

Report of Progress, May 29, 2009

Pursuant to Administrative Settlement Agreement and Order on Consent for Removal Action

Docket No. V-W-08-C-897

Countywide Recycling and Disposal Facility
East Sparta, Stark County, Ohio
Respondent: Republic Services of Ohio II, LLC (Republic)

Paragraph 15.a and b Enhanced Gas Extraction and Temperature Monitoring [NOTE: THIS WORK ITEM IS SUPERSEDED BY AN ISOLATION BREAK EXCAVATION].

Completion of the excavation phase of the Isolation Break was presented in last month's Report of Progress. In May 2009, eight new gas extraction wells were installed, a road was constructed at the bottom of the break, and a temporary FML cap was placed over the exposed slope on the Cell 5 side of the break. A drawing indicating the limit of work and progress is contained in Attachment A-1.

In situ temperature monitoring of the FBMP thermocouple monitors were continued throughout the month; results are presented in Attachment A-2.

Paragraph 15.c and f Capping and Stabilization.

A map depicting the current status of capping is included in Attachment B. A Capping Plan for the remaining uncapped areas of the site (Cells 1-3) was submitted by Countywide for review by the U.S. EPA on May 28, 2009. The new Capping Plan proposes additional temporary FML cap but no composite cap.

Paragraph 15.e Air Monitoring and Sampling.

Upon completion of the Isolation Break excavation in late April 2009, Tier 1 (Worker Monitoring), and Tier 2 (Construction Zone Monitoring) were discontinued, consistent with the provisions of the approved Plans. In May, air monitoring activities consisted of the Tier 3 (Stage C Fixed Continuous Monitoring), and Tier 4 (Community Monitoring). Even through the heaviest construction activities, the canisters collected in these programs have showed that no VOCs exceeded the ATSDR's acute or chronic Minimal Risk Levels (MRLs). A summary of the results is included in Attachments C-1 and C-2.

Paragraph 15.g Aerial Infrared Imaging.

April 2009 and May 2009 aerial infrared images are provided in Attachment D along with a diagram to outline the approximate coverage of the images. Both images were taken in the pre-dawn hours. The ambient air temperature during the April 2009 image was 64° F and during the May 2009 image was 50° F. Comparison of these images generally shows the same subcap warm areas attributed to subcap leachate outbreaks and transmittal of gas through subcap cracking with no large aerial changes or trends.

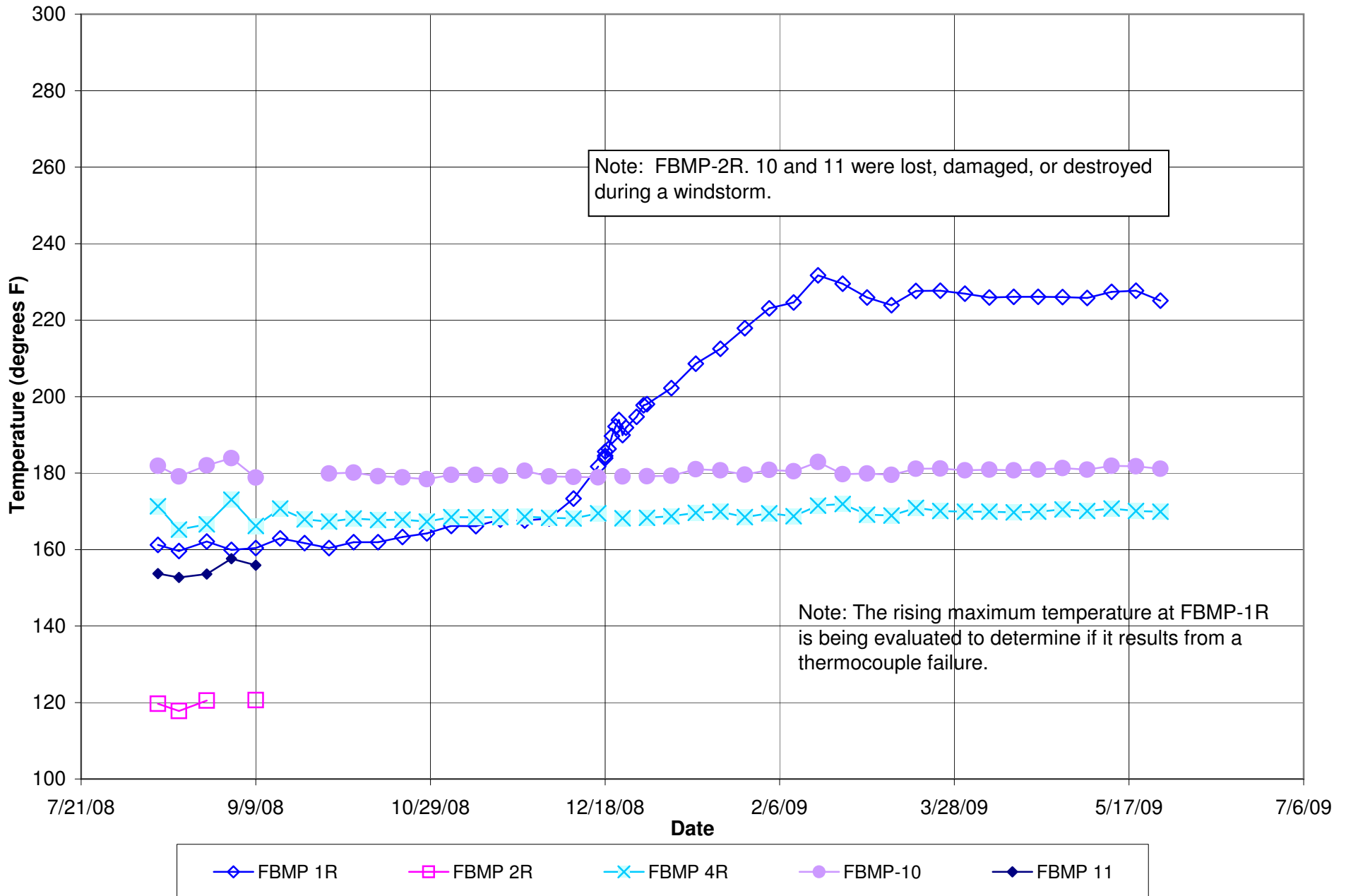
ATTACHMENT A-1

ISOLATION BREAK EXCAVATION PROGRESS

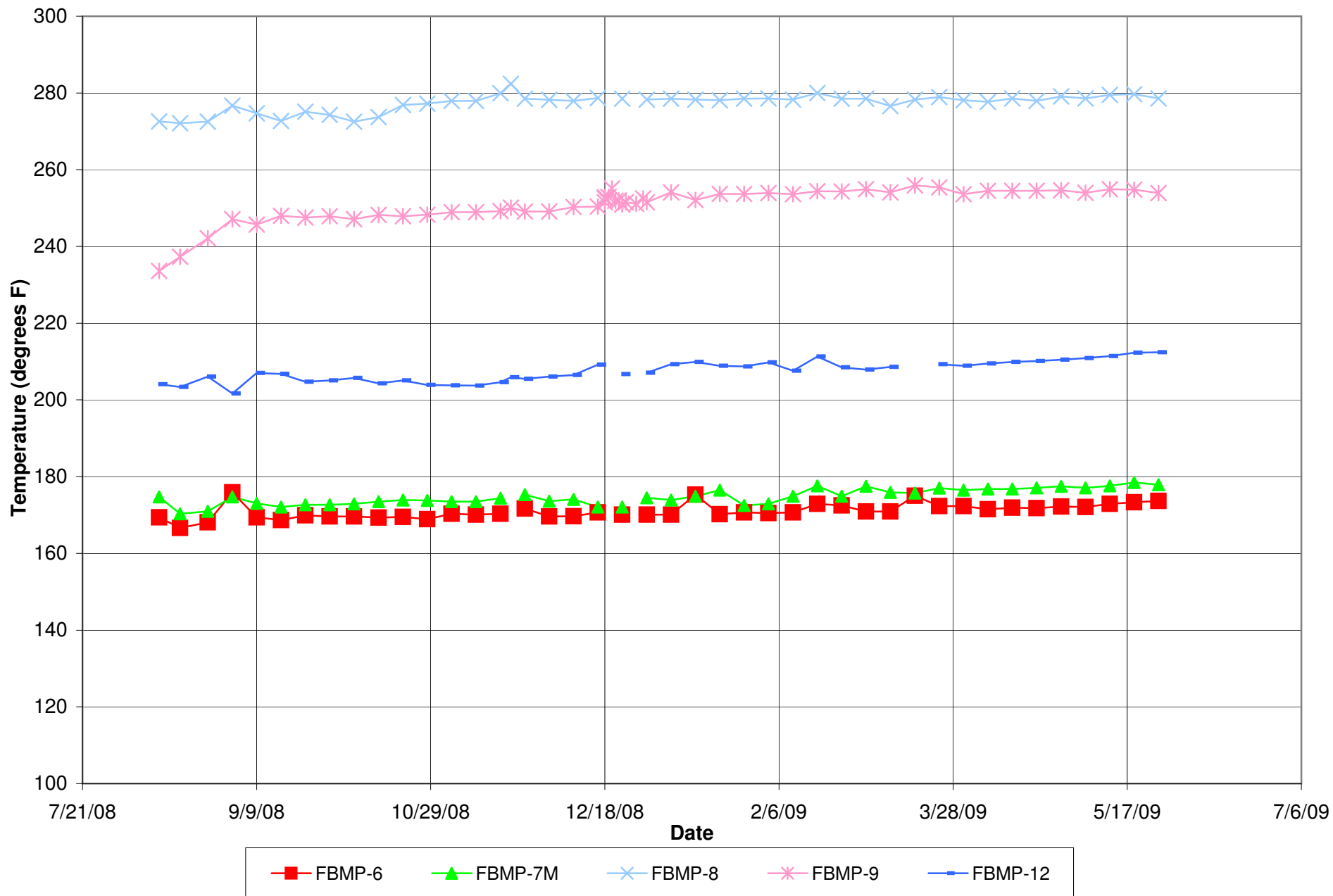
ATTACHMENT A-2

FBMP TEMPERATURE PROBE GRAPHS

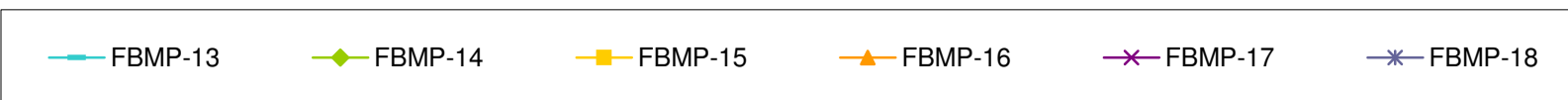
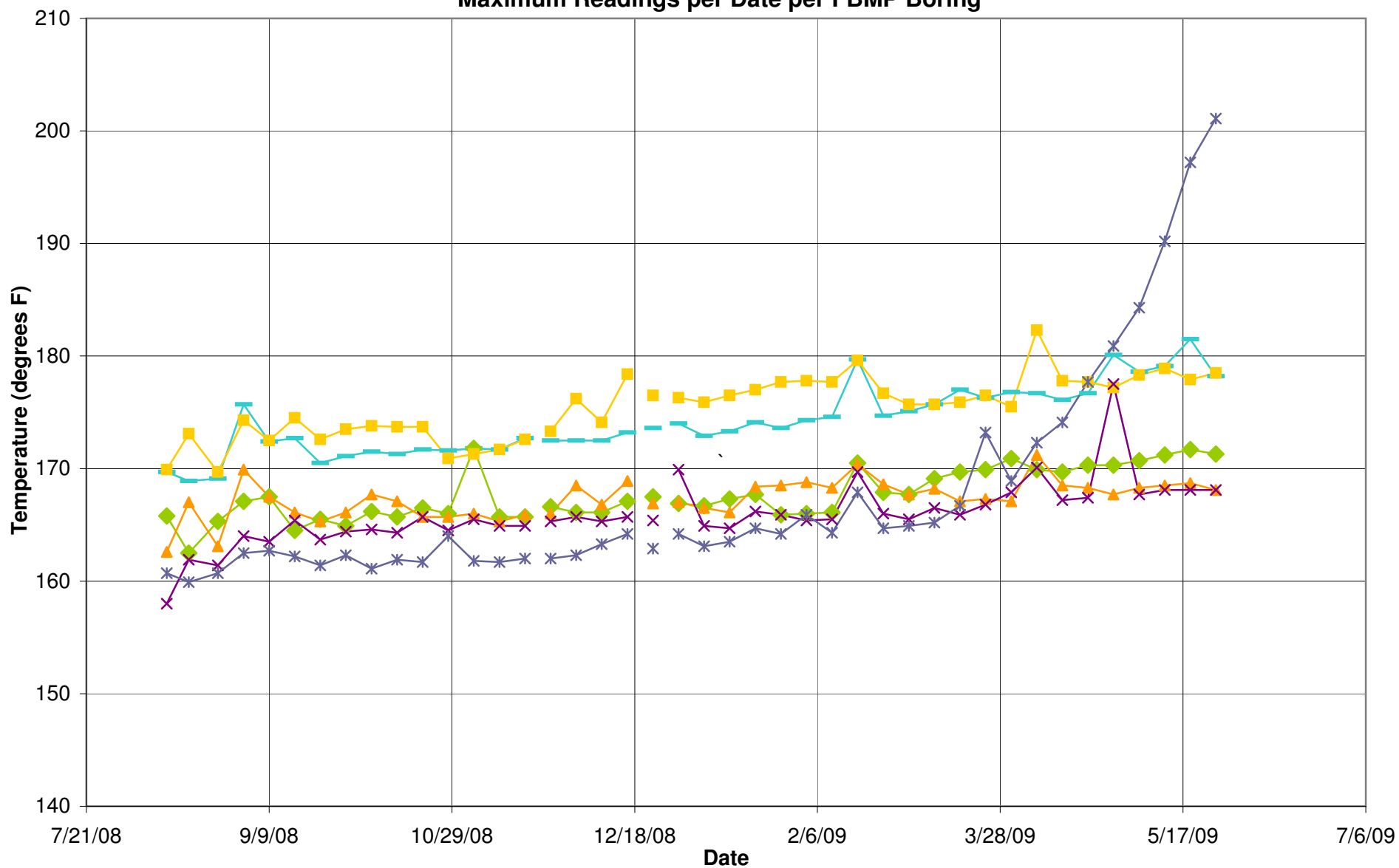
In-situ Temperatures - FBMPs within 150 ft of the Isolation Break Excavation
Maximum Readings per Date per FBMP Boring



In-situ Temperatures - FBMPs beyond 150 ft from Isolation Break Excavation
Maximum Readings per Date per FBMP Boring

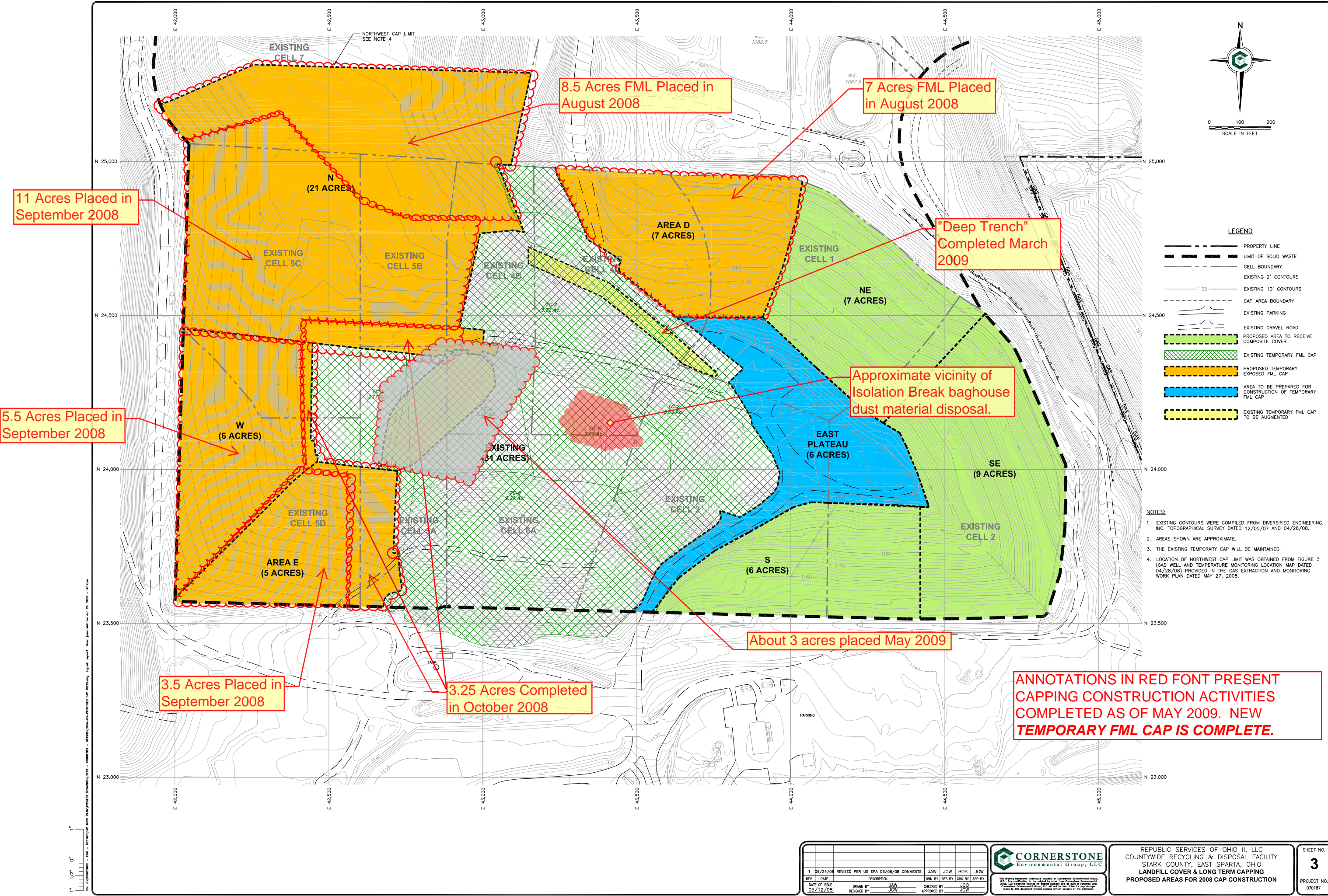


In-situ Temperatures - West Slope FBMPs
Maximum Readings per Date per FBMP Boring



ATTACHMENT B

CAPPING AND STABILIZATION PROGRESS



11 Acres Placed in September 2008

5.5 Acres Placed in September 2008

3.5 Acres Placed in September 2008

3.25 Acres Completed in October 2008

8.5 Acres FML Placed in August 2008

7 Acres FML Placed in August 2008

"Deep Trench" Completed March 2009

Approximate vicinity of Isolation Break baghouse dust material disposal.

About 3 acres placed May 2009

ANNOTATIONS IN RED FONT PRESENT CAPPING CONSTRUCTION ACTIVITIES COMPLETED AS OF MAY 2009. NEW TEMPORARY FML CAP IS COMPLETE.

- LEGEND**
- PROPERTY LINE
 - LIMIT OF SOLID WASTE
 - CELL BOUNDARY
 - EXISTING 2' CONTOURS
 - EXISTING 10' CONTOURS
 - CAP AREA BOUNDARY
 - EXISTING PARKING
 - EXISTING GRAVEL ROAD
 - PROPOSED AREA TO RECEIVE COMPOSITE COVER
 - EXISTING TEMPORARY FML CAP
 - PROPOSED TEMPORARY EXPOSED FML CAP
 - AREA TO BE PREPARED FOR CONSTRUCTION OF TEMPORARY FML CAP
 - EXISTING TEMPORARY FML CAP TO BE AUGMENTED

- NOTES:**
- EXISTING CONTOURS WERE COMPILED FROM DIVERSIFIED ENGINEERING, INC. TOPOGRAPHICAL SURVEY DATED 12/05/07 AND 04/28/08.
 - AREAS SHOWN ARE APPROXIMATE.
 - THE EXISTING TEMPORARY CAP WILL BE MAINTAINED.
 - LOCATION OF NORTHWEST CAP LIMIT WAS OBTAINED FROM FIGURE 3 (GAS WELL AND TEMPERATURE MONITORING LOCATION MAP DATED 04/28/08) PROVIDED IN THE GAS EXTRACTION AND MONITORING WORK PLAN DATED MAY 27, 2008.

| REV | DATE | DESCRIPTION | DWN BY | DES BY | CHK BY | APP BY |
|-----|----------|--------------------------------------|--------|--------|--------|--------|
| 1 | 06/24/08 | REVISED PER US EPA 06/06/08 COMMENTS | JAW | JGW | BOS | JGW |
| 2 | 05/12/09 | DATE OF ISSUE | JAW | JGW | JCO | JGW |



REPUBLIC SERVICES OF OHIO II, LLC
COUNTYWIDE RECYCLING & DISPOSAL FACILITY
STARK COUNTY, EAST SPARTA, OHIO
LANDFILL COVER & LONG TERM CAPPING
PROPOSED AREAS FOR 2008 CAP CONSTRUCTION

SHEET NO.
3
PROJECT NO.
070187

ATTACHMENT C-1

TIER 3 (STAGE C) FIXED CONTINUOUS MONITORING RESULTS

May 2009 Stage C Monthly Ambient Air Monitoring Report

Prepared for

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Prepared by

Center for Toxicology and Environmental Health, L.L.C.
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May 27, 2009



The Stage C ambient air monitoring program has continuously collected real-time Volatile Organic Compounds (VOC) and weather data 24 hours per day since October 2, 2008. Over 1,666,920 VOC readings have been collected at the perimeter of the landfill during this monitoring period.

Trigger Levels

On January 27, 2009, Center for Toxicology and Environmental Health (CTEH®), United States Environmental Protection Agency (USEPA) and Agency for Toxic Substances and Disease Registry (ATSDR) adjusted the trigger levels for the collection of SUMMA canister laboratory samples. A sustained VOC concentration at or above 0.50 ppm VOC was chosen as the trigger level for each station. Table 1.0 illustrates the trigger levels for each station.

Table 1.0
April 29, through May 27 Trigger Levels

| Station | Trigger Level (ppm) |
|---------|---------------------|
| 1 | 0.50 |
| 2 | 0.50 |
| 3 | 0.50 |
| 4 | 0.50 |
| 5 | 0.50 |

If a trigger level is exceeded for a five minute consecutive monitoring period, a 15 minute integrated SUMMA canister is automatically collected. Trigger levels will continue to be evaluated based on the results of the SUMMA canister data or VOC statistics.

Real-Time Results

During the April 29, 2009 through May 27, 2009 monitoring period, approximately 194,692 real-time VOC readings have been collected at the perimeter of the landfill. Of these readings, the sustained VOC concentration exceeded the established trigger levels 2 times. The mean VOC concentrations collected at the perimeter of the landfill ranged from 0.05 ppm to 0.24 ppm. Table 2.0 summarizes the real-time data collected for this monitoring period.

Table 2.0 April 29, through May 27, Real Time Data Summary

| Station | Analyte | Total VOC Readings Recorded | Trigger Level | Triggering events | Average Concentration |
|---------|---------|-----------------------------|---------------|-------------------|-----------------------|
| 1 | VOC | 39,353 | 0.50 | 0 | 0.10 ppm |
| 2 | VOC | 42,792 | 0.50 | 0 | 0.05 ppm |
| 3 | VOC | 32,038 | 0.50 | 1 | 0.08 ppm |
| 4 | VOC | 40,715 | 0.50 | 0 | 0.07 ppm |
| 5 | VOC | 39,794 | 0.50 | 1 | 0.24 ppm |

A graphical representation of 24 hour average Real-time concentrations can be viewed in Attachment A.

Summa Results

As of May 15, 2009 Tentatively Identified Compounds (TIC) analysis was discontinued. Therefore, only compounds on the TO15 target compound list will be analyzed by the laboratory. Additionally Sample preparation was modified from individually certified clean SUMMA canisters to batch certified clean canisters. Two SUMMA samples were collected during this monitoring period (Attachment B). With these laboratory results and previously available sample results, no VOCs, including benzene, were detected at levels that exceeded the ATSDR's acute or chronic Minimal Risk Levels (MRLs). These data to date indicate that landfill emissions from the site under current conditions do not pose a risk to human health in the short or long term.

Attachment A

Custom Date Report

Start Date

End Date

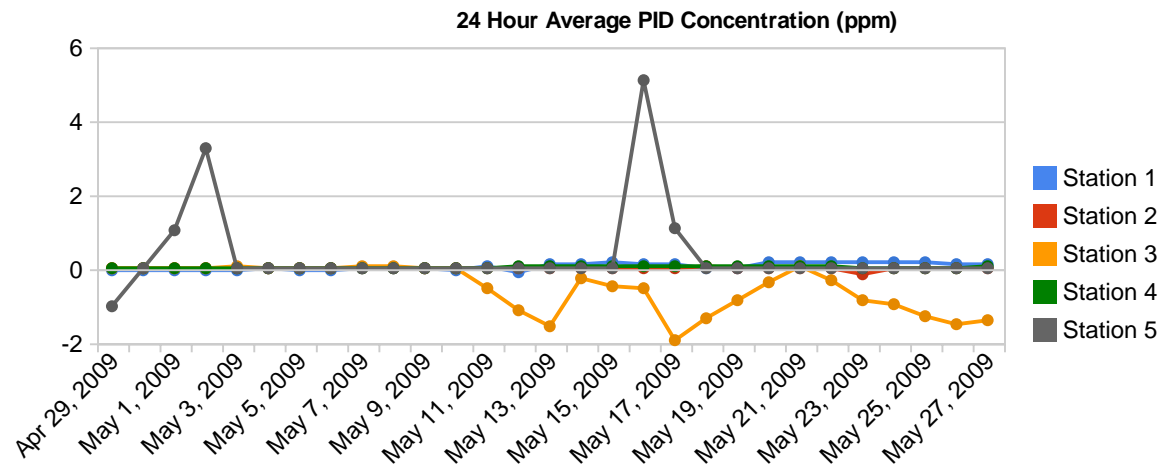
2009/04/29

Calendar

2009/05/27

Calendar

Save



| <u>Day</u> | <u>Station 1 (PID)</u> | <u>Station 2 (PID)</u> | <u>Station 3 (PID)</u> | <u>Station 4 (PID)</u> | <u>Station 5 (PID)</u> |
|------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| 2009-04-29 | 0.01 | 0.06 | 0.04 | 0.04 | -0.95 |
| 2009-04-30 | 0.01 | 0.06 | 0.06 | 0.05 | 0.06 |
| 2009-05-01 | 0.02 | 0.05 | 0.08 | 0.05 | 1.09 |
| 2009-05-02 | 0.02 | 0.06 | 0.05 | 0.05 | 3.30 |
| 2009-05-03 | 0.02 | 0.05 | 0.08 | 0.04 | 0.05 |
| 2009-05-04 | 0.03 | 0.06 | 0.06 | 0.04 | 0.05 |
| 2009-05-05 | 0.02 | 0.06 | 0.05 | 0.04 | 0.05 |
| 2009-05-06 | 0.01 | 0.06 | 0.04 | 0.04 | 0.05 |
| 2009-05-07 | 0.03 | 0.05 | 0.12 | 0.04 | 0.05 |
| 2009-05-08 | 0.03 | 0.05 | 0.09 | 0.04 | 0.05 |
| 2009-05-09 | 0.03 | 0.05 | 0.07 | 0.04 | 0.05 |

| | | | | | |
|------------|-------|-------|-------|------|------|
| 2009-05-10 | 0.02 | 0.06 | 0.04 | 0.04 | 0.05 |
| 2009-05-11 | 0.08 | 0.06 | -0.49 | 0.07 | 0.05 |
| 2009-05-12 | -0.06 | 0.08 | -1.09 | 0.11 | 0.05 |
| 2009-05-13 | 0.16 | 0.06 | -1.53 | 0.11 | 0.05 |
| 2009-05-14 | 0.18 | 0.06 | -0.24 | 0.13 | 0.05 |
| 2009-05-15 | 0.19 | 0.06 | -0.45 | 0.12 | 0.05 |
| 2009-05-16 | 0.18 | 0.06 | -0.48 | 0.11 | 5.12 |
| 2009-05-17 | 0.14 | 0.07 | -1.88 | 0.09 | 1.15 |
| 2009-05-18 | 0.07 | 0.08 | -1.27 | 0.09 | 0.05 |
| 2009-05-19 | 0.06 | 0.07 | -0.79 | 0.09 | 0.05 |
| 2009-05-20 | 0.20 | 0.06 | -0.31 | 0.09 | 0.05 |
| 2009-05-21 | 0.20 | 0.06 | 0.09 | 0.09 | 0.05 |
| 2009-05-22 | 0.20 | 0.04 | -0.27 | 0.09 | 0.05 |
| 2009-05-23 | 0.21 | -0.09 | -0.81 | 0.08 | 0.05 |
| 2009-05-24 | 0.20 | 0.04 | -0.94 | 0.07 | 0.05 |
| 2009-05-25 | 0.19 | 0.05 | -1.23 | 0.07 | 0.05 |
| 2009-05-26 | 0.18 | 0.06 | -1.48 | 0.07 | 0.05 |
| 2009-05-27 | 0.19 | 0.05 | -1.36 | 0.08 | 0.05 |



Center for Toxicology and
Environmental Health, L.L.C.

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Attachment B

Stage C Integrated Air Sampling Summary

| Sample ID | Set out Date | Location | Trigger Level | Trigger Date/Time | Wind Direction | Downwind of Reaction Area | Results (Link) | Average 15 min PID Reading During Sample | TICS Identified/ Sampling Methods | Ambient Sampling Temp (Celsius) |
|------------------|--------------|-----------|--|-------------------|----------------|---------------------------|----------------------------------|--|--|---------------------------------|
| ESOH1108-1-SC001 | 11/8/2008 | Station 1 | 0.50 ppm | 11/12/2008 22:52 | 134 | NO | ESOH1108-1-SC001 | 0.58 | None | |
| ESOH1108-2-SC002 | 11/8/2008 | Station 2 | 0.18 ppm | 11/10/2008 4:38 | 266 | YES | ESOH1101-2-SC002 | -0.50 | Hexafluoropropylene | 7.8 |
| ESOH1108-3-SC003 | 11/8/2008 | Station 3 | Sample Fault-Calibration gas triggered the Summa collection system | | | | | | | |
| ESOH1108-5-SC004 | 11/8/2008 | Station 5 | 0.17 ppm | 12/20/2008 3:53 | 12 | NO | ESOH1108-5-SC004 | 22.52* | Ethane, 1,1 difluoro; Ethylene Oxide; Isopropyl Alcohol; Propane; 1,1,1,3,3,3,-hexafluoro-2-triflu; Propene, hexafluoro | 7.8 |
| ESOH1110-2-SC005 | 11/10/2008 | Station 2 | 0.18 ppm | 11/10/2008 20:15 | 338 | YES | ESOH1110-2-SC005 | 0.17 | unknown | -0.2 |
| ESOH1111-2-SC006 | 11/11/2008 | Station 2 | Sample Fault Calibration gas triggered the Summa collection system | | | | | | | |
| ESOH1111-4-SC007 | 11/11/2008 | Station 4 | 0.10 ppm | 11/23/2008 14:06 | 227 | NO | ESOH1111-4-SC007 | 0.09 | Isopropyl alcohol; Propene, Hexafluoro-; Unknown | 2.3 |
| ESOH1113-1-SC008 | 11/13/2008 | Station 1 | 0.50 ppm | 11/13/2008 21:02 | 181 | NO | ESOH1113-1-SC008 | 0.60 | Ethyl alcohol; Propene, hexafluoro; Unknown | 10.8 |
| ESOH1114-1-SC009 | 11/11/2008 | Station 1 | 0.50 ppm | 11/24/2008 15:13 | 179 | NO | ESOH1114-1-SC009 | 0.53 | Methyl alcohol; Propene, hexafluoro | 4.6 |
| ESOH1119-3-SC010 | 11/19/2008 | Station 3 | Sample Fault- Leaking SUMMA Cannister | | | | | | | |
| ESOH1123-3-SC011 | 11/23/2008 | Station 3 | 0.13 ppm | 11/29/2008 3:06 | 290 | Downwind of Working phase | ESOH1123-3-SC011 | 0.04 | Butane; Butane, 2 methyl-; Disulfide, dimethyl; Ethane, 1-chloro-1,1-difluoro-; Ethyl alcohol; Isobutane; Pentane; Pentane, 2-methyl-; Propane; Propene, hexafluoro- | -1.6 |

Stage C Integrated Air Sampling Summary

| Sample ID | Set out Date | Location | Trigger Level | Trigger Date/Time | Wind Direction | Downwind of Reaction Area | Results (Link) | Average 15 min PID Reading During Sample | TICS Identified/ Sampling Methods | Ambient Sampling Temp (Celsius) |
|------------------|--------------|-----------|--|-------------------|----------------|---------------------------|----------------------------------|--|--|---------------------------------|
| ESOH1124-4-SC012 | 11/24/2008 | Station 4 | 0.10 ppm | 11/24/2008 14:23 | 226 | NO | ESOH1124-4-SC012 | 0.10 | None | 4.1 |
| ESOH1124-4-SC013 | 11/24/2008 | Station 4 | Sample Fault-Calibration gas triggered the Summa collection system | | | | | | | |
| ESOH1124-1-SC014 | 11/24/2008 | Station 1 | Sample Fault | | | | | | | |
| ESOH1126-4-SC015 | 11/26/2008 | Station 4 | 0.10 ppm | 11/29/2008 11:51 | 192 | NO | ESOH1126-4-SC015 | 0.10 | Ethyl alcohol;Methyl Alcohol; Propene; hexafluoro- | 2.7 |
| ESOH1129-3-SC016 | 11/29/2008 | Station 3 | Sample Fault | | | | | | | |
| ESOH1129-4-SC017 | 11/24/2008 | Station 4 | Sample Fault | | | | | | | |
| ESOH1202-4-SC018 | 12/2/2008 | Station 4 | 0.10 ppm | 12/3/2008 8:28 | 195 | NO | ESOH1202-4-SC018 | 0.10 | None | -2.0 |
| ESOH1203-4-SC019 | 12/3/2008 | | Sample Fault due to PID malfunction | | | | | | | |
| ESOH1205-4-SC020 | 12/5/2008 | Station 4 | Sample Fault | | | | | | | |
| ESOH1208-4-SC021 | 12/8/2008 | Station 4 | 0.10 ppm | 12/21/2008 5:52 | 292 | NO | ESOH1208-4-SC021 | 0.26 | Acetaldehyde; Butane, 2-methyl-; Pentane; Propene; hexafluoro- | -1.3 |
| ESOH1218-3-SC022 | 12/18/2008 | Station 3 | Sample Fault- Leaking SUMMA Cannister | | | | | | | |
| ESOH1220-5-SC023 | 12/20/2008 | Station 5 | Sample Fault- Leaking SUMMA Cannister | | | | | | | |

Stage C Integrated Air Sampling Summary

| Sample ID | Set out Date | Location | Trigger Level | Trigger Date/Time | Wind Direction | Downwind of Reaction Area | Results (Link) | Average 15 min PID Reading During Sample | TICS Identified/ Sampling Methods | Ambient Sampling Temp (Celsius) |
|------------------|--------------|-----------|---------------|-------------------|----------------|---------------------------|----------------------------------|--|---|---------------------------------|
| ESOH1222-4-SC024 | 12/22/2008 | Station 4 | 0.10 ppm | 1/6/2009 0:02 | 110 | Yes | ESOH1222-4-SC024 | 0.06 | Butane; Butane, 2-methyl-; Dimethyl ether; Ethyl alcohol; Hexane, 3-methyl-; Hydroxylamine, O-methyl-; Pentane; Pentane, 2-methyl-; Propene, hexafluoro-, 1-propene, 2-methyl-; | -3.6 |
| ESOH1230-5-SC025 | 12/30/2008 | Station 5 | 0.17 ppm | 1/8/2009 10:59 | 243 | Yes | ESOH1230-5-SC025 | 0.16 | Butanoic acid, ethyl ester; Ethane, 1,1-difluoro-; Ethyl alcohol; Isopropyl Alcohol; Methyl Alcohol; Propene, hexafluoro-; 1-Propanol; 2-Butanol, (R-); | -7.0 |
| ESOH0106-4-SC026 | 1/6/2009 | Station 4 | 0.10 ppm | 1/7/2008 20:11 | 258 | No | ESOH0106-4-SC026 | 0.10 | Butane; Butane, 2-methyl-; Ethane, 1,1-difluoro-; Pentafluoropropionamide; Pentane; | -2.2 |
| ESOH0107-2-SC027 | 1/7/2009 | Station 2 | 0.18 ppm | 2/9/2009 2:23 | 223 | No | ESOH0107-2-SC027 | 0.92* | Propene, hexafluoro-; | 1.6 |
| ESOH0108-4-SC028 | 1/8/2009 | Station 4 | 0.10 ppm | Current Sample | | | | | | |
| ESOH0108-5-SC029 | 1/8/2009 | Station 5 | 0.17 ppm | 1/19/2009 0:32 | 215 | Yes | ESOH0108-5-SC029 | 0.26 | Ethyl alcohol; Furan; Propene; | -11.70 |
| ESOH0108-3-SC030 | 1/8/2009 | Station 3 | 0.13 ppm | 4/25/2009 12:00 | | | ESOH0108-3-SC030 | 0.20 | Acetaldehyde; Butane, 2-methyl-; Ethanol; Propane; Propene, hexafluoro-2-Cyano-2-O-fluorosulfatofluoropropane; | 25.4 |
| ESOH0119-5-SC031 | 1/19/2009 | Station 5 | 0.13 ppm | 1/19/2009 13:22 | 267 | Yes | ESOH0119-5-SC031 | 0.17 | Ethyl alcohol; Isopropyl Alcohol; Methyl Alcohol; 1-Butanol; 1-Propanol; 2-Butanol; | -9.30 |
| ESOH0119-5-SC032 | 1/19/2009 | Station 5 | 0.13 ppm | 1/26/2009 9:21 | 220 | Yes | ESOH0119-5-SC032 | 0.18 | Ethyl alcohol; Propene, hexafluoro-; | -12.6 |
| ESOH0119-1-SC033 | 1/19/2009 | Station 1 | 0.50 ppm | Current Sample | | | | | | |
| ESOH0119-5-SC034 | 1/19/2009 | Station 5 | 0.50 ppm | 2/16/2009 7:02 | 10 | No | ESOH0127-5-SC034 | 0.78 | Butane, 2-methyl-; Pentane; Propane; Propene, hexafluoro-; | -4.6 |

Stage C Integrated Air Sampling Summary

| Sample ID | Set out Date | Location | Trigger Level | Trigger Date/Time | Wind Direction | Downwind of Reaction Area | Results (Link) | Average 15 min PID Reading During Sample | TICS Identified/ Sampling Methods | Ambient Sampling Temp (Celsius) |
|------------------|--------------|-----------|---------------|-------------------|----------------|---------------------------|----------------------------------|--|--|---------------------------------|
| ESOH0209-2-SC035 | 2/9/2009 | Station 2 | 0.50 ppm | 2/10/2009 6:25 | 211 | No | ESOH0209-2-SC035 | 1.41* | Propene, hexafluoro- | 8.4 |
| ESOH0210-2-SC036 | 2/10/2009 | Station 2 | 0.50 ppm | Current Sample | | | | | | |
| ESOH0216-5-SC037 | 2/16/2009 | Station 5 | 0.50 ppm | 2/18/2009 6:12 | 168 | Yes | ESOH0216-5-SC037 | 0.56 | Acetaldehyde; Propene | 2.1 |
| ESOH0218-5-SC038 | 2/18/2009 | Station 5 | 0.50 ppm | 4/14/2009 16:39 | 97 | No | ESOH0218-5-SC038 | 14.16 | Butane, 2-methyl-; Ethane, 1,1-difluoro-; Ethanol; Methyl Alcohol; N,N'-Methylenebismethacrylamide; Oxirane, ethyl-; Propane; Propene, hexafluoro- | 10.1 |
| ESOH0416-5-SC039 | 4/16/2009 | Station 5 | 0.50 ppm | 4/20/2009 18:17 | 240 | Yes | ESOH0416-5-SC039 | 0.04 | Acetaldehyde; Butane, 2-methyl-; Propene, hexafluoro- | 9.0 |
| ESOH0422-5-SC040 | 4/22/2009 | Station 5 | 0.50 ppm | 5/5/2009 6:49 | 199 | Yes | ESOH0422-5-SC040 | 0.59 | Ethanol; Propene, hexafluoro-; Unknown; Unknown | 14.7 |
| ESOH0429-3-SC041 | 4/29/2009 | Station 3 | 0.50 ppm | 5/15/2009 12:30 | 229 | Yes | ESOH0429-3-SC041 | 0.46 | | 21.2 |
| ESOH0504-5-SC042 | 5/4/2009 | Station 5 | 0.50 ppm | Current Sample | | | | | | |
| ESOH0518-3-SC043 | 5/18/2009 | Station 3 | 0.50 ppm | Current Sample | | | | | | |

Pending- Sample has been collected awaiting results from the laboratory

Average PID Reading During Sample- Average PID concentration during the SUMMA can sample collection

* Potential RAEGuard PID error (Drift) noted

Station 4 Trigger Change to 0.15 ppm on January 13, 2009

Stations 1 through 5 trigger levels have been changed to 0.50 ppm on January 27, 2009

TIC analysis was dropped from the laboratory Summa Results May 15, 2009

Summa Cannisters are Batch cleaned and not individually certified clean May 15, 2009

ATTACHMENT C-2

TIER 4 COMMUNITY MONITORING RESULTS

Table 1. Summary of TO-15 Results from SUMMA Samples Collected Downwind from Isolation Break

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | |
|--|---------------------|----------------------|----------------------|----------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|-------|
| Analyte | Downwind 12/9/08 | Downwind 12/12/08 | Downwind 12/15/08 | Downwind 12/18/08 | Downwind 1/05/09 | Downwind 1/08/09 | Downwind 1/14/09 | Downwind 1/20/09 | Downwind 1/23/09 | Downwind 1/26/09 | Downwind 1/29/09 | Downwind 2/04/09 | Downwind 2/16/09 | Downwind 2/25/09 | Downwind 3/03/09 | Downwind 3/30/09 | Downwind 4/02/09 | Downwind 4/08/09 | Downwind 4/14/09 | Downwind 4/17/09 | Avg |
| trans-1,3-Dichloropropene | | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dichloro-1,1,2,2-tetrafluoroethane | | | | | | | | | | | | | | | | | | | | | |
| Acetone | 5.1 | 6.9 | 7.5 | 5.1 | 2.8 | 13 | 5.8 | 14 | 18 | 3.6 | 8.9 | 5.6 | 5.6 | 6.9 | 2.0 | 5.3 | 3.1 | 2.8 | 15 | 5.9 | 7.15 |
| Ethylbenzene | 0.46 | 1.0 | 0.1 | | 0.13 | 1.2 | 0.46 | 0.68 | 0.15 | 0.090 | 0.670 | 0.210 | 0.31 | 0.24 | | 0.24 | 0.28 | 0.13 | 0.38 | 1.7 | 0.47 |
| Trichlorofluoromethane | 0.25 | 0.22 | 0.23 | 0.24 | 0.18 | 0.21 | 0.20 | 0.29 | 0.22 | 0.21 | 0.21 | 0.23 | 0.21 | 0.22 | 0.27 | 0.19 | 0.31 | 0.17 | 0.25 | 0.27 | 0.23 |
| n-Heptane | 0.64 | 0.30 | 0.15 | | 0.16 | 0.45 | 0.31 | 0.56 | 0.54 | 0.16 | 0.31 | 0.15 | 0.25 | 0.21 | 0.12 | 0.093 | 0.27 | 0.12 | 0.46 | 0.75 | 0.32 |
| Hexachlorobutadiene | | | | | | | | | | | | | | | | | | | | | |
| n-Hexane | 0.22 | 0.17 | 0.12 | 0.14 | 0.17 | | 0.20 | 0.40 | 0.54 | 0.31 | 0.17 | 0.17 | 0.15 | 0.19 | 0.16 | 0.084 | 0.28 | 0.13 | 0.35 | 1.1 | 0.27 |
| 2,2,4-Trimethylpentane | 0.08 | 0.064 | | | 0.077 | 0.099 | 0.10 | 0.14 | 0.16 | 0.044 | 0.062 | 0.054 | 0.057 | 0.059 | | | 0.087 | | 0.085 | 0.21 | 0.08 |
| tert-Butyl alcohol | 0.13 | 0.16 | 0.11 | 0.12 | 0.073 | 0.35 | 0.15 | 0.48 | 0.40 | 0.059 | 0.260 | 0.061 | 0.13 | 0.097 | 0.048 | 0.12 | 0.13 | 0.10 | 0.29 | 1.0 | 0.21 |
| Methylene chloride | 2.8 | 0.49 | 0.2 | 0.34 | 0.27 | 0.25 | 0.25 | 2.4 | 0.78 | 0.19 | 0.21 | 0.52 | 0.21 | 0.42 | 0.13 | 0.22 | 0.21 | 0.15 | 0.34 | 0.26 | 0.53 |
| Benzene | 0.39 | 0.50 | 0.21 | 0.32 | 0.30 | 0.89 | 0.52 | 0.84 | 0.94 | 2.0 | 0.44 | 0.26 | 0.32 | 0.66 | 0.23 | 0.15 | 2.2 | 0.63 | 1.4 | 12 | 1.26 |
| Styrene | 0.12 | 1.0 | | | | 0.1 | | | | | 0.070 | | | | | | | | | 0.064 | 0.33 |
| 1,1,2,2-Tetrachloroethane | | | 0.23 | 0.22 | | | | | | | | | | | | | | | | | 0.23 |
| Tetrachloroethene | 0.14 | 0.066 | | | | 0.069 | | 0.065 | 0.13 | | | | | | 1.3 | | | | 0.22 | 0.055 | 0.30 |
| Tetrahydrofuran | 0.47 | 0.57 | | 0.22 | | 0.90 | 0.34 | 0.83 | 0.93 | 0.97 | 0.47 | 0.16 | 0.23 | 0.31 | | 0.13 | 0.87 | 0.65 | 0.58 | 3.9 | 0.74 |
| Toluene | 2.9 | 2.4 | 0.63 | 0.19 | 0.86 | 3.9 | 1.3 | 3.3 | 1.8 | 0.65 | 2.1 | 0.85 | 1.3 | 0.78 | 0.20 | 0.54 | 1.0 | 0.44 | 1.5 | 4.5 | 1.45 |
| 1,2,4-Trichlorobenzene | | | | | 0.085 | | | | | | | | | | | | | | | | 0.09 |
| 1,1,1-Trichloroethane | | 0.073 | | | | | | | | | | | | | | | | | 0.084 | | 0.07 |
| Trichloroethene | 0.054 | 0.040 | 0.230 | 1.5 | | | | | 0.084 | | | | | | 0.19 | | | | 0.082 | 0.16 | 0.35 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.072 | 0.071 | 0.082 | 0.075 | 0.066 | 0.064 | 0.074 | 0.072 | 0.069 | 0.068 | 0.071 | 0.070 | 0.069 | 0.066 | 0.075 | 0.053 | 0.082 | 0.062 | 0.11 | 0.087 | 0.07 |
| 1,2,4-Trimethylbenzene | 0.17 | 0.38 | | | 0.085 | 0.54 | 0.18 | 0.19 | | | 0.35 | 0.076 | 0.19 | 0.16 | | 0.080 | 0.20 | | 0.15 | 0.60 | 0.22 |
| 1,3,5-Trimethylbenzene | | 0.14 | | | | 0.21 | 0.099 | 0.076 | | | 0.15 | | 0.079 | | | | 0.11 | | 0.081 | 0.25 | 0.12 |
| Vinyl chloride | | | | | | | | | 0.11 | | | | | | | | | | 0.12 | | 0.11 |
| o-Xylene | 0.3 | 0.5 | 0.078 | | 0.11 | 0.73 | 0.29 | 0.30 | | | 0.45 | 0.14 | 0.21 | 0.18 | | 0.11 | 0.35 | | 0.35 | 1.0 | 0.29 |
| m-Xylene & p-Xylene | 1.1 | 1.8 | 0.24 | | 0.36 | 3.0 | 1.1 | 1.3 | 0.22 | 0.13 | 1.7 | 0.49 | 0.78 | 0.58 | | 0.50 | 1.0 | 0.20 | 1.0 | 3.7 | 0.91 |
| 2-Butanone (MEK) | 2.7 | 2.8 | 0.88 | 1.4 | 1.2 | 6.3 | 3.2 | 9.2 | 6.2 | 1.0 | 3.5 | 1.6 | 2.0 | 1.5 | 0.43 | 0.81 | 0.92 | 0.56 | 2.7 | 2.3 | 2.56 |
| 4-Methyl-2-pentanone (MIBK) | 0.16 | 0.16 | 0.14 | | 0.058 | 0.31 | 0.11 | 0.27 | 0.13 | | 0.21 | 0.049 | 0.13 | 0.093 | | | 0.078 | 0.046 | 0.18 | 0.20 | 0.15 |
| Bromomethane | | | | | | | | | | | | | | | | | | | | | |
| 4-Ethyltoluene | 0.077 | 0.15 | 0.076 | | | 0.23 | 0.094 | 0.079 | | | 0.14 | | | | | | 0.076 | | 0.075 | 0.23 | 0.12 |
| Carbon disulfide | 0.044 | 0.045 | 0.097 | 0.077 | | 0.033 | 0.063 | 0.10 | 0.08 | | 0.055 | | | | | | 0.033 | 0.055 | 0.033 | 0.047 | 0.06 |
| Carbon tetrachloride | 0.093 | 0.069 | 0.099 | 0.11 | 0.082 | 0.065 | 0.10 | 0.094 | 0.076 | 0.066 | 0.069 | 0.069 | 0.067 | 0.078 | 0.066 | 0.056 | 0.10 | 0.065 | 0.10 | 0.11 | 0.08 |
| Chlorobenzene | | | | | | | | | | | | | | | | | | | | | |
| Chloroethane | | | 0.044 | | | | | | 0.036 | | | | | | | | 0.043 | | 0.084 | 0.15 | 0.04 |
| Chloroform | 0.045 | | | 0.039 | | | | | | | | | | | | | | | | | 0.04 |
| Chloromethane | 0.53 | 0.57 | 0.73 | 0.53 | 0.40 | 0.47 | 0.60 | 0.60 | 0.63 | 0.72 | 0.51 | 0.61 | 0.62 | 0.58 | 0.64 | 0.56 | 0.94 | 0.42 | 0.79 | 1.0 | 0.62 |
| 2-Chlorotoluene | | | | | | 0.25 | | | | | | | | | | | | | | | 0.25 |
| Cyclohexane | 0.14 | | | | | | | | 0.44 | | 0.067 | 0.53 | | 0.065 | 0.072 | | 0.11 | | 0.23 | 0.35 | 0.20 |
| 1,2-Dichlorobenzene | | | | | | | | | | | | | | | | | | | 0.25 | | |
| 1,3-Dichlorobenzene | | | | | | | | | | | | | | | | | | | 0.085 | | |
| 1,4-Dichlorobenzene | | | | | | 0.088 | 0.066 | | | | 0.084 | | | | | | | | 0.12 | 0.11 | 0.08 |
| Dichlorodifluoromethane | 0.65 | 0.50 | 0.52 | 0.54 | 0.40 | 0.46 | 0.45 | 0.61 | 0.63 | 0.53 | 0.54 | | 0.52 | 0.53 | 0.54 | 0.48 | 0.65 | 0.36 | 0.57 | 0.61 | 0.53 |
| 1,1-Dichloroethane | | | | | | | | | 0.05 | | | | | | | | | | 0.073 | | 0.05 |
| 1,2-Dichloroethane | | | | | | | | | 0.069 | | | | | | | | | | | | 0.07 |
| 1,1-Dichloroethene | | | | | | | | | | | | | | | | | | | 0.057 | | |
| cis-1,2-Dichloroethene | | | | 0.11 | | | | | | | | | | | | | | | 0.34 | | 0.11 |
| Sum of TO-15 Compounds | 19.84 | 21.14 | 12.72 | 11.27 | 7.87 | 34.21 | 16.06 | 36.88 | 33.42 | 10.80 | 21.77 | 11.90 | 13.43 | 13.92 | 6.47 | 9.72 | 13.43 | 7.09 | 28.52 | 42.61 | 17.34 |

Sum of Averages

20.75

Table 2. Summary of TO-15 TIC Results from SUMMA Samples Collected Downwind from Isolation Break

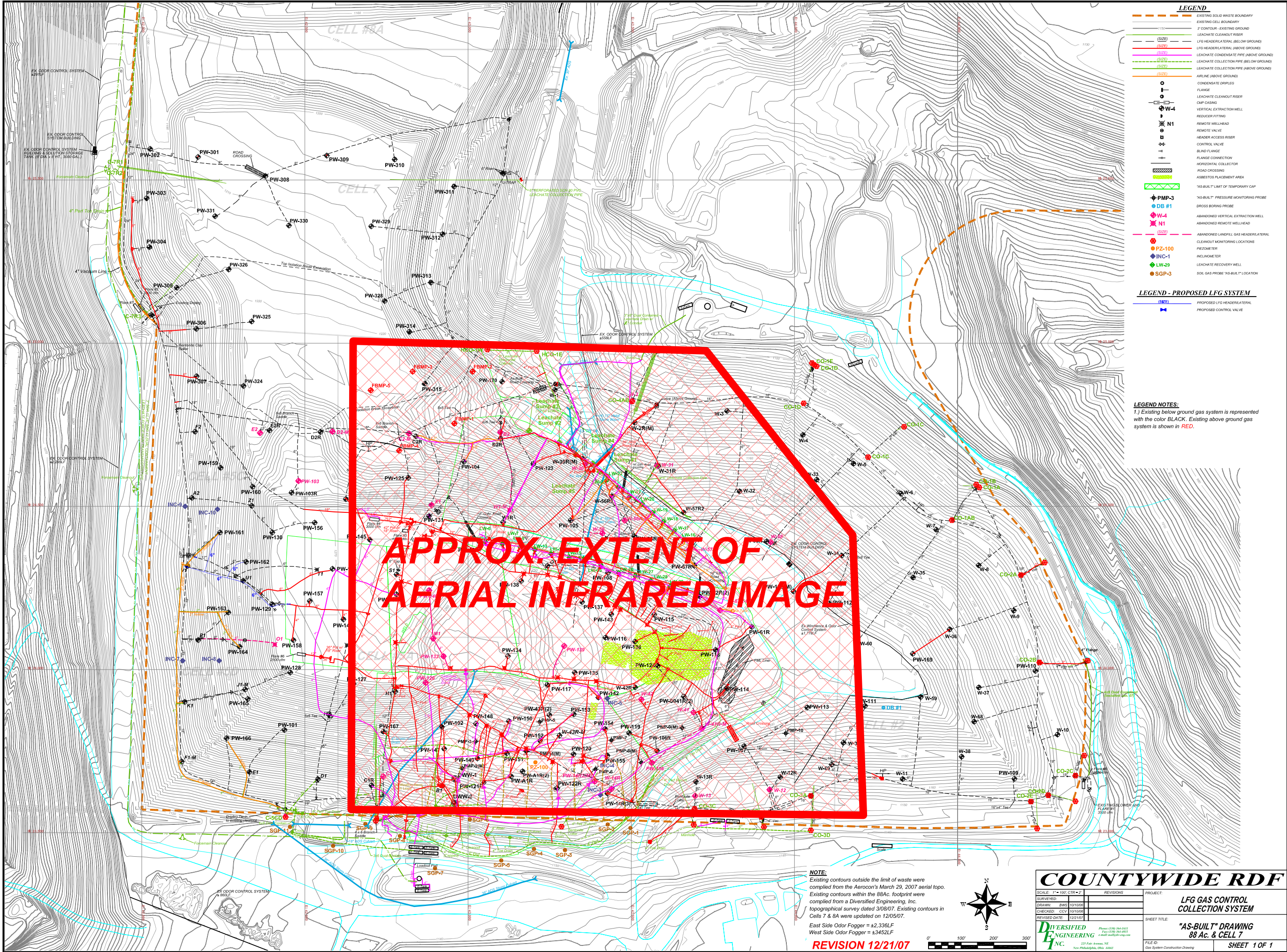
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | |
|-----------------------------|---------------------|----------------------|----------------------|----------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|-------|
| TICs | Downwind 12/9/08 | Downwind 12/12/08 | Downwind 12/15/08 | Downwind 12/18/08 | Downwind 1/05/09 | Downwind 1/08/09 | Downwind 1/14/09 | Downwind 1/20/09 | Downwind 1/23/09 | Downwind 1/26/09 | Downwind 1/29/09 | Downwind 2/04/09 | Downwind 2/16/09 | Downwind 2/25/09 | Downwind 3/03/09 | Downwind 3/30/09 | Downwind 4/02/09 | Downwind 4/08/09 | Downwind 4/14/09 | Downwind 4/17/09 | Avg |
| 1-Propanol | | | | | | 6.9 | 2.7 | 8.7 | 12 | | 4.5 | | | | | | | | | | 6.96 |
| 1-Propene, 2-methyl- | | | | | | | | | | | | | | | | | | | | | |
| 2-butanol | 3.2 | | | | | 5.1 | 3.4 | 8.2 | 14 | | 5.6 | | | | | | | | | | 6.58 |
| 4,7-dimethylundecane | | | | | | | | | | | | | | | | | | | | | |
| Acetaldehyde | | | | | | | | | 7.6 | | 3.7 | | | | | | | | | | 5.65 |
| Butane | | | | | | | | 2.7 | 3.0 | 3.0 | | | | | | | | | | | 2.90 |
| Butane, 2-methyl | | | | | | | | | | | | | | | | | | | | | |
| butanol | 2 | | | | | | | 4 | | | | | | | | | | | | | 3.15 |
| Decane, 2,5,6-trimethyl- | | | | | | | | | | | | | | | | | | | | | |
| Eicosane | | | | | | | | | | | | | | | | | | | | | |
| ethanol | 14 | 6.0 | | 3.3 | 5.4 | 25.0 | 8.7 | 26 | 40 | | 18 | 7.1 | 7.9 | 2.7 | | | | | 2.7 | | 12.83 |
| Heptane, 2,2-dimethyl- | | | | | | | | | | | | | | | | | | | | | |
| Isobutane | | | | | | | | | | | | | | | | | | | | | |
| isopropanol | 3.4 | | | | | 6.1 | 3.5 | 8.4 | 14 | | 6.1 | | 2.8 | | | | | | | | 6.33 |
| Limonene | | | | | | | | | | | | | | | | | | | | | |
| Methyl Alcohol | | | 2.7 | 2.6 | | 3.3 | | 6.2 | | | | 3.2 | | | | | | | | | 3.60 |
| Pentane | | | | | | | | | | 2.6 | | | | | | | | | | | 2.60 |
| Propane | | 2.8 | | | | | | 4.3 | | 4.7 | | | | | 3.6 | | | | | | 3.85 |
| propanol | 6.9 | | | | | | | | | | | | 2.1 | | | | | | | | 4.50 |
| Propene | | | | | | | | | 6.2 | | 2.5 | | | | | | | | | | 4.35 |
| Trisulfide, dipropyl | | | | | | | | | | | | | | | | | | | | | |
| Undecane, 2,8-dimethyl- | | | | | | | | | | | | | | | | | | | | | |
| Unknown | | | | | | | | | | | | | | | | | | | | | |
| Unknown | | | | | | | | | | | | | | | | | | | | | |
| Sum of TICs | 29.50 | 8.80 | 2.70 | 5.90 | 5.40 | 46.40 | 18.30 | 68.80 | 96.80 | 10.30 | 40.40 | 10.30 | 12.80 | 6.30 | 0.00 | 0.00 | 0.00 | 0.00 | 2.70 | 0.00 | 18.27 |
| Sum of TICs and TO-15 Compo | 49.34 | 29.94 | 15.42 | 17.17 | 13.27 | 80.61 | 34.36 | 105.68 | 130.22 | 21.10 | 62.17 | 22.20 | 26.23 | 20.22 | 6.47 | 9.72 | 13.43 | 7.09 | 31.22 | 42.61 | 36.92 |

Table 3. Summary of VOC Information from TO-15 Analyses (Community and 300' Downwind)

[illegible]

ATTACHMENT D

AERIAL INFRARED IMAGES



- LEGEND**
- EXISTING SOLID WASTE BOUNDARY
 - EXISTING CELL BOUNDARY
 - 2' CONTOUR, EXISTING GROUND
 - LEACHATE CLEANTOUT RISER
 - LFG HEADER/LATERAL (BELOW GROUND)
 - LFG HEADER/LATERAL (ABOVE GROUND)
 - LEACHATE CONDENSATE PIPE (BELOW GROUND)
 - LEACHATE COLLECTION PIPE (BELOW GROUND)
 - LEACHATE COLLECTION PIPE (ABOVE GROUND)
 - W/PIPE (ABOVE GROUND)
 - CONDENSATE DRIPLES
 - FLANGE
 - LEACHATE CLEANTOUT RISER
 - CAMP CASING
 - VERTICAL EXTRACTION WELL
 - REDUCER FITTING
 - REMOTE WELLHEAD
 - REMOTE VALVE
 - HEADER ACCESS RISER
 - CONTROL VALVE
 - BLIND FLANGE
 - FLANGE CONNECTION
 - HORIZONTAL COLLECTOR
 - ROAD CROSSING
 - ASBESTOS PLACEMENT AREA
 - "AS-BUILT" LIMIT OF TEMPORARY CAP
 - "AS-BUILT" PRESSURE MONITORING PROBE
 - DROSS BORING PROBE
 - ABANDONED VERTICAL EXTRACTION WELL
 - ABANDONED REMOTE WELLHEAD
 - ABANDONED LANDFILL GAS HEADER/LATERAL
 - CLEANTOUT MONITORING LOCATIONS
 - HEADMETER
 - INCLINOMETER
 - LEACHATE RECOVERY WELL
 - SOIL GAS PROBE "AS-BUILT" LOCATION

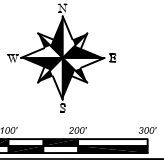
- LEGEND - PROPOSED LFG SYSTEM**
- PROPOSED LFG HEADER/LATERAL
 - PROPOSED CONTROL VALVE

LEGEND NOTES:
1) Existing below ground gas system is represented with the color BLACK. Existing above ground gas system is shown in RED.

APPROX. EXTENT OF AERIAL INFRARED IMAGE

NOTE:
Existing contours outside the limit of waste were compiled from the Aerocon's March 29, 2007 aerial topo. Existing contours within the 88Ac footprint were compiled from a Diversified Engineering, Inc. topographical survey dated 3/6/07. Existing contours in Cells 7 & 8A were updated on 12/05/07.
East Side Odor Fogger = 42,336LF
West Side Odor Fogger = 43,452LF

REVISION 12/21/07



| | |
|--|---|
| COUNTYWIDE RDF | |
| SCALE: 1" = 100' CTR = 2" | REVISIONS |
| SURVEYED: BWS 10/10/00 | PROJECT: LFG GAS CONTROL COLLECTION SYSTEM |
| DRAWN: BWS 10/10/00 | SHEET TITLE: "AS-BUILT" DRAWING 88 Ac. & CELL 7 |
| CHECKED: CCV 10/10/00 | FILE NO: Gas System Construction Drawing |
| REVISION DATE: 12/21/07 | SHEET 1 OF 1 |
| DIVERSIFIED ENGINEERING INC. 221 Fair Avenue, NE New Philadelphia, OH 44663 Phone: (330) 344-4411 Fax: (330) 344-4411 e-mail: info@diversified-eng.com | |

Composite Image by
Predictive Service LLC. 216.378.3500
Data Collected 4/25/2009

Traces of leachate and gas
collected in the subcap collectors
as part of the "Deep Trench" work.

Ambient
temperature at
time of image was
64 Deg. F



Composite Image by
Predictive Service LLC. 216.378.3500
Data Collected 5/19/2009

