Countywide Recycling & Disposal Facility

Remediation Unit

Monthly Progress Report
Of
Operations, Monitoring & Maintenance Activities

December 2010

Prepared By:

Countywide Recycling & Disposal Facility

Remediation Unit

3619 Gracemont Street S.W.,

East Sparta, Ohio

Introduction

Attachment 1 – Graphs

Attachment 2 – Tables

Attachment 3 – Figures

Attachment 4 – Pin and Plate Evaluation

Introduction

This document provides a monthly report of activities conducted in December 2010, as is required by the Operations, Monitoring, and Maintenance (OM&M) Plan. The OM&M plan was developed for the facility and adopted by the Ohio Environmental Protection Agency (OEPA) on September 30, 2009. The primary objectives of the monitoring portion of this plan are as follows:

1. Monitor status/progression of the reaction.
2. Monitor characteristics of leachate and gas.
3. Track settlement and slope movement/stability of waste mass and perimeter berms.
4. Monitor exposure conditions for engineered components.
5. Determine when conditions are suitable for composite capping.
6. Assess conditions requiring notification, repair, further evaluation or corrective action.
7. Provide a summary of monitoring and data collection, relevant activities conducted since the prior report, trigger events, and conditions which may require additional non-routine activities or investigation.

The OM&M Plan requires inspections, routine maintenance, and other activities that are not required to be presented in this submission. These activities are documented as required, and records are retained in the OM&M Managers office.

1. Monthly Summary Narrative

During the month of December, all daily, weekly, and monthly tasks were completed as required. Also during December, annual inspections and preventative maintenance at select landfill gas flares was completed.

2. New Construction

No new construction is currently required or planned.

3. Major Non-Routine Maintenance, Repairs or Events

Routine maintenance and repairs of the temporary cap, leachate, and gas systems were completed during the month of December. During December, installation of the temporary gas system "reroute" for the south slope relocation project was completed. Minor disruptions in the gas collection system resulted from these activities; however odors related to this work were minimal.

Countywide intends to replace/redrill approximately eight gas extraction wells on the Remediation Unit in January 2011 in conjunction with the South Slope Relocation Project. An additional seven wells will be replaced as part of the relocation project.

Countywide also intends on replacement of temporary cap as necessary based upon age and condition. This work would also be completed in conjunction with the South Slope Relocation Project.

4. New Trigger Events

Settlement

Areas of 2% or greater annualized settlement are depicted on the monthly settlement survey maps. Per the OM&M Plan, an exceedance of this settlement rate should only be considered a trigger if it occurs in a location where it had not been exceeded in the previous event. The majority, if not all, of the areas exceeding the settlement rate in December have exceeded the trigger in prior months.

Areas along the toe of the waste mass have consistently shown false triggers due to the accuracy limits of the survey equipment and thickness of waste mass. These instances have been discussed on an ongoing basis during Team Countywide meetings. Upon extensive review and discussion, it has been mutually agreed upon that these values do not represent cause for immediate concern. Pin and plate monitoring along the toe of slope and near the waste limits supports that there is limited settlement/movement in these areas.

The settlement data across the facility was evaluated and is within the ranges and trends observed in prior months. The rate of settlement per day also appears to be within typical ranges and trends, although a decrease has been seen form prior months. There does not appear to be any anomalies or significant excursions outside the trends within the settlement data set. The settlement data and pin and plate data do not suggest that the settlement observed should cause concern from a slope stability or engineering control integrity standpoint.

Pin/Plate Monitoring

As defined by the OM&M Plan, a vertical trigger for pin and plate movement consists of a change of 0.05 feet or greater from the original elevation, which was measured in October 2009. During the month of December, monitoring pin IP-E1 exceeded the vertical trigger. Elevation change for this pin does not necessarily represent a pattern, nor does it represent a deviation from prior trends that would indicate slope instability. Countywide does not believe that the analysis of these triggers should prompt any additional measures beyond the requirements of the OM&M Plan and ongoing activities. Further analysis of this data is presented in Attachment 4.

5. Investigation Results from Previous Trigger Events

It was agreed upon between Republic and the Agencies that the values resulting in triggers during the November 2010 monitoring period were consistent with ranges and trends previously reflected, and represent no significant anomalies when compared to prior ongoing trends. The analysis of these triggers did not prompt any additional measures beyond the requirements of the OM&M Plan and ongoing activities.

6. Trend Graphs and Drawings

The graphs, tables, and figures required by the OM&M Plan are included in the attachments to this report. Due to the vast number of these and the detail that they provide, a full written summary is not provided in this document. The data will be discussed in depth at the Team Countywide Meeting. The December monitoring data is generally within the ranges and trending of that observed in prior months.

7. Review of Potential Need to Extend Temporary FML Cap

Currently, the Remediation Unit consists of approximately 18 acres which do not have a temporary cap. Volume 1, Section 7.1 of the OM&M Plan details conditions which would initiate an assessment which could require installation of temporary cap in this area. Such conditions include;

- Uncontrollable odor or fugitive emissions,
- Unusual settlement (Incremental settlement greater than 2% per year),
- Atypical or uncontrollable leachate outbreaks,
- Methane/carbon dioxide ratio less than 1.0,
- Maximum wellhead temperatures greater than 150°F,
- Maximum carbon monoxide greater than 100 ppmv.

At this time, the conditions observed in this area supplemented by the data collected during monitoring and inspections do not indicate the need for expansion of the temporary cap.

8. Petitions to Perform Work

The monitoring and inspections conducted during the operating period do not indicate the need for additional work which would require approval. As such, there are no petitions to perform such work at this time.

9. Proposed OM&M Plan Revisions

In November 2010, Republic received approval for revisions to the OM&M Plan, which included changes in frequency in some areas of data collection and elimination of others. No additional revisions are proposed at this time.

10. Odor Summary/Complaints

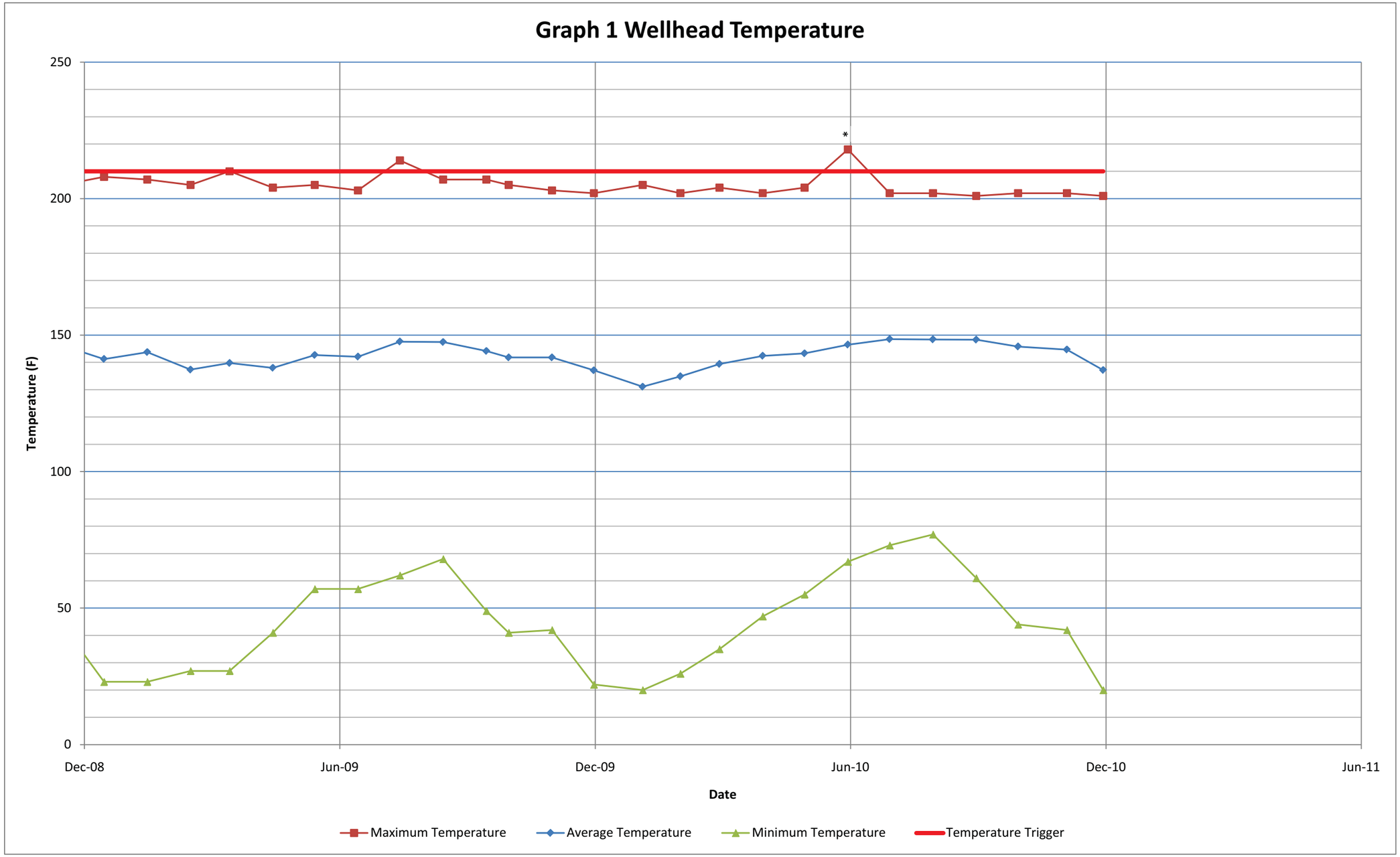
During the month of December, one odor complaint was received by Republic Services. This complaint was investigated immediately, and no odor was identified. Complainant agreed that there was no odor at the time of the investigation.

1/19/10

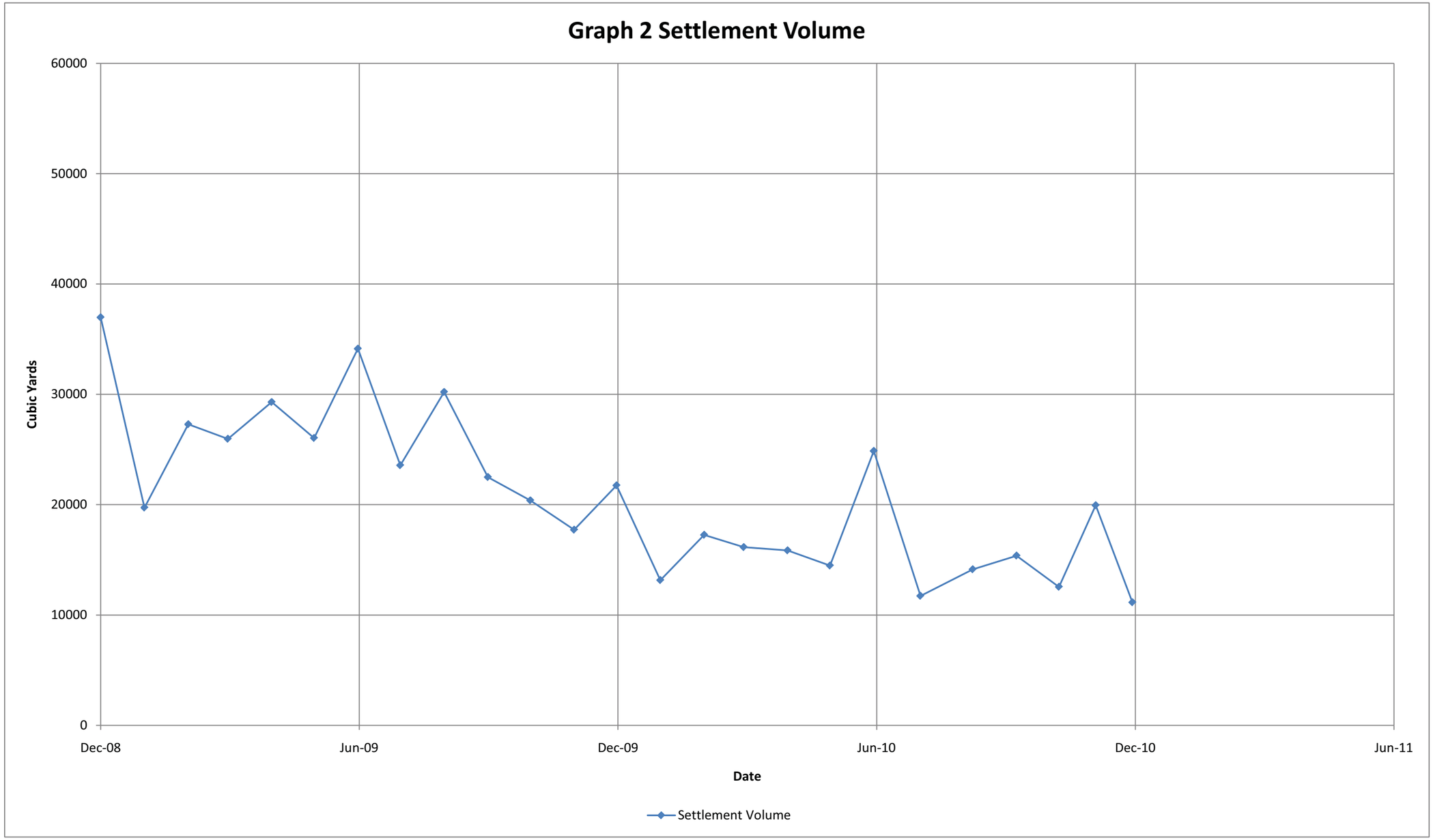
Michael Darnell Date
OM&M Manager

Attachment 1

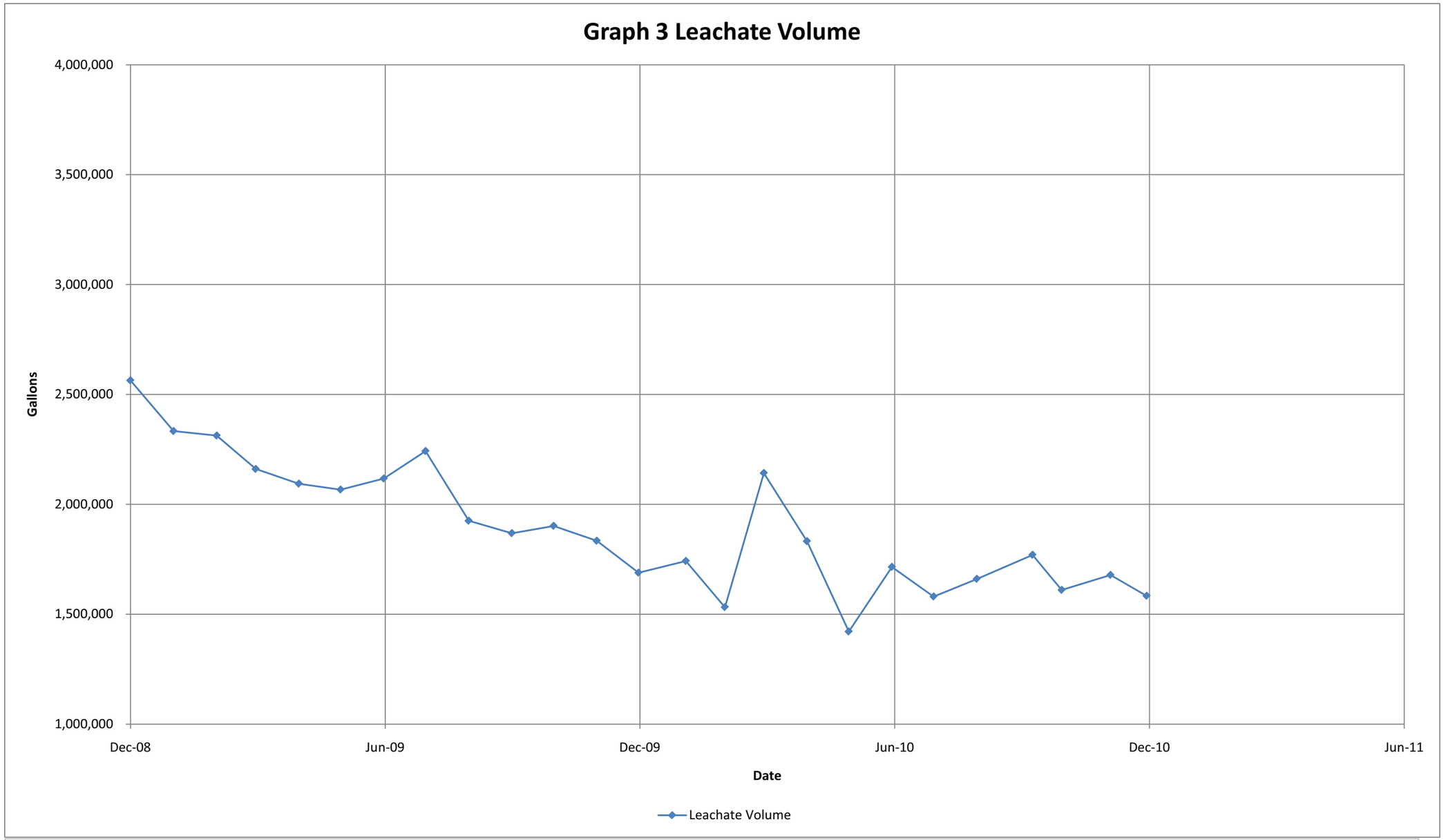
Graphs



1. Maximum temperature depicted for June 2010 represents a single occurrence of a wellhead temperature over 210 degrees at a single well, caused by wellhead pressure. It does not represent a sustained temperature. Upon vacuum adjustment at the well, temperature returned to normal trend, below 210 degrees

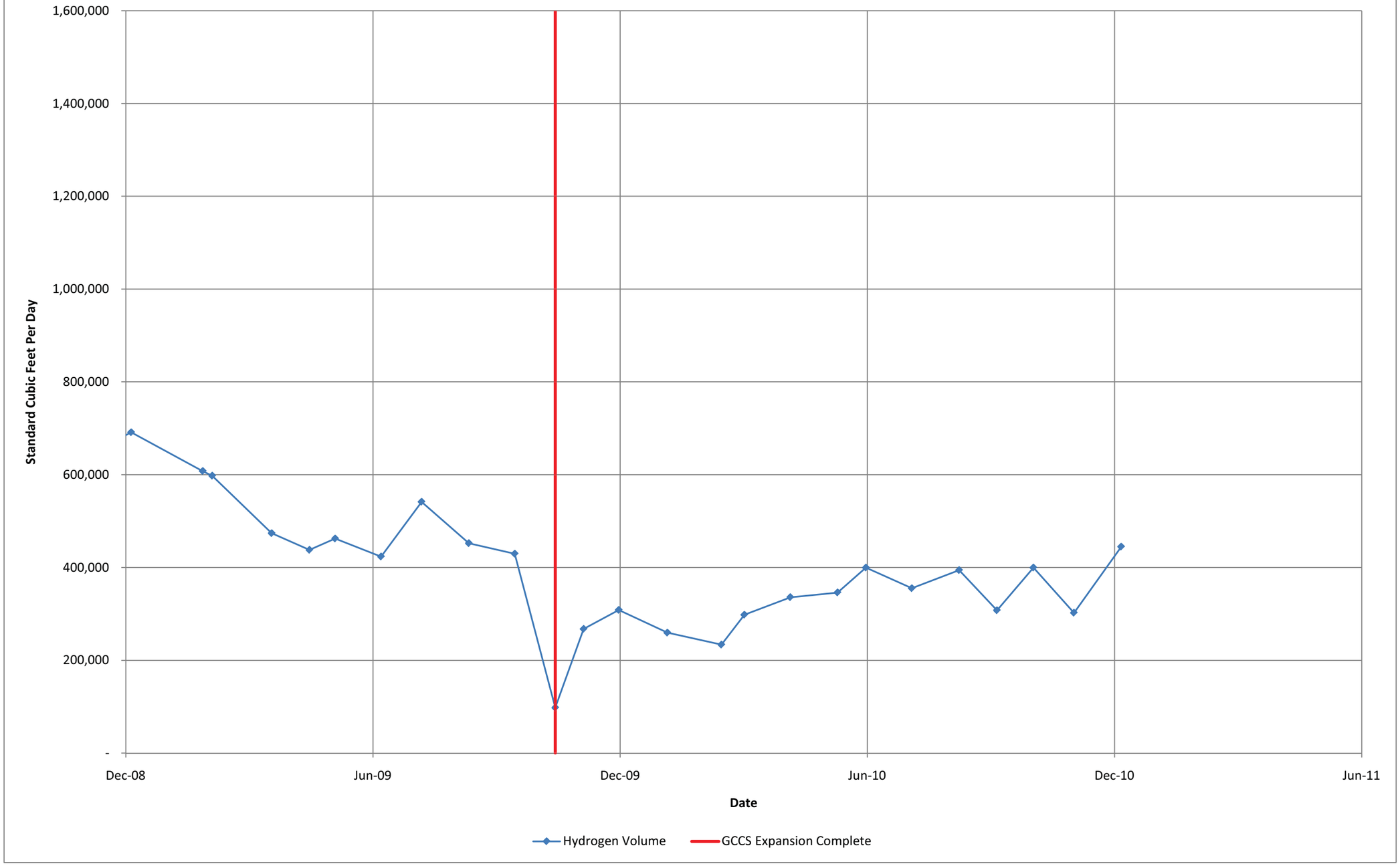


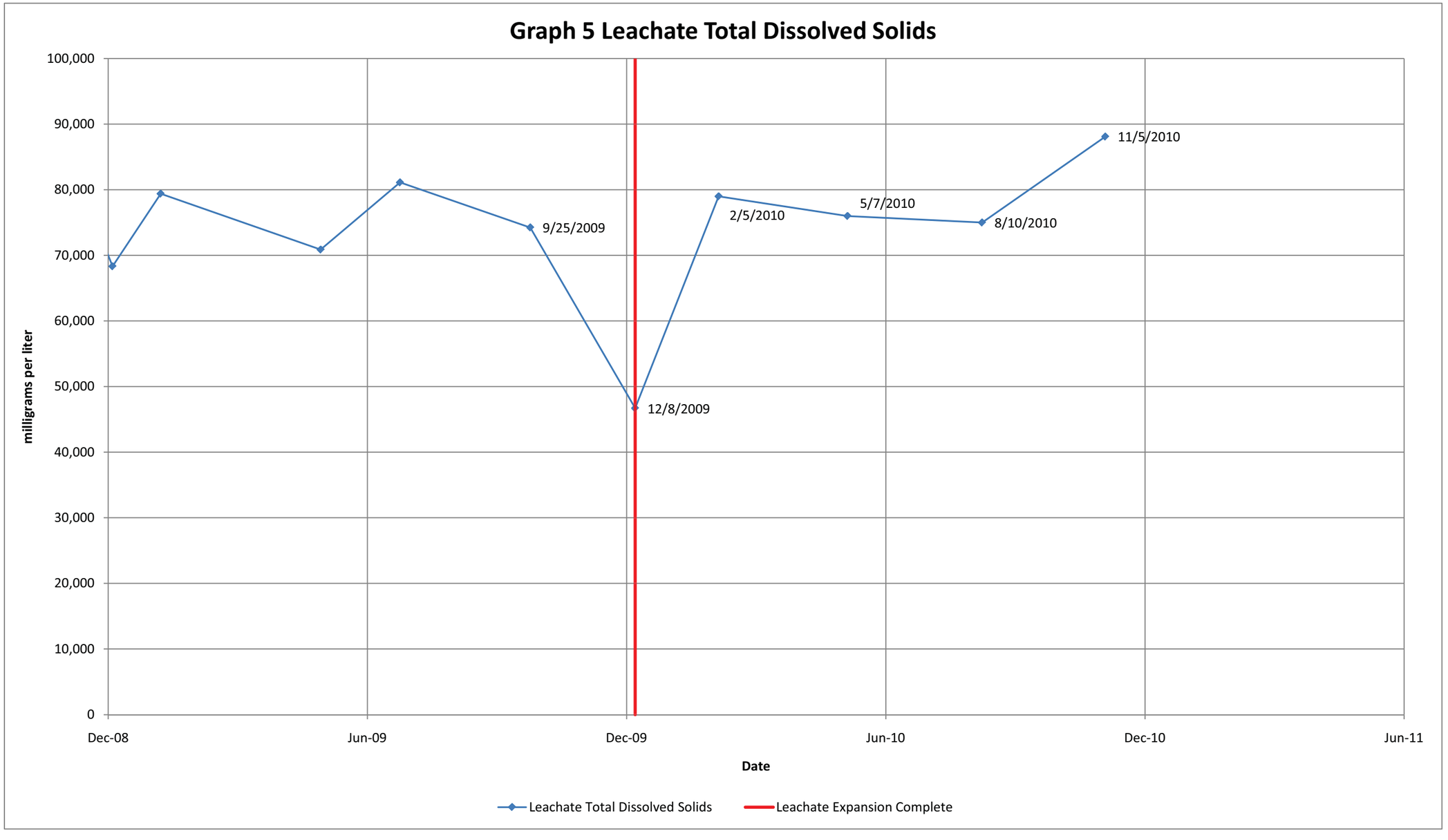
1. Information presented prior to October 2009 was compiled from data prepared and presented by SCS Engineers for Countywide Recycling and Disposal Facilty.
2. Data presented on monthly basis.
3. Settlement volume reported prior to the 4th quarter of 2009 is for a limited area of the 88-acre reaction area.



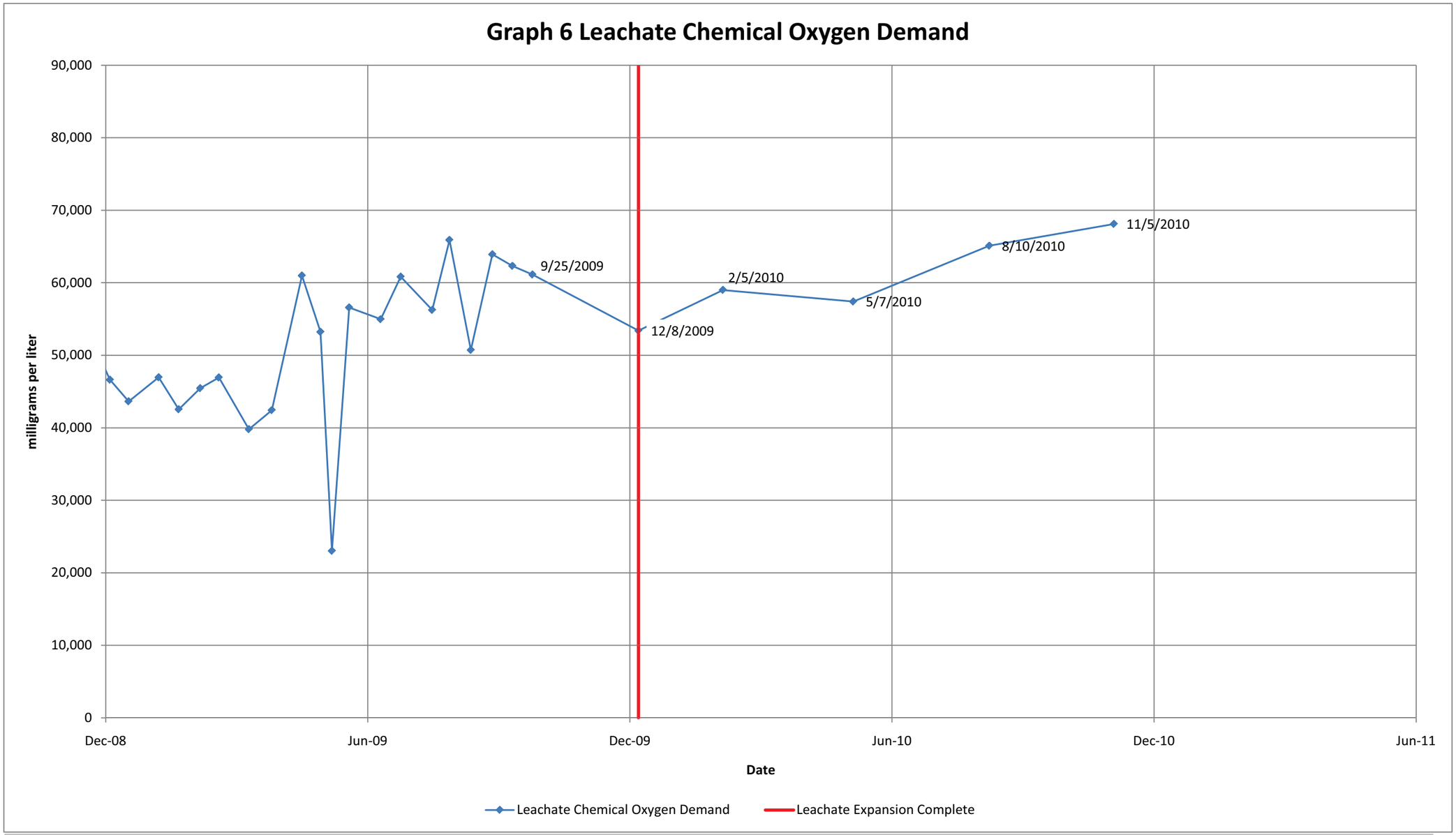
1. A freeboard of approximately 6 feet, approximately 90,000-gallons, is typically maintained at the 500,000-gallon tank. This freeboard volume was removed in July for tank cleaning and inspection. As such, the July 2010 leachate volume is elevated due to removal of this liquid.
2. Leachate generated from the Remediation Unit was stored in the same storage tank as that generated from the Operational Unit during the period July 19, 2010 through August 9, 2010 due to cleaning and maintenance to the Remediation storage tank. As such, the volume of leachate generated from the Remediation Unit was estimated for that period based upon typical daily averages.

Graph 4 Hydrogen Volume





1. Information presented prior to October 2009 was compiled from data prepared and presented by AECOM for Countywide Recycling and Disposal Facilty.
2. Data shown prior to October 2009 are flow-weighted averages of data from the East, North and South leachate collection tanks. Data from December 2009 is from combined Tank East 500.
3. Data shown prior to October 2009 comprises data from the leachate collection system only, and excludes certain leachate toe drains, sumps and gas collection wells.
4. Data labels beginning in October 2009 indicate date of quarterly analytical sampling.



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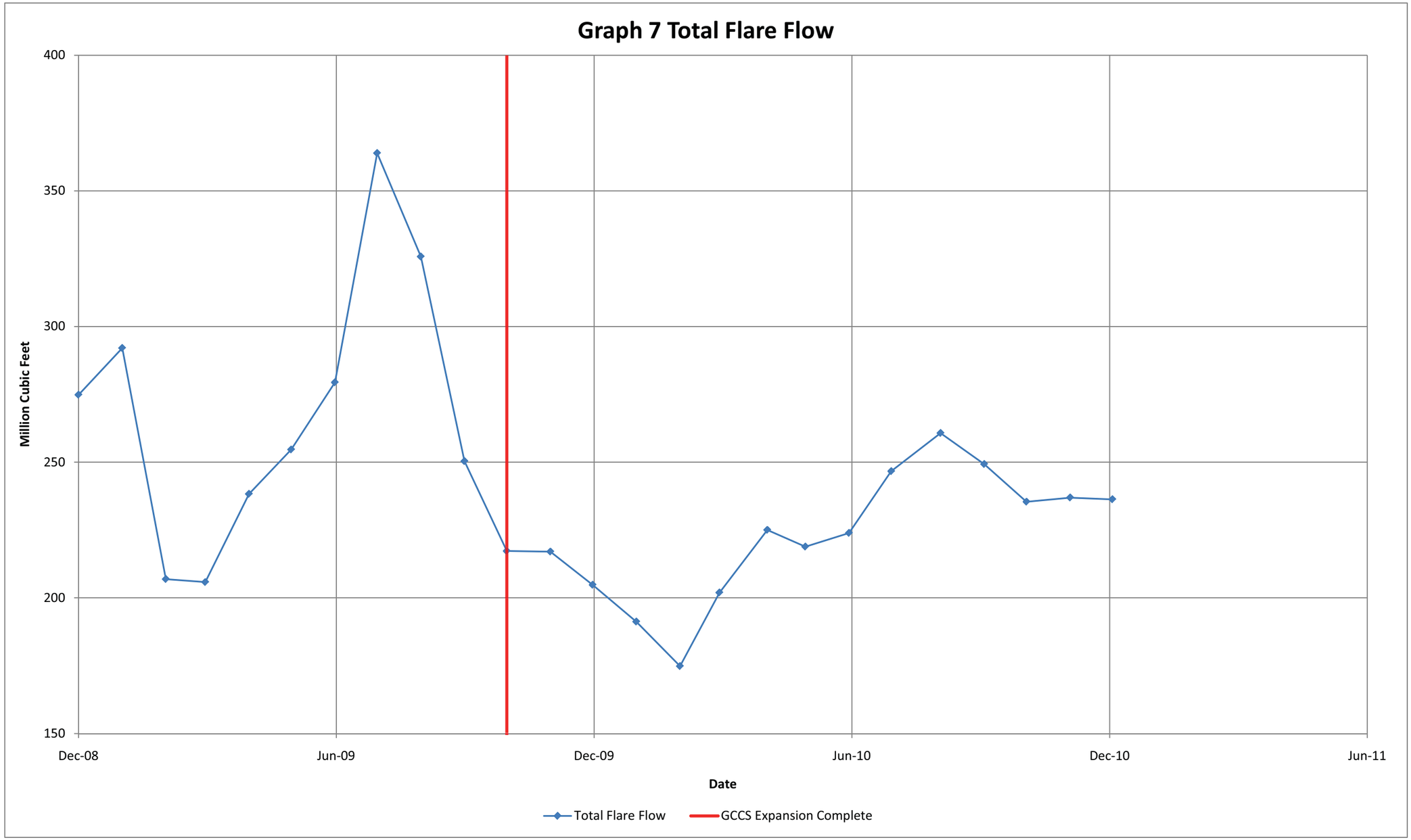
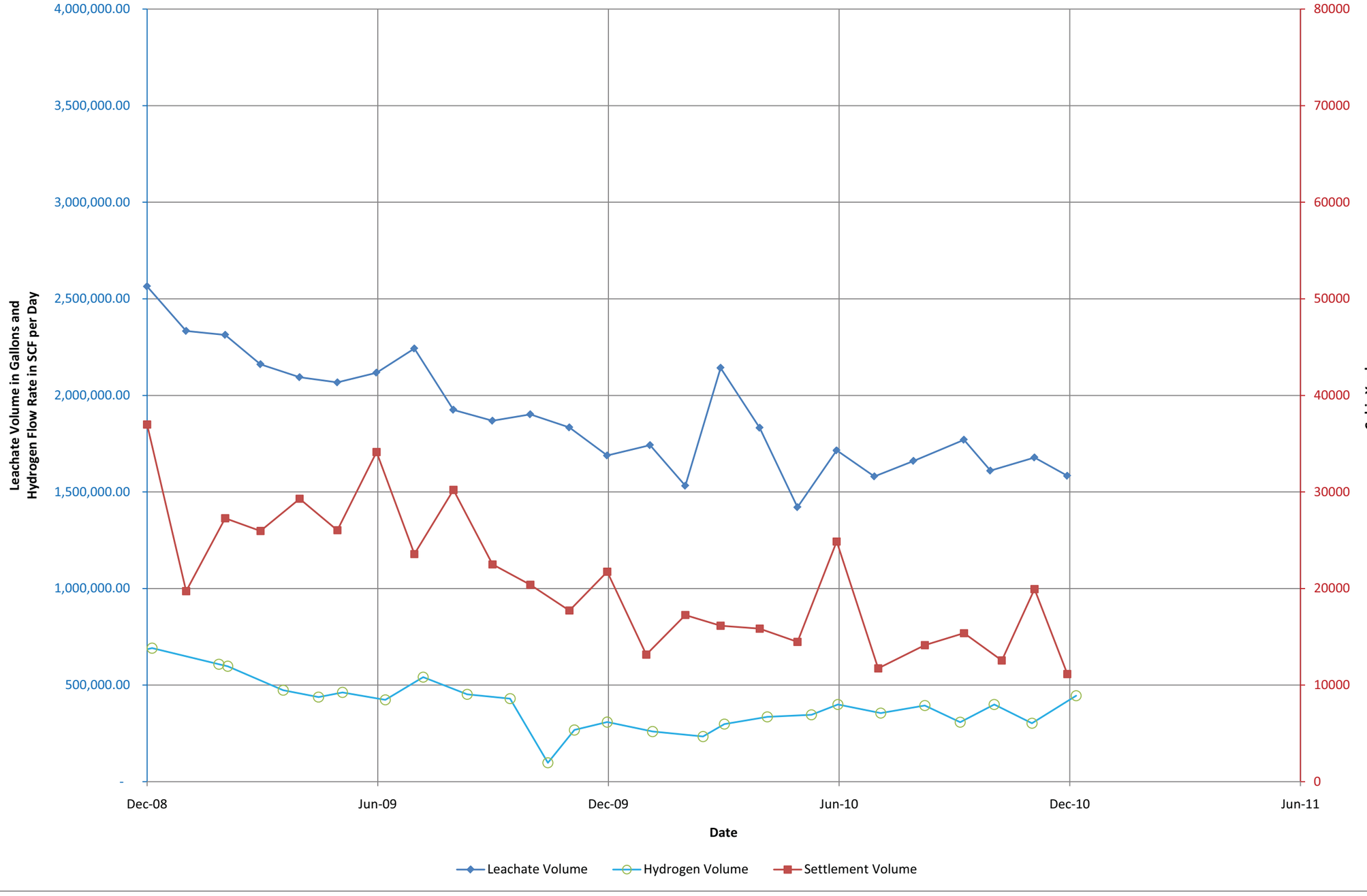
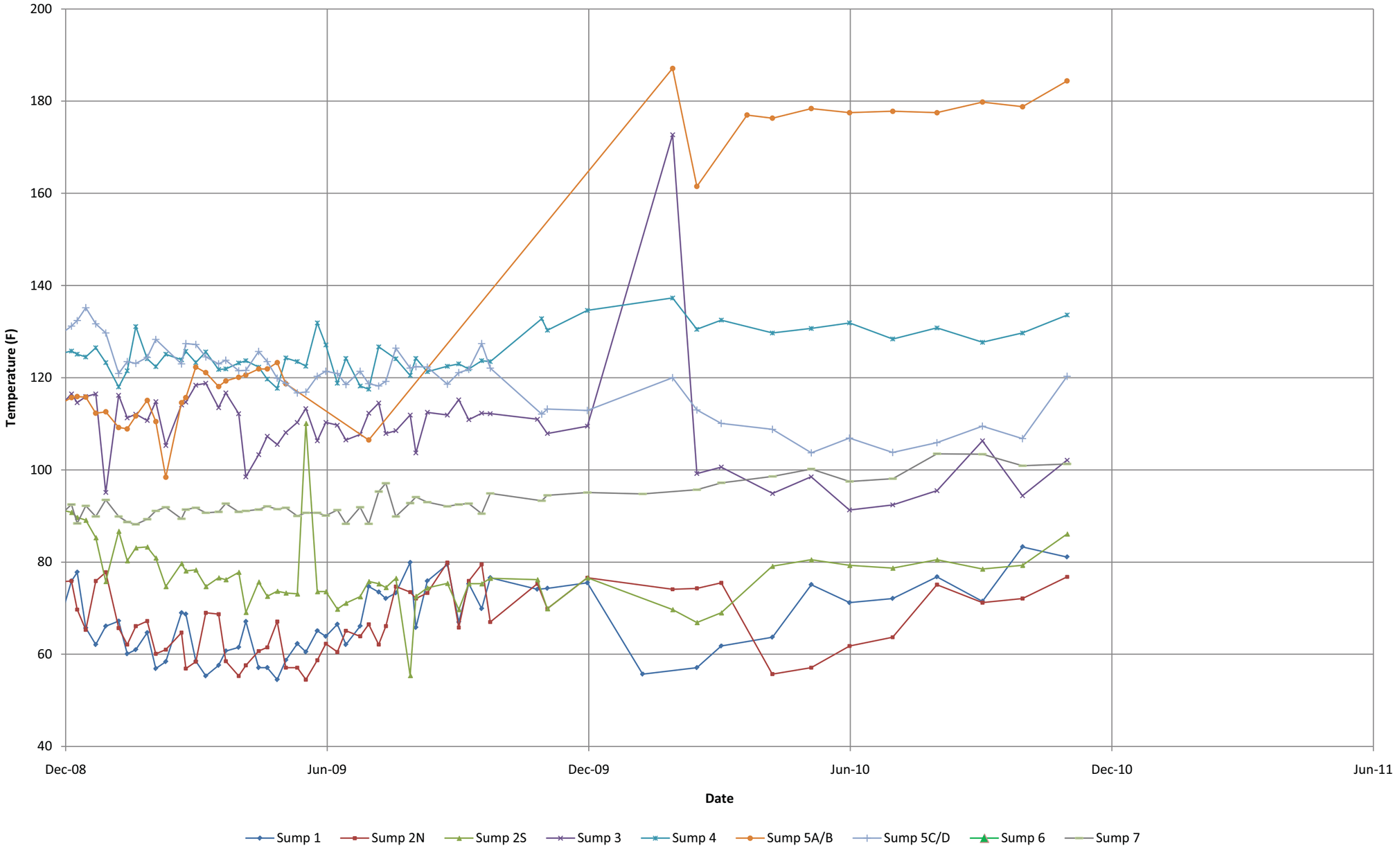


1. Increased flare flow in August 2010 is at least partially due to recalibration of flow meters during the reporting period.

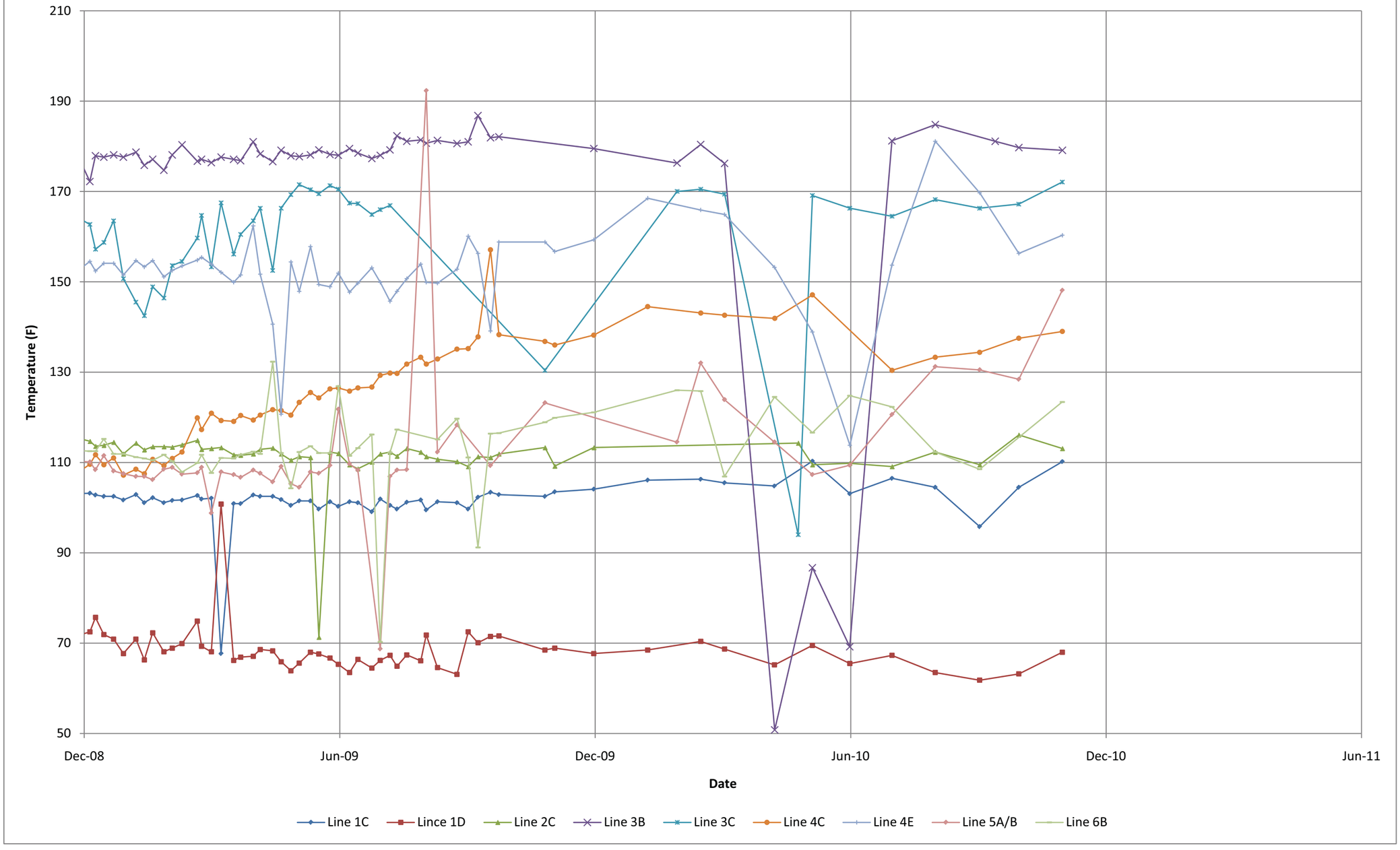
Graph 8 Combined Leachate, Hydrogen and Settlement Volume



Graph 9 Leachate Sump Temperature



Graph 10 Leachate Cleanout Temperature



Attachment 2

Tables

Table 1. Leachate Constituent Summary

Parameter Name		Value	Qualifier	Units	Detection Limit	Units
Volatile Organic Compounds						
1,1,1,2-Tetrachloroethane	<	710	U	ug/L	710	ug/L
1,1,1-Trichloroethane	<	710	U	ug/L	710	ug/L
1,1,2,2-Tetrachloroethane	<	710	U	ug/L	710	ug/L
1,1,2-Trichloroethane	<	710	U	ug/L	710	ug/L
1,1-Dichloroethane	<	710	U	ug/L	710	ug/L
1,1-Dichloroethylene	<	710	U	ug/L	710	ug/L
1,2,3-Trichloropropane	<	710	U	ug/L	710	ug/L
1,2-Dibromo-3-chloropropane (DBCP)	<	1,400	U	ug/L	1,400	ug/L
1,2-Dibromoethane (EDB)	<	710	U	ug/L	710	ug/L
1,2-Dichloroethane	<	710	U	ug/L	710	ug/L
1,2-Dichloropropane	<	710	U	ug/L	710	ug/L
2-Hexanone	<	7,100	U	ug/L	7,100	ug/L
4-Methyl-2-pentanone	<	7,100	J	ug/L	7,100	ug/L
Acetone		47,000		ug/L	7,100	ug/L
Acrylonitrile	<	14,000	U	ug/L	14,000	ug/L
Benzene	<	710	U	ug/L	710	ug/L
Bromochloromethane	<	710	U	ug/L	710	ug/L
Bromodichloromethane	<	710	U	ug/L	710	ug/L
Bromoform	<	710	U	ug/L	710	ug/L
Carbon disulfide	<	710	U	ug/L	710	ug/L
Carbon tetrachloride	<	710	U	ug/L	710	ug/L
Chlorobenzene	<	710	U	ug/L	710	ug/L
Chloroethane	<	710	U	ug/L	710	ug/L
Chloroform	<	710	U	ug/L	710	ug/L
cis-1,2-Dichloroethylene	<	710	U	ug/L	710	ug/L
cis-1,3-Dichloropropene	<	710	U	ug/L	710	ug/L
Dibromochloromethane	<	710	U	ug/L	710	ug/L
Ethylbenzene	<	710	U	ug/L	710	ug/L
Methyl bromide	<	710	U	ug/L	710	ug/L
Methyl chloride	<	710	U	ug/L	710	ug/L
Methyl ethyl ketone		24,000		ug/L	7,100	ug/L
Methyl iodide	<	710	U	ug/L	710	ug/L
Methylene bromide	<	710	U	ug/L	710	ug/L
Methylene chloride	<	710	U	ug/L	710	ug/L
o-Dichlorobenzene	<	710	U	ug/L	710	ug/L
p-Dichlorobenzene	<	710	U	ug/L	710	ug/L
Styrene	<	710	U	ug/L	710	ug/L
Tetrachloroethylene	<	710	U	ug/L	710	ug/L
Toluene	<	710	U	ug/L	710	ug/L
trans-1,2-Dichloroethylene	<	710	U	ug/L	710	ug/L
trans-1,3-Dichloropropene	<	710	U	ug/L	710	ug/L
trans-1,4-Dichloro-2-butene	<	710	U	ug/L	710	ug/L
Trichloroethylene	<	710	U	ug/L	710	ug/L
Trichlorofluoromethane	<	710	U	ug/L	710	ug/L
Vinyl acetate	<	1,400	U	ug/L	1,400	ug/L
Vinyl chloride	<	710	U	ug/L	710	ug/L
Xylenes (total)	<	1,400	U	ug/L	1,400	ug/L

Table 1. Leachate Constituent Summary

Dioxins/Furans						
1,2,3,4,6,7,8-HpCDD	<	500	U	pg/L	500	pg/L
1,2,3,4,6,7,8-HpCDF	<	500	U	pg/L	500	pg/L
1,2,3,4,7,8,9-HpCDF	<	500	U	pg/L	500	pg/L
1,2,3,4,7,8-HxCDD	<	500	U	pg/L	500	pg/L
1,2,3,4,7,8-HxCDF	<	500	U	pg/L	500	pg/L
1,2,3,6,7,8-HxCDD	<	500	U	pg/L	500	pg/L
1,2,3,6,7,8-HxCDF	<	500	U	pg/L	500	pg/L
1,2,3,7,8,9-HxCDD	<	500	U	pg/L	500	pg/L
1,2,3,7,8,9-HxCDF	<	500	U	pg/L	500	pg/L
1,2,3,7,8-PeCDD	<	500	U	pg/L	500	pg/L
1,2,3,7,8-PeCDF	<	500	U	pg/L	500	pg/L
2,3,4,6,7,8-HxCDF	<	500	U	pg/L	500	pg/L
2,3,4,7,8-PeCDF	<	500	U	pg/L	500	pg/L
2,3,7,8-TCDD	<	100	U	pg/L	100	pg/L
2,3,7,8-TCDF	<	100	U	pg/L	100	pg/L
OCDD		340	QBJ	pg/L	1000	pg/L
OCDF	<	1000	U	pg/L	1000	pg/L
Total HpCDD	<	500	U	pg/L	500	pg/L
Total HpCDF	<	500	U	pg/L	500	pg/L
Total HxCDD	<	120	QJ	pg/L	500	pg/L
Total HxCDF	<	500	U	pg/L	500	pg/L
Total PeCDD	<	500	U	pg/L	500	pg/L
Total PeCDF	<	500	U	pg/L	500	pg/L
Total TCDD	<	100	U	pg/L	100	pg/L
Total TCDF	<	100	U	pg/L	100	pg/L
Metals						
Aluminum	<	20,000	UG	ug/L	20,000	ug/L
Antimony	<	1,000	UG	ug/L	1,000	ug/L
Arsenic	<	500	UG	ug/L	500	ug/L
Barium		1,840		ug/L	1,000	ug/L
Beryllium	<	300	UG	ug/L	300	ug/L
Cadmium	<	200	UG	ug/L	200	ug/L
Calcium		4,270,000		ug/L	100,000	ug/L
Chromium		634		ug/L	500	ug/L
Cobalt	<	500	UG	ug/L	500	ug/L
Copper	<	500	UG	ug/L	500	ug/L
Iron		1,190,000		ug/L	10,000	ug/L
Lead		497		ug/L	300	ug/L
Magnesium		1,170,000		ug/L	100,000	ug/L
Manganese		93,000		ug/L	500	ug/L
Nickel	<	1,000	UG	ug/L	1,000	ug/L
Potassium		5,450,000		ug/L	100,000	ug/L
Selenium	<	500	UG	ug/L	500	ug/L
Silver	<	300	UG	ug/L	300	ug/L
Sodium		12,700,000		ug/L	100,000	ug/L
Thallium	<	1,000	UG	ug/L	1,000	ug/L
Vanadium	<	700	UG	ug/L	700	ug/L
Zinc		40,300		ug/L	2,000	ug/L

Table 1. Leachate Constituent Summary

Field Parameters						
Specific Conductance		55,000		umhos/cm	100	umhos/cm
Field pH		6.1		s.u.		s.u.
Field Temperature		73.8		F		F
General Chemistry						
Ammonia		33.1		mg/L		mg/L
Turbidity		490		NTU	50	NTU
Chloride		22,200		mg/L	500	mg/L
Fluoride	<	100	UG	mg/L	100	mg/L
Sulfate		841		mg/L	100	mg/L
Nitrate-Nitrite	<	10	UG	mg/L	10	mg/L
Total Alkalinity		10,300		mg/L	500	mg/L
Total Dissolved Solids		88,100		mg/L	1000	mg/L
Chemical Oxygen Demand (COD)		68,100		mg/L	2000	mg/L

Notes:

1. Results shown are reported for sample collected from the East 500 Leachate Tank on November 5, 2010 and were submitted to Test America Laboratories for analysis.

2. Laboratory Qualifiers:

- G The reporting limit is elevated due to matrix interference.
- J Amount reported is less than reportable limit
- a Spike analyte recovery is outside control limits
- D Dilution and reporting limit raised.
- U Non detect
- Q Estimated maximum concentration
- B Method Blank Contamination
- NC The recovery and/or RPD (relevant percent distance) were not calculated
- MSB The recovery and RPD may be outside control limits because the sample amount was greater than 4X the spike amount.

Table 2. Liquid Levels and Percent Perforations Exposed

Well ID	A2	B1R	B2R	C1R(2)	C2R	D1	D2R	E1	E2R	F1-M	F2	I1R	J1R	K1R	N1R	PW-A1R(2)	PW-14R(3)	PW-0041R(2)
Total Constructed Casing Length (ft)	68	36	78	48	123	57	123	70	123	60	68	121	122	56	122	61.5	43	73
Total Constructed Perforated Pipe Length (ft)	45	16	54	23	99	36	99	45	99	39	44	96	97	31	97	38	21	55
October 2010																		
Date	10/27	10/25	N/A	10/25	10/27	10/27	10/27	10/25	10/27	10/25	10/27	10/25	10/25	10/25	10/25	10/25	10/25	10/25
Depth To Fluid (ft)	16.6	24.3	N/A	24.2	43.6	10.9	52.9	24.3	74.4	17.4	32.6	28.3	51.4	20.6	66.7	41.8	29.8	57.7
Measured Depth to Bottom (ft)	16.6	35.2	N/A	43.8	116.1	16.4	52.9	27.3	111.1	46.8	56.5	89.5	118.0	51.1	94.6	52.8	40.8	58.0
Potential Exposed Perforations (ft)	0.0	15.2	N/A	18.8	92.1	0.0	28.9	2.3	87.1	25.8	32.5	64.5	93.0	26.1	69.6	29.3	18.8	40.0
Actual Exposed Perforations (ft)	0	4.3	N/A	0	19.6	0	28.9	0	50.4	0	8.6	3.3	26.4	0	41.7	18.3	7.8	39.7
November 2010																		
Date	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	11/12	N/A	N/A	11/12	N/A	N/A	N/A	N/A	N/A	N/A
Depth To Fluid (ft)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	73.3	N/A	N/A	62.1	N/A	N/A	N/A	N/A	N/A	N/A
Measured Depth to Bottom (ft)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	111.1	N/A	N/A	90.1	N/A	N/A	N/A	N/A	N/A	N/A
Potential Exposed Perforations (ft)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	87.1	N/A	N/A	65.1	N/A	N/A	N/A	N/A	N/A	N/A
Actual Exposed Perforations (ft)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	49.3	N/A	N/A	37.1	N/A	N/A	N/A	N/A	N/A	N/A
December 2010																		
Date	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	12/17	N/A	N/A	12/17	N/A	N/A	N/A	N/A	N/A	N/A
Depth To Fluid (ft)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	61.1	N/A	N/A	26.7	N/A	N/A	N/A	N/A	N/A	N/A
Measured Depth to Bottom (ft)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	110.5	N/A	N/A	47.2	N/A	N/A	N/A	N/A	N/A	N/A
Potential Exposed Perforations (ft)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	86.5	N/A	N/A	22.2	N/A	N/A	N/A	N/A	N/A	N/A
Actual Exposed Perforations (ft)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	37.1	N/A	N/A	1.7	N/A	N/A	N/A	N/A	N/A	N/A

Well ID	PW-43R(2)	PW-56R(2)	PW-57R	PW-61R(2)	PW-62R(2)	PW-101	PW-102	PW-103R	PW-104	PW-105	PW-106R	PW-107	PW-108R	PW-109	PW-110	PW-111	PW-112	PW-113
Total Constructed Casing Length (ft)	102	102	85	74	91	78	78	105	78	78	69	66	50	37	31	62	77	78
Total Constructed Perforated Pipe Length (ft)	84	84	67	48	73	60	60	81	60	60	45	45	26	19	13	44	59	60
October 2010																		
Date	10/25	10/27	10/27	10/27	10/27	10/25	10/25	10/25	10/27	10/27	10/25	10/19	10/27	10/19	10/19	10/19	10/19	10/19
Depth To Fluid (ft)	55.5	39.1	61.7	70.5	63.3	39.6	22.3	56.3	29.3	34.9	54.6	58.6	46.9	30.0	22.2	64.1	74.5	72.9
Measured Depth to Bottom (ft)	82.3	91.3	76.4	75.1	63.3	77.7	35.4	101.0	36.9	34.9	63.0	61.0	47.7	37.1	31.6	64.3	79.8	77.6
Potential Exposed Perforations (ft)	64.3	73.3	58.4	49.1	45.3	59.7	17.4	77.0	18.9	16.9	39.0	40.0	23.7	19.1	13.6	46.3	61.8	59.6
Actual Exposed Perforations (ft)	37.5	21.1	43.7	44.5	45.3	21.6	4.3	32.3	11.3	16.9	30.6	37.6	22.9	12	4.2	44	56.5	54.9
November 2010																		
Date	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Depth To Fluid (ft)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Measured Depth to Bottom (ft)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Potential Exposed Perforations (ft)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Actual Exposed Perforations (ft)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
December 2010																		
Date	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Depth To Fluid (ft)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Measured Depth to Bottom (ft)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Potential Exposed Perforations (ft)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Actual Exposed Perforations (ft)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 2. Liquid Levels and Percent Perforations Exposed

Well ID	PW-114	PW-115R	PW-117R	PW-118R	PW-119R	PW-120	PW-121R(2)	PW-122R	PW-123	PW-124	PW-125	PW-127	PW-128	PW-129	PW-130	PW-131R	PW-132R	PW-138R
Total Constructed Casing Length (ft)	78	84	105	89	72	78	46	43.5	78	63	75	75	119.7	121	121	81	62	70
Total Constructed Perforated Pipe Length (ft)	60	60	80	64	50	60	31	25	60	45	60	60	103	103	103	58	40	46
October 2010																		
Date	10/27	10/27	10/25	10/27	10/25	10/25	10/25	10/25	N/A	10/25	10/27	10/25	10/25	10/25	10/25	N/A	10/27	10/27
Depth To Fluid (ft)	69.8	73.1	35.3	72.7	59.4	34.5	35.7	36.3	N/A	51.5	41.3	26.7	61.8	59.1	61.6	N/A	33.6	40.0
Measured Depth to Bottom (ft)	79.6	77.1	35.3	84.5	64.4	34.5	36.8	36.3	N/A	54.8	68.6	67.3	91.0	108.3	109.8	N/A	43.6	58.1
Potential Exposed Perforations (ft)	61.6	53.1	10.3	59.5	42.4	16.5	21.8	17.8	N/A	36.8	53.6	52.3	74.3	90.3	91.8	N/A	21.6	34.1
Actual Exposed Perforations (ft)	51.8	49.1	10.3	47.7	37.4	16.5	20.7	17.8	N/A	33.5	26.3	11.7	45.1	41.1	43.6	N/A	11.6	16
November 2010																		
Date	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Depth To Fluid (ft)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Measured Depth to Bottom (ft)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Potential Exposed Perforations (ft)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Actual Exposed Perforations (ft)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
December 2010																		
Date	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Depth To Fluid (ft)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Measured Depth to Bottom (ft)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Potential Exposed Perforations (ft)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Actual Exposed Perforations (ft)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Well ID	PW-141R	PW-142R	PW-144	PW-145	PW-146	PW-147R	PW-148	PW-149	PW-150	PW-151	PW-152	PW-153	PW-154	PW-155	PW-156	PW-157	PW-158R	PW-159
Total Constructed Casing Length (ft)	104	80	102	120	120	80	53	51	50	43	42	52	42	42	112	112	104	117
Total Constructed Perforated Pipe Length (ft)	80	58	82	100	100	58	33	31	30	23	22	32	22	22	89	89	80	97
October 2010																		
Date	10/25	10/25	N/A	10/25	10/25	10/25	10/25	10/25	10/27	10/25	10/25	10/25	10/25	10/25	10/25	10/25	10/25	10/27
Depth To Fluid (ft)	44.9	73.4	N/A	53.8	46.2	31.8	29.4	31.3	33.8	29.7	36.5	44.7	41.2	36.3	59.3	51.9	53.5	52.1
Measured Depth to Bottom (ft)	99.3	75.4	N/A	115.7	111.0	75.2	45.4	50.4	45.4	31.3	41.5	44.7	41.2	36.5	104.7	105.6	101.8	113.8
Potential Exposed Perforations (ft)	75.3	53.4	N/A	95.7	91.0	53.2	25.4	30.4	25.4	11.3	21.5	24.7	21.2	16.5	81.7	82.6	77.8	93.8
Actual Exposed Perforations (ft)	20.9	51.4	N/A	33.8	26.2	9.8	9.4	11.3	13.8	9.7	16.5	24.7	21.2	16.3	36.3	28.9	29.5	32.1
November 2010																		
Date	N/A	N/A	N/A	N/A	N/A	11/12	11/12	11/12	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Depth To Fluid (ft)	N/A	N/A	N/A	N/A	N/A	39.3	40.6	43.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Measured Depth to Bottom (ft)	N/A	N/A	N/A	N/A	N/A	68.9	45.3	50.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Potential Exposed Perforations (ft)	N/A	N/A	N/A	N/A	N/A	46.9	25.3	30.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Actual Exposed Perforations (ft)	N/A	N/A	N/A	N/A	N/A	17.3	20.6	23.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
December 2010																		
Date	N/A	N/A	N/A	N/A	N/A	12/17	12/17	12/17	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Depth To Fluid (ft)	N/A	N/A	N/A	N/A	N/A	46.7	40.5	50.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Measured Depth to Bottom (ft)	N/A	N/A	N/A	N/A	N/A	69.3	45.5	50.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Potential Exposed Perforations (ft)	N/A	N/A	N/A	N/A	N/A	47.3	25.5	30.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Actual Exposed Perforations (ft)	N/A	N/A	N/A	N/A	N/A	24.7	20.5	30.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 2. Liquid Levels and Percent Perforations Exposed

Well ID	PW-160	PW-161	PW-162	PW-163R	PW-164	PW-165	PW-166	PW-167R	PW-168(M)	PW-169	PW-170	PW-171	PW-172	PW-173	PW-174	PW-175	PW-176	PW-177
Total Constructed Casing Length (ft)	119	117	102	100	117	117	122	80	93	61	40	47	117	114	105	80	77	44
Total Constructed Perforated Pipe Length (ft)	97	95	80	75	97	97	95	58	68	15	18	22	92	90	80	58	55	24
October 2010																		
Date	10/25	10/25	10/25	10/25	10/25	10/25	10/25	10/25	10/19	10/19	10/27	10/25	10/25	10/27	10/27	10/27	10/27	10/19
Depth To Fluid (ft)	62.1	45.4	48.3	43.4	44.3	53.5	46.5	38.4	76.4	55.0	25.7	22.6	39.2	51.6	34.1	46.4	45.5	36.5
Measured Depth to Bottom (ft)	112.1	114.0	92.9	91.4	110.8	115.9	94.4	76.0	92.7	56.0	43.2	45.3	115.5	107.4	99.8	62.4	63.2	43.0
Potential Exposed Perforations (ft)	90.1	92.0	70.9	66.4	90.8	95.9	67.4	54.0	67.7	10.0	21.2	20.3	90.5	83.4	74.8	40.4	41.2	23.0
Actual Exposed Perforations (ft)	40.1	23.4	26.3	18.4	24.3	33.5	19.5	16.4	51.4	9	3.7	0	14.2	27.6	9.1	24.4	23.5	16.5
November 2010																		
Date	N/A	N/A	N/A	N/A	N/A	N/A	N/A	11/12	N/A	N/A	N/A	N/A	N/A	N/A	11/12	11/12	N/A	N/A
Depth To Fluid (ft)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	44.7	N/A	N/A	N/A	N/A	N/A	N/A	34.4	46.2	N/A	N/A
Measured Depth to Bottom (ft)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	76.0	N/A	N/A	N/A	N/A	N/A	N/A	100.1	62.3	N/A	N/A
Potential Exposed Perforations (ft)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	54.0	N/A	N/A	N/A	N/A	N/A	N/A	75.1	40.3	N/A	N/A
Actual Exposed Perforations (ft)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	22.7	N/A	N/A	N/A	N/A	N/A	N/A	9.4	24.2	N/A	N/A
December 2010																		
Date	N/A	N/A	N/A	N/A	N/A	N/A	N/A	12/17	N/A	N/A	N/A	N/A	N/A	N/A	12/17	12/17	N/A	N/A
Depth To Fluid (ft)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	42.1	N/A	N/A	N/A	N/A	N/A	N/A	37.6	46.6	N/A	N/A
Measured Depth to Bottom (ft)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	75.7	N/A	N/A	N/A	N/A	N/A	N/A	99.7	62.2	N/A	N/A
Potential Exposed Perforations (ft)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	53.7	N/A	N/A	N/A	N/A	N/A	N/A	74.7	40.2	N/A	N/A
Actual Exposed Perforations (ft)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	20.1	N/A	N/A	N/A	N/A	N/A	N/A	12.6	24.6	N/A	N/A

Well ID	PW-178	PW-179	PW-180	PW-181	PW-182	PW-307	PW-358	PW-361	PW-362B	PW-363	PW-364	PW-366	PW-367	PW-368	PW-369	Q1R	S1R	T1R
Total Constructed Casing Length (ft)	34	61	93	85	42	64	62	104	78	82	82	39	53	47	38	54	125	125
Total Constructed Perforated Pipe Length (ft)	14	36	68	60	17	42	38	80	53	58	58	25	39	33	24	30	100	100
October 2010																		
Date	10/19	10/19	10/27	10/25	10/25	10/27	10/27	10/27	10/27	10/27	10/27	10/27	10/27	10/27	10/27	10/27	10/25	10/25
Depth To Fluid (ft)	31.9	38.4	79.9	26.4	20.5	50.1	49.5	63.8	42.2	54.4	40.8	20.3	43.3	24.0	27.7	44.7	44.5	56.5
Measured Depth to Bottom (ft)	32.4	60.1	90.0	76.1	40.4	56.6	64.2	102.5	77.7	80.3	79.6	39.0	51.5	49.3	39.2	52.1	115.1	120.1
Potential Exposed Perforations (ft)	12.4	35.1	65.0	51.1	15.4	34.6	40.2	78.5	52.7	56.3	55.6	25.0	37.5	35.3	25.2	28.1	90.1	95.1
Actual Exposed Perforations (ft)	11.9	13.4	54.9	1.4	0	28.1	25.5	39.8	17.2	30.4	16.8	6.3	29.3	10	13.7	20.7	19.5	31.5
November 2010																		
Date	N/A	N/A	N/A	11/12	N/A	N/A	11/12	N/A	11/12	11/12	11/12	N/A	11/12	N/A	N/A	N/A	N/A	N/A
Depth To Fluid (ft)	N/A	N/A	N/A	37.5	N/A	N/A	52.3	N/A	43.4	49.4	42.5	N/A	38.0	N/A	N/A	N/A	N/A	N/A
Measured Depth to Bottom (ft)	N/A	N/A	N/A	75.2	N/A	N/A	64.3	N/A	77.6	80.6	79.5	N/A	52.0	N/A	N/A	N/A	N/A	N/A
Potential Exposed Perforations (ft)	N/A	N/A	N/A	50.2	N/A	N/A	40.3	N/A	52.6	56.6	55.5	N/A	38.0	N/A	N/A	N/A	N/A	N/A
Actual Exposed Perforations (ft)	N/A	N/A	N/A	12.5	N/A	N/A	28.3	N/A	18.4	25.4	18.5	N/A	24	N/A	N/A	N/A	N/A	N/A
December 2010																		
Date	N/A	N/A	N/A	12/17	N/A	N/A	12/17	N/A	12/17	12/17	12/17	N/A	12/17	N/A	N/A	N/A	N/A	N/A
Depth To Fluid (ft)	N/A	N/A	N/A	62.2	N/A	N/A	52.5	N/A	57.3	49.7	40.3	N/A	40.0	N/A	N/A	N/A	N/A	N/A
Measured Depth to Bottom (ft)	N/A	N/A	N/A	75.6	N/A	N/A	64.3	N/A	77.8	80.4	79.6	N/A	51.9	N/A	N/A	N/A	N/A	N/A
Potential Exposed Perforations (ft)	N/A	N/A	N/A	50.6	N/A	N/A	40.3	N/A	52.8	56.4	55.6	N/A	37.9	N/A	N/A	N/A	N/A	N/A
Actual Exposed Perforations (ft)	N/A	N/A	N/A	37.2	N/A	N/A	28.5	N/A	32.3	25.7	16.3	N/A	26	N/A	N/A	N/A	N/A	N/A

Table 2. Liquid Levels and Percent Perforations Exposed

Well ID	U1R	W-1R	W1R(2)	W-2R(M)	W-3	W-4	W-5	W-7	W-8	W-9	W-10	W-11	W-12R	W-13R	W-31R	W-32R	W-33	W-34
Total Constructed Casing Length (ft)	113	46	72	85	33	37	35	38	34	36	103	119	43	43	92	54	52	81
Total Constructed Perforated Pipe Length (ft)	88	20	48	65	12	16	13	14	15	18	85	94	21	21	72	29	34	43
October 2010																		
Date	10/25	10/27	10/27	10/19	10/19	10/19	10/19	10/19	10/19	10/19	10/19	10/19	10/19	10/19	10/19	10/19	10/19	10/19
Depth To Fluid (ft)	45.6	33.3	37.8	35.1	31.0	30.8	32.5	31.0	24.6	33.5	28.7	33.2	38.0	33.5	71.1	44.8	40.2	51.2
Measured Depth to Bottom (ft)	108.8	42.0	67.3	81.3	32.7	36.6	34.7	31.1	33.0	37.8	38.9	39.4	41.4	42.5	91.2	52.8	53.6	73.6
Potential Exposed Perforations (ft)	83.8	16.0	43.3	61.3	11.7	15.6	12.7	7.1	14.0	19.8	20.9	14.4	19.4	20.5	71.2	27.8	35.6	35.6
Actual Exposed Perforations (ft)	20.6	7.3	13.8	15.1	10	9.8	10.5	7	5.6	15.5	10.7	8.2	16	11.5	51.1	19.8	22.2	13.2
November 2010																		
Date	N/A	11/12	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Depth To Fluid (ft)	N/A	33.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Measured Depth to Bottom (ft)	N/A	41.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Potential Exposed Perforations (ft)	N/A	15.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Actual Exposed Perforations (ft)	N/A	7.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
December 2010																		
Date	N/A	12/17	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Depth To Fluid (ft)	N/A	33.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Measured Depth to Bottom (ft)	N/A	42.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Potential Exposed Perforations (ft)	N/A	16.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Actual Exposed Perforations (ft)	N/A	7.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Well ID	W-35	W-36	W-37	W-38	W-39	W-42R(2)	W-56R(3)	W-58R	W-59	W-60	W-68	W-69R
Total Constructed Casing Length (ft)	64	70	79	79	81	100	88	82	108	110	79	47
Total Constructed Perforated Pipe Length (ft)	46	35	62	57	62	75	64	58	71	79	44	21
October 2010												
Date	10/19	10/19	10/19	10/19	10/19	10/25	10/27	10/19	10/19	10/19	10/19	10/19
Depth To Fluid (ft)	46.2	48.1	43.0	41.7	56.8	78.0	52.2	72.5	74.5	76.5	50.7	40.1
Measured Depth to Bottom (ft)	46.2	68.5	68.3	67.5	72.5	78.2	83.2	82.0	101.0	90.5	59.7	45.9
Potential Exposed Perforations (ft)	28.2	33.5	51.3	45.5	53.5	53.2	59.2	58.0	64.0	59.5	24.7	19.9
Actual Exposed Perforations (ft)	28.2	13.1	26	19.7	37.8	53	28.2	48.5	37.5	45.5	15.7	14.1
November 2010												
Date	N/A	N/A	N/A	N/A	N/A	N/A	11/12	N/A	N/A	N/A	N/A	N/A
Depth To Fluid (ft)	N/A	N/A	N/A	N/A	N/A	N/A	50.3	N/A	N/A	N/A	N/A	N/A
Measured Depth to Bottom (ft)	N/A	N/A	N/A	N/A	N/A	N/A	83.2	N/A	N/A	N/A	N/A	N/A
Potential Exposed Perforations (ft)	N/A	N/A	N/A	N/A	N/A	N/A	59.2	N/A	N/A	N/A	N/A	N/A
Actual Exposed Perforations (ft)	N/A	N/A	N/A	N/A	N/A	N/A	26.3	N/A	N/A	N/A	N/A	N/A
December 2010												
Date	N/A	N/A	N/A	N/A	N/A	N/A	12/17	N/A	N/A	N/A	N/A	N/A
Depth To Fluid (ft)	N/A	N/A	N/A	N/A	N/A	N/A	48.1	N/A	N/A	N/A	N/A	N/A
Measured Depth to Bottom (ft)	N/A	N/A	N/A	N/A	N/A	N/A	82.7	N/A	N/A	N/A	N/A	N/A
Potential Exposed Perforations (ft)	N/A	N/A	N/A	N/A	N/A	N/A	58.7	N/A	N/A	N/A	N/A	N/A
Actual Exposed Perforations (ft)	N/A	N/A	N/A	N/A	N/A	N/A	24.1	N/A	N/A	N/A	N/A	N/A

Notes:
Based upon discussions during the Team Countywide meeting on April 28, 2010, the table was revised to reflect potential exposed perforations (feet of constructed perforations above measured depth to bottom) and actual exposed perforations (potential exposed perforations minus measured thickness of liquid).

Table 3: West Slope Piezometer Readings

Installation Information	Piezometer I.D.	WBPZ-1 upper		WBPZ-1 lower		WBPZ-2 upper		WBPZ-3 upper		WBPZ-3 lower	
	Ground Elevation	1124.3		1124.3		1135.8		1145.7		1145.7	
	Depth to Tranducer	74.5		102 0		85 5		59.5		84.5	
	Elevation of Tranducer	1049.8		1022 3		1050.3		1086.2		1061.2	
"Apparent" Piezometric Surface (see Note 1)		Total Head (ft)	Pore Pressure (ft H_2O)	Total Head (ft)	Pore Pressure (ft H_2O)	Total Head (ft)	Pore Pressure (ft H_2O)	Total Head (ft)	Pore Pressure (ft H_2O)	Total Head (ft)	Pore Pressure (ft H_2O)
	10/16/2009	1050.1	0.34	< 1022.3	-0 01	< 1050.3	-0.05	< 1086.2	-0.24	1062.7	1.50
	11/2/2009	1050.0	0.17	< 1022.3	-0.45	< 1050.3	-0.21	< 1086.2	-0.42	1061.4	0.17
	12/1/2009	1050.2	0.39	< 1022.3	-0.49	< 1050.3	-0.27	< 1086.2	-0.52	1061.3	0.08
	1/6/2010	1049.8	0.00	< 1022.3	-0.65	< 1050.3	-0.42	< 1086.2	-0.65	< 1061.2	-0.36
	2/1/2010	< 1049.8	-0.04	< 1022.3	-0.70	< 1050.3	-0.48	< 1086.2	-0.70	< 1061.2	-0.67
	3/4/2010	1049.9	0.14	< 1022.3	-0 51	< 1050.3	-0.31	< 1086.2	-0.54	< 1061.2	-0.49
	4/8/2010	1050.1	0.33	< 1022.3	-0 35	< 1050.3	-0.14	< 1086.2	-0.35	< 1061.2	-0.39
	5/6/2010	< 1049.8	-0.15	< 1022.3	-0 80	< 1050.3	-0.62	< 1086.2	-0.81	< 1061.2	-0.75
	6/2/2010	1049.9	0.07	< 1022.3	-0 54	< 1050.3	-0.35	< 1086.2	-0.63	< 1061.2	-0.60
	7/2/2010	< 1049.8	-0.05	< 1022.3	-0.77	< 1050.3	-0.57	< 1086.2	-0.73	< 1061.2	-0.67
	8/2/2010	< 1049.8	-0.04	< 1022.3	-0.75	< 1050.3	-0.57	< 1086.2	-0.71	< 1061.2	-0.65
	9/2/2010	< 1049.8	-0.04	< 1022.3	-0.75	< 1050.3	-0.57	< 1086.2	-0.72	< 1061.2	-0.67
	10/1/2010	< 1049.8	-0.13	< 1022.3	-0 82	< 1050.3	-0.67	< 1086.2	-0.78	< 1061.2	-0.67
	11/1/2010	< 1049.8	-0.16	< 1022.3	-0.9	< 1050.3	-0.69	< 1086.2	-0.82	< 1061.2	-0.7
	12/2/2010	< 1049.8	-0.24	< 1022.3	-0 90	< 1050.3	-0.82	< 1086.2	-0.94	< 1061.2	-0.74
	1/1/2011	1049.9	0.08	< 1022.3	-0.65	< 1050.3	-0.49	< 1086.2	-0.61	< 1061.2	-0.60
Trigger Elevations (see Note 2)	For F S. < 1.5	Note 3		1048.0		1081.0		Note 3		1095.0	
	For F S. < 1.2	Note 3		1102.0		1120.0		Note 3		1116.0	

Notes:

1. The piezometric surface is present at, or below, the elevation provided in ft.-MSL. The number in parentheses represents the water column pressure exerted on the transducer--a zero or negative pressure indicates non-saturated conditions causing soil suction
2. If the apparent piezometric surface rises above this elevation, the trigger has occurred
3. This is a redundant installation that can be used in event of failure of the corresponding lower transducer.

Table 4:South Slope Piezometer Readings

Vibrating Wire Piezometers

Installation Information	Boring I.D.	SS-7	SS-1	SS-7	SS-3	SS-3	SS-7	SS-1	SS-3	SS-5
	Ground Elevation (at install)	1178.3	1177.8	1178.3	1174 5	1174.5	1178.3	1177.8	1174 5	1179.6
	Depth to Tranducer (ft. at install)	12	18	17	25	22	22	28	17	24
	Elevation of Tranducer(at install)	1166.3	1159.8	1161 3	1149 5	1152.5	1156.3	1149.8	1157 5	1155.6
"Apparent" Piezometric Surface (see Note 1)		Pore Pressure (ft H_2O)	Pore Pressure (ft H_2O)	Pore Pressure (ft H_2O)	Pore Pressure (ft H_2O)	Pore Pressure (ft H_2O)	Pore Pressure (ft H_2O)	Pore Pressure (ft H_2O)	Pore Pressure (ft H_2O)	Pore Pressure (ft H_2O)
	10/26/2009	-0.86		-0 87			-0.74	-3.24		
	10/29/2009	-0.86	-9.53	-0 87	-0.17	0.49	-0.74		3.73	0 80
	11/9/2009	-0.79	-9.46	-0 80	-0.14	0.40	-0.65		3 54	0.73
	12/1/2009	-1.16	-9.95	-1.16	-0 52	0.12	-1.01		3 28	0 35
	1/6/2010	-1.21	-9.65	-1 24	-0.13	-0.61	-1.61		3 01	-0 38
	2/1/2010	-1.00	-9.41	-1 00	-0 56	-0.29	-1.82		2.71	-0 56
	3/4/2010	-1.36	-9.71	-1 37	-0 94	-0.81	-2.04		2.08	-1.40
	4/8/2010	-1.86	-10.19	-1.95	-1 86	-1.49	-2.51		1.14	-2.47
	5/6/2010	-1.48	-9.80	-1.59	-1.64	-1.31	-2.17		0 91	-2 31
	6/2/2010	-1.66	-9.69	-1.79	-1 83	-1.51	-2.37		0.65	-2 55
	7/2/2010	-1.15	-9.24	-1 31	-1.40	-1.13	-1.90		0 89	-2.15
	8/2/2010	-1.47	-9.56	-1.68	-1.75	-1.52	-2.24		0 82	-2 52
	9/2/2010	-1.54	-9.69	-1 80	-1 56	-1.63	-2.34		0.87	-2.66
	10/1/2010	-1.54	-9.82	-1 90	-1 34	-1.73	-2.39		1.02	-2.74
	11/1/2010	-1.11	-9.55	-1.58	-1 07	-1.45	-2.03		1 21	-2.42
	12/2/2010	-1.45	-9.77	-2 06	-1 59	-1.95	-2.42		0.60	-2 84
	1/4/2011	-1.69	-9.74	-2.40	-2.19	-2.20	-2.66		-0 04	-3.16

Notes:

1. The piezometric surface is present at, or below, the elevation provided in ft.-MSL. The number in parentheses represents the water column pressure exerted on the transducer--a zero or negative pressure indicates non-saturated conditions causing soil suction.

Open Piezometers

Boring I.D.	SS-2R	SS-4	SS-6R	SS-8	SS-10	SS-11	SS-13	SS-14	SS-15	SS-17	SS-18	SS-19
	Depth to Fluid (Depth to Bottom) (ft)											
11/9/2009	21.8 (28.8)	23.9 (24.7)	24.8 (24 9)	21.4 (22.4)	23.1 (25.7)	19.4 (23.0)	22.8 (24.8)	13.5 (13 5)	15.0 (15 0)			
12/1/2009	21.5 (29.0)	23.9 (24.7)	24.0 (24 8)	21.4 (22 5)	22 9 (25.7)	18.0 (23.0)	22.9 (24.8)	13.5 (13.6)	14.9 (15 0)			
1/6/2010	21.3 (28.9)	23.9 (24.6)	24.0 (24 8)	21.5 (22 3)	22 9 (25.6)	18.0 (22.9)	22.9 (24.8)	13.5 (13 5)	15.0 (15 0)			
2/1/2010	22.8 (29.0)	24.1 (24.7)	24.1 (24 8)	21.7 (22 5)	24 0 (25.7)	20.2 (23.0)	23.1 (24.8)	13.6 (13.6)	15.0 (15.0)			
3/4/2010	22.6 (28.9)	23.9 (24.7)	24.0 (24 9)	21.7 (22.4)	23 8 (25.7)	19.8 (23.0)	23.0 (24.8)	13.5 (13 5)	15.0 (15 0)			
4/8/2010	29.0 (29.0)	24.2 (24.6)	24.7 (24 9)	22.5 (22 5)	25.7 (25.7)	23.0 (23.0)	24.9 (24.9)	13.5 (13 5)	15.1 (15.1)			
5/6/2010	23.5 (29.0)	24.4 (24.6)	24.9 (24 9)	21.9 (22.4)	24 9 (25.7)	20.9 (22.9)	23.0 (24.8)	12.3 (13 5)	15.0 (15 0)			
6/2/2010	23.9 (29.1)	24.4 (24.7)	24.9 (24 9)	22.2 (22.4)	25 0 (25.7)	20.9 (23.2)	17.0 (24.9)	11.9 (13 5)	15.0 (15 0)			
7/2/2010	24.3 (29.0)	24.4 (24.7)	24.9 (24 9)	22.2 (22.4)	25.1 (25.7)	21.1 (23.2)	23.0 (25.2)	11.9 (13 5)	15.0 (15 0)			
8/2/2010	24.6 (29.1)	24.5 (24.7)	24.9 (24 9)	22.3 (22.5)	25 3 (25.7)	21.5 (23.2)	23.0 (25.2)	11.6 (13 5)	15.0 (15 0)	Dry (24 8)	31.6 (32.0)	30.9 (30.9)
9/2/2010	24.9 (29.1)	24.5 (24.7)	24.9 (24 9)	22.3 (22 5)	25 3 (25.7)	21.9 (23.2)	23.2 (25.2)	11.6 (13 5)	15.0 (15 0)	24 8 (24.8)	Dry (32.0)	30.9 (30.9)
10/1/2010	25.5 (29.1)	24.3 (24.7)	24.9 (24 9)	22.3 (22.4)	25.4 (25.7)	22.2 (23.2)	23.3 (25.2)	12.2 (13 5)	15.0 (15.1)	24.7 (24.8)	Dry (32.0)	30.9 (30.9)
11/1/2010	26.0 (29.2)	24.1 (24.7)	24.9 (24 9)	22.3 (22.4)	25 3 (25.7)	22.6 (23.2)	23.2 (25.1)	12.8 (13 5)	15.0 (15 0)	24.6 (24.8)	Dry (32.0)	Dry (30.9)
12/2/2010	25.9 (29.1)	24.0 (24.7)	25.0 (25 0)	22.3 (22.4)	25.4 (25.7)	22.8 (23.2)	23.0 (25.2)	12.6 (13 5)	15.0 (15 0)	Dry (24 8)	Dry (32.0)	Dry (30.9)
1/4/2011	26.6 (29.1)	24.0 (24.6)	25.0 (25 0)	22.4 (22.5)	25.4 (25.7)	23.1 (23.2)	24.1 (25.1)	13.5 (13 5)	15.1 (15.1)	Dry (24 8)	Dry (32.0)	Dry (30.9)

Attachment 3

Figures

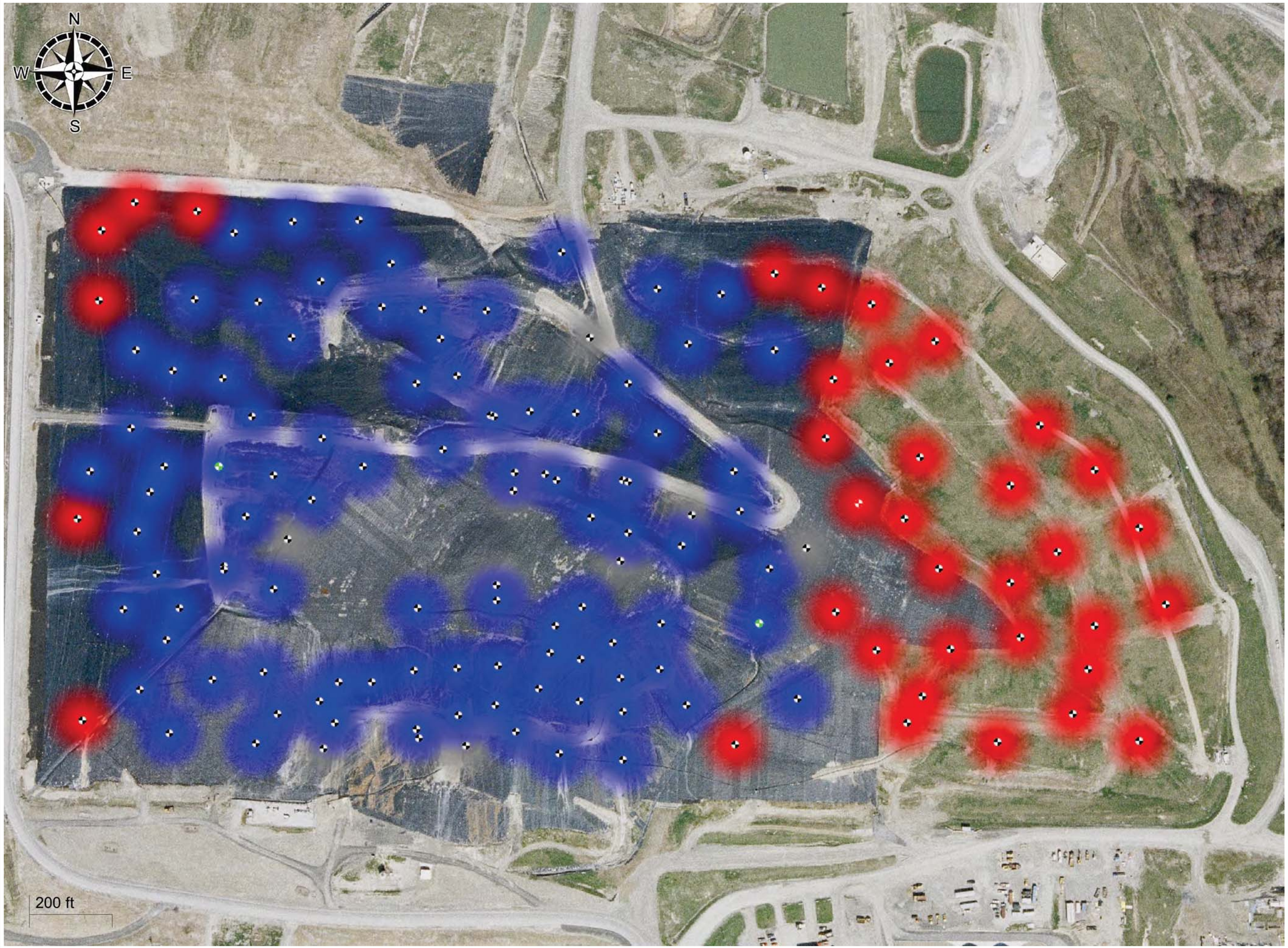


Figure 1
Average Methane to Carbon Dioxide Ratio

Countywide Recycling and Disposal Facility
3619 Gracemont St. S.W.
East Sparta, Ohio

Operation, Monitoring and Maintenance (OM&M) Plan
Monthly Report

Color Legend

< 1
> 1

Symbol Legend

Gas Well

(Red symbol denotes rise in value category from previous reporting period.)
(Green symbol denotes decrease in value category from previous reporting period.)

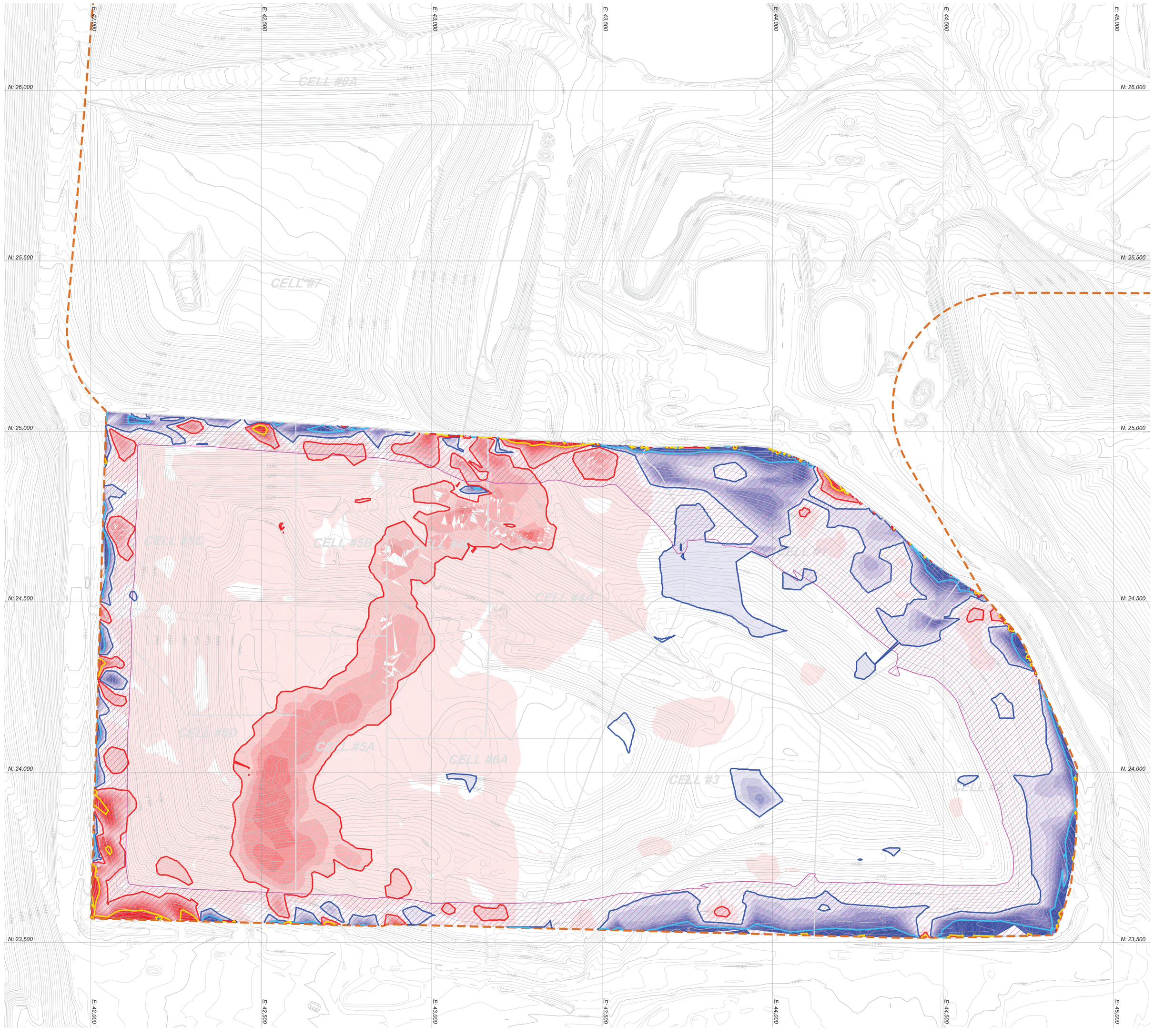
A radius influence of 100 feet is assumed at each device.

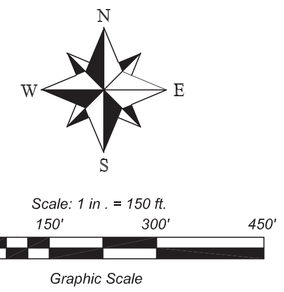
Reporting Period: December, 2010

Map Generated On: 01/07/2011

REPUBLIC SERVICES

SANBORN HEAD
LANDFILL GAS MANAGEMENT SUITE™





Scale: 1 in . = 150 ft.

0' 150' 300' 450'

Graphic Scale

LEGEND:

- 1120 — EXISTING CONTOUR (AERIAL MAPPING 4/12/10), CTR INT. = 2' (SHOWN FOR REFERENCE ONLY)
- 2% RATE OF SETTLEMENT LIMIT
- >10% RATE OF SETTLEMENT LIMIT
- 2% RATE OF RISE IN ELEVATION
- >10% RATE OF RISE IN ELEVATION
- ≤ 60ft OF WASTE DEPTH

ANNUALIZED RATE (%) OF SETTLEMENT COLOR LEGEND

- Greater than 10.0%
- 9.0% TO 10.0%
- 8.0% TO 9.0%
- 7.0% TO 8.0%
- 6.0% TO 7.0%
- 5.0% TO 6.0%
- 4.0% TO 5.0%
- 3.0% TO 4.0%
- 2.0% TO 3.0%
- 0.0% TO 2.0%
- 0.0% TO 0.0%
- -2.0% TO 0.0%
- -3.0% TO -2.0%
- -4.0% TO -3.0%
- -5.0% TO -4.0%
- -6.0% TO -5.0%
- -7.0% TO -6.0%
- -8.0% TO -7.0%
- -9.0% TO -8.0%
- -10.0% TO -9.0%
- Greater than -10.0%

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY

ISSUE DATE 01/04/11
SURVEYED BY
DRAWN BY MOAG BHS
SCALE 1" = 150'
CHECKED BY CCV
APPROVED BY CHB
CTR INT. 2'

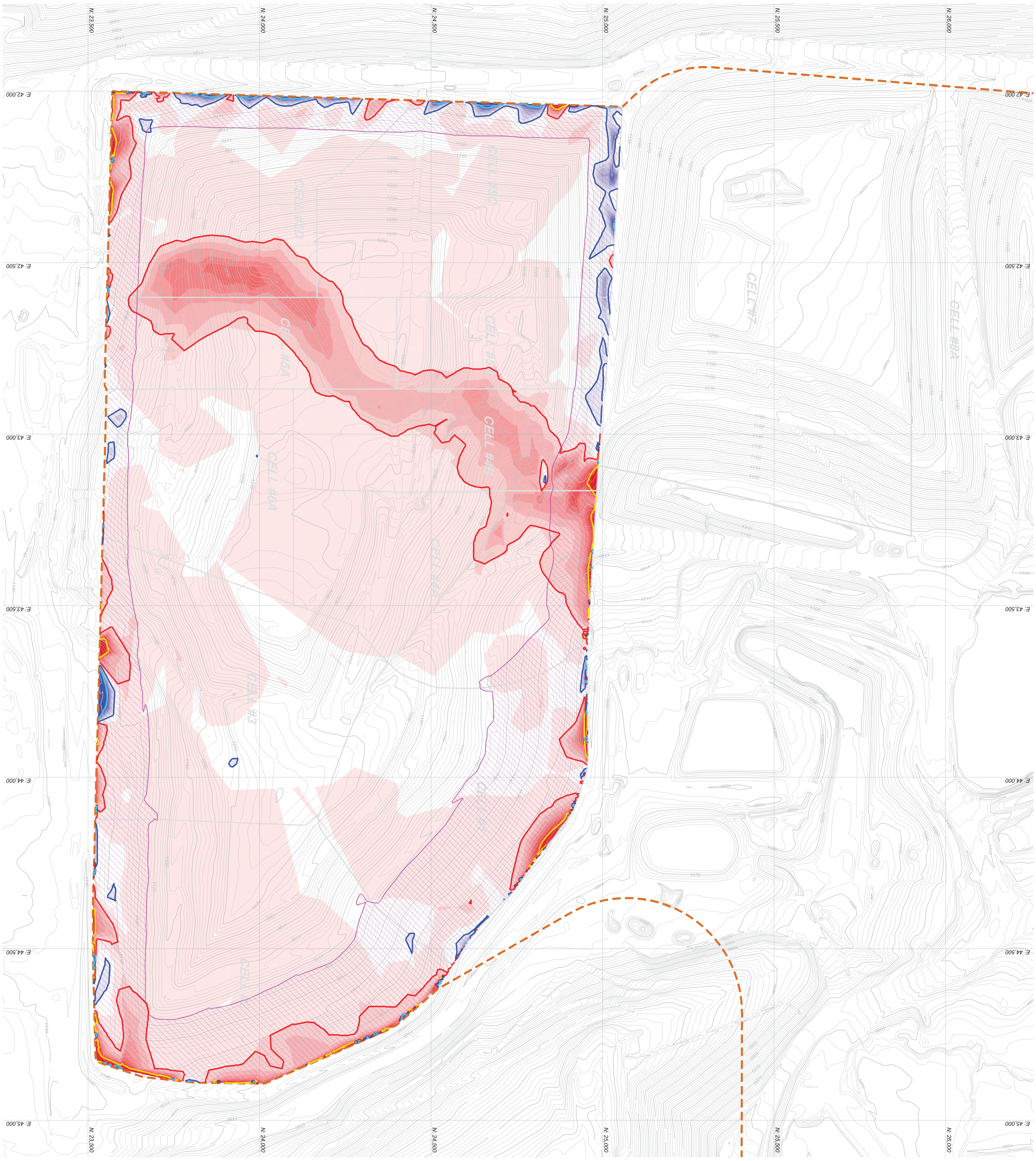
Diversified Engineering Inc.
CONSULTING ENGINEERS & SURVEYORS
235 FAIR AVENUE, N.E.
NEW PHILADELPHIA, OH 44663
Phone: (330) 364-1821
Fax: (330) 364-4027
email@dei-eng.com

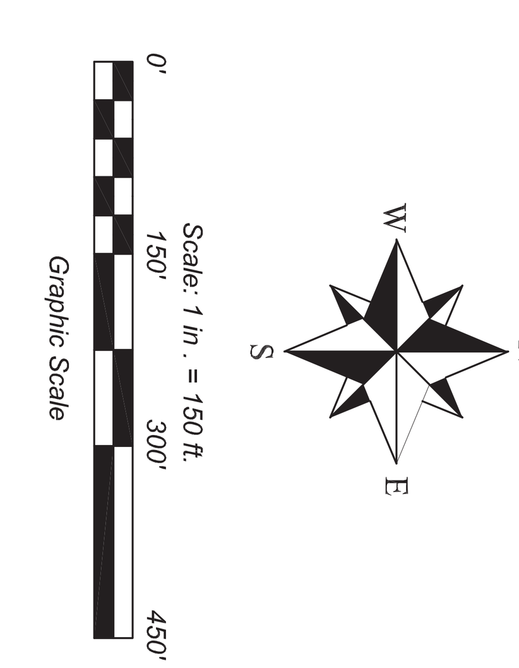
COUNTYWIDE RDF

PROJECT: 88 Ac. REMEDIATION UNIT

SHEET TITLE: INCREMENTAL SETTLEMENT MAP (DECEMBER 2010)

FIGURE: 2





LEGEND:

—1120—	EXISTING CONTOUR (AERIAL MAPPING 4/12/10), CTR INT. = 2' (SHOWN FOR REFERENCE ONLY)
(red line)	2% RATE OF SETTLEMENT LIMIT
(yellow line)	>10% RATE OF SETTLEMENT LIMIT
(dark blue line)	2% RATE OF RISE IN ELEVATION
(light blue line)	>10% RATE OF RISE IN ELEVATION
(hatched area)	≤ 60ft OF WASTE DEPTH

AVERAGE ANNUALIZED MONTHY RATE (%) OF SETTLEMENT COLOR LEGEND

- Greater than 10.0%
- 9.0% TO 10.0%
- 8.0% TO 9.0%
- 7.0% TO 8.0%
- 6.0% TO 7.0%
- 5.0% TO 6.0%
- 4.0% TO 5.0%
- 3.0% TO 4.0%
- 2.0% TO 3.0%
- 0.0% TO 2.0%
- 0.0% TO 0.0%
- -2.0% TO 0.0%
- -3.0% TO -2.0%
- -4.0% TO -3.0%
- -5.0% TO -4.0%
- -6.0% TO -5.0%
- -7.0% TO -6.0%
- -8.0% TO -7.0%
- -9.0% TO -8.0%
- -10.0% TO -9.0%
- Greater than -10.0%

GENERAL NOTE:
THIS MAP REPRESENTS THE AVERAGE ANNUALIZED MONTHY SETTLEMENT FOR THE TIME PERIOD FROM OCTOBER 2010 THRU DECEMBER 2010.

FIGURE: **2A**

COUNTYWIDE RDF

PROJECT: 88 Ac. REMEDIATION UNIT

SHEET TITLE: AVERAGE ANNUALIZED MONTHLY SETTLEMENT (OCTOBER 2010 - DECEMBER 2010)

Diversified Engineering Inc.
CONSULTING ENGINEERS & SURVEYORS
225 FAIR AVENUE, N.E
NEW PHILADELPHIA, OH 44663
Phone: (330) 364-1631
Fax: (330) 364-4031
e-mail: dei@div-eng.com

ISSUE DATE 01/04/11 SCALE 1" = 150' CTR INT. 2'
SURVEYED BY MO/AG CHECKED BY CCV
DRAWN BY BWS APPROVED BY CRB

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY

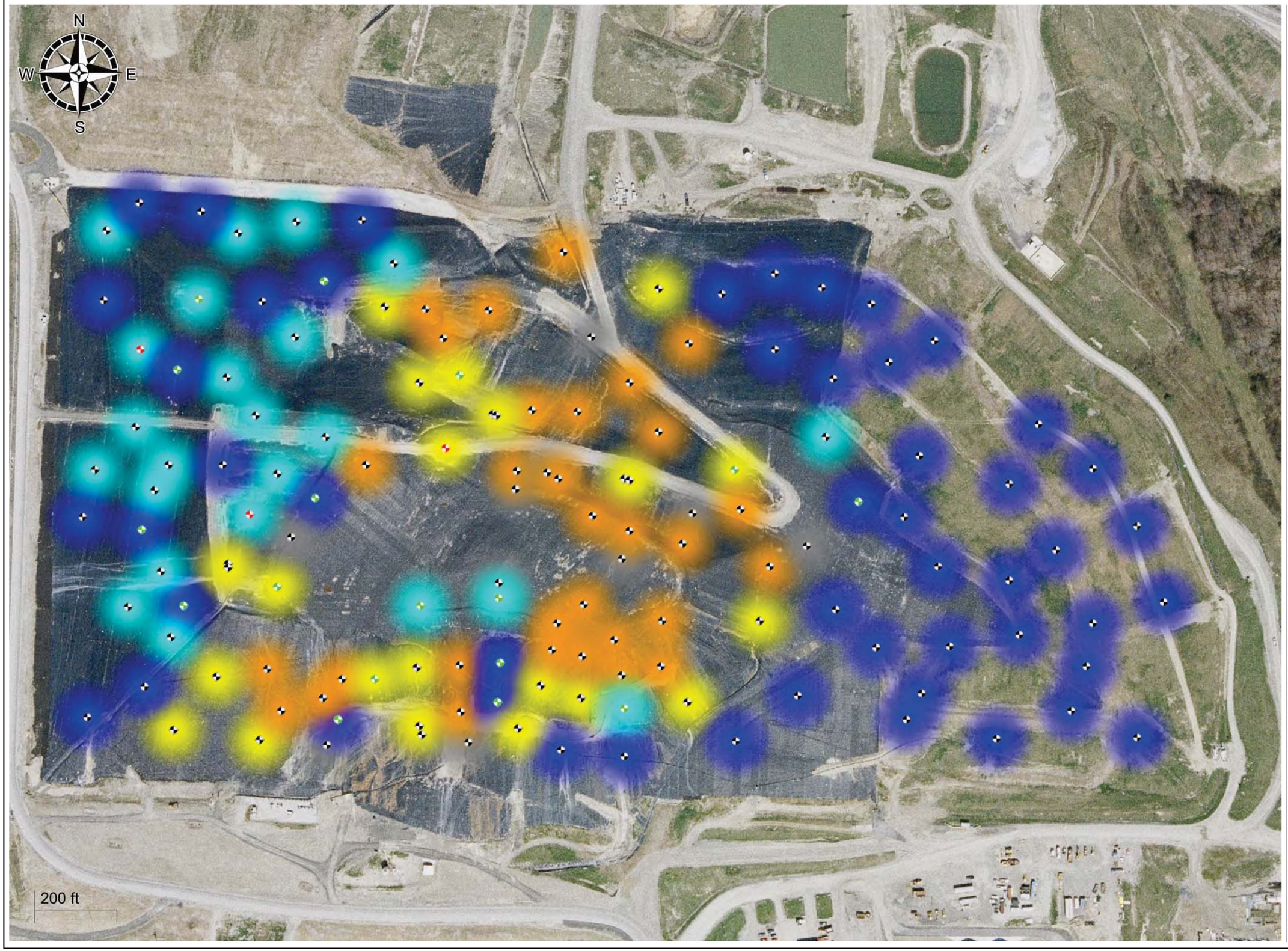


Figure 3
Average Wellhead Temperature

Countywide Recycling and Disposal Facility
3619 Gracemont St. S.W.
East Sparta, Ohio

Operation, Monitoring and Maintenance (OM&M) Plan
Monthly Report

Color Legend (deg F)

- < 131
- 131 < 150
- 150 < 180
- 180 < 210
- > 210

Symbol Legend

Gas Well

(Red symbol denotes rise in value category from previous reporting period.)
(Green symbol denotes decrease in value category from previous reporting period.)

A radius influence of 100 feet is assumed at each device.

Reporting Period December, 2010

Map Generated On: 01/07/2011

REPUBLIC SERVICES

SANBORN HEAD
LANDFILL GAS MANAGEMENT SUITE™

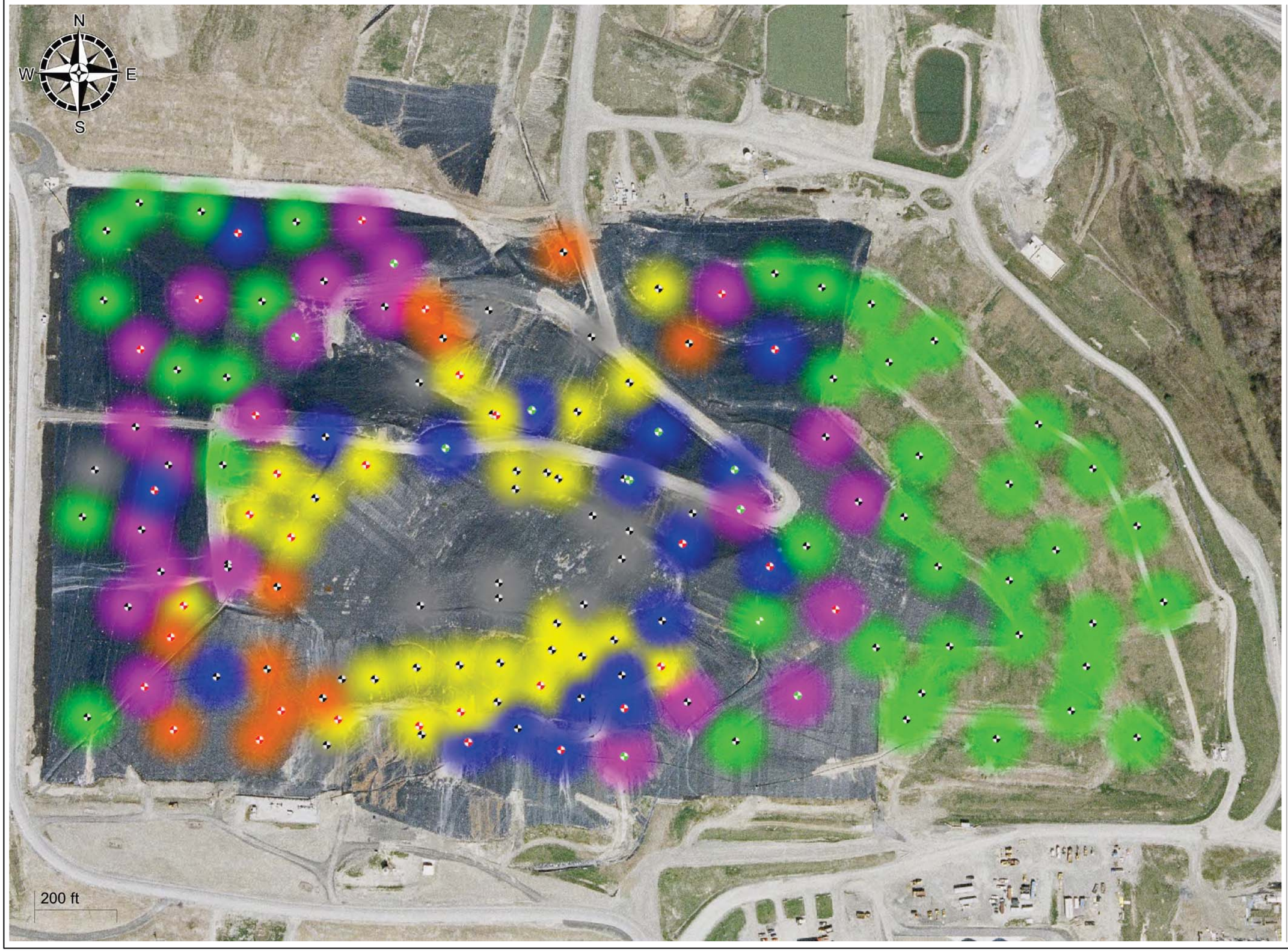


Figure 4
Carbon Monoxide Distribution

Countywide Recycling and Disposal Facility
3619 Gracemont St. S.W.
East Sparta, Ohio

Operation, Monitoring and Maintenance (OM&M) Plan
Monthly Report

Color Legend (ppm)

- < 100
- 100 < 500
- 500 < 1000
- 1000 < 2000
- > 2000

Symbol Legend

Gas Well

(Red symbol denotes rise in value category from previous reporting period.)
(Green symbol denotes decrease in value category from previous reporting period.)

A radius influence of 100 feet is assumed at each device.

Reporting Period: August, 2010

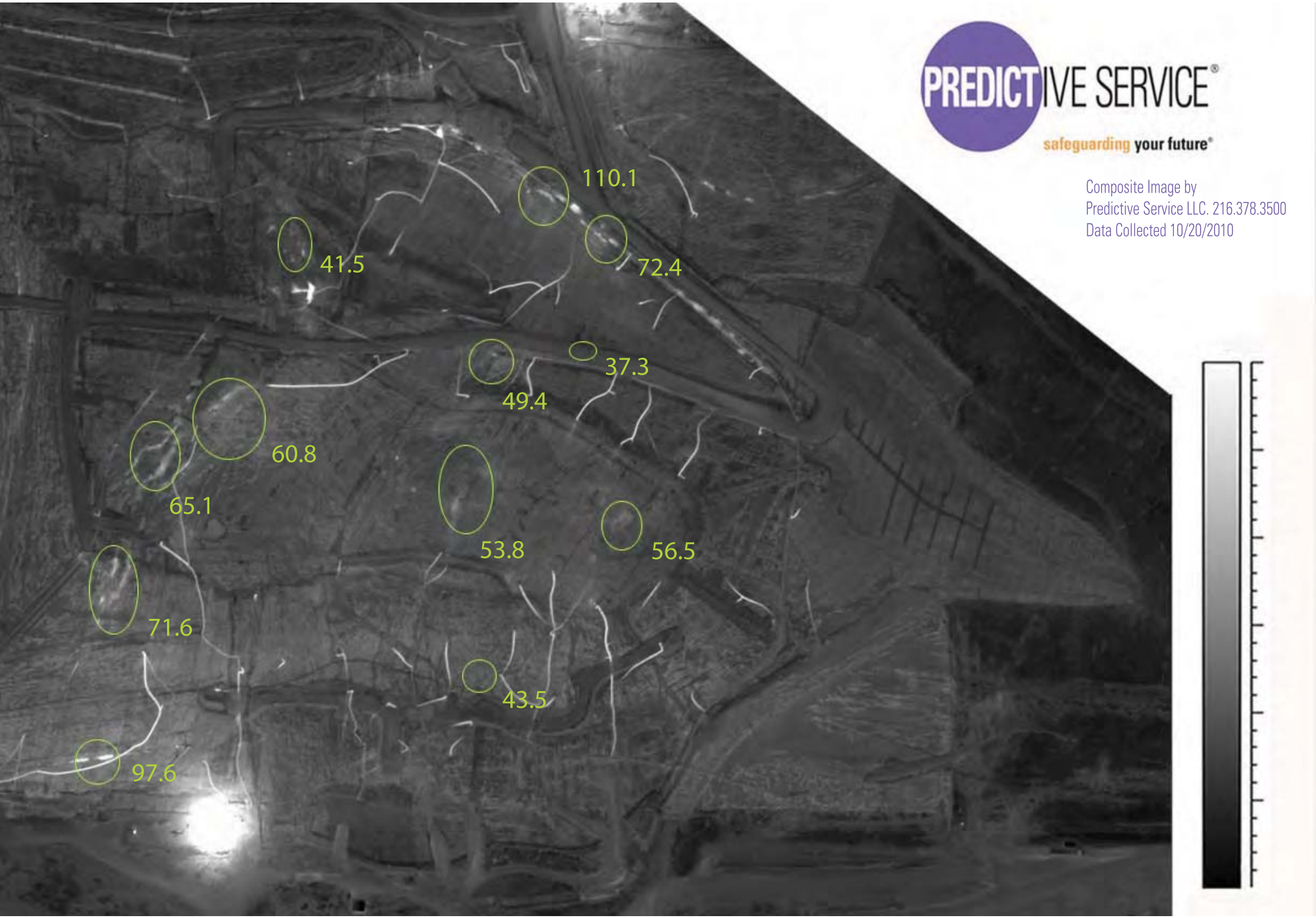
Map Generated On: 01/07/2011

REPUBLIC SERVICES

SANBORN | HEAD
LANDFILL GAS MANAGEMENT SUITE™

PREDICTIVE SERVICE®
safeguarding your future®

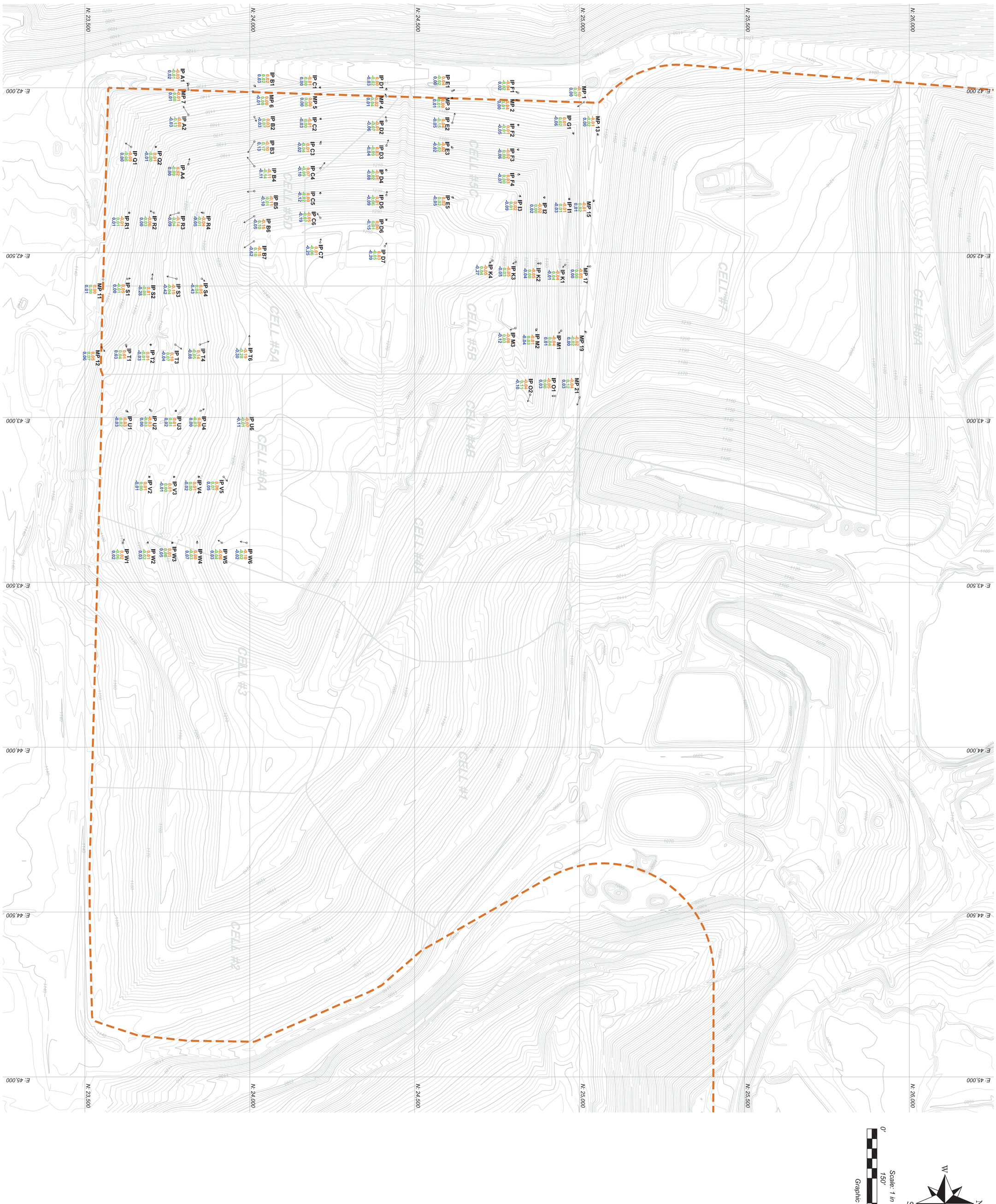
Composite Image by
Predictive Service LLC. 216.378.3500
Data Collected 10/20/2010

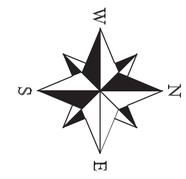


PREDICTIVE SERVICE®

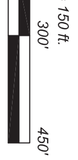
safeguarding your future®

Composite Image by
Predictive Service LLC. 216.378.3500
Data Collected 10/20/2010





Scale: 1 in. = 150 ft.



LEGEND:

1120 — EXISTING CONTOUR (AERIAL MAPPING 4/12/10). CTR INT. = 2' (SHOWN FOR REFERENCE ONLY)

VECTOR LABELING CONVENTION:

IP S2

CHANGE IN NORTHING (ft)
CHANGE IN EASTING (ft)
CHANGE IN ELEVATION (ft)

GENERAL NOTES:

1.) SLOPE PIN MOVEMENT VECTORS WERE PROVIDED BY P.J. CAREY & ASSOCIATES, P.C.

2.) VECTORS DEMONSTRATE THE HORIZONTAL MOVEMENT BETWEEN THE DATES OF 11/30/10 & 12/27/10.

FIGURE: 9

COUNTYWIDE RDF

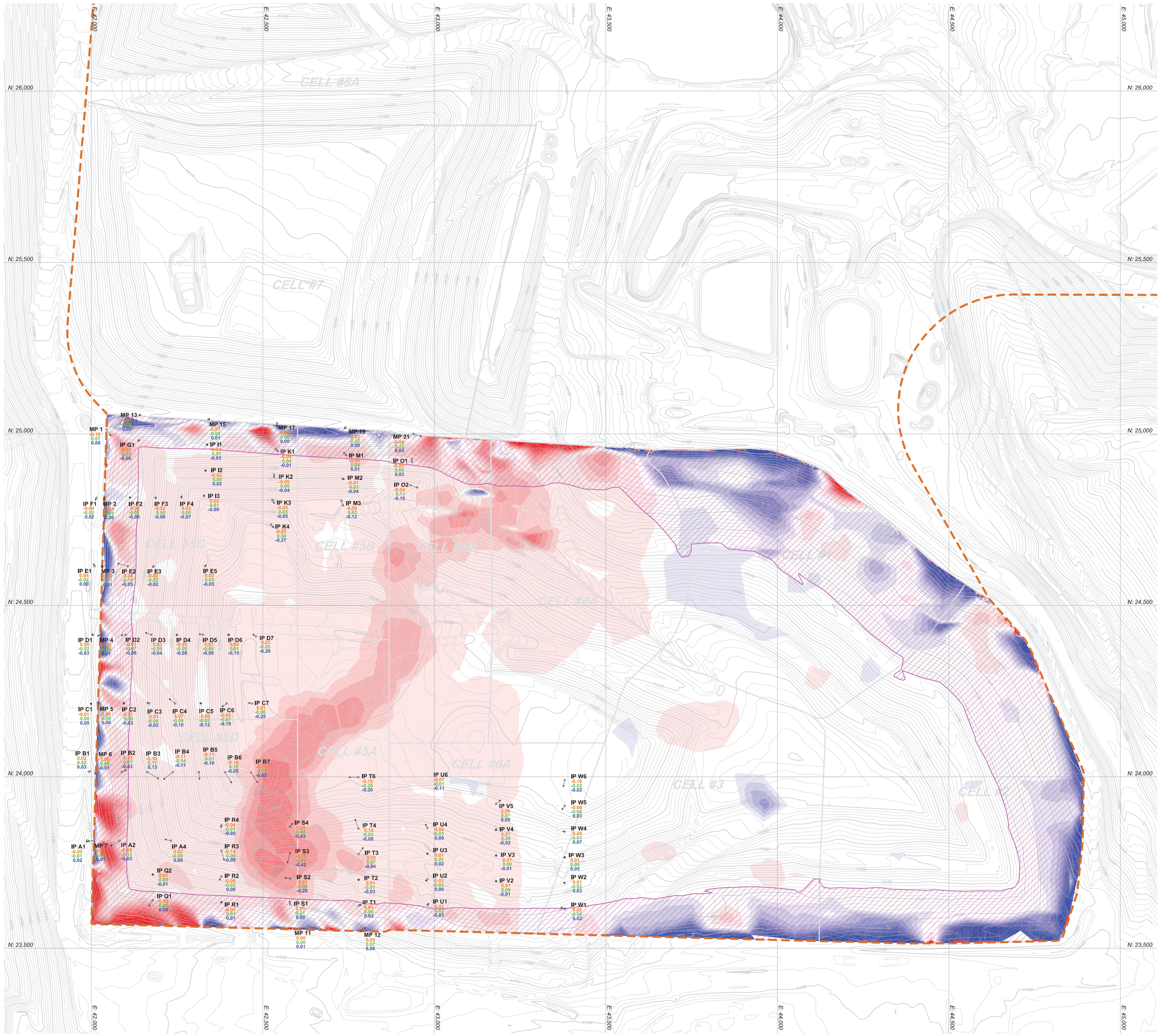
PROJECT: 88 Ac. REMEDIATION UNIT

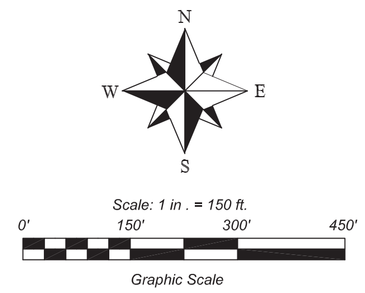
SHEET TITLE: SLOPE PIN MOVEMENT VECTORS (DECEMBER 2010)

Diversified Engineering Inc.
CONSULTING ENGINEERS & SURVEYORS
225 FAIR AVENUE, N.E
NEW PHILADELPHIA, OH 44663
Phone: (330) 364-1631
Fax: (330) 364-4031
e-mail: dei@div-eng.com

ISSUE DATE 01/04/11 SCALE 1" = 150' CTR INT. 2'
SURVEYED BY MO/AG CHECKED BY CCV
DRAWN BY BWS APPROVED BY CRB

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY





LEGEND:

1120 — EXISTING CONTOUR (AERIAL MAPPING 4/12/10), CTR INT. = 2' (SHOWN FOR REFERENCE ONLY)

≤ 60ft OF WASTE DEPTH

ANNUALIZED RATE (%) OF SETTLEMENT COLOR LEGEND

- Greater than 10.0%
- 9.0% TO 10.0%
- 8.0% TO 9.0%
- 7.0% TO 8.0%
- 6.0% TO 7.0%
- 5.0% TO 6.0%
- 4.0% TO 5.0%
- 3.0% TO 4.0%
- 2.0% TO 3.0%
- 0.0% TO 2.0%
- 0.0% TO 0.0%
- -2.0% TO 0.0%
- -3.0% TO -2.0%
- -4.0% TO -3.0%
- -5.0% TO -4.0%
- -6.0% TO -5.0%
- -7.0% TO -6.0%
- -8.0% TO -7.0%
- -9.0% TO -8.0%
- -10.0% TO -9.0%
- Greater than -10.0%

VECTOR LABELING CONVENTION:

IP S2
CHANGE IN NORTHING (ft)
CHANGE IN EASTING (ft)
CHANGE IN ELEVATION (ft)

GENERAL NOTES:

1.) SLOPE PIN MOVEMENT VECTORS WERE PROVIDED BY P.J. CAREY & ASSOCIATES, P.C.

2.) VECTORS DEMONSTRATE THE HORIZONTAL MOVEMENT BETWEEN THE DATES OF 11/30/10 & 12/27/10.

ISSUE DATE 01/04/11 | SCALE 1" = 150' | CTR INT. 2'
SURVEYED BY MOAG | CHECKED BY CCV
DRAWN BY EHS | APPROVED BY CHB

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY

Diversified Engineering Inc.
CONSULTING ENGINEERS & SURVEYORS
225 FAIR AVENUE, N.E.
NEW PHILADELPHIA, OH 44663
Phone: (330) 364-1631
Fax: (330) 364-1642
www.dei-eng.com

PROJECT: COUNTYWIDE RDF

88 Ac. REMEDIATION UNIT

SHEET TITLE: INCREMENTAL SETTLEMENT MAP w/ SLOPE PIN MOVEMENT VECTORS (DEC. 2010)

FIGURE: 7

Attachment 4

Pin Movement Evaluation

P. J. Carey & Associates, P.C.

5878 Valine Way, Sugar Hill, Georgia 30518
Telephone (678) 482-5193
Fax (866) 845-3898
Email pjcarey@pjcarey com

January 6, 2011

Mr. Michael Darnell
Division Manager
Republic Services
Countywide RDF
3619 Gracemont Street, SW
East Sparta, Ohio 44626

RE: Evaluation of Pin Movements
Countywide Slopes
December Period (11/30/10 – 12/27/10)

Dear Mike,

We have reviewed the pin survey data from the South, West and North Slopes at Countywide. The surveys during the December monitoring period (11/30/10 – 12/27/10) by Diversified Engineering, Inc. (DEI) were performed using optical survey methods for all pins (as of 10/5/2010).

The survey data has been presented in accordance with Section 6.5.4 of the Operation, Maintenance and Monitoring Plan, creating Figures 11 through 16 only for those points exceeding the trigger levels, as requested by Jerry Parker of the OH EPA. In addition, two vector plot maps that depict the horizontal pin movements for the monitoring period and since the onset of monitoring (October 6, 2009) are attached. Two tables which show the horizontal rate of movement for the monitoring period and elevation motion since the original monitoring survey (October 6, 2009) are attached after the aforementioned figures. Please note the at the reference elevation for pin IP-F1, MP-4 and MP-5 have been adjusted, as per the agreement with OH EPA. The baseline elevation of IP-F1 was re-established at the beginning of May 2010 and MP-4 and MP-5 was re-established on November 30, 2010. This is noted on the vector plot depicting movements since the beginning of the monitoring and on the Change of Elevation table.

A review of the data shows:

- No pins exceeded the trigger rate of 0.05 ft per day of horizontal movement during the monitoring period.
- Monitoring pin IP-E1 exceeded the vertical trigger of more than 0.05 ft of upward motion since inception of monitoring.

In accordance with the OH EPA, the change of northing, easting and elevation plots versus time are attached of pin movement for the E line which includes IP-E1. As can be seen on Figure 16, the plot showing change in elevation for the E line and IP-E1, elevation changes

do not present any pattern with time. This is the same for their northing and easting changes. A vector plot along the E profile line is also included. The plots of the E line do not indicate any changes in the ongoing trends since the inception of monitoring that would be indicative of any slope instability related behavior. Monitoring pin IP-E1 has been moving very slowly upward since the end of October 2009, with an average upward motion rate of less than 0.0002 ft. per year. This is an insignificant rate of movement and should not trigger monitoring at any increased frequency.

Based on the occurrence of triggering events without any relationship to slope instability that has occurred since this work began, a review of the pin survey data from October 2009 through the end of June 2010 was conducted, this past summer to evaluate the current trigger system. The purpose of the review as to allow an assessment of the current trigger values for horizontal and vertical movements. The review examined all observations made on each Pin Line (including MP's). For each pin it was assumed that in reality the pin moves not in a herky-jerky manner (not upslope one day and downslope the next) but follows a trend for a period. Using this assumption an adaptive smoothing method, a built in function in Mathcad, was used to create a smoothed value for each observation. This smoothed value was compared to the actual value of change in position for each pin. Using this method for the 98 pins we have records for, the mean of standard deviation of the differences along each line was 0.035 in the East change, 0.03 in the North change, and 0.026 in the elevation change. The distribution of standard deviations of the differences was plotted and approximately 90% of the standard deviation from the smoothed value were less than 0.05ft. The mean values of the differences were small .0008 with a standard deviation of .002 for the Easting change for example. This suggests that in general the data collected fluctuated above and below the smoothed values. No significant correlation was seen between movement and the difference between the smoothed and data values. The pin behavior since June 2010 has not indicated a need to update this analysis.

Based on this initial analysis (which could be refined further if need be) it would appear that a lower limit for repeatable accuracy on the pin survey is approximately 0.03 ft in all directions. This suggests that any trigger for horizontal movement needs to be time sensitive as well as be increased to include the likely deviation in survey values from real values. For example, using a 0.03 likely deviation, the weekly rate that is likely to be a false positive is approximately 0.006 ft per day or lower. The likely monthly rate that could be attributed to likely false positive indications is .0015 ft per day. Given that the original intent was to look at rates that were approximately 0.005 ft per day over a month (0.15ft), the triggers for horizontal movement are far too low and need to be adjusted upward. A time sensitive trigger should be considered. I would recommend 0.007 ft per day for monthly observations, 0.009 for biweekly observations and 0.11 ft per day for weekly observations.

If a horizontal rate value appears to have been exceeded, the site should be able to reshoot or evaluate the existing data to determine if the observation is an outlier that is resolved in the next reading prior to requiring immediate movement to accelerated monitoring.

For vertical triggers, the current trigger is 0.05ft absolute upward movement from the original point. Repeatable accuracy notwithstanding, this trigger needs to be modified. Data at the site currently shows a significant number of points have been slowly creeping upward even though there are no signs of slope instability. This is likely due to the slow downward

creep of the landfill slopes associated with degradation or some other non-stability related phenomena. This trigger was intended to identify areas that were moving upward as a result of slide mass rotation or translation. A trigger for elevation of 0.5 ft upward in the absence of any downslope movement of the pins in the same line above the pin or 0.1 ft of upward movement in a monitoring period when the pins above show an uptick in the rate of downslope movement should be considered.

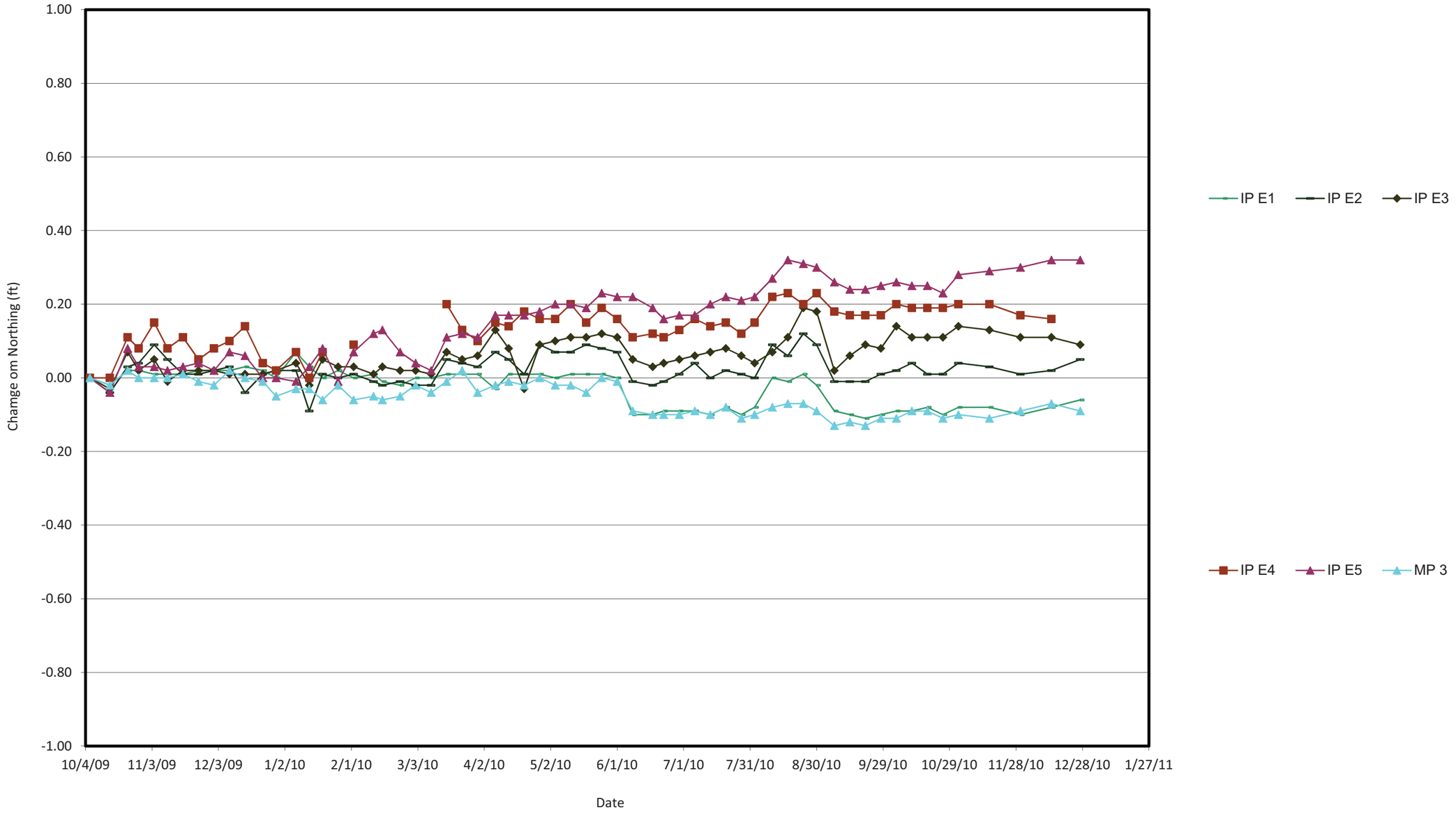
Based on the review of the data, no signs of instability are indicated. I hope this information is helpful to you. Please call if there are any questions.

Sincerely,

Peter J. Carey

Peter J. Carey, PE
President

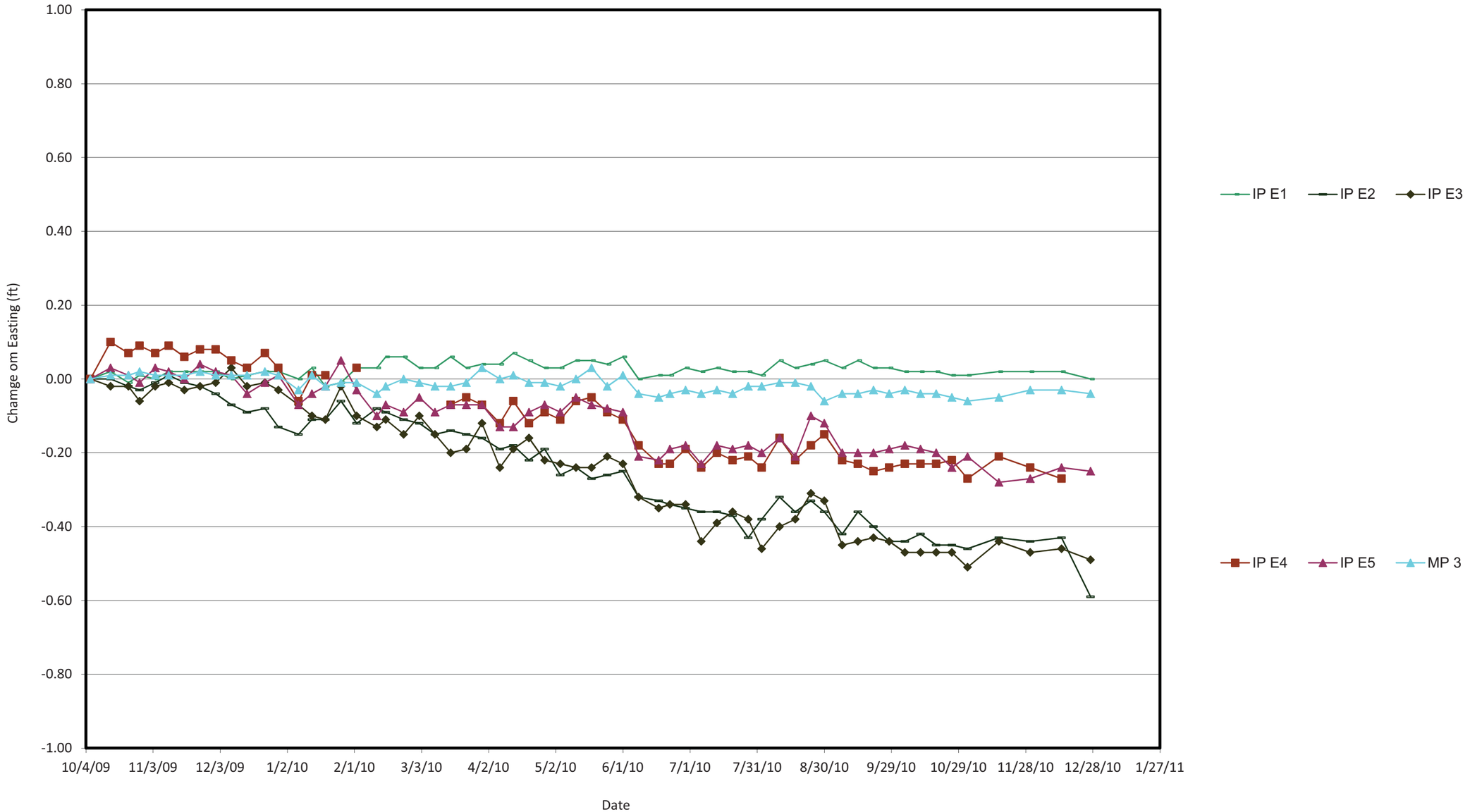
Graph 14 - West Slope Pin Movement
For Pins that Exceeded aTrigger During Reporting Month
Northing Change



1. Data compiled by PJ Carey Associates, PC.
2. Survey provided by DEI beginning on October 5, 2009.

CHANGE IN NORTHING
COUNTYWIDE RECYCLING AND DISPOSAL FACILITY

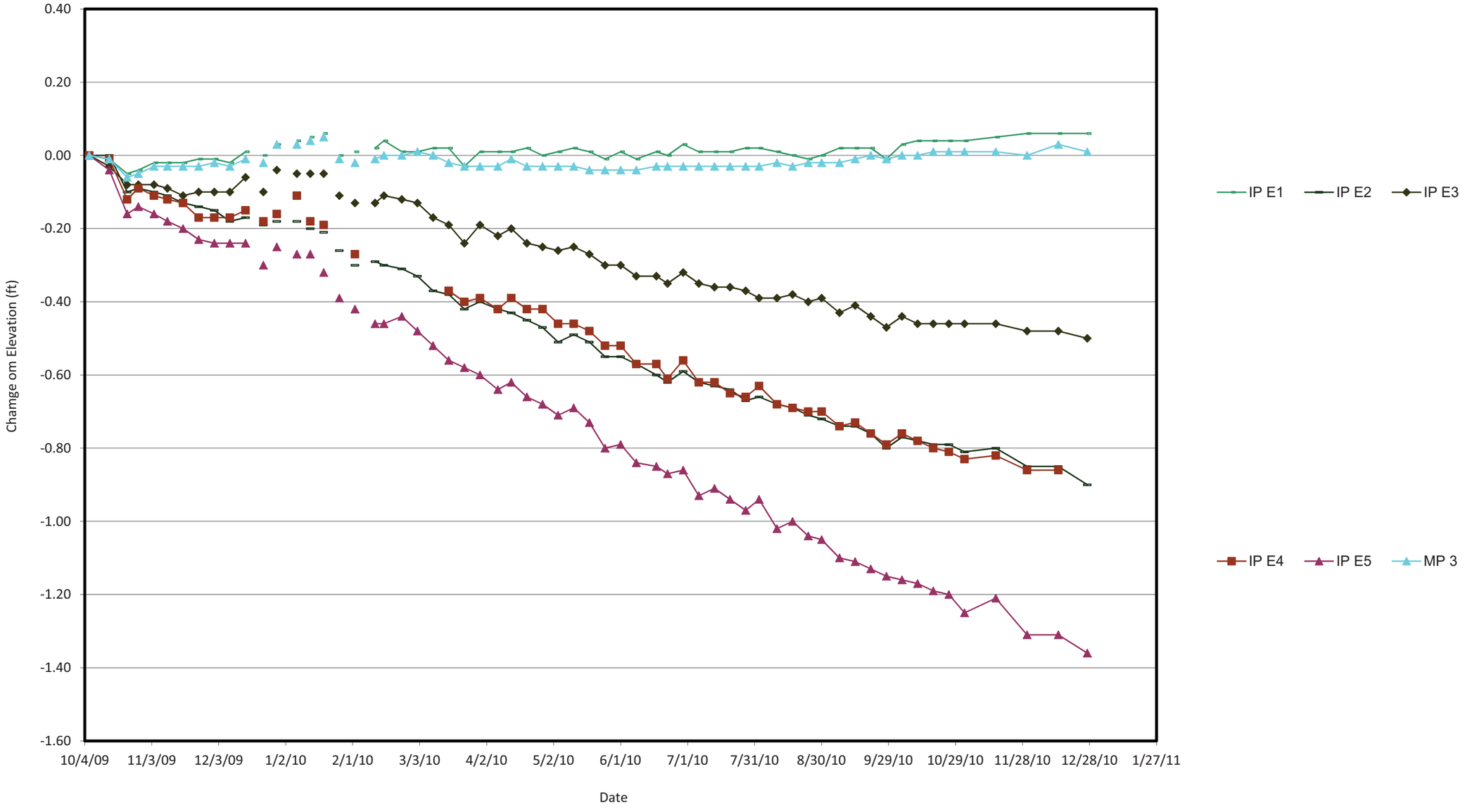
Graph 15 - West Slope Pin Movement
For Pins that Exceeded aTrigger During Reporting Month
Easting Change



1. Data compiled by PJ Carey Associates, PC.
2. Survey provided by DEI beginning on October 5, 2009.

CHANGE IN EASTING
COUNTYWIDE RECYCLING AND DISPOSAL FACILITY

Graph 16 - West Slope Pin Movement
For Pins that Exceeded a Trigger During Reporting Month
Elevation Change



1. Data compiled by PJ Carey Associates, PC.
2. Survey provided by DEI beginning on October 5, 2009.

CHANGE IN ELEVATION
COUNTYWIDE RECYCLING AND DISPOSAL FACILITY

CHANGE IN ELEVATION (FT)
CALCULATED BASED ON ORIGINAL SURVEY DATE OF 10-06-09

ID	12/14/10	12/27/10
IP G1	-0.81	-0.85
IP I1	-0.18	-0.21
IP I2	-0.30	-0.29
IP I3	-1.19	-1.26
IP K1	-0.02	-0.03
IP K2		-0.40
IP K3	-1.47	-1.51
IP K4	-2.96	-3.07
IP M1	-0.05	-0.07
IP M2	-0.57	-0.61
IP M3	-1.50	-1.63
IP O1	-0.29	-0.25
IP O2	-1.54	-1.63
MP 13	-0.02	0.00
MP 15	-0.02	-0.01
MP 17	-0.01	0.01
MP 19	-0.03	-0.02
MP 21	-0.04	-0.02
IP R1	-0.34	-0.31
IP R2	-0.37	-0.38
IP R3	-0.92	-1.04
IP R4	-1.54	-1.60
IP S1	-1.27	-1.27
IP S2	-3.80	-3.98
IP S3	-10.53	-10.71
IP S4	-15.03	-15.26
IP S5		
IP T1	-0.78	-0.81
IP T2	-2.22	-2.27
IP T3	-3.35	-3.40
IP T4		-3.84
IP T5	-4.13	
IP T6	-4.96	-5.05
IP U1	-0.21	-0.22
IP U2	-0.62	-0.66
IP U3	-1.26	-1.29
IP U4	-1.23	-1.26
IP U5		
IP U6		
IP V1		
IP V2	-0.81	-0.85
IP V3	-0.74	-0.77
IP V4	-0.93	-0.96
IP V5	-0.99	-1.00
IP V6		
IP W1	-0.17	-0.18
IP W2	-0.41	-0.42
IP W3	-0.44	-0.42
IP W4	-0.43	-0.41
IP W5	-0.81	-0.82
IP W6	-0.78	-0.84

1. Data compiled by PJ Carey Associates, PC.
2. Survey provided by DEI beginning on October 6, 2009.
3. Highlighted regions indicate points which there was a positive change greater than 0.05 ft in elevation since October 6, 2009.

CHANGE IN ELEVATION (FT)
CALCULATED BASED ON ORIGINAL SURVEY DATE OF 10-06-09

ID	12/14/10	12/27/10
MP 10		
MP 11		0.01
MP 12	-0.02	-0.01
IP A1	0.01	0.02
IP A2	-0.34	-0.36
IP A3		
IP A4	-0.75	-0.75
IP B1	0.02	0.05
IP B2	-0.49	-0.53
IP B3	-0.40	-0.27
IP B4	-0.95	-1.05
IP B5	-1.43	-1.55
IP B6	-2.48	-2.50
IP B7	-5.44	-5.71
IP C1	0.04	0.05
IP C2	-0.31	-0.35
IP C3	-0.34	-0.36
IP C4	-0.79	-0.88
IP C5	-1.49	-1.60
IP C6	-2.22	-2.41
IP C7	-2.17	-2.28
IP D1	-0.03	-0.05
IP D2	-0.46	-0.52
IP D3	-0.37	-0.40
IP D4	-0.98	-1.05
IP D5	-1.26	-1.34
IP D6	-1.98	-2.14
IP D7	-2.05	-2.13
IP E1	0.06	0.06
IP E2	-0.85	-0.90
IP E3	-0.48	-0.50
IP E4	-0.86	
IP E5	-1.31	-1.36
IP F1 *	0.03	0.04
IP F2	-0.86	-0.89
IP F3	-0.88	-0.94
IP F4	-1.12	-1.19
IP Q1	-0.45	-0.52
IP Q2	-0.85	-0.88
MP 1	-0.02	-0.02
MP 2	-0.02	0.00
MP 3	0.03	0.01
MP 4**	0.01	0.01
MP 5**	0.01	0.00
MP 6	-0.03	-0.04
MP 7	-0.08	-0.07
MP 8		
MP 9		

* On May 10, 2010, Ohio EPA approved an increase the baseline elevation of Iron Pin F1 from the original elevation of 1141.06', established on October 6, 2009, to 1141.15' due to the effects of frost heave.

** On November 22, 2010, Ohio EPA approved an increase the baseline elevation of monitoring points MP-4 and MP-5 from the original elevation of 1154.82' and 1152.34', established on October 6, 2009, to 1154.88' and 1152.39', surveyed on November 30, 2010, respectively.

1. Data compiled by PJ Carey Associates, PC.
2. Survey provided by DEI beginning on October 6, 2009.
3. Highlighted regions indicate points which there was a positive change greater than 0.05 ft in elevation since October 6, 2009.

HORIZONTAL RATE OF MOVEMENT (FT/DAY)

CALCULATED BASED ON PREVIOUS READING AT EACH POINT

ID	12/14/10	12/27/10
IP G1	0.00071	0.0011
IP I1	0.00071	0.00077
IP I2	0.00071	0.00077
IP I3	0.0026	0.0039
IP K1	0.0000	0.0044
IP K2		
IP K3	0.0016	0.0060
IP K4	0.0020	0.0028
IP M1	0.0029	0.0031
IP M2	0.0026	0.00077
IP M3	0.0000	0.0066
IP O1	0.0016	0.0049
IP O2	0.0021	0.0069
MP 13	0.00071	0.0024
MP 15	0.0014	0.00077
MP 17	0.0021	0.0045
MP 19	0.0029	0.0049
MP 21	0.0016	0.0080
IP R1	0.0000	0.0011
IP R2	0.0023	0.0028
IP R3	0.0016	0.013
IP R4	0.0029	0.0063
IP S1	0.0036	0.0032
IP S2	0.013	0.0097
IP S3	0.013	0.018
IP S4	0.0068	0.0062
IP S5		
IP T1	0.0036	0.0024
IP T2	0.0020	0.0024
IP T3	0.0026	0.012
IP T4		
IP T5	0.027	
IP T6	0.0026	0.013
IP U1	0.0016	0.0015
IP U2	0.0023	0.0055
IP U3	0.0038	0.0032
IP U4	0.0043	0.0031
IP U5		
IP U6		
IP V1		
IP V2	0.0036	0.0038
IP V3	0.0029	0.0024
IP V4	0.0064	0.0073
IP V5	0.0051	0.0038
IP V6		
IP W1	0.0064	0.0049
IP W2	0.0010	0.0028
IP W3	0.0030	0.0038
IP W4	0.0014	0.0028
IP W5	0.010	0.014
IP W6	0.00071	0.0086

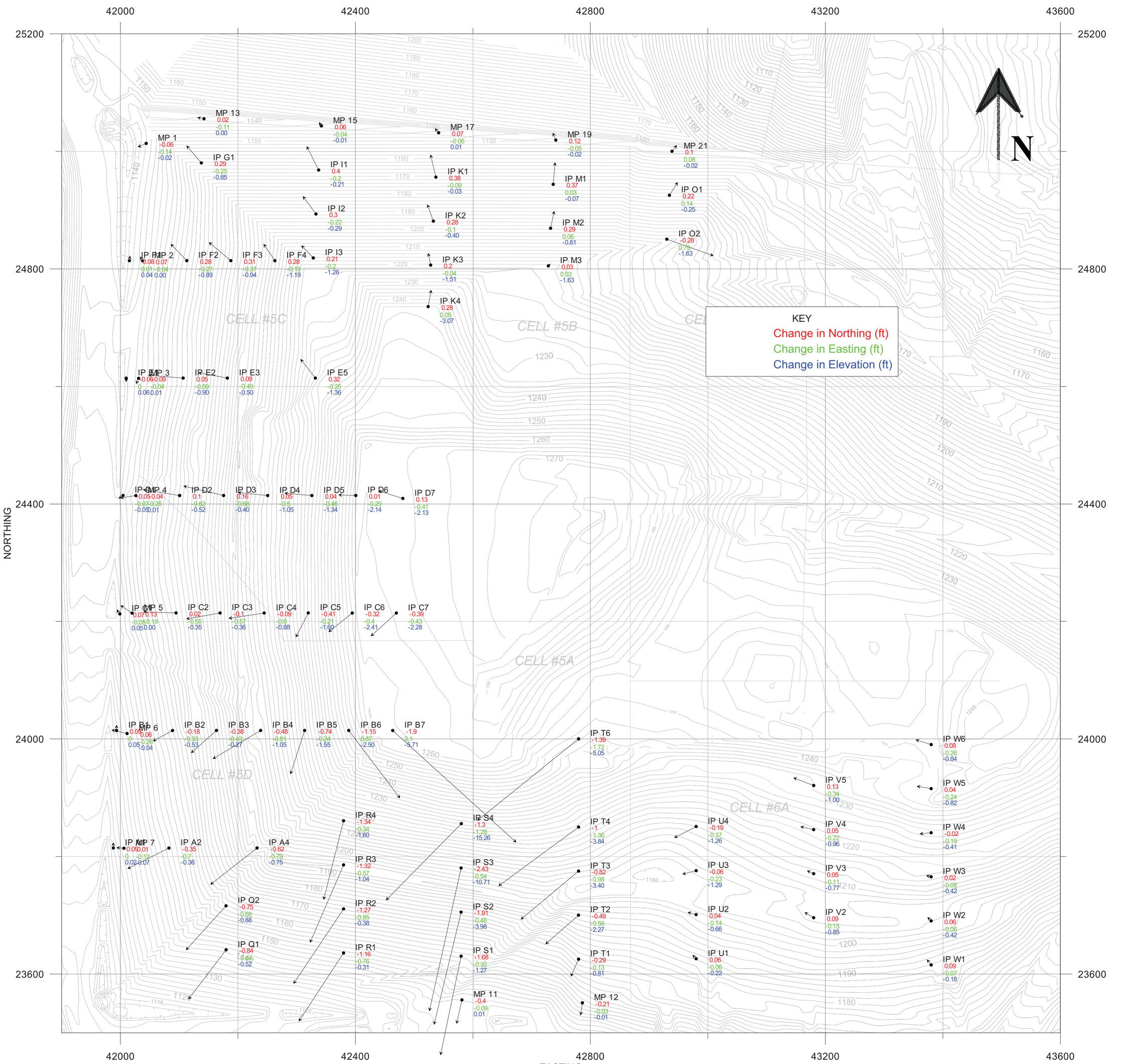
HORIZONTAL RATE OF MOVEMENT (FT/DAY)

CALCULATED BASED ON PREVIOUS READING AT EACH POINT

ID	12/14/10	12/27/10
MP 10		
MP 11		
MP 12	0.0032	0.0033
IP A1	0.0023	0.0015
IP A2	0.0029	0.010
IP A3		
IP A4	0.0016	0.0062
IP B1	0.0010	0.0024
IP B2	0.0032	0.0066
IP B3	0.0010	0.014
IP B4	0.0032	0.013
IP B5	0.0016	0.0069
IP B6	0.0032	0.018
IP B7*	0.002	0.01
IP C1	0.0000	0.00077
IP C2	0.0010	0.0017
IP C3	0.0014	0.0017
IP C4	0.0000	0.0088
IP C5	0.0016	0.00077
IP C6	0.0016	0.0076
IP C7*	0.001	0.005
IP D1	0.0010	0.0024
IP D2	0.0029	0.0023
IP D3	0.0014	0.0088
IP D4	0.0010	0.0023
IP D5	0.0021	0.0024
IP D6	0.0016	0.0011
IP D7*	0.001	0.005
IP E1	0.0014	0.0022
IP E2	0.0010	0.013
IP E3	0.00071	0.0028
IP E4	0.0023	
IP E5	0.0026	0.00077
IP F1	0.0026	0.0032
IP F2	0.0000	0.0011
IP F3	0.0010	0.0024
IP F4	0.0010	0.0017
IP Q1		0.013
IP Q2	0.0086	0.0094
MP 1	0.0021	0.0083
MP 2	0.0010	0.0028
MP 3	0.0014	0.0017
MP 4	0.0023	0.0011
MP 5	0.0016	0.0017
MP 6	0.0000	0.0000
MP 7	0.0029	0.0066
MP 8		
MP 9		

Notes:

1. Data compiled by PJ Carey & Associates, PC.
2. Survey provided by DEI beginning on October 6, 2009.
3. Highlighted regions indicate pins which the horizontal rate of movement exceed the trigger value of 0.05 ft/day.
4. All pins are surveyed using optical methods except pins B7, C7, & D7, which were surveyed using GPS up until October 5, 2010. Since October 5, 2010 all pins are surveyed using optical methods.
5. Values reported are limited to their respective significant digit.



NOTE:

1. TOPOGRAPHY PROVIDED BY DIVERSIFIED ENGINEERING INC AS PART OF THE "88 REMEDIATION UNIT SLOPE PINS AND MONITORING PLATES LOCATION" PROJECT, DRAWING DATED 7/21/2009.

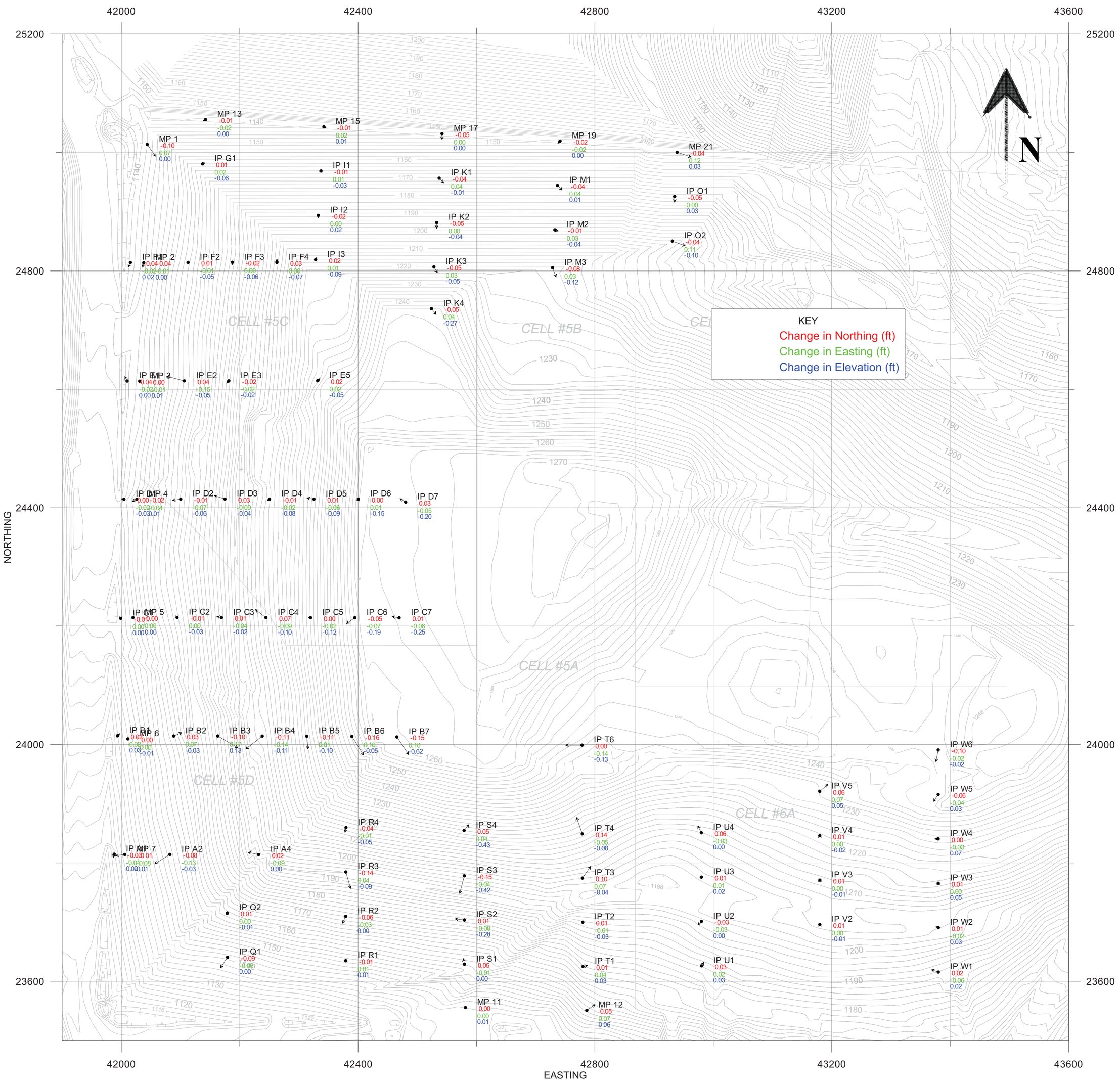
2. HORIZONTAL MOVEMENT VECTORS ARE PLOTTED TO A 1 INCH = 1 FOOT SCALE. → 1 FOOT

3. ON MAY 10, 2010, OHIO EPA APPROVED AN INCREASE OF THE BASELINE ELEVATION OF IRON PIN F1 FROM THE ORIGINAL ELEVATION OF 1141.06', ESTABLISHED ON OCTOBER 6, 2009, TO 1141.15' DUE TO THE EFFECTS OF FROST HEAVE.

4. ON NOVEMBER 22, 2010, OHIO EPA APPROVED AN INCREASE THE BASELINE ELEVATION OF MONITORING POINTS MP-4 AND MP-5 FROM THE ORIGINAL ELEVATION OF 1154.82' AND 1152.34', ESTABILISHED ON OCTOBER 6, 2009, TO 1154.88' AND 1152.39', SURVEYED ON NOVEMBER 30, 2010, RESPECTIVELY.

5. VERTICAL MOVEMENT TRIGGERS WAS EXCEEDED AT IP E1 DURING MONITORING PERIOD.

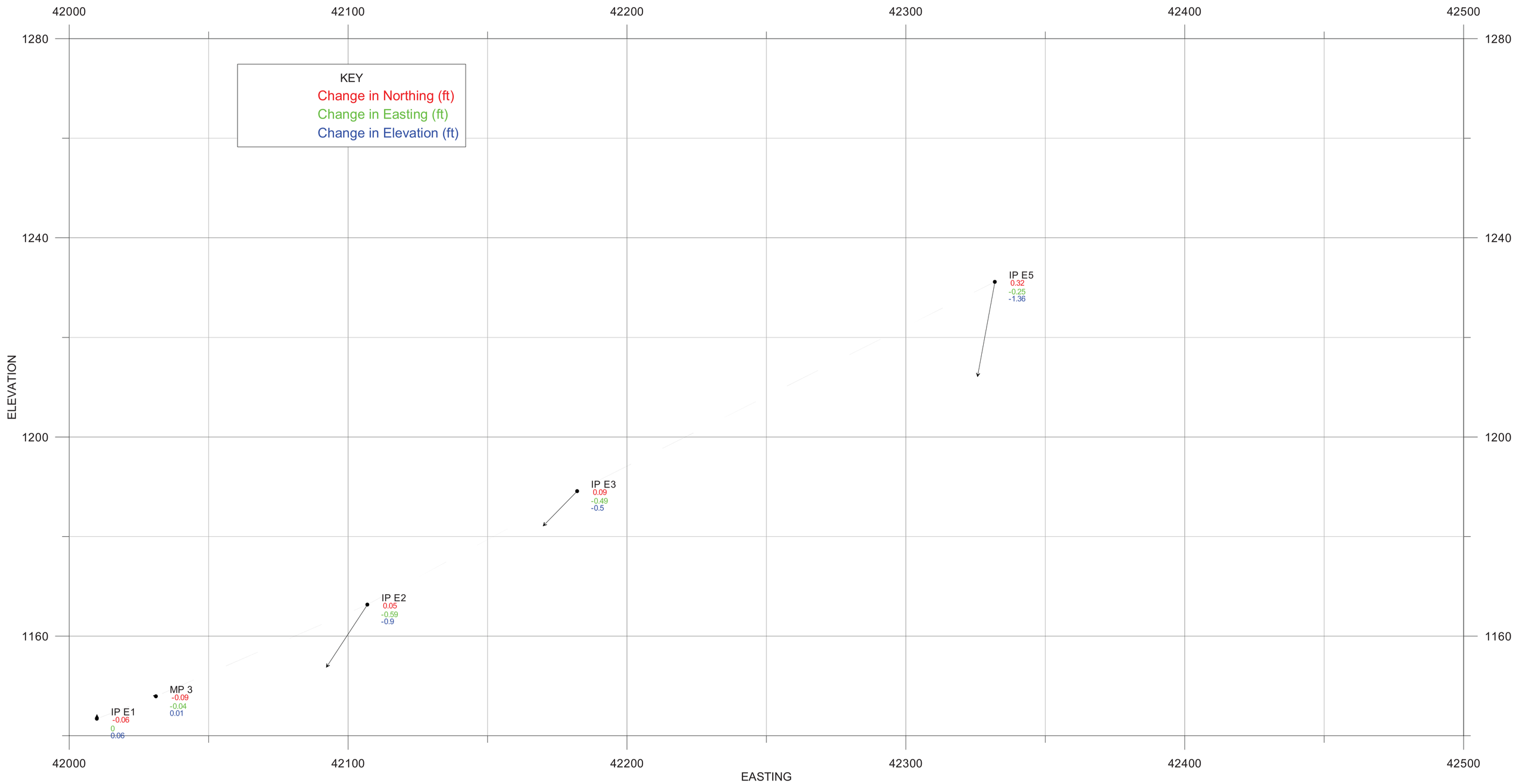
HORIZONTAL MOVEMENTS BETWEEN 10/06/2009 & 12/27/2010



NOTE:

1. TOPOGRAPHY PROVIDED BY DIVERSIFIED ENGINEERING INC AS PART OF THE "88 REMEDIATION UNIT SLOPE PINS AND MONITORING PLATES LOCATION" PROJECT, DRAWING DATED 7/21/2009.
2. HORIZONTAL MOVEMENT VECTORS ARE PLOTTED TO A 1 INCH = 0.5 FEET SCALE. → 0.5 FEET
3. HORIZONTAL MOVEMENT TRIGGER WAS NOT EXCEEDED DURING REPORTING PERIOD.
4. VERTICAL MOVEMENT TRIGGER WAS EXCEEDED AT IP E1 DURING THE REPORTING PERIOD.

HORIZONTAL MOVEMENTS BETWEEN 11/30/10 & 12/27/10

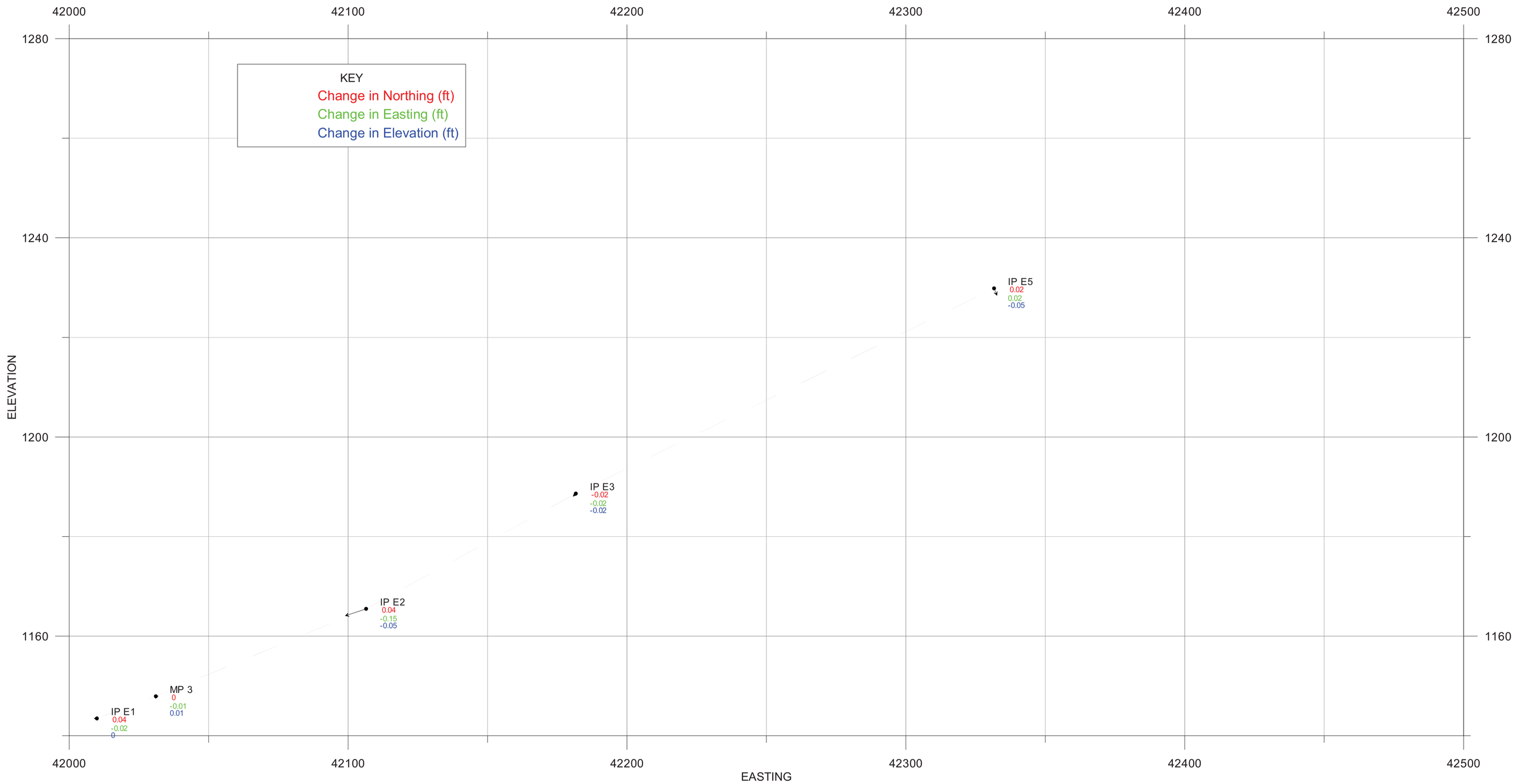


NOTES:

1. PROFILE IS APPROXIMATED USING POINTS SHOWN AS PROVIDED BY DIVERSIFIED ENGINEERING INC.

2. HORIZONTAL MOVEMENT VECTORS ARE PLOTTED TO A 1 INCH = 1 FOOT SCALE. ——▶ 1 FOOT

PROFILE MOVEMENT FOR ROW 'E'
BETWEEN 10/06/09 & 12/27/10



NOTES:

1. PROFILE IS APPROXIMATED USING POINTS SHOWN AS PROVIDED BY DIVERSIFIED ENGINEERING INC.

2. HORIZONTAL MOVEMENT VECTORS ARE PLOTTED TO A 1 INCH = 0.5 FEET SCALE. → 0.5 FEET

PROFILE MOVEMENT FOR ROW 'E'
BETWEEN 11/30/10 & 12/27/10