

May Perimeter Air Monitoring and Manganese Sampling Report

LOCATION: Former McLouth Steel Facility – County Property

DATE: July 1, 2020

Monitoring Duration: May 1, 2020 – May 31, 2020

Perimeter Monitoring (Refer to Attachment A for additional details)

- The site experienced one exceedance of PM-2.5 particulate concentrations above the NAAQS standard of 0.035 mg/m³ for Air Quality, but did not have any downwind station particulate concentrations exceeding 15% of the average of all upwind stations over a 24-hour period. The air monitoring schedule for the month was one workday per work week monitoring, conducted on May 1st, 7th, 14th, 21st, and 26th, 2020.
 - On May 14th, air monitoring station at location #3, time weighted average (TWA) was 0.037 mg/ m³, exceeding the NAAQS however this was an upwind location. On this date, air monitoring station at location #2 was the downwind location with a TWA of 0.034 mg/ m³ and was not in exceedance of the NAAQS, and was not greater than 15% of the upwind average.
 - During a QA/QC audit of site data performed on June 22, 2020, the air monitoring station at location #4 was suspected of malfunctioning based on the consistently low value of the data compared to other monitoring stations. Therefore, the data for the air monitoring station at location #4's was excluded from calculations for the May 2020 reporting period.
 - The monitoring station at location #4 was replaced on June 24, 2020 and the new monitoring station appears to be functioning properly.
 - The monitoring station removed from location #4 is being recalibrated to determine if it was malfunctioning.
 - Monitoring equipment at the following sampling locations experienced battery failure during non-working hours after approximately 17 hours of operation, and the data is therefore not representative of a 24-hr average. All batteries have been replaced and additional batteries have been purchased. Batteries are now changed after each monitoring period.
 - Sampling location #1 on May 7
 - Sampling locations #1 and #3 on May 17
 - Sampling location #2 on May 21
 - Sampling location #2 on May 26

Perimeter Sampling

- The site had no exceedances of the ATSDR MRL standard for PM10 Manganese during the sampling which occurred on May 1st, 7th, 14th, 21st, and 26th, 2020. The ATSDR MRL standard is 0.03 ug/m³ over 24 hours.

Real-time Dust Monitoring

- The site experienced no exceedances for TPM or PM-10 sized particulate in any work area during the month of May 2020.

Conclusion

Perimeter Monitoring/Sampling:

On May 14th, 2020 Air Monitoring Station #3 recorded 0.037 mg/m³ TWA, exceeding the NAAQS PM-2.5 particulate matter concentrations of 0.035 mg/m³. However, this location was an upwind location. Air Monitoring Station #2 was the downwind location and recorded 0.034 mg/m³ which did not exceed the NAAQS, was not greater than 15% of the upwind average as required by the Dust Control Plan and was below the upwind concentrations. Monitoring over the last year and a half has continually indicated off-site sources of particulate matter, and the minor differences between up and down wind monitoring locations throughout that day illustrates this trend.

- **Real-time Monitoring:** The site experienced no exceedances for TPM or PM-10 sized particulate in any work area during the month of May 2020.

Attachment A

May Perimeter Air Monitoring, Manganese Sampling, and Weather Charts and Data

LOCATION: Former McLouth Steel Facility – County Property
 DATE: July 1, 2020

Perimeter Air Monitoring Charts and Data

Former McLouth Steel County Property Site Preparation Project
 Perimeter PM 2.5 Air Monitoring Results - 24 hour average (mg/m³)

Date	Station 1	Station 2	Station 3	Station 4	24-hr Avg. All Stations		Diff.
	24-hr Avg.	24-hr Avg.	24-hr Avg.	24-hr Avg.	Downwind station max value	Upwind station(s) average value	
5/1/2020	0.009	0.013	0.011	0.003	0.013	0.011	NA
5/7/2020	0.008	0.008	0.008	0.008	0.008	0.008	NA
5/14/2020	0.024	0.034	0.037	0.006	0.034	0.037	NA
5/21/2020	0.008	0.008	0.009	0.003	0.008	0.009	NA
5/26/2020	0.014	0.017	0.019	0.005	0.017	0.019	NA

- Downwind Location
- Exceeds particulate concentrations of the upwind station(s) by over 15% or the NAAQS standard
- BOLD** Max Value for Daily Average for all Stations
- N/A No Data
- Data not valid based on QA/QC audit performed 6/22/20. Machine has been sent in for recalibration
- Data not a 24-hr Avg. due to equipment malfunction
- NA Comparison of downwind and upwind Not Applicable

Manganese Sampling Chart

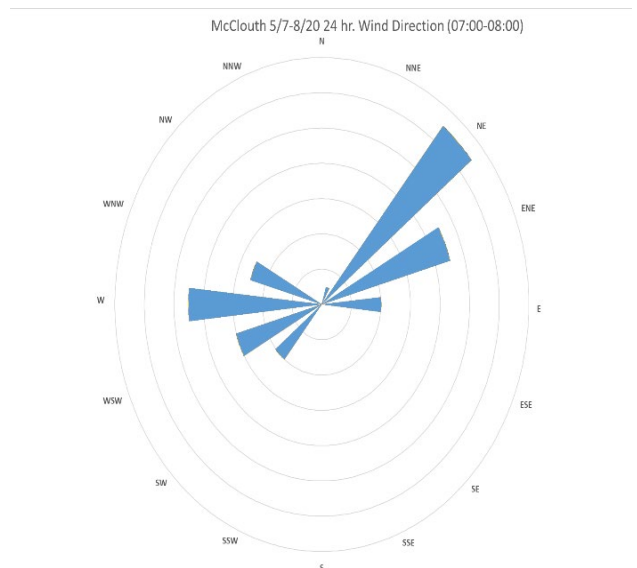
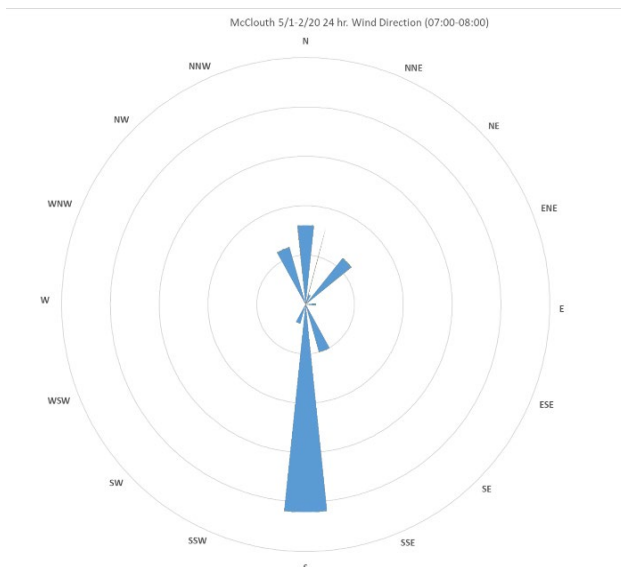
Former McLouth Steel Facility Air Sampling Analytical Results						
Analytical results for PM-10 Manganese(Mn) (results are in ug/m ³ average over 24 hrs)						
Start Date	Start time (approx)	Time Interval (hrs)	Site 1	Site 2	Site 3	Screening Level 0.3ug/m ³
5/1/2020	8:00	24	0.06	0.02	0.02	0.3
5/7/2020	8:00	24	0.05	0.02	0.08	0.3
5/14/2020	8:00	24	0.05	0.04	0.02	0.3
5/21/2020	8:00	24	0.03	0.03	0.02	0.3
5/26/2020	8:00	24	0.02	0.02	0.02	0.3

ND: Non Detect

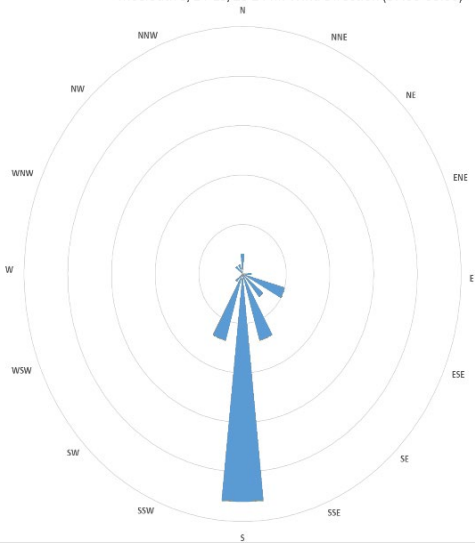
Weather Data

Former McClouth Steel Facility-County Property				
Perimeter Monitoring and Sampling Wind Data				
Instrumentation: Davis Vantage Pro 2 Weather Station				
Weather Station Site: Southwest corner of property-approx 100' due south of job trailer set up on top of light pole.				
	24 Hour			
Date:	Start time:	Avg. wind speed:	Predominate wind direction:	Notes:
5/1/2020	7:00	5.26	S	
5/7/2020	7:00	10.89	NE	
5/14/2020	7:00	2.09	S	
5/21/2020	7:00	3.03	E	
5/26/2020	7:00	1.77	SE	

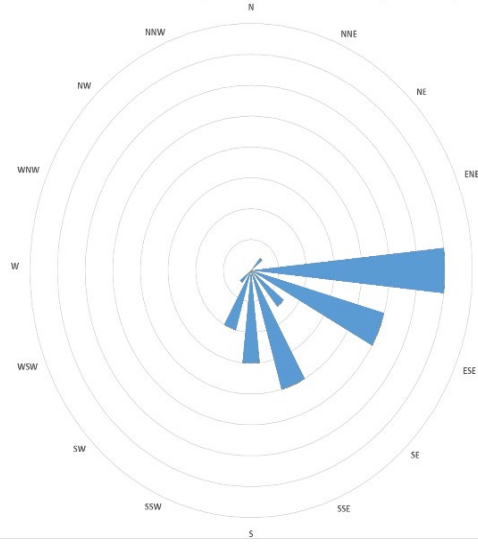
Wind Roses



McClouth 5/14-15/20 24 hr. Wind Direction (07:00-08:00)



McClouth 5/21-22/20 24 hr. Wind Direction (07:00-08:00)



McClouth 5/26-27/20 24 hr. Wind Direction (07:00-08:00)

