

December 23, 2010

Mr. John Feeney  
Wisconsin PG #750  
Wisconsin Department of Natural Resources  
Plymouth Service Center  
1155 Pilgram Road  
Plymouth, WI 53701

Subject:

Dear John:

Enclosed is the \$500 review fee you requested for the October 22, 2010, "Vapor Intrusion Mitigation Documentation Report." Recall that Tecumseh needs verification that they have satisfied the condition listed below from the March 5, 2008 WDNR letter entitled "Conceptual Approval for Switch to Monitored Natural Attenuation at Tecumseh."

"Conduct a vapor intrusion assessment for the Tecumseh building, including the possibility that building (sic) is converted for occupation in the future such as for office space or re-developed in the future with buildings meant primarily for occupation."

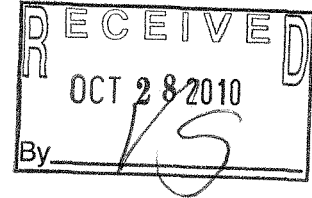
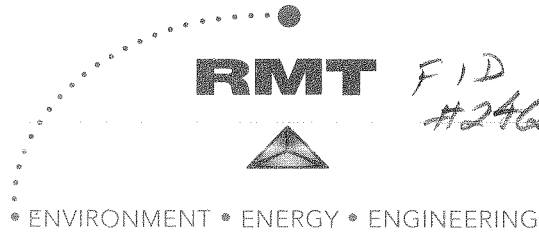
Sincerely,

RMT, Inc.

*Thomas Stolzenburg*  
Thomas R. Stolzenburg  
Senior Consultant

Enclosure

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October 22, 2010

Mr. John Feeney  
Hydrogeologist  
Wisconsin Department of Natural Resources  
1155 Pilgrim Road  
P.O. Box 408  
Plymouth, WI 53703

Subject: Vapor Intrusion Mitigation Documentation Report – TCA Filling Source Area  
Tecumseh Products Company, Grafton, Wisconsin



Dear John:

Enclosed is the Vapor Intrusion Mitigation Documentation Report. You will find that the potential vapor intrusion risk identified in a small portion of the building at the Grafton location was successfully remediated. Post-remediation subslab vapor sample results were collected and analyzed, verifying that the agree-upon limits were achieved. We look forward to receiving notification from the Department that this condition (vapor intrusion assessment for the Tecumseh building), which was listed in the March 5, 2008 Conceptual Approval letter, has been met.

Thank you.

Sincerely,

RMT, Inc.

*Thomas R. Stolzenburg*

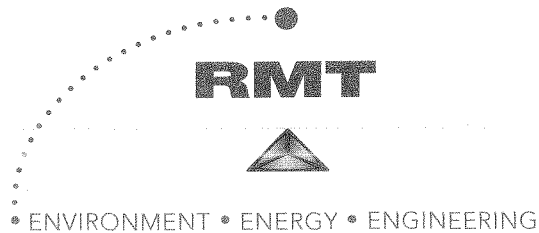
Thomas R. Stolzenburg  
Project Manager

Enclosure

cc: Jason Smith – Tecumseh Products Company  
Lynn Dennison – Tecumseh Products Company  
John Rice – RMT  
Alyssa Sellwood – RMT

*\* need review fee  
- not on BRATS*

*114/11  
got fee  
J.F.*



# Vapor Intrusion Mitigation Documentation Report

## TCA Filling Source Area

**October 2010**

*Prepared For  
Tecumseh Products Company  
Grafton, Wisconsin*

*Tom Stolzenburg (for Alyssa Sellwood)*  
\_\_\_\_\_  
Alyssa Sellwood, P.E.  
Project Engineer

*Tom Stolzenburg (for John Rice)*  
\_\_\_\_\_  
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*Tom Stolzenburg*  
\_\_\_\_\_  
Thomas R. Stolzenburg  
Senior Project Manager

RMT, Inc. | Tecumseh Products Company  
Final  
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# Section 1

## Introduction

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### 1.1 Background

The Tecumseh Products Company (TPC) previously operated a manufacturing facility located at 900 North Street in Grafton, Wisconsin (Figure 1). Volatile organic compound (VOC) impacts are present in the soil and groundwater at the facility as a result of historical operations.

Site investigations and remediation of the VOC impacts to soil and groundwater have been completed at the site; however residual impacts remain (RMT, 2007). As a result, in 2008, the Wisconsin Department of Natural Resources (WDNR) required TPC to evaluate the vapor intrusion risk pathway associated with the residual impacts to soil and groundwater.

TPC completed an off-site vapor intrusion assessment, and found no vapor intrusion risk associated with the downgradient plume in the bedrock aquifer. The WDNR concurred with this assessment in a letter dated June 3, 2009.

TPC then completed an on-site vapor intrusion assessment of the TPC building (RMT, 2009a and RMT 2009b). The results found that there is no vapor intrusion risk for a majority of the 325,000 square feet (sf) building. However, a 10,000-15,000 sf section of the facility had impacts to the subslab soil that posed a potential vapor intrusion risk for 1,1,1-trichloroethane (TCA) and 1,1-dichloroethane (DCA), and/or 1,1-dichloroethene (DCE). This area is thought to be associated with the former TCA Filling/East Parking Lot (TCA Filling) source area. The source materials outside the footprint of the building were remediated in 2002 by Key Engineering Group, Ltd. (KEY) (KEY, 2002). However, elevated concentrations of 1,1,1-TCA, 1,1-DCA, and 1,1-DCE remained in the soil below the current footprint of the building.

In order to mitigate the vapor intrusion risk associated with subslab soils in the former TCA Filling Area, RMT, Inc. (RMT) and TPC developed a remedial approach to reduce the concentration of the VOCs in the soil in the target remediation area shown on Figure 2. The goals of the remediation were to ultimately have subslab vapor concentrations that were below the USEPA's established  $1 \times 10^{-5}$  cancer risk criteria for indoor air using an attenuation factor of 500 (USEPA, 2002). The approach and remedial objectives were presented to the WDNR in a formal workplan dated March 2010 (RMT, 2010).

## 1.2 Purpose and Scope

Following the WDNR's approval of the workplan, RMT completed the remediation of the target treatment area shown on Figure 2. The purpose of this report is to document the remediation and post-remediation subslab vapor sample results.

# Section 2

## Subslab Vapor Mitigation

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Per the approved workplan, RMT and TPC completed a four step approach to reduce the mass of 1,1,1-TCA, 1,1-DCE, and 1,1-DCA in the subslab vapor in the target treatment area shown on Figure 2. The details of the remediation are described in more detail below. In general, RMT completed the soil vapor extraction (SVE), and RMT's subcontractor Redox Tech, LLC (Redox) completed *in situ* treatment of the impacted soil.

### 2.1 Soil Vapor Extraction (SVE)

The significant subslab vapor concentrations detected during the vapor investigation in this area (RMT, 2009b), suggested that measurable mass of VOCs were present in the vapor phase and could be rapidly removed from below the slab using SVE.

Between April 26 and April 28, 2010, RMT completed soil vapor extraction (SVE) using eight of the existing vapor probes (PL-1 to PL-4 and PL-6 to PL-9). RMT used a skid-mounted SVE unit to continuously draw a vacuum from the eight points for a total of 46 hours. An average flow rate of 125 scfm was recorded during operation, which equates to approximately 340,000 cf of air removed. The SVE operations are summarized in Table A.1 in Appendix A.

Per the approved workplan RMT collected 4 off-gas samples from the blower using 1-liter Summa canisters with a 30-minute regulators. Samples were collected after 1-hour, 6-hours, 20-hours, and 43-hours of continuous operation. Each Summa canister was submitted to Pace Analytical for TO-14 analysis. The laboratory report is included in Appendix A, and the results are summarized in Table A.2.

The results show that approximately 5.7 lbs of VOCs were removed during the 46 hours of operation, and that the emissions from SVE were well below the threshold criteria listed in NR 455 Table A, and NR 406.04.

### 2.2 *In Situ* Treatment

Following SVE, RMT's subcontractor Redox injected, in series, sodium hydroxide, persulfate, and steam throughout the target treatment area in order to directly remediate the impacted soil *in situ*, and ultimately reducing the subslab vapor concentrations. Redox's injection summaries are included in Appendix B, and the details are summarized below.

*depth remediation of soils?*

### 2.2.1 Injection Point Construction

Redox installed 100 injection points throughout the treatment area using a Geoprobe. The approximate location of each point is shown on the Figure in Appendix B. To install each point, Redox cut a 3-inch core in the concrete, and set a 1-inch black iron pipe with open end point 3.5-feet below grade. Sand pack was placed around the base of each point, and grout was then used to seal each point to the surface.

### 2.2.2 Sodium Hydroxide Injection

Redox began the *in situ* treatment with injection of sodium hydroxide (NaOH). The NaOH was injected to convert the 1,1,1-TCA to 1,1-DCE, which is significantly easier to oxidize than 1,1,1-TCA.

Redox completed the NaOH injection between May 5 and May 7, 2010. Approximately 30 gallons of 25 percent sodium hydroxide and 45 gallons water (total 75 gallons) were injected into each point. A total of 7,500 gallons was injected throughout the target remediation area.

### 2.2.3 Persulfate Injection

Redox next injected sodium persulfate to oxidize the chlorinated VOCs in the target treatment area. Redox completed the persulfate injection between June 1 and June 4, 2010. Each point received approximately 254 lbs of persulfate and 0.5 gallons 25 wt % sodium hydroxide mixed with 100 gallons of water. A total of 10,000 gallons of persulfate solution was injected throughout the target remediation area.

### 2.2.4 Steam Injection

Redox's final step was to inject steam into each injection point. The steam was used to catalyze the remaining persulfate into sulfate radicals, which are powerful oxidants intended to improve the performance of the persulfate.

Redox complete the injection between June 14 and June 16, 2010. Each injection point received approximately 75 gallons of super heated water, which flashes to steam in the subsurface. A total of 7,500 gallon of superheated water was injected throughout the target remediation area.



## 2.3 SVE Polishing Step

Confirmation subslab vapor samples were collected approximately 8 weeks after the steam injection. The details are described in more detail in Section 3. Of significance however, was the fact that 1,2-DCA was detected in the PL-4 and PL-9. Although the detected concentrations were low, the concentration was above the risk criteria in PL-4. 1,2-DCA had not been detected during the subslab vapor investigation, and after considering several scenarios the most likely explanation for this seeming inconsistency is that high concentrations of some of the VOCs in the pre-treatment samples effectively raised the analytical detection limits, masking the detection of 1,2-DCA. Another possibility is that heat from the steam injection had allowed 1,2-DCA to partition to the vapor phase, and this detection was a residual effect from the *in situ* remediation.

To address the residual impacts of 1,2-DCA, RMT implemented an SVE polishing step. Specifically, RMT connected a regenerative SVE blower to PL-4 and PL-2. The blower operated continuously for 14 days between September 14 and September 30, 2010, at a estimated flow rate of 25 to 50 scfm.

## 2.4 Vapor Sample Point Abandonment

The vapor sampling points used in the subslab vapor investigation to characterize the vapor conditions associated with the groundwater contaminant plume (GWT-1 through GWT-13), and the recycling dock source area (RD-1 through RD-4) were abandoned by RMT in April 2010. The location of the abandoned wells is shown on Figure 2. Each 1-inch sampling point was cut flush with the surface, and bentonite chips were placed in each point to the base of the slab. The bentonite was hydrated and quick ground was used to seal each point to the ground surface. The vapor sampling points associated with the TCA Filling source area (PL-1 through PL-9) remain intact, and will be abandoned following confirmation that the vapor intrusion risk in this area has been mitigated.

## Section 3

# Confirmation Vapor Sampling

---

Per the approved workplan, RMT collected subslab vapor samples from PL-2, PL-4, PL-6, PL-7, and PL-9 approximately 8 weeks after completing of the steam injection, in order to confirm the subslab vapor conditions post-remediation. These sample points were selected because they either had pre-remediation concentrations of VOCs near or above risk criteria, or elevated vapor concentrations relative to other sample points.

On August 16, 2010, RMT collected subslab vapor samples using 1-liter Summa canisters with 30-minute regulators, and using the same method used and approved for the subslab vapor investigation. The canisters were submitted to Pace for TO-14 analysis, and the laboratory report is included in Appendix C. The results are summarized in Table 1, and the percent reduction in the subslab vapor concentration achieved as a result of the remediation is summarized in Table 2.

The results of the post-remediation subslab vapor sampling show that a 75 to 99.9 percent reduction in the concentration of 1,1,1-TCA and its breakdown products was achieved as a result of the initial SVE and *in situ* treatment, and that the vapor intrusion risk from the original constituents of concern was mitigated. However, as discussed in Section 2, 1,2-DCA was detected for the first time in PL-4 and PL-9 in the August 2010 samples. Although the detected concentrations were low, the concentration was above the risk criteria in PL-4. Thus, an SVE polishing step was completed in order to address the 1,2-DCA impacts.

On September 30, 2010, following completion of the SVE polishing step, RMT collected subslab vapor samples from PL-4 and PL-9 using the same method described above. The samples were collected approximately 4 to 5 hours after the SVE system was shut down in order to allow the subslab vapor concentrations to equilibrate to static conditions. The laboratory report is included in Appendix C, and the results are summarized in Tables 1 and 2.

The results of the post-polishing step subslab vapor sampling show that the residual 1,2-DCA in the vapor phase was remediated, and that 1,2-DCA was no longer detected in the subslab vapor.

## Section 4

# Results and Conclusions

---

The implementation of SVE and *in situ* oxidation treatment of the unsaturated soil significantly reduced the mass of 1,1,1-TCA and its breakdown products within the soil in the target treatment area (Figure 2). As a result, a 75 to 99.9 percent reduction in the subslab vapor concentrations for 1,1,1-TCA and its breakdown products was realized in the TCA Filling source area, and all of VOCs are now significantly below their respective vapor intrusion risk criteria.

The post-remediation sampling results clearly show that the vapor intrusion risk has been mitigated for the TCA Filling source area. These results, in conjunction with the results of the subslab vapor investigation (RMT, 2009b), show that TPC's 325,000 sf facility has been cleared of the vapor intrusion risk pathway. Therefore, no additional sampling or mitigation are warranted with regards to vapor intrusion.

The 100 injection points and 9 vapor sampling points that remain in the TCA Filling Area will be abandoned following WDNR concurrence that the remediation and subslab vapor sampling in the TCA Filling source are complete.

## Section 5 References

---

- Key Engineering Group, Ltd. (KEY). 2002. Remedial action report. Prepared for Tecumseh Products Company, Grafton, Wisconsin. March 2002.
- RMT, Inc. 2007a. Source area remediation completion report. Prepared for Tecumseh Products Company, Grafton, Wisconsin. October 2007.
- RMT, Inc. 2009a. Subslab vapor sampling workplan. Prepared for Tecumseh Products Company, Grafton, Wisconsin. July 2009.
- RMT, Inc. 2009b. Subslab vapor sampling documentation report. Prepared for Tecumseh Products Company, Grafton, Wisconsin. November 2009.
- RMT, Inc. 2010. Vapor Intrusion Mitigation Workplan. Prepared for Tecumseh Products Company, Grafton, Wisconsin. March 2010.
- USEPA. 2002. OSWER draft guidance for evaluating the vapor intrusion to indoor air pathway from groundwater and soils (subsurface vapor intrusion guidance). EPA/530-D-02-004. November 2002.



**Table 1**  
**Subslab Vapor Sampling Results - TCA Filling/Parking Lot**  
**Pre- and Post-Remediation**  
**Tecumseh - Grafton, Wisconsin**

Sample ID	Date	Analyte Detected (ppbv)										
		1,1,1-TCA	1,1-DCA	1,2-DCA	1,1- DCE	Chloro-ethane	PCE	TCE <sup>(2)</sup>	cis-1,2-DCE	Benzene	Ethyl-benzene	Toluene
10 <sup>-6</sup> Risk or HI =1 and a = 1/500 Criteria <sup>(1)</sup>		200,000	60,000	115	25,000	1,900,000	600	5,660	4,400	490	2,550	55,000
PL-1	9/28/2009	530	10.8	--	119	--	--	31.8	--	15.9	2.5	1.3
PL-2	9/29/2009	20,100 A3	33,600 A3, E	--	10,500 A3	113	--	--	--	85.7	--	--
	8/16/2010	4,070 A3	7,890 A3	--	428	60.9	84	--	--	--	--	--
	9/30/2010	419	1,680	--	118	26.1	0.98	--	--	5.2	6.6	26.2
PL-3	9/29/2009	1,680 A3	542	--	293	--	--	--	--	--	--	--
PL-4	9/29/2009	<b>4,020,000 E</b>	<b>68,400</b>	--	<b>753,000</b>	--	--	--	--	--	--	--
	8/16/2010	103,000 A3	5,370 A3	<b>477</b>	2,310 A3	--	--	--	--	--	--	--
	9/30/2010	8,010 A3	1,370 A3	--	977 A3	3.0	9.8	0.97	--	--	--	1.4
PL-5	10/5/2009	460 A3	7.7	--	87.6	--	--	189	5.6	--	--	--
PL-6	10/5/2010	18,400 A3	454 E	--	5,880 E	--	--	57.1	--	--	--	11.5
	8/16/2010	253	49.40	--	203	--	--	--	--	--	--	--
PL-7	10/5/2009	74,300 E	9,040	--	<b>25,800</b>	--	--	--	--	--	--	--
	8/16/2010	18.7	23.8	--	40.0	--	--	--	--	--	--	--
PL-8	10/5/2009	144	37.6	--	51.7	--	--	--	--	--	--	--
PL-9	10/5/2009	11,600	13,300	--	7,990	--	--	--	--	--	--	--
	8/16/2010	958	1,400	80.7	253	163	153	--	--	--	--	--

**Notes**

1. Only those analytes that were detected in at least one sample and are constituents of concern have been included in this summary table. Other analytes that were detected at low concentrations are not summarized.
  2. The September 2009 samples were collected to pre-remediation, and the August 2010 samples were collected approximately 8 weeks after completion of chemical oxidation in the TCA Parking Lot area
  - 3 The September 2010 samples were collected following implementation of SVE in PL-2 and PL-4.
- TCA = trichloroethane  
DCE = dichloroethene  
PCE = tetrachloroethene  
TCE = trichloroethene  
A3 = The sample was analyzed by serial dilution  
E = Analyte concentration exceeded the calibration range. The reported result is estimated.  
**BOLD** = concentration exceeds the risk criteria associated with an attenuation factor of 500 or  $\alpha = 0.002$   
-- = not detected

**Footnotes**

- (1) From Table 2b in USEPA "OSWER Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance)." EPA 530-D-02-004. November 2002.
- (2) The Regulatory Limit for TCE taken from USEPA "Interim recommended TCE toxicity value to assess human health risk and recommendations for vapor intrusion pathway analysis." January 15, 2009

**Table 2**  
**Percent Reduction in Vapor Concentration - TCA Filling/Parking Lot**  
**Tecumseh - Grafton, Wisconsin**

Sample ID	Date	Analyte Detected (ppbv)					Percent Reduction in Concentration				
		1,1,1-TCA	1,1-DCA	1,2-DCA	1,1- DCE	Chloro-ethane	1,1,1-TCA	1,1-DCA	1,2-DCA	1,1- DCE	Chloro-ethane
<b>10<sup>-5</sup> Risk or HI =1 and a = 1/500 Criteria</b>		<b>200,000</b>	<b>60,000</b>	<b>115</b>	<b>25,000</b>	<b>1,900,000</b>					
PL-1	9/28/2009	530	10.8	--	119	--	--	--	--	--	--
PL-2	9/29/2009	20,100	33,600	--	10,500	113	79.8%	76.5%	--	95.9%	46.1%
	8/16/2010	4,070	7,890	--	428	60.9					
	9/30/2010	419	1,680	--	118	26.1	97.9%	95.0%	--	98.9%	76.9%
PL-3	9/29/2009	1,680	542	--	293	--	--	--	--	--	--
PL-4	9/29/2009	<b>4,020,000</b>	<b>68,400</b>	--	<b>753,000</b>	--	97.4%	92.1%	--	99.7%	--
	8/16/2010	103,000	5,370	<b>477</b>	2,310	--					
	9/30/2010	8,010 A3	1,370 A3	--	977 A3	3.0	99.8%	98.0%	--	99.9%	--
PL-5	10/5/2009	460	7.7	--	87.6	--	--	--	--	--	--
PL-6	10/5/2010	18,400	454	--	5,880	--	98.6%	89.1%	--	96.5%	--
	8/16/2010	253	49.4	--	203	--					
PL-7	10/5/2009	74,300	9,040	--	<b>25,800</b>	--	99.97%	99.7%	--	99.8%	--
	8/16/2010	18.7	23.8	--	40.0	--					
PL-8	10/5/2009	144	37.6	--	51.7	--	--	--	--	--	--
PL-9	10/5/2009	11,600	13,300	--	7,990	--	91.7%	89.5%	--	96.8%	--
	8/16/2010	958	1,400	80.7	253	163					

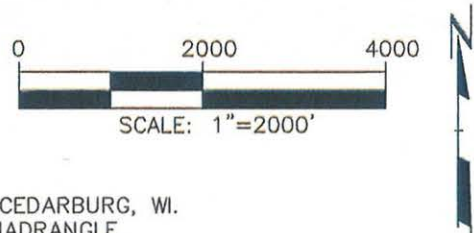
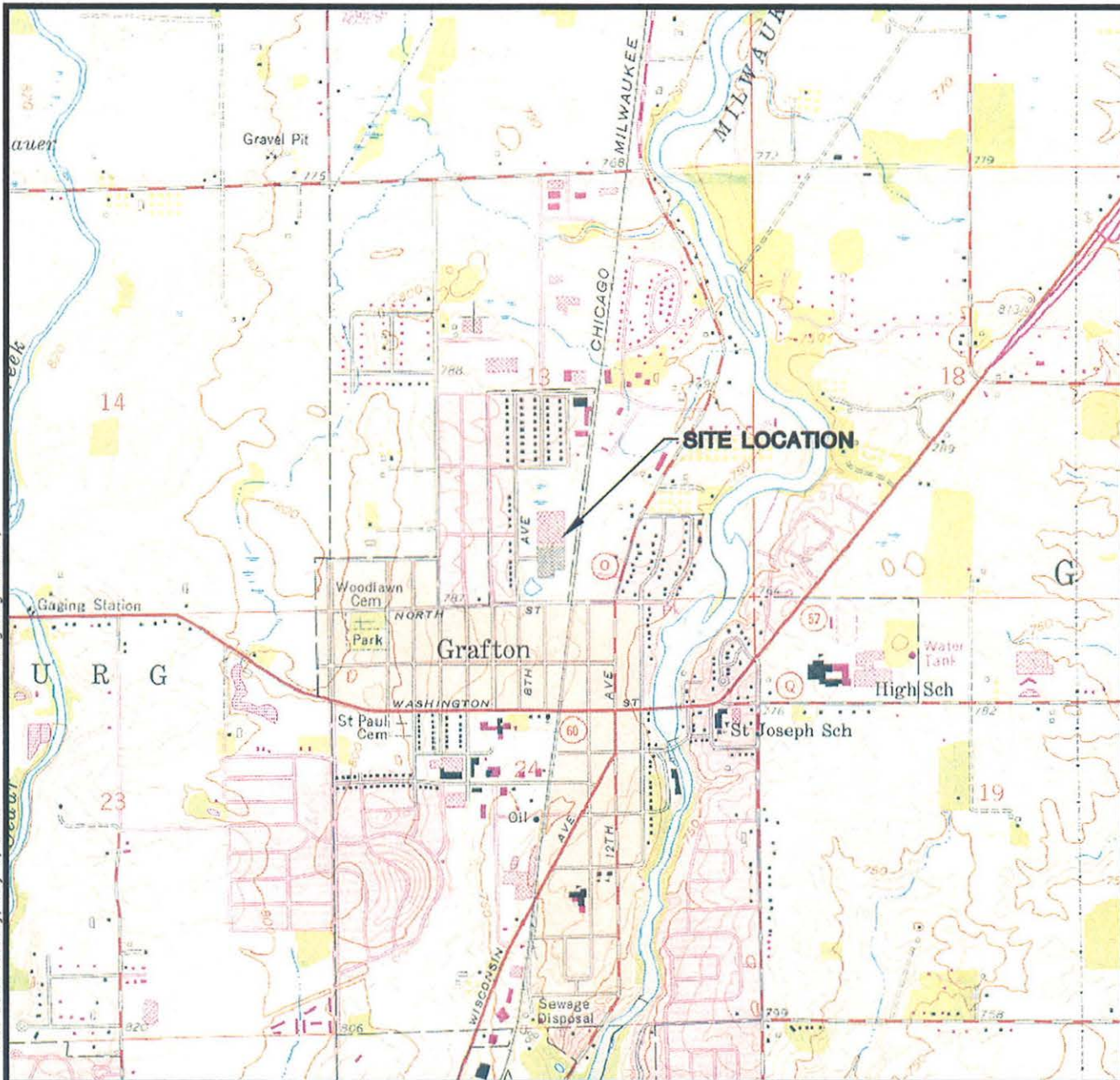
- Notes**
1. Only 1,1,1-TCA and its potential breakdown products that were detected in at least one sample have been included in this summary table.
  2. The September 2009 samples were collected to pre-remediation, and the August 2010 samples were collected approximately 8 weeks after completion of chemical oxidation in the TCA Parking Lot area
  - 3 The September 2010 samples were collected following implementation of SVE in PL-2 and PL-4.
- TCA = trichlorethane  
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PCE = tetrachloroethene  
TCE = trichloroethene  
A3 = The sample was analyzed by serial dilution  
E = Analyte concentration exceeds the calibration range. The reported result is estimated.  
**BOLD** = concentration exceeds the risk criteria associated with an attenuation factor of 500 or a = 0.002  
-- = not detected or % reduction not available

- Footnotes**
- (1) From Table 2b in USEPA "OSWER Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance)." EPA 530-D-02-004. 11/02
  - (2) The Regulatory Limit for TCE taken from USEPA "Interim recommended TCE toxicity value to assess human health risk and recommendations for vapor intrusion pathway analysis." January 15, 2009





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 Plot Date: Tuesday, July 9, 2002  
 Plot Time: 07:59.36 AM  
 Attached Xref's: No Xref's attached.  
 Attached Image s: grafton.tif



SOURCE: BASE MAP FROM CEDARBURG, WI.  
 7.5 MIN. USGS QUADRANGLE.

LOCATION: SW1/4, SE1/4 SEC 13, T10N, R21E

**PLOT DATA**  
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 Operator Name: siewertd

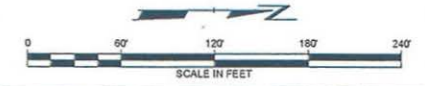
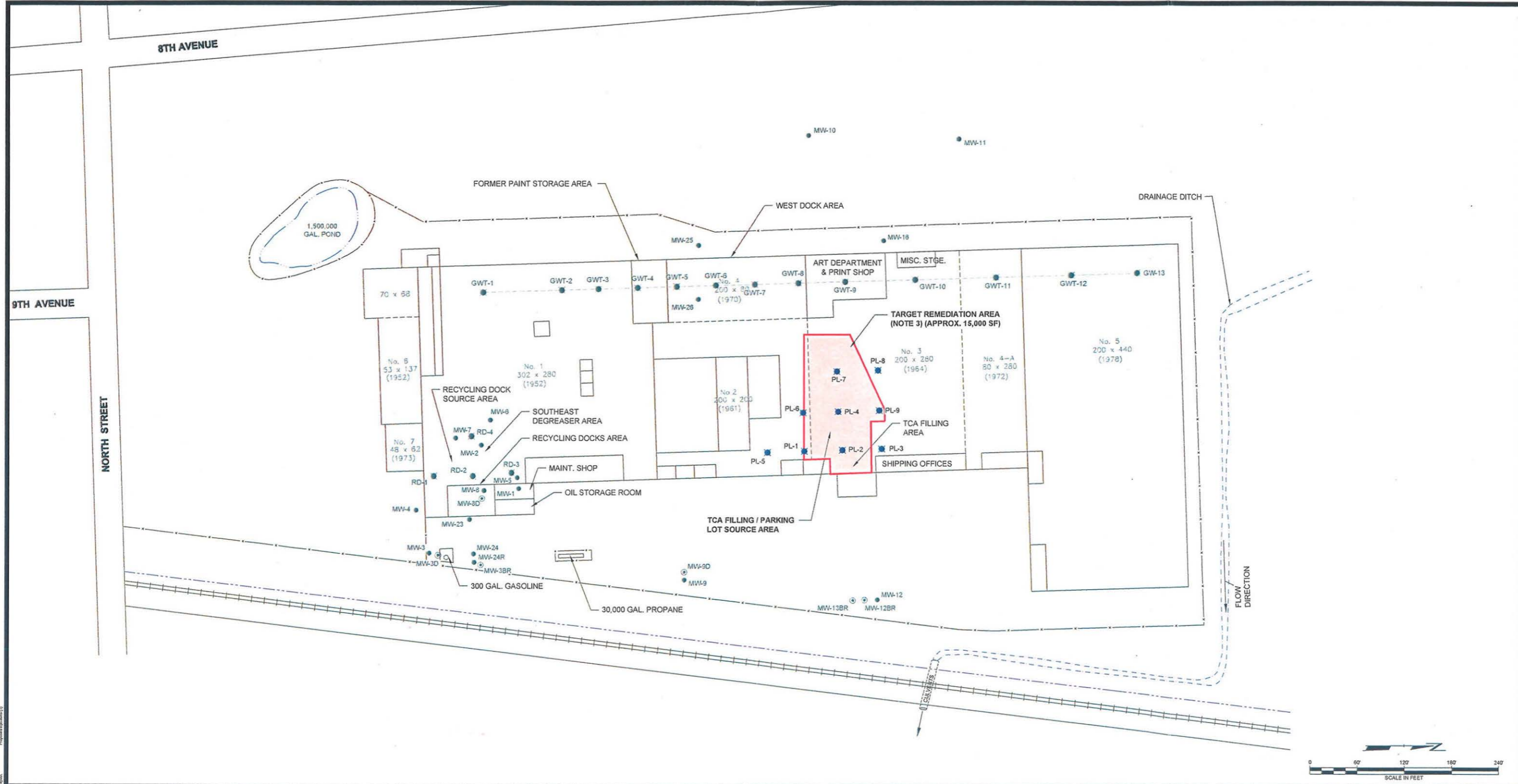
**TECUMSEH PRODUCTS COMPANY  
 GRAFTON, WISCONSIN**

**SITE LOCATOR MAP**

DRAWN BY:	SIEWERTD
APPROVED BY:	
PROJECT NO.	03084.27
FILE NO.	02268.10.01
DATE:	October 2010

**FIGURE 1**





**LEGEND**

	PROPERTY LINE
	AISLEWAY
	FENCE LINE
	RAILROAD
	MW-24R ● WATER TABLE WELL
	MW-3BR ⊕ PIEZOMETER
	PL-1 ■ SUB-SLAB VAPOR SAMPLE POINT LOCATION
	GWT-1 ■ SUB-SLAB VAPOR SAMPLE POINT LOCATION (ABANDONED)

- NOTES**
1. FACILITY LAYOUT ADAPTED FROM DRAWINGS PROVIDED BY TECUMSEH PRODUCTS COMPANY.
  2. MONITORING WELL LOCATIONS AND ELEVATIONS WERE SURVEYED BY RMT INC. ON 12/5/94.
  3. 100 INJECTION POINTS CONSTRUCTION TO 3.5 ft. bgs IN REMEDIATION AREA. SPECIFIC LOCATION OF EACH INJECTION POINT SHOWN ON FIGURE IN APPENDIX B.

5.			
4.			
3.			
2.			
1.			
NO.	BY	DATE	REVISION

TECUMSEH PRODUCTS COMPANY  
GRAFTON, WISCONSIN

VAPOR SAMPLING AND REMEDIATION PLAN

DRAWN BY:	S.S.	DRAWING SCALE:	PROJECT NO. J-10226810
CHECKED BY:	AAS	AS INDICATED	FILE NO. 02268.10.10-9W9
APPROVED BY:	TS	DATE PRINTED:	<b>FIGURE 2</b>
DATE:	October 2010		

DATE PLOTTED: 10/20/10 10:58:49 AM  
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 DRAWING FILE: J:\Projects\2010\02268\10.10-9W9\FIGURE 2.dwg  
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 PLOTTED BY: J. LUCAS  
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 PLOTTED ON: RMT-1010  
 PLOTTED BY: J. LUCAS

# Appendix A

## SVE Operation Summary

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*figure goes here*

Table A.1  
 Tecumseh - Grafton, Wisconsin  
 SVE Datalog - Vapor Mitigation

Date	Time	Elapsed Time	Estimated Flow Rate	Estimated Total Flow Volume	PID Reading	Notes
		(hrs)	(SCFM)	(CF)		
4/26/2010	15:40	0	125	0	NA	Start up
4/26/2010	15:50	0.17	125	1,250	8.6	PID connected to sample port on exhaust vent with tubing. Datalog turned on, set at 5 minute intervals.
4/26/2010	16:05	0.42	125	3,125	10.3	
4/26/2010	16:20	0.67	125	5,000	11.3	
4/26/2010	16:35	0.92	125	6,875	12.4	
4/26/2010	16:50	1.17	125	8,750	13.8	
4/26/2010	17:00	1.33	125	10,000	31.0	PID disconnected from tubing to sample port and placed directly into exhaust vent. First Suma Canister started at 16:58 (initial pressure = -29 in. Hg.)
4/26/2010	17:15	1.58	125	11,875	26.9	
4/26/2010	17:30	1.83	125	13,750	23.1	First Suma Canister finished at 17:33 (final pressure = -3 in. Hg.)
4/26/2010	17:45	2.08	125	15,625	22.0	
4/26/2010	18:00	2.33	125	17,500	20.3	
4/26/2010	18:15	2.58	125	19,375	19.7	
4/26/2010	18:30	2.83	125	21,250	21.7	PID position adjusted for overnight charging. Still placed directly into exhaust vent. Datalog adjusted to 15 minute intervals. RMT leaves site.
4/26/2010	21:05	5.42	125	40,625	7.7	RMT returns to site
4/26/2010	21:15	5.58	125	41,875	36.0	Second Suma Canister started at 21:10 (initial pressure = -27 in. Hg.). PID position adjusted when placed tubing for Suma canister into exhaust vent.
4/26/2010	21:30	5.83	125	43,750	177.0	
4/26/2010	21:45	6.08	125	45,625	122.7	Second Suma Canister finished at 21:45 (final pressure = -3 in. Hg.)
4/26/2010	22:00	6.33	125	47,500	114.0	RMT leaves site.
4/27/2010	8:15	16.58	135	124,375	0.0	Leak detected in system. Likely responsible for high flow rate (pulling air from inside building). Repaired.
4/27/2010	8:30	16.83	125	126,250	0.0	
4/27/2010	8:45	17.08	125	128,125	0.0	
4/27/2010	9:00	17.33	125	130,000	0.0	Datalog stopped. Took down PID to calibrate.
4/27/2010						Calibration fails multiple times. RMT calls RAE Systems tech. support line. Instrument cleaned and calibrates properly. Third Suma Canister started at 11:40 (initial pressure = -26 in. Hg.)
4/27/2010	12:00	20.33	125	152,500	8.7	PID placed directly into exhaust vent.
4/27/2010	12:15	20.58	125	154,375	9.0	PID reading goes down to 0.0 when removed from exhaust vent. Instrument appears to be working properly. Third Suma Canister finished at 12:15 (final pressure = -3 in. Hg.)
4/27/2010	12:50	21.17	125	158,750	15.5	Datalog started at 12:48. Still set at 15 minute intervals.
4/27/2010	13:50	22.17	125	166,250	13.7	
4/27/2010	14:30	22.83	125	171,250	16.0	
4/27/2010	14:50	23.17	125	173,750	15.9	
4/27/2010	15:20	23.67	125	177,500	16.0	
4/27/2010	15:45	24.08	125	180,625	14.7	Stopped datalog. Pulled instrument's probe out of exhaust stream to let zero out between readings. Probe placed into exhaust stream manually and then removed for all future readings.
4/27/2010	15:50	24.17	125	181,250	13.7	
4/27/2010	16:05	24.42	125	183,125	12.4	Datalog turned on and set to record over 1 minute interval for all future readings (datalog turned on for 1 minute while probe is in exhaust stream and then stopped when removed from stream to let zero out).
4/27/2010	16:50	25.17	125	188,750	11.2	
4/27/2010	17:10	25.50	125	191,250	24.8	
4/27/2010	17:30	25.83	125	193,750	19.3	PID taken down to charge overnight. SVE blower remains on overnight. RMT leaves site at 17:45.
4/28/2010	8:20	40.67	125	305,000	14.9	
4/28/2010	8:35	40.92	125	306,875	13.2	
4/28/2010	8:50	41.17	125	308,750	14.1	
4/28/2010	9:05	41.42	125	310,625	12.2	
4/28/2010	9:20	41.67	125	312,500	11.9	
4/28/2010	9:45	42.08	125	315,625	12.0	
4/28/2010	10:00	42.33	125	317,500	11.9	
4/28/2010	10:30	42.83	125	321,250	11.3	
4/28/2010	10:45	43.08	125	323,125	11.9	
4/28/2010	11:00	43.33	125	325,000	12.1	
4/28/2010	11:15	43.58	125	326,875	11.8	Fourth Suma Canister started at 11:13 (initial pressure = -28 in. Hg.)
4/28/2010	11:30	43.83	125	328,750	12.0	
4/28/2010	11:45	44.08	125	330,625	11.7	Fourth Suma Canister finished at 11:48 (final pressure = -4 in. Hg.)
4/28/2010	12:00	44.33	125	332,500	11.1	
4/28/2010	12:15	44.58	125	334,375	10.7	
4/28/2010	12:30	44.83	125	336,250	10.2	
4/28/2010	12:45	45.08	100	337,750	9.0	
4/28/2010	13:10	45.50	100	340,250	8.9	
4/28/2010	13:20	45.67	100	341,250	8.8	
4/28/2010	13:30	45.83	100	342,250	8.8	
4/28/2010	13:45	46.08	100	343,750	8.7	SVE blower shut down at 13:45.

Note:

1. PID had significant drift and erratic readings throughout the SVE operation, and therefore, PID results were not used to estimate total mass removed.

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**Table A.2**  
**Tecumseh - Grafton, WI**  
**SVE Emissions Summary - Vapor Mitigation**  
**April 26 - April 28, 2010**

Analyte	MW	Emission Threshold (lb/hr)	Concentration (ppbv)				Emission (lb/hr)			
			SVE 1-Hr	SVE - 6 Hr	SVE 20 hr	SVE-43 hr	SVE 1-Hr	SVE - 6 Hr	SVE 20 hr	SVE-43 hr
PCE	166	9.11	1.1		0.96	0.99	3.54E-06	0	3.09E-06	3.18E-06
TCE	132	14.4	0.97	1.5	21.3	14.8	2.48E-06	3.84E-06	5.45E-05	3.79E-05
cis-DCE	97	42.6				1.5	0	0	0	2.82E-06
Vinyl Chloride	63	202	3.1		4.7	3.7	3.78E-06	0	5.74E-06	4.52E-06
1,1,1-TCA	134	--	35,800	80,200	8,460	23,600	9.30E-02	2.08E-01	2.20E-02	6.13E-02
1,1,2-TCA	134	2.93			1.5	2.8	0	0	3.90E-06	7.27E-06
1,1-DCA	99	21.7	4,080	5,290	6,060	2,040	7.83E-03	1.01E-02	1.16E-02	3.91E-03
1,1-DCE	97	1.06		26,000	31,000	8,500	0	4.89E-02	5.83E-02	1.60E-02
Chloroethane	85	14.2	32.5	1.2	44.2	22	5.35E-05	1.98E-06	7.28E-05	3.62E-05
Benzene	78	228	2.7	1.9	3.3	2.8	4.08E-06	2.87E-06	4.99E-06	4.23E-06
Toluene	92	10.1	448	5.5	4.2	119	7.99E-04	9.81E-06	7.49E-06	2.12E-04
xylene	106	23.3		3.6		1.9	0	7.40E-06	0	3.90E-06
TMB	120	--	1.1	1.4	1	1.1	2.56E-06	3.26E-06	2.33E-06	2.56E-06
DCB	147	8.07	1.6		0.98	6.2	4.56E-06	0	2.7919E-06	1.77E-05
Chloromethane	51	5.55	6.4	1.3	5.8	2.8	6.33E-06	1.28E-06	5.73E-06	2.77E-06
Methylene Chloride	85	9.33	6.7	102	7.8	43.3	1.10E-05	1.68E-04	1.28E-05	7.13E-05
Styrene	104	4.58		1.3			0	2.62E-06	0	0
Chloroform	120	2.6			1.1		0	0	2.56E-06	0
Chlorobenzene	113	2.47				1.8	0	0	0	3.94E-06
<b>Total VOC Emission Rate (lb/hr)</b>							<b>0.10</b>	<b>0.27</b>	<b>0.09</b>	<b>0.08</b>
<b>Chlorinated VOC Emission Rate (lb/hr)</b>							<b>0.10</b>	<b>0.27</b>	<b>0.09</b>	<b>0.08</b>
<b>Avg Chlorinated VOC Emission Rate per 24 hr (lb/hr)</b>							<b>0.15</b>		<b>0.08</b>	
<b>Chlorinated VOC Emissions (lb/day)</b>							<b>3.68</b>		<b>1.79</b>	
<b>Total Chlorinated VOC Mass Removed (lb)</b>							<b>5.47</b>			

Flow Rate (cfm)            125  
Chlorinated VOC Emissions Thresholds (lb/day)    137  
Chlorinated VOC Emissions Thresholds (lb/hr)    5.7

**Notes**

- Flow rate was estimated in the field based on pitot tube measurements from the SVE off-gas.
- Emission thresholds for specific compounds are from NR 445 Table A. (The emissions threshold for DCB is for 1,2-DCB.)
- The emissions limitation of 137 lb/day is for Ozaukee County, WI, and is from NR 419.07(4)(b).
- The emission limitation of 5.7 lb/hr is from NR 406.04(1)(m)(2). No permit is required for the SVE system, when below this threshold.
- The Total VOC Mass is based on 46 hours of operation the average emission rate for each day (0.15 lb/hr \* 24 hr + 0.08 lb/hr \* 22 hr).
- Emissions calculation is as follows:

$$E = \sum \frac{(C \div 1000) \times Q \times MW \times 60 \text{ min/hr}}{387 \text{ ft}^3 / \text{lb-mole} \times 10^6}$$

Where:

- E = Emissions (lb/hr)
- C = Exhaust Concentration (ppbv)
- Q = Flow Rate (scfm)
- MW = Molecular Weight (lbs/lb-mole)



Pace Analytical Services, Inc.  
1700 Elm Street - Suite 200  
Minneapolis, MN 55414  
(612)607-1700

May 18, 2010

Mr. Mark Walter  
RMT, INC  
744 Heartland Trail  
Madison, WI 53717

RE: Project: 02268.10.001 Tecumseh-Grafton  
Pace Project No.: 10127898

Dear Mr. Walter:

Enclosed are the analytical results for sample(s) received by the laboratory on May 03, 2010. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Colin Schuft

colin.schuft@pacelabs.com  
Project Manager

Enclosures

**REPORT OF LABORATORY ANALYSIS**

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## CERTIFICATIONS

Project: 02268.10.001 Tecumseh-Grafton  
Pace Project No.: 10127898

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### Minnesota Certification IDs

1700 Elm Street SE, Suite 200 Minneapolis, MN 55414  
Alaska Certification #: UST-078  
Washington Certification #: C754  
Tennessee Certification #: 02818  
Pennsylvania Certification #: 68-00563  
Oregon Certification #: MN200001  
North Dakota Certification #: R-036  
North Carolina Certification #: 530  
New York Certification #: 11647  
New Jersey Certification #: MN-002  
Montana Certification #: MT CERT0092  
Minnesota Certification #: 027-053-137

Michigan DEQ Certification #: 9909  
Maine Certification #: 2007029  
Louisiana Certification #: LA080009  
Louisiana Certification #: 03086  
Kansas Certification #: E-10167  
Iowa Certification #: 368  
Illinois Certification #: 200011  
Florida/NELAP Certification #: E87605  
California Certification #: 01155CA  
Arizona Certification #: AZ-0014  
Wisconsin Certification #: 999407970

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**SAMPLE SUMMARY**

Project: 02268.10.001 Tecumseh-Grafton  
Pace Project No.: 10127898

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10127898001	SVE Blower Vent-1 Hour	Air	04/26/10 17:33	05/03/10 08:50
10127898002	SVE Blower Vent-6 Hours	Air	04/26/10 21:45	05/03/10 08:50
10127898003	SVE Blower Vent-20 Hours	Air	04/27/10 12:15	05/03/10 08:50
10127898004	SVE Blower Vent-43 Hours	Air	04/28/10 11:48	05/03/10 08:50

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### SAMPLE ANALYTE COUNT

Project: 02268.10.001 Tecumseh-Grafton  
Pace Project No.: 10127898

Lab ID	Sample ID	Method	Analysts	Analytes Reported
10127898001	SVE Blower Vent-1 Hour	TO-14 Ambient Air	AEP, LCW	41
10127898002	SVE Blower Vent-6 Hours	TO-14 Ambient Air	AEP, LCW	41
10127898003	SVE Blower Vent-20 Hours	TO-14 Ambient Air	AEP, LCW	41
10127898004	SVE Blower Vent-43 Hours	TO-14 Ambient Air	AEP	41

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### ANALYTICAL RESULTS

Project: 02268.10.001 Tecumseh-Grafton  
Pace Project No.: 10127898

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Sample: SVE Blower Vent-1 Hour</b>		<b>Lab ID: 10127898001</b>	Collected: 04/26/10 17:33		Received: 05/03/10 08:50		Matrix: Air	
<b>TO14 MSV AIR - Ambient</b>		Analytical Method: TO-14 Ambient Air						
Benzene	2.7	ppbv	0.93	1.86		05/15/10 03:16	71-43-2	
Bromomethane	ND	ppbv	0.93	1.86		05/15/10 03:16	74-83-9	
Carbon tetrachloride	ND	ppbv	0.93	1.86		05/15/10 03:16	56-23-5	
Chlorobenzene	ND	ppbv	0.93	1.86		05/15/10 03:16	108-90-7	
Chloroethane	32.5	ppbv	0.93	1.86		05/15/10 03:16	75-00-3	
Chloroform	ND	ppbv	0.93	1.86		05/15/10 03:16	67-66-3	
Chloromethane	6.4	ppbv	0.93	1.86		05/15/10 03:16	74-87-3	
1,2-Dibromoethane (EDB)	ND	ppbv	0.93	1.86		05/15/10 03:16	106-93-4	
1,2-Dichlorobenzene	ND	ppbv	0.93	1.86		05/15/10 03:16	95-50-1	
1,3-Dichlorobenzene	1.6	ppbv	0.93	1.86		05/15/10 03:16	541-73-1	
1,4-Dichlorobenzene	ND	ppbv	0.93	1.86		05/15/10 03:16	106-46-7	
Dichlorodifluoromethane	ND	ppbv	0.93	1.86		05/15/10 03:16	75-71-8	
1,1-Dichloroethane	4080	ppbv	298	595.2		05/15/10 23:08	75-34-3	A3
1,2-Dichloroethane	ND	ppbv	0.93	1.86		05/15/10 03:16	107-06-2	
1,1-Dichloroethene	ND	ppbv	0.93	1.86		05/15/10 03:16	75-35-4	
cis-1,2-Dichloroethene	ND	ppbv	0.93	1.86		05/15/10 03:16	156-59-2	
trans-1,2-Dichloroethene	ND	ppbv	0.93	1.86		05/15/10 03:16	156-60-5	
1,2-Dichloropropane	ND	ppbv	0.93	1.86		05/15/10 03:16	78-87-5	
cis-1,3-Dichloropropene	ND	ppbv	0.93	1.86		05/15/10 03:16	10061-01-5	
trans-1,3-Dichloropropene	ND	ppbv	0.93	1.86		05/15/10 03:16	10061-02-6	
Dichlorotetrafluoroethane	ND	ppbv	0.93	1.86		05/15/10 03:16	76-14-2	
Ethylbenzene	ND	ppbv	0.93	1.86		05/15/10 03:16	100-41-4	
Hexachloro-1,3-butadiene	ND	ppbv	0.93	1.86		05/15/10 03:16	87-68-3	
Methylene Chloride	6.7	ppbv	0.93	1.86		05/15/10 03:16	75-09-2	
Methyl-tert-butyl ether	ND	ppbv	1.9	1.86		05/15/10 03:16	1634-04-4	
Styrene	ND	ppbv	0.93	1.86		05/15/10 03:16	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ppbv	0.93	1.86		05/15/10 03:16	79-34-5	
Tetrachloroethene	1.1	ppbv	0.93	1.86		05/15/10 03:16	127-18-4	
THC as Gas	2180	ppbv	37.2	1.86		05/15/10 03:16		
Toluene	448	ppbv	298	595.2		05/15/10 23:08	108-88-3	A3
1,2,4-Trichlorobenzene	ND	ppbv	0.93	1.86		05/15/10 03:16	120-82-1	
1,1,1-Trichloroethane	35800	ppbv	4760	9523.2		05/18/10 02:19	71-55-6	A3
1,1,2-Trichloroethane	ND	ppbv	0.93	1.86		05/15/10 03:16	79-00-5	
Trichloroethene	0.97	ppbv	0.93	1.86		05/15/10 03:16	79-01-6	
Trichlorofluoromethane	ND	ppbv	0.93	1.86		05/15/10 03:16	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ppbv	0.93	1.86		05/15/10 03:16	76-13-1	
1,2,4-Trimethylbenzene	1.1	ppbv	0.93	1.86		05/15/10 03:16	95-63-6	
1,3,5-Trimethylbenzene	ND	ppbv	0.93	1.86		05/15/10 03:16	108-67-8	
Vinyl chloride	3.1	ppbv	0.93	1.86		05/15/10 03:16	75-01-4	
m&p-Xylene	ND	ppbv	1.9	1.86		05/15/10 03:16	179601-23-1	
o-Xylene	ND	ppbv	0.93	1.86		05/15/10 03:16	95-47-6	

### ANALYTICAL RESULTS

Project: 02268.10.001 Tecumseh-Grafton  
Pace Project No.: 10127898

Sample: SVE Blower Vent-6 Hours Lab ID: 10127898002 Collected: 04/26/10 21:45 Received: 05/03/10 08:50 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO14 MSV AIR - Ambient</b>		Analytical Method: TO-14 Ambient Air						
Benzene	1.9	ppbv	0.90	1.8		05/15/10 02:44	71-43-2	
Bromomethane	ND	ppbv	0.90	1.8		05/15/10 02:44	74-83-9	
Carbon tetrachloride	ND	ppbv	0.90	1.8		05/15/10 02:44	56-23-5	
Chlorobenzene	ND	ppbv	0.90	1.8		05/15/10 02:44	108-90-7	
Chloroethane	1.2	ppbv	0.90	1.8		05/15/10 02:44	75-00-3	
Chloroform	ND	ppbv	0.90	1.8		05/15/10 02:44	67-66-3	
Chloromethane	1.3	ppbv	0.90	1.8		05/15/10 02:44	74-87-3	
1,2-Dibromoethane (EDB)	ND	ppbv	0.90	1.8		05/15/10 02:44	106-93-4	
1,2-Dichlorobenzene	ND	ppbv	0.90	1.8		05/15/10 02:44	95-50-1	
1,3-Dichlorobenzene	ND	ppbv	0.90	1.8		05/15/10 02:44	541-73-1	
1,4-Dichlorobenzene	ND	ppbv	0.90	1.8		05/15/10 02:44	106-46-7	
Dichlorodifluoromethane	ND	ppbv	0.90	1.8		05/15/10 02:44	75-71-8	
1,1-Dichloroethane	5290	ppbv	968	1935.36		05/18/10 01:07	75-34-3	A3
1,2-Dichloroethane	ND	ppbv	0.90	1.8		05/15/10 02:44	107-06-2	
1,1-Dichloroethene	26000	ppbv	968	1935.36		05/18/10 01:07	75-35-4	A3
cis-1,2-Dichloroethene	ND	ppbv	0.90	1.8		05/15/10 02:44	156-59-2	
trans-1,2-Dichloroethene	ND	ppbv	0.90	1.8		05/15/10 02:44	156-60-5	
1,2-Dichloropropane	ND	ppbv	0.90	1.8		05/15/10 02:44	78-87-5	
cis-1,3-Dichloropropene	ND	ppbv	0.90	1.8		05/15/10 02:44	10061-01-5	
trans-1,3-Dichloropropene	ND	ppbv	0.90	1.8		05/15/10 02:44	10061-02-6	
Dichlorotetrafluoroethane	ND	ppbv	0.90	1.8		05/15/10 02:44	76-14-2	
Ethylbenzene	ND	ppbv	0.90	1.8		05/15/10 02:44	100-41-4	
Hexachloro-1,3-butadiene	ND	ppbv	0.90	1.8		05/15/10 02:44	87-68-3	
Methylene Chloride	102	ppbv	0.90	1.8		05/15/10 02:44	75-09-2	E
Methyl-tert-butyl ether	ND	ppbv	1.8	1.8		05/15/10 02:44	1634-04-4	
Styrene	1.3	ppbv	0.90	1.8		05/15/10 02:44	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ppbv	0.90	1.8		05/15/10 02:44	79-34-5	
Tetrachloroethene	ND	ppbv	0.90	1.8		05/15/10 02:44	127-18-4	
THC as Gas	562	ppbv	36.0	1.8		05/15/10 02:44		
Toluene	5.5	ppbv	0.90	1.8		05/15/10 02:44	108-88-3	
1,2,4-Trichlorobenzene	ND	ppbv	0.90	1.8		05/15/10 02:44	120-82-1	
1,1,1-Trichloroethane	80200	ppbv	968	1935.36		05/18/10 01:07	71-55-6	A3, E
1,1,2-Trichloroethane	ND	ppbv	0.90	1.8		05/15/10 02:44	79-00-5	
Trichloroethene	1.5	ppbv	0.90	1.8		05/15/10 02:44	79-01-6	
Trichlorofluoromethane	ND	ppbv	0.90	1.8		05/15/10 02:44	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ppbv	0.90	1.8		05/15/10 02:44	76-13-1	
1,2,4-Trimethylbenzene	1.4	ppbv	0.90	1.8		05/15/10 02:44	95-63-6	
1,3,5-Trimethylbenzene	ND	ppbv	0.90	1.8		05/15/10 02:44	108-67-8	
Vinyl chloride	ND	ppbv	0.90	1.8		05/15/10 02:44	75-01-4	
m&p-Xylene	2.7	ppbv	1.8	1.8		05/15/10 02:44	179601-23-1	
o-Xylene	0.93	ppbv	0.90	1.8		05/15/10 02:44	95-47-6	

### ANALYTICAL RESULTS

Project: 02268.10.001 Tecumseh-Grafton

Pace Project No.: 10127898

Sample: SVE Blower Vent-20 Hours Lab ID: 10127898003 Collected: 04/27/10 12:15 Received: 05/03/10 08:50 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO14 MSV AIR - Ambient</b>		Analytical Method: TO-14 Ambient Air						
Benzene	3.3	ppbv	0.90	1.8		05/15/10 02:11	71-43-2	
Bromomethane	ND	ppbv	0.90	1.8		05/15/10 02:11	74-83-9	
Carbon tetrachloride	ND	ppbv	0.90	1.8		05/15/10 02:11	56-23-5	
Chlorobenzene	ND	ppbv	0.90	1.8		05/15/10 02:11	108-90-7	
Chloroethane	44.2	ppbv	0.90	1.8		05/15/10 02:11	75-00-3	
Chloroform	1.1	ppbv	0.90	1.8		05/15/10 02:11	67-66-3	
Chloromethane	5.8	ppbv	0.90	1.8		05/15/10 02:11	74-87-3	
1,2-Dibromoethane (EDB)	ND	ppbv	0.90	1.8		05/15/10 02:11	106-93-4	
1,2-Dichlorobenzene	ND	ppbv	0.90	1.8		05/15/10 02:11	95-50-1	
1,3-Dichlorobenzene	ND	ppbv	0.90	1.8		05/15/10 02:11	541-73-1	
1,4-Dichlorobenzene	ND	ppbv	0.90	1.8		05/15/10 02:11	106-46-7	
Dichlorodifluoromethane	0.98	ppbv	0.90	1.8		05/15/10 02:11	75-71-8	
1,1-Dichloroethane	6060	ppbv	576	1152		05/16/10 00:05	75-34-3	A3
1,2-Dichloroethane	ND	ppbv	0.90	1.8		05/15/10 02:11	107-06-2	
1,1-Dichloroethene	31000	ppbv	576	1152		05/16/10 00:05	75-35-4	A3
cis-1,2-Dichloroethene	ND	ppbv	0.90	1.8		05/15/10 02:11	156-59-2	
trans-1,2-Dichloroethene	ND	ppbv	0.90	1.8		05/15/10 02:11	156-60-5	
1,2-Dichloropropane	ND	ppbv	0.90	1.8		05/15/10 02:11	78-87-5	
cis-1,3-Dichloropropene	ND	ppbv	0.90	1.8		05/15/10 02:11	10061-01-5	
trans-1,3-Dichloropropene	ND	ppbv	0.90	1.8		05/15/10 02:11	10061-02-6	
Dichlorotetrafluoroethane	ND	ppbv	0.90	1.8		05/15/10 02:11	76-14-2	
Ethylbenzene	ND	ppbv	0.90	1.8		05/15/10 02:11	100-41-4	
Hexachloro-1,3-butadiene	ND	ppbv	0.90	1.8		05/15/10 02:11	87-68-3	
Methylene Chloride	7.8	ppbv	0.90	1.8		05/15/10 02:11	75-09-2	
Methyl-tert-butyl ether	ND	ppbv	1.8	1.8		05/15/10 02:11	1634-04-4	
Styrene	ND	ppbv	0.90	1.8		05/15/10 02:11	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ppbv	0.90	1.8		05/15/10 02:11	79-34-5	
Tetrachloroethene	0.96	ppbv	0.90	1.8		05/15/10 02:11	127-18-4	
THC as Gas	1920	ppbv	36.0	1.8		05/15/10 02:11		
Toluene	4.2	ppbv	0.90	1.8		05/15/10 02:11	108-88-3	
1,2,4-Trichlorobenzene	ND	ppbv	0.90	1.8		05/15/10 02:11	120-82-1	
1,1,1-Trichloroethane	8460	ppbv	922	1843.2		05/18/10 03:30	71-55-6	A3
1,1,2-Trichloroethane	1.5	ppbv	0.90	1.8		05/15/10 02:11	79-00-5	
Trichloroethene	21.3	ppbv	0.90	1.8		05/15/10 02:11	79-01-6	
Trichlorofluoromethane	ND	ppbv	0.90	1.8		05/15/10 02:11	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ppbv	0.90	1.8		05/15/10 02:11	76-13-1	
1,2,4-Trimethylbenzene	1.0	ppbv	0.90	1.8		05/15/10 02:11	95-63-6	
1,3,5-Trimethylbenzene	ND	ppbv	0.90	1.8		05/15/10 02:11	108-67-8	
Vinyl chloride	4.7	ppbv	0.90	1.8		05/15/10 02:11	75-01-4	
m&p-Xylene	ND	ppbv	1.8	1.8		05/15/10 02:11	179601-23-1	
o-Xylene	ND	ppbv	0.90	1.8		05/15/10 02:11	95-47-6	

### ANALYTICAL RESULTS

Project: 02268.10.001 Tecumseh-Grafton  
Pace Project No.: 10127898

Sample: SVE Blower Vent-43 Hours Lab ID: 10127898004 Collected: 04/28/10 11:48 Received: 05/03/10 08:50 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO14 MSV AIR - Ambient</b>		Analytical Method: TO-14 Ambient Air						
Benzene	2.8	ppbv	0.93	1.86		05/15/10 01:38	71-43-2	
Bromomethane	ND	ppbv	0.93	1.86		05/15/10 01:38	74-83-9	
Carbon tetrachloride	ND	ppbv	0.93	1.86		05/15/10 01:38	56-23-5	
Chlorobenzene	1.8	ppbv	0.93	1.86		05/15/10 01:38	108-90-7	
Chloroethane	22.0	ppbv	0.93	1.86		05/15/10 01:38	75-00-3	
Chloroform	ND	ppbv	0.93	1.86		05/15/10 01:38	67-66-3	
Chloromethane	2.8	ppbv	0.93	1.86		05/15/10 01:38	74-87-3	
1,2-Dibromoethane (EDB)	ND	ppbv	0.93	1.86		05/15/10 01:38	106-93-4	
1,2-Dichlorobenzene	3.0	ppbv	0.93	1.86		05/15/10 01:38	95-50-1	
1,3-Dichlorobenzene	1.3	ppbv	0.93	1.86		05/15/10 01:38	541-73-1	
1,4-Dichlorobenzene	1.9	ppbv	0.93	1.86		05/15/10 01:38	106-46-7	
Dichlorodifluoromethane	ND	ppbv	0.93	1.86		05/15/10 01:38	75-71-8	
1,1-Dichloroethane	2040	ppbv	595	1190.4		05/15/10 23:37	75-34-3	A3
1,2-Dichloroethane	ND	ppbv	0.93	1.86		05/15/10 01:38	107-06-2	
1,1-Dichloroethene	8500	ppbv	595	1190.4		05/15/10 23:37	75-35-4	A3
cis-1,2-Dichloroethene	1.5	ppbv	0.93	1.86		05/15/10 01:38	156-59-2	
trans-1,2-Dichloroethene	ND	ppbv	0.93	1.86		05/15/10 01:38	156-60-5	
1,2-Dichloropropane	ND	ppbv	0.93	1.86		05/15/10 01:38	78-87-5	
cis-1,3-Dichloropropene	ND	ppbv	0.93	1.86		05/15/10 01:38	10061-01-5	
trans-1,3-Dichloropropene	ND	ppbv	0.93	1.86		05/15/10 01:38	10061-02-6	
Dichlorotetrafluoroethane	ND	ppbv	0.93	1.86		05/15/10 01:38	76-14-2	
Ethylbenzene	ND	ppbv	0.93	1.86		05/15/10 01:38	100-41-4	
Hexachloro-1,3-butadiene	ND	ppbv	0.93	1.86		05/15/10 01:38	87-68-3	
Methylene Chloride	43.3	ppbv	0.93	1.86		05/15/10 01:38	75-09-2	
Methyl-tert-butyl ether	ND	ppbv	1.9	1.86		05/15/10 01:38	1634-04-4	
Styrene	ND	ppbv	0.93	1.86		05/15/10 01:38	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ppbv	0.93	1.86		05/15/10 01:38	79-34-5	
Tetrachloroethene	0.99	ppbv	0.93	1.86		05/15/10 01:38	127-18-4	
THC as Gas	1960	ppbv	37.2	1.86		05/15/10 01:38		
Toluene	119	ppbv	0.93	1.86		05/15/10 01:38	108-88-3	E
1,2,4-Trichlorobenzene	ND	ppbv	0.93	1.86		05/15/10 01:38	120-82-1	
1,1,1-Trichloroethane	23600	ppbv	595	1190.4		05/15/10 23:37	71-55-6	A3
1,1,2-Trichloroethane	2.8	ppbv	0.93	1.86		05/15/10 01:38	79-00-5	
Trichloroethene	14.8	ppbv	0.93	1.86		05/15/10 01:38	79-01-6	
Trichlorofluoromethane	ND	ppbv	0.93	1.86		05/15/10 01:38	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ppbv	0.93	1.86		05/15/10 01:38	76-13-1	
1,2,4-Trimethylbenzene	1.1	ppbv	0.93	1.86		05/15/10 01:38	95-63-6	
1,3,5-Trimethylbenzene	ND	ppbv	0.93	1.86		05/15/10 01:38	108-67-8	
Vinyl chloride	3.7	ppbv	0.93	1.86		05/15/10 01:38	75-01-4	
m&p-Xylene	1.9	ppbv	1.9	1.86		05/15/10 01:38	179601-23-1	
o-Xylene	ND	ppbv	0.93	1.86		05/15/10 01:38	95-47-6	

**QUALITY CONTROL DATA**

Project: 02268.10.001 Tecumseh-Grafton  
Pace Project No.: 10127898

QC Batch: AIR/10217 Analysis Method: TO-14 Ambient Air  
QC Batch Method: TO-14 Ambient Air Analysis Description: TO14 MSV AIR - AMBIENT  
Associated Lab Samples: 10127898001, 10127898002, 10127898003, 10127898004

METHOD BLANK: 790510 Matrix: Air  
Associated Lab Samples: 10127898001, 10127898002, 10127898003, 10127898004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ppbv	ND	0.50	05/14/10 16:32	
1,1,2,2-Tetrachloroethane	ppbv	ND	0.50	05/14/10 16:32	
1,1,2-Trichloroethane	ppbv	ND	0.50	05/14/10 16:32	
1,1,2-Trichlorotrifluoroethane	ppbv	ND	0.50	05/14/10 16:32	
1,1-Dichloroethane	ppbv	ND	0.50	05/14/10 16:32	
1,1-Dichloroethene	ppbv	ND	0.50	05/14/10 16:32	
1,2,4-Trichlorobenzene	ppbv	ND	0.50	05/14/10 16:32	
1,2,4-Trimethylbenzene	ppbv	ND	0.50	05/14/10 16:32	
1,2-Dibromoethane (EDB)	ppbv	ND	0.50	05/14/10 16:32	
1,2-Dichlorobenzene	ppbv	ND	0.50	05/14/10 16:32	
1,2-Dichloroethane	ppbv	ND	0.50	05/14/10 16:32	
1,2-Dichloropropane	ppbv	ND	0.50	05/14/10 16:32	
1,3,5-Trimethylbenzene	ppbv	ND	0.50	05/14/10 16:32	
1,3-Dichlorobenzene	ppbv	ND	0.50	05/14/10 16:32	
1,4-Dichlorobenzene	ppbv	ND	0.50	05/14/10 16:32	
Benzene	ppbv	ND	0.50	05/14/10 16:32	
Bromomethane	ppbv	ND	0.50	05/14/10 16:32	
Carbon tetrachloride	ppbv	ND	0.50	05/14/10 16:32	
Chlorobenzene	ppbv	ND	0.50	05/14/10 16:32	
Chloroethane	ppbv	ND	0.50	05/14/10 16:32	
Chloroform	ppbv	ND	0.50	05/14/10 16:32	
Chloromethane	ppbv	ND	0.50	05/14/10 16:32	
cis-1,2-Dichloroethene	ppbv	ND	0.50	05/14/10 16:32	
cis-1,3-Dichloropropene	ppbv	ND	0.50	05/14/10 16:32	
Dichlorodifluoromethane	ppbv	ND	0.50	05/14/10 16:32	
Dichlorotetrafluoroethane	ppbv	ND	0.50	05/14/10 16:32	
Ethylbenzene	ppbv	ND	0.50	05/14/10 16:32	
Hexachloro-1,3-butadiene	ppbv	ND	0.50	05/14/10 16:32	
m&p-Xylene	ppbv	ND	1.0	05/14/10 16:32	
Methyl-tert-butyl ether	ppbv	ND	1.0	05/14/10 16:32	
Methylene Chloride	ppbv	ND	0.50	05/14/10 16:32	
o-Xylene	ppbv	ND	0.50	05/14/10 16:32	
Styrene	ppbv	ND	0.50	05/14/10 16:32	
Tetrachloroethane	ppbv	ND	0.50	05/14/10 16:32	
THC as Gas	ppbv	ND	20.0	05/14/10 16:32	
Toluene	ppbv	ND	0.50	05/14/10 16:32	
trans-1,2-Dichloroethene	ppbv	ND	0.50	05/14/10 16:32	
trans-1,3-Dichloropropene	ppbv	ND	0.50	05/14/10 16:32	
Trichloroethene	ppbv	ND	0.50	05/14/10 16:32	
Trichlorofluoromethane	ppbv	ND	0.50	05/14/10 16:32	
Vinyl chloride	ppbv	ND	0.50	05/14/10 16:32	

Date: 05/18/2010 02:28 PM

**REPORT OF LABORATORY ANALYSIS**

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### QUALITY CONTROL DATA

Project: 02268.10.001 Tecumseh-Grafton

Pace Project No.: 10127898

LABORATORY CONTROL SAMPLE: 790511

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ppbv	10	9.9	99	67-125	
1,1,1,2-Tetrachloroethane	ppbv	10	10.9	109	64-129	
1,1,2-Trichloroethane	ppbv	10	10.9	109	66-125	
1,1,2-Trichlorotrifluoroethane	ppbv	10	10.4	104	61-129	
1,1-Dichloroethane	ppbv	10	10.4	104	61-125	
1,1-Dichloroethene	ppbv	10	10.1	101	59-127	
1,2,4-Trichlorobenzene	ppbv	10	7.7	77	30-150	
1,2,4-Trimethylbenzene	ppbv	10	8.2	82	59-147	
1,2-Dibromoethane (EDB)	ppbv	10	10.4	104	65-136	
1,2-Dichlorobenzene	ppbv	10	10.3	103	66-140	
1,2-Dichloroethane	ppbv	10	10.1	101	63-125	
1,2-Dichloropropane	ppbv	10	10.9	109	69-125	
1,3,5-Trimethylbenzene	ppbv	10	11.1	111	54-142	
1,3-Dichlorobenzene	ppbv	10	10.3	103	69-141	
1,4-Dichlorobenzene	ppbv	10	9.3	93	66-143	
Benzene	ppbv	10	10.3	103	59-125	
Bromomethane	ppbv	10	9.4	94	50-129	
Carbon tetrachloride	ppbv	10	10.6	106	54-131	
Chlorobenzene	ppbv	10	9.8	98	69-136	
Chloroethane	ppbv	10	9.7	97	64-131	
Chloroform	ppbv	10	9.7	97	50-125	
Chloromethane	ppbv	10	10.2	102	64-125	
cis-1,2-Dichloroethene	ppbv	10	10	100	62-125	
cis-1,3-Dichloropropene	ppbv	10	10.6	106	62-136	
Dichlorodifluoromethane	ppbv	10	9.8	98	60-125	
Dichlorotetrafluoroethane	ppbv	10	10.1	101	62-125	
Ethylbenzene	ppbv	10	10.5	105	65-137	
Hexachloro-1,3-butadiene	ppbv	10	7.0	70	50-150	
m&p-Xylene	ppbv	20	22.9	115	67-136	
Methyl-tert-butyl ether	ppbv	10	10.1	101	70-130	
Methylene Chloride	ppbv	10	9.3	93	60-130	
o-Xylene	ppbv	10	10.8	108	65-135	
Styrene	ppbv	10	10.0	100	66-140	
Tetrachloroethene	ppbv	10	9.0	90	68-127	
THC as Gas	ppbv	700	604	86	70-130	
Toluene	ppbv	10	10.7	107	66-125	
trans-1,2-Dichloroethene	ppbv	10	9.9	99	70-130	
trans-1,3-Dichloropropene	ppbv	10	10.5	105	59-145	
Trichloroethene	ppbv	10	10.1	101	75-144	
Trichlorofluoromethane	ppbv	10	9.6	96	63-141	
Vinyl chloride	ppbv	10	9.8	98	67-130	



## QUALIFIERS

Project: 02268.10.001 Tecumseh-Grafton  
Pace Project No.: 10127898

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

### ANALYTE QUALIFIERS

- A3 The sample was analyzed by serial dilution.
- E Analyte concentration exceeded the calibration range. The reported result is estimated.

**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 02268.10.001 Tecumseh-Grafton  
Pace Project No.: 10127898

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10127898001	SVE Blower Vent-1 Hour	TO-14 Ambient Air	AIR/10217		
10127898002	SVE Blower Vent-6 Hours	TO-14 Ambient Air	AIR/10217		
10127898003	SVE Blower Vent-20 Hours	TO-14 Ambient Air	AIR/10217		
10127898004	SVE Blower Vent-43 Hours	TO-14 Ambient Air	AIR/10217		



**AIR Sample Condition Upon Receipt**



Client Name: RMT Project # 10127898

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace Other \_\_\_\_\_

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other \_\_\_\_\_

Tracking #: 1278V 8A8 01 4385 6175  
4404 4368

Comments:

Date and Initials of person examining contents: 5.3.10

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Media:	<u>AIR (CAN)</u>	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.

Samples Received: 4 CANS, 4 FC'S

Canisters		Flow Controllers		Stand Alone G		Tedlar Bags	
Sample Number	Can ID	Sample Number	Can ID	Sample Number	Can ID	Sample Number	Can ID
<u>1 HR</u>	<u>0896</u>		<u>PA24</u>				
<u>6 HRS</u>	<u>1160</u>		<u>PA39</u>				
<u>20 HRS</u>	<u>1167</u>		<u>PA44</u>				
<u>42 HRS</u>	<u>1229</u>		<u>PA41</u>				

Client Notification/ Resolution: \_\_\_\_\_ Field Data Required? Y / N

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

Project Manager Review: [Signature]

Date: 05/03/10

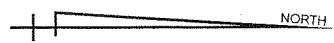
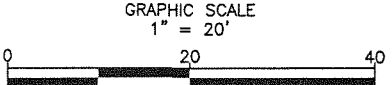
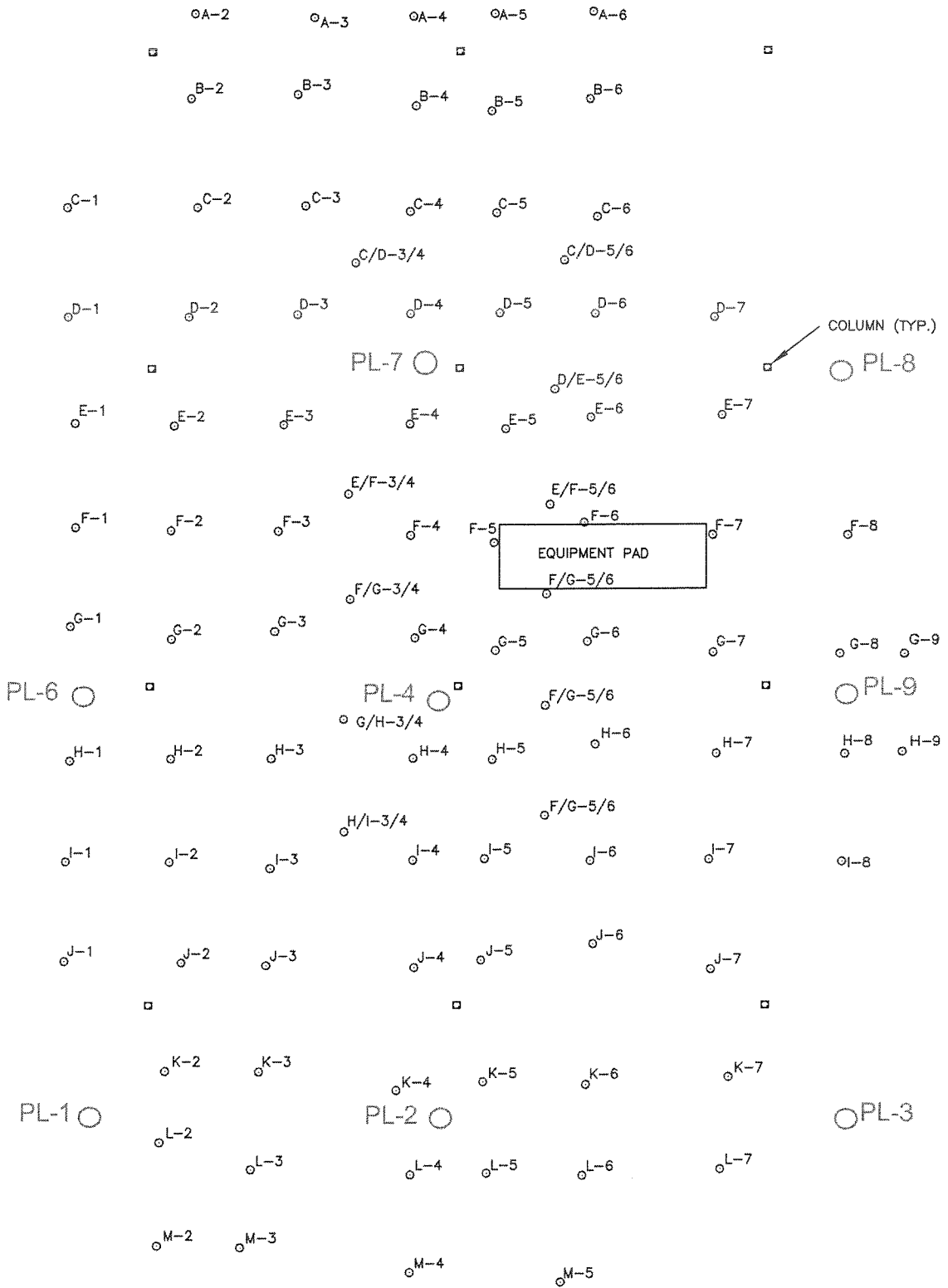
Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)  
A106 Rev.01 (22May2009)

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# Appendix B

## Redox-Tech, LLC's Injection Summary

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DRAWN BY: MDM  
 SCALE: 1" = 20'  
 DATE: 5-11-2010  
 SHEET NUMBER:  
 2 of 2

TECUMSEH SITE  
 GRAFTON, WISCONSIN  
 INJECTION LOCATIONS

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# REDOX TECH, LLC



*"Providing Innovative In Situ Soil and Groundwater Treatment"*

## Field Summary Report for the Former Tecumseh Facility in Grafton, WI

<i>Prepared by Dave McCoy on May 10, 2010</i>			
<b>Field Contractor</b>	Redox Tech, LLC	<b>Client</b>	RMT
<b>Project Lead</b>	Dave McCoy	<b>Project Lead</b>	Alyssa Sellwood
<b>Phone Number</b>	630-705-0390	<b>Phone Number</b>	608-662-5480
<b>Email Address</b>	<a href="mailto:mccoy@redox-tech.com">mccoy@redox-tech.com</a>	<b>Email Address</b>	<a href="mailto:Alyssa.Sellwood@RMTinc.com">Alyssa.Sellwood@RMTinc.com</a>
<b>Start Date</b>	5/3/10	<b>End Date</b>	5/7/10
<b>Chemical</b>	NaOH 25%	<b>Total</b>	7,500 gallons solution
<b>Concentration</b>	Each location received 30 gallons of 25% Sodium Hydroxide and 45 gallons water in solution.		
<b>Injection Points</b>	100 points		
<b>Injection Intervals</b>	All injection locations were installed using black iron pipe. 50 points were installed with 3/4" pipe and 50 locations were installed with 1/2" pipe. All locations were installed at 3.5 feet bgs. These points will be used for all 3 injection events.		

Injection logs and an injection summary table are provided in the attached Appendix A, giving details of each injection point. A point location map is also attached.





10/20/2010  
Project: Grafton, WI  
Summary Report

**APPENDIX A:**  
**INJECTION SUMMARY AND LOGS**

NAOH Injection Summary Data Table for the Former Tecumseh Facility in Grafton, WI								
Injection Point	Date	Start Time	End Time	Depth Interval (ft.)	Flow Rate (gpm)	Injection Pressure (psi)	Amount Injected (gal.)	Chemical Injected (gal)
G9	5/5/2010	8:48	9:02	3.5	5.4	20	75	30
H9	5/5/2010	9:02	9:09	3.5	10.7	25	75	30
F8	5/5/2010	9:12	9:21	3.5	8.3	30	75	30
G8	5/5/2010	9:22	9:32	3.5	7.5	30	75	30
H8	5/5/2010	9:34	9:44	3.5	7.5	30	75	30
I8	5/5/2010	9:46	9:54	3.5	9.4	30	75	30
J8	5/5/2010	10:24	10:37	3.5	5.8	30	75	30
7D	5/5/2010	10:39	10:48	3.5	8.3	30	75	30
E7	5/5/2010	10:49	10:59	3.5	7.5	30	75	30
F7	5/5/2010	11:00	11:10	3.5	7.5	30	75	30
G7	5/5/2010	11:12	11:18	3.5	12.5	30	75	30
H7	5/5/2010	11:20	11:29	3.5	8.3	30	75	30
I7	5/5/2010	12:58	13:08	3.5	7.5	30	75	30
J7	5/5/2010	13:10	13:21	3.5	6.8	30	75	30
K7	5/5/2010	13:22	13:33	3.5	6.8	30/40	75	30
L7	5/5/2010	13:34	13:43	3.5	8.3	40	75	30
L6	5/5/2010	13:45	13:53	3.5	9.4	40	75	30
K6	5/5/2010	13:55	14:02	3.5	10.7	40	75	30
J6	5/5/2010	14:30	14:39	3.5	8.3	40	75	30
I6	5/5/2010	14:41	14:49	3.5	9.4	40	75	30
H/I-5/6	5/5/2010	14:50	15:00	3.5	7.5	40	75	30
H6	5/5/2010	15:01	15:11	3.5	7.5	40	75	30
G/H-5/6	5/5/2010	15:12	15:22	3.5	7.5	40	75	30
G6	5/5/2010	15:23	15:31	3.5	9.4	40	75	30
F/G-5/6	5/5/2010	15:56	16:05	3.5	8.3	40	75	30
F6	5/5/2010	16:06	16:17	3.5	6.8	40	75	30
E/F-5/6	5/5/2010	16:18	16:29	3.5	6.8	40	75	30
E6	5/5/2010	16:29	16:38	3.5	8.3	40	75	30
D/E-5/6	5/5/2010	16:38	16:48	3.5	7.5	40	75	30
D6	5/5/2010	16:48	16:58	3.5	7.5	40	75	30
C6	5/5/2010	17:21	17:34	3.5	5.8	40	75	30
B6	5/5/2010	17:34	17:43	3.5	8.3	40	75	30
A6	5/5/2010	17:45	17:54	3.5	8.3	40	75	30
A5	5/5/2010	17:55	18:03	3.5	9.4	40	75	30
B5	5/5/2010	18:03	18:13	3.5	7.5	40	75	30
C5	5/5/2010	18:12	18:25	3.5	5.8	40	75	30
C/D-5/6	5/6/2010	8:05	8:14	3.5	8.3	40	75	30
E5	5/6/2010	8:16	8:25	3.5	8.3	40	75	30
D5	5/6/2010	8:24	8:38	3.5	5.4	40	75	30
F5	5/6/2010	8:39	8:50	3.5	6.8	40	75	30
G5	5/6/2010	8:52	8:59	3.5	10.7	40	75	30
H5	5/6/2010	9:00	9:09	3.5	8.3	40	75	30
I5	5/6/2010	9:30	9:43	3.5	5.8	40	75	30
J5	5/6/2010	9:44	9:54	3.5	7.5	40	75	30
K5	5/6/2010	9:56	10:08	3.5	6.3	40	75	30
L5	5/6/2010	10:08	10:24	3.5	4.7	40	75	30
M5	5/6/2010	10:25	10:34	3.5	8.3	40	75	30

NAOH Injection Summary Data Table for the Former Tecumseh Facility in Grafton, WI								
Injection Point	Date	Start Time	End Time	Depth Interval (ft.)	Flow Rate (gpm)	Injection Pressure (psi)	Amount Injected (gal.)	Chemical Injected (gal)
E4	5/6/2010	10:36	10:43	3.5	10.7	40	75	30
D4	5/6/2010	11:08	11:20	3.5	6.2	40	75	30
C4	5/6/2010	11:20	11:31	3.5	6.8	40	75	30
B4	5/6/2010	11:32	11:45	3.5	5.8	40	75	30
A4	5/6/2010	11:46	11:57	3.5	6.8	40	75	30
C3	5/6/2010	11:59	12:11	3.5	6.2	40	75	30
C/D-3/4	5/6/2010	12:11	12:22	3.5	6.8	40	75	30
B3	5/6/2010	13:28	13:36	3.5	9.4	40/50	75	30
A3	5/6/2010	13:37	13:46	3.5	8.3	50	75	30
A2	5/6/2010	13:46	13:53	3.5	10.7	50	75	30
B2	5/6/2010	13:54	14:03	3.5	8.3	50	75	30
C2	5/6/2010	14:04	14:12	3.5	9.4	50	75	30
D2	5/6/2010	14:13	14:20	3.5	10.7	50	75	30
C1	5/6/2010	14:42	14:49	3.5	10.7	50	75	30
D1	5/6/2010	14:50	14:59	3.5	8.3	50	75	30
E1	5/6/2010	15:00	15:08	3.5	9.4	50	75	30
E2	5/6/2010	15:08	15:16	3.5	9.4	50	75	30
E3	5/6/2010	15:17	15:25	3.5	9.4	50	75	30
D3	5/6/2010	15:26	15:34	3.5	9.4	50	75	30
F1	5/6/2010	15:53	16:01	3.5	9.4	50	75	30
F2	5/6/2010	16:02	16:09	3.5	10.7	50	75	30
F3	5/6/2010	16:09	16:19	3.5	7.5	50	75	30
D/E-3/4	5/6/2010	16:20	16:29	3.5	8.3	50	75	30
F4	5/6/2010	16:30	16:37	3.5	10.7	50	75	30
E/F-3/4	5/6/2010	16:38	16:46	3.5	9.4	50	75	30
G1	5/7/2010	7:58	8:08	3.5	7.5	50	75	30
G2	5/7/2010	8:08	8:18	3.5	7.5	50	75	30
G3	5/7/2010	8:18	8:27	3.5	8.3	50	75	30
F/G-3/4	5/7/2010	8:28	8:37	3.5	8.3	50	75	30
G4	5/7/2010	8:37	8:45	3.5	9.4	50	75	30
G/H-3/4	5/7/2010	8:46	8:51	3.5	15.0	50	75	30
H1	5/7/2010	9:22	9:31	3.5	8.3	50	75	30
I1	5/7/2010	9:32	9:41	3.5	8.3	50	75	30
J1	5/7/2010	9:42	9:50	3.5	9.4	50	75	30
I2	5/7/2010	9:52	10:00	3.5	9.4	50	75	30
H2	5/7/2010	10:01	10:08	3.5	10.7	50	75	30
J2	5/7/2010	10:09	10:18	3.5	8.3	50	75	30
M2	5/7/2010	10:36	10:42	3.5	12.5	50	75	30
L2	5/7/2010	10:42	10:52	3.5	7.5	50	75	30
K2	5/7/2010	10:53	11:01	3.5	9.4	50	75	30
M3	5/7/2010	11:02	11:12	3.5	7.5	50	75	30
L3	5/7/2010	11:13	11:23	3.5	7.5	50	75	30
K3	5/7/2010	11:24	11:33	3.5	8.3	50	75	30
M4	5/7/2010	11:49	11:57	3.5	9.4	50	75	30
L4	5/7/2010	11:58	12:07	3.5	8.3	50	75	30
K4	5/7/2010	12:08	12:19	3.5	6.8	50	75	30
J4	5/7/2010	12:19	12:32	3.5	5.8	50	75	30

NAOH Injection Summary Data Table for the Former Tecumseh Facility in Grafton, WI								
Injection Point	Date	Start Time	End Time	Depth Interval (ft.)	Flow Rate (gpm)	Injection Pressure (psi)	Amount Injected (gal.)	Chemical Injected (gal)
J3	5/7/2010	12:33	12:42	3.5	8.3	50	75	30
I3	5/7/2010	12:43	12:52	3.5	8.3	50	75	30
I4	5/7/2010	13:05	13:17	3.5	6.3	50	75	30
H/I-3/4	5/7/2010	13:18	13:28	3.5	7.5	50	75	30
H3	5/7/2010	13:03	13:39	3.5	2.1	50	75	30
H4	5/7/2010	13:40	13:50	3.5	7.5	50	75	30
<b>Totals</b>							<b>7500</b>	<b>3000</b>

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# REDOX TECH, LLC



*"Providing Innovative In Situ Soil and Groundwater Treatment"*

## Field Summary Report for the Former Tecumseh Facility in Grafton, WI

*Prepared by Dave McCoy on June 9, 2010*

<b>Field Contractor</b>	Redox Tech, LLC	<b>Client</b>	RMT
<b>Project Lead</b>	Dave McCoy	<b>Project Lead</b>	Alyssa Sellwood
<b>Phone Number</b>	630-705-0390	<b>Phone Number</b>	608-662-5480
<b>Email Address</b>	<a href="mailto:mccoy@redox-tech.com">mccoy@redox-tech.com</a>	<b>Email Address</b>	<a href="mailto:Alyssa.Sellwood@RMTinc.com">Alyssa.Sellwood@RMTinc.com</a>
<b>Start Date</b>	6/1/10	<b>End Date</b>	6/4/10
<b>Chemicals</b>	Sodium Persulfate NaOH 25 wt%	<b>Total</b>	9,900 gallons solution
<b>Concentration</b>	Each location received 100 gallons of sodium persulfate solution. The concentration per point was 254.56 lbs sodium persulfate and 0.5 gallons 25 wt% Sodium Hydroxide		
<b>Injection Points</b>	100 points		
<b>Injection Intervals</b>	All injection locations were installed using black iron pipe. 50 points were installed with 3/4" pipe and 50 locations were installed with 1/2" pipe. All locations were installed at 3.5 feet bgs. These points will be used for all 3 injection events.		

The injection logs and an injection summary table are provided in the attached Appendix A, giving details of each injection point. A point location map is also attached.

10/20/2010  
Project: Grafton, WI  
Summary Report

**APPENDIX A:**  
**INJECTION SUMMARY AND LOGS**

Persulfate Injection Summary Data Table for Grafton, WI Persulfate Injections								
Injection Point	Date	Start Time	End Time	Depth Interval (ft.)	Flow Rate (gpm)	Injection Pressure (psi)	Amount Injected (gal.)	Persulfate Injected (lbs)
G9	6/1/2010	12:54	13:02	3.5	12.5	50	100	254.56
H9	6/1/2010	13:03	13:12	3.5	11.1	50	100	254.56
F8	6/1/2010	13:13	13:32	3.5	5.3	30	100	254.56
G8	6/1/2010	13:33	13:49	3.5	6.3	60	100	254.56
H8	6/1/2010	13:53	14:00	3.5	14.3	60	100	254.56
I8	6/1/2010	14:26	14:34	3.5	12.5	60	100	254.56
J8	6/1/2010	14:34	14:43	3.5	11.1	60	100	254.56
L7	6/1/2010	14:45	14:54	3.5	11.1	60	100	254.56
K7	6/1/2010	14:55	15:04	3.5	11.1	60	100	254.56
J7	6/1/2010	15:05	15:15	3.5	10.0	60	100	254.56
I7	6/1/2010	15:43	15:54	3.5	9.1	60	100	254.56
H7	6/1/2010	15:56	16:18	3.5	4.5	60	100	254.56
G7	6/1/2010	16:18	16:30	3.5	8.3	60	100	254.56
F7	6/1/2010	16:30	16:47	3.5	5.9	60	100	254.56
E7	6/1/2010	16:48	17:09	3.5	4.8	60	100	254.56
D7	6/1/2010	17:33	17:41	3.5	12.5	60	100	254.56
A6	6/1/2010	17:42	17:57	3.5	6.7	60	100	254.56
B6	6/1/2010	17:58	18:08	3.5	10.0	60	100	254.56
C6	6/1/2010	18:09	18:22	3.5	7.7	60	100	254.56
D6	6/1/2010	18:23	18:38	3.5	6.7	60	100	254.56
E6	6/2/2010	8:18	8:29	3.5	9.1	60	100	254.56
F6	6/2/2010	8:30	8:41	3.5	9.1	60	100	254.56
G6	6/2/2010	8:42	8:51	3.5	11.1	60	100	254.56
D/E-5/6	6/2/2010	8:52	9:02	3.5	10.0	60	100	254.56
E/F-5/6	6/2/2010	9:02	9:08	3.5	16.7	60	100	254.56
F/G-5/6	6/2/2010	10:08	10:17	3.5	11.1	60	100	254.56
G/H-5/6	6/2/2010	10:18	10:30	3.5	8.3	60	100	254.56
H6	6/2/2010	10:38	10:48	3.5	10.0	60	100	254.56
H/I-5/6	6/2/2010	10:49	10:59	3.5	10.0	60	100	254.56
I6	6/2/2010	11:00	11:08	3.5	12.5	60	100	254.56
J6	6/2/2010	11:35	11:42	3.5	14.3	60	100	254.56
K6	6/2/2010	11:44	11:54	3.5	10.0	60	100	254.56
L6	6/2/2010	11:56	12:02	3.5	16.7	60	100	254.56
L5	6/2/2010	12:04	12:11	3.5	14.3	60	100	254.56
K5	6/2/2010	12:13	12:22	3.5	11.1	60	100	254.56
J5	6/2/2010	12:45	12:51	3.5	16.7	60	100	254.56
I5	6/2/2010	12:52	13:02	3.5	10.0	60	100	254.56
H5	6/2/2010	13:03	13:13	3.5	10.0	60	100	254.56
G5	6/2/2010	13:14	13:22	3.5	12.5	60	100	254.56
F5	6/2/2010	13:22	13:30	3.5	12.5	60	100	254.56
E5	6/2/2010	13:14	13:22	3.5	12.5	60	100	254.56
D5	6/2/2010	13:22	13:30	3.5	12.5	60	100	254.56
C5	6/2/2010	13:59	14:09	3.5	10.0	60	100	254.56
B5	6/2/2010	14:32	14:41	3.5	11.1	60	100	254.56
A5	6/2/2010	14:42	14:51	3.5	11.1	60	100	254.56
B4	6/2/2010	15:16	15:24	3.5	12.5	60	100	254.56
C4	6/2/2010	15:25	15:35	3.5	10.0	60	100	254.56

Persulfate Injection Summary Data Table for Grafton, WI Persulfate Injections								
Injection Point	Date	Start Time	End Time	Depth Interval (ft.)	Flow Rate (gpm)	Injection Pressure (psi)	Amount Injected (gal.)	Persulfate Injected (lbs)
D4	6/2/2010	15:36	15:46	3.5	10.0	60	100	254.56
E4	6/2/2010	15:49	15:57	3.5	12.5	60	100	254.56
A4	6/2/2010	15:58	16:09	3.5	9.1	60	100	254.56
C/D-5/6	6/2/2010	16:29	16:38	3.5	11.1	60	100	254.56
A3	6/2/2010	16:39	16:48	3.5	11.1	60	100	254.56
B3	6/2/2010	16:49	17:00	3.5	9.1	60	100	254.56
C3	6/2/2010	17:01	17:12	3.5	9.1	60	100	254.56
C/D-3/4	6/2/2010	17:13	17:21	3.5	12.5	60	100	254.56
A2	6/3/2010	8:13	8:29	3.5	6.3	60	100	254.56
C1	6/3/2010	8:30	8:42	3.5	8.3	60	100	254.56
D1	6/3/2010	8:45	8:53	3.5	12.5	40	100	254.56
B2	6/3/2010	8:59	9:07	3.5	12.5	60	100	254.56
D2	6/3/2010	9:09	9:20	3.5	9.1	60	100	254.56
E1	6/3/2010	9:48	9:59	3.5	9.1	40	100	254.56
E2	6/3/2010	10:00	10:11	3.5	9.1	40	100	254.56
D3	6/3/2010	10:12	10:23	3.5	9.1	60	100	254.56
D/E-3/4	6/3/2010	10:24	10:35	3.5	9.1	60	100	254.56
E3	6/3/2010	10:36	10:45	3.5	11.1	60	100	254.56
F1	6/3/2010	11:10	11:25	3.5	6.7	40	100	254.56
F2	6/3/2010	11:26	11:39	3.5	7.7	40	100	254.56
F3	6/3/2010	11:39	11:51	3.5	8.3	40	100	254.56
E/F-3/4	6/3/2010	11:52	12:02	3.5	10.0	40	100	254.56
F4	6/3/2010	12:02	12:12	3.5	10.0	40	100	254.56
M2	6/3/2010	12:40	12:47	3.5	14.3	40	100	254.56
L2	6/3/2010	12:49	12:59	3.5	10.0	40	100	254.56
K2	6/3/2010	13:01	13:11	3.5	10.0	40	100	254.56
J2	6/3/2010	13:12	13:22	3.5	10.0	40	100	254.56
J1	6/3/2010	13:23	13:31	3.5	12.5	40	100	254.56
I1	6/3/2010	13:56	14:04	3.5	12.5	55	100	254.56
H1	6/3/2010	14:05	14:14	3.5	11.1	55	100	254.56
G1	6/3/2010	14:15	14:24	3.5	11.1	55	100	254.56
G2	6/3/2010	14:25	14:33	3.5	12.5	55	100	254.56
H2	6/3/2010	14:34	14:42	3.5	12.5	55	100	254.56
M4	6/3/2010	15:05	15:12	3.5	14.3	60	100	254.56
M5	6/3/2010	15:13	15:24	3.5	9.1	60	100	254.56
M3	6/3/2010	15:25	15:34	3.5	11.1	60	100	254.56
L4	6/3/2010	15:35	15:44	3.5	11.1	60	100	254.56
L3	6/3/2010	15:45	15:54	3.5	11.1	60	100	254.56
K4	6/3/2010	16:21	16:31	3.5	10.0	55	100	254.56
K3	6/3/2010	16:31	16:43	3.5	8.3	55	100	254.56
J3	6/3/2010	16:44	16:55	3.5	9.1	60	100	254.56
J4	6/3/2010	16:55	17:09	3.5	7.1	60	100	254.56
I2	6/3/2010	17:09	17:17	3.5	12.5	60	100	254.56
I3	6/4/2010	8:23	8:32	3.5	11.1	60	100	254.56
I4	6/4/2010	8:32	8:43	3.5	9.1	60	100	254.56
G3	6/4/2010	8:43	8:54	3.5	9.1	60	100	254.56
F/G-3/4	6/4/2010	8:55	9:09	3.5	7.1	60	100	254.56
H3	6/4/2010	9:04	9:14	3.5	10.0	60	100	254.56



Persulfate Injection Summary Data Table for Grafton, WI Persulfate Injections								
Injection Point	Date	Start Time	End Time	Depth Interval (ft.)	Flow Rate (gpm)	Injection Pressure (psi)	Amount Injected (gal.)	Persulfate Injected (lbs)
C3	6/4/2010	--	--	3.5	0.0	20	0	0
H4	6/4/2010	9:40	9:51	3.5	9.1	60	100	318.32
G/H-3/4	6/4/2010	9:52	10:05	3.5	7.7	60	100	318.32
H/I-3/4	6/4/2010	10:05	10:17	3.5	8.3	60	100	318.32
G4	6/4/2010	10:17	10:30	3.5	7.7	60	100	318.32
<b>Totals</b>							<b>9900</b>	<b>25456</b>

11

# REDOX TECH, LLC



*"Providing Innovative In Situ Soil and Groundwater Treatment"*

## Field Summary Report for the Former Tecumseh Facility in Grafton, WI

<i>Prepared by Dave McCoy on June 21, 2010</i>			
<b>Field Contractor</b>	Redox Tech, LLC	<b>Client</b>	RMT
<b>Project Lead</b>	Dave McCoy	<b>Project Lead</b>	Alyssa Sellwood
<b>Phone Number</b>	630-705-0390	<b>Phone Number</b>	608-662-5480
<b>Email Address</b>	<a href="mailto:mccoy@redox-tech.com">mccoy@redox-tech.com</a>	<b>Email Address</b>	<a href="mailto:Alyssa.Sellwood@RMTinc.com">Alyssa.Sellwood@RMTinc.com</a>
<b>Start Date</b>	6/14/10	<b>End Date</b>	6/18/10
<b>Chemicals</b>	Steam	<b>Total</b>	7,436 gallons steam
<b>Concentration</b>	Approximately 75 gallons of steam was injected in each location		
<b>Injection Points</b>	100 points		
<b>Injection Intervals</b>	All injection locations were installed using black iron pipe. 50 points were installed with 3/4" pipe and 50 locations were installed with 1/2" pipe. All locations were installed at 3.5 feet bgs. These points will be used for all 3 injection events.		

The Steam Summary Table is provided in the attached Appendix A, giving details of each injection point. A point location map is also attached.

10/20/2010  
Project: Grafton, WI  
Summary Report

**APPENDIX A:**  
**STEAM INJECTION TABLE**

Steam Injection Summary Data Table for Grafton, WI Steam Injections						
Injection Point	Date	Start Time	End Time	Totalizer Start	Totalizer End	Amount Injected (gal.)
A2	6/16/2010	12:42	13:16	76,210	76,285	75
A3	6/16/2010	13:18	13:54	76,285	76,360	75
A4	6/16/2010	10:18	10:44	76,065	76,149	84
A5	6/15/2010	9:07	9:40	76,075	76,149	74
A6	6/14/2010	15:54	16:25	74,859	74,931	72
B2	6/16/2010	14:36	15:12	76,432	76,507	75
B3	6/16/2010	15:15	15:52	76,507	76,583	76
B4	6/16/2010	10:46	11:20	76,140	76,210	70
B5	6/15/2010	8:33	9:05	75,005	75,075	70
B6	6/14/2010	16:27	16:59	74,931	75,005	74
C1	6/17/2010	9:22	9:58	76,745	76,820	75
C2	6/17/2010	9:14	9:20	76,732	76,745	13
C3	6/17/2010	8:34	9:10	76,658	76,732	74
C4	6/16/2010	13:59	14:33	76,360	76,432	72
C5	6/15/2010	9:43	10:15	75,149	75,223	74
C6	6/15/2010	10:18	10:51	75,223	75,298	75
C/D-3/4	6/17/2010	10:38	11:14	76,895	76,970	75
C/D-5/6	6/16/2010	9:29	10:05	75,990	76,065	75
D1	6/17/2010	10:01	10:37	76,820	76,895	75
D2	6/17/2010	12:34	13:09	76,970	77,045	75
D3	6/17/2010	12:34	13:15	16,525	16,600	75
D4	6/16/2010	15:55	16:37	76,583	76,658	75
D5	6/15/2010	15:03	15:34	75,601	75,676	75
D6	6/15/2010	16:24	16:57	75,765	75,840	75
D7	6/14/2010	15:20	15:52	74,787	74,859	72
D/E-3/4	6/17/2010	13:18	13:59	16,600	16,675	75
D/E-5/6	6/15/2010	13:49	14:24	75,446	75,526	80
E1	6/17/2010	13:18	13:59	16,467	16,525	58
E2	6/17/2010	13:53	14:28	62,140	62,215	75
E3	6/17/2010	13:14	13:50	77,045	77,120	75
E4	6/16/2010	8:50	9:26	75,915	75,990	75
E5	6/15/2010	15:37	16:16	75,676	75,765	89
E6	6/15/2010	12:38	13:11	75,298	75,371	73

Steam Injection Summary Data Table for Grafton, WI Steam Injections						
Injection Point	Date	Start Time	End Time	Totalizer Start	Totalizer End	Amount Injected (gal.)
E7	6/14/2010	14:51	15:13	74,715	74,787	72
E/F-3/4	6/15/2010	14:26	15:00	75,526	75,601	75
E/F-5/6	6/17/2010	14:32	15:09	77,195	77,270	75
F1	6/17/2010	11:08	11:43	61,917	61,992	75
F2	6/17/2010	13:14	13:46	62,067	62,142	75
F3	6/17/2010	13:53	14:29	77,120	77,195	75
F4	6/17/2010	15:14	15:50	77,270	77,345	75
F5	6/16/2010	8:11	8:46	75,840	75,915	75
F6	6/15/2010	13:14	13:46	75,371	75,446	75
F7	6/15/2010	10:20	11:03	15,039	15,114	75
F8	6/15/2010	12:51	13:33	15,114	15,189	75
F/G-3/4	6/17/2010	15:31	16:13	16,825	16,900	75
F/G-5/6	6/16/2010	14:11	14:18	16,004	16,017	13
G1	6/17/2010	10:30	11:05	61,842	61,917	75
G2	6/17/2010	12:34	13:09	61,992	62,067	75
G3	6/17/2010	14:47	15:29	16,750	16,825	75
G4	6/17/2010	15:54	16:31	62,365	62,440	75
G5	6/16/2010	14:20	15:03	16,017	16,092	75
G6	6/16/2010	12:42	13:23	15,854	15,929	75
G7	6/14/2010	16:13	16:49	14,820	14,893	73
G8	6/15/2010	13:35	14:17	15,189	15,264	75
G9	6/15/2010	9:35	10:15	14,965	15,039	74
G/H-3/4	6/17/2010	15:14	15:50	62,290	62,365	75
G/H-5/6	6/16/2010	15:05	15:46	16,092	16,167	75
H1	6/17/2010	9:52	10:27	61,767	61,842	75
H2	6/17/2010	10:07	10:49	16,392	16,467	75
H3	6/17/2010	14:02	14:44	16,675	16,750	75
H4	6/17/2010	14:33	15:09	62,215	62,290	75
H5	6/16/2010	15:48	16:30	16,167	16,242	75
H6	6/16/2010	10:31	11:14	15,779	15,854	75
H7	6/14/2010	15:37	16:11	14,745	14,820	75
H8	6/15/2010	14:21	15:03	15,264	15,339	75
H9	6/15/2010	8:51	9:32	14,893	14,965	72
H/I-3/4	6/17/2010	9:22	10:04	16,317	16,392	75
H/I-5/6	6/16/2010	13:27	14:09	15,929	16,004	75

**Steam Injection Summary Data Table for Grafton, WI Steam Injections**

<b>Injection Point</b>	<b>Date</b>	<b>Start Time</b>	<b>End Time</b>	<b>Totalizer Start</b>	<b>Totalizer End</b>	<b>Amount Injected (gal.)</b>
I1	6/16/2010	15:58	16:38	61,545	61,620	75
I2	6/17/2010	8:34	9:10	61,620	61,692	72
I3	6/17/2010	9:14	9:50	61,692	61,767	75
I4	6/17/2010	8:34	9:17	16,242	16,317	75
I5	6/16/2010	9:44	10:29	15,704	15,779	75
I6	6/15/2010	15:51	16:33	15,414	15,489	75
I7	6/14/2010	15:01	15:31	14,682	14,745	63
I8	6/15/2010	15:04	15:47	15,339	15,414	75
J1	6/16/2010	9:04	9:39	60,945	61,020	75
J2	6/16/2010	13:59	14:35	60,320	60,395	75
J3	6/16/2010	14:39	15:13	61,395	61,470	75
J4	6/16/2010	15:15	15:52	61,470	61,545	75
J5	6/16/2010	9:00	9:42	15,629	15,704	75
J6	6/16/2010	8:11	8:45	15,554	15,629	75
J7	6/15/2010	16:34	17:09	15,459	15,554	95
J8	6/16/2010	10:21	10:58	61,095	61,170	75
K2	6/15/2010	9:57	10:32	60,334	60,408	74
K3	6/15/2010	16:21	16:55	60,870	60,945	75
K4	6/15/2010	14:10	14:46	60,631	60,706	75
K5	6/16/2010	13:20	13:58	60,245	60,320	75
K6	6/16/2010	12:42	13:18	61,170	61,245	75
K7	6/16/2010	9:43	10:18	61,020	61,095	75
L2	6/15/2010	12:47	13:21	60,483	60,558	75
L3	6/15/2010	10:35	11:10	60,408	60,483	75
L4	6/15/2010	8:42	9:19	60,192	60,264	72
L5	6/15/2010	15:30	16:16	60,781	60,870	89
L6	6/15/2010	13:24	14:08	60,558	60,631	73
L7	6/15/2010	14:50	15:26	60,706	60,781	75
M2	6/15/2010	9:21	9:55	60,264	60,334	70
M3	6/14/2010	16:06	16:40	60,122	60,192	70
M4	6/14/2010	14:55	15:25	59,983	60,050	67
M5	6/14/2010	15:30	16:03	60,050	60,122	72
<b>Total Injected</b>						<b>7,346</b>

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# Appendix C Laboratory Reports

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August 27, 2010

Alyssa Sellwood  
RMT, INC  
744 Heartland Trail  
Madison, WI 53717

RE: Project: 02268.10.001 Tecumseh VI  
Pace Project No.: 10136045

Dear Alyssa Sellwood:

Enclosed are the analytical results for sample(s) received by the laboratory on August 18, 2010. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Colin Schuft

colin.schuft@pacelabs.com  
Project Manager

Enclosures

## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 02268.10.001 Tecumseh VI  
Pace Project No.: 10136045

---

### Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414  
Alaska Certification #: UST-078  
Alaska Certification #MN00064  
Arizona Certification #: AZ-0014  
Arkansas Certification #: 88-0680  
California Certification #: 01155CA  
EPA Region 8 Certification #: Pace  
Florida/NELAP Certification #: E87605  
Georgia Certification #: 959  
Idaho Certification #: MN00064  
Illinois Certification #: 200011  
Iowa Certification #: 368  
Kansas Certification #: E-10167  
Louisiana Certification #: 03086  
Louisiana Certification #: LA080009  
Maine Certification #: 2007029  
Maryland Certification #: 322  
Michigan DEQ Certification #: 9909  
Minnesota Certification #: 027-053-137  
Mississippi Certification #: Pace

Montana Certification #: MT CERT0092  
Nevada Certification #: MN\_00064  
Nebraska Certification #: Pace  
New Jersey Certification #: MN-002  
New Mexico Certification #: Pace  
New York Certification #: 11647  
North Carolina Certification #: 530  
North Dakota Certification #: R-036  
North Dakota Certification #: R-036A  
Ohio VAP Certification #: CL101  
Oklahoma Certification #: D9921  
Oklahoma Certification #: 9507  
Oregon Certification #: MN200001  
Pennsylvania Certification #: 68-00563  
Puerto Rico Certification  
Tennessee Certification #: 02818  
Texas Certification #: T104704192  
Washington Certification #: C754  
Wisconsin Certification #: 999407970

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: 02268.10.001 Tecumseh VI  
Pace Project No.: 10136045

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10136045001	PL-2	Air	08/16/10 11:15	08/18/10 08:35
10136045002	PL-4	Air	08/16/10 12:20	08/18/10 08:35
10136045003	PL-6	Air	08/16/10 15:00	08/18/10 08:35
10136045004	PL-7	Air	08/16/10 15:45	08/18/10 08:35
10136045005	PL-9	Air	08/16/10 13:20	08/18/10 08:35

### REPORT OF LABORATORY ANALYSIS

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**SAMPLE ANALYTE COUNT**

Project: 02268.10.001 Tecumseh VI  
Pace Project No.: 10136045

Lab ID	Sample ID	Method	Analysts	Analytes Reported
10136045001	PL-2	TO-14 Ambient Air	DR1	39
10136045002	PL-4	TO-14 Ambient Air	DR1	39
10136045003	PL-6	TO-14 Ambient Air	DR1	39
10136045004	PL-7	TO-14 Ambient Air	DR1	39
10136045005	PL-9	TO-14 Ambient Air	DR1	39

**REPORT OF LABORATORY ANALYSIS**

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### ANALYTICAL RESULTS

Project: 02268.10.001 Tecumseh VI

Pace Project No.: 10136045

Sample: PL-2	Lab ID: 10136045001	Collected: 08/16/10 11:15	Received: 08/18/10 08:35	Matrix: Air				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO14 MSV AIR - Ambient</b>		Analytical Method: TO-14 Ambient Air						
Benzene	ND	ppbv	20.8	41.6		08/25/10 06:05	71-43-2	
Bromomethane	ND	ppbv	20.8	41.6		08/25/10 06:05	74-83-9	
Carbon tetrachloride	ND	ppbv	20.8	41.6		08/25/10 06:05	56-23-5	
Chlorobenzene	ND	ppbv	20.8	41.6		08/25/10 06:05	108-90-7	
Chloroethane	60.9	ppbv	20.8	41.6		08/25/10 06:05	75-00-3	
Chloroform	ND	ppbv	20.8	41.6		08/25/10 06:05	67-66-3	
Chloromethane	100	ppbv	20.8	41.6		08/25/10 06:05	74-87-3	
1,2-Dibromoethane (EDB)	ND	ppbv	20.8	41.6		08/25/10 06:05	106-93-4	
1,2-Dichlorobenzene	ND	ppbv	20.8	41.6		08/25/10 06:05	95-50-1	
1,3-Dichlorobenzene	ND	ppbv	20.8	41.6		08/25/10 06:05	541-73-1	
1,4-Dichlorobenzene	ND	ppbv	20.8	41.6		08/25/10 06:05	106-46-7	
Dichlorodifluoromethane	ND	ppbv	20.8	41.6		08/25/10 06:05	75-71-8	
1,1-Dichloroethane	7890	ppbv	333	665.6		08/25/10 15:25	75-34-3	A3
1,2-Dichloroethane	ND	ppbv	20.8	41.6		08/25/10 06:05	107-06-2	
1,1-Dichloroethene	428	ppbv	20.8	41.6		08/25/10 06:05	75-35-4	
cis-1,2-Dichloroethene	ND	ppbv	20.8	41.6		08/25/10 06:05	156-59-2	
trans-1,2-Dichloroethene	ND	ppbv	20.8	41.6		08/25/10 06:05	156-60-5	
1,2-Dichloropropane	ND	ppbv	20.8	41.6		08/25/10 06:05	78-87-5	
cis-1,3-Dichloropropene	ND	ppbv	20.8	41.6		08/25/10 06:05	10061-01-5	
trans-1,3-Dichloropropene	ND	ppbv	20.8	41.6		08/25/10 06:05	10061-02-6	
Dichlorotetrafluoroethane	ND	ppbv	20.8	41.6		08/25/10 06:05	76-14-2	
Ethylbenzene	ND	ppbv	20.8	41.6		08/25/10 06:05	100-41-4	
Hexachloro-1,3-butadiene	ND	ppbv	20.8	41.6		08/25/10 06:05	87-68-3	SS
Methylene Chloride	ND	ppbv	20.8	41.6		08/25/10 06:05	75-09-2	
Styrene	ND	ppbv	20.8	41.6		08/25/10 06:05	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ppbv	20.8	41.6		08/25/10 06:05	79-34-5	
Tetrachloroethene	84.0	ppbv	20.8	41.6		08/25/10 06:05	127-18-4	
Toluene	ND	ppbv	20.8	41.6		08/25/10 06:05	108-88-3	
1,2,4-Trichlorobenzene	ND	ppbv	20.8	41.6		08/25/10 06:05	120-82-1	
1,1,1-Trichloroethane	4070	ppbv	333	665.6		08/25/10 15:25	71-55-6	A3
1,1,2-Trichloroethane	ND	ppbv	20.8	41.6		08/25/10 06:05	79-00-5	
Trichloroethene	ND	ppbv	20.8	41.6		08/25/10 06:05	79-01-6	
Trichlorofluoromethane	ND	ppbv	20.8	41.6		08/25/10 06:05	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ppbv	20.8	41.6		08/25/10 06:05	76-13-1	
1,2,4-Trimethylbenzene	ND	ppbv	20.8	41.6		08/25/10 06:05	95-63-6	
1,3,5-Trimethylbenzene	ND	ppbv	20.8	41.6		08/25/10 06:05	108-67-8	
Vinyl chloride	ND	ppbv	20.8	41.6		08/25/10 06:05	75-01-4	
m&p-Xylene	ND	ppbv	41.6	41.6		08/25/10 06:05	1330-20-7	
o-Xylene	ND	ppbv	20.8	41.6		08/25/10 06:05	95-47-6	

### ANALYTICAL RESULTS

Project: 02268.10.001 Tecumseh VI  
Pace Project No.: 10136045

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Sample: PL-4		Lab ID: 10136045002	Collected: 08/16/10 12:20	Received: 08/18/10 08:35	Matrix: Air			
Analytical Method: TO-14 Ambient Air								
TO14 MSV AIR - Ambient								
Benzene	ND	ppbv	20.8	41.6		08/25/10 05:36	71-43-2	
Bromomethane	ND	ppbv	20.8	41.6		08/25/10 05:36	74-83-9	
Carbon tetrachloride	ND	ppbv	20.8	41.6		08/25/10 05:36	56-23-5	
Chlorobenzene	ND	ppbv	20.8	41.6		08/25/10 05:36	108-90-7	
Chloroethane	ND	ppbv	20.8	41.6		08/25/10 05:36	75-00-3	
Chloroform	ND	ppbv	20.8	41.6		08/25/10 05:36	67-66-3	
Chloromethane	480	ppbv	20.8	41.6		08/25/10 05:36	74-87-3	
1,2-Dibromoethane (EDB)	ND	ppbv	20.8	41.6		08/25/10 05:36	106-93-4	
1,2-Dichlorobenzene	ND	ppbv	20.8	41.6		08/25/10 05:36	95-50-1	
1,3-Dichlorobenzene	ND	ppbv	20.8	41.6		08/25/10 05:36	541-73-1	
1,4-Dichlorobenzene	ND	ppbv	20.8	41.6		08/25/10 05:36	106-46-7	
Dichlorodifluoromethane	ND	ppbv	20.8	41.6		08/25/10 05:36	75-71-8	
1,1-Dichloroethane	5370	ppbv	333	665.6		08/25/10 15:54	75-34-3	A3
1,2-Dichloroethane	477	ppbv	20.8	41.6		08/25/10 05:36	107-06-2	
1,1-Dichloroethene	2310	ppbv	333	665.6		08/25/10 15:54	75-35-4	A3
cis-1,2-Dichloroethene	ND	ppbv	20.8	41.6		08/25/10 05:36	156-59-2	
trans-1,2-Dichloroethene	ND	ppbv	20.8	41.6		08/25/10 05:36	156-60-5	
1,2-Dichloropropane	ND	ppbv	20.8	41.6		08/25/10 05:36	78-87-5	
cis-1,3-Dichloropropene	ND	ppbv	20.8	41.6		08/25/10 05:36	10061-01-5	
trans-1,3-Dichloropropene	ND	ppbv	20.8	41.6		08/25/10 05:36	10061-02-6	
Dichlorotetrafluoroethane	ND	ppbv	20.8	41.6		08/25/10 05:36	76-14-2	
Ethylbenzene	ND	ppbv	20.8	41.6		08/25/10 05:36	100-41-4	
Hexachloro-1,3-butadiene	ND	ppbv	20.8	41.6		08/25/10 05:36	87-68-3	SS
Methylene Chloride	ND	ppbv	20.8	41.6		08/25/10 05:36	75-09-2	
Styrene	ND	ppbv	20.8	41.6		08/25/10 05:36	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ppbv	20.8	41.6		08/25/10 05:36	79-34-5	
Tetrachloroethene	ND	ppbv	20.8	41.6		08/25/10 05:36	127-18-4	
Toluene	ND	ppbv	20.8	41.6		08/25/10 05:36	108-88-3	
1,2,4-Trichlorobenzene	ND	ppbv	20.8	41.6		08/25/10 05:36	120-82-1	
1,1,1-Trichloroethane	103000	ppbv	5320	10649.6		08/26/10 17:13	71-55-6	A3
1,1,2-Trichloroethane	ND	ppbv	20.8	41.6		08/25/10 05:36	79-00-5	
Trichloroethene	ND	ppbv	20.8	41.6		08/25/10 05:36	79-01-6	
Trichlorofluoromethane	ND	ppbv	20.8	41.6		08/25/10 05:36	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ppbv	20.8	41.6		08/25/10 05:36	76-13-1	
1,2,4-Trimethylbenzene	ND	ppbv	20.8	41.6		08/25/10 05:36	95-63-6	
1,3,5-Trimethylbenzene	ND	ppbv	20.8	41.6		08/25/10 05:36	108-67-8	
Vinyl chloride	ND	ppbv	20.8	41.6		08/25/10 05:36	75-01-4	
m&p-Xylene	ND	ppbv	41.6	41.6		08/25/10 05:36	1330-20-7	
o-Xylene	ND	ppbv	20.8	41.6		08/25/10 05:36	95-47-6	

### ANALYTICAL RESULTS

Project: 02268.10.001 Tecumseh VI  
Pace Project No.: 10136045

Sample: PL-6	Lab ID: 10136045003	Collected: 08/16/10 15:00	Received: 08/18/10 08:35	Matrix: Air				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO14 MSV AIR - Ambient</b>		Analytical Method: TO-14 Ambient Air						
Benzene	ND	ppbv	30.4	60.8		08/25/10 07:03	71-43-2	
Bromomethane	ND	ppbv	30.4	60.8		08/25/10 07:03	74-83-9	
Carbon tetrachloride	ND	ppbv	30.4	60.8		08/25/10 07:03	56-23-5	
Chlorobenzene	ND	ppbv	30.4	60.8		08/25/10 07:03	108-90-7	
Chloroethane	ND	ppbv	30.4	60.8		08/25/10 07:03	75-00-3	
Chloroform	ND	ppbv	30.4	60.8		08/25/10 07:03	67-66-3	
Chloromethane	ND	ppbv	30.4	60.8		08/25/10 07:03	74-87-3	
1,2-Dibromoethane (EDB)	ND	ppbv	30.4	60.8		08/25/10 07:03	106-93-4	
1,2-Dichlorobenzene	ND	ppbv	30.4	60.8		08/25/10 07:03	95-50-1	
1,3-Dichlorobenzene	ND	ppbv	30.4	60.8		08/25/10 07:03	541-73-1	
1,4-Dichlorobenzene	ND	ppbv	30.4	60.8		08/25/10 07:03	106-46-7	
Dichlorodifluoromethane	ND	ppbv	30.4	60.8		08/25/10 07:03	75-71-8	
1,1-Dichloroethane	49.4	ppbv	30.4	60.8		08/25/10 07:03	75-34-3	
1,2-Dichloroethane	ND	ppbv	30.4	60.8		08/25/10 07:03	107-06-2	
1,1-Dichloroethene	203	ppbv	30.4	60.8		08/25/10 07:03	75-35-4	
cis-1,2-Dichloroethene	ND	ppbv	30.4	60.8		08/25/10 07:03	156-59-2	
trans-1,2-Dichloroethene	ND	ppbv	30.4	60.8		08/25/10 07:03	156-60-5	
1,2-Dichloropropane	ND	ppbv	30.4	60.8		08/25/10 07:03	78-87-5	
cis-1,3-Dichloropropene	ND	ppbv	30.4	60.8		08/25/10 07:03	10061-01-5	
trans-1,3-Dichloropropene	ND	ppbv	30.4	60.8		08/25/10 07:03	10061-02-6	
Dichlorotetrafluoroethane	ND	ppbv	30.4	60.8		08/25/10 07:03	76-14-2	
Ethylbenzene	ND	ppbv	30.4	60.8		08/25/10 07:03	100-41-4	
Hexachloro-1,3-butadiene	ND	ppbv	30.4	60.8		08/25/10 07:03	87-68-3	SS
Methylene Chloride	ND	ppbv	30.4	60.8		08/25/10 07:03	75-09-2	
Styrene	ND	ppbv	30.4	60.8		08/25/10 07:03	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ppbv	30.4	60.8		08/25/10 07:03	79-34-5	
Tetrachloroethene	ND	ppbv	30.4	60.8		08/25/10 07:03	127-18-4	
Toluene	ND	ppbv	30.4	60.8		08/25/10 07:03	108-88-3	
1,2,4-Trichlorobenzene	ND	ppbv	30.4	60.8		08/25/10 07:03	120-82-1	
1,1,1-Trichloroethane	253	ppbv	30.4	60.8		08/25/10 07:03	71-55-6	
1,1,2-Trichloroethane	ND	ppbv	30.4	60.8		08/25/10 07:03	79-00-5	
Trichloroethene	ND	ppbv	30.4	60.8		08/25/10 07:03	79-01-6	
Trichlorofluoromethane	ND	ppbv	30.4	60.8		08/25/10 07:03	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ppbv	30.4	60.8		08/25/10 07:03	76-13-1	
1,2,4-Trimethylbenzene	ND	ppbv	30.4	60.8		08/25/10 07:03	95-63-6	
1,3,5-Trimethylbenzene	ND	ppbv	30.4	60.8		08/25/10 07:03	108-67-8	
Vinyl chloride	ND	ppbv	30.4	60.8		08/25/10 07:03	75-01-4	
m&p-Xylene	ND	ppbv	60.8	60.8		08/25/10 07:03	1330-20-7	
o-Xylene	ND	ppbv	30.4	60.8		08/25/10 07:03	95-47-6	

### ANALYTICAL RESULTS

Project: 02268.10.001 Tecumseh VI  
Pace Project No.: 10136045

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Sample: PL-7</b>		<b>Lab ID: 10136045004</b>		Collected: 08/16/10 15:45		Received: 08/18/10 08:35		Matrix: Air
<b>TO14 MSV AIR - Ambient</b>								
Analytical Method: TO-14 Ambient Air								
Benzene	ND	ppbv	18.6	37.2		08/25/10 06:34	71-43-2	
Bromomethane	135	ppbv	18.6	37.2		08/25/10 06:34	74-83-9	
Carbon tetrachloride	ND	ppbv	18.6	37.2		08/25/10 06:34	56-23-5	
Chlorobenzene	ND	ppbv	18.6	37.2		08/25/10 06:34	108-90-7	
Chloroethane	ND	ppbv	18.6	37.2		08/25/10 06:34	75-00-3	
Chloroform	ND	ppbv	18.6	37.2		08/25/10 06:34	67-66-3	
Chloromethane	1810	ppbv	149	297.6		08/25/10 14:56	74-87-3	A3
1,2-Dibromoethane (EDB)	ND	ppbv	18.6	37.2		08/25/10 06:34	106-93-4	
1,2-Dichlorobenzene	ND	ppbv	18.6	37.2		08/25/10 06:34	95-50-1	
1,3-Dichlorobenzene	ND	ppbv	18.6	37.2		08/25/10 06:34	541-73-1	
1,4-Dichlorobenzene	ND	ppbv	18.6	37.2		08/25/10 06:34	106-46-7	
Dichlorodifluoromethane	ND	ppbv	18.6	37.2		08/25/10 06:34	75-71-8	
1,1-Dichloroethane	23.8	ppbv	18.6	37.2		08/25/10 06:34	75-34-3	
1,2-Dichloroethane	ND	ppbv	18.6	37.2		08/25/10 06:34	107-06-2	
1,1-Dichloroethene	40.0	ppbv	18.6	37.2		08/25/10 06:34	75-35-4	
cis-1,2-Dichloroethene	ND	ppbv	18.6	37.2		08/25/10 06:34	156-59-2	
trans-1,2-Dichloroethene	ND	ppbv	18.6	37.2		08/25/10 06:34	156-60-5	
1,2-Dichloropropane	ND	ppbv	18.6	37.2		08/25/10 06:34	78-87-5	
cis-1,3-Dichloropropene	ND	ppbv	18.6	37.2		08/25/10 06:34	10061-01-5	
trans-1,3-Dichloropropene	ND	ppbv	18.6	37.2		08/25/10 06:34	10061-02-6	
Dichlorotetrafluoroethane	ND	ppbv	18.6	37.2		08/25/10 06:34	76-14-2	
Ethylbenzene	ND	ppbv	18.6	37.2		08/25/10 06:34	100-41-4	
Hexachloro-1,3-butadiene	ND	ppbv	18.6	37.2		08/25/10 06:34	87-68-3	SS
Methylene Chloride	ND	ppbv	18.6	37.2		08/25/10 06:34	75-09-2	
Styrene	ND	ppbv	18.6	37.2		08/25/10 06:34	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ppbv	18.6	37.2		08/25/10 06:34	79-34-5	
Tetrachloroethene	ND	ppbv	18.6	37.2		08/25/10 06:34	127-18-4	
Toluene	ND	ppbv	18.6	37.2		08/25/10 06:34	108-88-3	
1,2,4-Trichlorobenzene	ND	ppbv	18.6	37.2		08/25/10 06:34	120-82-1	
1,1,1-Trichloroethane	18.7	ppbv	18.6	37.2		08/25/10 06:34	71-55-6	
1,1,2-Trichloroethane	ND	ppbv	18.6	37.2		08/25/10 06:34	79-00-5	
Trichloroethene	ND	ppbv	18.6	37.2		08/25/10 06:34	79-01-6	
Trichlorofluoromethane	ND	ppbv	18.6	37.2		08/25/10 06:34	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ppbv	18.6	37.2		08/25/10 06:34	76-13-1	
1,2,4-Trimethylbenzene	ND	ppbv	18.6	37.2		08/25/10 06:34	95-63-6	
1,3,5-Trimethylbenzene	ND	ppbv	18.6	37.2		08/25/10 06:34	108-67-8	
Vinyl chloride	ND	ppbv	18.6	37.2		08/25/10 06:34	75-01-4	
m&p-Xylene	ND	ppbv	37.2	37.2		08/25/10 06:34	1330-20-7	
o-Xylene	ND	ppbv	18.6	37.2		08/25/10 06:34	95-47-6	



### ANALYTICAL RESULTS

Project: 02268.10.001 Tecumseh VI  
Pace Project No.: 10136045

Sample: PL-9	Lab ID: 10136045005	Collected: 08/16/10 13:20	Received: 08/18/10 08:35	Matrix: Air				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO14 MSV AIR - Ambient		Analytical Method: TO-14 Ambient Air						
Benzene	ND	ppbv	23.6	47.2		08/25/10 05:07	71-43-2	
Bromomethane	ND	ppbv	23.6	47.2		08/25/10 05:07	74-83-9	
Carbon tetrachloride	ND	ppbv	23.6	47.2		08/25/10 05:07	56-23-5	
Chlorobenzene	ND	ppbv	23.6	47.2		08/25/10 05:07	108-90-7	
Chloroethane	163	ppbv	23.6	47.2		08/25/10 05:07	75-00-3	
Chloroform	ND	ppbv	23.6	47.2		08/25/10 05:07	67-66-3	
Chloromethane	43.1	ppbv	23.6	47.2		08/25/10 05:07	74-87-3	
1,2-Dibromoethane (EDB)	ND	ppbv	23.6	47.2		08/25/10 05:07	106-93-4	
1,2-Dichlorobenzene	ND	ppbv	23.6	47.2		08/25/10 05:07	95-50-1	
1,3-Dichlorobenzene	ND	ppbv	23.6	47.2		08/25/10 05:07	541-73-1	
1,4-Dichlorobenzene	ND	ppbv	23.6	47.2		08/25/10 05:07	106-46-7	
Dichlorodifluoromethane	ND	ppbv	23.6	47.2		08/25/10 05:07	75-71-8	
1,1-Dichloroethane	1400	ppbv	23.6	47.2		08/25/10 05:07	75-34-3	
1,2-Dichloroethane	80.7	ppbv	23.6	47.2		08/25/10 05:07	107-06-2	
1,1-Dichloroethene	253	ppbv	23.6	47.2		08/25/10 05:07	75-35-4	
cis-1,2-Dichloroethene	ND	ppbv	23.6	47.2		08/25/10 05:07	156-59-2	
trans-1,2-Dichloroethene	ND	ppbv	23.6	47.2		08/25/10 05:07	156-60-5	
1,2-Dichloropropane	ND	ppbv	23.6	47.2		08/25/10 05:07	78-87-5	
cis-1,3-Dichloropropene	ND	ppbv	23.6	47.2		08/25/10 05:07	10061-01-5	
trans-1,3-Dichloropropene	ND	ppbv	23.6	47.2		08/25/10 05:07	10061-02-6	
Dichlorotetrafluoroethane	ND	ppbv	23.6	47.2		08/25/10 05:07	76-14-2	
Ethylbenzene	ND	ppbv	23.6	47.2		08/25/10 05:07	100-41-4	
Hexachloro-1,3-butadiene	ND	ppbv	23.6	47.2		08/25/10 05:07	87-68-3	SS
Methylene Chloride	ND	ppbv	23.6	47.2		08/25/10 05:07	75-09-2	
Styrene	ND	ppbv	23.6	47.2		08/25/10 05:07	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ppbv	23.6	47.2		08/25/10 05:07	79-34-5	
Tetrachloroethene	153	ppbv	23.6	47.2		08/25/10 05:07	127-18-4	
Toluene	ND	ppbv	23.6	47.2		08/25/10 05:07	108-88-3	
1,2,4-Trichlorobenzene	ND	ppbv	23.6	47.2		08/25/10 05:07	120-82-1	
1,1,1-Trichloroethane	958	ppbv	23.6	47.2		08/25/10 05:07	71-55-6	
1,1,2-Trichloroethane	ND	ppbv	23.6	47.2		08/25/10 05:07	79-00-5	
Trichloroethene	ND	ppbv	23.6	47.2		08/25/10 05:07	79-01-6	
Trichlorofluoromethane	ND	ppbv	23.6	47.2		08/25/10 05:07	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ppbv	23.6	47.2		08/25/10 05:07	76-13-1	
1,2,4-Trimethylbenzene	ND	ppbv	23.6	47.2		08/25/10 05:07	95-63-6	
1,3,5-Trimethylbenzene	ND	ppbv	23.6	47.2		08/25/10 05:07	108-67-8	
Vinyl chloride	ND	ppbv	23.6	47.2		08/25/10 05:07	75-01-4	
m&p-Xylene	ND	ppbv	47.2	47.2		08/25/10 05:07	1330-20-7	
o-Xylene	ND	ppbv	23.6	47.2		08/25/10 05:07	95-47-6	

### QUALITY CONTROL DATA

Project: 02268.10.001 Tecumseh VI  
Pace Project No.: 10136045

QC Batch: AIR/10745 Analysis Method: TO-14 Ambient Air  
QC Batch Method: TO-14 Ambient Air Analysis Description: TO14 MSV AIR - AMBIENT  
Associated Lab Samples: 10136045001, 10136045002, 10136045003, 10136045004, 10136045005

METHOD BLANK: 842247 Matrix: Air  
Associated Lab Samples: 10136045001, 10136045002, 10136045003, 10136045004, 10136045005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ppbv	ND	0.50	08/24/10 19:57	
1,1,1,2-Tetrachloroethane	ppbv	ND	0.50	08/24/10 19:57	
1,1,2-Trichloroethane	ppbv	ND	0.50	08/24/10 19:57	
1,1,2-Trichlorotrifluoroethane	ppbv	ND	0.50	08/24/10 19:57	
1,1-Dichloroethane	ppbv	ND	0.50	08/24/10 19:57	
1,1-Dichloroethene	ppbv	ND	0.50	08/24/10 19:57	
1,2,4-Trichlorobenzene	ppbv	ND	0.50	08/24/10 19:57	
1,2,4-Trimethylbenzene	ppbv	ND	0.50	08/24/10 19:57	
1,2-Dibromoethane (EDB)	ppbv	ND	0.50	08/24/10 19:57	
1,2-Dichlorobenzene	ppbv	ND	0.50	08/24/10 19:57	
1,2-Dichloroethane	ppbv	ND	0.50	08/24/10 19:57	
1,2-Dichloropropane	ppbv	ND	0.50	08/24/10 19:57	
1,3,5-Trimethylbenzene	ppbv	ND	0.50	08/24/10 19:57	
1,3-Dichlorobenzene	ppbv	ND	0.50	08/24/10 19:57	
1,4-Dichlorobenzene	ppbv	ND	0.50	08/24/10 19:57	
Benzene	ppbv	ND	0.50	08/24/10 19:57	
Bromomethane	ppbv	ND	0.50	08/24/10 19:57	
Carbon tetrachloride	ppbv	ND	0.50	08/24/10 19:57	
Chlorobenzene	ppbv	ND	0.50	08/24/10 19:57	
Chloroethane	ppbv	ND	0.50	08/24/10 19:57	
Chloroform	ppbv	ND	0.50	08/24/10 19:57	
Chloromethane	ppbv	ND	0.50	08/24/10 19:57	
cis-1,2-Dichloroethene	ppbv	ND	0.50	08/24/10 19:57	
cis-1,3-Dichloropropene	ppbv	ND	0.50	08/24/10 19:57	
Dichlorodifluoromethane	ppbv	ND	0.50	08/24/10 19:57	
Dichlorotetrafluoroethane	ppbv	ND	0.50	08/24/10 19:57	
Ethylbenzene	ppbv	ND	0.50	08/24/10 19:57	
Hexachloro-1,3-butadiene	ppbv	ND	0.50	08/24/10 19:57	SS
m&p-Xylene	ppbv	ND	1.0	08/24/10 19:57	
Methylene Chloride	ppbv	ND	0.50	08/24/10 19:57	
o-Xylene	ppbv	ND	0.50	08/24/10 19:57	
Styrene	ppbv	ND	0.50	08/24/10 19:57	
Tetrachloroethene	ppbv	ND	0.50	08/24/10 19:57	
Toluene	ppbv	ND	0.50	08/24/10 19:57	
trans-1,2-Dichloroethene	ppbv	ND	0.50	08/24/10 19:57	
trans-1,3-Dichloropropene	ppbv	ND	0.50	08/24/10 19:57	
Trichloroethene	ppbv	ND	0.50	08/24/10 19:57	
Trichlorofluoromethane	ppbv	ND	0.50	08/24/10 19:57	
Vinyl chloride	ppbv	ND	0.50	08/24/10 19:57	

Date: 08/27/2010 04:19 PM

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 02268.10.001 Tecumseh VI

Pace Project No.: 10136045

LABORATORY CONTROL SAMPLE: 842248

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ppbv	10	9.1	91	75-135	
1,1,1,2-Tetrachloroethane	ppbv	10	8.3	83	69-131	
1,1,1,2-Trichloroethane	ppbv	10	8.9	89	64-127	
1,1,1,2-Trichlorotrifluoroethane	ppbv	10	8.7	87	53-125	
1,1-Dichloroethane	ppbv	10	8.9	89	60-125	
1,1-Dichloroethene	ppbv	10	8.9	89	69-128	
1,2,4-Trichlorobenzene	ppbv	10	10.4	104	30-150	
1,2,4-Trimethylbenzene	ppbv	10	9.7	97	61-150	
1,2-Dibromoethane (EDB)	ppbv	10	9.2	92	68-136	
1,2-Dichlorobenzene	ppbv	10	7.6	76	59-150	
1,2-Dichloroethane	ppbv	10	9.1	91	66-127	
1,2-Dichloropropane	ppbv	10	9.2	92	75-134	
1,3,5-Trimethylbenzene	ppbv	10	9.9	99	71-150	
1,3-Dichlorobenzene	ppbv	10	7.2	72	58-147	
1,4-Dichlorobenzene	ppbv	10	7.4	74	62-143	
Benzene	ppbv	10	8.5	85	71-125	
Bromomethane	ppbv	10	9.1	91	69-125	
Carbon tetrachloride	ppbv	10	9.1	91	60-145	
Chlorobenzene	ppbv	10	8.7	87	73-143	
Chloroethane	ppbv	10	9.4	94	71-128	
Chloroform	ppbv	10	9.2	92	73-137	
Chloromethane	ppbv	10	9.1	91	64-125	
cis-1,2-Dichloroethene	ppbv	10	9.2	92	67-131	
cis-1,3-Dichloropropene	ppbv	10	9.8	98	75-150	
Dichlorodifluoromethane	ppbv	10	9.2	92	69-124	
Dichlorotetrafluoroethane	ppbv	10	9.0	90	59-125	
Ethylbenzene	ppbv	10	9.8	98	75-150	
Hexachloro-1,3-butadiene	ppbv	10	10.0	100	30-150 SS	
m&p-Xylene	ppbv	10	11.0	110	68-138	
Methylene Chloride	ppbv	10	10.2	102	45-125	
o-Xylene	ppbv	10	9.8	98	69-143	
Styrene	ppbv	10	8.7	87	62-137	
Tetrachloroethene	ppbv	10	8.5	85	68-136	
Toluene	ppbv	10	8.3	83	70-128	
trans-1,2-Dichloroethene	ppbv	10	9.0	90	69-131	
trans-1,3-Dichloropropene	ppbv	10	10.2	102	65-135	
Trichloroethene	ppbv	10	8.7	87	75-147	
Trichlorofluoromethane	ppbv	10	8.9	89	63-127	
Vinyl chloride	ppbv	10	9.3	93	66-125	

## QUALIFIERS

Project: 02268.10.001 Tecumseh VI  
Pace Project No.: 10136045

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

### ANALYTE QUALIFIERS

A3 The sample was analyzed by serial dilution.

SS This analyte did not meet the secondary source verification criteria for the initial calibration. The reported result should be considered an estimated value.

**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 02268.10.001 Tecumseh VI

Pace Project No.: 10136045

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10136045001	PL-2	TO-14 Ambient Air	AIR/10745		
10136045002	PL-4	TO-14 Ambient Air	AIR/10745		
10136045003	PL-6	TO-14 Ambient Air	AIR/10745		
10136045004	PL-7	TO-14 Ambient Air	AIR/10745		
10136045005	PL-9	TO-14 Ambient Air	AIR/10745		

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Pace Analytical Services, Inc.  
 1700 Elm Street – Suite 200  
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 Phone: 612.607.1700  
 Fax: 612.607.6444

**ANALYTICAL RESULTS**

Client: RMT, INC  
 Phone: 608-662-5352  
 Lab Sample No: 10136045001  
 Client Sample ID: PL-2

Lab Project Number: 10136045  
 Project Name: 02268.10.001 Tecumseh VI  
 Date Collected: 08/16/10 11:15  
 Date Received: 08/18/10 8:35

ProjSampleNum: 10136045001  
 Matrix: Air

Parameters	Report Limit ppbv	Results ppbv	Report Limit ug/m3	Results ug/m3	DF	Analyzed	CAS No.
<b>Air</b>							
TO-14 Ambient A							
1,1,1-Trichloroethane	333	4070	1800	22600	665.6	08/25/10 15:25 DR1	71-55-6
1,1,2,2-Tetrachloroethane	20.8	ND	150	ND	41.6	08/25/10 6:05 DR1	79-34-5
1,1,2-Trichloroethane	20.8	ND	120	ND	41.6	08/25/10 6:05 DR1	79-00-5
1,1,2-Trichlorotrifluoroethane	20.8	ND	160	ND	41.6	08/25/10 6:05 DR1	76-13-1
1,1-Dichloroethane	333	7890	1400	32500	665.6	08/25/10 15:25 DR1	75-34-3
1,1-Dichloroethene	20.8	428	84	1720	41.6	08/25/10 6:05 DR1	75-35-4
1,2,4-Trichlorobenzene	20.8	ND	160	ND	41.6	08/25/10 6:05 DR1	120-82-1
1,2,4-Trimethylbenzene	20.8	ND	100	ND	41.6	08/25/10 6:05 DR1	95-63-6
1,2-Dibromoethane (EDB)	20.8	ND	160	ND	41.6	08/25/10 6:05 DR1	106-93-4
1,2-Dichlorobenzene	20.8	ND	130	ND	41.6	08/25/10 6:05 DR1	95-50-1
1,2-Dichloroethane	20.8	ND	86	ND	41.6	08/25/10 6:05 DR1	107-06-2
1,2-Dichloropropane	20.8	ND	98	ND	41.6	08/25/10 6:05 DR1	78-87-5
1,3,5-Trimethylbenzene	20.8	ND	100	ND	41.6	08/25/10 6:05 DR1	108-67-8
1,3-Dichlorobenzene	20.8	ND	130	ND	41.6	08/25/10 6:05 DR1	541-73-1
1,4-Dichlorobenzene	20.8	ND	130	ND	41.6	08/25/10 6:05 DR1	106-46-7
Benzene	20.8	ND	68	ND	41.6	08/25/10 6:05 DR1	71-43-2
Bromomethane	20.8	ND	82	ND	41.6	08/25/10 6:05 DR1	74-83-9
Carbon tetrachloride	20.8	ND	130	ND	41.6	08/25/10 6:05 DR1	56-23-5
Chlorobenzene	20.8	ND	97	ND	41.6	08/25/10 6:05 DR1	108-90-7
Chloroethane	20.8	60.9	56	163	41.6	08/25/10 6:05 DR1	75-00-3
Chloroform	20.8	ND	100	ND	41.6	08/25/10 6:05 DR1	67-66-3
Chloromethane	20.8	100	44	210	41.6	08/25/10 6:05 DR1	74-87-3
cis-1,2-Dichloroethene	20.8	ND	84	ND	41.6	08/25/10 6:05 DR1	156-59-2
cis-1,3-Dichloropropene	20.8	ND	96	ND	41.6	08/25/10 6:05 DR1	10061-01-5
Dichlorodifluoromethane	20.8	ND	100	ND	41.6	08/25/10 6:05 DR1	75-71-8
Dichlorotetrafluoroethane	20.8	ND	150	ND	41.6	08/25/10 6:05 DR1	76-14-2
Ethylbenzene	20.8	ND	92	ND	41.6	08/25/10 6:05 DR1	100-41-4
Hexachloro-1,3-butadiene	20.8	ND	230	ND	41.6	08/25/10 6:05 DR1	87-68-3
m&p-Xylene	41.6	ND	180	ND	41.6	08/25/10 6:05 DR1	1330-20-7
Methylene Chloride	20.8	ND	73	ND	41.6	08/25/10 6:05 DR1	75-09-2
o-Xylene	20.8	ND	92	ND	41.6	08/25/10 6:05 DR1	95-47-6
Styrene	20.8	ND	90	ND	41.6	08/25/10 6:05 DR1	100-42-5
Tetrachloroethene	20.8	84.0	140	579	41.6	08/25/10 6:05 DR1	127-18-4
Toluene	20.8	ND	80	ND	41.6	08/25/10 6:05 DR1	108-88-3
trans-1,2-Dichloroethene	20.8	ND	84	ND	41.6	08/25/10 6:05 DR1	156-60-5
trans-1,3-Dichloropropene	20.8	ND	96	ND	41.6	08/25/10 6:05 DR1	10061-02-6
Trichloroethene	20.8	ND	110	ND	41.6	08/25/10 6:05 DR1	79-01-6
Trichlorofluoromethane	20.8	ND	120	ND	41.6	08/25/10 6:05 DR1	75-69-4
Vinyl chloride	20.8	ND	54	ND	41.6	08/25/10 6:05 DR1	75-01-4

**SUPPLEMENTAL REPORT**  
 Units Conversion Request



Pace Analytical Services, Inc.  
 1700 Elm Street – Suite 200  
 Minneapolis, MN 55414  
 Phone: 612.607.1700  
 Fax: 612.607.6444

**ANALYTICAL RESULTS**

Client: RMT, INC  
 Phone: 608-662-5352

Lab Project Number: 10136045  
 Project Name: 02268.10.001 Tecumseh VI

Lab Sample No: 10136045002  
 Client Sample ID: PL-4

ProjSampleNum: 10136045002  
 Matrix: Air

Date Collected: 08/16/10 12:20  
 Date Received: 08/18/10 8:35

Parameters	Report Limit ppbv	Results ppbv	Report Limit ug/m3	Results ug/m3	DF	Analyzed	CAS No.
<b>Air</b>							
TO-14 Ambient A							
1,1,1-Trichloroethane	5320	103000	30000	571000	10649.6	08/26/10 17:13 DR1	71-55-6
1,1,2,2-Tetrachloroethane	20.8	ND	150	ND	41.6	08/25/10 5:36 DR1	79-34-5
1,1,2-Trichloroethane	20.8	ND	120	ND	41.6	08/25/10 5:36 DR1	79-00-5
1,1,2-Trichlorotrifluoroethane	20.8	ND	160	ND	41.6	08/25/10 5:36 DR1	76-13-1
1,1-Dichloroethane	333	5370	1400	22100	665.6	08/25/10 15:54 DR1	75-34-3
1,1-Dichloroethene	333	2310	1300	9310	665.6	08/25/10 15:54 DR1	75-35-4
1,2,4-Trichlorobenzene	20.8	ND	160	ND	41.6	08/25/10 5:36 DR1	120-82-1
1,2,4-Trimethylbenzene	20.8	ND	100	ND	41.6	08/25/10 5:36 DR1	95-63-6
1,2-Dibromoethane (EDB)	20.8	ND	160	ND	41.6	08/25/10 5:36 DR1	106-93-4
1,2-Dichlorobenzene	20.8	ND	130	ND	41.6	08/25/10 5:36 DR1	95-50-1
1,2-Dichloroethane	20.8	477	86	1960	41.6	08/25/10 5:36 DR1	107-06-2
1,2-Dichloropropane	20.8	ND	98	ND	41.6	08/25/10 5:36 DR1	78-87-5
1,3,5-Trimethylbenzene	20.8	ND	100	ND	41.6	08/25/10 5:36 DR1	108-67-8
1,3-Dichlorobenzene	20.8	ND	130	ND	41.6	08/25/10 5:36 DR1	541-73-1
1,4-Dichlorobenzene	20.8	ND	130	ND	41.6	08/25/10 5:36 DR1	106-46-7
Benzene	20.8	ND	68	ND	41.6	08/25/10 5:36 DR1	71-43-2
Bromomethane	20.8	ND	82	ND	41.6	08/25/10 5:36 DR1	74-83-9
Carbon tetrachloride	20.8	ND	130	ND	41.6	08/25/10 5:36 DR1	56-23-5
Chlorobenzene	20.8	ND	97	ND	41.6	08/25/10 5:36 DR1	108-90-7
Chloroethane	20.8	ND	56	ND	41.6	08/25/10 5:36 DR1	75-00-3
Chloroform	20.8	ND	100	ND	41.6	08/25/10 5:36 DR1	67-66-3
Chloromethane	20.8	480	44	1010	41.6	08/25/10 5:36 DR1	74-87-3
cis-1,2-Dichloroethene	20.8	ND	84	ND	41.6	08/25/10 5:36 DR1	156-59-2
cis-1,3-Dichloropropene	20.8	ND	96	ND	41.6	08/25/10 5:36 DR1	10061-01-5
Dichlorodifluoromethane	20.8	ND	100	ND	41.6	08/25/10 5:36 DR1	75-71-8
Dichlorotetrafluoroethane	20.8	ND	150	ND	41.6	08/25/10 5:36 DR1	76-14-2
Ethylbenzene	20.8	ND	92	ND	41.6	08/25/10 5:36 DR1	100-41-4
Hexachloro-1,3-butadiene	20.8	ND	230	ND	41.6	08/25/10 5:36 DR1	87-68-3
m&p-Xylene	41.6	ND	180	ND	41.6	08/25/10 5:36 DR1	1330-20-7
Methylene Chloride	20.8	ND	73	ND	41.6	08/25/10 5:36 DR1	75-09-2
o-Xylene	20.8	ND	92	ND	41.6	08/25/10 5:36 DR1	95-47-6
Styrene	20.8	ND	90	ND	41.6	08/25/10 5:36 DR1	100-42-5
Tetrachloroethene	20.8	ND	140	ND	41.6	08/25/10 5:36 DR1	127-18-4
Toluene	20.8	ND	80	ND	41.6	08/25/10 5:36 DR1	108-88-3
trans-1,2-Dichloroethene	20.8	ND	84	ND	41.6	08/25/10 5:36 DR1	156-60-5
trans-1,3-Dichloropropene	20.8	ND	96	ND	41.6	08/25/10 5:36 DR1	10061-02-6
Trichloroethene	20.8	ND	110	ND	41.6	08/25/10 5:36 DR1	79-01-6
Trichlorofluoromethane	20.8	ND	120	ND	41.6	08/25/10 5:36 DR1	75-69-4
Vinyl chloride	20.8	ND	54	ND	41.6	08/25/10 5:36 DR1	75-01-4

**SUPPLEMENTAL REPORT**

Units Conversion Request



Pace Analytical Services, Inc.  
 1700 Elm Street – Suite 200  
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**ANALYTICAL RESULTS**

Client: RMT, INC  
 Phone: 608-662-5352

Lab Project Number: 10136045  
 Project Name: 02268.10.001 Tecumseh VI

Lab Sample No: 10136045003  
 Client Sample ID: PL-6

ProjSampleNum: 10136045003  
 Matrix: Air

Date Collected: 08/16/10 15:00  
 Date Received: 08/18/10 8:35

Parameters	Report Limit ppbv	Results ppbv	Report Limit ug/m3	Results ug/m3	DF	Analyzed	CAS No.
<b>Air</b>							
TO-14 Ambient A							
1,1,1-Trichloroethane	30.4	253	170	1400	60.8	08/25/10 7:03 DR1	71-55-6
1,1,2,2-Tetrachloroethane	30.4	ND	210	ND	60.8	08/25/10 7:03 DR1	79-34-5
1,1,2-Trichloroethane	30.4	ND	170	ND	60.8	08/25/10 7:03 DR1	79-00-5
1,1,2-Trichlorotrifluoroethane	30.4	ND	240	ND	60.8	08/25/10 7:03 DR1	76-13-1
1,1-Dichloroethane	30.4	49.4	130	203	60.8	08/25/10 7:03 DR1	75-34-3
1,1-Dichloroethene	30.4	203	120	818	60.8	08/25/10 7:03 DR1	75-35-4
1,2,4-Trichlorobenzene	30.4	ND	230	ND	60.8	08/25/10 7:03 DR1	120-82-1
1,2,4-Trimethylbenzene	30.4	ND	150	ND	60.8	08/25/10 7:03 DR1	95-63-6
1,2-Dibromoethane (EDB)	30.4	ND	240	ND	60.8	08/25/10 7:03 DR1	106-93-4
1,2-Dichlorobenzene	30.4	ND	190	ND	60.8	08/25/10 7:03 DR1	95-50-1
1,2-Dichloroethane	30.4	ND	130	ND	60.8	08/25/10 7:03 DR1	107-06-2
1,2-Dichloropropane	30.4	ND	140	ND	60.8	08/25/10 7:03 DR1	78-87-5
1,3,5-Trimethylbenzene	30.4	ND	150	ND	60.8	08/25/10 7:03 DR1	108-67-8
1,3-Dichlorobenzene	30.4	ND	190	ND	60.8	08/25/10 7:03 DR1	541-73-1
1,4-Dichlorobenzene	30.4	ND	190	ND	60.8	08/25/10 7:03 DR1	106-46-7
Benzene	30.4	ND	99	ND	60.8	08/25/10 7:03 DR1	71-43-2
Bromomethane	30.4	ND	120	ND	60.8	08/25/10 7:03 DR1	74-83-9
Carbon tetrachloride	30.4	ND	190	ND	60.8	08/25/10 7:03 DR1	56-23-5
Chlorobenzene	30.4	ND	140	ND	60.8	08/25/10 7:03 DR1	108-90-7
Chloroethane	30.4	ND	82	ND	60.8	08/25/10 7:03 DR1	75-00-3
Chloroform	30.4	ND	150	ND	60.8	08/25/10 7:03 DR1	67-66-3
Chloromethane	30.4	ND	64	ND	60.8	08/25/10 7:03 DR1	74-87-3
cis-1,2-Dichloroethene	30.4	ND	120	ND	60.8	08/25/10 7:03 DR1	156-59-2
cis-1,3-Dichloropropene	30.4	ND	140	ND	60.8	08/25/10 7:03 DR1	10061-01-5
Dichlorodifluoromethane	30.4	ND	150	ND	60.8	08/25/10 7:03 DR1	75-71-8
Dichlorotetrafluoroethane	30.4	ND	220	ND	60.8	08/25/10 7:03 DR1	76-14-2
Ethylbenzene	30.4	ND	130	ND	60.8	08/25/10 7:03 DR1	100-41-4
Hexachloro-1,3-butadiene	30.4	ND	330	ND	60.8	08/25/10 7:03 DR1	87-68-3
m&p-Xylene	60.8	ND	270	ND	60.8	08/25/10 7:03 DR1	1330-20-7
Methylene Chloride	30.4	ND	110	ND	60.8	08/25/10 7:03 DR1	75-09-2
o-Xylene	30.4	ND	130	ND	60.8	08/25/10 7:03 DR1	95-47-6
Styrene	30.4	ND	130	ND	60.8	08/25/10 7:03 DR1	100-42-5
Tetrachloroethene	30.4	ND	210	ND	60.8	08/25/10 7:03 DR1	127-18-4
Toluene	30.4	ND	120	ND	60.8	08/25/10 7:03 DR1	108-88-3
trans-1,2-Dichloroethene	30.4	ND	120	ND	60.8	08/25/10 7:03 DR1	156-60-5
trans-1,3-Dichloropropene	30.4	ND	140	ND	60.8	08/25/10 7:03 DR1	10061-02-6
Trichloroethene	30.4	ND	170	ND	60.8	08/25/10 7:03 DR1	79-01-6
Trichlorofluoromethane	30.4	ND	170	ND	60.8	08/25/10 7:03 DR1	75-69-4
Vinyl chloride	30.4	ND	79	ND	60.8	08/25/10 7:03 DR1	75-01-4

**SUPPLEMENTAL REPORT**

Units Conversion Request

Date: 8/27/2010

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Pace Analytical Services, Inc.  
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 Minneapolis, MN 55414  
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**ANALYTICAL RESULTS**

Client: RMT, INC  
 Phone: 608-662-5352

Lab Project Number: 10136045  
 Project Name: 02268.10.001 Tecumseh VI

Lab Sample No: 10136045004  
 Client Sample ID: PL-7

ProjSampleNum: 10136045004  
 Matrix: Air

Date Collected: 08/16/10 15:45  
 Date Received: 08/18/10 8:35

Parameters	Report Limit ppbv	Results ppbv	Report Limit ug/m3	Results ug/m3	DF	Analyzed	CAS No.
<b>Air</b>							
TO-14 Ambient A							
1,1,1-Trichloroethane	18.6	18.7	100	104	37.2	08/25/10 6:34 DR1	71-55-6
1,1,2,2-Tetrachloroethane	18.6	ND	130	ND	37.2	08/25/10 6:34 DR1	79-34-5
1,1,2-Trichloroethane	18.6	ND	100	ND	37.2	08/25/10 6:34 DR1	79-00-5
1,1,2-Trichlorotrifluoroethane	18.6	ND	140	ND	37.2	08/25/10 6:34 DR1	76-13-1
1,1-Dichloroethane	18.6	23.8	77	97.9	37.2	08/25/10 6:34 DR1	75-34-3
1,1-Dichloroethene	18.6	40.0	75	161	37.2	08/25/10 6:34 DR1	75-35-4
1,2,4-Trichlorobenzene	18.6	ND	140	ND	37.2	08/25/10 6:34 DR1	120-82-1
1,2,4-Trimethylbenzene	18.6	ND	93	ND	37.2	08/25/10 6:34 DR1	95-63-6
1,2-Dibromoethane (EDB)	18.6	ND	150	ND	37.2	08/25/10 6:34 DR1	106-93-4
1,2-Dichlorobenzene	18.6	ND	110	ND	37.2	08/25/10 6:34 DR1	95-50-1
1,2-Dichloroethane	18.6	ND	77	ND	37.2	08/25/10 6:34 DR1	107-06-2
1,2-Dichloropropane	18.6	ND	87	ND	37.2	08/25/10 6:34 DR1	78-87-5
1,3,5-Trimethylbenzene	18.6	ND	93	ND	37.2	08/25/10 6:34 DR1	108-67-8
1,3-Dichlorobenzene	18.6	ND	110	ND	37.2	08/25/10 6:34 DR1	541-73-1
1,4-Dichlorobenzene	18.6	ND	110	ND	37.2	08/25/10 6:34 DR1	106-46-7
Benzene	18.6	ND	60	ND	37.2	08/25/10 6:34 DR1	71-43-2
Bromomethane	18.6	135	73	533	37.2	08/25/10 6:34 DR1	74-83-9
Carbon tetrachloride	18.6	ND	120	ND	37.2	08/25/10 6:34 DR1	56-23-5
Chlorobenzene	18.6	ND	87	ND	37.2	08/25/10 6:34 DR1	108-90-7
Chloroethane	18.6	ND	50	ND	37.2	08/25/10 6:34 DR1	75-00-3
Chloroform	18.6	ND	92	ND	37.2	08/25/10 6:34 DR1	67-66-3
Chloromethane	149	1810	310	3800	297.6	08/25/10 14:56 DR1	74-87-3
cis-1,2-Dichloroethene	18.6	ND	75	ND	37.2	08/25/10 6:34 DR1	156-59-2
cis-1,3-Dichloropropene	18.6	ND	86	ND	37.2	08/25/10 6:34 DR1	10061-01-5
Dichlorodifluoromethane	18.6	ND	93	ND	37.2	08/25/10 6:34 DR1	75-71-8
Dichlorotetrafluoroethane	18.6	ND	130	ND	37.2	08/25/10 6:34 DR1	76-14-2
Ethylbenzene	18.6	ND	82	ND	37.2	08/25/10 6:34 DR1	100-41-4
Hexachloro-1,3-butadiene	18.6	ND	200	ND	37.2	08/25/10 6:34 DR1	87-68-3
m&p-Xylene	37.2	ND	160	ND	37.2	08/25/10 6:34 DR1	1330-20-7
Methylene Chloride	18.6	ND	66	ND	37.2	08/25/10 6:34 DR1	75-09-2
o-Xylene	18.6	ND	82	ND	37.2	08/25/10 6:34 DR1	95-47-6
Styrene	18.6	ND	81	ND	37.2	08/25/10 6:34 DR1	100-42-5
Tetrachloroethene	18.6	ND	130	ND	37.2	08/25/10 6:34 DR1	127-18-4
Toluene	18.6	ND	71	ND	37.2	08/25/10 6:34 DR1	108-88-3
trans-1,2-Dichloroethene	18.6	ND	75	ND	37.2	08/25/10 6:34 DR1	156-60-5
trans-1,3-Dichloropropene	18.6	ND	86	ND	37.2	08/25/10 6:34 DR1	10061-02-6
Trichloroethene	18.6	ND	100	ND	37.2	08/25/10 6:34 DR1	79-01-6
Trichlorofluoromethane	18.6	ND	110	ND	37.2	08/25/10 6:34 DR1	75-69-4
Vinyl chloride	18.6	ND	48	ND	37.2	08/25/10 6:34 DR1	75-01-4

**SUPPLEMENTAL REPORT**  
 Units Conversion Request



Pace Analytical Services, Inc.  
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**ANALYTICAL RESULTS**

Client: RMT, INC  
 Phone: 608-662-5352

Lab Project Number: 10136045  
 Project Name: 02268.10.001 Tecumseh VI

Lab Sample No: 10136045005  
 Client Sample ID: PL-9

ProjSampleNum: 10136045005  
 Matrix: Air

Date Collected: 08/16/10 13:20  
 Date Received: 08/18/10 8:35

Parameters	Report Limit ppbv	Results ppbv	Report Limit ug/m3	Results ug/m3	DF	Analyzed	CAS No.
<b>Air</b>							
TO-14 Ambient A							
1,1,1-Trichloroethane	23.6	958	130	5310	47.2	08/25/10 5:07 DR1	71-55-6
1,1,2,2-Tetrachloroethane	23.6	ND	160	ND	47.2	08/25/10 5:07 DR1	79-34-5
1,1,2-Trichloroethane	23.6	ND	130	ND	47.2	08/25/10 5:07 DR1	79-00-5
1,1,2-Trichlorotrifluoroethane	23.6	ND	180	ND	47.2	08/25/10 5:07 DR1	76-13-1
1,1-Dichloroethane	23.6	1400	97	5760	47.2	08/25/10 5:07 DR1	75-34-3
1,1-Dichloroethene	23.6	253	95	1020	47.2	08/25/10 5:07 DR1	75-35-4
1,2,4-Trichlorobenzene	23.6	ND	180	ND	47.2	08/25/10 5:07 DR1	120-82-1
1,2,4-Trimethylbenzene	23.6	ND	120	ND	47.2	08/25/10 5:07 DR1	95-63-6
1,2-Dibromoethane (EDB)	23.6	ND	180	ND	47.2	08/25/10 5:07 DR1	106-93-4
1,2-Dichlorobenzene	23.6	ND	140	ND	47.2	08/25/10 5:07 DR1	95-50-1
1,2-Dichloroethane	23.6	80.7	97	332	47.2	08/25/10 5:07 DR1	107-06-2
1,2-Dichloropropane	23.6	ND	110	ND	47.2	08/25/10 5:07 DR1	78-87-5
1,3,5-Trimethylbenzene	23.6	ND	120	ND	47.2	08/25/10 5:07 DR1	108-67-8
1,3-Dichlorobenzene	23.6	ND	140	ND	47.2	08/25/10 5:07 DR1	541-73-1
1,4-Dichlorobenzene	23.6	ND	140	ND	47.2	08/25/10 5:07 DR1	106-46-7
Benzene	23.6	ND	77	ND	47.2	08/25/10 5:07 DR1	71-43-2
Bromomethane	23.6	ND	93	ND	47.2	08/25/10 5:07 DR1	74-83-9
Carbon tetrachloride	23.6	ND	150	ND	47.2	08/25/10 5:07 DR1	56-23-5
Chlorobenzene	23.6	ND	110	ND	47.2	08/25/10 5:07 DR1	108-90-7
Chloroethane	23.6	163	63	437	47.2	08/25/10 5:07 DR1	75-00-3
Chloroform	23.6	ND	120	ND	47.2	08/25/10 5:07 DR1	67-66-3
Chloromethane	23.6	43.1	50	90.5	47.2	08/25/10 5:07 DR1	74-87-3
cis-1,2-Dichloroethene	23.6	ND	95	ND	47.2	08/25/10 5:07 DR1	156-59-2
cis-1,3-Dichloropropene	23.6	ND	110	ND	47.2	08/25/10 5:07 DR1	10061-01-5
Dichlorodifluoromethane	23.6	ND	120	ND	47.2	08/25/10 5:07 DR1	75-71-8
Dichlorotetrafluoroethane	23.6	ND	170	ND	47.2	08/25/10 5:07 DR1	76-14-2
Ethylbenzene	23.6	ND	100	ND	47.2	08/25/10 5:07 DR1	100-41-4
Hexachloro-1,3-butadiene	23.6	ND	260	ND	47.2	08/25/10 5:07 DR1	87-68-3
m&p-Xylene	47.2	ND	210	ND	47.2	08/25/10 5:07 DR1	1330-20-7
Methylene Chloride	23.6	ND	83	ND	47.2	08/25/10 5:07 DR1	75-09-2
o-Xylene	23.6	ND	100	ND	47.2	08/25/10 5:07 DR1	95-47-6
Styrene	23.6	ND	100	ND	47.2	08/25/10 5:07 DR1	100-42-5
Tetrachloroethene	23.6	153	160	1050	47.2	08/25/10 5:07 DR1	127-18-4
Toluene	23.6	ND	90	ND	47.2	08/25/10 5:07 DR1	108-88-3
trans-1,2-Dichloroethene	23.6	ND	95	ND	47.2	08/25/10 5:07 DR1	156-60-5
trans-1,3-Dichloropropene	23.6	ND	110	ND	47.2	08/25/10 5:07 DR1	10061-02-6
Trichloroethene	23.6	ND	130	ND	47.2	08/25/10 5:07 DR1	79-01-6
Trichlorofluoromethane	23.6	ND	130	ND	47.2	08/25/10 5:07 DR1	75-69-4
Vinyl chloride	23.6	ND	61	ND	47.2	08/25/10 5:07 DR1	75-01-4

**SUPPLEMENTAL REPORT**  
 Units Conversion Request

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**AIR Sample Condition Upon Receipt**

Pace Analytical

Client Name: RMT Project # 10136045

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace Other \_\_\_\_\_

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other \_\_\_\_\_

Optional
Proj. Due Date:
Proj. Name:

Tracking #: 1Z78V8A80143873594

Comments:

Date and Initials of person examining contents: 8-18-10 JK

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Media:	<u>AR (CAN)</u>	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.

Samples Received:

5 CANS, 5 FC'S

Canisters		Flow Controllers		Stand Alone G		Tedlar Bags	
Sample Number	Can ID	Sample Number	Can ID	Sample Number	Can ID	Sample Number	Can ID
<u>PL-2</u>	<u>0811</u>						
<u>PL-4</u>	<u>0755</u>						
<u>PL-6</u>	<u>0772</u>						
<u>PL-7</u>	<u>1178</u>						
<u>PL-9</u>	<u>0752</u>						

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

Project Manager Review:

*[Signature]*

Date: 08/18/10

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

A106 Rev.01 (22May2009)

October 08, 2010

Alyssa Sellwood  
RMT, INC  
744 Heartland Trail  
Madison, WI 53717

RE: Project: 07397.10 Tecumseh VI  
Pace Project No.: 10139441

Dear Alyssa Sellwood:

Enclosed are the analytical results for sample(s) received by the laboratory on October 01, 2010. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Carolynne Trout

carolynne.trout@pacelabs.com  
Project Manager

Enclosures

**REPORT OF LABORATORY ANALYSIS**

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## CERTIFICATIONS

Project: 07397.10 Tecumseh VI  
Pace Project No.: 10139441

### Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414  
Alaska Certification #: UST-078  
Alaska Certification #MN00064  
Arizona Certification #: AZ-0014  
Arkansas Certification #: 88-0680  
California Certification #: 01155CA  
EPA Region 8 Certification #: Pace  
Florida/NELAP Certification #: E87605  
Georgia Certification #: 959  
Idaho Certification #: MN00064  
Illinois Certification #: 200011  
Iowa Certification #: 368  
Kansas Certification #: E-10167  
Louisiana Certification #: 03086  
Louisiana Certification #: LA080009  
Maine Certification #: 2007029  
Maryland Certification #: 322  
Michigan DEQ Certification #: 9909  
Minnesota Certification #: 027-053-137  
Mississippi Certification #: Pace

Montana Certification #: MT CERT0092  
Nebraska Certification #: Pace  
Nevada Certification #: MN\_00064  
New Jersey Certification #: MN-002  
New Mexico Certification #: Pace  
New York Certification #: 11647  
North Carolina Certification #: 530  
North Dakota Certification #: R-036  
North Dakota Certification #: R-036A  
Ohio VAP Certification #: CL101  
Oklahoma Certification #: D9921  
Oklahoma Certification #: 9507  
Oregon Certification #: MN200001  
Pennsylvania Certification #: 68-00563  
Puerto Rico Certification  
Tennessee Certification #: 02818  
Texas Certification #: T104704192  
Washington Certification #: C754  
Wisconsin Certification #: 999407970

## REPORT OF LABORATORY ANALYSIS

Page 2 of 10

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### SAMPLE SUMMARY

Project: 07397.10 Tecumseh VI  
Pace Project No.: 10139441

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10139441001	PL-4	Air	09/30/10 15:50	10/01/10 09:50
10139441002	PL-2	Air	09/30/10 16:30	10/01/10 09:50

### REPORT OF LABORATORY ANALYSIS

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**SAMPLE ANALYTE COUNT**

Project: 07397.10 Tecumseh VI  
Pace Project No.: 10139441

Lab ID	Sample ID	Method	Analysts	Analytes Reported
10139441001	PL-4	TO-14 Ambient Air	CJR, DB1	39
10139441002	PL-2	TO-14 Ambient Air	CJR, DB1	39

**REPORT OF LABORATORY ANALYSIS**

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### ANALYTICAL RESULTS

Project: 07397.10 Tecumseh VI  
Pace Project No.: 10139441

Sample: PL-4	Lab ID: 10139441001	Collected: 09/30/10 15:50	Received: 10/01/10 09:50	Matrix: Air				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO14 MSV AIR - Ambient		Analytical Method: TO-14 Ambient Air						
Benzene	ND	ppbv	0.96	1.93		10/05/10 21:59	71-43-2	
Bromomethane	ND	ppbv	0.96	1.93		10/05/10 21:59	74-83-9	
Carbon tetrachloride	ND	ppbv	0.96	1.93		10/05/10 21:59	56-23-5	
Chlorobenzene	ND	ppbv	0.96	1.93		10/05/10 21:59	108-90-7	
Chloroethane	3.0	ppbv	0.96	1.93		10/05/10 21:59	75-00-3	
Chloroform	ND	ppbv	0.96	1.93		10/05/10 21:59	67-66-3	
Chloromethane	32.1	ppbv	0.96	1.93		10/05/10 21:59	74-87-3	
1,2-Dibromoethane (EDB)	ND	ppbv	0.96	1.93		10/05/10 21:59	106-93-4	
1,2-Dichlorobenzene	ND	ppbv	0.96	1.93		10/05/10 21:59	95-50-1	
1,3-Dichlorobenzene	ND	ppbv	0.96	1.93		10/05/10 21:59	541-73-1	
1,4-Dichlorobenzene	ND	ppbv	0.96	1.93		10/05/10 21:59	106-46-7	
Dichlorodifluoromethane	ND	ppbv	0.96	1.93		10/05/10 21:59	75-71-8	
1,1-Dichloroethane	1370	ppbv	309	617.6		10/07/10 05:51	75-34-3	A3
1,2-Dichloroethane	ND	ppbv	0.96	1.93		10/05/10 21:59	107-06-2	
1,1-Dichloroethene	977	ppbv	309	617.6		10/07/10 05:51	75-35-4	A3
cis-1,2-Dichloroethene	ND	ppbv	0.96	1.93		10/05/10 21:59	156-59-2	
trans-1,2-Dichloroethene	ND	ppbv	0.96	1.93		10/05/10 21:59	156-60-5	
1,2-Dichloropropane	ND	ppbv	0.96	1.93		10/05/10 21:59	78-87-5	
cis-1,3-Dichloropropene	ND	ppbv	0.96	1.93		10/05/10 21:59	10061-01-5	
trans-1,3-Dichloropropene	ND	ppbv	0.96	1.93		10/05/10 21:59	10061-02-6	
Dichlorotetrafluoroethane	ND	ppbv	0.96	1.93		10/05/10 21:59	76-14-2	
Ethylbenzene	ND	ppbv	0.96	1.93		10/05/10 21:59	100-41-4	
Hexachloro-1,3-butadiene	ND	ppbv	0.96	1.93		10/05/10 21:59	87-68-3	SS
Methylene Chloride	1.1	ppbv	0.96	1.93		10/05/10 21:59	75-09-2	
Styrene	ND	ppbv	0.96	1.93		10/05/10 21:59	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ppbv	0.96	1.93		10/05/10 21:59	79-34-5	
Tetrachloroethene	9.8	ppbv	0.96	1.93		10/05/10 21:59	127-18-4	
Toluene	1.4	ppbv	0.96	1.93		10/05/10 21:59	108-88-3	
1,2,4-Trichlorobenzene	ND	ppbv	0.96	1.93		10/05/10 21:59	120-82-1	SS
1,1,1-Trichloroethane	8010	ppbv	309	617.6		10/07/10 05:51	71-55-6	A3
1,1,2-Trichloroethane	ND	ppbv	0.96	1.93		10/05/10 21:59	79-00-5	
Trichloroethene	0.97	ppbv	0.96	1.93		10/05/10 21:59	79-01-6	
Trichlorofluoromethane	ND	ppbv	0.96	1.93		10/05/10 21:59	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ppbv	0.96	1.93		10/05/10 21:59	76-13-1	
1,2,4-Trimethylbenzene	3.0	ppbv	0.96	1.93		10/05/10 21:59	95-63-6	
1,3,5-Trimethylbenzene	ND	ppbv	0.96	1.93		10/05/10 21:59	108-67-8	
Vinyl chloride	ND	ppbv	0.96	1.93		10/05/10 21:59	75-01-4	
m&p-Xylene	2.9	ppbv	1.9	1.93		10/05/10 21:59	1330-20-7	
o-Xylene	ND	ppbv	0.96	1.93		10/05/10 21:59	95-47-6	

### ANALYTICAL RESULTS

Project: 07397.10 Tecumseh VI

Pace Project No.: 10139441

Sample:	PL-2	Lab ID:	10139441002	Collected:	09/30/10 16:30	Received:	10/01/10 09:50	Matrix:	Air
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
<b>TO14 MSV AIR - Ambient</b>		Analytical Method: TO-14 Ambient Air							
Benzene	5.2	ppbv	0.90	1.8		10/05/10 22:30	71-43-2		
Bromomethane	ND	ppbv	0.90	1.8		10/05/10 22:30	74-83-9		
Carbon tetrachloride	ND	ppbv	0.90	1.8		10/05/10 22:30	56-23-5		
Chlorobenzene	ND	ppbv	0.90	1.8		10/05/10 22:30	108-90-7		
Chloroethane	26.1	ppbv	0.90	1.8		10/05/10 22:30	75-00-3		
Chloroform	ND	ppbv	0.90	1.8		10/05/10 22:30	67-66-3		
Chloromethane	ND	ppbv	0.90	1.8		10/05/10 22:30	74-87-3		
1,2-Dibromoethane (EDB)	ND	ppbv	0.90	1.8		10/05/10 22:30	106-93-4		
1,2-Dichlorobenzene	ND	ppbv	0.90	1.8		10/05/10 22:30	95-50-1		
1,3-Dichlorobenzene	ND	ppbv	0.90	1.8		10/05/10 22:30	541-73-1		
1,4-Dichlorobenzene	ND	ppbv	0.90	1.8		10/05/10 22:30	106-46-7		
Dichlorodifluoromethane	12.2	ppbv	0.90	1.8		10/05/10 22:30	75-71-8		
1,1-Dichloroethane	1680	ppbv	18.0	36		10/07/10 06:17	75-34-3		E
1,2-Dichloroethane	ND	ppbv	0.90	1.8		10/05/10 22:30	107-06-2		
1,1-Dichloroethene	118	ppbv	18.0	36		10/07/10 06:17	75-35-4		
cis-1,2-Dichloroethene	ND	ppbv	0.90	1.8		10/05/10 22:30	156-59-2		
trans-1,2-Dichloroethene	ND	ppbv	0.90	1.8		10/05/10 22:30	156-60-5		
1,2-Dichloropropane	ND	ppbv	0.90	1.8		10/05/10 22:30	78-87-5		
cis-1,3-Dichloropropene	ND	ppbv	0.90	1.8		10/05/10 22:30	10061-01-5		
trans-1,3-Dichloropropene	ND	ppbv	0.90	1.8		10/05/10 22:30	10061-02-6		
Dichlorotetrafluoroethane	ND	ppbv	0.90	1.8		10/05/10 22:30	76-14-2		
Ethylbenzene	6.6	ppbv	0.90	1.8		10/05/10 22:30	100-41-4		
Hexachloro-1,3-butadiene	ND	ppbv	0.90	1.8		10/05/10 22:30	87-68-3		SS
Methylene Chloride	1.6	ppbv	0.90	1.8		10/05/10 22:30	75-09-2		
Styrene	ND	ppbv	0.90	1.8		10/05/10 22:30	100-42-5		
1,1,2,2-Tetrachloroethane	ND	ppbv	0.90	1.8		10/05/10 22:30	79-34-5		
Tetrachloroethene	0.98	ppbv	0.90	1.8		10/05/10 22:30	127-18-4		
Toluene	26.2	ppbv	0.90	1.8		10/05/10 22:30	108-88-3		
1,2,4-Trichlorobenzene	ND	ppbv	0.90	1.8		10/05/10 22:30	120-82-1		SS
1,1,1-Trichloroethane	419	ppbv	18.0	36		10/07/10 06:17	71-55-6		
1,1,2-Trichloroethane	ND	ppbv	0.90	1.8		10/05/10 22:30	79-00-5		
Trichloroethene	ND	ppbv	0.90	1.8		10/05/10 22:30	79-01-6		
Trichlorofluoromethane	ND	ppbv	0.90	1.8		10/05/10 22:30	75-69-4		
1,1,2-Trichlorotrifluoroethane	ND	ppbv	0.90	1.8		10/05/10 22:30	76-13-1		
1,2,4-Trimethylbenzene	12.0	ppbv	0.90	1.8		10/05/10 22:30	95-63-6		
1,3,5-Trimethylbenzene	ND	ppbv	0.90	1.8		10/05/10 22:30	108-67-8		
Vinyl chloride	ND	ppbv	0.90	1.8		10/05/10 22:30	75-01-4		
m&p-Xylene	37.1	ppbv	1.8	1.8		10/05/10 22:30	1330-20-7		
o-Xylene	9.0	ppbv	0.90	1.8		10/05/10 22:30	95-47-6		

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**QUALITY CONTROL DATA**

Project: 07397.10 Tecumseh VI  
Pace Project No.: 10139441

QC Batch: AIR/10992 Analysis Method: TO-14 Ambient Air  
QC Batch Method: TO-14 Ambient Air Analysis Description: TO14 MSV AIR - AMBIENT  
Associated Lab Samples: 10139441001, 10139441002

METHOD BLANK: 865452 Matrix: Air  
Associated Lab Samples: 10139441001, 10139441002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ppbv	ND	0.50	10/05/10 11:19	
1,1,2,2-Tetrachloroethane	ppbv	ND	0.50	10/05/10 11:19	
1,1,2-Trichloroethane	ppbv	ND	0.50	10/05/10 11:19	
1,1,2-Trichlorotrifluoroethane	ppbv	ND	0.50	10/05/10 11:19	
1,1-Dichloroethane	ppbv	ND	0.50	10/05/10 11:19	
1,1-Dichloroethene	ppbv	ND	0.50	10/05/10 11:19	
1,2,4-Trichlorobenzene	ppbv	ND	0.50	10/05/10 11:19	SS
1,2,4-Trimethylbenzene	ppbv	ND	0.50	10/05/10 11:19	
1,2-Dibromoethane (EDB)	ppbv	ND	0.50	10/05/10 11:19	
1,2-Dichlorobenzene	ppbv	ND	0.50	10/05/10 11:19	
1,2-Dichloroethane	ppbv	ND	0.50	10/05/10 11:19	
1,2-Dichloropropane	ppbv	ND	0.50	10/05/10 11:19	
1,3,5-Trimethylbenzene	ppbv	ND	0.50	10/05/10 11:19	
1,3-Dichlorobenzene	ppbv	ND	0.50	10/05/10 11:19	
1,4-Dichlorobenzene	ppbv	ND	0.50	10/05/10 11:19	
Benzene	ppbv	ND	0.50	10/05/10 11:19	
Bromomethane	ppbv	ND	0.50	10/05/10 11:19	
Carbon tetrachloride	ppbv	ND	0.50	10/05/10 11:19	
Chlorobenzene	ppbv	ND	0.50	10/05/10 11:19	
Chloroethane	ppbv	ND	0.50	10/05/10 11:19	
Chloroform	ppbv	ND	0.50	10/05/10 11:19	
Chloromethane	ppbv	ND	0.50	10/05/10 11:19	
cis-1,2-Dichloroethene	ppbv	ND	0.50	10/05/10 11:19	
cis-1,3-Dichloropropene	ppbv	ND	0.50	10/05/10 11:19	
Dichlorodifluoromethane	ppbv	ND	0.50	10/05/10 11:19	
Dichlorotetrafluoroethane	ppbv	ND	0.50	10/05/10 11:19	
Ethylbenzene	ppbv	ND	0.50	10/05/10 11:19	
Hexachloro-1,3-butadiene	ppbv	ND	0.50	10/05/10 11:19	SS
m&p-Xylene	ppbv	ND	1.0	10/05/10 11:19	
Methylene Chloride	ppbv	ND	0.50	10/05/10 11:19	
o-Xylene	ppbv	ND	0.50	10/05/10 11:19	
Styrene	ppbv	ND	0.50	10/05/10 11:19	
Tetrachloroethene	ppbv	ND	0.50	10/05/10 11:19	
Toluene	ppbv	ND	0.50	10/05/10 11:19	
trans-1,2-Dichloroethene	ppbv	ND	0.50	10/05/10 11:19	
trans-1,3-Dichloropropene	ppbv	ND	0.50	10/05/10 11:19	
Trichloroethene	ppbv	ND	0.50	10/05/10 11:19	
Trichlorofluoromethane	ppbv	ND	0.50	10/05/10 11:19	
Vinyl chloride	ppbv	ND	0.50	10/05/10 11:19	

Date: 10/08/2010 12:30 PM

**REPORT OF LABORATORY ANALYSIS**

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### QUALITY CONTROL DATA

Project: 07397.10 Tecumseh VI  
Pace Project No.: 10139441

LABORATORY CONTROL SAMPLE: 865453

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ppbv	10	10.7	107	75-135	
1,1,2,2-Tetrachloroethane	ppbv	10	11.2	112	69-131	
1,1,2-Trichloroethane	ppbv	10	11.8	118	64-127	
1,1,2-Trichlorotrifluoroethane	ppbv	10	10.1	101	53-125	
1,1-Dichloroethane	ppbv	10	9.4	94	60-125	
1,1-Dichloroethene	ppbv	10	9.9	99	69-128	
1,2,4-Trichlorobenzene	ppbv	10	8.7	87	30-150	SS
1,2,4-Trimethylbenzene	ppbv	10	9.4	94	61-150	
1,2-Dibromoethane (EDB)	ppbv	10	11.3	113	68-136	
1,2-Dichlorobenzene	ppbv	10	11.4	114	59-150	
1,2-Dichloroethane	ppbv	10	10.5	105	66-127	
1,2-Dichloropropane	ppbv	10	10.5	105	75-134	
1,3,5-Trimethylbenzene	ppbv	10	9.2	92	71-150	
1,3-Dichlorobenzene	ppbv	10	10.3	103	58-147	
1,4-Dichlorobenzene	ppbv	10	9.9	99	62-143	
Benzene	ppbv	10	9.7	97	71-125	
Bromomethane	ppbv	10	9.1	91	69-125	
Carbon tetrachloride	ppbv	10	12.0	120	60-145	
Chlorobenzene	ppbv	10	10.7	107	73-143	
Chloroethane	ppbv	10	9.1	91	71-128	
Chloroform	ppbv	10	9.8	98	73-137	
Chloromethane	ppbv	10	8.8	88	64-125	
cis-1,2-Dichloroethene	ppbv	10	8.8	88	67-131	
cis-1,3-Dichloropropene	ppbv	10	10.8	108	75-150	
Dichlorodifluoromethane	ppbv	10	11.5	115	69-124	
Dichlorotetrafluoroethane	ppbv	10	9.6	96	59-125	
Ethylbenzene	ppbv	10	10.2	102	75-150	
Hexachloro-1,3-butadiene	ppbv	10	10	100	30-150	SS
m&p-Xylene	ppbv	10	9.1	91	68-138	
Methylene Chloride	ppbv	10	8.9	89	45-125	
o-Xylene	ppbv	10	10.5	105	69-143	
Styrene	ppbv	10	9.2	92	62-137	
Tetrachloroethene	ppbv	10	9.6	96	68-136	
Toluene	ppbv	10	11.7	117	70-128	
trans-1,2-Dichloroethene	ppbv	10	9.5	95	69-131	
trans-1,3-Dichloropropene	ppbv	10	11.6	116	65-135	
Trichloroethene	ppbv	10	9.5	95	75-147	
Trichlorofluoromethane	ppbv	10	10.5	105	63-127	
Vinyl chloride	ppbv	10	9.0	90	66-125	

## QUALIFIERS

Project: 07397.10 Tecumseh VI  
Pace Project No.: 10139441

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

### ANALYTE QUALIFIERS

- A3 The sample was analyzed by serial dilution.
- E Analyte concentration exceeded the calibration range. The reported result is estimated.
- SS This analyte did not meet the secondary source verification criteria for the initial calibration. The reported result should be considered an estimated value.

**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 07397.10 Tecumseh VI  
Pace Project No.: 10139441

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10139441001	PL-4	TO-14 Ambient Air	AIR/10992		
10139441002	PL-2	TO-14 Ambient Air	AIR/10992		



# AIR: CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

10139441

02606

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<b>Section A</b> Required Client Information:		<b>Section B</b> Required Project Information:		<b>Section C</b> Invoice Information:		Program	
Company: RMT Inc		Report To: Alyssa Sellwood		Attention: Tom Stolzenberg		<input type="checkbox"/> UST <input type="checkbox"/> Superfund <input type="checkbox"/> Emissions <input type="checkbox"/> Clean Air Act <input type="checkbox"/> Voluntary Clean Up <input type="checkbox"/> Dry Clean <input type="checkbox"/> RCRA <input type="checkbox"/> Other	
Address: 744 Heartland Tr		Copy To: John Rice		Company Name: RMT Inc		Location of Sampling by State: WI	
Email To: Alyssa.Sellwood@rmtinc.com		Purchase Order No.:		Address: 744 Heartland Tr		Reporting Units ug/m <sup>3</sup> <input type="checkbox"/> mg/m <sup>3</sup> <input type="checkbox"/> PPBV <input checked="" type="checkbox"/> PPMV <input type="checkbox"/> Other <input type="checkbox"/>	
Phone: 888314444 Fax:		Project Name: Jecunselh VI		Pace Quote Reference:		Report Level: II <input type="checkbox"/> III <input type="checkbox"/> IV <input type="checkbox"/> Other <input type="checkbox"/>	
Requested Due Date/TAT: 10/5/10 TAT		Project Number: 07397.10		Pace Project Manager/Sales Rep.:			
				Pace Profile #:			

6/8/10

ITEM #	Section D Required Client Information		MEDIA CODE	PID Reading (Client only)	COLLECTED				Canister Pressure (Initial Field - psig)	Canister Pressure (Final Field - psig)	Summa Can Number	Flow Control Number	Method:								Pace Lab ID	
	AIR SAMPLE ID				COMPOSITE START		COMPOSITE -						PM10	3C-Filtered Gas (%)	TO3	TO-2M (Methane)	TO-1 (PCBs)	TO-13 (PAH)	TO-14	TO-15		TO-15 Short List*
	Sample IDs MUST BE UNIQUE	Valid Media Codes			DATE	TIME	DATE	TIME														
1	PL-4	MEDIA CODE	1LC	↓	9/30/10	1520	9/30/10	1550	-25	-2	1358	0	27								10139441/001	
2	PL-2	CODE	↓	↓	↓	1600	↓	1630	-29	-1	1429		75								002	

Comments :	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	J. Starnick & Seller	9/30/10	1650	To Ted Fox	10/1/10	09:50	ASB	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>SAMPLER NAME AND SIGNATURE</b>				Temp in °C
PRINT Name of SAMPLER: J. Starnick & Seller				
SIGNATURE of SAMPLER: [Signature] DATE Signed (MM/DD/YY): 09/30/10				
Received on Ice	Custody Sealed Cooler	Samples Intact		

ORIGINAL

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**AIR Sample Condition Upon Receipt**

Client Name: RMT Project # 10139441

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace Other \_\_\_\_\_

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other PAPER



Tracking #: 7939 6805 5405

Comments: \_\_\_\_\_ Date and Initials of person examining contents: 10-1-10 JF

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7. <u>10-8-10</u>
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Media:	<u>AIR (CAN)</u>	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.

Samples Received: 2 CANS 2 FC'S

Canisters		Flow Controllers		Stand Alone G		Tedlar Bags	
Sample Number	Can ID	Sample Number	Can ID	Sample Number	Can ID	Sample Number	Can ID
<u>PL-4</u>	<u>1358</u>		<u>75</u>				
<u>PL-2</u>	<u>1429</u>		<u>027</u>				

Client Notification/ Resolution: \_\_\_\_\_ Field Data Required? Y / N  
Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
Comments/ Resolution: \_\_\_\_\_

Project Manager Review: [Signature] Date: 10/01/10