

Ameren Champaign MGP - Fifth Street

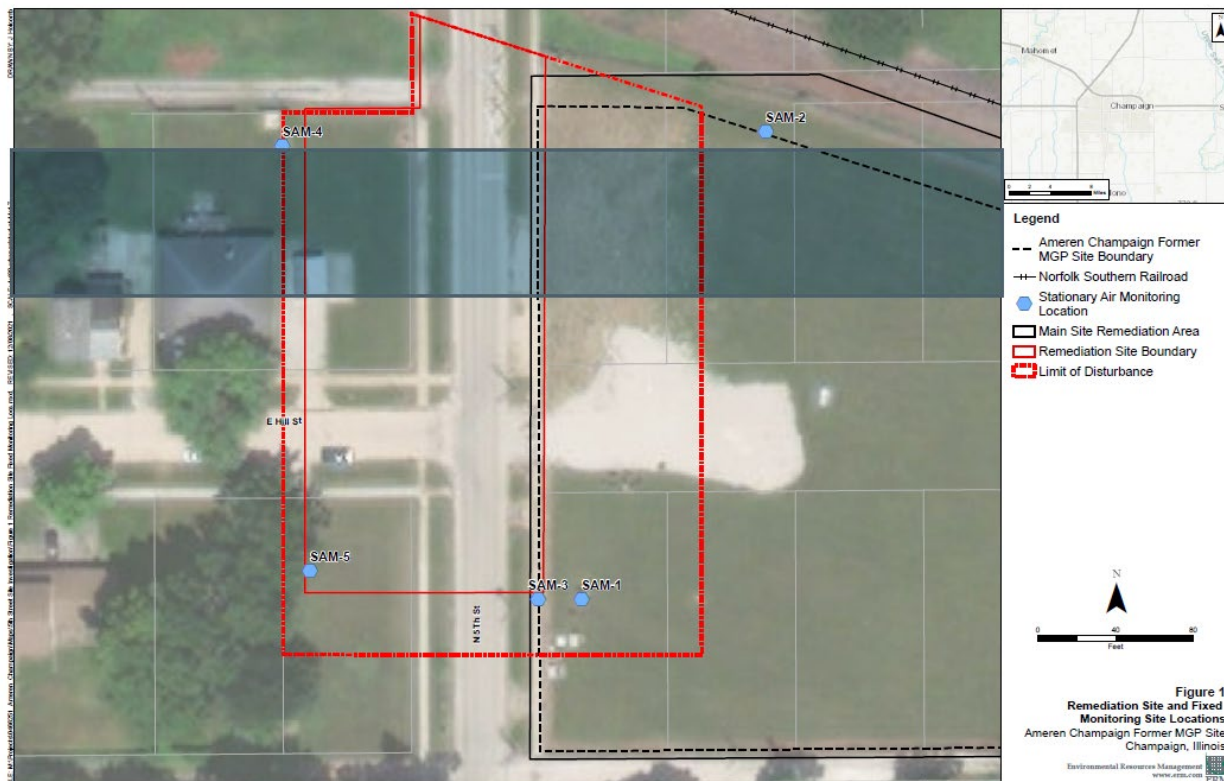
Weekly Air Monitoring Report

7 January, 2022

Project No.: 0529307

1. INTRODUCTION

Environmental Resources Management, Inc. (ERM) set up five stationary air monitors (SAMs) at four locations around the perimeter of the remediation site to monitor dust levels (PM₁₀), volatile organic compounds (VOC's), and semi-volatile organic compounds (SVOC's) produced by the excavation. SAMs 1 and 3 were collocated in the southeast corner to provide duplicate measurements for quality control purposes. A meteorological monitoring station was installed to collect wind speed/direction, temperature, and pressure to record current atmospheric conditions and assess where the concentrations are coming from. Figure 1 illustrates the monitoring network configuration.



This weekly summary presents the real-time ambient air quality and meteorological data collected from December 29, 2021 through January 5, 2022. This weekly report also provides laboratory results received during this time period.

ERM used health effects information to establish maximum acceptable exposure levels for each of the constituents of concern (COC). These were used to set action levels for the monitoring compounds.

2. SUMMARY

The reporting period covers both the pre-remediation baseline phase, as well as the initial remediation operational phase. No parameters exceeded their corresponding designated action levels over the reporting period. This indicates that there was no significant adverse impact on local air quality. Since there were no air quality alert conditions, there was no need to curtail remediation activities or enhance emission control measures.

Table 1 presents a summary of the air quality monitoring results for the reporting period.

Table 1. Reporting Period Air Monitoring Summary¹

CONSTITUENTS OF CONCERN	NUMBER OF ACTION LEVEL OR ACCEPTABLE EXPOSURE LEVEL EXCEEDANCES	MAXIMUM MEASURED CONCENTRATION	ACTION LEVEL OR ACCEPTABLE EXPOSURE LEVEL
Inhalable Particulate Matter (15-min average, $\mu\text{g}/\text{m}^3$)	0	135	360
VOC (1-minute average, $\mu\text{g}/\text{m}^3$)	0	0	156.7
Benzene, Real-time GC (1-minute average $\mu\text{g}/\text{m}^3$)	N/A	N/A	156.7
Styrene, Method 325B (12 day sample period, $\mu\text{g}/\text{m}^3$)	0	0.24	205,000
Benzene, Method 325B (12 day sample period, $\mu\text{g}/\text{m}^3$)	0	0.77	16.5
Toluene, Method 325B (12 day sample period, $\mu\text{g}/\text{m}^3$)	0	0.66	23,400
Xylenes (total), Method 325B (12 day sample period, $\mu\text{g}/\text{m}^3$)	0	0.66	41,000
Ethylbenzene, Method 325B (12 day sample period, $\mu\text{g}/\text{m}^3$)	0	0.33	59,400
2-methylnaphthalene, Method TO-13A (3 day sample period, $\mu\text{g}/\text{m}^3$)	0	ND	820
Acenaphthene, Method TO-13A (3 day sample period, $\mu\text{g}/\text{m}^3$)	0	ND	12,300
Acenaphthylene, Method TO-13A (3 day sample period, $\mu\text{g}/\text{m}^3$)	0	ND	615
Anthracene, Method TO-13A (3 day sample period, $\mu\text{g}/\text{m}^3$)	0	ND	615
Benzo(a)anthracene, Method TO-13A (3 day sample period, $\mu\text{g}/\text{m}^3$)	0	ND	1.54
Benzo(a)pyrene, Method TO-13A (3 day sample period, $\mu\text{g}/\text{m}^3$)	0	ND	0.154

CONSTITUENTS OF CONCERN	NUMBER OF ACTION LEVEL OR ACCEPTABLE EXPOSURE LEVEL EXCEEDANCES	MAXIMUM MEASURED CONCENTRATION	ACTION LEVEL OR ACCEPTABLE EXPOSURE LEVEL
Benzo(k)fluoranthene, Method TO-13A (3 day sample period, µg/m ³)	0	ND	15.4
Benzo(b)fluoranthene, Method TO-13A (3 day sample period, µg/m ³)	0	ND	15.4
Chrysene, Method TO-13A (3 day sample period, µg/m ³)	0	ND	154
Dibenzo(a,h)anthracene, Method TO-13A (3 day sample period, µg/m ³)	0	ND	0.154
Fluoranthene, Method TO-13A (3 day sample period, µg/m ³)	0	ND	8,200
Fluorene, Method TO-13A (3 day sample period, µg/m ³)	0	ND	8,200
Ideno(1,2,3-cd)pyrene, Method TO-13A (3 day sample period, µg/m ³)	0	ND	1.54
Napthalene, Method TO-13A (3 day sample period, µg/m ³)	0	ND	176
Phenanthrene, Method TO-13A (3 day sample period, µg/m ³)	0	ND	6,150
Pyrene, Method TO-13A (3 day sample period, µg/m ³)	0	ND	6,150

Notes:

¹ Data presented have yet to be fully quality-assured; final values may vary of these preliminary results once all quality control measures have been applied.

NM = No measurements (benzene-specific measurements only made with portable gas chromatograph, in response to VOC exceedance)

ND = Not detected (concentrations below laboratory minimum detection limits)

The monitoring system data quality control measures was acceptable. The preliminary (not yet fully quality-assured) data record for the reporting period is contained in Appendix A. Laboratory result data for VOC's are contained in Appendix B.

The upcoming reporting period will cover monitoring during continuing remediation work

APPENDIX A

**COMPLETE PRELIMINARY DATA RECORD—NOT FULLY
QUALITY ASSURED**

APPENDIX B

COMPLETE PRELIMINARY LAB RESULT DATA

ERM has over 160 offices across the following countries and territories worldwide

Argentina	The Netherlands
Australia	New Zealand
Belgium	Norway
Brazil	Panama
Canada	Peru
Chile	Poland
China	Portugal
Colombia	Puerto Rico
France	Romania
Germany	Russia
Ghana	Senegal
Guyana	Singapore
Hong Kong	South Africa
India	South Korea
Indonesia	Spain
Ireland	Sweden
Italy	Switzerland
Japan	Taiwan
Kazakhstan	Tanzania
Kenya	Thailand
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