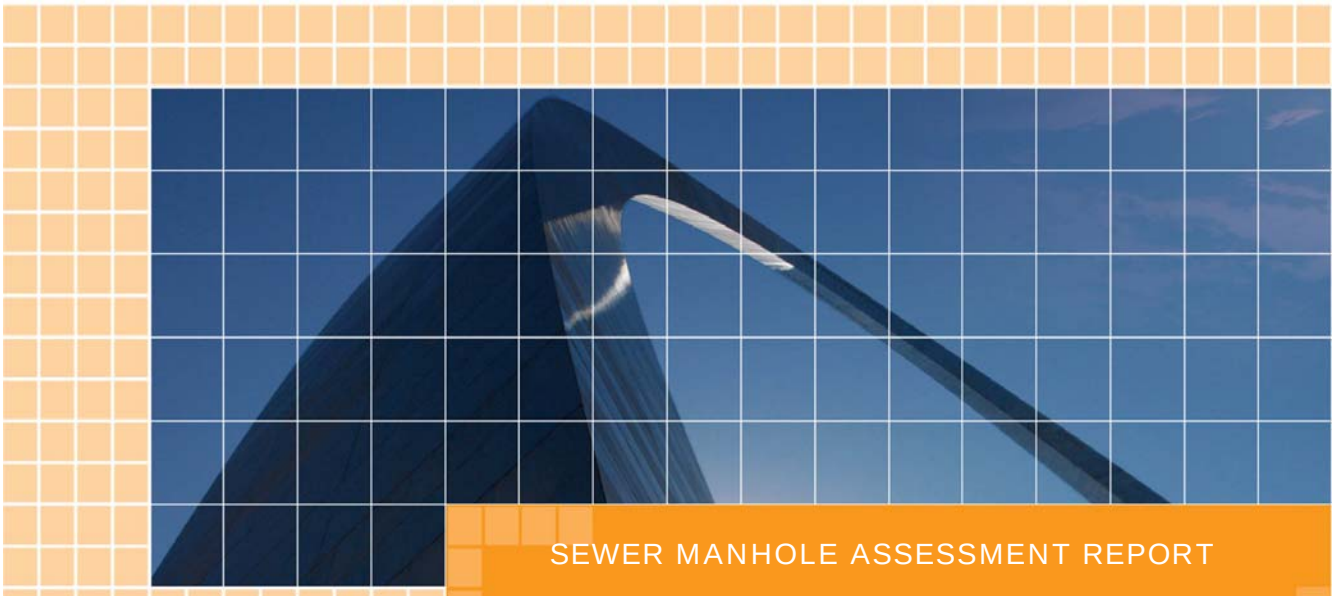

SEWER MANHOLE ASSESSMENT REPORT

EMERSON POWER TRANSMISSION

ITHACA, NEW YORK

SITE NO. 755010

SEPTEMBER 23, 2008

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1 Introduction

WSP Environment & Energy, on behalf of Emerson and its subsidiary, Emerson Power Transmission Corp. (EPT), has prepared this Sewer Manhole Assessment Report to present the results of vapor samples collected from selected manholes of the sanitary sewer system located on Turner Place, South Hill Terrace, and East Spencer Street north-northwest of the EPT facility in Ithaca, New York. The sampling was conducted to determine whether the manholes and associated sanitary sewer lines may be a source of volatile organic compounds (VOCs) to the ambient air in the South Hill community. Ambient air samples were collected concurrently for comparison purposes. In addition, vapor samples were also collected from three manholes located on the EPT property, downgradient of the Fire Water Reservoir. Results of this sampling are also presented in this report.

The vapor sampling was conducted in accordance with the Sewer Manhole Assessment work plan (April 7, 2008), which was approved by the New York State Department of Environmental Conservation (NYSDEC) and New York State Department of Health (NYSDOH) on April 29, 2008. The ambient air sampling was conducted in accordance with the Focused Ambient Air Sampling work plan (April 7, 2008), also approved by the NYSDEC and NYSDOH on April 29, 2008. These work plans were prepared in accordance with the requirements outlined in the July 13, 1987, Consent Order (Index # A7-0125-87-09) entered into by NYSDEC and EPT. The results of the ambient air sampling are presented in a separate report (Focused Ambient Air Sampling Report, dated September 17, 2008).

This report provides background information on the site, the objective of the sampling conducted; the scope of work for the sampling activities; the sampling results; and conclusions.

2 Site Background

2.1 SITE LOCATION

The EPT facility is located at 620 South Aurora Street in Ithaca, New York. The facility comprises approximately 110 acres within the City of Ithaca and the Town of Ithaca in Tompkins County (Figure 1). There are over 30 buildings and structures on the site that encompass approximately 800,000 square feet. The area surrounding the facility is mostly residential. The South Hill community is to the north-northwest of the EPT site and is bordered on the north and west by Six Mile Creek, to the south by the EPT facility, and to the east by South Aurora Street. The area to the west and north of Six Mile Creek comprises mixed development including commercial, light industrial, and residential.

2.2 SUMMARY OF PREVIOUS MANHOLE AND SAMPLING

As part of the Supplemental Remedial Investigation activities for the EPT site, vapor samples were collected from selected manholes of the sanitary sewer lines on Turner Place, South Hill Terrace, and Columbia Street (MH-1 through MH-6; Figure 2) to evaluate whether site-related VOCs may be present in vapors within the sewer. This sampling was conducted in accordance with the approved "Revised Supplemental Remedial Investigation Work Plan" (August 2007). Samples were collected at six manholes over a 1-hour period at a flow rate not to exceed 0.2 liter per minute (L/min).

Results of the sampling identified elevated concentrations of VOCs in vapors within the manholes on Turner Place and Columbia Street. Concentrations of trichloroethylene (TCE) ranged from 31.7 micrograms per meter cubed ($\mu g/m^3$) to 18,900 $\mu g/m^3$. The highest concentration of TCE was detected in the sample collected from Manhole 4 (MH-4), which is located on Turner Place downgradient from the junction where the sanitary sewer on Columbia Street connects to the sanitary sewer on Turner Place. The duplicate sample collected from MH-4 contained 50.8 $\mu g/m^3$ of TCE. A follow up sample collected from the manhole a month later contained 39.3 $\mu g/m^3$ of TCE.

Results of the manhole sampling in combination with soil vapor samples collected along Turner Place show that historic releases of VOCs have occurred from these sewers. Also, the manhole sampling results in combination with soil vapor samples collected along the National Cash Register (NCR) sewer, which extends from the former NCR site in a northerly direction across the eastern portion of the EPT property and then continues along South Aurora Street to Columbia Street where it extends west one block to Turner Place, show that historical releases of VOCs have occurred from this sewer. Based on engineering drawings provided by the City of Ithaca, the NCR sewer line joins the Turner Place sewer at the intersection of Columbia Street and Turner Place. A section of the Turner Place sewer also extends to the west along East Spencer Street.

In order to evaluate the potential for vapors emanating from the sewer manholes to impact ambient air, Emerson and EPT conducted additional sampling of vapors in manholes of the sanitary sewers along Turner Place, East Spencer Street, South Hill Terrace, at the intersection of Turner Place and Hillview Place, and at the intersection of Columbia Street and Turner Place, as well as on the Emerson facility. This report details the procedures and corresponding results for the manhole sampling.

2.3 MANHOLE SAMPLING OBJECTIVES

The objective of the vapor sampling conducted in select manholes along Turner Place, South Hill Terrace, and East Spencer Street was to further evaluate the VOC vapors previously identified in samples collected from manholes of the sanitary sewer lines and to determine if they are a source of

VOCs in ambient air within the South Hill neighborhood. In addition, vapor sampling was conducted in three manholes on the EPT property to determine if VOCs are present.

3 Scope of Work

The scope of work involved collecting vapor samples in selected manholes of the sanitary sewer lines along Turner Place (MH-1, MH-2, MH-4, and MH-9), East Spencer Street (MH-10 and MH-11), South Hill Terrace (MH-3), at the intersection of Turner Place and Hillview Place (MH-7 and MH-15), at the intersection of Columbia Street and Turner Place (MH-8 and MH-16) and on the EPT property between the Main Plant Building and the firewater reservoir (MH-12, MH-13, and MH-14). The manhole locations are shown in Figure 2.

The field activities were conducted in accordance with the NYSDOH soil vapor intrusion guidance and procedures described in the approved Supplemental Remedial Investigation Work Plan and associated correspondence, dated August 2, 2007 and the approved Sewer Manhole Assessment Work Plan dated April 7, 2008.

3.1 SAMPLING ACTIVITIES

3.1.1 Sampling Procedures

Street permits were obtained from the City of Ithaca for accessing the manholes located along Turner Place, East Spencer Street, and South Hill Terrace.

Vapor samples were collected from 10 manholes as designated on Figure 2. A sample was not collected from manhole MH-8 due to access restrictions. This manhole was located directly in front of a private driveway, and it was not practicable to block the driveway for an 8-hour sampling period. Vapor samples were collected by lowering a 2-foot section of 0.25-inch ID Teflon® or Teflon®-lined tubing into the manhole lid opening. The tubing was secured with tape and purged as detailed below prior to sampling.

Before vapor samples were collected, a pre-sample purge was conducted to remove dilution air from the tubing. The flow rate of the purging did not exceed 0.2 L/min. At each sample location, an Entech flow regulator was connected directly to the sample tubing. The flow regulator was attached to an evacuated 6-liter Summa canister to initiate sample collection. The flow regulator was pre-set by the laboratory to collect the vapor sample over an 8-hour period at a flow rate not to exceed 0.2 L/min. After 8 hours, the flow regulator was disconnected from the canister to complete the sample collection. The sample name, location, time and date of sample collection, regulator and canister number, final vacuum reading, and analytical method were recorded on the chain-of-custody form and in the field log book. Following collection of the vapor samples, the tubing was removed.

3.1.2 Sample Analysis

All Summa canisters were shipped via FedEx to Columbia Analytical Services laboratory in Simi Valley, California, a NYSDOH Environmental Laboratory Approval Program-approved laboratory, under strict chain-of-custody procedures. The samples were analyzed for the complete list of VOCs specified in U.S. Environmental Protection Agency (EPA) Method TO-15. Analytical results for all VOCs detected by EPA Method TO-15 were reported to the NYSDEC. The minimum detection limits using EPA Method TO-15 for all samples was 0.25 µg/m3 for TCE, vinyl chloride, and carbon tetrachloride and the lowest achievable laboratory detection limit (approximately 1.0 µg/m^3) for all other VOCs.

3.1.3 Quality Assurance/Quality Control

Each Summa canister used for the sampling activities was certified-clean by the laboratory. This certification involves analyzing the air inside each clean canister by EPA Method TO-15. If no target compounds were detected at concentrations above the reporting limits, then the canister was evacuated again and the canister was made available for sampling. If target compounds were detected at

concentrations above the reporting limits, then the canister was not used and was re-cleaned and re-tested.

A duplicate vapor sample was collected from one location (MH-11) by using two regulators and canisters. To ensure the accuracy of the duplicate sample, the two separate segments of Teflon tubing were taped together and set at an equal depth inside of the manhole. In addition, a laboratory-prepared trip blank accompanied the sample canister for one of the vapor samples from the laboratory to the field and from the field to the laboratory. The trip blank was used to evaluate the potential for sample cross-contamination during shipment or during sample collection.

In accordance with the NYSDOH Guidance, the reliability and representativeness of the sampling data and associated quality assurance/quality control (QA/QC) information were verified by a qualified person to ensure the following:

- the data package is complete
- holding times are met
- the QC data fall within the required limits and specifications
- the data have been generated using established and agreed upon analytical protocols
- the raw data confirm the results provided in data summary tables and QC verification forms
- correct data qualifiers have been used

The data deliverables comply with the most recent NYSDEC Analytical Services Protocol B (2005).

4 Results

Results for the manhole samples collected in 2007 and 2008 are presented in Table 1. The table includes results for previous samples collected from manholes MH-1 through MH-4 in 2007 for comparison purposes.

TCE and PCE were detected in vapor samples collected from the 10 manholes on Turner Place, South Hill Terrace, and East Spencer Street. TCE concentrations ranged from 1.7µg/m^3 (MH-2) to 170 µg/m^3 (MH-11). MH-2 is the first manhole downstream of the EPT facility and MH-11 is located on East Spencer Street. PCE concentrations ranged from 0.33 µg/m^3 (MH-9) to 190 µg/m^3 (MH-3). MH-9 is near the bottom of Turner Place and MH-3 is located on South Hill Terrace.

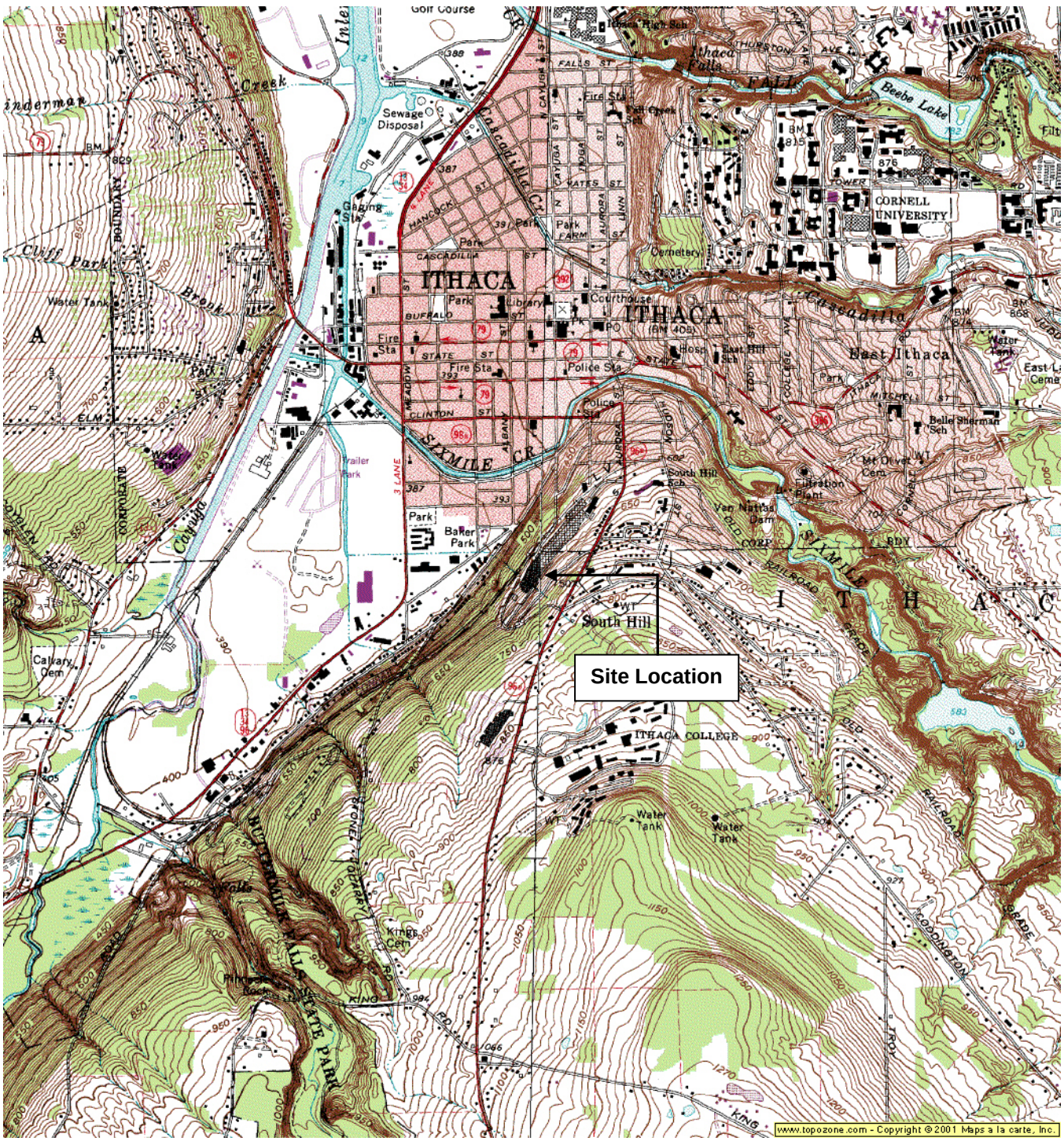
The three vapor samples collected from manholes on the EPT property contained between 5.3 µg/m^3 and 22 µg/m^3 of TCE and 1.1 µg/m^3 and 3.8 µg/m^3 of PCE. The highest concentrations were detected in manhole MH-12.

5 Conclusions

The manhole vapor sampling was designed to evaluate the potential presence of site-related VOCs within the sanitary sewer and to determine if the sewers are a potential source of TCE and PCE to ambient air. The results of the recent sampling as well as previous manhole sampling identified TCE and PCE in vapor within the sewer manholes along Turner Place, South Hill Terrace, and East Spencer Street as well as on the EPT property. The sampling results do not show any apparent trends in VOC concentrations relative to manhole location along Turner Place. Samples collected from the three manholes on the EPT property contained low concentrations of TCE and PCE.

Ambient air samples collected simultaneously with the vapor samples did not contain detectable levels of TCE or PCE. The results of the recent sampling in combination with the results of the focused ambient air sampling work conducted in July 2008 indicate that the sanitary sewers are not a source of concern for TCE and PCE in the ambient air in the South Hill community.

Figures



Reference
7.5 Minute Series Topographic Quadrangle
Ithaca East, New York
Photorevised 1976 Scale 1:25,000 Metric

Quadrangle Location

Scale in Meters
0 500 1000
0 1000 2000
Scale in Feet

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Figure 1
Site Location
Emerson Power Transmission
Ithaca, New York

Legend

- Previous Manhole Sample Location (2007)
- Previous Manhole Sample Location (2007 & 2008)
- Supplemental Manhole Sample Location
- Sanitary Sewer

West Spencer Street

East Spencer Street

South Cayuga Street

East Clinton Street

Prospect Street

South Hill Terrace

Pleasant Street

Columbia Street

Turner Place

Hillview Place

South Aurora Street

NCR Sewer

NYSE&G Substation

Parking Area

Fire Water Reservoir

EPT Main Plant Building

MH-1
MH-2
MH-3
MH-4
MH-5
MH-6
MH-7
MH-8
MH-9
MH-10
MH-11
MH-12
MH-13
MH-14
MH-15
MH-16

References:

1. Sanitary Sewer Location from City of Ithaca Water & Sewer Department, Sheets R17, S17, 154-A, 178, and 199.
2. Facility Drawing B-176219.
3. Town of Ithaca Contract Drawings, Sanitary Sewermain Replacement South Hill, Dated April 1994.

N

0 160'

Scale in Feet

Figure 2
Supplemental Manhole Sample Locations
Emerson Power Transmission
Ithaca, New York

12749367.DWG

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WSP

Tables

Table 1

Manhole Sample Results (ug/m^3) (a)
Emerson Power Transmission
Ithaca, New York

Sample ID:	MH-1	MH-1	MH-2	MH-2	MH-3	MH-3	MH-4	MH-4	MH-4	MH-4	MH-5	MH-5	MH-6	MH-7	MH-9	MH-10
Sample Type:	INVE	INVE	INVE	INVE	INVE	INVE	INVE	DUP	INVE	INVE	INVE	INVE	INVE	INVE	INVE	INVE
Sampling Date:	08/30/07	07/08/08	08/30/07	07/08/08	08/30/07	07/08/08	08/30/07	08/30/07	10/17/07	07/08/08	08/30/07	10/17/07	10/26/07	07/08/08	07/08/08	07/08/08
Site-Related VOCs (µg/m3)																
1,1,1-Trichloroethane	37.7	2.8	21.6	0.18 U	10.3	9.7	22,000	10.4	4.22	1.7	31.6	3.33	2.55	5.7	0.17 U	16
1,2-Dichloroethane	0.617 U	0.26	0.617 U	0.3	0.617 U	0.75 U	0.699	0.617 U	0.15 U	0.17	0.617 U	0.15 U	0.617 U	0.24	0.17 U	0.23
cis-1,2-Dichloroethylene	7.13	0.64	4.07	0.18 U	1.05	0.75 U	66.1	0.604 U	1.13	1.2	0.604 U	1.29	1.69	5	0.17 U	12
Methylene chloride	22.2	0.16 U	20.8	0.18 U	6.18	0.75 U	6.29	2.61	6.14	0.86	6.74	6.32	7.24	0.2 U	0.17 U	7.5
Tetrachloroethene	10.5	13	9.17	1.1	10.4	190	31.7	11.4	3.65	5.8	7.03	12.5	22.1	13	0.33	110
trans-1,2-Dichloroethene	0.604 U	0.16 U	0.604 U	0.18 U	0.604 U	0.75 U	0.604 U	0.604 U	0.15 U	0.17 U	0.604 U	0.15 U	0.604 U	0.2	0.17 U	0.37
Trichloroethene	49.7	10	41	1.7	41.5	120	18,900	50.8	39.3	6.4	80.3	55.7	31.7	13	1.7	59
Vinyl chloride	0.234	0.16 U	0.156	0.18 U	0.104 U	0.75 U	0.468	0.104 U	0.04 UC	0.17 U	0.104 U	0.04 UC	0.104 U	0.2 U	0.17 U	0.52
Non Site-Related VOCs (µg/m3)																
Acetone	211	31	284	29	31.4	3.8 U	151	162	0.3 U	21	290	86.4	40.8	35	11	130
Benzene	1.62	0.82 U	2.79	0.92	0.877	3.8 U	1.36	0.909	2.18	1.3	1.69	2.79	0.584	1.4	0.83 U	0.9 U
Bromodichloromethane	289	8.5	351	0.91 U	234	32	106	106	85.8	5.6	158	70.8	124	11	0.83 U	99
Bromofluorobenzene	NA	24.7	NA	25.6	NA	26.4	NA	NA	NA	26	NA	NA	NA	25.1	26.2	26.3
Bromoform	1.16 J	0.82 U	1.26 J	0.91 U	2	3.8 U	1.58 J	1.58 U	0.15 UC	0.85 U	2	0.15 UC	4.62	0.98 U	0.83 U	0.9 U
2-Butanone	0.899 U	6.8	0.899 U	5.4	0.899	4.2	0.839 J	0.899 U	0.3 U	3.7 U	0.899 U	3.33	0.899 U	4.7	2.4	5.3
Carbon disulfide	1.87	0.82 U	1.8	0.91 U	1.08	3.8 U	1.08	0.443 J	1.17	0.85 U	1.01	1.3	1.46	0.98 U	0.83 U	3.3
Carbon tetrachloride	1.15	0.49	1.15	0.53	1.02	0.75 U	4.09	3.26	1.73	0.55	3.84	1.73	4.8	0.51	0.47	0.96
Chloroform	2,380	86	2,620	3.4	1,220	300	532	528	400	46	663	361	611	87	0.83 U	690
Chloromethane	0.315 U	0.82 U	0.315 U	0.91 U	0.315 U	3.8 U	0.315 U	0.315 U	0.15 U	0.85 U	0.315 U	0.15 U	0.315 U	0.98 U	0.83 U	0.9 U
Cyclohexane	0.525 U	0.82 U	0.525 U	0.91 U	0.525 U	3.8 U	0.525 U	0.525 U	0.63	0.85 U	0.525 U	0.91	0.595	0.98 U	0.83 U	0.9 U
Dibromochloromethane	72.7	0.82 U	68.4	0.91 U	53.7	3.8 U	33.8	36.4	3.29	0.85 U	60.6	2.34	58.9	1.2	0.83 U	10
1,4-Dichlorobenzene	0.917 U	0.82 U	0.917 U	0.91 U	1.22	3.8 U	1.59	0.917 U	0.15 U	0.85 U	4.77	0.15 U	8.19	0.98 U	0.83 U	0.9 U
Dichlorodifluoromethane	1.36	2.8	1.26	330	1.51	3.8 U	1.76	0.704 J	1.21	2.4	1.66	1.36	1.46	2.5	2.3	3
1,1-Dichloroethane	1.93	1	1.03	0.91 U	0.617 U	3.8 U	60.1	0.617 U	0.15 U	0.85 U	0.617 U	0.15 U	0.617 U	1.2	0.83 U	3.4
1,1-Dichloroethene	0.605 U	0.82 U	0.605 U	0.91 U	0.605 U	3.8 U	2,460	0.605 U	0.15 U	0.85 U	0.403 J	0.15 U	0.605 U	0.98 U	0.83 U	0.9 U
Ethyl acetate	0.916 U	5.4	0.916 U	4.9	0.513 J	3.8 U	8,910	7,640	0.25 U	2.7	12,800	0.25 U	0.916 U	5	4.7	6.4
Ethylbenzene	3.05	1.8	3.18	1.8	1.41	3.8 U	3.09	2.74	4.85	1.2	2.52	5.83	177	1.6	1.2	1
4-ethyltoluene	3.9	0.82 U	3.9	0.91 U	0.899	3.8 U	1.35	0.899	1.2	0.85 U	1.1	1.55	8.49	0.98 U	0.83 U	0.9 U
Freon 113	1.17 U	0.82 U	1.17 U	0.91 U	1.87	3.8 U	548	1.17 U	0.15 U	0.85 U	1.25	0.15 U	1.17 U	0.98 U	0.83 U	0.9 U
n-Heptane	0.625 U	0.89 L	0.625 U	1.4 L	0.625 U	3.8 U	0.625 U	0.625 U	1.58	0.85 U	0.625 U	2.21	0.75	0.98 U	0.83 U	0.9 U
n-Hexane	1.04	1.2	0.824	1.8	0.537 U	3.8 U	0.86	0.537 U	2.22	1.3	0.537 U	2.04	1.07	1.5	2.4	1.7
2-Hexanone	1.25 U	0.82 U	1.25 U	0.91 U	1.25 U	3.8 U	1.25 U	1.25 U	0.3 U	0.85 U	1.25 U	0.15 U	1.25 U	0.98 U	0.83 U	0.9 U
2-Propanol (Isopropyl Alcohol)	224	4.9	340	4.7	0.375 U	3.8 U	0.375 U	0.375 U	0.15 U	2.3	0.375 U	0.15 U	0.375 U	5.3	5.6	24
Propylene	0.262 U	2.1 M	0.262 U	1.7 M	0.262 U	3.8 U	0.262 U	0.262 U	0.15 U	1.9 M	0.262 U	0.15 U	0.55 U	2.8 M	2.5 M	15 M
Styrene	0.649 U	0.97	2.47	1.1	0.649 U	3.8 U	0.649 U	0.649 U	0.15 U	0.85 U	0.649 U	0.15 U	33.8	0.98 U	0.83 U	0.9 U
Tetrahydrofuran	0.45 U	0.82 U	0.45 U	0.91 U	0.24 J	3.8 U	0.719	0.869	0.15 U	0.85 U	1.05	0.15 U	0.45 U	0.98 U	0.83 U	11
Toluene	29.9	27	35.2	28	8.81	15	15.3	14.2	17.6	16	28	20.7	6.47	22	16	20
Trichlorofluoromethane	NA	1.4	NA	1.3	NA	3.8 U	NA	NA	0.15 U	1.4	NA	0.15 U	0.8 UJ	1.4	1.4	1.6
Trichlorotrifluoroethane	NA	1.5	NA	2.7	NA	3.8 U	NA	NA	NA	1.7	NA	NA	NA	0.98 U	1.3	2.5
1,2,4-trimethylbenzene	15	0.82 U	18	1.1	3.4	3.8 U	6.5	3.15	4.95	1.1	3.85	6.9	8.49	0.98 U	0.83 U	0.91
1,3,5-trimethylbenzene	4.05	0.82 U	4.65	0.91 U	1.1	3.8 U	1.95	1.35	1.65	0.85 U	1.55	2.3	6.9	0.98 U	0.83 U	0.9 U
2,2,4-trimethylpentane	0.522 J	0.82 U	0.712 U	0.91 U	0.522 U	3.8 U	0.617 J	0.712 U	0.855	0.85 U	0.712 J	1.09	0.76	0.98 U	0.83 U	0.9 U
Vinyl acetate	0.537 U	9.1	0.537 U	9.1 U	0.537 U	38 U	0.537 U	0.537 U	0.537 U	8.5 U	0.537 U	0.537 U	0.537 U	9.8 U	8.3 U	10
o-Xylene	5.12	1	6.44	1.4	1.46	3.8 U	3.13	2.74	4.15	1.1	2.25	5.47	279	1.2	0.98	0.9 U
m&p Xylenes	19	2.8	21.2	3.5	5.78	3.8 U	10.6 J	9.71 J	14.7	3.1	12.8 J	17.8	1150	2.8	3	1.9

a/ U - not detected
J - estimated value
DUP - duplicate sample
C - estimated value due to exceedances in calibration criteria
NA - not analyzed

Table 1

Manhole Sample Results (ug/m^3) (a)
Emerson Power Transmission
Ithaca, New York

Sample ID:	MH-11	MH-11	MH-12	MH-13	MH-14	MH-14	MH-15	MH-16
Sample Type:	INVE	DUP	INVE	INVE	INVE	DUP	INVE	INVE
Sampling Date:	07/09/08	07/09/08	02/28/08	02/28/08	02/28/08	02/28/08	07/08/08	07/08/08
Site-Related VOCs (µg/m3)								
1,1,1-Trichloroethane	1.2	1.3	0.89	0.13 U	0.15 U	0.14 U	0.97	5.1
1,2-Dichloroethane	0.19 U	0.18 U	0.14 U	0.13 U	0.15 U	0.14 U	0.17 U	0.16 U
cis-1,2-Dichloroethylene	0.51	0.5	7.6	1.5	1.8	1.8	0.17 U	3.4
Methylene chloride	1.7	1.7	0.71	0.13 U	0.15 U	0.7	4.3	1.7
Tetrachloroethene	6.7	5.9	3.8	1.1	1.4	1.8	39	24
trans-1,2-Dichloroethene	0.19 U	0.18 U	0.14 U	0.13 U	0.15 U	0.14 U	0.17 U	0.16 U
Trichloroethene	170	170	22	5.3	6.5	6.4	18	20
Vinyl chloride	0.19 U	0.18 U	2.1	0.47	0.56	0.5	0.17 U	0.16 U
Non Site-Related VOCs (µg/m3)								
Acetone	22 M	55	77	64	100	96	29	35
Benzene	1.6	1.8	0.7 U	0.9	1	1.2	0.85 U	1
Bromodichloromethane	11	10	25	8.7	20	20	40	19
Bromofluorobenzene	26.1	26.5	26	26.1	26.1	26.1	25.9	25.9
Bromoform	0.94 U	0.92 U	0.7 U	0.66 U	0.77 U	0.68 U	0.85 U	0.8 U
2-Butanone	3.5	4.1	0.7 U	0.66 U	1	0.75	5.6	3.4
Carbon disulfide	0.94 U	0.92 U	0.84	0.66 U	0.96	0.96	0.85 U	0.94
Carbon tetrachloride	0.73	0.81	0.61	0.54	0.57	0.55	0.58	0.64
Chloroform	84	80	120	42	98	97	300	140
Chloromethane	0.94 U	0.92 U	0.7 U	0.66 U	0.77 U	0.68 U	0.85 U	0.8 U
Cyclohexane	0.94 U	0.92 U	0.7 U	0.66 U	0.77 U	0.68 U	0.85 U	0.8 U
Dibromochloromethane	0.94 U	0.92 U	4	1.4	3.4	3.4	3.5	1.8
1,4-Dichlorobenzene	0.94 U	0.92 U	0.7 U	0.66 U	0.77 U	0.68 U	0.85 U	0.8 U
Dichlorodifluoromethane	2.3	2.2	2.2	2.3	2.4	2.1	3.1	2.7
1,1-Dichloroethane	0.94 U	0.92 U	0.7 U	0.66 U	0.77 U	0.68 U	0.85 U	0.85
1,1-Dichloroethene	0.94 U	0.92 U	0.7 U	0.66 U	0.77 U	0.68 U	0.85 U	0.8 U
Ethyl acetate	1.5	1.8	5.7	2.5	11	5.4	4.9	4.6
Ethylbenzene	1	1.2	0.7 U	0.66 U	0.77 U	0.68 U	0.85 U	0.8
4-ethyltoluene	0.94 U	0.92 U	0.7 U	0.66 U	0.77 U	0.68 U	0.85 U	0.8
Freon 113	0.94 U	0.92 U	0.7 U	0.66 U	0.77 U	0.68 U	0.85 U	0.8
n-Heptane	0.94 U	0.92 U	0.7 U	0.66 U	0.77 U	0.68 U	0.85 U	0.8
n-Hexane	2.4	2.2	0.7 U	0.66 U	1	1.1	0.85 U	0.86
2-Hexanone	0.94 U	1.5	0.7 U	0.66 U	0.77 U	0.68 U	0.85 U	0.8 U
2-Propanol (Isopropyl Alcohol)	2.2 U	3.9	31	34	32	32	4.2	6
Propylene	0.94 U	0.92 U	4.2	2.8	4.1	3.6	2.3 M	3.4 M
Styrene	0.94 U	0.92 U	0.7 U	0.66 U	0.77 U	0.68 U	0.85 U	0.8 U
Tetrahydrofuran	0.94 U	0.92 U	0.7 U	0.66 U	0.77 U	0.68 U	0.85 U	2.3
Toluene	14	14	2.2	6.3	3.6	3.9	24	9.9
Trichlorofluoromethane	1.2	1.2	1.2	1.3	1.2	1.3	2.5	1.3
Trichlorotrifluoroethane	1.1	1.1	0.7 U	0.66 U	0.77 U	0.68 U	0.85 U	1.9
1,2,4-trimethylbenzene	0.94 U	1.2	0.7 U	1.1	0.77 U	0.68 U	2.7	0.8 U
1,3,5-trimethylbenzene	0.94 U	0.92 U	0.7 U	0.66 U	0.77 U	0.68 U	0.85 U	0.8 U
2,2,4-trimethylpentane	0.94 U	0.92 U	0.7 U	0.66 U	0.77 U	0.68 U	0.85 U	0.8 U
Vinyl acetate	9.4 U	9.2 U	7 U	6.6 U	7.7 U	6.8 U	8.5 U	8
o-Xylene	1.2	1.4	0.7 U	0.66 U	0.77 U	0.68 U	0.85 U	0.8 U
m&p Xylenes	3.5	3.8	0.7 U	0.94	0.77 U	0.77	2.7	2

a/ U - not detected
J - estimated value
DUP - duplicate sample
C - estimated value due to exceedan
NA - not analyzed

Appendix A – Laboratory Data package and QA/QC Summary Report

Data Usability Summary Report
for Manhole Samples Collected near the EPT Site
Ithaca, New York
July 8, 2008

Introduction

This Data Usability Summary Report (DUSR) includes 13 vapor samples collected from manholes in the vicinity of the Emerson Power Transmission (EPT) site on July 8, 2008. The samples were analyzed by Columbia Analytical Services, Inc. of Simi Valley, California, for volatile organic compounds (VOCs), by U.S. Environmental Protection Agency (EPA) Method TO-15. The data were reviewed in accordance with the method and chain-of-custody criteria outlined in the National Functional Guidelines of Organic (October 1999) Data Review.

Volatile Organic Compounds

Thirteen vapor samples were analyzed for VOCs by EPA Method TO-15. The data were reviewed for surrogate recovery, matrix spike/matrix spike duplicate (MS/MSD) recovery, blank contamination, instrument performance, calibration, and calculation criteria.

Several positive and non-detectable 2-propanol results were qualified "C," as estimated, for failing to meet continuing calibration criteria.

The reporting limits for sample MH-3 were elevated because the sample had to be diluted in order to get the analytes into the calibration range. The sample had a relatively high concentration of limonene in it.

Overall Assessment of the Data

The data presented are acceptable.

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