

Report of Progress, April 30, 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Paragraph 15.a and b Enhanced Gas Extraction and Temperature Monitoring [NOTE: THIS WORK ITEM IS SUPERSEDED BY AN ISOLATION BREAK EXCAVATION].

All waste material had been removed from the Isolation Break Excavation as of April 17. As of April 20, capping of the bottom of the Isolation Break was in progress. A drawing indicating the limit of work and progress is contained in Attachment A-1. A bottom road will be constructed and gas collection wells installed before the temporary FML cap can be placed on the south; this work is anticipated to be completed in May.

A brief summary of observations from the excavation of the Isolation Break (see Attachment A-2 for daily details):

- No reaction-impacted waste, burnt waste, smoke, or steam was observed in any of the excavated waste or on either slope face at any time,
- Typical waste temperatures were in the 90° F to 120° F range, with a maximum of 136° F,
- About 80 cubic yards of baghouse dust was segregated and then disposed in the 88-acre "bowl" area,
- Only small, local, discontinuous moisture pockets were observed. Conditions at the bottom of the excavation were quite dry,
- Continuous and intensive air monitoring indicated that no OSHA worker air quality standards were exceeded, and that no benzene or ammonia was detected in the breathing zone at all,
- A full, complete, and total separation of waste, leachate, and gas was successfully achieved between the 88-acre area and the 170-acre area.

In situ temperature monitoring of the FBMP thermocouple monitors were continued throughout the excavation; results are presented in Attachment A-3.

Paragraph 15.c and f Capping and Stabilization.

A map depicting the current status of capping is included in Attachment B. The bowl area will likely be capped in May 2009.

Composite capping in the Cells 1-3 area is still on hold until U.S. EPA, Ohio EPA, and Countywide resolve details for a composite cap cross section and area of coverage.

Paragraph 15.e Air Monitoring and Sampling.

In accordance with the Isolation Break Excavation work plan, air monitoring was conducted during excavation activities. Each tier is discussed below with commentary on the results.

Tier 1 – Worker Monitoring. This utilizes PID (for total VOCs), 4-gas meter (for methane, carbon monoxide, oxygen, and hydrogen sulfide), ammonia meter, and benzene Dräger tubes. A summary of PID results can be found on the Isolation Break Excavation Summary in Attachment A-2. No PID readings approached worker levels of concern and no ammonia or benzene was detected.

Tier 2 – Construction Zone Monitoring. During mass waste excavation, monitoring was conducted about 300 feet downwind of the excavation using a PID and, every third active excavation day, an 8-hour SUMMA canister (analyzed for volatile organics). A summary of PID results can be found on the Isolation Break Excavation Summary in Attachment A-2. No PID readings approached worker or community levels of concern. A table containing results of the SUMMA canister analyses is provided in Attachment C-1.

The monitoring conducted immediately downwind of the isolation break work demonstrated that even with an open excavation that allows landfill gases to escape, the escaping landfill gas caused only a slight increase in the ambient air concentrations of VOCs; and this slight increase did not cause any constituent to exceed benchmarks considered reasonable for short-term or long-term exposures by the general public, even just 300' downwind of the source. As one moves further from the excavation, concentrations decreased even further, reaching approximately background levels while still on the landfill property.

Tier 3 - "Stage C" Fixed Continuous Monitoring. Consists of the five continuous air monitors equipped with PIDs and automatically triggered 15-minute SUMMA canister collection. Results of monitoring for March 28, 2009 to April 28, 2009 are provided in Attachment C-2.

Tier 4 – Community Monitoring. This is comprised of the four off-site community air stations that have been monitored every six days for the past 24 months, and has now been temporarily increased to include sampling every three days during Isolation Break work. The table provided in Attachment C-1 contains results for the SUMMA canister analyses.

Tier 5 – Odor Monitoring. At least eight odor monitoring circuits are made around the public roads encircling the facility, resulting in about 184 readings per day. A Nasal Ranger reading of "4" is considered "distinct." During excavation, almost all of the off-site detections of 4 or greater were attributable to the excavation activity. A summary of results, indicated as the number of occurrences at a level 4 or greater, can be found on the Isolation Break Excavation Summary in Attachment A-2.

Paragraph 15.g Aerial Infrared Imaging.

March 2009 and April 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 March 2009 image was 42° F and during the April 2009 image was 64° 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. However, on the April 2009 image, evidence of the recently-completed "Deep Trench" component of the capping work is clearly evident.

ATTACHMENT A-1

ISOLATION BREAK EXCAVATION PROGRESS

ATTACHMENT A-2

ISOLATION BREAK EXCAVATION SUMMARY TABLE

Countywide RDF
Isolation Break Excavation Summary

Date	Day	Deck #	High Waste Temp (°F)	Aluminum Waste Encountered	Reaction Impacted Waste Encountered	Breathing/Work Zone (Tier 1) VOC Data (ppb) High/Avg.	300' Downwind (Tier 2) VOC Data (ppb) High (1 min. avg.)/Avg.	Nasal Ranger Daily Readings ≥4
12/8/2008	Monday	1	80	No	No	600/200	58/2.5	0
12/9/2008	Tuesday	1	107	No	No	500/100	128/1	1
12/10/2008	Wednesday	1	109	No	No	900/500	35/0.5	3
12/11/2008	Thursday	1	123	No	No	2,800/1,600	2/0	4
12/12/2008	Friday	1	108	No	No	1,400/850	166/9	3
12/13/2008	Saturday							
12/14/2008	Sunday							
12/15/2008	Monday	1	110	No	No	800/200	191/9	2
12/16/2008	Tuesday	1	113	No	No	800/100	177/9	6
12/17/2008	Wednesday	1/2	120	No	No	500/82	2/0	3
12/18/2008	Thursday	2	128	No	No	900/141	65/0	2
12/19/200	Friday	2	118	No	No	0/0	361/50	4
12/20/2008	Saturday	2	125	No	No	900/361	372/60	0
12/21/2008	Sunday							
12/22/2008	Monday							
12/23/2008	Tuesday							
12/24/2008	Wednesday							
12/25/2008	Thursday							
12/26/2008	Friday							
12/27/2008	Saturday							
12/28/2008	Sunday							
12/29/2008	Monday							
12/30/2008	Tuesday							
12/31/2008	Wednesday							
1/1/2009	Thursday							
1/2/2009	Friday							
1/3/2009	Saturday							
1/4/2009	Sunday							
1/5/2009	Monday	2	128	No	No	1,600/317	74/2	0
1/6/2009	Tuesday	2	106	No	No	300/100	554/128	3
1/7/2009	Wednesday							
1/8/2009	Thursday	2	109	No	No	5,600/615	306/19	4
1/9/2009	Friday	2	102	No	No	800/395	216/5	3
1/10/2009	Saturday							

Countywide RDF
Isolation Break Excavation Summary

1/11/2009	Sunday							
1/12/2009	Monday	3	100	No	No	600/65	17/0	1
1/13/2009	Tuesday	3	115	No	No	5,000/835	162/15	4
1/14/2009	Wednesday	3	120	No	No	300/50	122/4	2
1/15/2009	Thursday	3	115	No	No	5,100/755	43/0	3
1/16/2009	Friday	3	106	No	No	900/400	103/16	4
1/17/2009	Saturday							
1/18/2009	Sunday							
1/19/2009	Monday	3	118	No	No	5,800/1,061	322/27	3
1/20/2009	Tuesday	3	117	No	No	900/435	472/48	0
1/21/2009	Wednesday	3/4	113	No	No	800/235	189/57	3
1/22/2009	Thursday	4	136	No	No	600/350	100/2	5
1/23/2009	Friday	4	135	No	No	5,600/880	714/84	3
1/24/2009	Saturday							
1/25/2009	Sunday							
1/26/2009	Monday	4	128	No	No	800/369	649/122	5
1/27/2009	Tuesday	4	132	No	No	800/447	728/119	3
1/28/2009	Wednesday							
1/29/2009	Thursday	4	124	No	No	800/281	11/0	3
1/30/2009	Friday	4	120	No	No	800/424	362/81	3
1/31/2009	Saturday							
2/1/2009	Sunday							
2/2/2009	Monday	4/5	122	No	No	800/370	415/22	2
2/3/2009	Tuesday	5	128	No	No	3,600/665	62/1	2
2/4/2009	Wednesday	5	110	No	No	900/460	223/45	5
2/5/2009	Thursday	5	116	No	No	500/170	150/2	5
2/6/2009	Friday	5	128	Yes	No	1,800/520	403/76	2
2/7/2009	Saturday							
2/8/2009	Sunday							
2/9/2009	Monday	5	122	No	No	100/5	83/7	4
2/10/2009	Tuesday							
2/11/2009	Wednesday							
2/12/2009	Thursday							
2/13/2009	Friday							
2/14/2009	Saturday							
2/15/2009	Sunday							
2/16/2009	Monday	5/6	114	No	No	5,600/660	196/5	2
2/17/2009	Tuesday	5/6	115	Yes	No	200/25	731/76	3
2/18/2009	Wednesday							
2/19/2009	Thursday							
2/20/2009	Friday	5/6	114	Yes	No	700/230	215/43	0

Countywide RDF
Isolation Break Excavation Summary

2/21/2009	Saturday							
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Countywide RDF
Isolation Break Excavation Summary

2/22/2009	Sunday							
2/23/2009	Monday	6	110	No	No	900/406	225/60	3
2/24/2009	Tuesday	6/7	129	Yes	No	300/35	105/8	1
2/25/2009	Wednesday	6/7	114	No	No	700/83	534/81	4
2/26/2009	Thursday							
2/27/2009	Friday							
2/28/2009	Saturday							
3/1/2009	Sunday							
3/2/2009	Monday	7	105	No	No	300/47	27/1	2
3/3/2009	Tuesday	7	89	No	No	400/80	11/0	0
3/4/2009	Wednesday	Note: 3/4/2009 through 3/29/2009 - Installed leachate and gas collection piping system on south slope of Isolation Break						
3/5/2009	Thursday							
3/6/2009	Friday							
3/7/2009	Saturday							
3/8/2009	Sunday							
3/9/2009	Monday							
3/10/2009	Tuesday							
3/11/2009	Wednesday							
3/12/2009	Thursday							
3/13/2009	Friday							
3/14/2009	Saturday							
3/15/2009	Sunday							
3/16/2009	Monday							
3/17/2009	Tuesday							
3/18/2009	Wednesday							
3/19/2009	Thursday							
3/20/2009	Friday							
3/21/2009	Saturday							
3/22/2009	Sunday							
3/23/2009	Monday							
3/24/2009	Tuesday							
3/25/2009	Wednesday							
3/26/2009	Thursday							
3/27/2009	Friday							
3/28/2009	Saturday							
3/29/2009	Sunday							
3/30/2009	Monday	8	97	No	No	0/0	9/0	0
3/31/2009	Tuesday	8	104	No	No	0/0	95/9	6
4/1/2009	Wednesday							
4/2/2009	Thursday	8	102	No	No	0/0	169/79	3
4/3/2009	Friday							

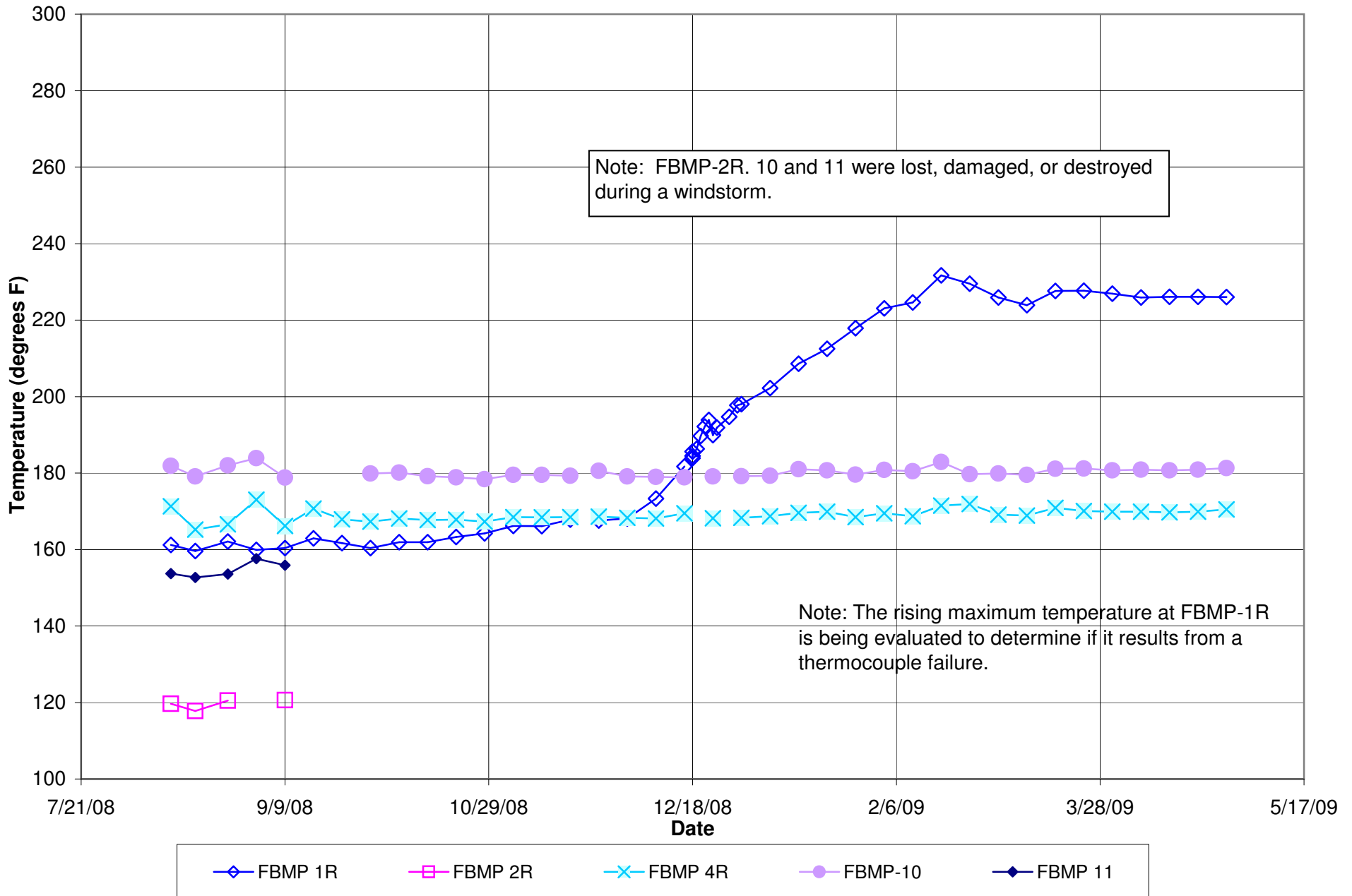
Countywide RDF
Isolation Break Excavation Summary

4/4/2009	Saturday							
4/5/2009	Sunday							
4/6/2009	Monday							
4/7/2009	Tuesday	9 (Base)	45	No	No	200/19	3/0	0
4/8/2009	Wednesday	9 (Base)	48	No	No	400/61	14/1	0
4/9/2009	Thursday	9 (Base)	49	No	No	400/147	41/5	0
4/10/2009	Friday							
4/11/2009	Saturday							
4/12/2009	Sunday							
4/13/2009	Monday	9 (Base)	50	No	No	3,600/1,507	20/1	2
4/14/2009	Tuesday	9 (Base)	50	No	No	900/444	7/1	0
4/15/2009	Wednesday							
4/16/2009	Thursday	9 (Base)	50	No	No	900/494	204/19	0
4/17/2009	Friday	9 (Base)	48	No	No	400/133	978/62	0

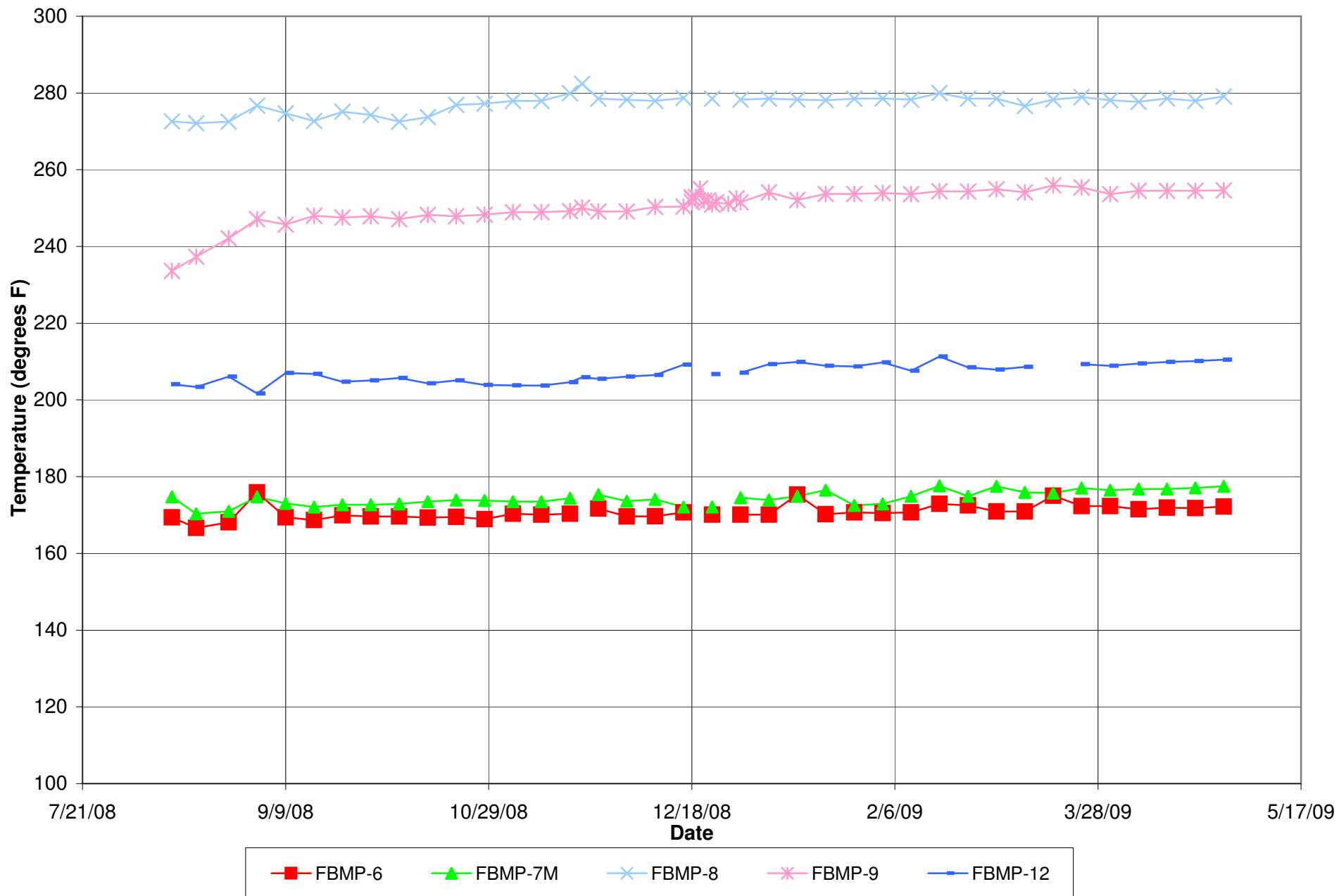
ATTACHMENT A-3

FBMP TEMPERATURE PROBE GRAPHS

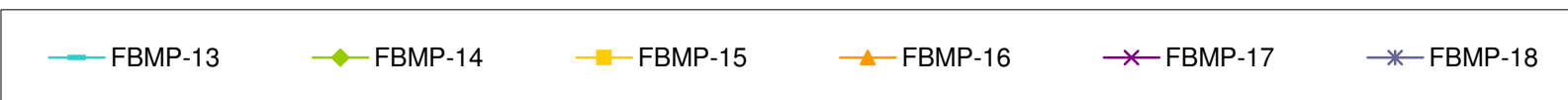
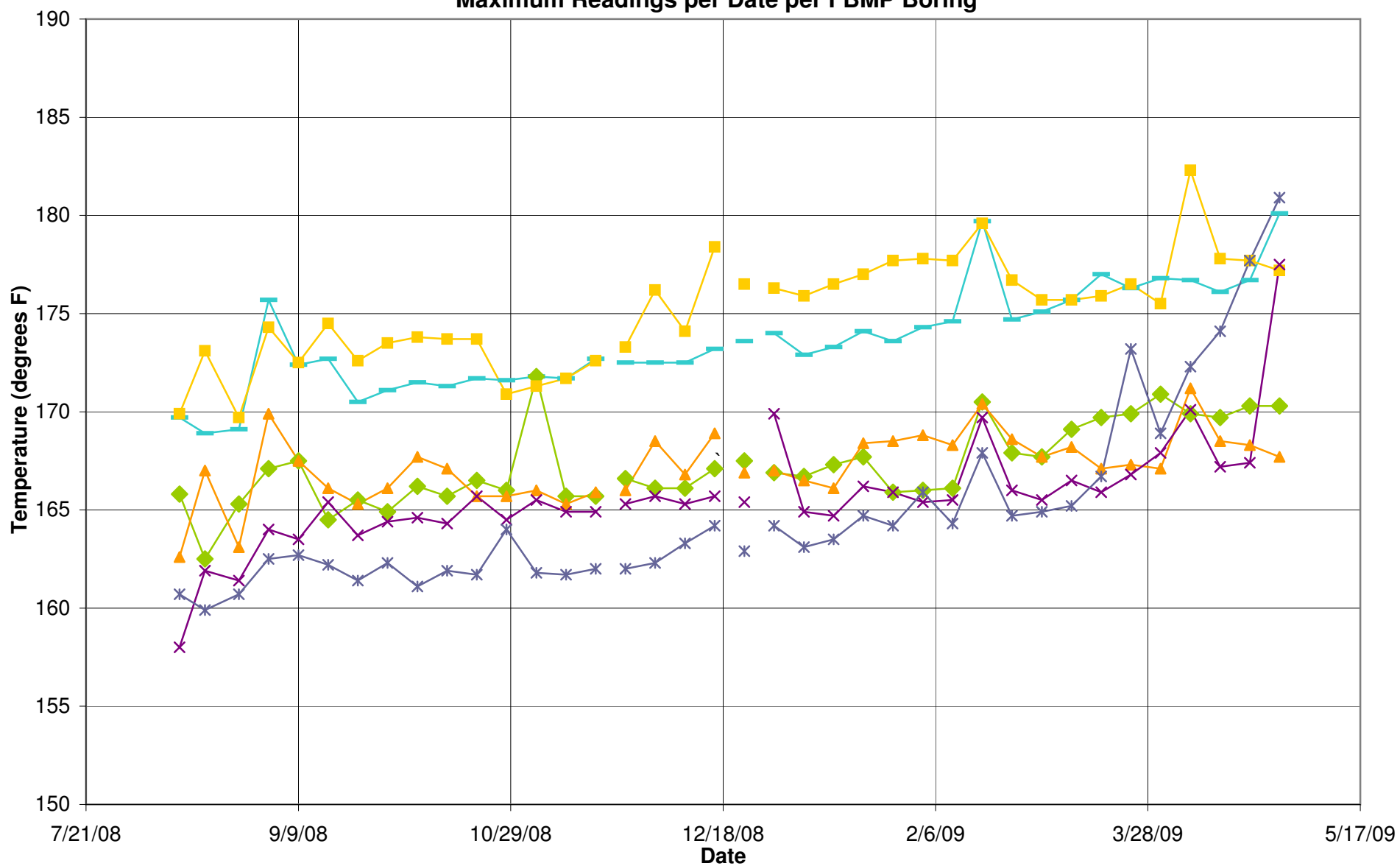
In-situ Temperatures - FBMPs within 150 ft of the Isolation Break Excavation
Maximum Readings per Date per FBMP Boring



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

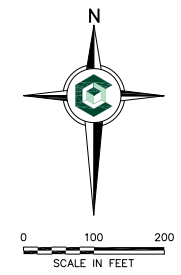
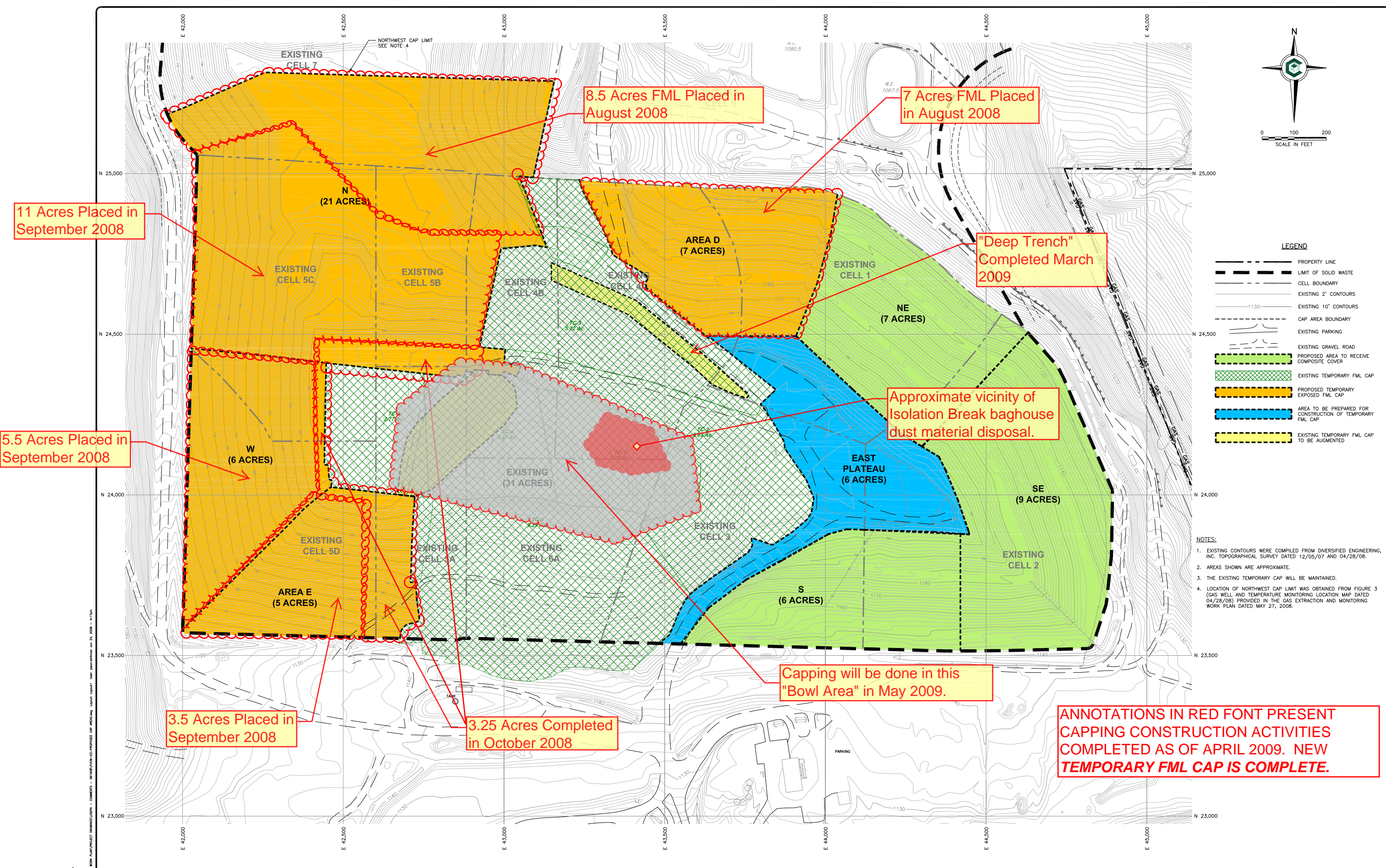


In-situ Temperatures - West Slope FBMPs
Maximum Readings per Date per FBMP Boring



ATTACHMENT B

CAPPING AND STABILIZATION PROGRESS



- 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.

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

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

ATTACHMENT C-1

TIER 2 AND TIER 4 VOC SUMMA CANISTER ANALYTICAL RESULTS

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

Analyte	1 Downwind 12/9/08	2 Downwind 12/12/08	3 Downwind 12/15/08	4 Downwind 12/18/08	5 Downwind 1/05/09	6 Downwind 1/08/09	7 Downwind 1/14/09	8 Downwind 1/20/09	9 Downwind 1/23/09	10 Downwind 1/26/09	11 Downwind 1/29/09	12 Downwind 2/04/09	13 Downwind 2/16/09	14 Downwind 2/25/09	15 Downwind 3/03/09	16 Downwind 3/30/09	17 Downwind 4/02/09	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	7.01
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	0.42
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	0.23
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	0.29
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	0.22
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	0.08
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	0.17
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	0.58
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	0.66
Styrene	0.12	1.0				0.1					0.070							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			0.30
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	0.53
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	1.45
1,2,4-Trichlorobenzene					0.085													0.09
1,1,1-Trichloroethane		0.073																0.07
Trichloroethene	0.054	0.040	0.230	1.5					0.084						0.19			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	0.07
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	0.22
1,3,5-Trimethylbenzene		0.14				0.21	0.099	0.076			0.15		0.079				0.11	0.12
Vinyl chloride									0.11									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	0.29
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	0.95
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	2.68
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	0.15
Bromomethane																		
4-Ethyltoluene	0.077	0.15	0.076			0.23	0.094	0.079				0.14					0.076	0.12
Carbon disulfide	0.044	0.045	0.097	0.077		0.033	0.063	0.10	0.08		0.055						0.033	0.06
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	0.08
Chlorobenzene																		
Chloroethane			0.044						0.036								0.043	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	0.60
2-Chlorotoluene						0.25												0.25
Cyclohexane	0.14								0.44		0.067	0.53		0.065	0.072		0.11	0.20
1,2-Dichlorobenzene																		
1,3-Dichlorobenzene																		
1,4-Dichlorobenzene						0.088	0.066				0.084							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	0.53
1,1-Dichloroethane									0.05									0.05
1,2-Dichloroethane									0.069									0.07
cis-1,2-Dichloroethene				0.11														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	17.34

Sum of Averages 19.83

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	
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	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				13.68
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	21.34
Sum of TICs and TO-15 Compd	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	44.85

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

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ATTACHMENT C-2

TIER 3 (Stage C) AIR MONITORING RESULTS



April 2009 Stage C Monthly Ambient Air Monitoring Report

Prepared for

Republic Services of Ohio II, LLC
3619 Gracemont Street, SW
East Sparta, OH. 44626
(330) 874-3855

Prepared by

Center for Toxicology and Environmental Health, L.L.C.
5120 North Shore Drive
North Little Rock, AR 72118

April 29, 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 1,472,228 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
January 27, through April 28 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 March 28, 2009 through April 28, 2009 monitoring period, approximately 217,008 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 0.01 ppm to 0.09 ppm. Table 2.0 summarizes the real-time data collected from March 28, 2009 through April 28, 2009.

Table 2.0 March 28, 2009 through April 28, Real Time Data Summary

Station	Analyte	Total VOC Readings Recorded	Trigger Level	Triggering events	Average Concentration
1	VOC	44,309	0.50	0	0.01 ppm
2	VOC	44,233	0.50	0	0.06 ppm
3	VOC	42,175	0.50	0	0.08 ppm
4	VOC	45,229	0.50	0	0.09 ppm
5	VOC	41,062	0.50	1	0.06 ppm

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

Summa Results

One SUMMA sample was collected during this monitoring period (Attachment B). With this sample and also the 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

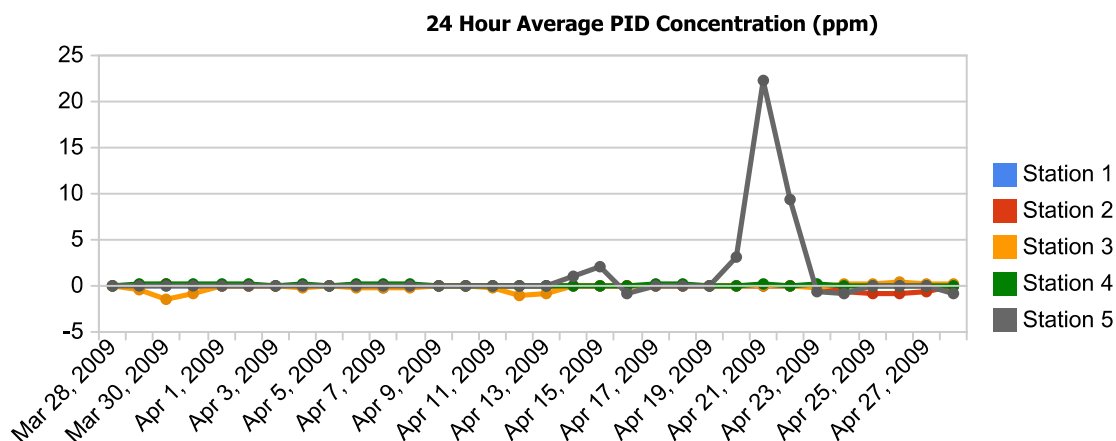
2009/03/28



2009/04/28



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>
2009-03-28	0.02	0.08	0.04	0.09	0.05
2009-03-29	0.00	0.10	-0.42	0.11	0.05
2009-03-30	-0.00	0.12	-1.47	0.13	0.05
2009-03-31	-0.02	0.09	-0.80	0.16	0.05
2009-04-01	0.02	0.06	0.07	0.16	0.04
2009-04-02	0.03	0.05	0.08	0.11	0.05
2009-04-03	0.01	0.06	0.05	0.09	0.04
2009-04-04	0.00	0.06	-0.15	0.11	0.05
2009-04-05	0.02	0.06	-0.02	0.09	0.05
2009-04-06	-0.01	0.06	-0.18	0.12	0.04
2009-04-07	-0.24	0.06	-0.29	0.15	0.04
2009-04-08	-0.00	0.06	-0.13	0.11	0.05
2009-04-09	0.02	0.06	0.02	0.09	0.05
2009-04-10	-0.06	0.06	0.02	0.07	0.04
2009-04-11	0.00	0.06	-0.30	0.04	0.04
2009-04-12	0.00	0.06	-1.11	0.04	0.04
2009-04-13	-0.00	0.06	-0.87	0.04	0.05
2009-04-14	-0.00	0.06	0.03	0.04	1.08
2009-04-15	0.00	0.06	0.03	0.04	2.18
2009-04-16	0.02	0.06	-0.03	0.05	-0.91
2009-04-17	0.02	0.06	0.01	0.10	0.10
2009-04-18	0.03	0.04	0.07	0.23	0.10
2009-04-19	0.02	0.06	0.08	0.05	0.10

2009-04-20	0.00	0.06	0.07	0.04	3.06
2009-04-21	0.00	0.06	0.08	0.16	22.25
2009-04-22	-0.00	0.06	0.01	0.04	9.47
2009-04-23	0.01	0.06	-0.12	0.26	-0.61
2009-04-24	0.04	-0.70	0.20	0.06	-0.87
2009-04-25	0.05	-0.88	0.30	0.06	0.04
2009-04-26	0.05	-0.85	0.34	0.05	0.04
2009-04-27	0.04	-0.57	0.30	0.05	-0.07
2009-04-28	0.03	0.05	0.20	0.05	-0.75

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
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							

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)
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							
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		0.92*		-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

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)
ESOH0108-3-SC030	1/8/2009	Station 3	0.13 ppm	Current Sample						
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		0.78		-4.6
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		10.1

Current Sample- Sample that is at the station and ready to be collected

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

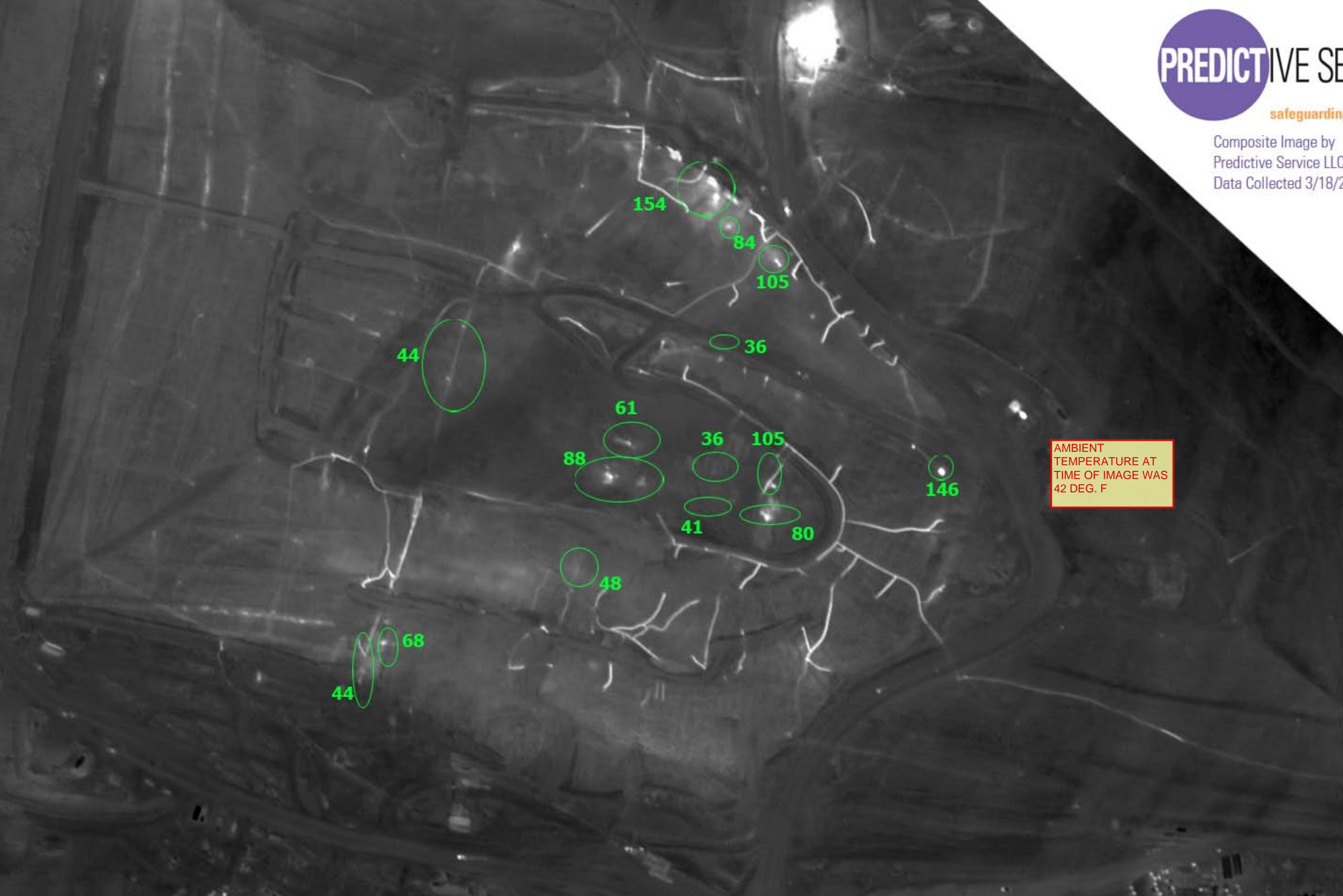
Station 4 Trigger Change to 0.15 ppm on January 13, 2009

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

ATTACHMENT D

AERIAL INFRARED IMAGES

Composite Image by
Predictive Service LLC. 216.378.3500
Data Collected 3/18/2009



AMBIENT
TEMPERATURE AT
TIME OF IMAGE WAS
42 DEG. F



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

