³) levels of particulates with the exception of the down wind readings recorded at 10:35 am and 2:00 pm which exhibited readings of 0.114 and 0.284 mg/m³ respectively and the cross wind reading recorded at 11:50 am which exhibited a reading of 0.210 mg/m³. Dry conditions contributed to higher particulate readings today which were as a result of either laying clean gravel in the excavated areas, the compaction of said material or dust and/or diesel fumes generated by the movement of construction vehicles along the dirt access road. The road and clean sand and gravel being moved and placed in the utility corridor were

wet down several times during the course of the day including immediately after the detection of significant concentrations of airborne particulates.

Concentrations from manual logging in the morning ranged from .000-.210 mg/m³, with an average concentration of 0.018 mg/m³. Concentrations from manual logging in the afternoon ranged from .062-.284 mg/m³, with an average concentration of 0.039 mg/m³.

McCoy Field-Keith Middle School Construction Project New Bedford, MA

Daily Field Notes and Dust Monitoring

Date: July 22, 2004 Field Personnel: Christian Alarie, BETA Group, Inc.

Time on Site: 6:45-14:45

Weather: AM- Foggy, Cloudy, Overcast 70° PM- Warmer, Sunny, 80°

Wind: 7 am-Light, from South

Summary of Activities Performed

WES Construction excavated soil from embankment quadrants Q-4 through Q-7.

Stockpiled soil from embankment quadrants Q-4 through Q-7 were loaded into trailer trucks for off-Site management. WES worked on sloping embankment section Q-7, as well as excavated and stockpiled soil from embankment Q-7 for later disposal.

WES laid geotextile fabric, backfilled (clean sand and gravel), graded, and compacted embankment sections Q4 through Q-7 as appropriate and worked on compacting clean fill in sections of the utility corridor.

Total of 7 truck loads of contaminated soil were removed from the Site today.

Summary of Dust Monitoring Results

Two dust monitoring units on-site. One unit for manual logging and one unit set up for automatic logging (every 15 minutes). Logging unit TAG # 35.

All dust monitoring locations exhibited low (<0.100 mg/m³) to moderate (0.100 to 0.400 mg/m³) levels of particulates. Early fog conditions contributed to higher particulate readings in the morning. Dry conditions in the afternoon also contributed to higher particulate readings today. Higher particulate readings also resulted from either laying clean gravel in the excavated areas, the compaction of said material or dust and/or diesel fumes generated by the movement of construction vehicles along the dirt access road. The road and clean sand and gravel being moved and placed in the utility corridor were wet down several times during the course of the day including immediately after the detection of significant concentrations of airborne particulates.

Concentrations from manual logging in the morning ranged from .000-.124 mg/m³, with an average concentration of 0.055 mg/m³. Concentrations from manual logging in the afternoon ranged from .000-.080 mg/m³, with an average concentration of 0.031 mg/m³.

McCoy Field-Keith Middle School Construction Project New Bedford, MA

Daily Field Notes and Dust Monitoring

Date: July 28, 2004

Field Personnel: Christian Alarie, BETA Group, Inc.

Time on Site: 6:53-14:45

Weather: AM- Rainy, Overcast 60 to 70° PM- Rainy, Overcast 60 to 70°

Wind: 7 am-Light, from North

Summary of Activities Performed

WES Construction worked on backfilling (clean sand and gravel), grading, and compacting embankment sections Q8 through Q-11 as appropriate. WES also worked on moving clean fill (sand and gravel) and moved a pile of boulders out of the work zone. No excavation activities took place today and no soil was removed from the Site.

Summary of Dust Monitoring Results

Two dust monitoring units on-site. One unit for manual logging and one unit set up for automatic logging (every 15 minutes). Logging unit TAG # 40.

All dust monitoring locations exhibited low ($<0.100 \text{ mg/m}^3$) to moderate (0.100 to 0.400 mg/m^3) levels of particulates. Early hazy weather conditions contributed to higher particulate readings at approximately 8 am, which subsided as the day progressed.

Concentrations from manual logging in the morning ranged from $.000$ - $.287 \text{ mg/m}^3$, with an average concentration of 0.035 mg/m^3 . Concentrations from manual logging in the afternoon ranged from $.000$ - $.080 \text{ mg/m}^3$, with an average concentration of 0.016 mg/m^3 .

McCoy Field-Keith Middle School Construction Project New Bedford, MA

Daily Field Notes and Dust Monitoring

Date: July 29, 2004

Field Personnel: Christian Alarie, BETA Group, Inc.

Time on Site: 6:45-14:45

Weather: AM- Overcast 60°

PM- Warm, Sunny 75 to 85°

Wind: 7 am-Light, from North

Summary of Activities Performed

WES Construction worked on compacting and grading fill material (clean sand and gravel) along embankment sections Q-8 through Q-12 and in the utility corridor as needed. WES also worked on moving clean fill (sand and gravel) and moved a pile of boulders out of the work zone.

WES excavated impacted soil in Outlet 5 (flared end). All removed soil was stockpiled near the Outlet and was covered with poly from the elements. An unusual odor was detected during the excavation of soils in Outlet 5. Soil samples were therefore collected from the excavated soil for laboratory analysis. No soil was removed from the Site today.

Summary of Dust Monitoring Results

Two dust monitoring units on-site. One unit for manual logging and one unit set up for automatic logging (every 15 minutes). Logging unit TAG # 41.

All dust monitoring locations exhibited low ($<0.100 \text{ mg/m}^3$) levels of particulates, with the exception of the up wind reading recorded at 1:06 pm which was 0.215 mg/m^3 . The 1:06 reading was as a result of the movement of clean sand and the movement of construction vehicles to begin work at a different location. The access road and clean fill were wet down following the moderate detection of particulates.

Concentrations from manual logging in the morning ranged from $.010$ - $.054 \text{ mg/m}^3$, with an average concentration of 0.032 mg/m^3 . Concentrations from manual logging in the afternoon ranged from $.000$ - $.080 \text{ mg/m}^3$, with an average concentration of 0.072 mg/m^3 .

McCoy Field-Keith Middle School Construction Project New Bedford, MA

Daily Field Notes and Dust Monitoring

Date: July 30, 2004

Field Personnel: Christian Alarie, BETA Group, Inc.

Time on Site: 6:52-14:00

Weather: AM- Sunny, Warm 70 to 80° PM- Warm, Sunny 80 to 85°

Wind: 7 am-Light, from South

Summary of Activities Performed

WES Construction worked on excavating impacted soil in Outlets 3 and 4. All removed soil was stockpiled for later removal and was covered with poly from the elements. An unusual odor was detected during the excavation of soils in Outlet 4. Soil samples were therefore collected from the Outlet for laboratory analysis. No soil was removed from the Site today. No unusual odors were detected during the excavation of impacted soils from Outlet 3.

WES worked on laying utility pipe and the flared end in Outlet 5. Large stone and fill material was laid in the outlet area and was compacted as appropriate.

Summary of Dust Monitoring Results

Two dust monitoring units on-site. One unit for manual logging and one unit set up for automatic logging (every 15 minutes). Logging unit TAG # 42, #43 and #44.

The stationary dust monitoring unit (PDR) results were reading unusually high in the morning with concentrations ranging from 0.100 to 0.390 mg/m³. Even in a dust free environment the readings were greater than 0.300 mg/m³. After recalibrating the unit twice the readings began to restabilize.

All dust monitoring locations exhibited low (<0.100 mg/m³) levels of particulates, with the exception of the down wind reading recorded at 8:56 am which was 0.136 mg/m³. The access road and clean fill were wet down following the moderate detection of particulates.

Concentrations from manual logging in the morning ranged from .000-.136 mg/m³, with an average concentration of 0.021 mg/m³. Concentrations from manual logging in the afternoon ranged from .000-.065 mg/m³, with an average concentration of 0.015 mg/m³.

McCoy Field-Keith Middle School Construction Project New Bedford, MA

Daily Field Notes and Dust Monitoring

Date: August 4, 2004

Field Personnel: Christian Alarie, BETA Group, Inc.

Time on Site: 6:56-14:45

Weather: AM- Warm 70 to 80°

PM- Warm, Sunny, Dry 80 to 90°

Wind: 7 am-Strong, from North

Summary of Activities Performed

WES Construction worked on clearing a path from the utility corridor west towards Summit Street. Trees were knocked down and removed from the area, soil was graded accordingly and boulders and chunks of asphalt were unearthed.

WES worked on sloping and compacting material along the embankment from Q-5 to Q-12.

No soil was removed from the Site today.

Summary of Dust Monitoring Results

Two dust monitoring units on-site. One unit for manual logging and one unit set up for automatic logging (every 15 minutes). Logging unit TAG # 47.

The stationary dust monitoring unit (PDR) results were reading extremely high in the morning with concentrations in excess of 10.0 mg/m³ in a dust free environment. Even after working to remedy the situation the PDR unit was not able to be used during the day due to continuous excessively high, unreliable readings. Pine Environmental, the company from which the PDR unit was rented was contacted about the situation.

All dust monitoring locations exhibited low (<0.100 mg/m³) to moderate (0.100 to 0.400 mg/m³) levels of particulates, with the exception of the down wind readings recorded at 10:18 am and 2:00 pm where readings of 0.578 and 0.803 mg/m³ were recorded. At several points during the day all access roads, work areas and clean fill (sand, stone and gravel) were wet down to prevent dust generation including immediately following the 10:18 and 2:00 pm readings.

Concentrations from manual logging in the morning ranged from .000-.301 mg/m³, with a one time spike of 0.578 mg/m³ and an average concentration of 0.049 mg/m³. Concentrations from manual logging in the afternoon ranged from .000-.300 mg/m³, with a one time spike of 0.803 mg/m³ and an average concentration of 0.123 mg/m³.

McCoy Field-Keith Middle School Construction Project New Bedford, MA

Daily Field Notes and Dust Monitoring

Date: August 6, 2004

Field Personnel: Christian Alarie, BETA Group, Inc.

Time on Site: 7:00-14:45

Weather: AM- Overcast, Breezy, 60° PM- Warmer, Sunny, 70 to 75°

Wind: 7 am-Strong, from North

Summary of Activities Performed

WES Construction worked on the path from the utility corridor west towards Summit Street. Soil was removed and stockpiled to allow for the placement of a drainage pipe. The drainage pipe was connected to the utility corridor. Geotextile fabric and clean fill (sand and gravel) were placed in, on and around the pipe. The fill was later compacted and the beginnings of a drainage feature was started beneath a section of the pipe.

WES worked on breaking up large boulders previously unearthed at the Site.

WES worked on laying a fence for erosion control along the embankments.

No soil was removed from the Site today.

Summary of Dust Monitoring Results

Two dust monitoring units on-site. One unit for manual logging and one unit set up for automatic logging (every 15 minutes). Logging unit TAG # 48.

All dust monitoring locations exhibited low ($<0.100 \text{ mg/m}^3$) to moderate (0.100 to 0.400 mg/m^3) levels of particulates. At several points during the day all access roads, work areas and clean fill (sand, stone and gravel) were wet down to prevent dust generation.

Concentrations from manual logging in the morning ranged from $.000$ - $.097 \text{ mg/m}^3$, with an average concentration of 0.035 mg/m^3 . Concentrations from manual logging in the afternoon ranged from $.012$ - $.197 \text{ mg/m}^3$, with an average concentration of 0.057 mg/m^3 .