Former Churchville Ford

MONROE COUNTY, NEW YORK

Final Engineering Report

NYSDEC Site Number: V00658-8

Prepared for:

Bonarigo & McCutcheon, PLLC

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Prepared by:

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REVISED JULY 2012

CERTIFICATION

I, Robert W. Hutteman, am currently a Professional Engineer licensed by the State of New York, I had primary direct responsibility for implementation of the remedial program activities, and I certify that the Remedial Action Work Plan was implemented and that all construction activities were completed in substantial conformance with the Department-approved Remedial Action Work Plan.

I certify that the data submitted to the Department with this Final Engineering Report demonstrates that the remediation requirements set forth in the Remedial Action Work Plan and in all applicable statutes and regulations have been or will be achieved in accordance with the time frames, if any, established in for the remedy.

I certify that all use restrictions, Institutional Controls, Engineering Controls, and/or any operation and maintenance requirements applicable to the Site are contained in an environmental deed restriction and that all affected local governments, as defined in ECL 71-3603, have been notified that such deed restriction has been recorded.

I certify that a Site Management Plan has been submitted for the continual and proper operation, maintenance, and monitoring of all Engineering Controls employed at the Site, including the proper maintenance of all remaining monitoring wells, and that such plan has been approved by Department.

I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, Robert W. Hutteman, of Lu Engineers located at 175 Sully's Trail Suite 201, Pittsford, New York 14534, am certifying as Owner's Designated Site Representative for the site.

072062	07-20-12	
NYS PE License #	Date	Signature

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LIST OF ACRONYMS

Acronym	Definition
FER	Final Engineering Report
NYSDEC	New York State Department of Environmental Conservation
DER	Division of Environmental Remediation
RAO	Remedial Action Objective
RA	Remedial Action
ISCO	in-situ chemical oxidation
$NaMnO_4$	sodium permanganate
SMP	Site Management Plan
NYSDOT	New York State Department of Transportation
VCA	Voluntary Cleanup Agreement
AST	above ground storage tank
RI	Remedial Investigation
ESA	Environmental Site Assessment
VOC	volatile organic compound
TAGM	Technical Administrative Guidance Memorandum
SVOC	semi-volatile organic compound
VCP	Voluntary Cleanup Plan
RCU	Restricted Commercial Use
NYCRR	New York Codes, Rules, and Regulations
TCE	trichloroethene
PCE	tetrachloroethene
cis,1-2,DCE	cis-1,2-Dichloroethene
PAH	polyaromatic hydrocarbon
TOGS	Technical and Operational Guidance Series
SCG	Standards, Criteria, and Guidance
RAWP	Remedial Action Work Plan
CO_2	carbon dioxide
H_2O	water
ft	feet
ppb	parts per billion
SVI	Soil Vapor Intrusion
SSDS	Sub-Slab Depressurization System
IC	Institutional Control

Acronym	Definition
DR	Deed Restriction
NYSDOH	New York State Department of Health
EC	Engineering Control
IRM	Interim Remedial Measure
PVC	polyvinyl chloride
psi	pounds per square inch
MSDS	Material Safety Data Sheet
OSHA	Occupational Safety and Health Association
HASP	Health & Safety Plan
PID	photoionization detector
QAPP	Quality Assurance Project Plan
QA/QC	Quality Assurance/Quality Control
EPA	Environmental Protection Agency
SOP	Standard Operating Procedures
ELAP	Environmental Laboratory Approval Program
ASP	Analytical Standards Protocol
DUSR	Data Usability Summary Report
CAMP	Community Air Monitoring Plan
UFPO	Underground Facilities Protection Organization
UIC	Underground Injection Control
CFR	Code Federal Regulations
SEQRA	State Environmental Quality Review Act
ppm	parts per million
1,1,1-TCA	1,1,1-Trichloroethane
PEL	permissible exposure limit
TWA	time weighted average
NEHA	National Environmental Health Association
EWP	Excavation Work Plan

FINAL ENGINEERING REPORT

1.0 INTRODUCTION

This Final Engineering Report (FER) was completed on behalf of Bonarigo & McCutcheon, PLLC to document the remedial measures implemented at the former Churchville Ford Site #V00658-8 in an effort to remediate chlorinated solvent contamination identified at the Site through a series of environmental investigations. This FER has been developed in general accordance with the procedures outlined by the New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation (DER).

This report will identify the Remedial Action Objectives (RAO) generated for the Site, cleanup levels attained and describe the basis for concluding to what extent the results of the remediation are protective of public health and the environment.

The Remedial Action (RA) activities for the Site included:

- Installation of injection wells in the western portion of the main building workshop area
- Implementation of an in-Situ chemical oxidation (ISCO) sodium permanganate ($NaMnO_4$) injection program
- Confirmatory groundwater and sub-slab soil vapor testing in the area of concern
- Review of soil vapor mitigation issues
- Imposition of Institutional Controls in the form of a deed restriction
- Creation of a Site Management Plan (SMP)

The objective of the RA activities was to mitigate potential exposures to environmental contaminants and contain further movement of contaminants associated with the presence of chlorinated solvents in saturated soils, groundwater, and soil vapor associated with former solvent storage.

1.1 SITE DESCRIPTION

The Site is located at 111 South Main Street in the Village of Churchville, Town of Riga, Monroe County, New York (Figure 1). The original Site boundary was a 10.28-acre parcel (Tax ID # 143.17-1-001.121) owned by Antonio Gabriele and Joseph Ognibene (see Figure 2). The property was sold to Meyers at Churchville, LLC, in April 2004. In 2006, the property was subdivided into three (3) separate parcels to allow for realignment of Sanford Road North, which transects the original parcel (see Figure 3). In December 2011 the property was sold to Wilkins Recreational Vehicles, Inc.

The current parcels that comprise the original Site boundary are as follows:

- Tax ID # 143.17-1-50: A 6.083-acre parcel owned by Wilkins Recreational Vehicles, Inc. This was the main portion of the Site and contains a 22,000-square foot truck and boat dealership with service bays, a small wooden shed, and parking lot.
- Tax ID # 143.17-1-51: A 1.808-acre parcel located south of Sanford Road; owned by Wilkins Recreational Vehicles, Inc. This parcel consists of an undeveloped grassy area between I-490 and the new alignment of Sanford Road North.
- Sanford Road North Right of Way: This portion of the original Site consists of Sanford Road North and a stormwater retention basin owned by the New York State Department of Transportation (NYSDOT).

In April 2009, the Voluntary Cleanup Agreement (VCA) was amended to re-define the Site boundary. The revised Site consists only of tax parcel 143.17-1-50, which contains the truck and boat dealership. This parcel is zoned "Highway Commercial Use District" and is serviced with public water, sewer, gas and electric. Floor drains within the building discharge to an oil/water separator, located in the north central portion of the building, prior to discharging to the municipal sanitary sewer system. Adjacent properties include Sanford Road North, a stormwater retention basin and Interstate I-490 to the south; the Gatherings Party House to the north, a recreational vehicle sales facility to the west, and South Main Street (NYS Route 36) with residential properties to the east of NYS Route 36.

The boundaries of the Site are fully described in Appendix A: Metes and Bounds Description and are illustrated on Figure 3.

1.2 SITE HISTORY

According to previous environmental reports, the Site was utilized as agricultural land until 1986, when it was developed as an automobile dealership. The facility began operations in 1987 as Gabriele Ford. According to information obtained from the Town of Riga Assessor's Office, the facility was taken over by the Ford Motor Company and operated as Churchville Ford from 1997-2001. The Site was vacant from approximately 2001 until Meyer's Campers purchased the property in 2004. The Site is currently owned by Wilkins Recreational Vehicles, Inc. and is utilized as an RV sales and service center.

The main building was constructed in 1986, with two (2) additions reportedly constructed between 1989 and 1995. Operations at the Site included sales and service of new and used recreational vehicles and boats.

A 1,000-gallon aboveground storage tank (AST) was formerly located outside the southwest corner of the main building. This tank has been removed (date unknown). Historically, the tank contained gasoline, virgin oil, and/or waste oil.

A 275-gallon virgin oil AST was located in the service area, and a 200-gallon waste oil AST was formerly located outside the service area. Other vehicle maintenance products including antifreeze, used antifreeze, parts washing solvents, lubricants, automotive fluids, cleaners, and waxes were reportedly used onsite and stored in containers of 55 gallons or less.

Contamination was discovered at the Site in 2002 during an environmental investigation conducted by Sear Brown in conjunction with the property transfer. A Remedial Investigation (RI) was conducted by Entrix Environmental and Lu Engineers between 2004 and 2008. Results of previous investigations are discussed in the following section.

1.3 PREVIOUS INVESTIGATIONS

The Site has undergone a series of environmental investigations. These investigations include:

- Preliminary Phase I Environmental Site Assessment (ESA), *Entrix, Inc.*, November 1997
- Preliminary Phase I ESA, *Entrix, Inc.*, August 2001
- Phase I ESA, *The Sear-Brown Group*, July 2002

- Phase II ESA, *The Sear-Brown Group*, August 2002
- Remedial Investigation, *Entrix Environmental* (2004)
- Remedial Investigation, *Lu Engineers* (2006-2008)

The Phase II ESA performed by Sear-Brown in August 2002 identified petroleum products and degreasing solvents in saturated soils and groundwater at the Site. Volatile organic compounds (VOCs) were detected in soil and groundwater at levels above NYSDEC soil cleanup objectives (Technical Administrative and Guidance Memorandum (TAGM) 4046) and NYS groundwater standards. The impacted soils appeared to be limited to the western portion of the service area where solvents were formerly stored. Semi-volatile organic compounds (SVOCs) were detected in soils above cleanup objectives near the former used oil AST, adjacent to the southwest corner of the building.

Additional investigation work at the Site was conducted under the NYSDEC Voluntary Cleanup Program (VCP). A VCA was signed in September 2003 by Antonio Gabriele and Joseph Ognibene (the "volunteers") and the NYSDEC. The VCA was amended to re-define the site boundary in April 2009. An Investigation Work Plan was originally prepared by Entrix, Inc. (Entrix), the 'volunteer's' consultant. This work plan was approved by the NYSDEC and investigation activities were conducted by Entrix in 2004. Lu Engineers was contracted by the Volunteers to complete the RI. Lu Engineers prepared a final NYSDEC-approved *Voluntary Cleanup Program Work Plan* in August 2006. The remainder of the RI activities was conducted by Lu Engineers between September 2006 and February 2008.

The RI conducted by Lu Engineers and Entrix included the following primary tasks:

- Completion of twenty (20) soil borings;
- Installation of nine (9) groundwater monitoring wells;
- Three rounds of groundwater sampling;
- Collection of sixteen (16) surface soil samples;
- Collection of three (3) catch basin sediment samples;
- Two (2) rounds of soil vapor intrusion sampling; and
- Cleaning and evaluation of the oil/water separator.

RI findings were presented in a Remedial Investigation Report prepared by Lu Engineers (July 2008) and are summarized in the following section.

1.4 SUMMARY OF PREVIOUS ENVIRONMENTAL CONDITIONS

Subsurface soil analytical results did not reveal VOCs, SVOCs, or metals above the Restricted Commercial Use (RCU) Guidance Values (6 New York Codes, Rules, and Regulation (NYCRR) Part 375-6). Therefore, soil remediation was not warranted.

A source area was defined by the RI and contained elevated levels of trichloroethene (TCE), tetrachloroethene (PCE), and cis-1,2-dichloroethene (cis-1,2-DCE) in groundwater beneath the southwestern portion of the building at levels exceeding 6 NYCRR Part 703 Class GA drinking water standards. This area was formerly used for solvent and waste oil storage.

Elevated levels of TCE, PCE, and associated breakdown compounds were detected in the first and second round of sub-slab soil vapor and/or indoor air sampling (conducted in April 2007 and March 2010) located near the southwest corner of the building. Elevated levels of TCE were identified in two (2) of the three (3) Lu Engineers' indoor air sampling locations collected in April 2007, prior to implementing remedial actions at the Site. It is noted that elevated levels of TCE were not detected in the post-remedial set of indoor ambient air samples collected in March 2010.

During the investigation, analytical results indicated that polynuclear aromatic hydrocarbons (PAHs) were present in storm sewer sediments and surface soils in the stormwater retention basin located on the southeast corner of the Site. The PAHs did not appear to be associated with a release or spill at the Site, but rather from non-point source origins (i.e., vehicle emissions, fluids, and/or asphaltic debris from adjacent roadways). Given the Site's current status and intended future use as commercial property, dermal contact with surface soils within the stormwater retention basin is not considered likely.

Based on the findings of the RI, remedial action was recommended to address chlorinated solvents detected in groundwater at levels exceeding NYSDEC Part 703.5 Groundwater Standards and NYSDEC guidance (Technical and Operational Guidance Series (TOGS) 1.1.1).

An electronic copy of this FER with all supporting documentation is included as Appendix B.

2.0 SUMMARY OF SITE REMEDY

2.1 REMEDIAL ACTION OBJECTIVES

Based on the results of the RI, the following RAOs were identified for this Site:

1. To remove the contaminants from the media of concern (groundwater, soil and soil vapor) and establish pre-release conditions if possible. If pre-release conditions cannot be achieved, the SCGs in Section 4 for soil, soil vapor, and groundwater will be utilized.

2. To minimize the generation of wastes during the remedial action that require off-site disposal in land disposal units. (TAGM 4030).

3. Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.

4. Prevent contact with, or inhalation of, volatiles from contaminated groundwater.

5. Remove the source of groundwater contamination.

6. Prevent ingestion/direct contact with contaminated soil and sediment.

7. Prevent inhalation of, or exposure from, contaminants volatilizing from contaminants in soil.

8. Prevent migration of contaminants that would result in groundwater or surface water contamination.

2.2 DESCRIPTION OF SELECTED REMEDY

The Site was remediated in accordance with the remedy approved by the NYSDEC as described in the Remedial Action Work Plan (RAWP) dated December 2008 and the minor modification dated September 4, 2009.

The factors considered during the selection of the remedy are those listed in 6 NYCRR Part 375-1.8. The following are the components of the selected remedy:

- Treating groundwater and subsurface soils via ISCO using $NaMnO_4$. When this chemical oxidant comes into contact with organic compounds such at TCE, PCE, and associated breakdown products, a reaction occurs oxidizing the organic

contaminants to relatively benign compounds, such as carbon dioxide (CO_2) and water (H_2O).

The chemical oxidant was applied through injection wells (4 to 20 feet (ft) deep) to treat saturated soils as well as groundwater. This was to target groundwater with chlorinated solvent concentrations in excess of 5 parts per billion (ppb) and 2 ppb for vinyl chloride.

Five (5) new shallow injection points and one (1) new deep injection point were installed and three (3) existing monitoring wells (MW-1, MW-3, and MW-6) were used as injection wells. (It should be noted that replacement wells were installed for two (2) of the shallow injection points.) The chemical oxidant was injected during approximately eleven (11) separate events over several months. During implementation, the groundwater concentrations were monitored and colorimetric testing was conducted to evaluate oxidant distribution. The groundwater concentrations were compared to groundwater standards and, as a baseline, the groundwater results from the Remedial Investigation which are presented on Figure 7 and in Tables 1 and 2.

- Additional soil vapor intrusion (SVI) sampling was conducted after the oxidant injection was completed to determine if additional vapor intrusion mitigation or long-term monitoring measures were needed. As detailed in the SMP, a Sub-Slab Depressurization System (SSDS) was installed in June 2011 in the western portion of the building (Figure 12).
- Imposition of an Institutional Control (IC) in the form of a Deed Restriction (DR) that requires a) limiting the use and development of the property to commercial use, which will also permit industrial use; b) compliance with an approved SMP; c) restricting the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the New York State Department of Health (NYSDOH); and d) the property owner to complete and submit an annual certification of Institutional and Engineering Controls (IC/EC).
- Development and implementation of an SMP, for long term management of remaining contamination as required by the DR, which includes plans for 1) IC/EC controls; 2) monitoring; 3) operation and maintenance; and 4) reporting. The following IC/EC will be included: a) management of the existing cover system to restrict excavation below the pavement and buildings; and b) operation and maintenance of the SSDS.

- The property owner will provide an annual certification of IC/ECs, prepared and submitted by a professional engineer or such other expert acceptable to NYSDEC, until NYSDEC notifies the property owner in writing that this certification is no longer needed. This submittal will: (a) contain certification that the IC/ECs put in place are still in place and are either unchanged from the previous certification or are compliant with NYSDEC-approved modifications; (b) allow NYSDEC access to the Site; (c) state that nothing has occurred that would impair the ability of the control to protect public health or the environment, or constitute a violation or failure to comply with the site management plan unless otherwise approved by NYSDEC.

Since the remedy could result in untreated hazardous waste remaining at the Site, a long term monitoring program will be instituted. This program may include semi-annual groundwater sampling and analysis for VOCs and metals to monitor the long-term effectiveness of the chemical oxidation.

3.0 INTERIM REMEDIAL MEASURES, OPERABLE UNITS AND REMEDIAL CONTRACTS

The remedy for this Site was performed as a single project, and no interim remedial measures (IRMs), operable units or separate construction contracts were performed.

4.0 DESCRIPTION OF REMEDIAL ACTIONS PERFORMED

4.1 INTRODUCTION

Remedial activities completed at the Site were conducted in accordance with procedures outlined in the approved RAWP for the Churchville Ford Site dated December 2008 and the minor modification dated September 4, 2009. Remedial activities were completed at the Site between May 2009 and January 2010.

Remedial actions completed are described in the following sections.

4.1.1 Injection Well Installation

A total of eight (8) injection points were installed between May and August 2009 as illustrated on Figure 4 (IW-JCL-1 through IW-JCL-8) using a Geoprobe 6610 DT drill rig and hollow-stem augers. Two (2) of the initial five (5) of the wells (IW-JCL-1 and IW-JCL-5) installed in May 2009 developed leaks during the first round of injection activity and could not be used as part of the program. This prompted their replacement by wells IW-JCL-6 and IW-JCL-7 in June 2009. Shallow wells IW-JCL-1 through IW-JCL-7 were all installed to a total depth of 11.5 ft below ground. In an effort to more effectively influence contaminant destruction in the source area, the eighth well (IW-JCL-8) was installed outside along the western wall of the building between existing monitoring wells MW-3 and MW-JCL-02. This well was installed in August 2009 to a depth of 17 ft.

Each shallow well consisted of 7.5 ft of one-inch diameter Schedule 40 polyvinyl chloride (PVC) 0.020" slotted well screen with one-inch diameter solid PVC riser connected to a ball valve and cam-lock fitting at the well head. The deep injection well consisted of 5 ft of one-inch Schedule 40 PVC 0.020" slotted well screen with one-inch diameter solid PVC riser.

Three (3) existing monitoring wells (MW-1, MW-3, and MW-6) were also used as injection wells.

4.1.2 $NaMnO_4$ Injection

In-situ chemical oxidation (ISCO) using injected sodium permanganate ($NaMnO_4$) was initiated in June 2009 and completed in January 2010 and included a total of eleven (11) injection events. The RAWP stated that a total of six (6) injection events were anticipated to complete the process. Injection wells IW-JCL-1 and IW-JCL-5, as well as the Geoprobe injection pump, developed leaks during the injection process. The leaks were caught early during each instance and contained. During several of the injection events these leaks resulted in a reduced total volume of permanganate solution injected per event than was outlined in the approved RAWP. For this reason, additional injection events were completed in order to introduce the total volume of solution that was proposed in the RAWP.

The injection process included the direct injection of $NaMnO_4$ into the contaminated zone of the saturated soils and groundwater underlying the Site via a Geoprobe, Inc. GS2000 cart-mounted injection system. The contaminated area directly affected by the injection process was approximately 80 ft by 80 ft and was an average of five (5) feet thick based on RI findings. A total of approximately 1,402.15 gallons of 3% $NaMnO_4$ solution were injected into the subsurface. Average pressures observed during injection were less than 15 pounds per square inch (psi).

The amount of oxidant required for contaminant removal was determined based in part on a spreadsheet provided by Carus Corporation, the manufacturer of RemOx® ISCO Reagent, which was the oxidant used at this Site. This spreadsheet was provided as Attachment A of the RAWP. Site data specifying contaminant levels, saturated soil porosity, and other factors were input to calculate the amount of permanganate needed to destroy the Site contaminants. The RemOx® Reagent was delivered as a 40% solution of $NaMnO_4$. To avoid fouling due to possible MnO_2 buildup, the $NaMnO_4$ solution was diluted with water to a 3% concentration prior to injection.

4.1.3 Dilution of RemOx

The 40% $NaMnO_4$ solution was mixed in a corrosion resistant drum in measured proportions with water to achieve the desired 3% dilution. A total of 1.3 gallons of 40% RemOx solution was added to 21.4 gallons of water measured in the mixing drum. Minimal mixing was necessary due to the high miscibility of the permanganate solution with water.

Personnel handling the $NaMnO_4$ solution donned protective equipment including chemically resistant gloves, aprons, tyvek suit and face shields. The RemOx® solution was stored in a closed drum in a cool, dry area along the western building wall, as recommended on the Material Safety Data Sheet (MSDS) (see photo log, Appendix F). The injection process was conducted at each injection point until a total of approximately 22.7 gallons (the design volume) of solution was injected during each event.

4.1.4 Injection System

As described above, the diluted 3% solution was mixed in a chemically resistant 90-gallon drum. A subcontracted Geoprobe® GS-2000 injection system was used for oxidant injection. The solution was transferred via chemical-resistant hand pump and hose to the 9.5-gallon capacity hopper located on the GS-2000 unit. The GS-2000's hose was attached to injection wells using a one-inch diameter cam lock connector (see Figures 5A, 5B, and 6).

The injection system was manually moved to each of the injection wells inside and outside of the building. Exhaust from the GS-2000 was vented to the building exterior using flexible, heat-resistant hose and additional ventilation was provided by leaving the overhead doors open during the injection process.

The 3% solution was injected at low pressure. The highest pressure observed was approximately 15 psi, but generally flowed at an average pressure of 10 psi or less. Injection pressure was measured by a gauge located on the GS-2000 injection line. The injection process, including the amount of oxidant injected, injection pressures and related information was documented in the site log book during each injection event.

4.1.5 Colorimetric Testing

During implementation, groundwater concentrations were monitored through sampling of wells MW-13, MW-JCL-02 and MW-JCL-03 as indicated in Table 1. Colorimetric testing was conducted during the injection program to evaluate oxidant distribution. Monitoring wells MW-13, MW-JCL-01, MW-JCL-02 and MW-21 were periodically checked for evidence of oxidant influence. Wells MW-13, MW-JCL-01 and MW-21 did not reveal evidence of colorimetric change during the course of the injection program or subsequent groundwater sampling. Due to the close proximity of deep injection well IW-JCL-8 to existing monitoring well MW-JCL-02 (+/- 2 ft.), significant oxidant influence was detected within MW-JCL-02 following the initial injection event at IW-JCL-8 in September 2009. Colorimetric evidence of permanganate influence was observed within well MW-JCL-02 through the groundwater sampling event conducted in February 2010. Other than reddish-rust discoloration observed in MW-6 during purging, no colormetric evidence of permanganate was observed within the Site wells tested in December 2011.

4.2 GOVERNING DOCUMENTS

4.2.1 Site-Specific Health & Safety Plan

All remedial work performed under this RA was conducted in full compliance with governmental requirements, including Site and worker safety requirements mandated by Federal Occupational Safety and Health Association (OSHA).

A Site-specific Health and Safety Plan (HASP) was included as Attachment B of the approved RAWP. The HASP was complied with for all remedial and invasive work performed at the Site. All airborne particulate levels and photoionization detector (PID) readings observed during the injection well installations or injection events were at concentrations below the action levels established in the HASP, therefore no work stoppage was necessary.

4.2.2 Quality Assurance Project Plan

The Quality Assurance Project Plan (QAPP) was included as Appendix C of the approved RAWP for the former Churchville Ford Site.

All sampling was conducted per the approved QAPP. This plan presented the policies, organization, objectives, functional activities, and specific quality assurance (QA) and quality control (QC) activities that were implemented by Lu Engineers for this project. The QAPP was designed to ensure that technical data generated by Lu Engineers is accurate, representative, and will ultimately withstand legal scrutiny.

All QA/QC procedures were implemented in accordance with applicable professional technical standards, NYSDEC and Environmental Protection Agency (EPA) requirements, government regulations and guidelines, and specific project goals and requirements. The QAPP was prepared in accordance with NYSDEC and EPA QAPP guidance documents.

Analytical samples were collected in the field utilizing standard operating procedures (SOPs) and sent to the contracted NYSDOH Environmental Laboratory Approval Program (ELAP)-certified laboratory for analysis, as necessary (results on Tables 1 and 2). Calculations and other post-field tasks were reviewed by field personnel and the project manager.

Equipment used to take field measurements was maintained and calibrated in accordance with established procedures.

Document control procedures were used to coordinate the distribution, coding, storage, retrieval, and review of data collected during sampling tasks. These included, but were not limited to, the sampling of groundwater and soil vapor.

In addition, the laboratory has developed SOPs for individual analytical methods and internal QC procedures. These documents are an important aspect of their QA program and are available for review upon request.

Data Usability Summary Reports (DUSRs) were prepared for the vapor intrusion evaluation data. These DUSRs are included in Appendix I. All raw laboratory data generated during the RA are provided electronically in Appendix G.

4.2.3 Community Air Monitoring Plan

The Community Air Monitoring Plan (CAMP) was included with the HASP and was prepared in accordance with the NYSDOH Generic CAMP. Organic vapors were monitored as necessary using a MiniRAE 2000 PID. Airborne particulates were monitored as necessary using a miniram particulate meter. All airborne particulate levels and PID readings observed during the injection well installations or injection events were at concentrations below the action levels established in the CAMP and therefore no work stoppage was necessary. Air monitoring data is presented in Appendix E.

4.3 REMEDIAL PROGRAM ELEMENTS

4.3.1 Contractors and Consultants

- Lu Engineers supervised ISCO injection activities including the installation of seven (7) shallow injection wells and one (1) deep injection well at the Site as specified in the RAWP. Initially five (5) wells were installed in May 2009, two (2) replacement wells were installed in June 2009, and one (1) deep injection well was installed in August 2009. All injection wells were installed by Trec Environmental Inc. (Trec) using a Geoprobe 6610 DT outfitted with hollow-stem augers. Figures 4, 5 and 6 illustrate injection well locations and construction details.
- In May 2009, Trec conducted a successful injection well pressure test on IW-JCL-4.

  Using a Geoprobe GS-2000 pressurized injection pump, Trec conducted eleven (11) separate $NaMnO_4$ injection events between June 2009 and January 2010.

4.3.2 Site Preparation

- Mobilization activities included Trec transporting a concrete coring machine and Geoprobe 6610 DT drill rig on Site for all injection well installations and Lu Engineers mobilizing one (1) 55 gallon drum of $NaMnO_4$ solution for mixing. For each injection event, Trec mobilized a GS2000 injection pump to the site. All other mobilization activities were of various hand tools and hand operated sampling equipment.

- Due to the remedy being an in-situ remedial approach, no grubbing, fencing or truck washing activities were necessary as part of the effort. Caution tape was used to cordon off the injection/work area during all work activities.
- No erosion or sedimentation controls were necessary in conjunction with the RA conducted at the Site. All work was conducted either inside the building on a concrete floor or outside on asphalt pavement. All drill cuttings generated during the injection well installations were containerized in 55 gallon drums. These drums were disposed of per applicable protocols as described in Section 4.3.3.
- Prior to the initiation of well installation activities, an Underground Facilities Protection Organization (UFPO) clearance was conducted. Discussions with the current property owner and review of Site plans were used to identify utility locations for intrusive work conducted inside the building.
- No specific permits were necessary to conduct the ISCO program. A copy of the Underground Injection Control (UIC) Program Regulation letter from the EPA, dated April 28, 2009 is included as Appendix D. This letter granted permission to implement the injection program pursuant to 40 Code Federal Regulations (CFR) 144.24. A minor modification to the RAWP approach included an addendum for the installation of an additional injection well (IW-JCL-8) in the source area. A copy of the NYSDEC letter of approval for this modification is included in Appendix D.

All State Environmental Quality Review Act (SEQRA) requirements and all substantive compliance requirements for attainment of applicable natural resource or other permits were achieved during this RA. A NYSDEC-approved project sign was erected at the project entrance and remained in place during all phases of the RA.

4.3.3 General Site Controls

- Site security measures in relation to the activities conducted during the RAs included:
    - All Site wells were secured with bolted flush-mount covers; existing 2 inch monitoring wells maintained locking j-plug caps.
    - All interior injection points and monitoring wells were kept secure by the Site building being locked daily at the close of business.

- All job site record keeping was maintained in a dedicated field log book and groundwater sampling forms were completed. A copy of all field notes and logs are provided in Appendix E.
- Equipment decontamination consisted of the following:
    - Steam-cleaning the drill rig augers and associated tooling following injection well installations; resulting decontamination water associated with this task was containerized in one (1) steel drum. This drum was disposed of as described below.
- Residual waste management included the following:
    - Purge water evacuated from each monitoring well was temporarily containerized in buckets and returned to each well following sampling. One (1) 55-gallon drum of decontamination water from well installation and sampling activities was disposed of at the Environmental Quality Company, Inc. in Detroit, Michigan on May 30, 2012 as USDOT non-regulated, non-hazardous decontamination water waste.
    - Drill rig soil cuttings were containerized in nine (9) 55-gallon drums. The nine (9) drums were disposed of at the Environmental Quality Company, Inc. in Detroit, Michigan on May 30, 2012 as non-regulated, non-hazardous soil boring solid waste.
- Soil screening observations made in the field with a PID during the injection well installation process were recorded in the field log book. PID readings collected from the auger cuttings ranged from 0 parts per million (ppm) to a peak reading of 212 ppm at IW-JCL-7. A copy of the log book notes is included in Appendix E.

4.3.4 Nuisance Controls

Due to the type of in-situ RA conducted at the Site, it was not necessary to institute nuisance controls as part of this project.

4.3.5 CAMP Results

The NYSDOH generic CAMP was used as part of this project. Air monitoring data recorded during injection well installations was recorded in the daily field notes and

on air monitoring logs which are included in Appendix E. Airborne particulate monitoring was conducted per the provisions outlined in the NYSDOH CAMP. Due to the fact that the injection wells were installed within the building where there was no air movement influence by wind and because the work area was very small, one miniram particulate meter was used for continuous monitoring of airborne particulates. Continuous PID readings were also collected and recorded during the drilling activities. No visual evidence of dust was observed during the intrusive drilling activities since the soil beneath the floor was moist or saturated. Particulate and VOC readings were collected from the work zone perimeter and recorded on the air monitoring logs. No exceedances of air monitoring action levels established in the Site specific HASP or the CAMP were observed during the RAs conducted on Site.

4.3.6 Reporting

As a requirement of the VCA, a summary of monthly activities conducted at the Site were prepared in monthly progress reports. These reports were distributed to the Volunteers, NYSDEC and NYSDOH on a monthly basis. Per the NYSDEC, only the daily reports are included in Appendix E. The digital photo log required by the RAWP is included in Appendix F.

4.4 CONTAMINATED MATERIALS REMOVAL

Implementation of the ISCO program is considered to have effectively remediated contaminants of concern in Site groundwater and soils. Groundwater and subsurface soils were treated via ISCO using $NaMnO_4$. The chemical oxidant was applied through injection wells installed 4 to 11.5 ft deep to treat saturated subsurface soils as well as groundwater. The oxidant was injected into the subsurface using specialized pumping equipment. This process was intended to remediate PCE concentrations in affected Site environmental media, as well as concentrations of PCE's attenuation "daughter" products such as TCE and vinyl chloride to concentrations below applicable regulatory values.

Soil excavation and/or extraction of environmental media were not conducted as part of the remedial program. As such, estimation of the mass of contaminant remediated or destroyed by the ISCO implementation is not considered to be readily quantifiable. The analytical results presented in Tables 1 and 2 and Section 4.4.1 indicate the continued presence of residual target contaminants. It is anticipated that attenuation of

these contaminants will continue through natural processes now that the residual oxidant is likely expended. As described in the SMP, the monitoring program has been implemented to evaluate the long-term performance of the remedy. In addition, a SSDS was installed in June 2011 to mitigate the potential for soil vapor intrusion.

As described previously, five (5) shallow injection points, three (3) existing monitoring wells, and one (1) deep injection point were used for oxidant injection. The chemical oxidant was injected during eleven (11) separate events over seven (7) months. During the implementation, groundwater concentrations were monitored and colorimetric testing was conducted to evaluate oxidant distribution. Additional SVI sampling was conducted after the oxidant injection was complete to determine if additional vapor intrusion mitigation or long term monitoring is needed. Based on the results of this testing, a SSDS was designed and constructed within the workshop portion of the existing building.

4.4.1 Standards, Criteria, and Guidance (SCGs)

The NYSDEC list of potential SCGs has been used to evaluate applicable or relevant and appropriate requirements for the Former Churchville Ford Site. The following SCGs are applicable to this Site.

1. NYSDEC Division of Water TOGS 1.1.1 Ambient Water Quality Standards and Guidance Values, dated June 1998.
2. NYS Class GA Groundwater Quality Standards, 6 NYCRR Part 703.5.
3. Soil cleanup objectives provided in 6 NYCRR Part 375-6 for Restricted Commercial Use were used as soil guidance values for the Site.
4. NYSDOH Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York, dated October 2006.

Specific remedial objectives for Site-related constituents are shown in the following tables.

Remedial Objectives for Soil and Groundwater

Parameter	Groundwater Standard[1]	Soil Cleanup Objective[2]
Trichloroethene (TCE)	5 ppb	200 ppm
Tetrachloroethene (PCE)	5 ppb	150 ppm
cis-1,2-dichloroethene (cis-1,2-DCE)	5 ppb	500 ppm

1- NYS Class GA Groundwater Quality Standards (6 NYCRR Part 703.5)

2- Restricted Commercial Use soil clean-up objectives (6 NYCRR Part 375-6)

NYSDOH Soil Vapor/Indoor Air Matrix 1

(TCE, Carbon Tetrachloride, and Vinyl Chloride Guidance Values)

Sub-slab Vapor Concentration of Compound (*u*g/m^3)	Indoor Air Concentration of Compound (*u*g/m^3)			
	< 0.25	0.25 to <1	1 to < 5.0	5.0 and above
< 5	1. No further action	2. Take reasonable and practical actions to identify source and reduce exposures	3. Take reasonable and practical actions to identify source and reduce exposures	4. Take reasonable and practical actions to identify source and reduce exposures
5 to < 50	5. No further action	6. MONITOR	7. MONITOR	8. MITIGATE
50 to < 250	9. MONITOR	10. MONITOR/MITIGATE	11. MITIGATE	12. MITIGATE
250 and above	13. MITIGATE	14. MITIGATE	15. MITIGATE	16. MITIGATE

NYSDOH Soil Vapor/Indoor Air Matrix 2

(PCE, 1,1,1-TCA, cis-1,2-DCE, and 1,1-DCE Guidance Values)

Sub-slab Vapor Concentration of Compound (*u*g/m^3)	**Indoor Air Concentration of Compound (*u*g/m^3)**			
	< 3	3 to <30	30 to < 100	100 and above
< 100	1. No further action	2. Take reasonable and practical actions to identify source and reduce exposures	3. Take reasonable and practical actions to identify source and reduce exposures	4. Take reasonable and practical actions to identify source and reduce exposures
100 to < 1,000	5. MONITOR	6. MONITOR/ MITIGATE	7. MITIGATE	8. MITIGATE
1,000 and above	9. MITIGATE	10. MITIGATE	11. MITIGATE	12. MITIGATE

Additional factors that may be considered when evaluating the results are found in the NYSDOH Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York, dated October 2006.

4.5 REMEDIAL PERFORMANCE/DOCUMENTATION SAMPLING

4.5.1 Sampling Approach and Methodology

One month after the final injection, groundwater samples were collected from monitoring wells MW-JCL-02, MW-JCL-03, and MW-13 to evaluate the short-term effectiveness of the ISCO. Groundwater sampling procedures are detailed in the QAPP (Attachment C of the RAWP). These post-injection samples were submitted to Paradigm Environmental Services for analysis of VOCs (EPA Method 8260) and TAL metals (EPA Method 6010).

To evaluate the long-term effectiveness of the ISCO, monitoring wells MW-JCL-01, -02, -03, MW-01, MW-03, MW-06, and MW-13 were sampled for VOCs and the metals iron and manganese in August 2010 and December 2011, with approval from the NYSDEC. The sampling results were submitted to the NYSDEC for review.

4.5.2 Post-Remedial Groundwater Sample Results

Based on post-remedial sampling conducted to date, it appears that residual groundwater and soil vapor contamination exists in the immediate source area on Site. On January 15, 2010, Lu Engineers completed the final ISCO injection event. Three (3) post-remedial groundwater sampling events and one (1) SVI sampling event have been

conducted at the Site since the completion of the ISCO program. All four (4) events were conducted in accordance with and as outlined in the approved RAWP.

The ISCO process can promote contaminant destruction for periods up to or exceeding one (1) year. The latest round of groundwater sampling, conducted in December 2011, was the third of three (3) sampling events to be performed under the provisions described in the RAWP. During the February and August 2010 semi-annual sampling events, residual permanganate was observed in purge water evacuated from wells MW-1, MW-JCL-02, MW-3 and MW-6 during the first two (2) post-remedial sampling events. The purge water from each of these wells exhibited a rusty dark-red coloration. In December 2011, purge water from wells MW-1, MW-3 and MW-6 revealed a rusty–brown color. The other wells tested showed no evidence of residual permanganate during purging or sampling.

Results of the three (3) post-remedial sampling events provide a more complete assessment of the short term effectiveness of the remedial program. The long-term effectiveness of the remedy will be evaluated through the monitoring program outlined in the SMP.

Tables 1 and 2 present the analytical findings of groundwater samples collected during the ISCO process and following the completion of the ISCO program. Contaminants detected in groundwater at levels exceeding applicable regulatory standards are illustrated on Figures 8, 9 and 10. Figure 9 also illustrates the inferred groundwater flow direction at the Site. Soil vapor sample locations are presented on Figure 11 and SVI sampling results are presented in Tables 4 and 5. Laboratory analytical results of the post-remedial groundwater and SVI sampling are included in Appendix G. No soil sampling was conducted following the completion of the RA.

Post-remedial sampling results appear to indicate that residual contamination was limited to saturated soils and groundwater in the immediate vicinity of the former source area. Figure 9 illustrates that the wells that revealed detectable levels of chlorinated solvents above applicable regulatory criteria in August 2010 were source area wells MW-3 and MW-JCL-02. Figure 10 illustrates that the wells that revealed detectable levels of chlorinated solvents above applicable regulatory criteria in December 2011 were source area wells MW-01, MW-3 and MW-JCL-02, and MW-6. Samples were analyzed for TCL VOCs by EPA Method 8260b and iron and manganese by EPA Method 6010. The following is a summary of contaminants detected in the August 2010 and December 2011 groundwater samples compared to pre-remediation levels:

Pre-remediation:

- PCE and TCE were detected in wells MW-1, MW-3, MW-6, MW-JCL-02 and cis-1,2-DCE was detected in wells MW-1, MW-3, MW-JCL-02 above groundwater standards prior to on-Site remediation.

Post-remediation:

- Source area well MW-1 revealed a detection of acetone exceeding applicable groundwater standards at a concentration of 104 ug/l in August 2010. Acetone was not detected in December 2011. It is noted that acetone was detected in the associated method blank. VOCs dichlorodifluoromethane, PCE, TCE, vinyl chloride and cis-1,2-Dichloroethene were detected above applicable groundwater standards in December 2011. Manganese was detected above the regulatory limit at a concentration of 117 mg/l in August 2010 and 3.71 mg/l in December 2011. Iron was detected above the regulatory limit at a concentration of 0.472 mg/l in December 2011.
- Source area well MW-3 revealed a detection of PCE at a concentration of 16.2 ug/l in August 2010 and 6,280 ug/l in December 2011. Dichlorodifluoromethane was detected at a concentration of 98.2 ug/l in August 2010 and 128 ug/l in December 2011. Acetone was detected at 52.98 ug/l in August 2010 and was detected in the associated method blank. It was not detected in December 2011. TCE was not detected in August 2010 and was detected at 10,900 ug/l in December 2011. Iron was detected above the groundwater standard at a concentration of 0.468 mg/l in August 2010 and 1.17 ug/l in December 2011. Manganese was detected at 24.6 mg/l in August 2010 and 4.55 mg/l in December 2011.
- MW-6 revealed a detection of acetone exceeding the applicable groundwater standard at a concentration of 62.2 ug/l in August 2010 and was detected in the associated method blank. Acetone was not detected in December 2011. Dichlorodifluoromethane was detected just above the applicable groundwater standard at a concentration of 5.86 ug/l in December 2011. PCE was not detected in August 2010 and detected at 11.6 ug/l in December 2011. Iron was detected above the regulatory limit at a concentration of 3.76 mg/l in August 2010 and 0.433 in December 2011. Manganese was detected above the regulatory limit at a concentration of 17 mg/l in August 2010 and at 0.834 mg/l in December 2011.

- MW-13 revealed detections of iron and manganese above the regulatory limits at concentrations of 1.79 mg/l and 0.501 mg/l, respectively in August 2010. These metals were detected at concentrations of 1.21 mg/l and 0.674 mg/l, respectively, in December 2011.
- MW-JCL-01 revealed a detection of iron at a concentration of 0.639 mg/l in August 2010, and at 3.51 mg/l in December 2011, above the regulatory limit.
- MW-JCL-02 revealed a detection of TCE at a concentration of 23.1 ug/l and cis-1,2-DCE at a concentration of 29 ug/l in August 2010. These VOCs were detected at concentrations of 410 ug/l and 582 ug/l, respectively in December 2011. PCE was detected above the applicable groundwater standard at a concentration of 7.0 ug/l in December 2011. Dichlorodifluoromethane was detected above the applicable groundwater standard at a concentration of 14.6 ug/l in December 2011. Iron was detected above the regulatory limit at a concentration of 1.22 mg/l in December 2011. Manganese was detected above the regulatory limit at a concentration of 0.622 mg/l in August 2010 and at 1.52 mg/l in December 2011.
- Up-gradient well MW-JCL-03 revealed a detection of iron at a concentration of 8.61 mg/l in August 2010 and 3.74 mg/l in December 2011. These are considered background concentrations for the Site. These sample concentrations were the highest of the seven (7) wells tested in August 2010 and December 2011.

Pre-remedial baseline sample results from source area wells MW-01, MW-03, and MW-JCL-02 exceeded applicable NYSDEC groundwater standards for PCE, TCE and cis-1,2-DCE. MW-06 also exceeded standards for PCE and TCE during this pre-remedial event. Metals analysis was not included on pre-remedial well samples collected in June 2007, therefore there are no pre-remedial baseline concentrations for metals.

Initial post-remedial groundwater sampling was conducted in February 2010 at source area well MW-JCL-02, nearby MW-13 and up-gradient well MW-JCL-03. These 3 samples revealed no detectable VOCs. TAL metals results from MW-JCL-02 and MW-13 indicated that these wells exceeded applicable groundwater standards for iron, magnesium, manganese, and sodium. Up-gradient well MW-JCL-03 results exceeded standards for cadmium, iron, magnesium and sodium, and are considered background concentrations for the site.

Post-remedial samples were collected again in August 2010 from seven (7) site wells. VOCs were detected above regulatory standards in source area wells MW-01, MW-03

and MW-JCL-02, but generally at concentrations significantly less than pre-remedial samples. VOC detections of contaminants of concern in MW-06 were below applicable standards. Samples from wells MW-JCL-01, MW-JCL-02 revealed no VOC detections. Per NYSDEC approval, iron and manganese were the only metals analyzed in the August 2010 samples. Iron was detected above the applicable regulatory limit in each sample with the exception of MW-01 and MW-JCL-02. Manganese was detected above the applicable regulatory limit in each sample with the exception of MW-JCL-01 and MW-JCL-03.

A third round of post-remedial samples was collected from the same seven (7) wells in December 2011. An increase in VOC contaminant concentrations over pre-remedial conditions was observed in the source area wells (MW-01, MW-03, MW-JCL-02). Iron concentrations exceeded applicable standards in all wells sampled during this event. Manganese concentrations dropped significantly in the shallow source area wells from the previous samples but the majority of wells still exceeded the standard for this metal (except MW-JCL-01 & MW-JCL-03).

In summary, groundwater standards have not been achieved at the site. The remedy appeared to offer short-term effectiveness for source area VOC contaminant destruction, while post-remedial VOC concentrations have generally increased over time to levels exceeding pre-remedial conditions, with the exception of well MW-06 located within the building. Pre-remedial baseline metals concentrations were not established across the site. Generally iron and manganese exceed applicable groundwater standards, with the exception of manganese in up-gradient well MW-JCL-03 and well MW-JCL-01.

4.5.3 Post-Remedial Soil Vapor Intrusion Sample Results

In March 2010, a series of post-remedial SVI samples were collected at the Site from the same areas as were tested in April 2007, with the exception of sample locations SVS-JCL-01 and IA-JCL-01 (Figure 11).

This was the second SVI sampling event conducted by Lu Engineers in an effort to re-assess the sub-slab and interior air quality conditions following the implementation of remedial actions in the contaminant source area at the site. Soil vapor can migrate into a building through cracks in the foundation or slab, through floor drains, sumps or any other utility penetration due to a difference between interior and exterior pressures.

In April 2007, SVI sampling conducted by Lu Engineers indicated that TCE, and

cis 1,2-DCE associated with soil and groundwater contamination at the Site, were detected at concentrations creating the potential for human exposures.

It is noted that many of the chemicals detected in the indoor air were also actively used at the facility in chemical-based products utilized for daily cleaning, maintenance and repair operations conducted in the workshop. The products containing these chemicals and associated background concentrations detected at each container were inventoried during the sampling event.

In March 2010, re-sampling was conducted in accordance with the requirements outlined in the approved RAWP, dated December 2008. During this event, Lu collected two (2) sub-slab vapor samples (SVS-JCL-02b, SVS-JCL-03b) from beneath the workshop floor, three (3) indoor ambient samples, including a duplicate, from within the workshop (IA-JCL-02b, IA-JCL-02b Dup., IA-JCL-03b), and an outdoor ambient sample (OA-JCL-04b) collected northwest of the Site building, as indicated on Figure 11. The samples were collected from the same general locations as the April 2007 event. The sampling was completed following remedial ISCO treatment of Site groundwater in the chlorinated solvent source area per the activities outlined in the RAWP. The goal of the sampling was to assess what actions, if any, would be appropriate to take according to the *NYSDOH Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York*, dated October 2006.

Analytical results of the March 2010 sampling event revealed detectable concentrations of VOCs such as halocarbons, aromatics and ketones in all six (6) samples collected. As summarized on attached Tables 3 and 4, sample results were compared to the OSHA Permissible Exposure Limits (PELs) regulatory standards and the decision matrices described in the *NYSDOH Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York*, dated October 2006. OSHA PELs were used for analytical comparison due to significant background readings of VOCs from active use of many chemical-based products within the workshop. Many of these products contained the same volatile compounds that were detected in both SVI sampling rounds.

The products and chemicals found within the workshop were inventoried as part of the sampling event and screened with a PID (ppB RAE). An inventory table is included as Appendix H and indicates that PID readings ranged from 275 ppb to 476,000 ppb throughout the workshop space. These interferences and daily use of such products make it appropriate to compare sample results to OSHA PELs for an 8-hr time-weighted average (TWA) period, the same time period that employees occupy the workshop daily. It is noted that a comparison to OSHA PELs is only appropriate for the specific

compounds used within the building. Table 4 presents a comparison of the SVI sample results from April 2007 and March 2010, while Table 5 illustrates decision Matrix 1 and Matrix 2 of recommended actions found within the NYSDOH guidance document.

TCE was not detected in the March 2010 indoor ambient, outdoor ambient or SVS-JCL-02b sub-slab air samples. It was detected at a concentration of 305 ug/m^3 in sub-slab sample SVS-JCL-03b, located in the known source area of this contaminant. The NYSDOH guidance document and Table 5 indicate that mitigation is recommended if the TCE concentration in the sub-slab air is in excess of 250 ug/m^3. The compound cis-1,2 –DCE was detected at a concentration of 18,500 ug/m^3 and vinyl chloride was detected in this same sub-slab sample at a concentration of 2,490 ug/m^3 but neither compound was detected in any of the indoor air samples. These chlorinated compounds are known breakdown components of TCE. Based on the location of source area sample SVS-JCL-03b, these elevated vapor-phase contaminant detections are likely the result of the destruction of the source area compound TCE following the series of oxidant injections conducted in this area in the fall and winter of 2009.

The VOC 1,1,1-TCA was not detected in any of the indoor or outdoor air samples collected in March 2010. Based on the concentrations of PCE detected in samples SVS-JCL-03b and IA-JCL-03b, the NYSDOH guidance document recommends mitigation, as indicated on Table 5. It is noted however that the concentration of PCE detected in indoor sample IA-JCL-2b was higher than in the associated sub-slab sample SVS-JCL-2b. This is likely due to volatilization of products containing PCE that are stored and used within the workshop as indicated by the inventory form and may have influenced the result of sample IA-JCL-3b.

Analytical results indicate that no VOCs were detected above OSHA PELs. The majority of BTEX (benzene, toluene, ethyl benzene, and xylene-petroleum related) compounds detected in the indoor air samples were at concentrations exceeding the sub-slab sample results for these compounds. This is likely due to the fact that prior to sample collection in March 2010, three (3) five-gallon containers of gasoline were being stored within the workshop as well as other petroleum products, vehicles and boats that contain fuel. The gasoline containers were removed from the building prior to sample collection but it is likely that residual vapors from these items were present during the sampling. Table 4 and the product inventory form attached in Appendix H indicate that the majority of BTEX compounds detected were also found in products inventoried within the workshop.

A copy of the sample results, the building inventory form completed during the sampling, Tables 4 and 5 summarizing the results of both sampling events and a map of the facility (Figure 11) indicating each sample location and background PID readings are provided in Appendix I. The decision matrices presented in the above-referenced NYSDOH guidance document are used to establish site-specific risk management tools.

Based on the March 2010 sample results and the overall condition of the workshop floor slab, Lu Engineers recommended that "Slab Maintenance and Long-Term Monitoring" be implemented at the facility as outlined in the NYSDEC soil vapor intrusion letter, dated October 6, 2010. In an effort to alleviate annual monitoring, sampling and associated costs, the owner decided to have an SSDS designed and installed. With NYSDEC approval, an SSDS was designed and installed in June 2011 in the area of residual contamination (Figures 11, 12).

4.6 IMPORTED BACKFILL

Remedial actions were conducted through in-situ methods at the Site and therefore no backfill was brought onto the Site as part of this project.

4.7 CONTAMINATION REMAINING AT THE SITE

Based on the analytical results of post-remedial SVI sampling conducted in March 2010 and groundwater sampling conducted in August 2010 and December 2011, it is inferred that residual dissolved-phase chlorinated VOCs are limited to saturated zone soils and groundwater in the vicinity of the former solvent storage source area located inside and outside of the western exterior wall of the building. Affected wells include MW-1, MW-3, MW-6 and MW-JCL-02 (Figures 9 & 10). The chlorinated VOCs detected during these sampling events were not detected in well MW-JCL-02 or in the other two Site wells tested in February 2010 and may be attributed to further release of dissolved-phase chlorinated VOCs resulting from the ISCO process. It is noted that groundwater appears to flow to the southeast across the Site and down-gradient wells MW-13 and MW-JCL-01 did not reveal detectable levels of chlorinated VOCs in either post-remedial August 2010 sample. TCE and cis-1,2-Dichloroethene were detected in MW-13 in December 2011 at concentrations below applicable regulatory standards.

SVI sample results from the March 2010 event indicate that sub-slab vapor exists beneath the workshop portion of the building. SVI sample SVS-JCL-03b revealed detectable concentrations of chlorinated VOC contaminants in the source area inside the

building including TCE (see Figure 11). Sample SVS-JCL-02b collected from below the slab in the eastern portion of the workshop area did not reveal detectable levels of TCE, but did reveal VOCs PCE and TCA.

Tables 1, 2, 4 and 5 and Figures 8, 9, 10 and 11 illustrate the sample locations and results of all groundwater and SVI samples collected at the Site following completion of RA.

Figures 9 and 10 summarize the results of the August 2010 and December 2011 groundwater sample events, illustrating the samples and analytes that exceeded applicable groundwater standards for VOCs, iron and manganese at the Site after completion of the RA.

Since contaminated groundwater and soil vapor remains beneath the Site after completion of the RA, ICs/ECs are required to protect human health and the environment. These ICs/ECs are described in the following sections. Long-term management of these ICs/ECs and residual contamination will be performed under the SMP approved by the NYSDEC.

4.8 COVER SYSTEM

Exposure to remaining contamination in groundwater and soil vapor at the Site is prevented by the ground surface cover system referred to as the "cap" that covers the Site. The existing cover system is comprised of the building floor slab, which is a minimum of six (6) inches of concrete in the source area inside the building limits, and asphalt pavement that covers the exterior portion of the site, including the source area. Figure 8 illustrates the location of the paved portion of the Site which comprises the entire area surrounding the Site building. A SMP, which outlines the procedures required in the event the cover system and/or underlying residual contamination are disturbed, is provided under separate cover.

4.9 ENGINEERING CONTROLS

Since remaining contaminated groundwater and soil vapor exists beneath the Site, ECs are required to protect human health and the environment. The Site has the following primary ECs:

- The Cover System discussed above. Procedures for maintaining the cap are documented in the Operation and Maintenance Plan (Section 4 of the SMP). Procedures for monitoring the system are included in the Monitoring Plan (Section 3 of the SMP).

  The Monitoring Plan also addresses severe condition inspections in the event that a severe condition, which may affect controls at the Site, occurs.

- An SSDS was installed in June 2011 in accordance with the NYSDEC-approved May 27, 2011 Sub-Slab Depressurization System Design prepared by Lu Engineers and the NYSDOH "Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006). The SSDS was installed by Mitigation Tech, a national Environmental Health Association (NEHA) certified mitigation contractor. The system provides a minimum negative air pressure differential of -0.002 inches water column to all areas of the sub-slab within the 1989 additional portion of the workshop building. The size of the area requiring mitigation necessitated the installation of two fan units, one on the north and one on the south side of the shop building. Figure 12 shows the location and piping layout for each of the two system components.

  Procedures for operating and maintaining the SSDS are documented in the Operation and Maintenance Plan (Section 4 of the SMP). Procedures for monitoring the system are included in the Monitoring Plan (Section 3 of the SMP). The Monitoring Plan also addresses severe condition inspections in the event that a severe condition, which may affect controls at the site, occurs.

  The active SSDS will not be discontinued unless prior written approval is granted by the NYSDEC. In the event that monitoring data indicates that the SSDS is no longer required, a proposal to discontinue the SSDS will be submitted by the property owner to the NYSDEC and NYSDOH.

- The Excavation Work Plan (EWP) provided in Appendix A of the SMP outlines the procedures required to be implemented in the event the cover system is breached, penetrated or temporarily removed, and any underlying remaining contamination is disturbed. Procedures for the inspection and maintenance of this cover are provided in the Monitoring Plan included in Section 4 of the SMP.

4.10 INSTITUTIONAL CONTROLS

The imposition of ICs are required in the form of a DR that requires a) limiting the use and development of the property to commercial use, which will also permit industrial use; b) compliance with an approved SMP; c) restricting the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH; d) NYSDEC approval prior to an activity that threatens the integrity of ECs, and e) the property owner to complete and submit a periodic certification of EC/ICs.

The DR for the Site was filed with the Monroe County Clerk on September 23, 2011. The County Recording Identifier number for this filing is in Liber 11045 of Deeds, Page 117. A copy of the DR and proof of filing is provided in Appendix J.

4.11 DEVIATIONS FROM THE REMEDIAL ACTION WORK PLAN

No significant deviations from the approved RAWP were conducted during the implementation of remedial activities at the site. Minor modifications to the remedial approach included the following:

- the installation of one (1) additional deep injection well in the former solvent storage area located outside of the west wall of the Site building, between existing monitoring wells MW-3 and MW-JCL-02
- the number of permanganate injection events conducted in the source area changed from six (6) as proposed in the RAWP to eleven (11) due to solution leakage during injection at IW-JCL-1, IW-JCL-5 and multiple times at the GS2000 injection pump, as described in section 4.1.2 of this report. The five (5) additional events were conducted in order to inject the full volume of solution proposed in the RAWP.

An addendum to the RAWP was written by Lu Engineers on September 4, 2009 describing the reasoning and requesting approval for the addition of the deep injection point. The addendum was approved by NYSDEC in a letter dated September 10, 2009 and is included in Appendix D.

Figures

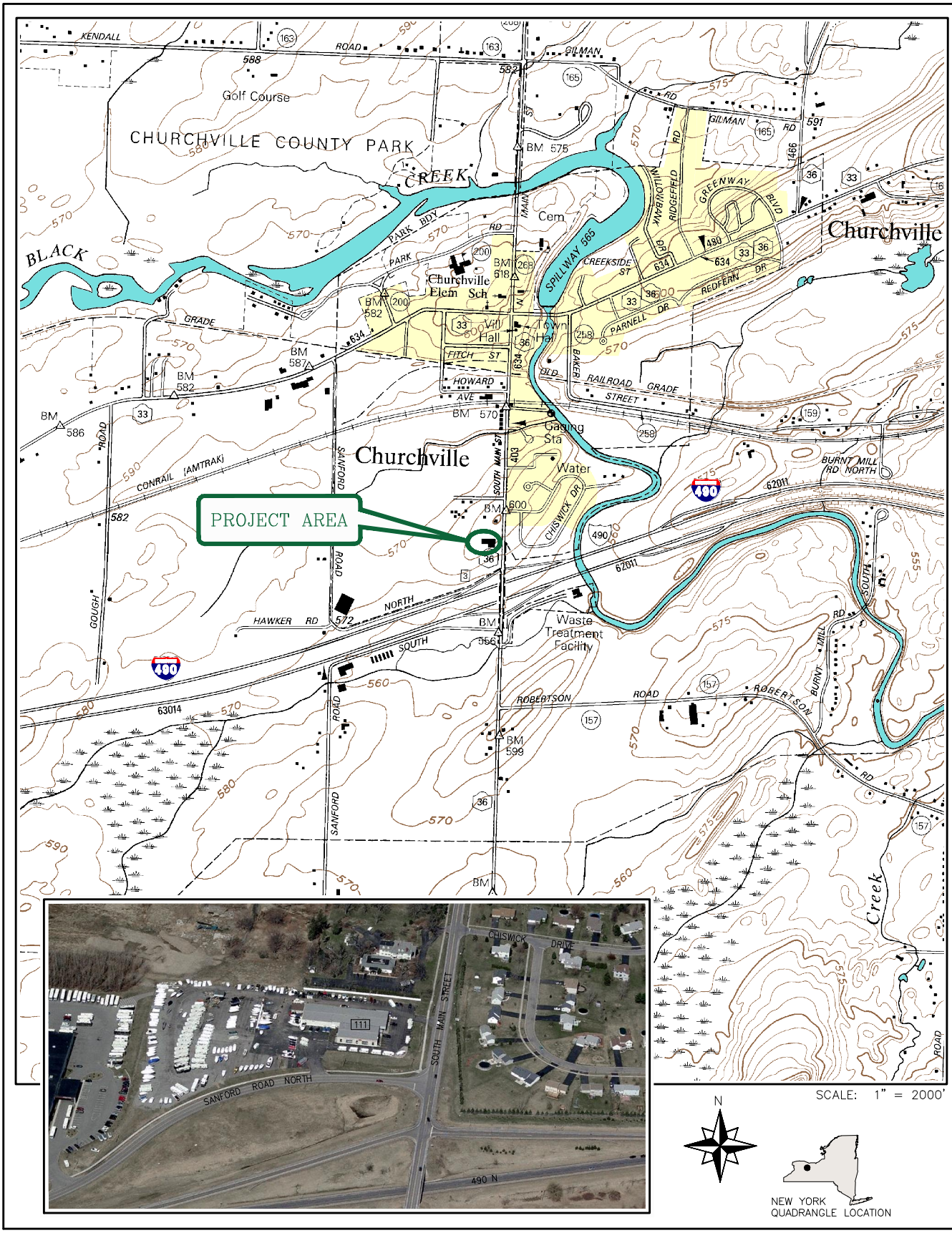

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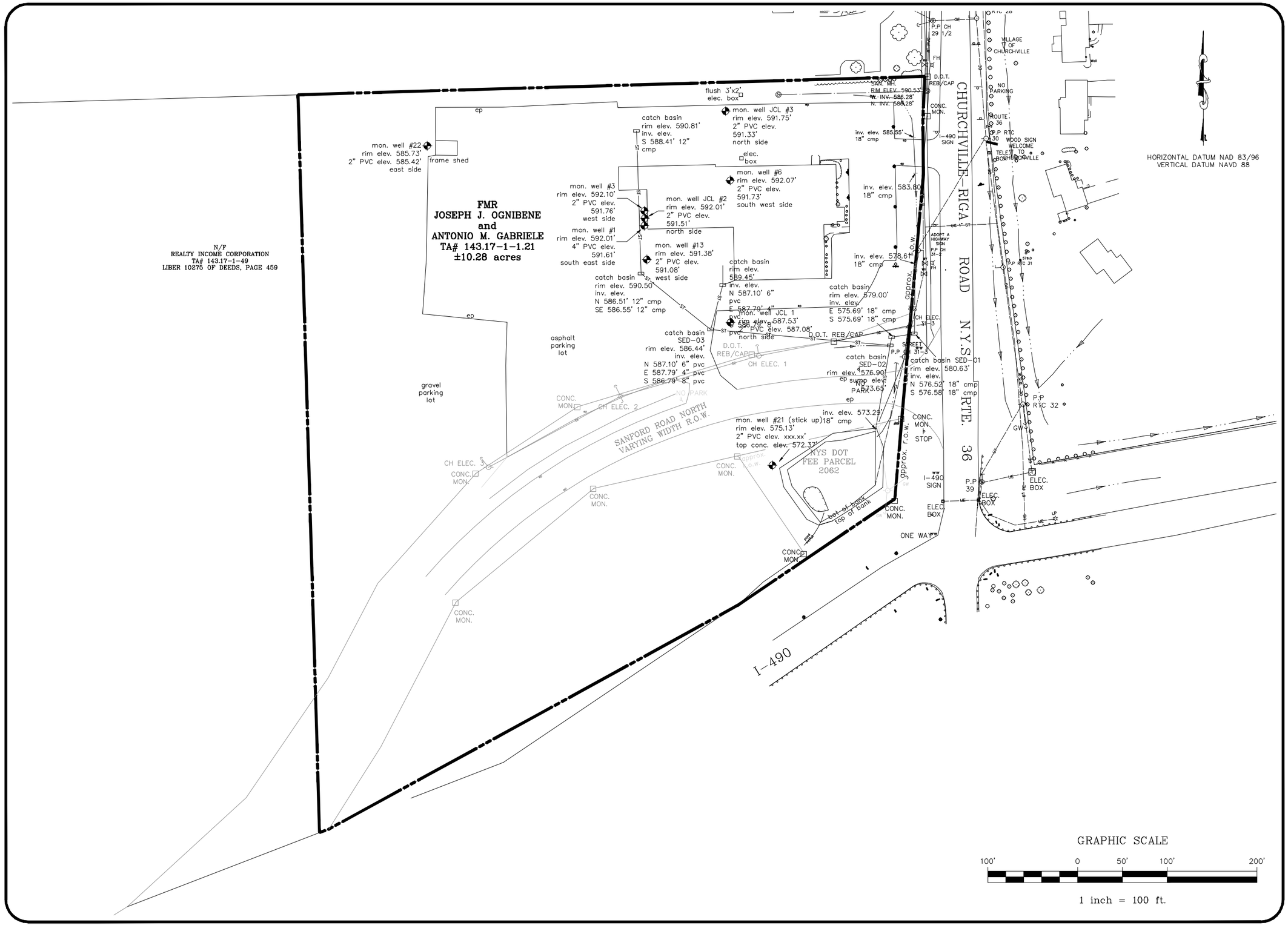
FIGURE 1. SITE LOCATION MAP

TOWN OF RIGA – FORMER CHURCHVILLE FORD
OKAR EQUIPMENT
111 SOUTH MAIN STREET
CHURCHVILLE, NY MONROE COUNTY

P.N. 5701-11

DATE:	FEBRUARY 2011
SCALE:	1:24,000
DRAWN BY:	DLS

MAP SOURCE: NYS DOT RASTER QUADRANGLE, CHURCHVILLE & CLIFTON / NEW YORK, MONROE COUNTY DOT EDITION DATE: 1997 / USGS CONTOUR DATA: 1950



DATE	REVISIONS	BY

DRAWING ALTERATION

WARNING: It is a violation of the New York State Education Law, Article 145, Section 7209, Special Provision 2, for any person unless he is acting under the direction of a Licensed Professional Engineer or Land Surveyor to alter an item in any way. If an item bearing the seal of an engineer or land surveyor is altered, the altering engineer or land surveyor shall affix to the item his seal and notation "altered by" followed by his signature and date of such alteration, and a specific description of the alteration.

BY: _____

DATE: _____

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luengineers.com

PROJECT:

FORMER CHURCHVILLE FORD FINAL ENGINEERING REPORT

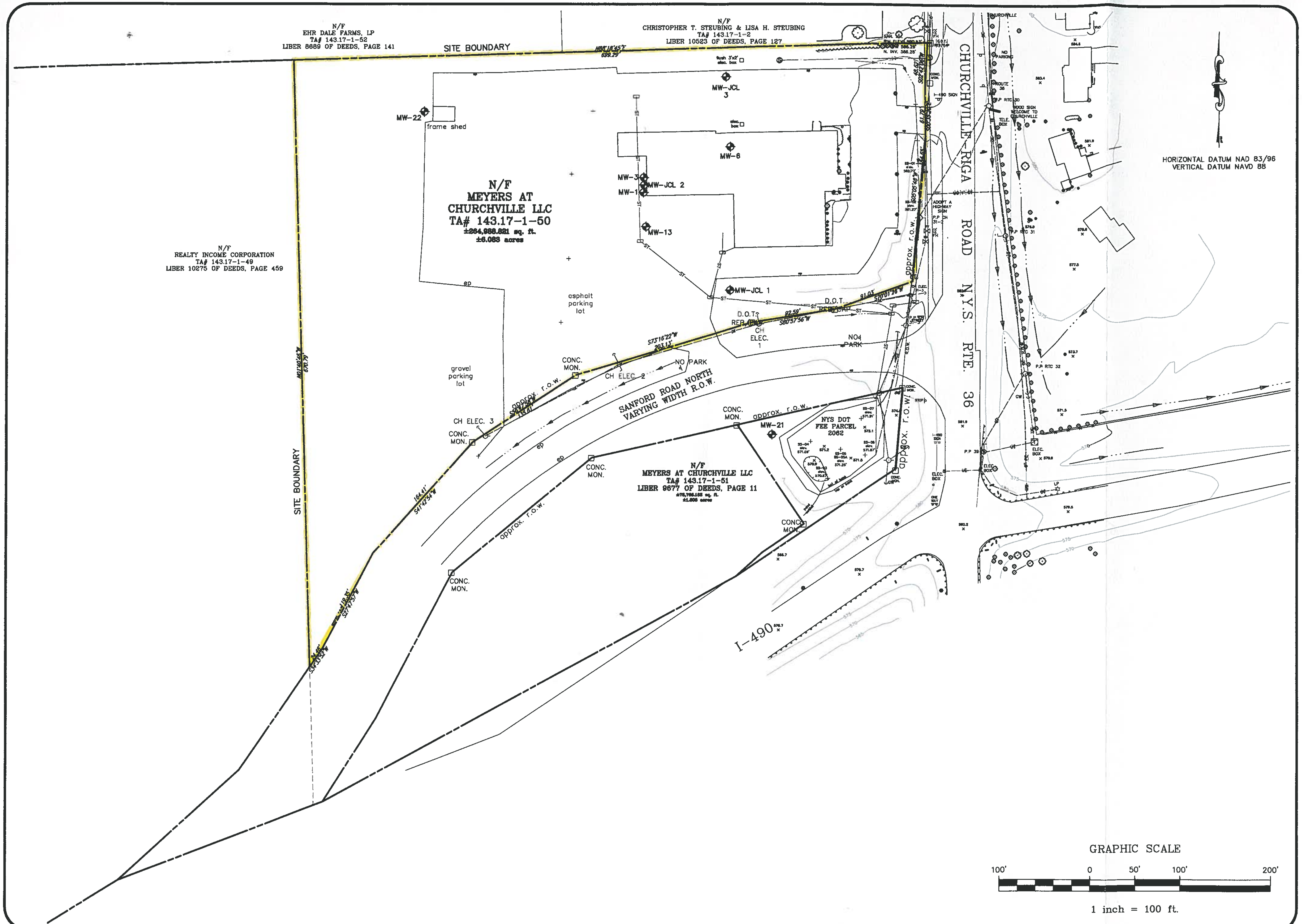
CLIENT:

BONARIGO & McCUTCHEON, PLLC

DRAWING TITLE:

FIG. 2
ORIGINAL SITE PLAN

DESIGNED BY: ED/LS	SCALE: 1" = 100'
DRAWN BY: CJR/DLS	DATE: February 2011
CHECKED BY: GLA	PROJECT No. 5701-11
SHEET OF	DRAWING No.



DATE	REVISIONS	BY

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BY:

DATE: 10/10/11

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Pittsford, NY 14534
Ph: 385.7417 | Fax: 385.3741
luengineers.com

PROJECT:

FORMER CHURCHVILLE FORD FINAL ENGINEERING REPORT

CLIENT:

BONARIGO & McCUTCHEON, PLLC

DRAWING TITLE:

FIG. 3
NEW SITE PLAN
(SUB-DIVISION)

DESIGNED BY: ED/LS	SCALE: 1" = 100'
DRAWN BY: CJR/DLS	DATE: February 2011
CHECKED BY: GLA	PROJECT No. 5701-11
SHEET OF	DRAWING No.

J:\Projects\5701 Okar-Brockport\5701-11 Okar\Cadd\FER\2 & 3_Site Plans.dwg, 10/11/2011 2:23:07 PM, diane*AC2009

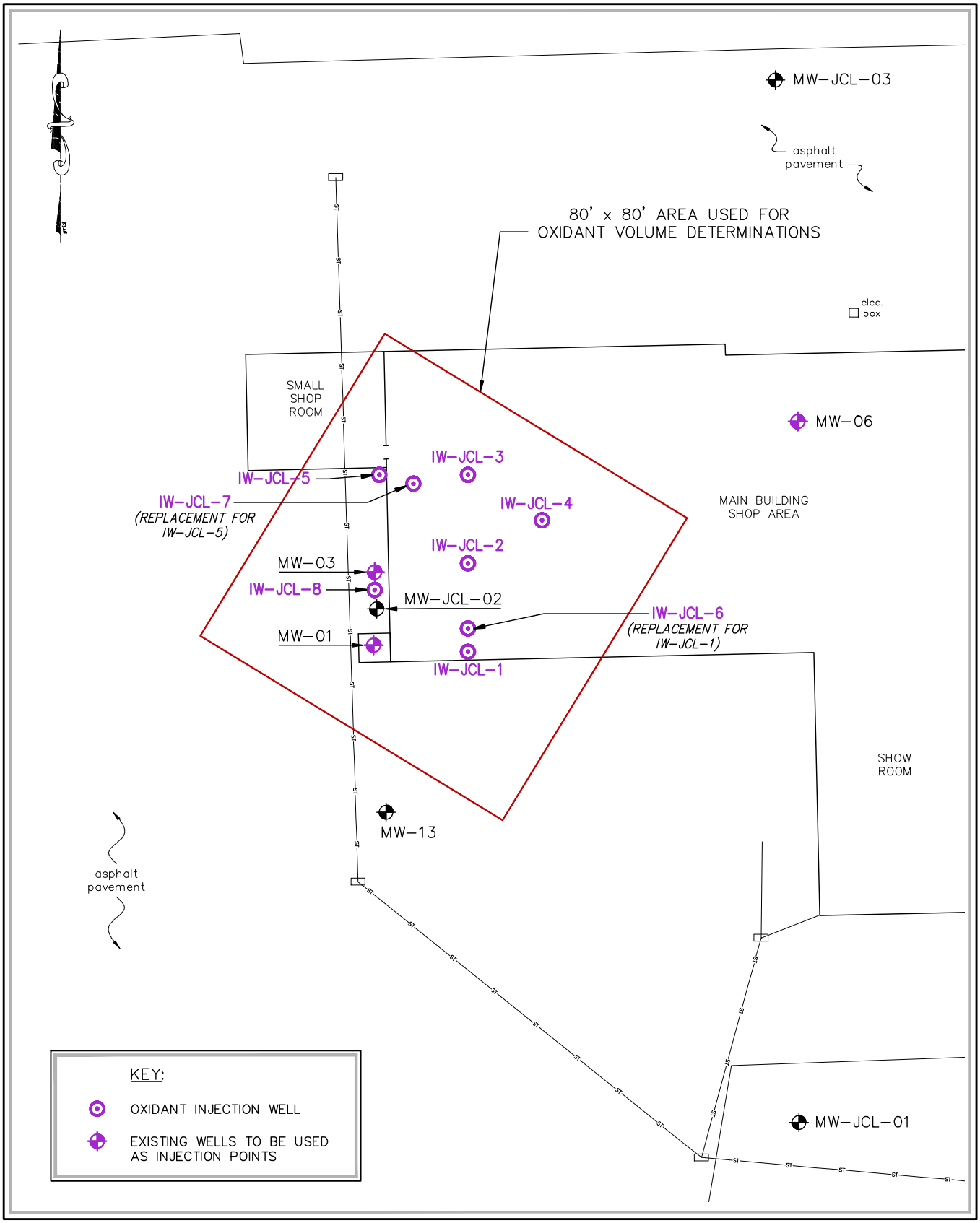

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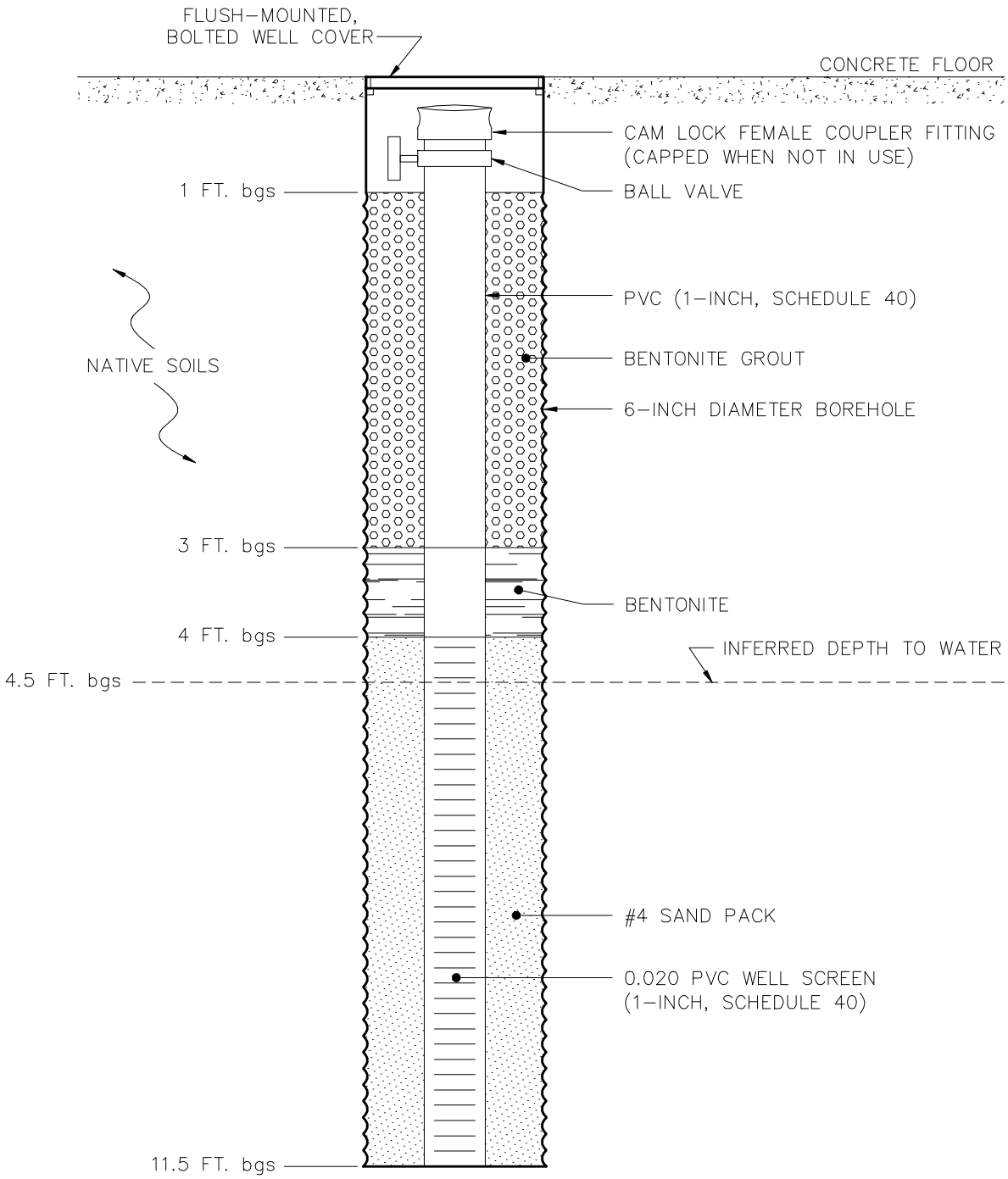
FIGURE 4.
INJECTION WELL LOCATION PLAN

FORMER CHURCHVILLE FORD
FINAL ENGINEERING REPORT

DATE:	FEBRUARY 2011
SCALE:	1" = 30'
DESIGNED/DRAWN/CHECKED	GLS/DLS
P.N.	5701-11



INJECTION WELL DETAIL

NOT TO SCALE

bgs = Below Ground Surface

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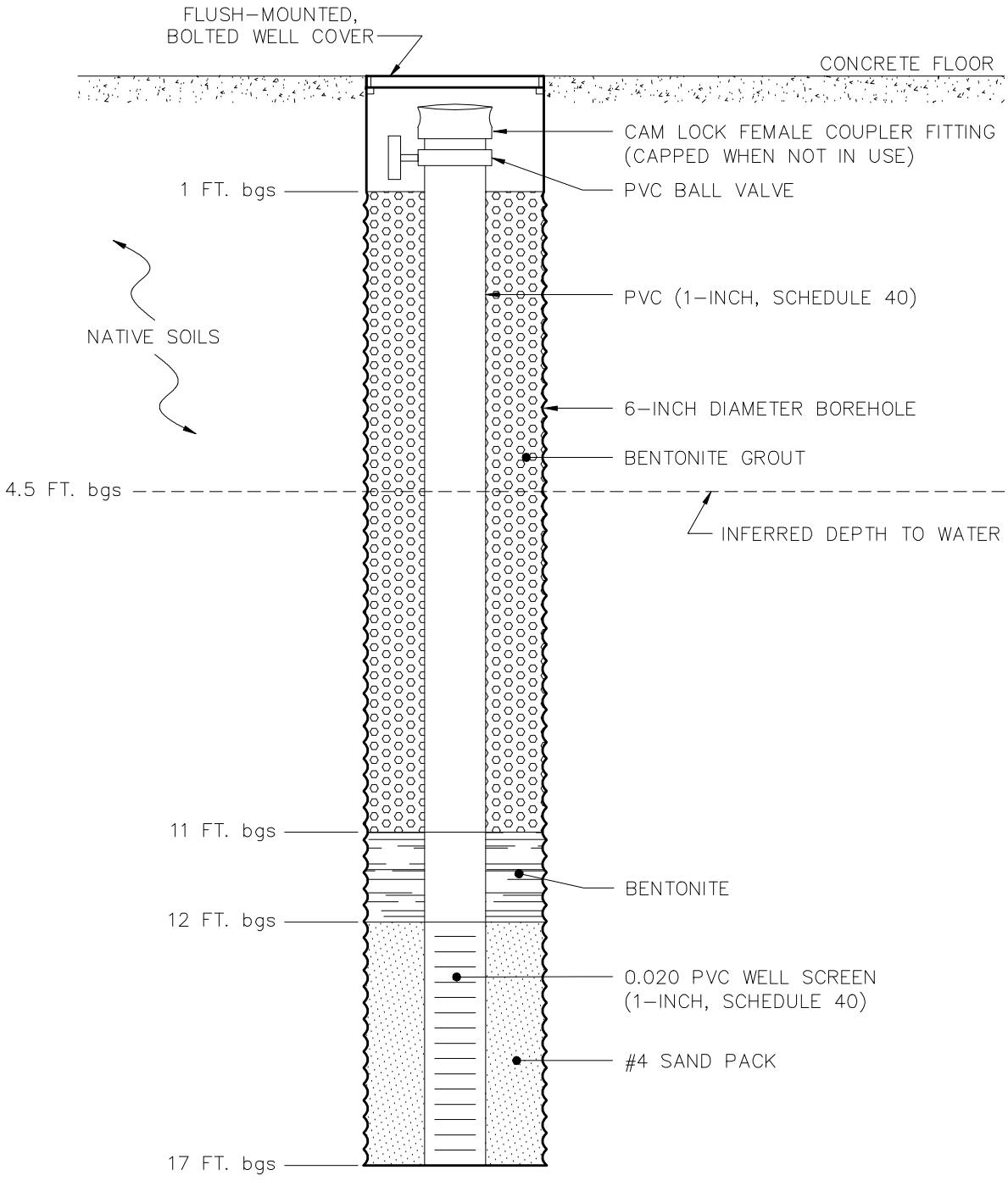
FIGURE 5A.
INJECTION WELL DETAIL

FORMER CHURCHVILLE FORD
FINAL ENGINEERING REPORT

DATE:	FEBRUARY 2011
SCALE:	NONE
DESIGNED/DRAWN/CHECKED	GLA/DLS
P.N.	5701-11



DEEP INJECTION WELL DETAIL

NOT TO SCALE

bgs = Below Ground Surface

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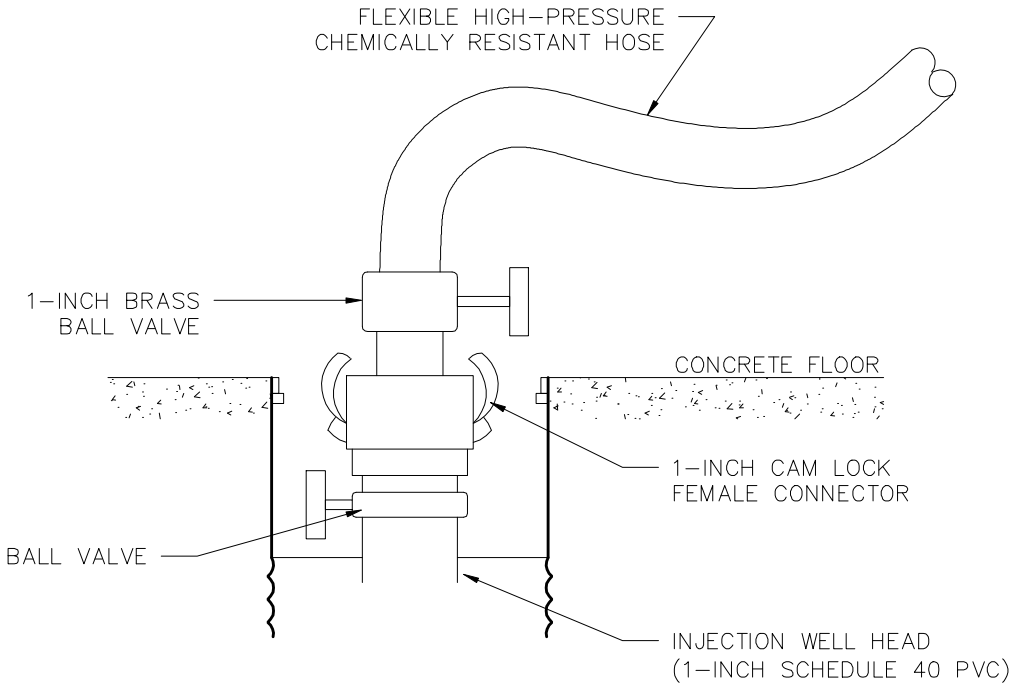
FIGURE 5B.
DEEP INJECTION WELL DETAIL

FORMER CHURCHVILLE FORD
FINAL ENGINEERING REPORT

DATE:	APRIL 2011
SCALE:	NONE
DESIGNED/DRAWN/CHECKED	GLA/DLS
P.N.	5701-11



INJECTION WELL HEAD ASSEMBLY

NOT TO SCALE

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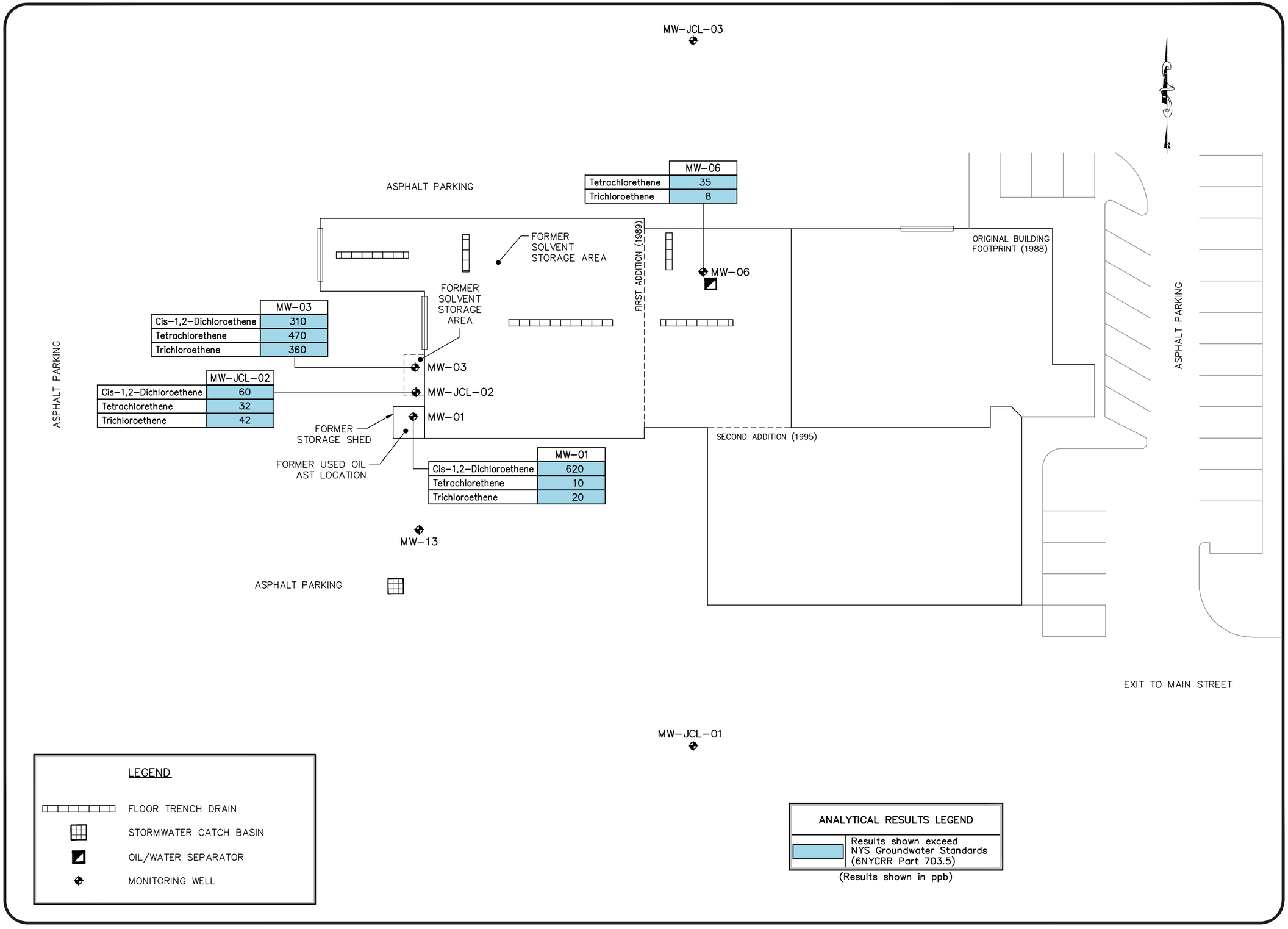
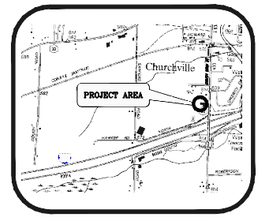
FIGURE 6.
INJECTION WELL HEAD ASSEMBLY

FORMER CHURCHVILLE FORD
FINAL ENGINEERING REPORT

DATE:	FEBRUARY 2011
SCALE:	NONE
DESIGNED/DRAWN/CHECKED	GLA/DLS
P.N.	5701–11





DATE	REVISIONS	BY

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BY: _____

DATE: _____

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CLIENT:

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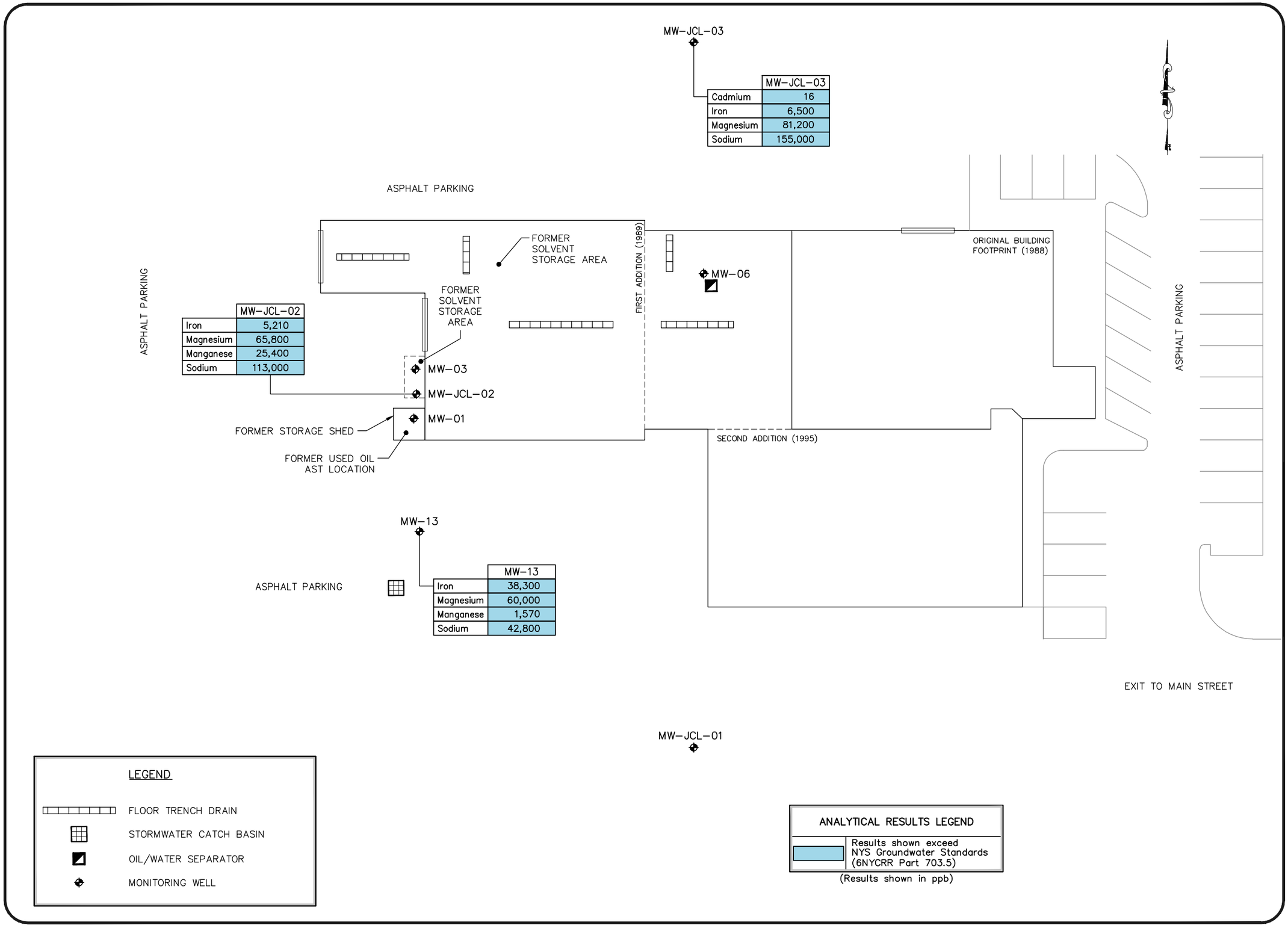
DRAWING TITLE:

FIG. 7
PRE-REMEDIATION BASELINE CONCENTRATIONS (2007)

DESIGNED BY: ERD	SCALE: 1" = 30'
DRAWN BY: DLS	DATE: February 2011
CHECKED BY: GLA	PROJECT No. 5701-11

SHEET OF	DRAWING No.



DATE	REVISIONS	BY

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CLIENT:

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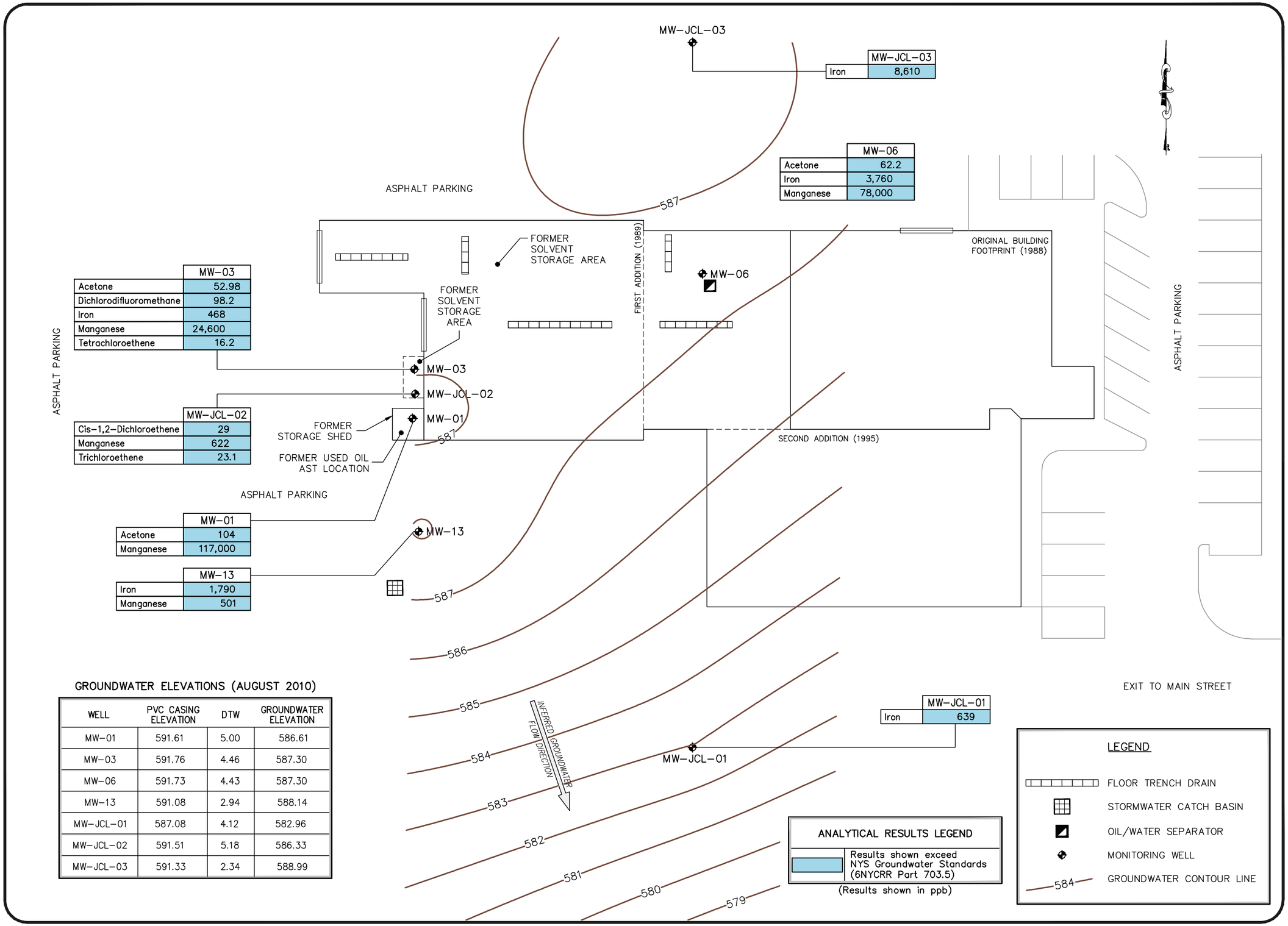
DRAWING TITLE:

FIG. 8 POST-REMEDIAL GROUNDWATER RESULTS (FEBRUARY 2010)

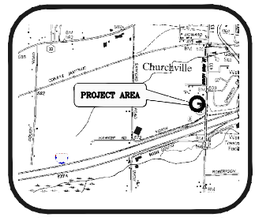
DESIGNED BY: ERD	SCALE: 1" = 30'
DRAWN BY: DLS	DATE: February 2011
CHECKED BY: GLA	PROJECT No. 5701-11

SHEET OF	DRAWING No.



GROUNDWATER ELEVATIONS (AUGUST 2010)

WELL	PVC CASING ELEVATION	DTW	GROUNDWATER ELEVATION
MW-01	591.61	5.00	586.61
MW-03	591.76	4.46	587.30
MW-06	591.73	4.43	587.30
MW-13	591.08	2.94	588.14
MW-JCL-01	587.08	4.12	582.96
MW-JCL-02	591.51	5.18	586.33
MW-JCL-03	591.33	2.34	588.99



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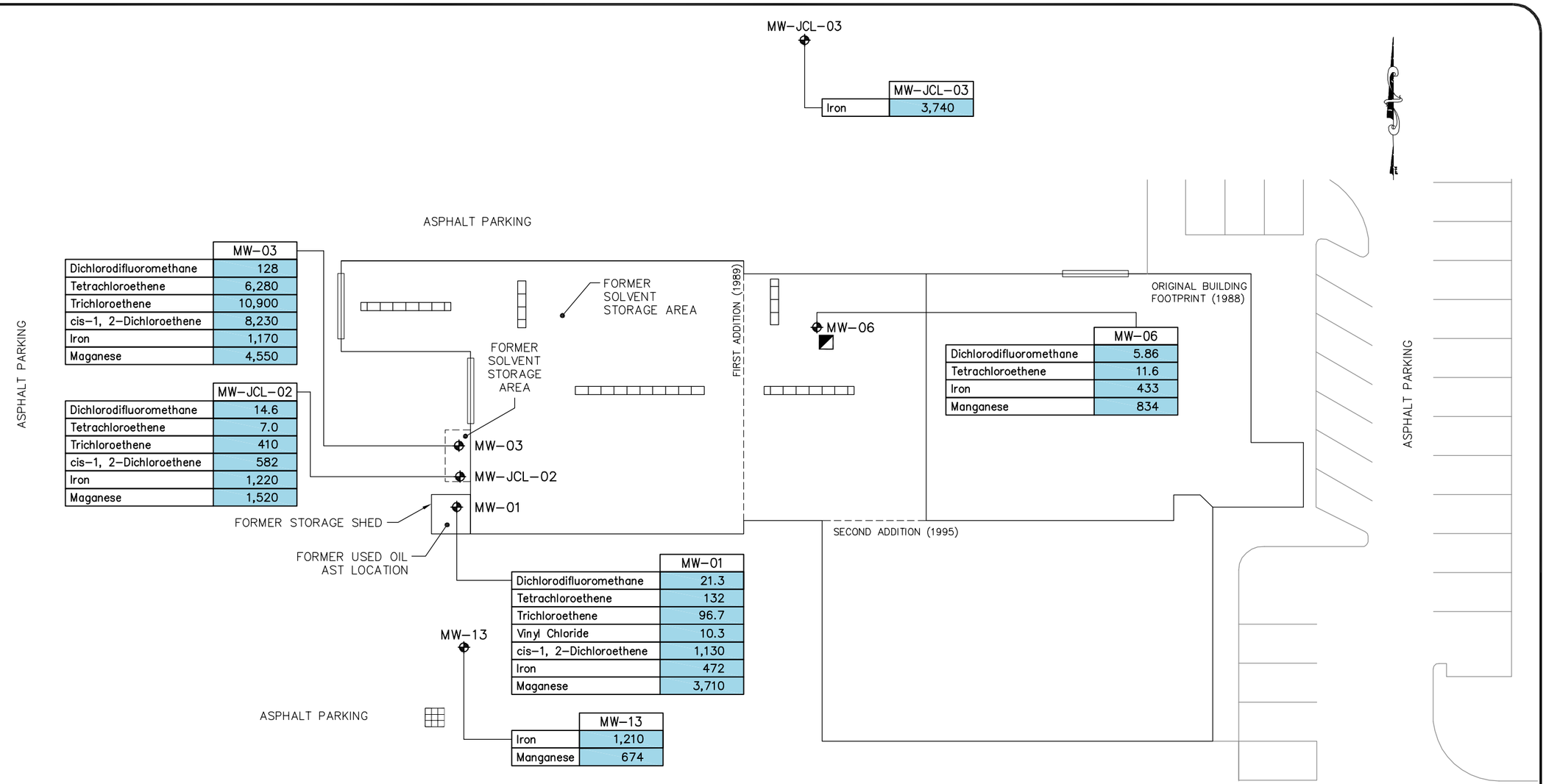
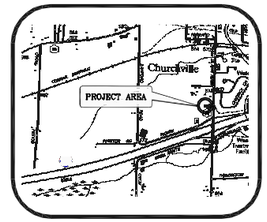
DRAWING TITLE:

FIG. 9
POST-REMEDIAL GROUNDWATER RESULTS (AUGUST 2010)

DESIGNED BY: ERD	SCALE: 1" = 30'
DRAWN BY: DLS	DATE: February 2011
CHECKED BY: GLA	PROJECT No. 5701-11
SHEET OF	DRAWING No.





DATE	REVISIONS	BY

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DATE: _____

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DRAWING TITLE:

FIG. 10
POST-REMEDIAL GROUNDWATER RESULTS
(DECEMBER 2011)

DESIGNED BY: ERD	SCALE: 1" = 30'
DRAWN BY: DLS	DATE: JULY 2012
CHECKED BY: GLA	PROJECT No. 5701-11
SHEET OF	DRAWING No.

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OA-JCL-04

SG-10
(OUTDOOR AIR)

LOCATED ON WESTERN
PROPERTY BOUNDARY

ASPHALT PARKING

ASPHALT PARKING

95 ppm
CABINET

FORMER SOLVENT
STORAGE AREA

248 ppb

SG-2

852 ppb

135 ppb

FIRST ADDITION (1989)

SG-4

254 ppb

SVS-JCL-02

SVS-JCL-02b

IA-JCL-02

IA-JCL-02b/IA-JCL-02b Dup.

IA-JCL-02 MS/MSD

ORIGINAL BUILDING
FOOTPRINT (1988)

FORMER SOLVENT
STORAGE AREA

752 ppb

SG-8
N/A

SG-7
N/A

110 ppb

FORMER STORAGE SHED

SVS-JCL-03b

IA-JCL-03b

366
ppb

SVS-JCL-03

IA-JCL-03

145 ppb

SG-1

SG-3

217 ppb

SG-5

SG-9
(INDOOR AIR)

110 ppb

EXACT LOCATION
BASED ON BUILDING
USAGE

958 ppb

SECOND ADDITION (1995)

SVS-JCL-01
(IN CLOSET)

98 ppb

SG-6
(IN CLOSET BENEATH STAIRS)

IA-JCL-01

FORMER USED OIL
AST LOCATION

ASPHALT PARKING

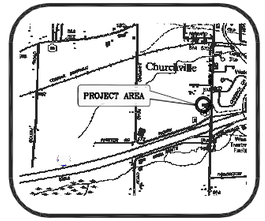
ASPHALT PARKING

EXIT TO MAIN STREET

LEGEND:

- FLOOR TRENCH DRAIN
- STORMWATER CATCH BASIN
- OIL/WATER SEPARATOR
- APPROX. LOCATION OF EXHAUST COLLECTION PORT
- SOIL VAPOR INTRUSION SAMPLE LOCATION (ENTRIX 2004)
- SVS-JCL-00 — SOIL VAPOR INTRUSION SAMPLE LOCATION (LU 2007)
- SVS-JCL-00 — SOIL VAPOR INTRUSION SAMPLE LOCATION (LU 2010)
- ppb — BACKGROUND INTERIOR READING (ppb)

SOIL VAPOR INTRUSION INVESTIGATION



DATE	REVISIONS	BY

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DATE: _____

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REPORT

CLIENT:

BONARIGO &
McCUTHEON, PLLC

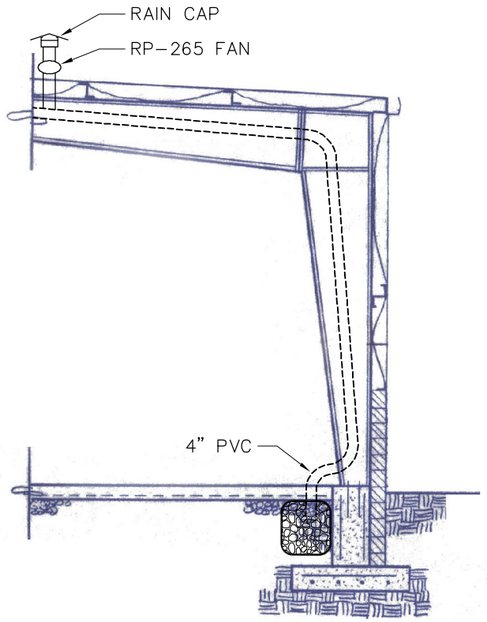
DRAWING TITLE:

FIG. 11
SOIL VAPOR
SAMPLE LOCATIONS

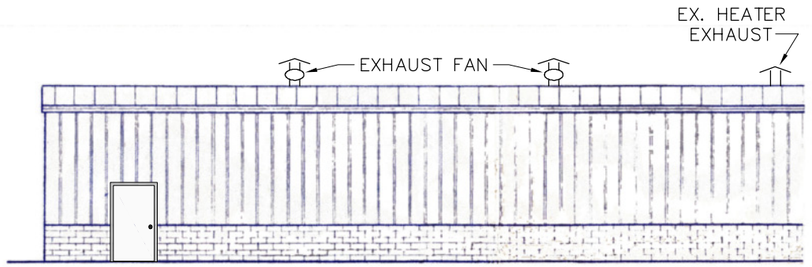
DESIGNED BY: JMB/ERD	SCALE: 1" = 30'
DRAWN BY: DLS	DATE: April 2011
CHECKED BY: GLA	PROJECT No. 5701-11

SHEET	DRAWING No.
OF	

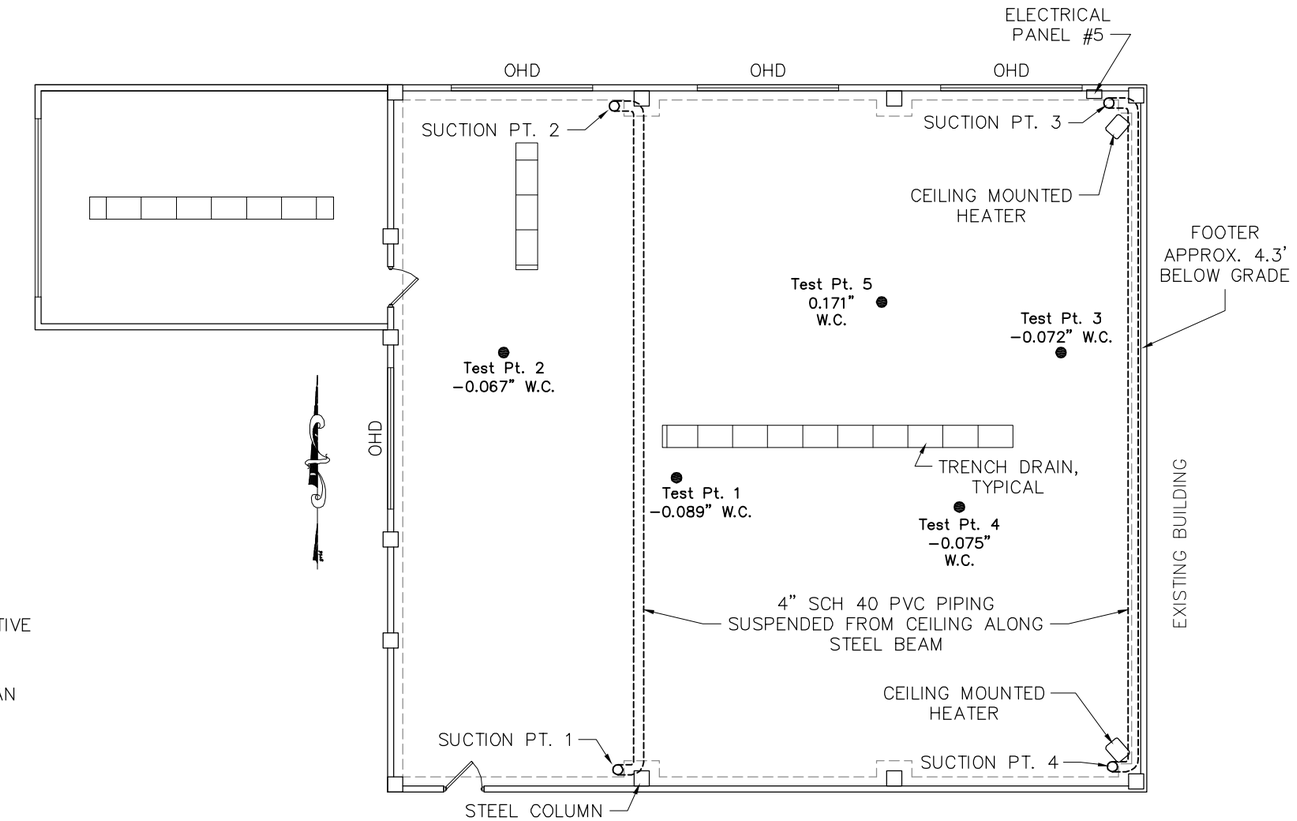
J:\Projects\5701 Okan-Brockport\5701-11 Okan\Cadd\FER\Fig 11_SV-SampLoca.dwg, 7/19/2012 3:52:11 PM



ROOF EXHAUST POINT DETAIL
N.T.S.



SOUTH ELEVATION
N.T.S.

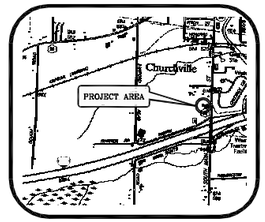


FOUNDATION PLAN – 1989 ADDITION
APPROX. SCALE: 1" = 15'

● PRESSURE FIELD TEST POINTS (6/13/2011)

NOTES:

1. SYSTEM INSTALLED IN ACCORDANCE WITH SPECIFICATIONS IN DESIGN PLAN LETTER DATED MAY 27, 2011. SYSTEM PERFORMANCE OBJECTIVE IS TO PROVIDE A MINIMUM –0.002" W.C. PRESSURE DIFFERENTIAL.
2. SUCTION POINTS 1 AND 2 ARE PIPED TO A RadonAway® RP–265 FAN LOCATED ABOVE THE ROOF.
3. SUCTION POINTS 3 AND 4 ARE PIPED TO A SEPARATE RadonAway® RP–265 FAN LOCATED ABOVE THE ROOF.
4. FANS ARE ON A DEDICATED CIRCUIT – CIRCUIT #8 ON PANEL #5. SHUT–OFF SWITCH MOUNTED ON WALL ABOVE PANEL #5.



DATE	REVISIONS	BY
10.11.11	AS–BUILT UPDATES	ED

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STATE OF NEW YORK
SUSAN ADELAIDE HILTON
079942
LICENSED PROFESSIONAL ENGINEER

BY: _____

DATE: _____

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PROJECT:

FORMER CHURCHVILLE FORD
FINAL ENGINEERING REPORT

CLIENT:

Bonarigo and McCutcheon, Attorneys at Law

DRAWING TITLE:

FIG. 12
SSDS AS-BUILT

DESIGNED BY: LMS	SCALE: 1" = 15'
DRAWN BY: DLS	DATE: October 2011
CHECKED BY: SAH	PROJECT No. 5701–11
SHEET OF	DRAWING No.

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Tables

Former Churchville Ford Site (#V00658-8)
Village of Churchville
Town of Riga

Table 1 Groundwater Results - VOCs

Detected Parameters[1]	Groundwater Standard[2]	MW-01			MW-03			MW-06			MW-13						
		Pre- Remediation	Post Remediation		Pre- Remediation	Post Remediation		Pre- Remediation	Post Remediation		Pre- Remediation	During Remediation			Post Remediation		
		Jun-07	Aug-10	Dec-11	Jun-07	Aug-10	Dec-11	Jun-07	Aug-10	Dec-11	Jun-07	Jul-09	Oct-09	Jan-10	Feb-10	Aug-10	Dec-11
Acetone	**50***	ND	**104**	ND	ND	**52.9 B**	ND	ND	**62.2 B**	ND	ND	ND	ND	ND	ND	6.94 JB	ND
Benzene	**1**	ND	0.786	ND	ND	0.742	ND	ND	0.383 J	ND	ND	ND	ND	ND	ND	ND	ND
Methyl Ethyl Ketone (2-butanone)	**50***	ND	9.14 J	ND	ND	7.53 J	ND	ND	5.53 J	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	**7**	ND	ND	ND	ND	1.17 J	ND	ND	1.46 J	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	**5**		4.50 J	**21.3**		**98.2**	**128 J**		3.80 J	**5.86**					ND	ND	ND
1,1-Dichloroethane	**5**	ND	1.17 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl-Tert-Butyl Ether (MTBE)	**10***		1.71 J	ND		ND	ND		ND	ND					ND	ND	ND
Tetrachloroethene	**5**	**10**	ND	**132**	**470**	**16.2**	**6,280**	**35**	ND	**11.6**	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	**5**	**20**	ND	**96.7**	**360**	ND	**10,900**	**8**	ND	3.25	ND	ND	ND	ND	ND	ND	1.09
Vinyl chloride	**2**	ND	ND	**10.3 J**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	**5**	**620**	ND	**1,130**	**310**	ND	**8,230**	ND	ND	ND	1	ND	ND	ND	ND	ND	1.3 J

~ parameter detected above NYS Ambient Groundwater Standard or applicable NYSDEC Guidance Value
~ parameter not analyzed
J- not detected above reporting limit
B- method blank contained trace levels of analyte
ND- not detected above reporting limit

1-Results presentend in ug/L or parts per billion (ppb)
2-NYS Ambient Groundwater Standards (6 NYCRR Part 703.5)
*NYSDEC Guidance Value (TOGS 1.1.1)

Former Churchville Ford Site (#V00658-8)
Village of Churchville
Town of Riga

Table 1 Groundwater Results - V

Detected Parameters[1]	Groundwater Standard[2]	MW-JCL-01							MW-JCL-02							MW-JCL-03						
		Pre- Remediation	During Remediation			Post Remediation			Pre- Remediation	During Remediation			Post Remediation			Pre- Remediation	During Remediation			Post Remediation		
		Jun-07	Jul-09	Oct-09	Jan-10	Feb-10	Aug-10	Dec-11	Jun-07	Jul-09	Oct-09	Jan-10	Feb-10	Aug-10	Dec-11	Jun-07	Jul-09	Oct-09	Jan-10	Feb-10	Aug-10	Dec-11
Acetone	**50***	ND	-	-	-	-	ND	ND	ND	ND	ND	12.9	ND	ND	ND	ND	-	ND	ND	ND	ND	ND
Benzene	**1**	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND
Methyl Ethyl Ketone (2-butanone)	**50***	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND
Chloroform	**7**	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND
Dichlorodifluoromethane	**5**		-	-	-	-	ND	ND					ND	ND	**14.6**		-			ND	ND	ND
1,1-Dichloroethane	**5**	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND
Methyl-Tert-Butyl Ether (MTBE)	**10***		-	-	-	-	ND	ND					ND	ND	ND		-			ND	ND	ND
Tetrachloroethene	**5**	ND	-	-	-	-	ND	ND	**32**	**67.6**	3.39	ND	ND	2.68	**7 J**	ND	-	ND	ND	ND	ND	ND
Trichloroethene	**5**	ND	-	-	-	-	ND	ND	**42**	**47**	ND	ND	ND	**23.1**	**410**	ND	-	ND	ND	ND	ND	ND
Vinyl chloride	**2**	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	**5**	ND	-	-	-	-	ND	ND	**60**	**192**	ND	ND	ND	**29**	**582**	ND	-	ND	ND	ND	ND	ND

~ parameter detect
~ parameter not an
J- not detected above
B- method blank cont
ND- not detected above

1-Results presentend in ug/L or parts per billion (ppb)
2-NYS Ambient Groundwater Standards (6 NYCRR Part 703.5)
*NYSDEC Guidance Value (TOGS 1.1.1)

Former Churchville Ford Site (#V00658-8)
Village of Churchville
Town of Riga

Table 2 Groundwater Results - Metals

Parameters[1]	Groundwater Standards[2]	MW-01		MW-03		MW-06		MW-13						MW-JCL-01		MW-JCL-02						MW-JCL-03				
		Post Remediation		Post Remediation		Post Remediation		During Remediation			Post Remediation			Post Remediation		During Remediation			Post Remediation			During Remediation		Post Remediation		
		Aug-10	Dec-11	Aug-10	Dec-11	Aug-10	Dec-11	Jul-09	Oct-09	Jan-10	Feb-10	Aug-10	Dec-11	Aug-10	Dec-11	Jul-09	Oct-09	Jan-10	Feb-10	Aug-10	Dec-11	Oct-09	Jan-10	Feb-10	Aug-10	Dec-11
Aluminum	-	-	-	-	-	-	-	ND	715	32,300	30,300	-	-	-	-	349	234	5,090	3,610	-	-	1,270	12,800	5,670	-	-
Antimony	3	-	-	-	-	-	-	ND	ND	ND	ND	-	-	-	-	ND	ND	ND	ND	-	-	ND	ND	ND	-	-
Arsenic	25	-	-	-	-	-	-	ND	17	13	12	-	-	-	-	ND	ND	ND	ND	-	-	ND	10	ND	-	-
Barium	1,000	-	-	-	-	-	-	134	193	329	323	-	-	-	-	78	75	347	ND	-	-	73	216	87	-	-
Beryllium	3*	-	-	-	-	-	-	ND	ND	ND	ND	-	-	-	-	ND	ND	ND	ND	-	-	ND	ND	ND	-	-
Cadmium	5	-	-	-	-	-	-	14	ND	ND	ND	-	-	-	-	10	ND	ND	ND	-	-	8	ND	16	-	-
Calcium	-	-	-	-	-	-	-	80,900	108,000	215,000	203,000	-	-	-	-	67,000	79,900	102,000	78,600	-	-	145,000	186,000	153,000	-	-
Chromium	50	-	-	-	-	-	-	ND	ND	38	36	-	-	-	-	ND	ND	ND	ND	-	-	ND	20	ND	-	-
Cobalt	-	-	-	-	-	-	-	ND	ND	21	18	-	-	-	-	ND	ND	ND	ND	-	-	ND	ND	ND	-	-
Copper	200	-	-	-	-	-	-	ND	ND	39	36	-	-	-	-	ND	ND	ND	ND	-	-	ND	19	ND	-	-
Iron	300**	ND	472	468	1,170	3,760	433	7,300	1,640	40,600	38,300	1,790	1,210	639	3,510	5,680	2,450	31,600	5,210	145	1,220	1,610	20,000	6,500	8,610	3,740
Lead	25	-	-	-	-	-	-	ND	ND	53	ND	-	-	-	-	ND	ND	ND	ND	-	-	ND	16	ND	-	-
Magnesium	35,000*	-	-	-	-	-	-	17,800	23,400	62,400	60,000	-	-	-	-	49,700	65,000	72,600	65,800	-	-	70,400	88,400	81,200	-	-
Manganese	300**	117,000	3,710	24,600	4,550	78,000	834	302	648	1,580	1,570	501	674	29	146	50	2,360	38,000	25,400	622	1,520	49	324	141	187	277
Mercury	0.7		-	-	-	-	-	ND	ND	ND	ND	-	-	-	-	ND	ND	ND	ND	-	-	ND	ND	ND	-	-
Nickel	100		-	-	-	-	-	ND	ND	44	ND	-	-	-	-	ND	ND	ND	ND	-	-	ND	ND	ND	-	-
Potassium	-		-	-	-	-	-	3,410	4,310	13,800	12,800	-	-	-	-	39,200	6,220	10,400	12,600	-	-	3,520	7,510	5,220	-	-
Selenium	10		-	-	-	-	-	8	ND	ND	ND	-	-	-	-	ND	ND	ND	ND	-	-	ND	ND	ND	-	-
Silver	50		-	-	-	-	-	ND	ND	ND	ND	-	-	-	-	ND	ND	ND	ND	-	-	ND	ND	ND	-	-
Sodium	20,000		-	-	-	-	-	14,000	15,200	13,100	42,800	-	-	-	-	38,000	22,300	87,100	113,000	-	-	79,900	51,500	155,000	-	-
Thallium	0.5*		-	-	-	-	-	ND	ND	ND	ND	-	-	-	-	ND	ND	ND	ND	-	-	ND	ND	ND	-	-
Vanadium	-		-	-	-	-	-	ND	16	61	57	-	-	-	-	ND	ND	ND	ND	-	-	ND	26	10	-	-
Zinc	2,000*		-	-	-	-	-	ND	29	524	504	-	-	-	-	199	23	560	ND	-	-	31	119	36	-	-

~ parameter detected above NYS Ambient Groundwater Standard or applicable NYSDEC Guidance Value

~ parameter not anlaylzed

J- not detected above reporting limit

B- method blank contained trace levels of analyte

ND- not detected above reporting limit

Note: For each well represented, results are only illustrated for sampling events in which metals analysis was conducted (no pre-remedial metals analysis performed)

1-Results presentend in parts per billion (ppb)

2-NYS Ambient Groundwater Standards (6 NYCRR Part 703.5)

*NYSDEC Guidance Value (TOGS 1.1.1)

**Sum total of Iron and Manganese results is 500 ug/L per NYSDEC Part 703.5 Class GA groundwater standards

Table 3 Injection Summary Table

Injection Event	Date	Volume of Oxidant Injected (gallons)
1	5-Jun-09	112.75
2	18-Jun-09	113.1
3	7-Jul-09	65.5
4	22-Jul-09	110.8
5	5-Aug-09	132
6	16-Sep-09	69
7	9-Oct-09	174
8	30-Oct-09	176
9	20-Nov-09	176
10	10-Dec-09	69
11	15-Jan-10	204
Total		**1402.15**

Table 4

Former Churchville Ford Site
Soil Vapor Intrusion Sample Results
April 2007 and March 2010

DETECTED ANALYTES	OSHA PEL TWA (ug/m^3)	SVS[1]-JCL-01	IA[2]-JCL-01	SVS[1]-JCL-02	SVS[1]-JCL-02b	IA[2]-JCL-02	IA[2]-JCL-2b
Alcohol							
Isopropyl Alcohol	980,000	ND	ND	113	NS	23.5	NS
Halocarbons							
Bromomethane	80,000	ND	ND	0.434 J	ND	ND	ND
Carbon Tetrachloride	62,900	ND	ND	ND	ND	ND	ND
Chloroethane	2,600,000	ND	ND	0.376 J	ND	ND	ND
Chloroform	240,000	0.645 J	ND	0.39	ND	ND	ND
Chloromethane	207,000	ND	ND	ND	ND	0.651	ND
Cyclohexane	1,050,000	31.1	9.45	271	ND	137	ND
Dichlorodifloromethane	4,950,000	3.42	3.52	88.5	NS	5.08	NS
1,1-Dichloroethane	400,000	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (1,1-DCE)	NA	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (cis-1,2-DCE)	NA	ND	ND	0.443 J	ND	ND	ND
trans-1,2-Dichloroethene(trans-1,2-DCE)	NA	ND	ND	ND	ND	ND	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	7,600,000	0.779 J	0.779 J	ND	ND	ND	ND
Heptane (I)	2,000,000	37.9	30.8	390	NS	124	NS
Hexane	1,800,000	38.7	6.77	567	NS	58	NS
Methylene Chloride (I)	86,750	1.91	1.69	2.37	ND	ND	ND
Tetrachloroethene (PCE) (I)	678,000	3.31	1.7	86.9	97.3	12.1	285
1,1,1-Trichloroethane (TCA)	1,900,000	ND	ND	26.6	12.3	1.11	ND
1,1,2-Trichloroethane	45,000	ND	ND	ND	ND	ND	ND
Trichloroethene (TCE)(I)	537,000	0.765	0.546	16.4	ND	6.39	ND
Trichlorofluoromethane	5,600,000	1.83	2.17	1.43	ND	1.14	ND
2,2,4-trimethylpentane	NA	1.14	8.98	24.7	ND	29.4	ND
Vinyl Chloride	2,560	ND	ND	ND	ND	ND	ND
Aromatics							
Benzene (I)	3,190	8.44	3.73	77.3	29.3	27.3	23.3
1,4-Dichlorobenzene	450,000	ND	ND	ND	ND	0.978	ND
Ethylbenzene (I)	435,000	11.5	4.19	21.2	ND	23.8	23
4-ethyltoluene (I)	NA	6.85	3.55	4.75	NS	16	NS
Styrene	426,000	15.2	9.53	9.53	ND	2.44 J	ND
1,2,4-Trimethylbenzene (I)	NA	10.5	8.24	8.74	NS	42	NS
1,3,5-Trimethylbenzene (I)	NA	6.7	2.95	3.75	NS	11 J	NS
Toluene (I)	754,000	36.4	43.7	142	51.6	152	266
m,p-Xylene (I)	435,000	26	14.9	27.4	ND	77.7	85
o-Xylene (I)	435,000	8.56	5.16	10.6	ND	28.2	23.8
Keytones							
Acetone (I)	2,400,000	50.9	36.5	ND	ND	213	ND
2-Butanone (MEK) (I)	590,000	ND	ND	ND	ND	19.8	ND
4-Methyl-2-Pentanone	410,000	ND	ND	ND	ND	ND	ND
Miscellaneous							
Carbon Disulfide	62,200	2.69	ND	14.6	ND	0.57	ND
Methyl tert-butyl Ether (MTBE)	NA	ND	ND	ND	ND	0.696	ND

NS	Analyte not on parameter list for analysis
ND	Analyte not detected at or above the limit of quantitation
J	Estimated value, the result is > the method detection limit and < the quantitation limit
(I)	Chemical compound was found in a product logged during the building inventory (March 17,2010)
OSHA PEL TWA	OSHA Permissible Exposure Limit (PEL) based on an 8-hour time weighted average (TWA) exposure to the listed chemical compound. These PELs are generally applicable when compound is actively used at facility.
	Samples collected on March 17, 2010; analytical results are presented in ug/m^3
	Samples collected on April 4, 2007; analytical results are presented in ug/m^3

1:Sub-slab soil vapor sample
2:Indoor air sample
3:Outdoor air sample

Table 4

Former Churchville Ford Site
Soil Vapor Intrusion Sample Results
April 2007 and March 2010

DETECTED ANALYTES	OSHA PEL TWA (ug/m^3)	SVS[1]-JCL-03	SVS[1]-JCL-03b	IA[2]-JCL-03	IA[2]-JCL-03b	OA[3]-JCL-04	OA[3]-JCL-04b
Alcohol							
Isopropyl Alcohol	980,000	ND	NS	ND	NS	ND	NS
Halocarbons							
Bromomethane	80,000	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	62,900	ND	ND	ND	ND	ND	0.615
Chloroethane	2,600,000	43.7	592	ND	ND	ND	ND
Chloroform	240,000	1.29	ND	ND	ND	ND	ND
Chloromethane	207,000	ND	ND	ND	ND	ND	1.3
Cyclohexane	1,050,000	202	ND	88.2	ND	1.96	ND
Dichlorodiflоromethane	4,950,000	1630	NS	5.48	NS	3.42	NS
1,1-Dichloroethane	400,000	75.3	208	ND	ND	ND	ND
1,1-Dichloroethene (1,1-DCE)	NA	2.54	60.5	ND	ND	ND	ND
cis-1,2-Dichloroethene (cis-1,2-DCE)	NA	1570	18,500	ND	ND	ND	ND
trans-1,2-Dichloroethene(trans-1,2-DCE)	NA	ND	204	ND	ND	ND	2.9
1,1,2-Trichloro-1,2,2-trifluoroethane	7,600,000	ND	ND	ND	ND	ND	ND
Heptane (I)	2,000,000	371 J	NS	360	NS	8.29	NS
Hexane	1,800,000	360	NS	55.9	NS	ND	NS
Methylene Chloride (I)	86,750	2.54	ND	2.93	ND	1.09	ND
Tetrachloroethene (PCE) (I)	678,000	31	313	11.9	236	ND	ND
1,1,1-Trichloroethane (TCA)	1,900,000	41	256	1.39	ND	ND	ND
1,1,2-Trichloroethane	45,000	ND	ND	ND	ND	ND	ND
Trichloroethene (TCE)	537,000	45.3	305	6.39	ND	ND	ND
Trichlorofluoromethane	5,600,000	1.09	ND	1.83	ND	1.54	1.42
2,2,4-trimethylpentane	NA	15.2	ND	ND	ND	ND	ND
Vinyl Chloride	2,560	12	2,490	ND	ND	ND	ND
Aromatics							
Benzene (I)	3,190	49	77.8	26.3	53.6	0.422 J	0.833
1,4-Dichlorobenzene	450,000	ND	ND	1.04	ND	ND	ND
Ethylbenzene (I)	435,000	65.3	86.7	24.7	31.2	ND	ND
4-ethyltoluene (I)	NA	12.5	NS	15.5	NS	ND	NS
Styrene	426,000	10.8	ND	13	ND	ND	ND
1,2,4-Trimethylbenzene (I)	NA	21	NS	34.5	NS	ND	NS
1,3,5-Trimethylbenzene (I)	NA	8.74	NS	8.49	NS	ND	NS
Toluene (I)	754,000	323	137	386	343 J	3.6	1.79
m,p-Xylene (I)	435,000	189	112	85.6	122	ND	1.5
o-Xylene (I)	435,000	50.8	34.1	27.8	34.9	ND	0.533
Keytones							
Acetone (I)	2,400,000	1020	811 J	498	ND	15.5	ND
2-Butanone (MEK) (I)	590,000	ND	ND	ND	ND	ND	1.68
4-Methyl-2-Pentanone	410,000	ND	189	ND	ND	ND	ND
Miscellaneous							
Carbon Disulfide	62,200	2.44	ND	0.348 J	ND	ND	ND
Methyl tert-butyl Ether (MTBE)	NA	ND	ND	ND	ND	ND	ND

NS	Analyte not sampled
ND	Analyte not detected at or above the limit of quantitation
J	Estimated value, the result is > the method detection limit and < the quantitation limit
(I)	Chemical compound was found in a product logged during the building inventory (March 17,2010)
OSHA PEL TWA	OSHA Permissible Exposure Limit (PEL) based on an 8-hour time weighted average (TWA) exposure to the listed chemical compound. These PELs are generally applicable when compound is actively used at facility.
	Samples collected on March 17, 2010; analytical results are presented in ug/m^3
	Samples collected on April 4, 2007; analytical results are presented in ug/m^3

1:Sub-slab soil vapor sample
2:Indoor air sample
3:Outdoor air sample

Table 5

Former Churchville Ford Site

Soil Vapor Intrusion Sample Results

April 2007 and March 2010

DETECTED ANALYTES	OSHA PEL TWA (ug/m^3)	SVS[1]-JCL-01	IA[2]-JCL-01	SVS[1]-JCL-02	IA[2]-JCL-02	SVS[1]-JCL-02b	IA[2]-JCL-2b
Carbon Tetrachloride	62,900	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	537,000	0.765	0.546	16.4	6.39	ND	ND
Vinyl Chloride	2,560	ND	ND	ND	ND	ND	ND
Recommended Action[4] (Matrix 1)		Take reasonable and practical actions to identify source(s) and reduce exposures		Mitigate		No Further Action	
1,1-Dichloroethene (1,1-DCE)	NA	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (cis-1,2-DCE)	NA	ND	ND	0.443 J	ND	ND	ND
Tetrachloroethylene (PCE)	678,000	3.31	1.7	86.9	12.1	97.3	285
1,1,1-Trichloroethane (TCA)	1,900,000	ND	ND	26.6	1.11	12.3	ND
Recommended Action[5] (Matrix 2)		No further action		Take reasonable and practical actions to identify source(s) and reduce exposures		Take reasonable and practical actions to identify source(s) and reduce exposures	

DETECTED ANALYTES	OSHA PEL TWA (ug/m^3)	SVS[1]-JCL-03	IA[2]-JCL-03	SVS[1]-JCL-03b	IA[2]-JCL-03b	OA[3]-JCL-04	OA[3]-JCL-04b
Carbon Tetrachloride	62,900	ND	ND	ND	ND	ND	0.615
Trichloroethylene (TCE)	537,000	45.3	6.39	305	ND	ND	ND
Vinyl Chloride	2,560	12	ND	2,490	ND	ND	ND
Recommended Action[4] (Matrix 1)		Mitigate		Mitigate		--	--
1,1-Dichloroethene (1,1-DCE)	NA	2.54	ND	60.5	ND	ND	ND
cis-1,2-Dichloroethene (cis-1,2-DCE)	NA	1570	ND	18,500	ND	ND	ND
Tetrachloroethylene (PCE)	678,000	31	11.9	313	236	ND	ND
1,1,1-Trichloroethane (TCA)	1,900,000	41	1.39	256	ND	ND	ND
Recommended Action[5] (Matrix 2)		Take reasonable and practical actions to identify source(s) and reduce exposures		Mitigate		--	--

Matrix 1 and Matrix 2 are based on Final Guidance for Evaluationg Soil Vapor Intrusion in the State of New York, October 2006 (Final NYSDOH CEH BEEI Soil Vapor Intrusion Guidance)

ND	Analyte not detected at or above the limit of quantitation
J	Estimated value, the result is > the method detection limit and < the quantitation limit
OSHA PEL TWA	OSHA Permissible Exposure Limit (PEL) based on an 8-hour time weighted average (TWA) exposure to the listed chemical compound. These PELs are generally applicable only when the chemical is actively used at the facility.
	Sampled on March 17,2010; analytical results are presented in ug/m^3
	Sampled on April 4, 2007; analytical results are presented in ug/m^3

1:Sub-slab soil vapor sample
2:Indoor air sample
3:Outdoor air sample
4:Recomended action based on NYSDOH Soil Vapor/Indoor Air Matrix 1
5:Recomended action based on NYSDOH Soil vapor/Indoor Air Matrix 2

Appendix A
Metes and Bounds Description

Metes and Bounds Description

ALL THAT TRACT OR PARCEL OF LAND:

Situate in the Town of Riga, Village of Churchville, Monroe County, State of New York, being part of Town Lot 52, Township 2, Range 2 of the West Pultney Tract, and being more particularly described as follows;

Beginning at a point on the division line between N/F Christopher T. Steubing & Lisa H. Steubing Tax Account Number 143.17-1-2 on the north and N/F Meyers at Churchville, LLC Tax Account Number 143.17-1-50 on the south said point is also on the westerly right-of-way of Churchville-Riga Road NYS Rte. 36; thence along the above mentioned westerly right-of-way the following three (3) courses and distances;

1) South 02°-42'-06" West a distance of 48.62 feet to a point; thence

2) South 00°-35'-20" East a distance of 61.79 feet to a point; thence

3) South 05°-05'-48" West a distance of 154.55 feet to a point on the northerly right-of-way of Sanford Road North; thence along the above mentioned northerly right-of-way the following seven (7) courses and distance;

1) South 70°-01'26" West a distance of 91.03 feet to a point; thence

2) South 80°-57'-56" West a distance of 92.59 feet to a point; thence

3) South 73°-16'-22" West a distance of 203.13 feet to a point; thence

4) South 56°-47'-58" West a distance 135.61 feet to a point; thence

5) South 41°-42'-54" West a distance 164.41 feet to a point; thence

6) South 27°-47'-57" West a distance of 119.35 feet to a point; thence

7) South 34°-33'-52" West a distance of 24.46 feet to a point on the division line between N/F Realty Income Corporation Tax Account Number 143.17-1-49 on the west and N/F Meyers at Churchville, LLC Tax Account Number 143.17-1-50 on the east; thence

8) North 01°-40'-46" West along the last mentioned division line a distance of 670.79 feet to a point on the division line between N/F Meyers at Churchville, LLC Tax Account Number 143.17-1-50 on the south and N/F HER Dale Farms, L.P. Tax Account Number 143.17-1-52 on the north; thence

9) North 88°-18’-45” East along the last mentioned division line and passing along the division of N/F Meyers at Churchville, LLC on the south and N/F Christopher T. Steubing & Lisa H. Steubing Tax Account Number 143.17-1-2 on the north a distance of 699.29 feet to the point of beginning.

Containing ±264,988.821 square feet or ±6.083 acres of land more or less.

Appendix B
Digital Copy of the FER

Digital copy of FER to be included in final printed submission

Appendix C
Site Management Plan

Site Management Plan submitted to the NYSDEC as a separate document.

Appendix D
Remediation-Related Permits

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

APR 2 8 2009

RECEIVED
MAY 0 4 2009
LU ENGINEERS

Christine Crafts
Lu Engineers
2230 Penfield Road
Penfield, NY 14526

Re: Underground Injection Control (UIC) Program Regulation
Former Churchville Ford (**Reference UICID: 09NY05508023**)
111 South Main Street
Churchville, NY 14428
Monroe County
Authorization to Inject

Dear Ms. Crafts:

This letter serves to inform you that the U.S. Environmental Protection Agency is in receipt of inventory information addressing wells authorized by rule located at the above-referenced facility in accordance with 40 Code of Federal Regulations (CFR) §144.26. The operation of the following Underground Injection Control wells are authorized by rule, pursuant to 40 CFR §144.24:

The 8 injection wells are each authorized to inject approximately 23 gallons of sodium permanganate solution and/or RegenOx every 2 weeks for up to 6 months.

Should any conditions change in the operation of any of the wells listed above (such as injectate composition, closure of the well, injection of cooling water greater than 98 degrees Fahrenheit, construction of additional wells, etc.) you are required to notify this office within five (5) days. Any accidental spills into a well should be reported within twenty-four (24) hours after the event. Change in operation information should be addressed to:

Nicole Foley Kraft, Chief
Ground Water Compliance Section
United States Environmental Protection Agency
290 Broadway, 20th Floor
New York, NY 10007-1866
Re: 09NY05508023
Attn: Frank Brock

Should you own or operate **other** facilities using underground injection wells, please use the enclosed inventory form (EPA Form 7520-16) and instructions, copy for multiple facilities, and submit them to the address listed above. These documents can also be found on the internet at:

http://www.epa.gov/safewater/uic/pdfs/7520-16.pdf
http://www.epa.gov/region02/water/compliance/supplemental_instructions_inventory.pdf
http://www.epa.gov/region02/water/compliance/wellclasstypetable_inventoryc_form

Failure to respond to this letter truthfully and accurately within the time provided may subject you to sanctions authorized by federal law. Please also note that all information submitted by you may be used in an administrative, civil judicial, or criminal action. In addition, making a knowing submission of materially false information to the U.S. Government may be a criminal offense.

Should you have any questions, please contact Frank Brock of my staff at (212) 637-3762 or brock.frank@epa.gov.

Sincerely,

Nicole Foley Kraft, Chief
Ground Water Compliance Section

Enclosure

cc: Dixon Rollins
NYSDEC, Region 8
6247 E. Avon-Lima Road
Avon, NY 14414

Richard Elliott, P.E.
Monroe Co. Dept. of Health
P.O. Box 92832
Rochester, NY 14692-8932

Lu Engineers

2230 Penfield Road
Penfield, New York 14526
Ph 585.377.1450 Fax 585.377.1266

Technical Memorandum

To: Frank Sowers, P.E., NYSDEC Region 8
From: Lu Engineers
Date: 9/4/09
Project: Former Churchville Ford: Site #V00658-8

Re: Remedial Action Work Plan Addendum; Proposed Additional Injection Well
Lu Project No.: 5701-11

Frank,

As previously discussed, we have dealt with several issues during the implementation of the remedial actions described in the approved Remedial Action Work Plan (RAWP), dated December 2008. Initial problems encountered were primarily associated with injection well installation quality. This issue has since been resolved and the five injection wells appear to be functioning as intended. We have also worked with site personnel to resolve access and logistical problems during the injection process.

The issue we have had the most difficulty dealing with has been the injection of permanganate at the pre-existing monitoring wells where lower than anticipated permeabilities have greatly slowed the acceptance of oxidant. As a result, less than half of the permanganate planned for injection at the pre-existing well locations has been introduced to the subsurface. The low permeability soils have complicated the process of achieving planned vertical and lateral dispersion of the chemical oxidant solution into the source area through the 5 shallow interior injection wells and monitoring wells MW-1, MW-3 and MW-6. On August 25, 2009 colormetric testing conducted in the source area at MW-JCL-2 revealed no change in groundwater color since injection activities began in June 2009. It appears that the permanganate solution has not yet migrated vertically to 25 feet below ground surface, the top of the sandpack in MW-JCL-2.

As outlined in the RAWP, all 8 wells were intended to receive the same volume of 3% permanganate solution (22.7 gallons each) per injection event. As mentioned previously, due to the tight soils and relatively slow mobility of groundwater across the Site we have been unable to introduce the full 22.7 gallons per well per event in the source area by gravity. The volume of solution introduced into these three (3) wells per event has averaged approximately 5 gallons at MW-3 and MW-6 and 10 gallons at MW-1. Based on the construction of these three wells, Lu Engineers has determined that it would be impractical

to perform pressurized injection at these 3 well locations. To date, a total of approximately 535 gallons of 3% permanganate solution has been introduced into the groundwater, leaving approximately 694 gallons of 3% permanganate solution to be injected during the remaining injection events among the 8 wells.

A recent groundwater sample (July 2009) from MW-JCL-2 indicates that the permanganate solution is freeing PCE from the soil and releasing it into solution in the groundwater where it can be more readily oxidized. This is indicated by an apparent increase in contaminant level at MW-JCL-2 since groundwater testing was last conducted in 2007 (134 ug/l in 2007 versus 306 ug/l in July 2009). It should be noted that this rise in VOCs is not approaching the 2006 level at this well of 1090 ug/l.

Although the effects of the permanganate are apparently indicated by this increase in VOC contamination the material needs to reach this source location to oxidize the VOCs. It is apparent that both the gravity and pressurized injection of permanganate is not dispersing vertically and laterally through the aquifer as quickly as anticipated based on the slug testing conducted for this project.

As discussed with NYSDEC, Lu Engineers has installed a deeper injection well within the source area to complete the injection process by more effectively dispersing the permanganate material into the subsurface during each remaining injection event. This new injection well will also serve to accept more permanganate than the wells installed to date and the monitoring wells used as injection points. The new injection well will accept the planned volume of permanganate, which would have been injected at the site monitoring wells. The new injection well's location within the source area will also provide more direct and effective access to the highest contaminant levels, and thereby expedite the remedial process.

Figure 1 illustrates the well construction detail for the proposed additional well while Figure 2 indicates the new well location within the source area. The well design is consistent with the injection wells outlined in the approved RAWP but screened at a deeper interval. As indicated on Figure 2 the deep injection well was installed in the source area adjacent to monitoring well MW-JCL-2.

The new injection well is screened from 17 to 12 feet below ground surface with a one foot thick bentonite seal and grouted to within one foot of the ground surface. This leaves sufficient room for the appropriate cam-lock completion for connection to the approved Geoprobe GS-2000 injection pump. Through use of this deeper injection well, the permanganate solution can be more effectively introduced in the contaminant source area to allow for enhanced vertical and lateral dispersion of the permanganate solution and to complete the injection process. Lu Engineers will continue to gravity-feed monitoring wells MW-1, MW-3 and MW-6 with permanganate solution during each remaining injection event.

Please call or e-mail with any questions or concerns.

Sincerely,

Eric Detweiler
Project Geologist

attachments

New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 8
6274 East Avon-Lima Road, Avon, New York 14414-9519
Phone: (585) 226-2466 • **FAX:** (585) 226-8696
Website: www.dec.state.ny.us

Alexander B. Grannis
Commissioner

September 10, 2009

Mr. Antonio Gabrielle
1214 Lake Road
Webster, New York 14580

Mr. Joseph Ognibene
5875 North Byron Road
Byron, New York 14422

Dear Messrs. Gabriele and Ognibene:

Re: Churchville Ford Site # V00658-8
Remedial Action Work Plan Addendum; Proposed Additional Injection Well
September 4, 2009
Village of Churchville, Monroe County

The New York State Department of Environmental Conservation has completed its review of the September 4, 2009 Remedial Action Work Plan Addendum; Proposed Additional Injection Well (the Addendum) prepared by Lu Engineers for the Former Churchville Ford site. The Addendum represents a minor change to the scope of the remedy. Based upon the information and representations given in the Addendum, the Addendum is hereby approved.

Thank you for your cooperation in this matter and please contact me at (585) 226-5357 if you have any questions.

Sincerely,

Frank Sowers

Frank Sowers, P.E.
Project Manager

cc:
Benjamin Bonarigo - Bonarigo & McCutcheon
file

ec:
Bart Putzig
Jeff Kosmala
Joe Hausbeck
Katie Comerford
Gregory Andrus
Eric Detweiler
John Campbell

Appendix E
Daily Reports

Location FRNR CHURCHVILLE FORD Date 5/7/09

Project / Client VCP - OKAR EQUIP

INJECTION WELL INSTALLATIONS

9:00 - ON Site

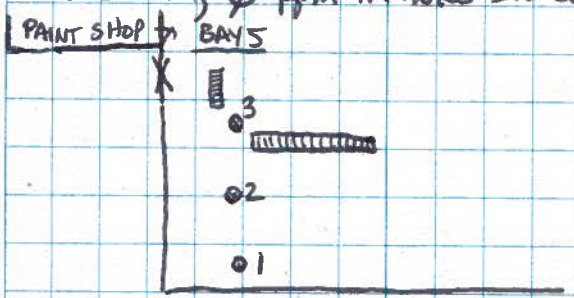
10:00 Trec Env. returns to Site with concrete core saw

10:20 Trec begins coring concrete w/ 8" bit in SW corner of workshop bldg. (IW-JCL-1); Floor is approx. 5" thick w/ rebar

10:40 Start 2nd core 30' north of 1st hole by vehicle lift. (to be IW-JCL-2)

11:00 Begin coring 3rd well location, 30' north of 2nd hole (to be IW-JCL-3)

11:15 Bob Long (NYSDEC) on site to inspect work; screen 3 core hole locations as core is removed (concrete core) and exposes sub-floor overburden - peak reading of 0.7 ppm in IW-JCL-1 core hole, Ø ppm in holes IW-JCL-2 & IW-JCL-3



11:30 Trec offsite to get correct well mat'ls (need 20-slot screen & #4 sand (brought 0.010 slot & #2N)

Location FRMR CHURCHVILLE FORD Date 5/7/09

Project / Client

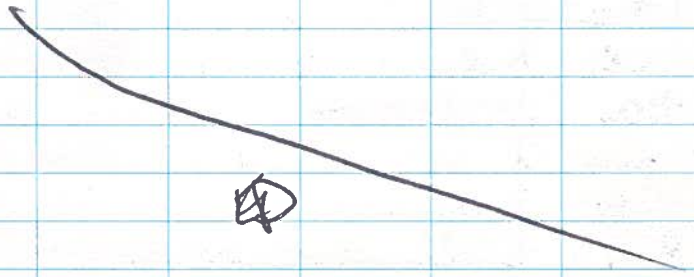
15:00 Begin augering @ IW-JCL-01 (SW corner of bldg. interior); @ 2.5-3' encounter dark-grey discolored silt w/gravel, moist; PID reading on soil 0-5' = 2.4 ppm (peak)

-@ 6'+/-: 3.1 ppm peak; degraded odor (collect sample for headspace)

16:00 Constructing well as per work plan (screen 11.5 to 4' w/ #4 sand to 3.8') w/#4 sand

SANDPACK: 11.5'-3.8'
BENTONITE: 3.8'-3.0'
GROUT: 3'-2.2' (leaving room for additional grout for completion up to ball valve)

17:00 off site



Location FRMR CHURCHVILLE FORD Date 5/8/09

Project / Client

INJECTION WELL INSTALLATIONS

8:00 On site; Get ready to install 2nd injection point (IW-JCL-2); PID reading on soil when concrete core is removed = 0 ppm (Background = 0 ppm); all work shop doors open to ventilate work area

- Difficult augering @ 2.75-3.5'; discolored soil @ approx. 2' below floor w/odor but no elevated PID readings to 5'
- Soil primarily silt with gravel; trace sand

TREC constructs 2nd injection well as same as #1

SANDPACK: 11.5 to 3.9'
SCREEN: 11.5 to 4'
BENTONITE: 3.9' to 3'
GROUT: 3' to 2'

- Check well boring IW-JCL-1 (open w/ PVC sticking out); borehole = 0 ppm
- Well headspace reading = 18.4 ppm peak

9:00 TREC Completes IW-JCL-2 & brings grout up to 1.2' below floor (leaves room for valve & camlock)

9:45 TREC begins augering IW-JCL-3 (in bay 5, furthest north)

- soil discolored charcoal grey @ 1.5-2.0' bgs

Location FORMR CHURCHVILLE FORD Date 5/8/09

Project / Client

INJ. WELLS

then back to med. brown silt w/ f-c rounded gravel & little f-c sand (TILL); wet @ approx. 6'

- No elevated PID readings in IW-JCL-3

10:00 Complete augering; check well headspace in IW-JCL-2 (pressure in well when cap is removed); PID reading = 0.4 ppm

- 11:00 Trec finishes coring 4th indoor injection well location (concrete)

11:20 Begin augering @ IW-JCL-4

- @ approx. 2' below floor black/grey discoloration burnt-rubber/degraded odor (strong); peak PID reading = 14.4 ppm (collect sample for headspace); discoloration ends @ approx 3.5' below floor; by 5' PID readings drop to 0-0.5 ppm; readings on soil in drum 0-8 ppm (peak); pungent odor

* PID reading on headspace (soil) = 25 ppm

13:00 Begin augering through asphalt @ IW-JCL-5 location (outside bldg., where paint/bedliner shop meets main workshop

- @ 2-2.5' dark grey to black soil discoloration; similar odor to IW-JCL-4 med. brown @ 3.5 to 4'; 0 ppm on PID

Location FORMR CHURCHVILLE FORD Date 5/8/09

Project / Client

INJECT. WELLS

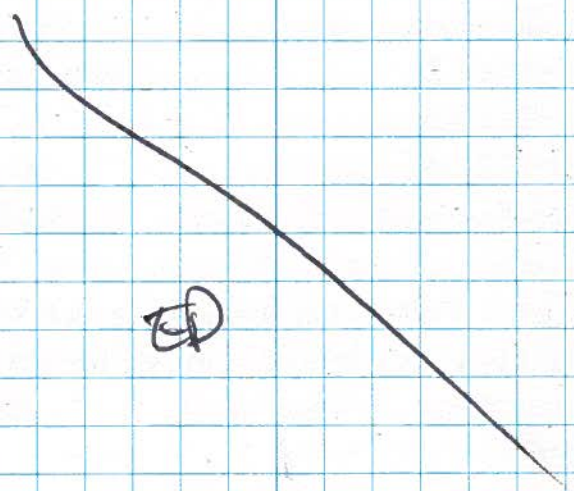
@ 5.5-6'; rose-brown SILT (till) w/ rounded gravel: 0 ppm

* 0 ppm on all soil cuttings to 11.5'

13:30 - well headspace reading on IW-JCL-4: 25.2 ppm peak

- 5 drums of auger cuttings are generated (1 per well) and staged behind wood shed

- all 5 wells completed & grouted to within 18" of floor, awaiting final grout/complet.



Lu Engineers
ENVIRONMENTAL • TRANSPORTATION • CIVIL

Churchville Ford Site Air Monitoring Log

Date: 5/7/09

Instrument Used: Miniram Calibrated: 4/31/09

Monitored by: ED

Time	Particulates (mg/m^3)		VOC's (ppm)		Comments
	Upwind	Downwind	Upwind	Downwind	
2:45	0.028	0.037	0.0	0.0	Background readings
3:00	0.026	0.029	0.0	0.0	*Downwind = indoors
3:05	0.032	0.041	0.0	0.0	begin augering @ 2:58
3:15	0.027	0.034	0.0	0.0	
3:20	0.033	0.051	0.0	0.0	
3:30	0.040	0.035	0.0	0.0	
3:35	0.031	0.063	0.0	0.0	sanding going on in shop
3:42	0.024	0.038	0.0	0.0	
3:50	0.037	0.035	0.0	0.0	
3:56	0.031	0.057	0.0	0.0	complete augering
4:02	0.027	0.044	0.0	0.0	
					Done for the day
					* shop workers are
					sanding boat; no visible
					dust generated at drill
					rig (moist soil)
					* VOC readings taken
					from breathing zone

Lu Engineers
ENVIRONMENTAL • TRANSPORTATION • CIVIL

Churchville Ford Site Air Monitoring Log

Date: 5/8/09

Instrument Used: Miniram Calibrated: 4/31/09

Monitored by: ED

Time	Particulates (mg/m^3)		VOC's (ppm)		Comments
	Upwind	Downwind	Upwind	Downwind	
8:10	0.038	0.046	0.0	0.0	Background readings
8:14	0.051	0.044	0.0	0	begin augering - no
8:20	0.033	0.071	0.0	0.0	visible dust generated
8:27	0.029	0.041	0.0	0.0	during augering
8:35	0.036	0.083	0.0	0.0	*tractor and equipment being moved
8:41	0.041	0.045	0.0	0.0	in & out of shop during drilling
8:46	0.037	0.048	0.0	0.0	complete augering;
8:52	0.039	0.043	0.0	0.0	constructing well
9:45	0.041	0.039	0.0	0.0	Begin augering IW-JCL-3
9:51	0.035	0.053	0.0	0.0	
10:00	0.039	0.028	0.0	0.0	complete augering to depth
10:09	0.033	0.041	0.0	0.0	
10:15	0.038	0.043	0.0	0.0	complete intrusive work
11:18	0.051	0.057	0.0	0.0	begin augering IW-JCL-4
11:25	0.042	0.063	0.0	0.0	complete augering to depth
11:32	0.037	0.039	0.0	0.0	constructing well
11:40	0.044	0.043	0.0	0.0	complete well
13:01	0.029	0.033	0.0	0.0	Augering @ IW-JCL-5 (outdoors)
13:09	0.031	0.037	0.0	0.0	
13:16	0.025	0.023	0.0	0.0	complete augering, construct well
13:22	0.035	0.039	0.0	0.0	
13:28	0.041	0.040	0	0	well complete
					* VOC readings collected
					from breathing Zone

Lu Engineers
ENVIRONMENTAL • TRANSPORTATION • CIVIL

Churchville Ford Site Air Monitoring Log

Date: 8/25/09

Instrument Used: Miniram Calibrated: 7/24/09

Monitored by: ED

Time	Particulates (mg/m^3)		VOC's (ppm)		Comments
	Upwind	Downwind	Upwind	Downwind	
10:10	0.017	0.021	0	0	Background reading
10:16	0.022	0.018	0	0	Begin augering on asphalt
10:22	0.014	0.011	0	0	
10:30	0.031	0.027	0	0	
10:38	0.021	0.016	0	0	
10:49	0.019	0.022	0	0	
11:00	0.031	0.028	0	0	complete augering - stop work
1:30	0.027	0.025			installing inj. well JCL-8
1:42	0.021	0.019			
1:55	0.037	0.041			
2:08	0.035	0.024			
2:17	0.020	0.041			
2:30	0.026	0.030			
2:44	0.033	0.031			
3:01	0.019	0.022			complete intrusive work

Location FRMR CHURCHVILLE FORD Date 5/11/09

Project / Client

2nd TREC on site; make up well head completion for IW-JCL-2 (galvanized nipple on slip cap CPVC to metal) with ball valve (metal) and cam lock fitting)

1530 Complete new install w/ protective box and grout up to ball valve @ IW-JCL-2

1600 offsite

5/12/09

PID Reading on Well Head

IW-JCL-1	9.4 ppm
IW-JCL-2	NA (PID batt. dead)
IW-JCL-3	2.7 ppm
IW-JCL-4	20.3 ppm
IW-JCL-5	3.1 ppm (moisture?)

11:00 Trec finishes grouting protective covers in place up to ball valve (let set before completing to floor level)

Location FRMR CHURCHVILLE FORD Date 5/15/09

Project / Client

INJECT. WELL PRESSURE TEST

10:00 Trec hooks geoprobe GS2000 pump up to IW-JCL-4; system has been flushed/cleaned

- Try w/ 10 gallons of water under idle conditions & pump leaks @ O-ring seals @ bottom of tank and @ pressure gauge in line

IW-JCL-4 accepts 10 gallons of water w/ pump @ idle (takes 5-7 minutes); pressure built slowly to a max of 20 psi but generally stayed @ 10 +/- psi

- Try 2nd run w/ 15-[redacted] gallons under higher pressure; pressure built to 8 psi then dropped to 0 psi. when disconnected there was back pressure on well & pushed back out of well head - have to close ball valve prior to removing cam-lock fitting

EP

Location Ferma Churchville Ford Date 6/5/09

Project / Client Sunny 60°

INJECTION EVENT #1

8:00 Arrive on site

WELL	DTW (btoc)	
MW-JCL-1	5.42	* MW-22 not accessible behind shed
MW-JCL-2	5.40	
MW-JCL-3	3.23	
MW-1	4.98	
MW-3	3.91	
MW-6	3.55	
MW-13	4.16	
MW-21	4.42	(retention basin)

9:00 Prep area to mix Permanganate solution; cordon off work area, lay poly on floor
- Setup to inject, all bay doors wide open in shop
- Mix 2 batches of 3% solution as per WP (1 batch = 1.3 gal 40% $NaMnO_4$ to 21.4 gal water)

(* 2 batches = 2.6 gal 40% $NaMnO_4$ to 42.8 gal water (45.4 gallons of 3% solution))

- Inject approx. 3 gallons into IW-JCL-1; pressure builds to 10 psi & solution begins spraying out (stream) of rivet in curb box); shut off pump

* 0 ppm PID, 0% LEL, 20.9% O_2, 0% H_2S, 0% CO

Location Ferma Churchville Ford Date 6/5/09

Project / Client

INJ. EVENT #1

- Move rig to IW-JCL-2; hook up cam lock, fill pump w/ 7.5 gal of 3% solution. First 7.5 gallons - pressure builds to 18 psi then levels off @ 15 psi; 3rd batch of 7.55 gal pressure runs @ 10 psi - no problems

- Move rig to IW-JCL-4 to inject 22.7 gal 3% solution; hook up and inject 7.55 gal Pressure builds to 15 psi, then drops to 10 psi; remains there for injection of full 22.7 gallons (no issues)

- Move rig to IW-JCL-3; injection builds pressure to 20 psi, then drops to 10 psi for remaining 15 gallons; inject full vol. of 22.7 gallons w/ no issues

12:30
- Move setup to IW-JCL-5; injection process a bit slower here; pressure builds to 10 psi then levels off; remains @ 10 psi takes 25 +/- min to inject 22.7 gal of 3% solution - no problems

Location FRMR CHURCHVILLE FORD Date 6/5/09

Project / Client

* IW-JCL-2,3,4 took approx. 15-18 min for full injection volume

- Begin gravity feeding wells MW-1 (4"), MW-3 (2"), MW-6 (2")
- Each well takes approx. 30-40 min to accept 1 gallon of 3% solution (same time to inject 2 gal into MW-1 (4")

Total Volume of 3% $NaMnO_4$ injected into 3 gravity-fed wells:

MW-1: 10 gallons total
MW-3: 5 gallons total
MW-6: 4 gallons total

Location FRMR CHURCHVILLE FORD Date 6/12/09

Project / Client

RADIAL INFLUENCE CHECK

WELL	DTW	COLOR DESCRIPTION
IW-JCL-1	4.13' (to camlock)	slight purple-clear
IW-JCL-2	4.26' (top of camlock)	beet red/purple
IW-JCL-3	3.82' (top camlock)	brighter purple than IW-JCL-2 (less red)
IW-JCL-4	3.98' (top camlock)	lighter purple than IW-JCL-3 (lightest concentration)
IW-JCL-5	2.49' (top camlock)	light tan-yellow; no purple, quite clear
MW-JCL-1	5.21' (TOC)	clear
MW-JCL-2	5.62' (TOC)	clear
MW-JCL-3	3.51' (TOC)	clear
MW-1	4.09' (TOC)	bright purple
MW-3	3.24' (TOC)	bright purple
MW-6	4.05' (TOC)	½ color/concentration of IW-JCL-2
MW-13	3.17' (TOC)	CLEAR
MW-21	4.48' (TOC)	clear
MW-22	inaccessible (to have stuff moved from on top of well)	

Location FRMR Churchville Ford Date 6/18/09

Project / Client

8:00 RCM onsite, TREC - Steve onsite talk with Paul to get bays clear for the day.

8:30 Begin opening injection wells & start to mix product

9:00 Begin 1st injection at IW-JCL-4

9:30 Inject 22.7 gallons @ 3% solution, psi remains @ 10

10:00 Inject at IW-JCL-3 with 22.7 gallons of 3% solution psi remains at 10

10:30 Mix another double batch of 3% solution.

11:00 Inject 22.7 gallons at JCL-2 psi remains @ 10

11:30 Inject 22 gallons at JCL-5 psi remains between 5 and 10 at end of injection solution begins to seep from between asphalt & paint booth building. Soak up as much as possible with rags.

11:45 Decide to have Trec leave to get a shop vac at their shop

Location Former Churchville Ford Date 6/18/09

Project / Client

12:00 Mix 1/2 batch of solution for manual injection into Monitoring wells MW 1, 6 & 3

1/2 batch = 0.65 gal 40%
10.7 gal water

= 11.35 gal 3% solution

12:30 Begin feeding solution down wells. MW-1 seems to take 2 gal at a time, MW 6 & 3 take 1 gal at a time.

1:00 Continue to feed solution into wells Approximately 4 gallons for 3 wells in 20 minutes.

Totals for manual injection

MW-1 10 gallons
MW-3 7 gallons
MW-6 : 6 gallons

3:30 All Equipment cleaned & wells closed RCM offsite. Paul or with Monday 6/22 well installation.

Location Former Churchville Ford Date 6/22/09

Project / Client

8:30 ROM Lu Engineers onsite, Bob Long NYSDEC onsite, Jim/Chris, Trec onsite.
8:45 Begin coring at IW-JCL-6
9:50 Talk to Paul about locations
9:05 Begin coring at IW-JCL-7
9:20 JCL-7 core complete
9:30 Set up on JCL-6 & JCL-7 with materials & drums.
10:00 Begin augering @ JCL-6
PID 1.4 @ 2', max 48 ppm @ 4'
10:10 PID readings 5 ppm – 20 ppm @ 5-9'
Readings 40 ppm @ 10', auger to 11.5.
10:20 Drop 1.5 rods down augers to check depth, drop PVC, begin filling w/ sand pack.
10:50 Complete sand & bentonite, wet bentonite seal. Grout to 2.0'
11:10 Set up on JCL-7
1:20 Begin augering
1:30 PID Readings 184 ppm @ 4', readings drop after that to approx 60-80 ppm from 5-9'
11:35 Reach 11.5 feet, take soil cuttings for head space readings.

Location Date

Project / Client

11:40 PID giving Lamp warnings
212 ppm max at cuttings from augers at 11.5
11:45 Pouring sand pack to 4'
12:00 Add bentonite to 3', add water to wet bentonite.
12:10 Grout to 2.0
12:45 Fitting camlock & ball valve on JCL-6, move soil cutting drums to behind shed "drum staging area".
13:00 Plan to grout up to just to curb box, let grout set, come back to finish cementing in curb boxes
13:30 Lu + Trec offsite for lunch
14:15 Lu + Trec back onsite, have to leave & let Trec finish setting curb boxes. Will return to grout tomorrow.
14:20 Talk to Paul to let him know

Location Churchville Ford Date 7/7/09

Project / Client

Injection #3

8:00 Trec / Lu on site; arrange to have boats moved indoors; Mix 2 batches of 3% solution

9:30 Begin injecting @ IW-JCL-6 (new well @ SE bldg corner); after injecting approx. 4-5 gallons, solution begins leaking out of completion between concrete floor & curb box completion (concrete); stop injection, clean floor

10:00 Begin injection @ IW-JCL-2 (under lift); inject 12 gallons w/out issue @ 5 psi

10:15 Begin injection of 3% solution @ IW-JCL-4; inject total of 12 gallons @ 0 psi (2 psi peak) with no problem

10:45 Inject IW-JCL-3 with 12 gallons of 3% solution @ 0 psi w/ no problems

11:00 Trec begins injection @ IW-JCL-7 (closest to IW-JCL-5 but inside bldg); well accepts 3 gallons of 3% solution before purple solution bubbles up through

Location Date 7/7/09

Project / Client

grout (curb box not installed & grout is @ bottom of floor slab level). Stop injection after 3 gallons is put down-well; Trec cleans injection pump then begins new curb-box completion of IW-JCL-7; Begin gravity feeding wells MW-1, MW-3, MW-6; Trec offsite @ 12:30

Total Volume Injected (3% solution)

- IW-JCL-6: 4-5 gallons
- IW-JCL-2: 12 gallons
- IW-JCL-3: 12 gallons
- IW-JCL-4: 12 gallons
- IW-JCL-7: 3 gallons
- MW-1: 11.5 gallons
- MW-3: 5 gallons
- MW-6: 5 gallons

65.5 gallons total

15:30 Finish gravity injection; secure Remox supplies in drum w/ cones & caution tape; Lu offsite @ 16:00

Location Churchville Ford Date 7/22/09

Project / Client Injection #4

8:00 Arrive on site; Trec on site, will attempt repair of completion @ IW-JCL-6

8:20 BOB LONG (NYSDEC) ON SITE; CALL FRANK SOWERS TO DISCUSS injection details, he would like to formally address injection volumes per event

9:00 Cordon off area of injection w/ caution tape & cones & begin mixing solution; all bay doors are open & ceiling fans for air circulation

9:30 Begin injection @ IW-JCL-4; inject full volume of 22.7 gallons of 3% solution; no problems, pressure gauge remained @ 0 psi

10:20 Setup to inject @ IW-JCL-3; inject full volume of 22.7 gallons 3% solution @ Ø psi

11:00 Inject 22.7 gallons of 3% solution into IW-JCL-2 @ Ø psi

11:30 Inject 22.7 gallons of 3% solution into IW-JCL-7 (#5 replacement) @ Ø psi

Location Churchville Ford Date 7/22/09

Project / Client Inj. #4

12:00 Trec has deconned injection pump; lunch break

12:45 Begin gravity injection @ MW-3, MW-1 & MW-6

Total volume injected:

MW-1	MW-3	MW-6
10	5	5

15:00 Collect VOC & Metals groundwater samples from MW-13 and MW-JCL-2.

- MW-13 water is clear w/ no indication of purple permanganate solution in well.
- MW-JCL-2 groundwater is also clear and shows no indication of permanganate discoloration

15:35 Continue gravity feeding MW-1, 3 & 6

* MW-JCL-3 has truck parked on top of it that can not be moved therefore no sample collected

16:00 Complete injection; secure & cordon-off chemicals in storage area.

Offsite

Location Churchville ford Date 8-4-09

Project / Client

Injection #5

7:00	Arrive onsite, begin set-up
7:30	Begin injection at JCL-6 Begin with 3 gallons leftover solution
7:45	JCL-6 accepting injections @ 10 psi
0:10	Inject all 22 gallons of 3% solution
0:15	Move to JCL-2 inject 22 gallons of 3% solution @ 0 psi
10:30	Move to JCL-4, inject 22 gallons of 3% solution @ 0 psi
10:45	Move to JCL-3, inject 22 gallons of 3% solution @ 0 psi
11:00	Move to JCL-7, inject 22 gallons of 3% solution @ 0 psi
11:20	Trec cleaning equipment + injection points.
11:30	Begin manual well injections
2:00	Wait for injections to settle total so far

MW-6	MW-1	MW-3
IIII	IIII IIII	IIII

1:00	Complete 2nd half of injections
1:30	Clean up equipment
1:45	Offsite

Location Churchville Ford Date 8/25/09

Project / Client

INJECTION WELL #8 INSTALL

900 ARRIVE ON SITE TO INSTALL NEW "DEEP" INJECTION WELL TO 17' bgs; WALK SOURCE AREA IN & OUT OF BLDG. AND SELECT LOCATION BETWEEN MW-JCL-2 AND MW-3

10:15 TREC BEGINS AUGERING THROUGH ASPHALT/OVERBURDEN; TOP 5' DISCOLORED DARK GREY; SLIGHT ODOR; PEAK PID READINGS IN TOP 5' = 39 ppm (AUGER CUTTINGS)

10:30 @ APPROX. 6' bgs SOIL CUTTINGS CHANGE TO ROSE-BROWN SILT W/ TRACE f SAND & LITTLE F-C ROUNDED GRAVEL (TILL)

11:00 RIG REACHES 17' (TOTAL DEPTH); TREC IS WAITING FOR DELIVERY OF .020 SLOT PVC SCREEN (1") FOR WELL CONSTRUCTION

1:30 TREC INSTALLS INJECTION WELL SCREEN (1") @ 17'; WELL IS CONSTRUCTED AS FOLLOWS: SCREEN INTERVAL: 17'-12' bgs SANDPACK: 17'-11' BENTONITE SEAL: 11'-10' GROUT: 10'-

4:00 TREC CUTS RISER TO ALLOW ROOM FOR FEMALE CAMLOCK COMPLETION BENEATH CURB BOX

Lu Engineers
ENVIRONMENTAL • TRANSPORTATION • CIVIL

Churchville Ford Site Air Monitoring Log

Date: 6/22/09

Instrument Used: Miniram

Calibrated: 5/15/09

Monitored by: Rebecca May

Time	Particulates (mg/m^3)		VOC's (ppm)		Comments
	Upwind	Downwind	Upwind	Downwind	
10:00	0.021	0.027	0	0	background
10:10	0.017	0.043	0	0	working indoors
10:20	0.031	0.028	0	0	
10:30	0.023	0.029	0	0	
10:40	0.038	0.051	0	0	
10:50	0.025	0.021	0	0	complete JCL-6
11:10	0.019	0.023	0	0	start JCL-7
11:20	0.022	0.031	0	0	
11:30	0.051	0.063	0	0	tractor in shop
11:40	0.047	0.043	0	0	
11:50	0.028	0.033	0	0	
12:00	0.031	0.029	0	0	complete JCL-7

Location Churchville Ford Date 8/25/09

Project / Client INJECTION WELL #8 INSTALL

4:45 TREE BRINGS GROUT SEAL UP AROUND SLIP-FITTING FOR CAMLOCK; WILL SET CURB BOX TOMORROW; ~~WELL~~

5:00 OFFSITE

Location Churchville Ford Date 9/16/09

Project / Client

INJECTION #6

WELL ID	DTW (BTOIC)
MW-1	4.55
MW-3	4.35
MW-JCL-2	7.37
MW-13	5.25
MW-6	4.25
MW-JCL-1	5.81
MW-JCL-3	3.77
MW-21 (STICK UP IN BASIN)	5.39

8:45 CORDON OFF WORK AREA W/ CAUTION TAPE

9:00 MIX DOUBLE BATCH OF 3% SOLUTION

9:30 BEGIN INJECTING NEW EXTERIOR WELL (IW-JCL-8) IN SOURCE AREA; INJECT 23 GALLONS, PRESSURE BUILDS INITIALLY TO 10 psi, THEN DROPS TO 0 psi

Location _____ Date 9/16/09

Project / Client _____

INJECTION #6

10:15 TREC ENCOUNTERS PROBLEM W/ BALL VALVE @ IW-JCL-7, WON'T OPEN; REMOVES CAM LOCK FITTING & IS ABLE TO GET VALVE OPEN

11:00 BEGIN INJECTION @ IW-JCL-7; INJECT 23 GALLONS OF 3% SOLUTION @ Ø psi; MIX 1/2 BATCH OF 3% SOLUTION & PREP TO INJECT @ IW-JCL-8 AGAIN; INJECTION PUMP IS LEAKING @ SEALS & PISTON; WILL NOT BE INJECTING ANY OTHER INTERIOR WELLS TODAY FOR H_2S REASONS UNTIL PUMP IS REPAIRED

12:00 BEGIN 2nd INJECTION @ IW-JCL-8; DURING INJECTION A SMALL AMOUNT OF SOLUTION IS SEEPING UP AROUND J-PLUG @ MW-3; CONTINUE INJECTION; SUCCESSFULLY INJECT ANOTHER 23 GALLONS INTO JCL-8

WELL	TOTAL VOL. INJECTED
IW-JCL-7 (by overhead door)	23 gal
IW-JCL-8	46 gal

Location _____ Date 9/16/09

Project / Client _____

- NO WATER SAMPLING TODAY TO ALLOW PERMANGANATE TO REACT IN SOURCE AREA
- CHECK WELLS MW-13 & MW-JCL-2 FOR COLOR; MW-13 IS VERY CLEAR W/ NO EVIDENCE OF PERMANGANATE MW-JCL-2

Location Churchville Ford Date 10/9/09

Project / Client

Injection #7

8:00 ARRIVE ON SITE; TREC ON SITE; GET WORK AREA PREPPED W/ CAUTION TAPE, POLY; MIX 2 BATCHES OF 3% PERMANGANATE SOLUTION

9:00 BEGIN INJECTING @ IW-JCL-4 Ø psi DURING INJECTION; INJECT 23 GALLONS

9:30 MOVE INJ. PUMP TO IW-JCL-3; INJECT 23 GALLONS @ Ø psi (gauge may be broken on pump hose)

10:00 Mix 2 batches of 3% solution; Inject 23 GALLONS @ IW-JCL-2; Ø psi

10:45 INJECT 23 GALLONS @ Ø psi @ IW-JCL-6 (#1 Replacement)

11:00 INJECT 23 GALLONS 3% SOLUTION @ IW-JCL-7 (#5 Replacement Inside) Ø psi (46)

11:25 INJECT #6 GALLONS OF 3% SOLUTION @ NEW IW-JCL-8 WELL IN SOURCE AREA (OUTSIDE)

11:50 TREC BEGINS CLEANING EQUIP

12:30 PURGE 3 VOLUMES OUT OF MW-JCL-2 PRIOR TO SAMPLING; DTW = 6.45

Location Churchville Ford Date 10/9/09

Project / Client

INJECTION #7

PURGE MW-13; DTW = 4.78'; PURGE ~~[illegible] VOLUMES~~; PURGE DRY

* PERMANGANATE SOLUTION IS OBSERVED IN MW-JCL-2 AFTER EVAC'ING APPROX. 1.5 GALLONS (½ BAILER PURPLE ½ CLEAR);

PURGE 3 WELL VOLUMES @ MW-JCL-3; MIX ½ BATCH OF 3% SOLUTION TO GRAVITY INJECT @ MW-1 & MW-6; MW-3 IS FULL FROM INJECTION @ IW-JCL-8 (CAN'T GET MORE IN IT)

MW-1	MW-6
~~IIII~~	IIII

* DTW @ MW-JCL-3 = 5.20
DTW @ MW-6 = 5.21'

2:05 Collect VOC & TAL Metals sample @ MW-JCL-2

Location Churchville Ford Date 10/9/09

Project / Client

Injection 7

2:15 Collect sample MW-13 for VOC & TAL Metals analysis

2:30 Collect sample MW-JCL-3 & GW sample

2:45 Finish gravity feeding ½ batch of 3% solution in MW-1 & MW-6 (see totals on previous page)

3:00 Off site to Paradigm; All supplies are stored appropriately & cordoned off with caution tape

Location Churchville Ford Date 10/30/09

Project / Client

Injection #8

800 ARRIVE ON SITE

8:30 TREC ENV ON SITE; SET UP TO INJECT BY CORDONING OFF WORK AREA & SETTING UP POLY / MIXING DRUM

9:00 BEGIN INJECTING 3% SOLUTION @ OUTDOOR SOURCE AREA WELL (IW-JCL-8) INJECT 46 GALLONS (PRESSURE GAUGE NOT WORKING ON PUMP HOSE); MOVE TO IW-JCL-7 & INJECT 23 GALLONS 3% SOLUTION; MOVE TO IW-JCL-4 & INJECT 23 GALLONS WITHOUT ISSUE; INJECT REMAINING 3 INJECTION WELLS W/ 3% SOLUTION @ 23 GALLONS EACH;

12:00 TREC COMPLETES PRESSURIZED INJECTIONS & CLEANS EQUIPMENT; BEGIN GRAVITY FEEDING MW-1 & MW-6 (MW-3 IS STILL FULL FROM SOURCE AREA INJECTION DUE TO PROXIMITY TO IW-JCL-8)

- BAIL MW-13 TO LOOK FOR INDICATION OF PERMANGANATE SOLUTION (PURPLE) DOES NOT APPEAR TO HAVE ANY PURPLE COLORATION IN WATER (GREY COLOR AS

Location Churchville Ford Date 10/30/09

Project / Client

INJECTION #8

IT BAILS DRY

MW-1	MW-6	MW-3
8	5	2

* 176 GALLONS INJECTED TOTAL

1:30 SECURE DRUM OF REMOX & EQUIPMENT; CORDON OFF W/ CAUTION TAPE & ORANGE CONES

Location Churchville Ford Date 11/20/09

Project / Client

INJECTION #9

8:00 OnSite; cordon-off work area; mix first double-batch of 3% solution; inject 46 gallons of 3% solution into outdoor IW-JCL-8 source area well; no pressure gauge on injection line

9:00 Inject 23 gallons into each of the 5 interior injection wells (3% solution) without issue

11:45 Complete final injection; Trec cleans up equipment; begin gravity injection @ MW-3, MW-1 & MW-6

*MW-3 is heavily influenced by source area injection well, doesn't need as much volume

12:30 Bail MW-13 to check for permanganate solution - no indication of purple in well

MW-1	MW-3	MW-6
8	2	5

176 gal

Location Churchville Ford Date 11/20/09

Project / Client

INJECTION # 8

MON. WELL	DTW
MW-1	5.15
MW-3	NA (influenced by injectn)
MW-JCL-2	7.19
MW-6	*4.5 ; dropping - non static reading ~~5.32~~ (pressure when j-plug removed)
MW-13	5.18
MW-JCL-1	6.14
MW-JCL-3	5.45
MW-21	4.07
MW- (@ shed)	inaccessible

Location Churchville Ford Date 12/11/09

Project / Client

INJECTION #10

8⁰⁰ ARRIVE ON SITE

SET UP MIX AREA FOR PERMANGANATE SOLUTION; CAUTION TAPE SURROUNDS WORK AREA. MIX DOUBLE BATCH & BEGIN INJECTION @ OUTDOOR "SOURCE AREA WELL (IW-JCL-8). GS-2000 INJECTION PUMP IS LEAKING SEVERELY INTO CONTAINMENT BIN BELOW (NOT ONTO GROUND); INJECT 2½ BATCHES (~~46~~ 69 GALLONS) AND CLEAN UP; INJECT REMAINING 23 gall. into IW-JCL-7

- TREC WILL FIX PUMP BEFORE ATTEMPTING INTERIOR INJECTIONS (NEXT TIME)
- SECURE SOLUTION & EQUIPMENT, NO INDICATION OF PURPLE PERMAN. SOLUTION @ ~~[illegible]~~ MW-13 (ED)

10:30 OFF SITE

INJECTION TOTAL = 69 gallons

Location Churchville Ford Date 12/21/09

Project / Client

Injection #10b

8:15- L. Neubauer arrives onsite.

8:30- Jim Agar, Trec, onsite; set-up outside at IW-JCL-8.

9:00- Mark's Truck & Boat Center is closed for the week. All doors locked; no employees onsite. Will return after the holidays.

9:15- off-site.

Location Churchville Ford Date 1/15/10

Project / Client

8:00 on site w/ Trec for Injection 10(6)

WELL	DTW	
MW-1	~~5.44~~	5.85
MW-JCL-2	5.99	
MW-3	5.62	
MW-13	6.44	
MW-JCL-3	2.84	→ WATER IN BOX UP TO TOP OF RISER
MW-JCL-1	inaccessible (6' snowpile)	
MW-21 (stickup)	4.15	
MW-6	4.71 *	static water level may be slightly lower, was under pressure upon removing j-plug @ 3.5' ±
MW- (sled)	inaccessible	

FOR MONTHLY REPORT (1/10) 5 INTERIOR EACH OF INJ. PTS. RECEIVED 27 GALLONS, SOURCE AREA GOT 54 gal (double batch)
MW-1 got 10 gal, MW-6 got 5 gal

Location _____ Date _____

Project / Client _____

Location _____ Date 2/24/10

Project / Client _____

10:00 ARRIVE ON SITE TO SAMPLE.
MW-13, MW-JCL-2, MW-JCL-3
10:30 BEGIN PURGING MW-13 & MW-JCL-2
11:00 Purge MW-JCL-3 dry

9:30-1:00

WELL	DTW	
MW-1	5.34	purple
MW-13	5.22	no purple, turbid
MW-JCL-2	6.18	purple
MW-3	5.11	purple
MW-JCL-3	3.12	low turbidity
MW-JCL-1	5.78	low turbidity
MW-21	4.18 *	stickup
MW-6	4.65 *	drops when j-plug removed may not be static

11:30 All wells have been purged dry, begin sampling for VOCs, TAL Metals
12:00 Collect remainder of water levels
12:30 off site

Location Churchville Ford Date 3/17/10

Project / Client

800 Arrive on site to conduct SVI Sampling; speak to owner representative regarding leaving overhead doors closed as much as possible during sampling event; she informed shop employees to leave doors closed throughout day; remove 3 gas cans & bucket of trimmer (open)

8:30 Setup to drill & SVS-JCL-02b sample next to former sample location Background ppb readings ranged from 100-350 ppm, mostly 150-250 ppb range; drill hole, seal; slab is approx. 6" thick; set can with indoor ambient IA-JCL-2b & Dup IA-JCL-2b dup.

9:30 - Move to SVS-JCL-3b location; drill hole adjacent to former sampling location ppb Rae on purge air = 1350 ppb; slab is 5+/-" thick; set can; set IA-JCL-3b too

9:59 Set outdoor ambient OA-JCL-4b Begin inventory;

Location Date 3/17/10

Project / Client

11:00 Background readings very high near storage cabinet near overhead doors of bay 4 & 5 (2,000 ppb - 20 ppm) Close cabinet for the day but open for inventory; readings in cabinet up to 95 ppm

Background readings in majority of Western 1/2 of shop = 1,200 ppb - 3,000 ppb; generally 1,500+/- ppb

Doors open 8:15-8:18; 8:24-8:26, 8:40-8:41, 9:30-9:31, 10:08-10:09

★ Background in eastern end of shop @12:15 = 1,226 ppb; @9:00 was 125-200 ppb (storage cabinet spike may have affected ppb Rae)

→ ZEP Formula 300

#1 gallon ZEP cleaner in Parts storage room behind south east portion of shop; ppb Rae = 3053 peak unopened Door closed to parts room Background parts storage = 460-475 ppb ON east wall of shop work bench is

Location _____ Date 3/17/10

Project / Client _____

Avatari auto finishers (Rochester)
Cleaner & wax w/ lid off of container (32 oz.) ppb Rae reads 260 ppm

- all materials in parts storage area new

16:15 Return to site to check samples
Samples are drawing correctly

17:20 overhead door open for 2 minutes
17:25 Finish SVS-JCL-3b & IA-JCL-3b, repair floor w/ concrete patch; Finish OA-JCL-4b
17:30 OFF SITE

Location Churchville Ford Date 8/17/10

Project / Client 1st SEMI-ANNUAL GW SAMPLING EVENT 80°, SUNNY

10:00 Arrive on site to sample MW-JCL-1, MW-JCL-2, MW-JCL-3, MW-1, MW-3, MW-6, MW-13 by bailer for TCL VOCs & Fe/Mn (bailing 3 well volumes or dry)
- start on MW-JCL-1 & MW-13
11:08, 11:10 Collect samples from MW-JCL-1, MW-13; Return purge water to well MW-13
11:30 Lunch / ice for samples
12:45 Begin purging MW-JCL-3 & MW-6
1:25 Collect sample CF-MW-6 from MW-6; purge water purple once well bailed dry (<1 ft)
1:40 sample MW-JCL-3 (purged dry)
Move to source area to purge MW-1, MW-3 & MW-JCL-2 then sample
4:00 Complete sampling @ MW-3
Secure site/wells
MW-21 → DTW = 4.5' btoc
(see sampling sheets for DTW's)
offsite to Paradigm to drop samples

Groundwater Sampling
Field Record

Lu Engineers

Project Name Churchville Ford
Location ID MW-3
Activity Time 3:30

Field Sample ID CF-MW-3
Sample Time 16:00

Job # 5701-11
Sampling Event # --
Date 8/17/10

SAMPLING NOTES

Initial Depth to Water 4.46' feet
Final Depth to Water 20.8 feet
Screen Length 10 feet
Total Volume Purged _____ gallons

Measurement Point TOR
Well Depth 21.33 feet
Pump Intake Depth NA
PID Well Head NA

Well Diameter 2"
Well Integrity:
Cap ✓
Casing ✓
Locked ✓
Collar ✓

[purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter]
Volume of Water in casing – 2" diameter = 0.163 gallons per foot of depth, 4" diameter = 0.653 gallons per foot of depth

PURGE DATA

Time	Depth to Water (ft)	Purge Rate (ml/min)	Temp. (deg. C)	pH (units)	Dissolved O2 (mg/L)	Turbidity (NTU)	Cond. (mS/cm)	ORP (mV)	Comments
3:35	4.5	0	23.4	7.09	NA	28.2	901.1	353	
3:40		3 gal	19.6	7.75	NA	133	989.0	283	
3:50		6 gal	19.2	7.85	NA	71.0	1196	275	
3:56	20.8	10 gal	17.6	7.76	NA	28.2	1975	535	bright purple

Purge Observations: brown/purple
Purge Water Containerized: no

EQUIPMENT DOCUMENTATION

Type of Pump: disposable bailer
Type of Tubing: NA
Type of Water Quality Meter: LaMotte 2020, Myron 6P

Calibrated: _____

ANALYTICAL PARAMETERS

Parameter	Volumes	Sample Collected
VOCs	2 x 40 ml	✓
Iron/Manganese	1 x 250 ml	✓

LOCATION NOTES

3 well vol. = 8.2 gals

Signature: _____
Checked By: _____

Groundwater Sampling
Field Record

Lu Engineers

Project Name Churchville Ford
Location ID MW-1
Activity Time 2:15

Field Sample ID CF-MW-1
Sample Time 3:10

Job # 5701-11
Sampling Event # --
Date 8/17/10

SAMPLING NOTES

Initial Depth to Water 5.00 feet
Final Depth to Water 13.5 feet
Screen Length unknown feet
Total Volume Purged 13 gallons
[purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter]
Volume of Water in casing – 2" diameter = 0.163 gallons per foot of depth, 4" diameter = 0.653 gallons per foot of depth

Measurement Point TOR
Well Depth 14.05' feet
Pump Intake Depth NA
PID Well Head NA

Well Diameter 4"
Well Integrity:
Cap ✓
Casing ✓
Locked ✓
Collar ✓

PURGE DATA

Time	Depth to Water (ft)	Purge Rate (ml/min)	Temp. (deg. C)	pH (units)	Dissolved O2 (mg/L)	Turbidity (NTU)	Cond. (mS/cm)	ORP (mV)	Comments
2:15	5.0	1 gal	23.4	6.96	NA	23.2	2250	571	water purple
2:20		4 gal	21.7	6.97	NA	50.7	2274	566	
2:27		6 gal	21.2	6.98	NA	43.0	2237	570	
2:35		10 gal	20.8	7.09	NA	>1000	2816	575	water rusty-red
2:45		13 gal	19.3	7.09	NA	24.3	3063	572	rusty-purple
3:10	sample								

Purge Observations: well purged to within 0.5' of dry
Purge Water Containerized: purge water returned to well

EQUIPMENT DOCUMENTATION

Type of Pump: bailer
Type of Tubing: NA
Type of Water Quality Meter: LaMotte 2020, Myron 6P

Calibrated: _____

ANALYTICAL PARAMETERS

Parameter	Volumes	Sample Collected
VOCs	4 x 40 ml	✓
Iron/Manganese	1x250 ml	✓

LOCATION NOTES

6 gal = 1 well volume
18 gal = 3 volumes

bailed dry @ 13 gal

Signature: Eric Detert
Checked By: _____

Groundwater Sampling
Field Record

Lu Engineers

Project Name Churchville Ford
Location ID MW-JCL-01
Activity Time 10:15 - 11:30

Field Sample ID CF-MW-JCL-01/Dup
Sample Time 11:08

Job # 5701-11
Sampling Event # --
Date 8/17/10

SAMPLING NOTES

Initial Depth to Water 4.12 feet
Final Depth to Water 35.55 feet
Screen Length 10 feet
Total Volume Purged 7 gallons
[purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter]
Volume of Water in casing – 2" diameter = 0.163 gallons per foot of depth, 4" diameter = 0.653 gallons per foot of depth

Measurement Point TOR
Well Depth 44.75 feet
Pump Intake Depth n/a
PID Well Head —

Well Diameter 2"
Well Integrity:
Cap ✓
Casing ✓
Locked ✓
Collar ✓

PURGE DATA

Time	Depth to Water (ft)	Purge Rate (ml/min)	Temp. (deg. C)	pH (units)	Dissolved O2 (mg/L)	Turbidity (NTU)	Cond. (mS/cm)	ORP (mV)	Comments
11:04			15.8	7.6		37.6	506	159	

Purge Observations: Clear
Purge Water Containerized: no

EQUIPMENT DOCUMENTATION

Type of Pump: disposable bailer
Type of Tubing: NA
Type of Water Quality Meter: LaMotte 2020, Myron 6P

Calibrated: _____

ANALYTICAL PARAMETERS

Parameter	Volumes	Sample Collected
VOCs	4 x 40 ml	✓
Iron/Manganese	2x250ml	✓

LOCATION NOTES

40.163' x 0.167 = 6.8 gals

Signature: L. Neubauer
Checked By: _____

Groundwater Sampling
Field Record

Lu Engineers

Project Name Churchville Ford
Location ID MW-JCL-02
Activity Time 14:00 - 15:30

Field Sample ID CF-MW-JCL-02
Sample Time 15:20

Job # 5701-11
Sampling Event # __
Date 8-17-10

SAMPLING NOTES

Initial Depth to Water 5.18 feet
Final Depth to Water _____ feet
Screen Length 10 feet
Total Volume Purged 12.5 gallons
[purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter]
Volume of Water in casing – 2" diameter = 0.163 gallons per foot of depth, 4" diameter = 0.653 gallons per foot of depth

Measurement Point TOR
Well Depth 95.70 feet
Pump Intake Depth n/a
PID Well Head —

Well Diameter 2"
Well Integrity:
Cap ✓
Casing ✓
Locked ✓
Collar ✓

PURGE DATA

Time	Depth to Water (ft)	~~Purge Rate~~ (ml/min)	Temp. (deg. C)	pH (units)	Dissolved O2 (mg/L)	Turbidity (NTU)	Cond. (mS/cm)	ORP (mV)	Comments
15:09		12gals.	19	7.7		17.6	1310	217	

Purge Observations: clear
Purge Water Containerized: no

EQUIPMENT DOCUMENTATION

Type of Pump: disposable bailer
Type of Tubing: NA
Type of Water Quality Meter: LaMotte 2020, Myron 6P

Calibrated: _____

ANALYTICAL PARAMETERS

Parameter	Volumes	Sample Collected
VOCs	2 x 40 ml	✓
Iron/Manganese	1 x 250 ml	✓

LOCATION NOTES

40.52 x 0.163 = 6.6
3 well volumes = 19.8 gals
bailed dry @ 12.5 gals

Signature: L. Neubauer
Checked By: _____

Groundwater Sampling
Field Record

Lu Engineers

Project Name Churchville Ford
Location ID JCL-03
Activity Time 12:30 - 13:53

Field Sample ID CF-MW-JCL-03 + MS/MSD
Sample Time 1:40

Job # 5701-11
Sampling Event # --
Date 8-17-10

SAMPLING NOTES

Initial Depth to Water 2.34 feet
Final Depth to Water 22 feet
Screen Length 10 feet
Total Volume Purged 11 gallons
[purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter]
Volume of Water in casing – 2" diameter = 0.163 gallons per foot of depth, 4" diameter = 0.653 gallons per foot of depth

Measurement Point TOR
Well Depth 23.6 feet
Pump Intake Depth —
PID Well Head —

Well Diameter 2"
Well Integrity:
Cap ✓
Casing ✓
Locked ✓
Collar ✓

PURGE DATA

Time	Depth to Water (ft)	~~Purge Rate (ml/min)~~	Temp. (deg. C)	pH (units)	Dissolved O2 (mg/L)	Turbidity (NTU)	Cond. (mS/cm)	ORP (mV)	Comments
13:13		10 gals	21.8	7.1		254	1484	111	
13:37	22	11 gals	17.8						

Purge Observations: cloudy
Purge Water Containerized: no

EQUIPMENT DOCUMENTATION

Type of Pump: disposable bailer
Type of Tubing: NA
Type of Water Quality Meter: LaMotte 2020, Myron 6P

Calibrated: _____

ANALYTICAL PARAMETERS

Parameter	Volumes	Sample Collected
VOCs	6 x 40 ml	✓
Iron/Manganese	3 x 250ml	✓

*included MS/MSD samples

LOCATION NOTES

23 - 2.34 = 20.66 x 0.167 = 3.5 gals

Signature: L. Neubauer
Checked By: _____

Groundwater Sampling
Field Record

Lu Engineers

Project Name Churchville Ford
Location ID MW-6
Activity Time 12:45

Field Sample ID CF-MW-6
Sample Time 1:25

Job # S701-11
Sampling Event # --
Date 8/17/10

SAMPLING NOTES

Initial Depth to Water 4.43 feet
Final Depth to Water 19.07 feet
Screen Length 10 feet
Total Volume Purged 9 gallons
[purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter]
Volume of Water in casing – 2" diameter = 0.163 gallons per foot of depth, 4" diameter = 0.653 gallons per foot of depth

Measurement Point TOR
Well Depth 20.10 feet
Pump Intake Depth NA
PID Well Head NA

Well Diameter 2"
Well Integrity:
Cap ✓
Casing ✓
Locked ✓
Collar ✓

PURGE DATA

Time	Depth to Water (ft)	Purge Rate (ml/min)	Temp. (deg. C)	pH (units)	Dissolved O2 (mg/L)	Turbidity (NTU)	Cond. (mS/cm)	ORP (mV)	Comments
12:45	4.43	0	23.0	7.13	NA	47.9	1368	80	
12:53		2 gal	21.1	7.23	NA	60.4	1421	79	
12:58		4 gal	19.5	7.33	NA	23.4	1590	77	
1:09		6 gal	18.4	7.78	NA	131	2564	469	purge water red-rust
1:23		9 gal	18.3	7.68	NA	37.4	3042	520	
1:25	collect	sample							

Purge Observations: 3rd bailer water turns rusty color; purge water rusty-red @ bottom 4' of WC
Purge Water Containerized: poured back into well

EQUIPMENT DOCUMENTATION

Type of Pump: NA bailer
Type of Tubing: NA
Type of Water Quality Meter: LaMotte 2020, Myron 6P

Calibrated: _____

ANALYTICAL PARAMETERS

Parameter	Volumes	Sample Collected
VOCs	2 x 40 ml	✓
Iron/Manganese	1x500 ml	✓

LOCATION NOTES

* as well bails dry color turns bright purple as new formtn water enter well
* bails dry after evacuating approx 9 gal

3 well volumes = 7.8 gal

Signature: Erin Detmer
Checked By: _____

Groundwater Sampling
Field Record

Lu Engineers

Project Name Churchville Ford
Location ID MW-13
Activity Time 10:30 - 11:15

Field Sample ID CF-MW-13
Sample Time 11:10

Job # 5701-11
Sampling Event # --
Date 8/17/10

SAMPLING NOTES

Initial Depth to Water 2.94 feet
Final Depth to Water [redacted] 14.50 feet
Screen Length 10 feet
Total Volume Purged [redacted] ≈ 14 gallons
[purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter]
Volume of Water in casing – 2" diameter = 0.163 gallons per foot of depth, 4" diameter = 0.653 gallons per foot of depth

Measurement Point TOR
Well Depth 16.84 feet
Pump Intake Depth NA
PID Well Head NA

Well Diameter 2"
Well Integrity:
Cap ✓
Casing ✓
Locked ✓
Collar ✓

PURGE DATA

Time	Depth to Water (ft)	Purge Rate (ml/min)	Temp. (deg. C)	pH (units)	Dissolved O2 (mg/L)	Turbidity (NTU)	Cond. (mS/cm)	ORP (mV)	Comments
10:30	2.94	0 gal	28.0	6.68	NA	8.75	649.5	-130	
10:35		1 gal	26.0	6.73	NA	48.4	715.3	-111	
10:38		3 gal	25.2	6.75	NA	115	725.2	-98	
10:44	7.10	5 gal	25.3	6.73	NA	274	727.9	-93	
10:54		7 gal	25.5	6.79	NA	232	728.7	-90	
11:01	9.99	9 gal	23.6	6.77	NA	179	720.3	-86	
11:10	14.5	14 gal	19.1	6.75	NA	41.6	717.2	-89	

Purge Observations: well bailed dry after evacuating approx 14 gal
Purge Water Containerized: poured back down well

EQUIPMENT DOCUMENTATION

Type of Pump: bailer
Type of Tubing: NA
Type of Water Quality Meter: LaMotte 2020, Myron 6P
Calibrated: _____

ANALYTICAL PARAMETERS

Parameter	Volumes	Sample Collected
VOCs	2 x 40 ml	✓
Iron/Manganese	1 x 250ml	✓

LOCATION NOTES

1 well volume = 2.3 gal
3 volumes = 6.9 gal

Signature: [signature]
Checked By: _____

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Location _____ Date 8/17/10

Project / Client _____

WELL ID	DTW (BTOC)
MW-1	5.00'
MW-3	4.46'
MW-6	4.43'
MW-13	2.94
MW-JCL-1	4.12
MW-JCL-2	5.18
MW-JCL-3	2.34
MW-21	4.50

65

Location Churchville Ford Date 4-9-11

Project / Client Communication Testing

35°, cloudy

8:55- L. Neubauer onsite for additional sub-slab communication testing.

9:15- Shane + Emmanuel, Mitigation Tech onsite.

9:30- installing small diameter suction pt. on south wall of 1989 addition. Approximately 10-12 feet east of exit on south wall. Apply shop vac.

Test #1 ~3' from center trench drain = -0.008"

10:00 - installed 4" diameter suction pt. next to support column. ~6" slab, blue styrofoam, void space beneath foam. 3'x3' footer ~1.5' ~~out~~ footer from column. Install 145 fan on suction pt. -0.040" ~3' from center trench.

Test #2 ~25' from north wall + ~10' from spray booth. -0.013"

Test #3- ~7' from addition ~25' from north wall -0.001"

Location Churchville Ford Date 4-9-11

Project / Client

0:15- Nick Mouganis onsite.
Recommends 2 suction points on south wall w/ 1 GP-145 fan.
Possibly 3 suction points. (2n)

Test #4 5' south of trench drain
~~438~~ ~25' west of addition.
-0.012"
Sub-slab material is tighter.

Test #5 ~20' south of north wall
b/w bays 2+3 from the west.

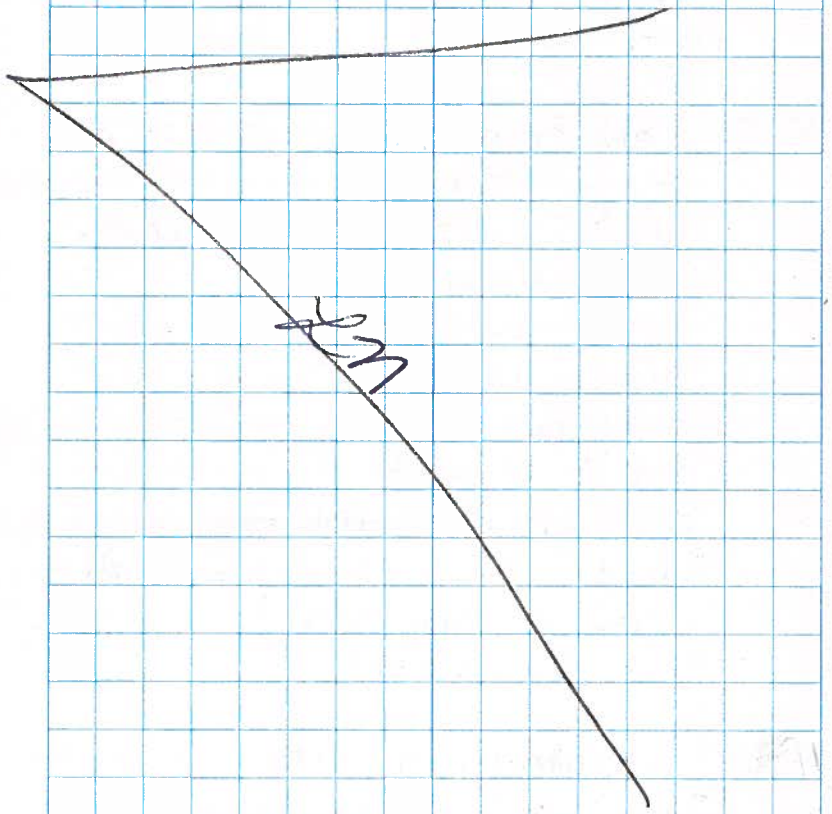
4 suction pts.
4" PVC
2 ~~3~~-RP-265 fans
tie in north/south
hang pipe along ceiling joists (need scissor lift)
exhaust through roof. (2)

1:25- Mitigation Tech off-site.
1:30- talk w/ Mark Meyer regarding SSDS plans and

Location Date 4-9-11

Project / Client

use of their scissors lift.
He gave us approval for whatever we need to do to get the project complete.
11:45- LmN off-site.



Location Churchville Ford Date 6/9/11

Project / Client SSDS Install.

85°, partly cloudy

9:30- L. Neubauer onsite. Mitigation Tech onsite for SSDS Installation. Setting up to drill extraction points.

Using onsite scissor lift to access roof.

10:00- Drilling at NE extraction pt. Begin air monitoring w/miniRAE PID. 0.0 ppm in breathing zone @ work area. 0.0 ppm at extraction point. North wall has similar foam insulation + void space along footing as south wall. 0.0 ppm @ south ~~east~~ west @ extraction point. 1 rock removed from NW pt. suction pt. No soil excavated.

11:00- L. Neubauer off-site. Mitigation Tech installing roof penetration + extraction points.

Location Churchville Ford Date 6/13/11

Project / Client SSDS Install

75°, sunny

14:30- L. Neubauer + L. Greger onsite for pressure field testing. SSDS installed + running.

15:00- Conduct pressure testing at previous communication test points

Test point	Reading
#1	-0.089" w.c.
#2	-0.067
#3	-0.072
#4	-0.012
#5	-0.171

Extraction point 4 manometer reading -0.8" w.c.

Extraction point 1 reading -0.4" w.c.

15:15- off-site.

Location Churchville Ford Date 6/14/11

Project / Client

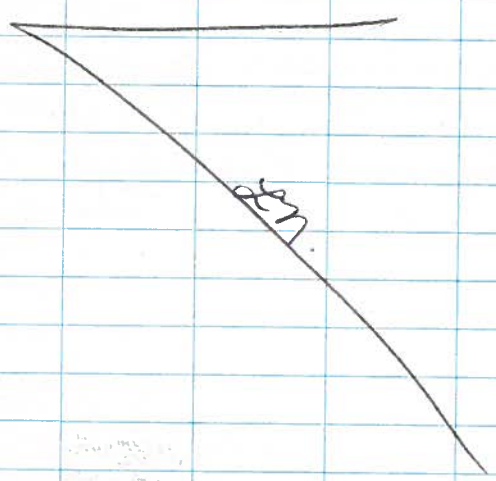
SSDS Inspection

60's, rain

0900 - L. Neubauer onsite for SSDS inspection.
Frank Sowers onsite to inspect system piping + components.

0910 - Greg Andrus onsite.
Discuss SMP + timeline for project completion.
Wells will eventually need to be decomissioned once gw monitoring is complete.

0930 - off-site.



Location Date

Project / Client

Location Churchville Ford Date 12/29/11

Project / Client Semi-annual GW sampling

25°, partly sunny → overcast

9:30 On site preparing to sample

10:00 Bob Long (NYSDEC) arrives on site to inspect sampling; Begin purging MW-13 & MW-JCL01, use H_2O quality meters to periodically check parameters; wells MW-JCL01 bails near dry, sample; remove 3 well volumes from MW-13, sample

11:30 Move to wells MW-01 & MW-JCL02, begin purging; containerize purge water from MW-13, MW-01, MW-JCL02, in drum

1:18 Collect samples from MW-JCL02, including duplicate samples; sample MW-01

1:40 Begin purging @ MW-3 & MW-JCL03; containerize MW-3 purge water in drum

2:40 Collect sample from MW-JCL03 including MS/MSD

3:00 Collect sample from MW-3, wells will bail nearly dry

3:20 Begin purging MW-6; containerize purge water in steel drum; purge water dark, rusty color; clears a bit once well is bailed nearly dry

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Location Churchville Ford Date 12/29/11

Project / Client Gw Sampling

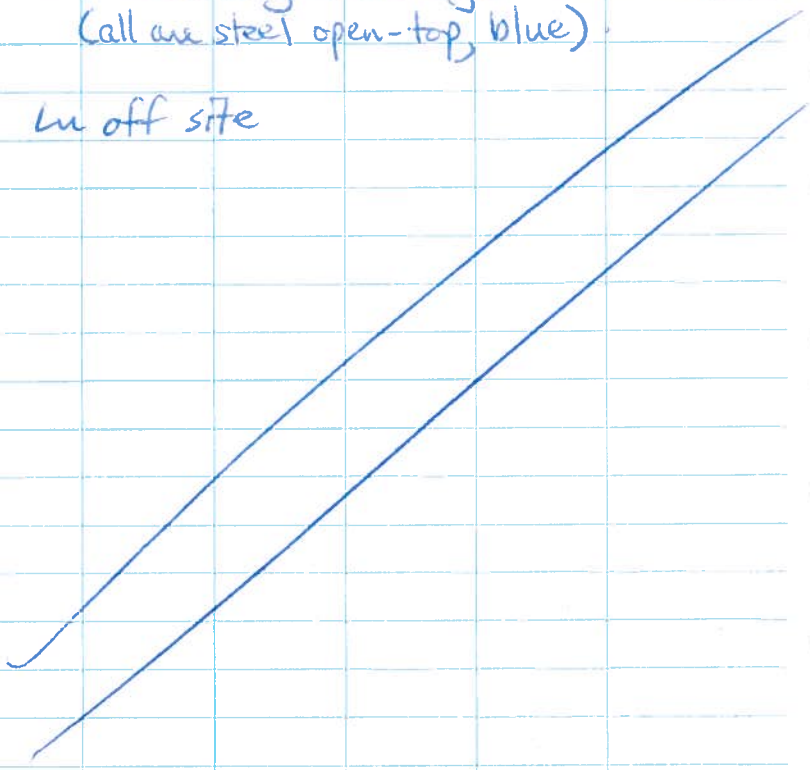
4:01 Collect sample from MW-6; Secure purge water drum, pack up sampling supplies

4:30 Take Waste Drum inventory:

1 - ¼ soil / ½ purge water

9 - soil cuttings from injection well installs (all are steel open-top, blue)

In off site



Groundwater Sampling Field Record

Lu Engineers
ENVIRONMENTAL • TRANSPORTATION • CIVIL

Project Name Churchville Ford
Location ID MW-JCL-01
Activity Time 10:15

Field Sample ID CF-MW-JCL01-12/29/11
Sample Time 11:22

Job # 5701-11
Sampling Event # 3
Date 12/29/11

SAMPLING NOTES ★ 1 well vol =

Initial Depth to Water 4.75' feet
Final Depth to Water 42.53 feet
Screen Length 10' feet
Total Volume Purged 12.5 gallons
[purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter]
Volume of Water in casing – 2" diameter = 0.163 gallons per foot of depth, 4" diameter = 0.653 gallons per foot of depth

Measurement Point TOR
Well Depth 44.75 feet
Pump Intake Depth NA
PID Well Head NA

Well Diameter 2"
Well Integrity:
Cap ✓
Casing ✓
Locked ✓
Collar ✓

PURGE DATA

Time	Depth to Water (ft)	Purge Rate (ml/min)	Temp. (deg. C)	pH (units)	Dissolved O2 (mg/L)	Turbidity (NTU)	Cond. (mS/cm)	ORP (mV)	Comments
10:20	4.75		11.1	7.87		0.99	0.479	78.9	
10:32	24.70	5 gal.	11.8	8.03		2.24	0.468	122.3	
11:04	35.71	10 gal.	11.1	8.11		59.9	0.463	120.6	
11:20	38.14	11 gal	10.4	8.10		669	0.480	7.1	
11:22	Collect	Sample							

Purge Observations: turbidity very low initially; cloudy as well bailed near dry @ end of purging
Purge Water Containerized: No, never any detected VOCs or metals ↑ standards

EQUIPMENT DOCUMENTATION

Type of Pump: bailer
Type of Tubing: NA
Type of Water Quality Meter: YSI Pro Plus Quattro/LaMotte 2020WE Calibrated: _____

ANALYTICAL PARAMETERS

Parameter	Volumes	Sample Collected
TCL VOCs	2x40 ml	✓
Fe, Mn	1x250 ml	✓

LOCATION NOTES

1 well vol = 6.5 gal
★ bailed near dry, difficult getting bailer fully submerged @ bottom of well. couldn't evacuate 3 full volumes

Signature: Eric Detar
Checked By: _____

Groundwater Sampling Field Record

Lu Engineers
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Project Name Churchville Ford
Location ID MW-JCL-02
Activity Time 11:45

Field Sample ID CF-MW-JCL02-12/29/11 / CF-MW-JCL02 DUP-12/29/11
Sample Time 1:18 / 1:19

Job # 5701-11
Sampling Event # 3
Date 12/29/11

SAMPLING NOTES

Initial Depth to Water 3.14 feet
Final Depth to Water 33.36 feet
Screen Length 10' feet
Total Volume Purged 12 gallons
[purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter]
Volume of Water in casing – 2" diameter = 0.163 gallons per foot of depth, 4" diameter = 0.653 gallons per foot of depth

Measurement Point TOR
Well Depth 35.75 feet
Pump Intake Depth NA
PID Well Head NA

Well Diameter 2"
Well Integrity:
Cap ✓
Casing ✓
Locked ✓
Collar ✓

PURGE DATA

Time	Depth to Water (ft)	Purge Rate (ml/min)	Temp. (deg. C)	pH (units)	Dissolved O2 (mg/L)	Turbidity (NTU)	Cond. (mS/cm)	ORP (mV)	Comments
12:10	3.15		10.1	9.41		7.38	0.589	59.4	
	28.05	5 gal	11.9	7.96		20.7	1.05	-95.3	
1:10	34.55	11 gal	11.2	7.89		123	1.09	-42.5	
1:18	sample								
1:19	Collect Dup. sample								

Purge Observations: water very clear during purging; cloudy slightly as it bailed nearly dry
Purge Water Containerized: ~~NO~~ YES drum

EQUIPMENT DOCUMENTATION

Type of Pump: bailer
Type of Tubing: NA
Type of Water Quality Meter: LaMotte 2020 we
YSI Pro +

Calibrated: _____

ANALYTICAL PARAMETERS

Parameter	Volumes	Sample Collected
VOCs	4 x 40 ml	✓
Fe, Mn	2 x 250 ml	✓

LOCATION NOTES

1 well volume = 5.3 gal.
* bailed near dry couldn't evacuate 3 full well volumes

Signature: [signature]
Checked By: _____

Groundwater Sampling Field Record

Lu Engineers
ENVIRONMENTAL • TRANSPORTATION • CIVIL

Project Name Churchville Ford
Location ID MW-JCL-03
Activity Time 1:45

Field Sample ID CF-MW-JCL03-12/29/11 Job # 5701-11
CF-MW-JCL03 MS/MSD-12/29/11 Sampling Event # 3
Sample Time 2:40 Date 12/29/11

SAMPLING NOTES

Initial Depth to Water 1.95 feet
Final Depth to Water 21.95 feet
Screen Length 10' feet
Total Volume Purged 11 gallons
[purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter]
Volume of Water in casing – 2" diameter = 0.163 gallons per foot of depth, 4" diameter = 0.653 gallons per foot of depth

Measurement Point TOR
Well Depth 23.10 feet
Pump Intake Depth —
PID Well Head —

Well Diameter 2"
Well Integrity:
Cap ✓
Casing ✓
Locked ✓
Collar ✓

PURGE DATA

Time	Depth to Water (ft)	Purge Rate (ml/min)	Temp. (deg. C)	pH (units)	Dissolved O2 (mg/L)	Turbidity (NTU)	Cond. (mS/cm)	ORP (mV)	Comments
1:50	1.95		12.1	7.40		1.17	1.27	90.7	clear
2:10	15.75	5 gal	12.3	7.28		87.2	1.32	85.9	light turbidity
2:20	21.51	10 gal	12.1	7.35		2919	1.33	78.1	↑ turbidity, no odor
2:40	Collect Sample, including MS/MSD								

Purge Observations: turbidity increased as well bailed dry (bailed to within 1.5' of dry)
Purge Water Containerized: no

EQUIPMENT DOCUMENTATION

Type of Pump: bailer
Type of Tubing: NA
Type of Water Quality Meter: LaMotte 2020 we
YSI Pro +

Calibrated: _____

ANALYTICAL PARAMETERS

Parameter	Volumes	Sample Collected
VOCs	2x40 ml	✓
Fe, Mn	1x250ml	✓

LOCATION NOTES

1 well vol = 3.5 gal ; 3 vols = 10.3 gal

Signature: _____
Checked By: _____

Groundwater Sampling Field Record

Lu Engineers
ENVIRONMENTAL • TRANSPORTATION • CIVIL

Project Name Churchville Ford
Location ID MW-01
Activity Time 11:30 - 13:30

Field Sample ID CF-MW-01-12/29/11
Sample Time 13:17

Job # 5701-11
Sampling Event # 3
Date 12/29/11

SAMPLING NOTES

Initial Depth to Water 4.80 feet
Final Depth to Water _____ feet
Screen Length ? feet
Total Volume Purged ~14 gallons
[purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter]
Volume of Water in casing – 2" diameter = 0.163 gallons per foot of depth, 4" diameter = 0.653 gallons per foot of depth

Measurement Point TOR
Well Depth 14.05 feet
Pump Intake Depth —
PID Well Head —

Well Diameter 4"
Well Integrity:
Cap ✓
Casing ✓
Locked ✓
Collar ✓

PURGE DATA

Time	Depth to Water (ft)	Purge Rate (ml/min)	Temp. (deg. C)	pH (units)	Dissolved O2 (mg/L)	Turbidity (NTU)	Cond. (mS/cm)	ORP (mV)	Comments
13:15		—	8.3	7.5	—	40.6	0.554	30.7	

Purge Observations: dark brown
Purge Water Containerized: yes

EQUIPMENT DOCUMENTATION

Type of Pump: bailer
Type of Tubing: n/a
Type of Water Quality Meter: LaMotte 2020we, YSI Pro+ Calibrated: _____

ANALYTICAL PARAMETERS

Parameter	Volumes	Sample Collected
VOCs	2 x 40 ml	✓
Fe, Mn	1 x 250 ml	✓

LOCATION NOTES

1 well Volume = ~~5~~ 6 gals
3 well Volumes = ~~15~~ 13.1 gals.

Bailed dry after 14 gals.
Sample recharge.

Signature: L. Neubauer
Checked By: _____

Groundwater Sampling Field Record

Lu Engineers
ENVIRONMENTAL • TRANSPORTATION • CIVIL

Project Name Churchville Ford
Location ID MW-3
Activity Time _____

Field Sample ID CF-MW-03-12/29/11
Sample Time 15:00

Job # 5701-11
Sampling Event # 3
Date 12/29/11

SAMPLING NOTES

Initial Depth to Water 4.71 feet
Final Depth to Water 10.54 feet
Screen Length 10 feet
Total Volume Purged ~9 gallons
[purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter]
Volume of Water in casing – 2" diameter = 0.163 gallons per foot of depth, 4" diameter = 0.653 gallons per foot of depth

Measurement Point TOR
Well Depth 21.33 feet
Pump Intake Depth —
PID Well Head —

Well Diameter 2"
Well Integrity:
Cap ✓
Casing ✓
Locked
Collar ✓

PURGE DATA

Time	Depth to Water (ft)	Purge Rate (ml/min)	Temp. (deg. C)	pH (units)	Dissolved O2 (mg/L)	Turbidity (NTU)	Cond. (mS/cm)	ORP (mV)	Comments
15:00	—	—	9.7	7.9	—	31.7	0.97	100	

Purge Observations: brown + turbid, then cleared up
Purge Water Containerized: yes

EQUIPMENT DOCUMENTATION

Type of Pump: bailer
Type of Tubing: NA
Type of Water Quality Meter: LaMotte 2020we, YSI Pro+ Calibrated: _____

ANALYTICAL PARAMETERS

Parameter	Volumes	Sample Collected
VOCs	3 x 40ml	✓
Fe, Mn	1 x 250ml	✓

LOCATION NOTES

1 well volume = 2.7 gals
3 well volumes = 8.1 gals.

Signature: L. Neubauer
Checked By: _____

Groundwater Sampling Field Record

Lu Engineers
ENVIRONMENTAL • TRANSPORTATION • CIVIL

Project Name Churchville Ford
Location ID MW-6
Activity Time 3:20 -

Field Sample ID CF-MW06-12/29/11
Sample Time 4:01

Job # 5701-11
Sampling Event # 3
Date 12/29/11

SAMPLING NOTES

Initial Depth to Water 4.48 feet
Final Depth to Water 18.75 feet
Screen Length _____ feet
Total Volume Purged _____ gallons
[purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter]
Volume of Water in casing – 2" diameter = 0.163 gallons per foot of depth, 4" diameter = 0.653 gallons per foot of depth

Measurement Point TOR
Well Depth 20.10 feet
Pump Intake Depth —
PID Well Head —

Well Diameter 2"
Well Integrity:
Cap ✓
Casing ✓
Locked ✓
Collar ✓

PURGE DATA

Time	Depth to Water (ft)	Purge Rate (ml/min)	Temp. (deg. C)	pH (units)	Dissolved O2 (mg/L)	Turbidity (NTU)	Cond. (mS/cm)	ORP (mV)	Comments
3:20									
3:38	12.95	5 gal	14.6	7.98		39.2	1.06	107.1	
3:56	18.81	10 gal	15.6	8.24		59.3	1.42	110.1	

Purge Observations: water cloudy initially then very high turbidity when bailed within 3' of dry, then cleared up; purge water drummed
Purge Water Containerized: _____

EQUIPMENT DOCUMENTATION

Type of Pump: bailer
Type of Tubing: n/a
Type of Water Quality Meter: LaMotte 2020we
YSI Pro+

Calibrated: _____

ANALYTICAL PARAMETERS

Parameter	Volumes	Sample Collected
VOCs	2x 40ml	✓
Fe, Mn	1x 250ml	✓

LOCATION NOTES

1 well vol. = 2.5 gals
3 well vols. = 7.6 gals

Rusty colored purge water

Signature: L. Neubauer
Checked By: _____

Groundwater Sampling Field Record

Lu Engineers
ENVIRONMENTAL • TRANSPORTATION • CIVIL

Project Name Churchville Ford
Location ID MW-13
Activity Time 10:15 - 11:25

Field Sample ID CF-MW-13-12/29/11
Sample Time 10:55

Job # 5701-11
Sampling Event # 3
Date 12/29/11

SAMPLING NOTES

Initial Depth to Water 2.93 feet
Final Depth to Water 7.25 feet
Screen Length 10 feet
Total Volume Purged ~7 gallons
[purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter]
Volume of Water in casing – 2" diameter = 0.163 gallons per foot of depth, 4" diameter = 0.653 gallons per foot of depth

Measurement Point TOR
Well Depth 16.84 feet
Pump Intake Depth —
PID Well Head —

Well Diameter 2"
Well Integrity:
Cap ✓
Casing ✓
Locked
Collar ✓

PURGE DATA

Time	Depth to Water (ft)	Purge Rate (ml/min)	Temp. (deg. C)	pH (units)	Dissolved O2 (mg/L)	Turbidity (NTU)	Cond. (mS/cm)	ORP (mV)	Comments
10:47	—	—	9.1	7.4	—	111	0.258	-72	

Purge Observations: Cloudy
Purge Water Containerized: yes

EQUIPMENT DOCUMENTATION

Type of Pump: bailer
Type of Tubing: n/a
Type of Water Quality Meter: LaMotte 2020, YSI Pro+

Calibrated: _____

ANALYTICAL PARAMETERS

Parameter	Volumes	Sample Collected
VOCs	2 x 40ml	✓
Fe/Mn	1 x 250ml	✓

LOCATION NOTES

1 well volume = 2.3 gals
3 well volumes = 6.8 gals

Signature: L. Neubauer
Checked By: _____

Appendix F
Project Photo Log

Photo No. 1. View looking north at installation of injection well in source area of site, along west wall of building.

Photo No. 2. View of typical flush mount injection well completion with steel ball valve assembly.

Photo No. 3. View of storage area of sodium permanganate and poly mixing drum in workshop/dollup shop.

Photo No. 4. Adding water to permanganate solution in poly drum for appropriate mixture.

Photo No. 5. View of poly mixing drum and injection supplies.

Photo No. 6. View of Geoprobe GS2000 injection pump hooked to injection well.

Photo No. 7. View of injection pump hose connection with pressure gauge and control valve.

Photo No. 8. View of purge water in MW-13 prior to sampling. Water is turbid but does not reveal purple permanganate coloration.

Appendix G
Post-Remedial Analytical Data

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Analytical Report Cover Page

Lu Engineers

For Lab Project # 10-0800
Issued March 3, 2010
This report contains a total of 11 pages

The reported results relate only to the samples as they have been received by the laboratory.

Any noncompliant QC parameters having impact on the data are flagged or documented on the final report.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of frequently used data flags and their meaning:

"ND" = analyzed for but not detected.
"E" = Result has been estimated, calibration limit exceeded.
"D" = Duplicate results outside QC limits. May indicate a non-homogenous matrix.
"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.
"B" = Method blank contained trace levels of analyte. Refer to included method blank report.

PARADIGM
ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue, Rochester, NY 14608 (585) 647-2530 FAX (585) 647-3311

Client: Lu Engineers

Client Job Site: Former Churchville Ford
Post Injection Sampling

Client Job No.: 5701-11

Field Location: MW-JCL-2
Field ID No.: N/A

Lab Project No.: 10-0800
Lab Sample No.: 3358

Sample Type: Water

Date Sampled: 02/24/2010
Date Received: 02/24/2010

Laboratory Report for TAL Metals Analysis in Waters

Parameter	Date Analyzed	Analytical Method	Result (mg/L)
Aluminum	03/01/2010	SW846 6010	3.61
Antimony	03/01/2010	SW846 6010	<0.300
Arsenic	03/01/2010	SW846 6010	<0.025
Barium	03/01/2010	SW846 6010	<0.100
Beryllium	03/01/2010	SW846 6010	<0.025
Cadmium	03/01/2010	SW846 6010	<0.025
Calcium	03/01/2010	SW846 6010	78.6
Chromium	03/01/2010	SW846 6010	<0.050
Cobalt	03/01/2010	SW846 6010	<0.050
Copper	03/01/2010	SW846 6010	<0.050
Iron	03/01/2010	SW846 6010	5.21
Lead	03/03/2010	SW846 6010	<0.025
Magnesium	03/01/2010	SW846 6010	65.8
Manganese	03/01/2010	SW846 6010	25.4
Mercury	03/01/2010	SW846 7470	<0.0002
Nickel	03/01/2010	SW846 6010	<0.200
Potassium	03/01/2010	SW846 6010	12.6
Selenium	03/01/2010	SW846 6010	<0.025
Silver	03/01/2010	SW846 6010	<0.050
Sodium	03/03/2010	SW846 6010	113
Thallium	03/03/2010	SW846 6010	<0.030
Vanadium	03/01/2010	SW846 6010	<0.050
Zinc	03/01/2010	SW846 6010	<0.100

ELAP ID No.:10958

Comments:

Approved By: _____
Bruce Hoogesteger, Technical Director

PARADIGM
ENVIRONMENTAL SERVICES, INC.
179 Lake Avenue, Rochester, NY 14608 (585) 647-2530 FAX (585) 647-3311

Client: Lu Engineers

Client Job Site: Former Churchville Ford
Post Injection Sampling

Client Job No.: 5701-11

Field Location: MW-JCL-3
Field ID No.: N/A

Lab Project No.: 10-0800
Lab Sample No.: 3359

Sample Type: Water

Date Sampled: 02/24/2010
Date Received: 02/24/2010

Laboratory Report for TAL Metals Analysis in Waters

Parameter	Date Analyzed	Analytical Method	Result (mg/L)
Aluminum	03/01/2010	SW846 6010	5.67
Antimony	03/01/2010	SW846 6010	<0.006
Arsenic	03/01/2010	SW846 6010	<0.005
Barium	03/01/2010	SW846 6010	0.087
Beryllium	03/01/2010	SW846 6010	<0.005
Cadmium	03/01/2010	SW846 6010	0.016
Calcium	03/01/2010	SW846 6010	153
Chromium	03/01/2010	SW846 6010	<0.010
Cobalt	03/01/2010	SW846 6010	<0.010
Copper	03/01/2010	SW846 6010	<0.010
Iron	03/01/2010	SW846 6010	6.50
Lead	03/02/2010	SW846 6010	<0.005
Magnesium	03/01/2010	SW846 6010	81.2
Manganese	03/01/2010	SW846 6010	0.141
Mercury	03/01/2010	SW846 7470	<0.0002
Nickel	03/01/2010	SW846 6010	<0.040
Potassium	03/03/2010	SW846 6010	5.22
Selenium	03/01/2010	SW846 6010	<0.005
Silver	03/01/2010	SW846 6010	<0.010
Sodium	03/02/2010	SW846 6010	155
Thallium	03/02/2010	SW846 6010	<0.006
Vanadium	03/01/2010	SW846 6010	0.010
Zinc	03/01/2010	SW846 6010	0.036

ELAP ID No.:10958

Comments:

Approved By: _____
Bruce Hoogesteger, Technical Director

File ID:100800.xls

PARADIGM
ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue, Rochester, NY 14608 (585) 647-2530 FAX (585) 647-3311

Client: Lu Engineers

Client Job Site: Former Churchville Ford
Post Injection Sampling

Client Job No.: 5701-11

Field Location: MW-13
Field ID No.: N/A

Lab Project No.: 10-0800
Lab Sample No.: 3360

Sample Type: Water

Date Sampled: 02/24/2010
Date Received: 02/24/2010

Laboratory Report for TAL Metals Analysis in Waters

Parameter	Date Analyzed	Analytical Method	Result (mg/L)
Aluminum	03/01/2010	SW846 6010	30.3
Antimony	03/01/2010	SW846 6010	<0.060
Arsenic	03/01/2010	SW846 6010	0.012
Barium	03/01/2010	SW846 6010	0.323
Beryllium	03/01/2010	SW846 6010	<0.005
Cadmium	03/01/2010	SW846 6010	<0.005
Calcium	03/01/2010	SW846 6010	203
Chromium	03/01/2010	SW846 6010	0.036
Cobalt	03/01/2010	SW846 6010	0.018
Copper	03/01/2010	SW846 6010	0.036
Iron	03/01/2010	SW846 6010	38.3
Lead	03/02/2010	SW846 6010	<0.005
Magnesium	03/01/2010	SW846 6010	60.0
Manganese	03/01/2010	SW846 6010	1.57
Mercury	03/01/2010	SW846 7470	<0.0002
Nickel	03/01/2010	SW846 6010	<0.040
Potassium	03/01/2010	SW846 6010	12.8
Selenium	03/01/2010	SW846 6010	<0.005
Silver	03/01/2010	SW846 6010	<0.010
Sodium	03/02/2010	SW846 6010	42.8
Thallium	03/02/2010	SW846 6010	<0.006
Vanadium	03/01/2010	SW846 6010	0.057
Zinc	03/01/2010	SW846 6010	0.504

ELAP ID No.:10958

Comments:

Approved By: _____
Bruce Hoogesteger, Technical Director

File ID:100800.xls

PARADIGM
ENVIRONMENTAL SERVICES, INC. 179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Non-potable Water

Client: Lu Engineers

Client Job Site:	Former Churchville Ford Post Injection Sampling	**Lab Project Number:**	10-0800
		Lab Sample Number:	3358
Client Job Number:	5701-11		
Field Location:	MW-JCL-2	**Date Sampled:**	02/24/2010
Field ID Number:	N/A	**Date Received:**	02/24/2010
Sample Type:	Water	**Date Analyzed:**	02/25/2010

Compound	Results in ug / L
Acetone	ND< 10.0
Benzene	ND< 0.700
Bromochloromethane	ND< 5.00
Bromodichloromethane	ND< 2.00
Bromoform	ND< 5.00
Bromomethane	ND< 2.00
2-Butanone	ND< 10.0
Carbon disulfide	ND< 5.00
Carbon Tetrachloride	ND< 2.00
Chlorobenzene	ND< 2.00
Chloroethane	ND< 2.00
Chloroform	ND< 2.00
Chloromethane	ND< 2.00
Cyclohexane	ND< 10.0
Dibromochloromethane	ND< 2.00
1,2-Dibromo-3-Chloropropane	ND< 10.0
1,2-Dibromoethane	ND< 2.00
1,2-Dichlorobenzene	ND< 2.00
1,3-Dichlorobenzene	ND< 2.00
1,4-Dichlorobenzene	ND< 2.00
Dichlorodifluoromethane	ND< 5.00
1,1-Dichloroethane	ND< 2.00
1,2-Dichloroethane	ND< 2.00
1,1-Dichloroethene	ND< 2.00
cis-1,2-Dichloroethene	ND< 2.00
trans-1,2-Dichloroethene	ND< 2.00

Compound	Results in ug / L
1,2-Dichloropropane	ND< 2.00
cis-1,3-Dichloropropene	ND< 2.00
trans-1,3-Dichloropropene	ND< 2.00
Ethylbenzene	ND< 2.00
2-Hexanone	ND< 5.00
Isopropylbenzene	ND< 5.00
Methyl acetate	ND< 2.00
Methyl tert-butyl Ether	ND< 2.00
Methylcyclohexane	ND< 2.00
Methylene chloride	ND< 5.00
4-Methyl-2-pentanone	ND< 5.00
Styrene	ND< 5.00
1,1,2,2-Tetrachloroethane	ND< 2.00
Tetrachloroethene	ND< 2.00
Toluene	ND< 2.00
Freon 113	ND< 2.00
1,2,3-Trichlorobenzene	ND< 5.00
1,2,4-Trichlorobenzene	ND< 5.00
1,1,1-Trichloroethane	ND< 2.00
1,1,2-Trichloroethane	ND< 2.00
Trichloroethene	ND< 2.00
Trichlorofluoromethane	ND< 2.00
Vinyl chloride	ND< 2.00
m,p-Xylene	ND< 2.00
o-Xylene	ND< 2.00

ELAP Number 10958 Method: EPA 8260B Data File: V73237.D

Comments: ND denotes Non Detect
ug / L = microgram per Liter

Signature: _____
Bruce Hoogesteger: Technical Director

PARADIGM
ENVIRONMENTAL SERVICES, INC. 179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Non-potable Water

Client: Lu Engineers

Client Job Site:	Former Churchville Ford Post Injection Sampling	**Lab Project Number:**	10-0800
Client Job Number:	5701-11	**Lab Sample Number:**	3358
Field Location:	MW-JCL-2	**Date Sampled:**	02/24/2010
Field ID Number:	N/A	**Date Received:**	02/24/2010
Sample Type:	Water	**Date Analyzed:**	02/25/2010

Tentatively Identified Compounds	CAS Number	Retention Time	Results in ug / L	Percent Fit
Unknown Alkane	N/A	14.1	5.20	N/A

ELAP Number 10958 Method: EPA 8260B Data File: V73237.D

Comments: ND denotes Non Detect
ug / L = microgram per Liter

Signature: _____
Bruce Hoogesteger: Technical Director

PARADIGM
ENVIRONMENTAL SERVICES, INC. 179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Non-potable Water

Client: Lu Engineers

Client Job Site: Former Churchville Ford Post Injection Sampling
Client Job Number: 5701-11
Field Location: MW-JCL-3
Field ID Number: N/A
Sample Type: Water

Lab Project Number: 10-0800
Lab Sample Number: 3359

Date Sampled: 02/24/2010
Date Received: 02/24/2010
Date Analyzed: 02/25/2010

Compound	Results in ug / L
Acetone	ND< 10.0
Benzene	ND< 0.700
Bromochloromethane	ND< 5.00
Bromodichloromethane	ND< 2.00
Bromoform	ND< 5.00
Bromomethane	ND< 2.00
2-Butanone	ND< 10.0
Carbon disulfide	ND< 5.00
Carbon Tetrachloride	ND< 2.00
Chlorobenzene	ND< 2.00
Chloroethane	ND< 2.00
Chloroform	ND< 2.00
Chloromethane	ND< 2.00
Cyclohexane	ND< 10.0
Dibromochloromethane	ND< 2.00
1,2-Dibromo-3-Chloropropane	ND< 10.0
1,2-Dibromoethane	ND< 2.00
1,2-Dichlorobenzene	ND< 2.00
1,3-Dichlorobenzene	ND< 2.00
1,4-Dichlorobenzene	ND< 2.00
Dichlorodifluoromethane	ND< 5.00
1,1-Dichloroethane	ND< 2.00
1,2-Dichloroethane	ND< 2.00
1,1-Dichloroethene	ND< 2.00
cis-1,2-Dichloroethene	ND< 2.00
trans-1,2-Dichloroethene	ND< 2.00

Compound	Results in ug / L
1,2-Dichloropropane	ND< 2.00
cis-1,3-Dichloropropene	ND< 2.00
trans-1,3-Dichloropropene	ND< 2.00
Ethylbenzene	ND< 2.00
2-Hexanone	ND< 5.00
Isopropylbenzene	ND< 5.00
Methyl acetate	ND< 2.00
Methyl tert-butyl Ether	ND< 2.00
Methylcyclohexane	ND< 2.00
Methylene chloride	ND< 5.00
4-Methyl-2-pentanone	ND< 5.00
Styrene	ND< 5.00
1,1,2,2-Tetrachloroethane	ND< 2.00
Tetrachloroethene	ND< 2.00
Toluene	ND< 2.00
Freon 113	ND< 2.00
1,2,3-Trichlorobenzene	ND< 5.00
1,2,4-Trichlorobenzene	ND< 5.00
1,1,1-Trichloroethane	ND< 2.00
1,1,2-Trichloroethane	ND< 2.00
Trichloroethene	ND< 2.00
Trichlorofluoromethane	ND< 2.00
Vinyl chloride	ND< 2.00
m,p-Xylene	ND< 2.00
o-Xylene	ND< 2.00

ELAP Number 10958 Method: EPA 8260B Data File: V73238.D

Comments: ND denotes Non Detect
ug / L = microgram per Liter

Signature:
Bruce Hoogesteger: Technical Director

PARADIGM
ENVIRONMENTAL SERVICES, INC. 179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Non-potable Water

Client: Lu Engineers

Client Job Site:	Former Churchville Ford Post Injection Sampling	**Lab Project Number:**	10-0800
		Lab Sample Number:	3359
Client Job Number:	5701-11		
Field Location:	MW-JCL-3	**Date Sampled:**	02/24/2010
Field ID Number:	N/A	**Date Received:**	02/24/2010
Sample Type:	Water	**Date Analyzed:**	02/25/2010

Tentatively Identified Compounds	CAS Number	Retention Time	Results in ug / L	Percent Fit
None Found	N/A	N/A	ND< 5.00	N/A

ELAP Number 10958 Method: EPA 8260B Data File: V73238.D

Comments: ND denotes Non Detect
ug / L = microgram per Liter

Signature: _____
Bruce Hoogesteger: Technical Director

PARADIGM
ENVIRONMENTAL SERVICES, INC. 179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Non-potable Water

Client: Lu Engineers

Client Job Site: Former Churchville Ford Post Injection Sampling
Client Job Number: 5701-11
Field Location: MW-13
Field ID Number: N/A
Sample Type: Water

Lab Project Number: 10-0800
Lab Sample Number: 3360

Date Sampled: 02/24/2010
Date Received: 02/24/2010
Date Analyzed: 02/25/2010

Compound	Results in ug / L
Acetone	ND< 10.0
Benzene	ND< 0.700
Bromochloromethane	ND< 5.00
Bromodichloromethane	ND< 2.00
Bromoform	ND< 5.00
Bromomethane	ND< 2.00
2-Butanone	ND< 10.0
Carbon disulfide	ND< 5.00
Carbon Tetrachloride	ND< 2.00
Chlorobenzene	ND< 2.00
Chloroethane	ND< 2.00
Chloroform	ND< 2.00
Chloromethane	ND< 2.00
Cyclohexane	ND< 10.0
Dibromochloromethane	ND< 2.00
1,2-Dibromo-3-Chloropropane	ND< 10.0
1,2-Dibromoethane	ND< 2.00
1,2-Dichlorobenzene	ND< 2.00
1,3-Dichlorobenzene	ND< 2.00
1,4-Dichlorobenzene	ND< 2.00
Dichlorodifluoromethane	ND< 5.00
1,1-Dichloroethane	ND< 2.00
1,2-Dichloroethane	ND< 2.00
1,1-Dichloroethene	ND< 2.00
cis-1,2-Dichloroethene	ND< 2.00
trans-1,2-Dichloroethene	ND< 2.00

Compound	Results in ug / L
1,2-Dichloropropane	ND< 2.00
cis-1,3-Dichloropropene	ND< 2.00
trans-1,3-Dichloropropene	ND< 2.00
Ethylbenzene	ND< 2.00
2-Hexanone	ND< 5.00
Isopropylbenzene	ND< 5.00
Methyl acetate	ND< 2.00
Methyl tert-butyl Ether	ND< 2.00
Methylcyclohexane	ND< 2.00
Methylene chloride	ND< 5.00
4-Methyl-2-pentanone	ND< 5.00
Styrene	ND< 5.00
1,1,2,2-Tetrachloroethane	ND< 2.00
Tetrachloroethene	ND< 2.00
Toluene	ND< 2.00
Freon 113	ND< 2.00
1,2,3-Trichlorobenzene	ND< 5.00
1,2,4-Trichlorobenzene	ND< 5.00
1,1,1-Trichloroethane	ND< 2.00
1,1,2-Trichloroethane	ND< 2.00
Trichloroethene	ND< 2.00
Trichlorofluoromethane	ND< 2.00
Vinyl chloride	ND< 2.00
m,p-Xylene	ND< 2.00
o-Xylene	ND< 2.00

ELAP Number 10958 Method: EPA 8260B Data File: V73239.D

Comments: ND denotes Non Detect
ug / L = microgram per Liter

Signature:
Bruce Hoogesteger: Technical Director

PARADIGM
ENVIRONMENTAL SERVICES, INC. 179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Non-potable Water

Client: Lu Engineers

Client Job Site:	Former Churchville Ford Post Injection Sampling	**Lab Project Number:**	10-0800
Client Job Number:	5701-11	**Lab Sample Number:**	3360
Field Location:	MW-13	**Date Sampled:**	02/24/2010
Field ID Number:	N/A	**Date Received:**	02/24/2010
Sample Type:	Water	**Date Analyzed:**	02/25/2010

Tentatively Identified Compounds	CAS Number	Retention Time	Results in ug / L	Percent Fit
None Found	N/A	N/A	ND< 5.00	N/A

ELAP Number 10958 Method: EPA 8260B Data File: V73239.D

Comments: ND denotes Non Detect
ug / L = microgram per Liter

Signature: _____
Bruce Hoogesteger: Technical Director

PARADIGM ENVIRONMENTAL SERVICES, INC.
179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

CHAIN OF CUSTODY

REPORT TO:

COMPANY: LU Engineers
ADDRESS: 2230 Penfield Rd.
CITY: Penfield STATE: NY ZIP: 14526
PHONE: 377-1450 FAX: 377-1266
ATTN: Eric Detweiler
COMMENTS: please email results to edetweiler@luengineers.com

INVOICE TO:

COMPANY: Same
ADDRESS:
CITY: STATE: ZIP:
PHONE: FAX:
ATTN:

LAB PROJECT #: 10-0800
CLIENT PROJECT #: 5701-11
TURNAROUND TIME: (WORKING DAYS)
STD OTHER
☐ 1 ☐ 2 ☐ 3 ☒ 5 ☐
Quotation # MS020310B (rev. 022310)

PROJECT NAME/SITE NAME: Former Churchville Ford Post-Injection Sampling

REQUESTED ANALYSIS

	DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	NUMBER CONTAINERS	VOCs 8260B	TAL Metals								REMARKS	PARADIGM LAB SAMPLE NUMBER			
1	2/24/10	11:35		X	MW-JCL-2	aqueous	3	2	1								VOC = 8260 TCL + TICS per quote. / EAH 2/24	3	3	5	8
2	2/24/10	11:42		X	MW-JCL-3	↓	3	2	1								purple = sodium permanganate	3	3	5	9
3	2/24/10	11:55		X	MW-13	↓	3	2	1									3	3	6	0
4																					
5																					
6																					
7																					
8																					
9																					
10																					

****LAB USE ONLY BELOW THIS LINE****

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter	NELAC Compliance	
Container Type:	Y ☒	N ☐
Comments:		
Preservation:	Y ☒	N ☐
Comments:		
Holding Time:	Y ☒	N ☐
Comments:		
Temperature:	Y ☐	N ☒
Comments: 10°C		

Eric Detweiler / Jim Hillman 2/24/10
Sampled By Date/Time

Eric Detweiler 2/24/10 12:15
Relinquished By Date/Time

2/24/10 12:15
Received By Date/Time

Elizabeth A. Honch 2/24/10 1640
Received @ Lab By Date/Time

Total Cost:

P.I.F.

PARADIGM
ENVIRONMENTAL SERVICES, INC.
179 Lake Avenue, Rochester, NY 14608 Office: (585) 647-2530 Fax: (585) 647-3311

LAB REPORT FOR METALS ANALYSIS IN WATER

Client: Lu Engineers

Client Job Site: Churchville Ford

Client Job No.: 5701-11

Lab Project No.: 10-3367A

Sample Type: Water
Method: EPA 6010

Date Sampled: 08/17/2010
Date Received: 08/18/2010
Date Analyzed: 08/26-30/2010

Lab Sample No.	Field ID No.	Field Location	Iron Results (mg/L)	Manganese Results (mg/L)
11063	N/A	CF-MW-JCL-02	0.145	0.622
11064	N/A	CF-MW-01	<0.500	117
11065	N/A	CF-MW-JCL-03	8.61	0.187
11066	N/A	CF-MW-6	3.76	78.0
11067	N/A	CF-MW-JCL-01	0.639	0.029
11068	N/A	CF-MW-JCL-01 DUP	0.683	0.027
11069	N/A	CF-MW-13	1.79	0.501
11070	N/A	CF-MW-3	0.468	24.6

ELAP ID No.:10958

Comments:

Approved By: _____

Bruce Hoogesteger, Technical Director

File ID:103367A.xls

PARADIGM
ENVIRONMENTAL SERVICES, INC. 179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Non-potable Water

Client: Lu Engineers

Client Job Site: Churchville Ford
Client Job Number: 5701-11
Field Location: CF-MW-JCL-02
Field ID Number: N/A
Sample Type: Water

Lab Project Number: 10-3367A
Lab Sample Number: 11063

Date Sampled: 08/17/2010
Date Received: 08/18/2010
Date Analyzed: 08/26/2010

Compound	Results in ug / L
Acetone	ND< 10.0
Benzene	ND< 0.700
Bromochloromethane	ND< 5.00
Bromodichloromethane	ND< 2.00
Bromoform	ND< 5.00
Bromomethane	ND< 2.00
2-Butanone	ND< 10.0
Carbon disulfide	ND< 5.00
Carbon Tetrachloride	ND< 2.00
Chlorobenzene	ND< 2.00
Chloroethane	ND< 2.00
Chloroform	ND< 2.00
Chloromethane	ND< 2.00
Cyclohexane	ND< 10.0
Dibromochloromethane	ND< 2.00
1,2-Dibromo-3-Chloropropane	ND< 10.0
1,2-Dibromoethane	ND< 2.00
1,2-Dichlorobenzene	ND< 2.00
1,3-Dichlorobenzene	ND< 2.00
1,4-Dichlorobenzene	ND< 2.00
Dichlorodifluoromethane	ND< 5.00
1,1-Dichloroethane	ND< 2.00
1,2-Dichloroethane	ND< 2.00
1,1-Dichloroethene	ND< 2.00
cis-1,2-Dichloroethene	29.0
trans-1,2-Dichloroethene	ND< 2.00

Compound	Results in ug / L
1,2-Dichloropropane	ND< 2.00
cis-1,3-Dichloropropene	ND< 2.00
trans-1,3-Dichloropropene	ND< 2.00
Ethylbenzene	ND< 2.00
2-Hexanone	ND< 5.00
Isopropylbenzene	ND< 5.00
Methyl acetate	ND< 2.00
Methyl tert-butyl Ether	ND< 2.00
Methylcyclohexane	ND< 2.00
Methylene chloride	ND< 5.00
4-Methyl-2-pentanone	ND< 5.00
Styrene	ND< 5.00
1,1,2,2-Tetrachloroethane	ND< 2.00
Tetrachloroethene	2.68
Toluene	ND< 2.00
Freon 113	ND< 2.00
1,2,3-Trichlorobenzene	ND< 5.00
1,2,4-Trichlorobenzene	ND< 5.00
1,1,1-Trichloroethane	ND< 2.00
1,1,2-Trichloroethane	ND< 2.00
Trichloroethene	23.1
Trichlorofluoromethane	ND< 2.00
Vinyl chloride	ND< 2.00
m,p-Xylene	ND< 2.00
o-Xylene	ND< 2.00

ELAP Number 10958 Method: EPA 8260B Data File: V77860.D

Comments: ND denotes Non Detect
ug / L = microgram per Liter

Signature: _____
Bruce Hoogesteger: Technical Director

PARADIGM
ENVIRONMENTAL SERVICES, INC. 179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Non-potable Water

Client: Lu Engineers

Client Job Site:	Churchville Ford	**Lab Project Number:**	10-3367A
		Lab Sample Number:	11063
Client Job Number:	5701-11		
Field Location:	CF-MW-JCL-02	**Date Sampled:**	08/17/2010
Field ID Number:	N/A	**Date Received:**	08/18/2010
Sample Type:	Water	**Date Analyzed:**	08/26/2010

Tentatively Identified Compounds	CAS Number	Retention Time	Results in ug / L	Percent Fit
None Found	N/A	N/A	ND< 5.00	N/A

ELAP Number 10958 Method: EPA 8260B Data File: V77860.D

Comments: ND denotes Non Detect
ug / L = microgram per Liter

Signature: _____

Bruce Hoogesteger: Technical Director

PARADIGM
ENVIRONMENTAL SERVICES, INC. 179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Non-potable Water

Client: Lu Engineers

Client Job Site: Churchville Ford
Client Job Number: 5701-11
Field Location: CF-MW-01
Field ID Number: N/A
Sample Type: Water

Lab Project Number: 10-3367A
Lab Sample Number: 11064

Date Sampled: 08/17/2010
Date Received: 08/18/2010
Date Analyzed: 08/26/2010

Compound	Results in ug / L
Acetone	104
Benzene	0.786
Bromochloromethane	ND< 5.00
Bromodichloromethane	ND< 2.00
Bromoform	ND< 5.00
Bromomethane	ND< 2.00
2-Butanone	J 9.14
Carbon disulfide	ND< 5.00
Carbon Tetrachloride	ND< 2.00
Chlorobenzene	ND< 2.00
Chloroethane	ND< 2.00
Chloroform	ND< 2.00
Chloromethane	ND< 2.00
Cyclohexane	ND< 10.0
Dibromochloromethane	ND< 2.00
1,2-Dibromo-3-Chloropropane	ND< 10.0
1,2-Dibromoethane	ND< 2.00
1,2-Dichlorobenzene	ND< 2.00
1,3-Dichlorobenzene	ND< 2.00
1,4-Dichlorobenzene	ND< 2.00
Dichlorodifluoromethane	J 4.50
1,1-Dichloroethane	J 1.17
1,2-Dichloroethane	ND< 2.00
1,1-Dichloroethene	ND< 2.00
cis-1,2-Dichloroethene	ND< 2.00
trans-1,2-Dichloroethene	ND< 2.00

Compound	Results in ug / L
1,2-Dichloropropane	ND< 2.00
cis-1,3-Dichloropropene	ND< 2.00
trans-1,3-Dichloropropene	ND< 2.00
Ethylbenzene	ND< 2.00
2-Hexanone	ND< 5.00
Isopropylbenzene	ND< 5.00
Methyl acetate	ND< 2.00
Methyl tert-butyl Ether	J 1.71
Methylcyclohexane	ND< 2.00
Methylene chloride	ND< 5.00
4-Methyl-2-pentanone	ND< 5.00
Styrene	ND< 5.00
1,1,2,2-Tetrachloroethane	ND< 2.00
Tetrachloroethene	ND< 2.00
Toluene	ND< 2.00
Freon 113	ND< 2.00
1,2,3-Trichlorobenzene	ND< 5.00
1,2,4-Trichlorobenzene	ND< 5.00
1,1,1-Trichloroethane	ND< 2.00
1,1,2-Trichloroethane	ND< 2.00
Trichloroethene	ND< 2.00
Trichlorofluoromethane	ND< 2.00
Vinyl chloride	ND< 2.00
m,p-Xylene	ND< 2.00
o-Xylene	ND< 2.00

ELAP Number 10958 Method: EPA 8260B Data File: V77861.D

Comments: ND denotes Non Detect
ug / L = microgram per Liter

Signature: _____
Bruce Hoogesteger: Technical Director

PARADIGM
ENVIRONMENTAL SERVICES, INC. 179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Non-potable Water

Client: Lu Engineers

Client Job Site:	Churchville Ford	**Lab Project Number:**	10-3367A
		Lab Sample Number:	11064
Client Job Number:	5701-11		
Field Location:	CF-MW-01	**Date Sampled:**	08/17/2010
Field ID Number:	N/A	**Date Received:**	08/18/2010
Sample Type:	Water	**Date Analyzed:**	08/26/2010

Tentatively Identified Compounds	CAS Number	Retention Time	Results in ug / L	Percent Fit
None Found	N/A	N/A	ND< 5.00	N/A

ELAP Number 10958 Method: EPA 8260B Data File: V77861.D

Comments: ND denotes Non Detect
ug / L = microgram per Liter

Signature: _____

Bruce Hoogesteger: Technical Director

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Volatile Analysis Report for Non-potable Water

Client: Lu Engineers

Client Job Site: Churchville Ford
Client Job Number: 5701-11
Field Location: CF-MW-JCL-03
Field ID Number: N/A
Sample Type: Water

Lab Project Number: 10-3367A
Lab Sample Number: 11065
Date Sampled: 08/17/2010
Date Received: 08/18/2010
Date Analyzed: 08/26/2010

Compound	Results in ug / L
Acetone	ND< 10.0
Benzene	ND< 0.700
Bromochloromethane	ND< 5.00
Bromodichloromethane	ND< 2.00
Bromoform	ND< 5.00
Bromomethane	ND< 2.00
2-Butanone	ND< 10.0
Carbon disulfide	ND< 5.00
Carbon Tetrachloride	ND< 2.00
Chlorobenzene	ND< 2.00
Chloroethane	ND< 2.00
Chloroform	ND< 2.00
Chloromethane	ND< 2.00
Cyclohexane	ND< 10.0
Dibromochloromethane	ND< 2.00
1,2-Dibromo-3-Chloropropane	ND< 10.0
1,2-Dibromoethane	ND< 2.00
1,2-Dichlorobenzene	ND< 2.00
1,3-Dichlorobenzene	ND< 2.00
1,4-Dichlorobenzene	ND< 2.00
Dichlorodifluoromethane	ND< 5.00
1,1-Dichloroethane	ND< 2.00
1,2-Dichloroethane	ND< 2.00
1,1-Dichloroethene	ND< 2.00
cis-1,2-Dichloroethene	ND< 2.00
trans-1,2-Dichloroethene	ND< 2.00

Compound	Results in ug / L
1,2-Dichloropropane	ND< 2.00
cis-1,3-Dichloropropene	ND< 2.00
trans-1,3-Dichloropropene	ND< 2.00
Ethylbenzene	ND< 2.00
2-Hexanone	ND< 5.00
Isopropylbenzene	ND< 5.00
Methyl acetate	ND< 2.00
Methyl tert-butyl Ether	ND< 2.00
Methylcyclohexane	ND< 2.00
Methylene chloride	ND< 5.00
4-Methyl-2-pentanone	ND< 5.00
Styrene	ND< 5.00
1,1,2,2-Tetrachloroethane	ND< 2.00
Tetrachloroethene	ND< 2.00
Toluene	ND< 2.00
Freon 113	ND< 2.00
1,2,3-Trichlorobenzene	ND< 5.00
1,2,4-Trichlorobenzene	ND< 5.00
1,1,1-Trichloroethane	ND< 2.00
1,1,2-Trichloroethane	ND< 2.00
Trichloroethene	ND< 2.00
Trichlorofluoromethane	ND< 2.00
Vinyl chloride	ND< 2.00
m,p-Xylene	ND< 2.00
o-Xylene	ND< 2.00

ELAP Number 10958 Method: EPA 8260B Data File: V77862.D

Comments: ND denotes Non Detect
ug / L = microgram per Liter
Matrix spike outliers indicate probable matrix interference

Signature: _____
Bruce Hoogesteger: Technical Director

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Volatile Analysis Report for Non-potable Water

Client: Lu Engineers

Client Job Site:	Churchville Ford	**Lab Project Number:**	10-3367A
		Lab Sample Number:	11065
Client Job Number:	5701-11		
Field Location:	CF-MW-JCL-03	**Date Sampled:**	08/17/2010
Field ID Number:	N/A	**Date Received:**	08/18/2010
Sample Type:	Water	**Date Analyzed:**	08/26/2010

Tentatively Identified Compounds	CAS Number	Retention Time	Results in ug / L	Percent Fit
None Found	N/A	N/A	ND< 5.00	N/A

ELAP Number 10958 Method: EPA 8260B Data File: V77862.D

Comments: ND denotes Non Detect
ug / L = microgram per Liter
Matrix spike outliers indicate probable matrix interference

Signature: _____
Bruce Hoogesteger: Technical Director

PARADIGM
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Volatile Analysis Report for Non-potable Water

Client: Lu Engineers

Client Job Site: Churchville Ford
Client Job Number: 5701-11
Field Location: CF-MW-6
Field ID Number: N/A
Sample Type: Water

Lab Project Number: 10-3367A
Lab Sample Number: 11066

Date Sampled: 08/17/2010
Date Received: 08/18/2010
Date Analyzed: 08/26/2010

Compound	Results in ug / L
Acetone	B 62.2
Benzene	J 0.383
Bromochloromethane	ND< 5.00
Bromodichloromethane	ND< 2.00
Bromoform	ND< 5.00
Bromomethane	ND< 2.00
2-Butanone	J 5.35
Carbon disulfide	ND< 5.00
Carbon Tetrachloride	ND< 2.00
Chlorobenzene	ND< 2.00
Chloroethane	ND< 2.00
Chloroform	J 1.46
Chloromethane	ND< 2.00
Cyclohexane	ND< 10.0
Dibromochloromethane	ND< 2.00
1,2-Dibromo-3-Chloropropane	ND< 10.0
1,2-Dibromoethane	ND< 2.00
1,2-Dichlorobenzene	ND< 2.00
1,3-Dichlorobenzene	ND< 2.00
1,4-Dichlorobenzene	ND< 2.00
Dichlorodifluoromethane	J 3.80
1,1-Dichloroethane	ND< 2.00
1,2-Dichloroethane	ND< 2.00
1,1-Dichloroethene	ND< 2.00
cis-1,2-Dichloroethene	ND< 2.00
trans-1,2-Dichloroethene	ND< 2.00

Compound	Results in ug / L
1,2-Dichloropropane	ND< 2.00
cis-1,3-Dichloropropene	ND< 2.00
trans-1,3-Dichloropropene	ND< 2.00
Ethylbenzene	ND< 2.00
2-Hexanone	ND< 5.00
Isopropylbenzene	ND< 5.00
Methyl acetate	ND< 2.00
Methyl tert-butyl Ether	ND< 2.00
Methylcyclohexane	ND< 2.00
Methylene chloride	ND< 5.00
4-Methyl-2-pentanone	ND< 5.00
Styrene	ND< 5.00
1,1,2,2-Tetrachloroethane	ND< 2.00
Tetrachloroethene	ND< 2.00
Toluene	ND< 2.00
Freon 113	ND< 2.00
1,2,3-Trichlorobenzene	ND< 5.00
1,2,4-Trichlorobenzene	ND< 5.00
1,1,1-Trichloroethane	ND< 2.00
1,1,2-Trichloroethane	ND< 2.00
Trichloroethene	ND< 2.00
Trichlorofluoromethane	ND< 2.00
Vinyl chloride	ND< 2.00
m,p-Xylene	ND< 2.00
o-Xylene	ND< 2.00

ELAP Number 10958 Method: EPA 8260B Data File: V77865.D

Comments: ND denotes Non Detect
ug / L = microgram per Liter

Signature: _____
Bruce Hoogesteger, Technical Director

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Volatile Analysis Report for Non-potable Water

Client: Lu Engineers

Client Job Site:	Churchville Ford	**Lab Project Number:**	10-3367A
		Lab Sample Number:	11066
Client Job Number:	5701-11		
Field Location:	CF-MW-6	**Date Sampled:**	08/17/2010
Field ID Number:	N/A	**Date Received:**	08/18/2010
Sample Type:	Water	**Date Analyzed:**	08/26/2010

Tentatively Identified Compounds	CAS Number	Retention Time	Results in ug / L	Percent Fit
None Found	N/A	N/A	ND< 5.00	N/A

ELAP Number 10958 Method: EPA 8260B Data File: V77865.D

Comments: ND denotes Non Detect
ug / L = microgram per Liter

Signature: _____

Bruce Hoogesteger: Technical Director

PARADIGM
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Volatile Analysis Report for Non-potable Water

Client: Lu Engineers

Client Job Site: Churchville Ford
Client Job Number: 5701-11
Field Location: CF-MW-JCL-01
Field ID Number: N/A
Sample Type: Water

Lab Project Number: 10-3367A
Lab Sample Number: 11067
Date Sampled: 08/17/2010
Date Received: 08/18/2010
Date Analyzed: 08/26/2010

Compound	Results in ug / L
Acetone	ND< 10.0
Benzene	ND< 0.700
Bromochloromethane	ND< 5.00
Bromodichloromethane	ND< 2.00
Bromoform	ND< 5.00
Bromomethane	ND< 2.00
2-Butanone	ND< 10.0
Carbon disulfide	ND< 5.00
Carbon Tetrachloride	ND< 2.00
Chlorobenzene	ND< 2.00
Chloroethane	ND< 2.00
Chloroform	ND< 2.00
Chloromethane	ND< 2.00
Cyclohexane	ND< 10.0
Dibromochloromethane	ND< 2.00
1,2-Dibromo-3-Chloropropane	ND< 10.0
1,2-Dibromoethane	ND< 2.00
1,2-Dichlorobenzene	ND< 2.00
1,3-Dichlorobenzene	ND< 2.00
1,4-Dichlorobenzene	ND< 2.00
Dichlorodifluoromethane	ND< 5.00
1,1-Dichloroethane	ND< 2.00
1,2-Dichloroethane	ND< 2.00
1,1-Dichloroethene	ND< 2.00
cis-1,2-Dichloroethene	ND< 2.00
trans-1,2-Dichloroethene	ND< 2.00

Compound	Results in ug / L
1,2-Dichloropropane	ND< 2.00
cis-1,3-Dichloropropene	ND< 2.00
trans-1,3-Dichloropropene	ND< 2.00
Ethylbenzene	ND< 2.00
2-Hexanone	ND< 5.00
Isopropylbenzene	ND< 5.00
Methyl acetate	ND< 2.00
Methyl tert-butyl Ether	ND< 2.00
Methylcyclohexane	ND< 2.00
Methylene chloride	ND< 5.00
4-Methyl-2-pentanone	ND< 5.00
Styrene	ND< 5.00
1,1,2,2-Tetrachloroethane	ND< 2.00
Tetrachloroethene	ND< 2.00
Toluene	ND< 2.00
Freon 113	ND< 2.00
1,2,3-Trichlorobenzene	ND< 5.00
1,2,4-Trichlorobenzene	ND< 5.00
1,1,1-Trichloroethane	ND< 2.00
1,1,2-Trichloroethane	ND< 2.00
Trichloroethene	ND< 2.00
Trichlorofluoromethane	ND< 2.00
Vinyl chloride	ND< 2.00
m,p-Xylene	ND< 2.00
o-Xylene	ND< 2.00

ELAP Number 10958 Method: EPA 8260B Data File: V77866.D

Comments: ND denotes Non Detect
ug / L = microgram per Liter

Signature: _____
Bruce Hoogesteger: Technical Director

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Volatile Analysis Report for Non-potable Water

Client: Lu Engineers

Client Job Site:	Churchville Ford	**Lab Project Number:**	10-3367A
		Lab Sample Number:	11067
Client Job Number:	5701-11		
Field Location:	CF-MW-JCL-01	**Date Sampled:**	08/17/2010
Field ID Number:	N/A	**Date Received:**	08/18/2010
Sample Type:	Water	**Date Analyzed:**	08/26/2010

Tentatively Identified Compounds	CAS Number	Retention Time	Results in ug / L	Percent Fit
None Found	N/A	N/A	ND< 5.00	N/A

ELAP Number 10958 Method: EPA 8260B Data File: V77866.D

Comments: ND denotes Non Detect
ug / L = microgram per Liter

Signature: _____
Bruce Hoogesteger: Technical Director

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Volatile Analysis Report for Non-potable Water

Client: Lu Engineers

Client Job Site: Churchville Ford
Client Job Number: 5701-11
Field Location: CF-MW-JCL-01 DUP
Field ID Number: N/A
Sample Type: Water

Lab Project Number: 10-3367A
Lab Sample Number: 11068
Date Sampled: 08/17/2010
Date Received: 08/18/2010
Date Analyzed: 08/26/2010

Compound	Results in ug / L
Acetone	ND< 10.0
Benzene	ND< 0.700
Bromochloromethane	ND< 5.00
Bromodichloromethane	ND< 2.00
Bromoform	ND< 5.00
Bromomethane	ND< 2.00
2-Butanone	ND< 10.0
Carbon disulfide	ND< 5.00
Carbon Tetrachloride	ND< 2.00
Chlorobenzene	ND< 2.00
Chloroethane	ND< 2.00
Chloroform	ND< 2.00
Chloromethane	ND< 2.00
Cyclohexane	ND< 10.0
Dibromochloromethane	ND< 2.00
1,2-Dibromo-3-Chloropropane	ND< 10.0
1,2-Dibromoethane	ND< 2.00
1,2-Dichlorobenzene	ND< 2.00
1,3-Dichlorobenzene	ND< 2.00
1,4-Dichlorobenzene	ND< 2.00
Dichlorodifluoromethane	ND< 5.00
1,1-Dichloroethane	ND< 2.00
1,2-Dichloroethane	ND< 2.00
1,1-Dichloroethene	ND< 2.00
cis-1,2-Dichloroethene	ND< 2.00
trans-1,2-Dichloroethene	ND< 2.00

Compound	Results in ug / L
1,2-Dichloropropane	ND< 2.00
cis-1,3-Dichloropropene	ND< 2.00
trans-1,3-Dichloropropene	ND< 2.00
Ethylbenzene	ND< 2.00
2-Hexanone	ND< 5.00
Isopropylbenzene	ND< 5.00
Methyl acetate	ND< 2.00
Methyl tert-butyl Ether	ND< 2.00
Methylcyclohexane	ND< 2.00
Methylene chloride	ND< 5.00
4-Methyl-2-pentanone	ND< 5.00
Styrene	ND< 5.00
1,1,2,2-Tetrachloroethane	ND< 2.00
Tetrachloroethene	ND< 2.00
Toluene	ND< 2.00
Freon 113	ND< 2.00
1,2,3-Trichlorobenzene	ND< 5.00
1,2,4-Trichlorobenzene	ND< 5.00
1,1,1-Trichloroethane	ND< 2.00
1,1,2-Trichloroethane	ND< 2.00
Trichloroethene	ND< 2.00
Trichlorofluoromethane	ND< 2.00
Vinyl chloride	ND< 2.00
m,p-Xylene	ND< 2.00
o-Xylene	ND< 2.00

ELAP Number 10958 Method: EPA 8260B Data File: V77867.D

Comments: ND denotes Non Detect
ug / L = microgram per Liter

Signature: _____
Bruce Hoogesteger: Technical Director

PARADIGM
ENVIRONMENTAL SERVICES, INC. 179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Non-potable Water

Client: Lu Engineers

Client Job Site:	Churchville Ford	**Lab Project Number:**	10-3367A
		Lab Sample Number:	11068
Client Job Number:	5701-11		
Field Location:	CF-MW-JCL-01 DUP	**Date Sampled:**	08/17/2010
Field ID Number:	N/A	**Date Received:**	08/18/2010
Sample Type:	Water	**Date Analyzed:**	08/26/2010

Tentatively Identified Compounds	CAS Number	Retention Time	Results in ug / L	Percent Fit
None Found	N/A	N/A	ND< 5.00	N/A

ELAP Number 10958 Method: EPA 8260B Data File: V77867.D

Comments: ND denotes Non Detect
ug / L = microgram per Liter

Signature: _____

Bruce Hoogesteger: Technical Director

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Volatile Analysis Report for Non-potable Water

Client: Lu Engineers

Client Job Site: Churchville Ford
Client Job Number: 5701-11
Field Location: CF-MW-13
Field ID Number: N/A
Sample Type: Water

Lab Project Number: 10-3367A
Lab Sample Number: 11069
Date Sampled: 08/17/2010
Date Received: 08/18/2010
Date Analyzed: 08/26/2010

Compound	Results in ug / L
Acetone	J B 6.94
Benzene	ND< 0.700
Bromochloromethane	ND< 5.00
Bromodichloromethane	ND< 2.00
Bromoform	ND< 5.00
Bromomethane	ND< 2.00
2-Butanone	ND< 10.0
Carbon disulfide	ND< 5.00
Carbon Tetrachloride	ND< 2.00
Chlorobenzene	ND< 2.00
Chloroethane	ND< 2.00
Chloroform	ND< 2.00
Chloromethane	ND< 2.00
Cyclohexane	ND< 10.0
Dibromochloromethane	ND< 2.00
1,2-Dibromo-3-Chloropropane	ND< 10.0
1,2-Dibromoethane	ND< 2.00
1,2-Dichlorobenzene	ND< 2.00
1,3-Dichlorobenzene	ND< 2.00
1,4-Dichlorobenzene	ND< 2.00
Dichlorodifluoromethane	ND< 5.00
1,1-Dichloroethane	ND< 2.00
1,2-Dichloroethane	ND< 2.00
1,1-Dichloroethene	ND< 2.00
cis-1,2-Dichloroethene	ND< 2.00
trans-1,2-Dichloroethene	ND< 2.00

Compound	Results in ug / L
1,2-Dichloropropane	ND< 2.00
cis-1,3-Dichloropropene	ND< 2.00
trans-1,3-Dichloropropene	ND< 2.00
Ethylbenzene	ND< 2.00
2-Hexanone	ND< 5.00
Isopropylbenzene	ND< 5.00
Methyl acetate	ND< 2.00
Methyl tert-butyl Ether	ND< 2.00
Methylcyclohexane	ND< 2.00
Methylene chloride	ND< 5.00
4-Methyl-2-pentanone	ND< 5.00
Styrene	ND< 5.00
1,1,2,2-Tetrachloroethane	ND< 2.00
Tetrachloroethene	ND< 2.00
Toluene	ND< 2.00
Freon 113	ND< 2.00
1,2,3-Trichlorobenzene	ND< 5.00
1,2,4-Trichlorobenzene	ND< 5.00
1,1,1-Trichloroethane	ND< 2.00
1,1,2-Trichloroethane	ND< 2.00
Trichloroethene	ND< 2.00
Trichlorofluoromethane	ND< 2.00
Vinyl chloride	ND< 2.00
m,p-Xylene	ND< 2.00
o-Xylene	ND< 2.00

ELAP Number 10958 Method: EPA 8260B Data File: V77868.D

Comments: ND denotes Non Detect
ug / L = microgram per Liter

Signature: _____
Bruce Hoogesteger: Technical Director

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Volatile Analysis Report for Non-potable Water

Client: Lu Engineers

Client Job Site:	Churchville Ford	**Lab Project Number:**	10-3367A
		Lab Sample Number:	11069
Client Job Number:	5701-11		
Field Location:	CF-MW-13	**Date Sampled:**	08/17/2010
Field ID Number:	N/A	**Date Received:**	08/18/2010
Sample Type:	Water	**Date Analyzed:**	08/26/2010

Tentatively Identified Compounds	CAS Number	Retention Time	Results in ug / L	Percent Fit
None Found	N/A	N/A	ND< 5.00	N/A

ELAP Number 10958 Method: EPA 8260B Data File: V77868.D

Comments: ND denotes Non Detect
ug / L = microgram per Liter

Signature: _____

Bruce Hoogesteger: Technical Director

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Volatile Analysis Report for Non-potable Water

Client: Lu Engineers

Client Job Site: Churchville Ford
Client Job Number: 5701-11
Field Location: CF-MW-3
Field ID Number: N/A
Sample Type: Water

Lab Project Number: 10-3367A
Lab Sample Number: 11070

Date Sampled: 08/17/2010
Date Received: 08/18/2010
Date Analyzed: 08/26/2010

Compound	Results in ug / L
Acetone	B 52.9
Benzene	0.742
Bromochloromethane	ND< 5.00
Bromodichloromethane	ND< 2.00
Bromoform	ND< 5.00
Bromomethane	ND< 2.00
2-Butanone	J 7.53
Carbon disulfide	ND< 5.00
Carbon Tetrachloride	ND< 2.00
Chlorobenzene	ND< 2.00
Chloroethane	ND< 2.00
Chloroform	J 1.17
Chloromethane	ND< 2.00
Cyclohexane	ND< 10.0
Dibromochloromethane	ND< 2.00
1,2-Dibromo-3-Chloropropane	ND< 10.0
1,2-Dibromoethane	ND< 2.00
1,2-Dichlorobenzene	ND< 2.00
1,3-Dichlorobenzene	ND< 2.00
1,4-Dichlorobenzene	ND< 2.00
Dichlorodifluoromethane	98.2
1,1-Dichloroethane	ND< 2.00
1,2-Dichloroethane	ND< 2.00
1,1-Dichloroethene	ND< 2.00
cis-1,2-Dichloroethene	ND< 2.00
trans-1,2-Dichloroethene	ND< 2.00

Compound	Results in ug / L
1,2-Dichloropropane	ND< 2.00
cis-1,3-Dichloropropene	ND< 2.00
trans-1,3-Dichloropropene	ND< 2.00
Ethylbenzene	ND< 2.00
2-Hexanone	ND< 5.00
Isopropylbenzene	ND< 5.00
Methyl acetate	ND< 2.00
Methyl tert-butyl Ether	ND< 2.00
Methylcyclohexane	ND< 2.00
Methylene chloride	ND< 5.00
4-Methyl-2-pentanone	ND< 5.00
Styrene	ND< 5.00
1,1,2,2-Tetrachloroethane	ND< 2.00
Tetrachloroethene	16.2
Toluene	ND< 2.00
Freon 113	ND< 2.00
1,2,3-Trichlorobenzene	ND< 5.00
1,2,4-Trichlorobenzene	ND< 5.00
1,1,1-Trichloroethane	ND< 2.00
1,1,2-Trichloroethane	ND< 2.00
Trichloroethene	ND< 2.00
Trichlorofluoromethane	ND< 2.00
Vinyl chloride	ND< 2.00
m,p-Xylene	ND< 2.00
o-Xylene	ND< 2.00

ELAP Number 10958 Method: EPA 8260B Data File: V77869.D

Comments: ND denotes Non Detect
ug / L = microgram per Liter

Signature:

Bruce Hoogesteger: Technical Director

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ENVIRONMENTAL SERVICES, INC. 179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Non-potable Water

Client: Lu Engineers

Client Job Site:	Churchville Ford	**Lab Project Number:**	10-3367A
		Lab Sample Number:	11070
Client Job Number:	5701-11		
Field Location:	CF-MW-3	**Date Sampled:**	08/17/2010
Field ID Number:	N/A	**Date Received:**	08/18/2010
Sample Type:	Water	**Date Analyzed:**	08/26/2010

Tentatively Identified Compounds	CAS Number	Retention Time	Results in ug / L	Percent Fit
None Found	N/A	N/A	ND< 5.00	N/A

ELAP Number 10958 Method: EPA 8260B Data File: V77869.D

Comments: ND denotes Non Detect
ug / L = microgram per Liter

Signature: _____
Bruce Hoogesteger: Technical Director

PARADIGM
ENVIRONMENTAL SERVICES, INC. 179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Non-potable Water

Client: Lu Engineers

Client Job Site: Churchville Ford
Client Job Number: 5701-11
Field Location: Trip Blank T212
Field ID Number: N/A
Sample Type: Water

Lab Project Number: 10-3367A
Lab Sample Number: 11071

Date Sampled: 08/17/2010
Date Received: 08/18/2010
Date Analyzed: 08/26/2010

Compound	Results in ug / L
Acetone	B 23.7
Benzene	ND< 0.700
Bromochloromethane	ND< 5.00
Bromodichloromethane	ND< 2.00
Bromoform	ND< 5.00
Bromomethane	ND< 2.00
2-Butanone	ND< 10.0
Carbon disulfide	ND< 5.00
Carbon Tetrachloride	ND< 2.00
Chlorobenzene	ND< 2.00
Chloroethane	ND< 2.00
Chloroform	ND< 2.00
Chloromethane	ND< 2.00
Cyclohexane	ND< 10.0
Dibromochloromethane	ND< 2.00
1,2-Dibromo-3-Chloropropane	ND< 10.0
1,2-Dibromoethane	ND< 2.00
1,2-Dichlorobenzene	ND< 2.00
1,3-Dichlorobenzene	ND< 2.00
1,4-Dichlorobenzene	ND< 2.00
Dichlorodifluoromethane	ND< 5.00
1,1-Dichloroethane	ND< 2.00
1,2-Dichloroethane	ND< 2.00
1,1-Dichloroethene	ND< 2.00
cis-1,2-Dichloroethene	ND< 2.00
trans-1,2-Dichloroethene	ND< 2.00

Compound	Results in ug / L
1,2-Dichloropropane	ND< 2.00
cis-1,3-Dichloropropene	ND< 2.00
trans-1,3-Dichloropropene	ND< 2.00
Ethylbenzene	ND< 2.00
2-Hexanone	ND< 5.00
Isopropylbenzene	ND< 5.00
Methyl acetate	ND< 2.00
Methyl tert-butyl Ether	ND< 2.00
Methylcyclohexane	ND< 2.00
Methylene chloride	ND< 5.00
4-Methyl-2-pentanone	ND< 5.00
Styrene	ND< 5.00
1,1,2,2-Tetrachloroethane	ND< 2.00
Tetrachloroethene	ND< 2.00
Toluene	ND< 2.00
Freon 113	ND< 2.00
1,2,3-Trichlorobenzene	ND< 5.00
1,2,4-Trichlorobenzene	ND< 5.00
1,1,1-Trichloroethane	ND< 2.00
1,1,2-Trichloroethane	ND< 2.00
Trichloroethene	ND< 2.00
Trichlorofluoromethane	ND< 2.00
Vinyl chloride	ND< 2.00
m,p-Xylene	ND< 2.00
o-Xylene	ND< 2.00

ELAP Number 10958 Method: EPA 8260B Data File: V77870.D

Comments: ND denotes Non Detect
ug / L = microgram per Liter

Signature: _____
Bruce Hoogesteger: Technical Director

PARADIGM
ENVIRONMENTAL SERVICES, INC. 179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Non-potable Water

Client: Lu Engineers

Client Job Site:	Churchville Ford	**Lab Project Number:**	10-3367A
		Lab Sample Number:	11071
Client Job Number:	5701-11		
Field Location:	Trip Blank T212	**Date Sampled:**	08/17/2010
Field ID Number:	N/A	**Date Received:**	08/18/2010
Sample Type:	Water	**Date Analyzed:**	08/26/2010

Tentatively Identified Compounds	CAS Number	Retention Time	Results in ug / L	Percent Fit
None Found	N/A	N/A	ND< 5.00	N/A

ELAP Number 10958 Method: EPA 8260B Data File: V77870.D

Comments: ND denotes Non Detect
ug / L = microgram per Liter

Signature: _____

Bruce Hoogesteger: Technical Director

PARADIGM ENVIRONMENTAL SERVICES, INC.
179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

CHAIN OF CUSTODY

REPORT TO:	INVOICE TO:
COMPANY: Lu Engineers	COMPANY: Same
ADDRESS: ~~2230 Archer Rd~~ 175	ADDRESS: Sully's Trail, Suite 202
CITY: Pittsford STATE: NY ZIP: 14534	CITY: STATE: ZIP:
PHONE: 385-7417 FAX:	PHONE: FAX:
ATTN: Eric Detweiler	ATTN:

LAB PROJECT #: 6 10.3387A ee EAH 8/18 | CLIENT PROJECT #: 5701-11

TURNAROUND TIME: (WORKING DAYS) 10 day per quote. EAH 8/18 — STD ☒ 5 | OTHER ☐ 1 ☐ 2 ☐ 3

PROJECT NAME/SITE NAME: Churchville Ford

COMMENTS: ★ please provide Excel EDD ★ P.O. 424498

Quotation # MS020310A

REQUESTED ANALYSIS

	DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	NUMBER OF CONTAINERS	8260 TCL VOCs	Fe	Mn	REMARKS	PARADIGM LAB SAMPLE NUMBER
1	8/17/10	15:20		X	CF-MW-JCL-02	W	3	✓	✓	✓	Per ASP Request Form and E. Detweiler in email 8/18, do 8260 TCL ASP 2008 plus TICS. EAH 8/18 — Cat. B deliverables	11063
2		15:10		X	CF-MW-01	W	~~2~~ 3	✓	✓	✓		11064
3		13:40		X	CF-MW-JCL-03	W	3	✓	✓	✓		11065
4		↓		X	CF-MW-JCL-03MS	W	3	✓	✓	✓		~~11066~~
5		↓		X	CF-MW-JCL-03MSD	W	3	✓	✓	✓		~~11067~~
6		13:25		X	CF-MW-6	W	3	✓	✓	✓		11066
7		11:08		X	CF-MW-JCL-01	W	3	✓	✓	✓		11067
8		11:08		X	CF-MW-JCL-01 Dup	W	3	✓	✓	✓		11068
9		11:10		X	CF-MW-13	W	3	✓	✓	✓		11069
10	✓	16:50		X	CF-MW-3	W	3	✓	✓	✓	Cooler hand delivered to lab by client so custody seals N/A. EAH 8/18 ee EAH 8/18	11070

LAB USE ONLY BELOW THIS LINE

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter	NELAC Compliance	
Container Type:	Y ☒	N ☐
Preservation:	Y ☒	N ☐
Holding Time:	Y ☒	N ☐
Temperature:	Y ☒	N ☐

Comments: 10°C iced from temp blank @ 1730 8/17/10 EAH — pres. begun in field

Sampled By	8/17/10 4:55	Date/Time
Relinquished By: Laura Noerbauer	8/17/10 4:55	Date/Time
Received By	8/17/10 1655	Date/Time
Received @ Lab By: Elizabeth A. Honch	8/17/10 1740	Date/Time
Elizabeth A. Honch	8/18/10 1145	

Total Cost:

P.I.F.

PARADIGM ENVIRONMENTAL SERVICES, INC.
179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

CHAIN OF CUSTODY

REPORT TO:	INVOICE TO:	
COMPANY: Lu Engineers	COMPANY: Same	LAB PROJECT #: 10.3387A (6 or EAH 8/18) / CLIENT PROJECT #: 5701-11
ADDRESS:	ADDRESS:	
CITY: STATE: ZIP:	CITY: STATE: ZIP:	TURNAROUND TIME: (WORKING DAYS)
PHONE: FAX:	PHONE: FAX:	STD / OTHER
PROJECT NAME/SITE NAME: Churchville Ford	ATTN: Eric Detweiler	ATTN: ☐ 1 ☐ 2 ☐ 3 ☐ 5 ☐ 10
	COMMENTS: ASP Cat B, Excel EDD PO# 424498	Quotation # MS020310A

REQUESTED ANALYSIS

	DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	NUMBER CONTAINERS	8260 TCL	ASP 2008 plus TICS	REMARKS	PARADIGM LAB SAMPLE NUMBER
1	8/17/10				Trip Blank T212	W	1	X	X	Add trip blank to COC and analyze for VOCs ASP 2008 plus TICS, per E. Detweiler 8/18 in email. EAH 8/18	11071
2											
3											
4											
5											
6											
7											
8											
9											
10											

LAB USE ONLY BELOW THIS LINE

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter	NELAC Compliance	
Container Type:	Y ☒	N ☐
Comments:		
Preservation:	Y ☒	N ☐
Comments:		
Holding Time:	Y ☒	N ☐
Comments:		
Temperature:	Y ☒	N ☐
Comments: 10°C iced from temp blank @ 1730 8/17/10 - pres begun in field EAH		

Client
Sampled By — Date/Time

Relinquished By — Date/Time

Received By — Date/Time
Elizabeth A. Honch 8/17/10 1740

Received @ Lab By — Date/Time
Elizabeth A. Honch 8/18/10 1145

Total Cost:

P.I.F.

PARADIGM ENVIRONMENTAL SERVICES, INC. 19 Lake Avenue, Rochester, NY 14608 Office: (585) 647-2530 Fax: (585) 647-3311

LAB REPORT FOR METALS ANALYSIS IN WATER

Client: Lu Engineers

Client Job Site: Former Churchville Ford Site
GW Monitoring

Client Job No.: 5701-11

Lab Project No.: 11-5626A

Sample Type: Water
Method: SW846 3005/6010

Date Sampled: 12/29/2011
Date Received: 12/29/2011
Date Analyzed: 01/04-05/2011

Lab Sample No.	Field ID No.	Field Location	Iron Results (mg/L)	Manganese Results (mg/L)
18399	N/A	MW01-12/29/11	0.472	3.71
18400	N/A	CF-MW03-12/29/11	1.17	4.55
18401	N/A	CF-MW06-12/29/11	0.433	0.834
18402	N/A	CF-MW13-12/29/11	1.21	0.674
18403	N/A	CF-MW-JCL01-12/29/11	3.51	0.146
18404	N/A	CF-MW-JCL02DUP-12/29/11	2.06	1.52
18405	N/A	CF-MW-JCL02-12/29/11	1.22	1.52
18406	N/A	CF-MW-JCL03-12/29/11	3.74	0.277

ELAP ID No.: 10958

Comments:

Approved By: Valm Miller for

Bruce Hoogesteger, Technical Director

PARADIGM
ENVIRONMENTAL SERVICES, INC.
179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Non-potable Water

Client: Lu Engineers

Client Job Site:	Former Churchville Ford Site GW Monitoring	**Lab Project Number:**	11-5626A
		Lab Sample Number:	18399
Client Job Number:	5701-11		
Field Location:	CF-MW01-12/29/11	**Date Sampled:**	12/29/2011
Field ID Number:	N/A	**Date Received:**	12/29/2011
Sample Type:	Water	**Date Analyzed:**	01/03/2012

Compound	Results in ug / L	Compound	Results in ug / L
Acetone	< 100	1,2-Dichloropropane	< 20.0
Benzene	< 7.00	cis-1,3-Dichloropropene	< 20.0
Bromochloromethane	< 50.0	trans-1,3-Dichloropropene	< 20.0
Bromodichloromethane	< 20.0	1,4-Dioxane	< 200
Bromoform	< 50.0	Ethylbenzene	< 20.0
Bromomethane	< 20.0	Freon 113	< 20.0
2-Butanone	< 100	2-Hexanone	< 50.0
Carbon disulfide	< 20.0	Isopropylbenzene	< 20.0
Carbon Tetrachloride	< 20.0	Methyl acetate	< 20.0
Chlorobenzene	< 20.0	Methyl tert-butyl Ether	< 20.0
Chloroethane	< 20.0	Methylcyclohexane	< 20.0
Chloroform	< 20.0	Methylene chloride	< 50.0
Chloromethane	< 20.0	4-Methyl-2-pentanone	< 50.0
Cyclohexane	< 100	Styrene	< 50.0
Dibromochloromethane	< 20.0	1,1,2,2-Tetrachloroethane	< 20.0
1,2-Dibromo-3-Chloropropane	< 100	Tetrachloroethene	132
1,2-Dibromoethane	< 20.0	Toluene	< 20.0
1,2-Dichlorobenzene	< 20.0	1,2,3-Trichlorobenzene	< 50.0
1,3-Dichlorobenzene	< 20.0	1,2,4-Trichlorobenzene	< 50.0
1,4-Dichlorobenzene	< 20.0	1,1,1-Trichloroethane	< 20.0
Dichlorodifluoromethane	21.3	1,1,2-Trichloroethane	< 20.0
1,1-Dichloroethane	< 20.0	Trichloroethene	96.7
1,2-Dichloroethane	< 20.0	Trichlorofluoromethane	< 20.0
1,1-Dichloroethene	< 20.0	Vinyl chloride	J 10.3
cis-1,2-Dichloroethene	1,130	m,p-Xylene	< 20.0
trans-1,2-Dichloroethene	< 20.0	o-Xylene	< 20.0

ELAP Number 10958 Method: EPA 8260B Data File: V94620.D

Comments: ug / L = microgram per Liter

Signature: M. Mill for:

Bruce Hoogesteger: Technical Director

PARADIGM
ENVIRONMENTAL SERVICES, INC.
179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Non-potable Water

Client: Lu Engineers

Client Job Site:	Former Churchville Ford Site GW Monitoring	**Lab Project Number:**	11-5626A
		Lab Sample Number:	18399
Client Job Number:	5701-11		
Field Location:	CF-MW01-12/29/11	**Date Sampled:**	12/29/2011
Field ID Number:	N/A	**Date Received:**	12/29/2011
Sample Type:	Water	**Date Analyzed:**	01/03/2012

Tentatively Identified Compounds	CAS Number	Retention Time	Results in ug / L	Percent Fit
None Found	N/A	N/A	< 50.0	N/A

ELAP Number 10958 Method: EPA 8260B Data File: V94620.D

Comments: ug / L = microgram per Liter

Signature: M. Mill for:

Bruce Hoogesteger: Technical Director

PARADIGM
ENVIRONMENTAL SERVICES, INC.
179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Non-potable Water

Client: Lu Engineers

Client Job Site:	Former Churchville Ford Site GW Monitoring	**Lab Project Number:**	11-5626A
		Lab Sample Number:	18400
Client Job Number:	5701-11		
Field Location:	CF-MW03-12/29/11	**Date Sampled:**	12/29/2011
Field ID Number:	N/A	**Date Received:**	12/29/2011
Sample Type:	Water	**Date Analyzed:**	01/03/2012

Compound	Results in ug / L
Acetone	< 1,000
Benzene	< 70.0
Bromochloromethane	< 500
Bromodichloromethane	< 200
Bromoform	< 500
Bromomethane	< 200
2-Butanone	< 1,000
Carbon disulfide	< 200
Carbon Tetrachloride	< 200
Chlorobenzene	< 200
Chloroethane	< 200
Chloroform	< 200
Chloromethane	< 200
Cyclohexane	< 1,000
Dibromochloromethane	< 200
1,2-Dibromo-3-Chloropropane	< 1,000
1,2-Dibromoethane	< 200
1,2-Dichlorobenzene	< 200
1,3-Dichlorobenzene	< 200
1,4-Dichlorobenzene	< 200
Dichlorodifluoromethane	J 128
1,1-Dichloroethane	< 200
1,2-Dichloroethane	< 200
1,1-Dichloroethene	< 200
cis-1,2-Dichloroethene	8,230
trans-1,2-Dichloroethene	< 200

Compound	Results in ug / L
1,2-Dichloropropane	< 200
cis-1,3-Dichloropropene	< 200
trans-1,3-Dichloropropene	< 200
1,4-Dioxane	< 2,000
Ethylbenzene	< 200
Freon 113	< 200
2-Hexanone	< 500
Isopropylbenzene	< 200
Methyl acetate	< 200
Methyl tert-butyl Ether	< 200
Methylcyclohexane	< 200
Methylene chloride	< 500
4-Methyl-2-pentanone	< 500
Styrene	< 500
1,1,2,2-Tetrachloroethane	< 200
Tetrachloroethene	6,280
Toluene	< 200
1,2,3-Trichlorobenzene	< 500
1,2,4-Trichlorobenzene	< 500
1,1,1-Trichloroethane	< 200
1,1,2-Trichloroethane	< 200
Trichloroethene	10,900
Trichlorofluoromethane	< 200
Vinyl chloride	< 200
m,p-Xylene	< 200
o-Xylene	< 200

ELAP Number 10958 Method: EPA 8260B Data File: V94621.D

Comments: ug / L = microgram per Liter

Signature: M. Mc for:

Bruce Hoogesteger: Technical Director

PARADIGM
ENVIRONMENTAL SERVICES, INC.
179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Non-potable Water

Client: Lu Engineers

Client Job Site:	Former Churchville Ford Site GW Monitoring	**Lab Project Number:**	11-5626A
		Lab Sample Number:	18400
Client Job Number:	5701-11		
Field Location:	CF-MW03-12/29/11	**Date Sampled:**	12/29/2011
Field ID Number:	N/A	**Date Received:**	12/29/2011
Sample Type:	Water	**Date Analyzed:**	01/03/2012

Tentatively Identified Compounds	CAS Number	Retention Time	Results in ug / L	Percent Fit
None Found	N/A	N/A	< 500	N/A

ELAP Number 10958 Method: EPA 8260B Data File: V94621.D

Comments: ug / L = microgram per Liter

Signature: M. Miller for

Bruce Hoogesteger: Technical Director

PARADIGM
ENVIRONMENTAL SERVICES, INC.
179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Non-potable Water

Client: Lu Engineers

Client Job Site:	Former Churchville Ford Site GW Monitoring	**Lab Project Number:**	11-5626A
		Lab Sample Number:	18401
Client Job Number:	5701-11		
Field Location:	CF-MW06-12/29/11	**Date Sampled:**	12/29/2011
Field ID Number:	N/A	**Date Received:**	12/29/2011
Sample Type:	Water	**Date Analyzed:**	01/03/2012

Compound	Results in ug / L
Acetone	< 10.0
Benzene	< 0.700
Bromochloromethane	< 5.00
Bromodichloromethane	< 2.00
Bromoform	< 5.00
Bromomethane	< 2.00
2-Butanone	< 10.0
Carbon disulfide	< 2.00
Carbon Tetrachloride	< 2.00
Chlorobenzene	< 2.00
Chloroethane	< 2.00
Chloroform	< 2.00
Chloromethane	< 2.00
Cyclohexane	< 10.0
Dibromochloromethane	< 2.00
1,2-Dibromo-3-Chloropropane	< 10.0
1,2-Dibromoethane	< 2.00
1,2-Dichlorobenzene	< 2.00
1,3-Dichlorobenzene	< 2.00
1,4-Dichlorobenzene	< 2.00
Dichlorodifluoromethane	5.86
1,1-Dichloroethane	< 2.00
1,2-Dichloroethane	< 2.00
1,1-Dichloroethene	< 2.00
cis-1,2-Dichloroethene	< 2.00
trans-1,2-Dichloroethene	< 2.00

Compound	Results in ug / L
1,2-Dichloropropane	< 2.00
cis-1,3-Dichloropropene	< 2.00
trans-1,3-Dichloropropene	< 2.00
1,4-Dioxane	< 20.0
Ethylbenzene	< 2.00
Freon 113	< 2.00
2-Hexanone	< 5.00
Isopropylbenzene	< 2.00
Methyl acetate	< 2.00
Methyl tert-butyl Ether	< 2.00
Methylcyclohexane	< 2.00
Methylene chloride	< 5.00
4-Methyl-2-pentanone	< 5.00
Styrene	< 5.00
1,1,2,2-Tetrachloroethane	< 2.00
Tetrachloroethene	11.6
Toluene	< 2.00
1,2,3-Trichlorobenzene	< 5.00
1,2,4-Trichlorobenzene	< 5.00
1,1,1-Trichloroethane	< 2.00
1,1,2-Trichloroethane	< 2.00
Trichloroethene	3.25
Trichlorofluoromethane	< 2.00
Vinyl chloride	< 2.00
m,p-Xylene	< 2.00
o-Xylene	< 2.00

ELAP Number 10958 Method: EPA 8260B Data File: V94608.D

Comments: ug / L = microgram per Liter

Signature: M. Mull for!

Bruce Hoogesteger: Technical Director

PARADIGM
ENVIRONMENTAL SERVICES, INC.
179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Non-potable Water

Client: Lu Engineers

Client Job Site:	Former Churchville Ford Site GW Monitoring	**Lab Project Number:**	11-5626A
		Lab Sample Number:	18401
Client Job Number:	5701-11		
Field Location:	CF-MW06-12/29/11	**Date Sampled:**	12/29/2011
Field ID Number:	N/A	**Date Received:**	12/29/2011
Sample Type:	Water	**Date Analyzed:**	01/03/2012

Tentatively Identified Compounds	CAS Number	Retention Time	Results in ug / L	Percent Fit
Unknown	N/A	12.12	B 8.62	N/A

ELAP Number 10958 Method: EPA 8260B Data File: V94608.D

Comments: ug / L = microgram per Liter

Signature: M. McG for:

Bruce Hoogesteger: Technical Director

PARADIGM ENVIRONMENTAL SERVICES, INC.
179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Non-potable Water

Client: Lu Engineers

Client Job Site:	Former Churchville Ford Site GW Monitoring	**Lab Project Number:**	11-5626A
		Lab Sample Number:	18402
Client Job Number:	5701-11		
Field Location:	CF-MW13-12/29/11	**Date Sampled:**	12/29/2011
Field ID Number:	N/A	**Date Received:**	12/29/2011
Sample Type:	Water	**Date Analyzed:**	01/03/2012

Compound	Results in ug / L
Acetone	< 10.0
Benzene	< 0.700
Bromochloromethane	< 5.00
Bromodichloromethane	< 2.00
Bromoform	< 5.00
Bromomethane	< 2.00
2-Butanone	< 10.0
Carbon disulfide	< 2.00
Carbon Tetrachloride	< 2.00
Chlorobenzene	< 2.00
Chloroethane	< 2.00
Chloroform	< 2.00
Chloromethane	< 2.00
Cyclohexane	< 10.0
Dibromochloromethane	< 2.00
1,2-Dibromo-3-Chloropropane	< 10.0
1,2-Dibromoethane	< 2.00
1,2-Dichlorobenzene	< 2.00
1,3-Dichlorobenzene	< 2.00
1,4-Dichlorobenzene	< 2.00
Dichlorodifluoromethane	< 2.00
1,1-Dichloroethane	< 2.00
1,2-Dichloroethane	< 2.00
1,1-Dichloroethene	< 2.00
cis-1,2-Dichloroethene	J 1.30
trans-1,2-Dichloroethene	< 2.00

Compound	Results in ug / L
1,2-Dichloropropane	< 2.00
cis-1,3-Dichloropropene	< 2.00
trans-1,3-Dichloropropene	< 2.00
1,4-Dioxane	< 20.0
Ethylbenzene	< 2.00
Freon 113	< 2.00
2-Hexanone	< 5.00
Isopropylbenzene	< 2.00
Methyl acetate	< 2.00
Methyl tert-butyl Ether	< 2.00
Methylcyclohexane	< 2.00
Methylene chloride	< 5.00
4-Methyl-2-pentanone	< 5.00
Styrene	< 5.00
1,1,2,2-Tetrachloroethane	< 2.00
Tetrachloroethene	< 2.00
Toluene	< 2.00
1,2,3-Trichlorobenzene	< 5.00
1,2,4-Trichlorobenzene	< 5.00
1,1,1-Trichloroethane	< 2.00
1,1,2-Trichloroethane	< 2.00
Trichloroethene	J 1.09
Trichlorofluoromethane	< 2.00
Vinyl chloride	< 2.00
m,p-Xylene	< 2.00
o-Xylene	< 2.00

ELAP Number 10958 Method: EPA 8260B Data File: V94609.D

Comments: ug / L = microgram per Liter

Signature: M. Mill for:

Bruce Hoogesteger: Technical Director

PARADIGM
ENVIRONMENTAL SERVICES, INC.
179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Non-potable Water

Client: Lu Engineers

Client Job Site:	Former Churchville Ford Site GW Monitoring	**Lab Project Number:**	11-5626A
		Lab Sample Number:	18402
Client Job Number:	5701-11		
Field Location:	CF-MW13-12/29/11	**Date Sampled:**	12/29/2011
Field ID Number:	N/A	**Date Received:**	12/29/2011
Sample Type:	Water	**Date Analyzed:**	01/03/2012

Tentatively Identified Compounds	CAS Number	Retention Time	Results in ug / L	Percent Fit
Unknown	N/A	12.12	B 5.65	N/A

ELAP Number 10958 Method: EPA 8260B Data File: V94609.D

Comments: ug / L = microgram per Liter

Signature: M. Mull for

Bruce Hoogesteger: Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt.

PARADIGM
ENVIRONMENTAL SERVICES, INC.
179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Non-potable Water

Client: Lu Engineers

Client Job Site:	Former Churchville Ford Site GW Monitoring	**Lab Project Number:**	11-5626A
		Lab Sample Number:	18403
Client Job Number:	5701-11		
Field Location:	CF-MW-JCL01-12/29/11	**Date Sampled:**	12/29/2011
Field ID Number:	N/A	**Date Received:**	12/29/2011
Sample Type:	Water	**Date Analyzed:**	01/03/2012

Compound	Results in ug / L
Acetone	< 10.0
Benzene	< 0.700
Bromochloromethane	< 5.00
Bromodichloromethane	< 2.00
Bromoform	< 5.00
Bromomethane	< 2.00
2-Butanone	< 10.0
Carbon disulfide	< 2.00
Carbon Tetrachloride	< 2.00
Chlorobenzene	< 2.00
Chloroethane	< 2.00
Chloroform	< 2.00
Chloromethane	< 2.00
Cyclohexane	< 10.0
Dibromochloromethane	< 2.00
1,2-Dibromo-3-Chloropropane	< 10.0
1,2-Dibromoethane	< 2.00
1,2-Dichlorobenzene	< 2.00
1,3-Dichlorobenzene	< 2.00
1,4-Dichlorobenzene	< 2.00
Dichlorodifluoromethane	< 2.00
1,1-Dichloroethane	< 2.00
1,2-Dichloroethane	< 2.00
1,1-Dichloroethene	< 2.00
cis-1,2-Dichloroethene	< 2.00
trans-1,2-Dichloroethene	< 2.00

Compound	Results in ug / L
1,2-Dichloropropane	< 2.00
cis-1,3-Dichloropropene	< 2.00
trans-1,3-Dichloropropene	< 2.00
1,4-Dioxane	< 20.0
Ethylbenzene	< 2.00
Freon 113	< 2.00
2-Hexanone	< 5.00
Isopropylbenzene	< 2.00
Methyl acetate	< 2.00
Methyl tert-butyl Ether	< 2.00
Methylcyclohexane	< 2.00
Methylene chloride	< 5.00
4-Methyl-2-pentanone	< 5.00
Styrene	< 5.00
1,1,2,2-Tetrachloroethane	< 2.00
Tetrachloroethene	< 2.00
Toluene	< 2.00
1,2,3-Trichlorobenzene	< 5.00
1,2,4-Trichlorobenzene	< 5.00
1,1,1-Trichloroethane	< 2.00
1,1,2-Trichloroethane	< 2.00
Trichloroethene	< 2.00
Trichlorofluoromethane	< 2.00
Vinyl chloride	< 2.00
m,p-Xylene	< 2.00
o-Xylene	< 2.00

ELAP Number 10958 Method: EPA 8260B Data File: V94610.D

Comments: ug / L = microgram per Liter

Signature: M. Mull for:

Bruce Hoogesteger: Technical Director

PARADIGM
ENVIRONMENTAL SERVICES, INC.
179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Non-potable Water

Client: Lu Engineers

Client Job Site:	Former Churchville Ford Site GW Monitoring	**Lab Project Number:**	11-5626A
		Lab Sample Number:	18403
Client Job Number:	5701-11		
Field Location:	CF-MW-JCL01-12/29/11	**Date Sampled:**	12/29/2011
Field ID Number:	N/A	**Date Received:**	12/29/2011
Sample Type:	Water	**Date Analyzed:**	01/03/2012

Tentatively Identified Compounds	CAS Number	Retention Time	Results in ug / L	Percent Fit
None Found	N/A	N/A	< 5.00	N/A

ELAP Number 10958 Method: EPA 8260B Data File: V94610.D

Comments: ug / L = microgram per Liter

Signature: for

Bruce Hoogesteger: Technical Director

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ENVIRONMENTAL SERVICES, INC.
179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Non-potable Water

Client: Lu Engineers

Client Job Site:	Former Churchville Ford Site GW Monitoring	**Lab Project Number:**	11-5626A
		Lab Sample Number:	18404
Client Job Number:	5701-11		
Field Location:	CF-MW-JCL02Dup-12/29/11	**Date Sampled:**	12/29/2011
Field ID Number:	N/A	**Date Received:**	12/29/2011
Sample Type:	Water	**Date Analyzed:**	01/05/2012

Compound	Results in ug / L
Acetone	< 50.0
Benzene	< 3.50
Bromochloromethane	< 25.0
Bromodichloromethane	< 10.0
Bromoform	< 25.0
Bromomethane	< 10.0
2-Butanone	< 50.0
Carbon disulfide	< 10.0
Carbon Tetrachloride	< 10.0
Chlorobenzene	< 10.0
Chloroethane	< 10.0
Chloroform	< 10.0
Chloromethane	< 10.0
Cyclohexane	< 50.0
Dibromochloromethane	< 10.0
1,2-Dibromo-3-Chloropropane	< 50.0
1,2-Dibromoethane	< 10.0
1,2-Dichlorobenzene	< 10.0
1,3-Dichlorobenzene	< 10.0
1,4-Dichlorobenzene	< 10.0
Dichlorodifluoromethane	14.6
1,1-Dichloroethane	< 10.0
1,2-Dichloroethane	< 10.0
1,1-Dichloroethene	< 10.0
cis-1,2-Dichloroethene	582
trans-1,2-Dichloroethene	< 10.0

Compound	Results in ug / L
1,2-Dichloropropane	< 10.0
cis-1,3-Dichloropropene	< 10.0
trans-1,3-Dichloropropene	< 10.0
1,4-Dioxane	< 100
Ethylbenzene	< 10.0
Freon 113	< 10.0
2-Hexanone	< 25.0
Isopropylbenzene	< 10.0
Methyl acetate	< 10.0
Methyl tert-butyl Ether	< 10.0
Methylcyclohexane	< 10.0
Methylene chloride	< 25.0
4-Methyl-2-pentanone	< 25.0
Styrene	< 25.0
1,1,2,2-Tetrachloroethane	< 10.0
Tetrachloroethene	J 6.40
Toluene	< 10.0
1,2,3-Trichlorobenzene	< 25.0
1,2,4-Trichlorobenzene	< 25.0
1,1,1-Trichloroethane	< 10.0
1,1,2-Trichloroethane	< 10.0
Trichloroethene	410
Trichlorofluoromethane	< 10.0
Vinyl chloride	< 10.0
m,p-Xylene	< 10.0
o-Xylene	< 10.0

ELAP Number 10958 Method: EPA 8260B Data File: V94669.D

Comments: ug / L = microgram per Liter

Signature: M. Miff for:

Bruce Hoogesteger: Technical Director

PARADIGM ENVIRONMENTAL SERVICES, INC.
179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Non-potable Water

Client: Lu Engineers

Client Job Site:	Former Churchville Ford Site GW Monitoring	**Lab Project Number:**	11-5626A
		Lab Sample Number:	18404
Client Job Number:	5701-11		
Field Location:	CF-MW-JCL02Dup-12/29/11	**Date Sampled:**	12/29/2011
Field ID Number:	N/A	**Date Received:**	12/29/2011
Sample Type:	Water	**Date Analyzed:**	01/05/2012

Tentatively Identified Compounds	CAS Number	Retention Time	Results in ug / L	Percent Fit
None Found	N/A	N/A	< 25.0	N/A

ELAP Number 10958 Method: EPA 8260B Data File: V94669.D

Comments: ug / L = microgram per Liter

Signature: M. Hoogesteger for

Bruce Hoogesteger: Technical Director

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179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Non-potable Water

Client: Lu Engineers

Client Job Site:	Former Churchville Ford Site GW Monitoring	**Lab Project Number:**	11-5626A
		Lab Sample Number:	18405
Client Job Number:	5701-11		
Field Location:	CF-MW-JCL02-12/29/11	**Date Sampled:**	12/29/2011
Field ID Number:	N/A	**Date Received:**	12/29/2011
Sample Type:	Water	**Date Analyzed:**	01/05/2012

Compound	Results in ug / L
Acetone	< 50.0
Benzene	< 3.50
Bromochloromethane	< 25.0
Bromodichloromethane	< 10.0
Bromoform	< 25.0
Bromomethane	< 10.0
2-Butanone	< 50.0
Carbon disulfide	< 10.0
Carbon Tetrachloride	< 10.0
Chlorobenzene	< 10.0
Chloroethane	< 10.0
Chloroform	< 10.0
Chloromethane	< 10.0
Cyclohexane	< 50.0
Dibromochloromethane	< 10.0
1,2-Dibromo-3-Chloropropane	< 50.0
1,2-Dibromoethane	< 10.0
1,2-Dichlorobenzene	< 10.0
1,3-Dichlorobenzene	< 10.0
1,4-Dichlorobenzene	< 10.0
Dichlorodifluoromethane	J 9.73
1,1-Dichloroethane	< 10.0
1,2-Dichloroethane	< 10.0
1,1-Dichloroethene	< 10.0
cis-1,2-Dichloroethene	507
trans-1,2-Dichloroethene	< 10.0

Compound	Results in ug / L
1,2-Dichloropropane	< 10.0
cis-1,3-Dichloropropene	< 10.0
trans-1,3-Dichloropropene	< 10.0
1,4-Dioxane	< 100
Ethylbenzene	< 10.0
Freon 113	< 10.0
2-Hexanone	< 25.0
Isopropylbenzene	< 10.0
Methyl acetate	< 10.0
Methyl tert-butyl Ether	< 10.0
Methylcyclohexane	< 10.0
Methylene chloride	< 25.0
4-Methyl-2-pentanone	< 25.0
Styrene	< 25.0
1,1,2,2-Tetrachloroethane	< 10.0
Tetrachloroethene	J 7.00
Toluene	< 10.0
1,2,3-Trichlorobenzene	< 25.0
1,2,4-Trichlorobenzene	< 25.0
1,1,1-Trichloroethane	< 10.0
1,1,2-Trichloroethane	< 10.0
Trichloroethene	381
Trichlorofluoromethane	< 10.0
Vinyl chloride	< 10.0
m,p-Xylene	< 10.0
o-Xylene	< 10.0

ELAP Number 10958 Method: EPA 8260B Data File: V94670.D

Comments: ug / L = microgram per Liter

Signature: M. Hoo for:

Bruce Hoogesteger: Technical Director

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179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Non-potable Water

Client: Lu Engineers

Client Job Site:	Former Churchville Ford Site GW Monitoring	**Lab Project Number:**	11-5626A
		Lab Sample Number:	18405
Client Job Number:	5701-11		
Field Location:	CF-MW-JCL02-12/29/11	**Date Sampled:**	12/29/2011
Field ID Number:	N/A	**Date Received:**	12/29/2011
Sample Type:	Water	**Date Analyzed:**	01/05/2012

Tentatively Identified Compounds	CAS Number	Retention Time	Results in ug / L	Percent Fit
None Found	N/A	N/A	< 25.0	N/A

ELAP Number 10958 Method: EPA 8260B Data File: V94670.D

Comments: ug / L = microgram per Liter

Signature: M. Mill for:

Bruce Hoogesteger: Technical Director

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179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Non-potable Water

Client: Lu Engineers

Client Job Site:	Former Churchville Ford Site GW Monitoring	**Lab Project Number:**	11-5626A
		Lab Sample Number:	18406
Client Job Number:	5701-11		
Field Location:	CF-MW-JCL03-12/29/11	**Date Sampled:**	12/29/2011
Field ID Number:	N/A	**Date Received:**	12/29/2011
Sample Type:	Water	**Date Analyzed:**	01/05/2012

Compound	Results in ug / L
Acetone	< 10.0
Benzene	< 0.700
Bromochloromethane	< 5.00
Bromodichloromethane	< 2.00
Bromoform	< 5.00
Bromomethane	< 2.00
2-Butanone	< 10.0
Carbon disulfide	< 2.00
Carbon Tetrachloride	< 2.00
Chlorobenzene	< 2.00
Chloroethane	< 2.00
Chloroform	< 2.00
Chloromethane	< 2.00
Cyclohexane	< 10.0
Dibromochloromethane	< 2.00
1,2-Dibromo-3-Chloropropane	< 10.0
1,2-Dibromoethane	< 2.00
1,2-Dichlorobenzene	< 2.00
1,3-Dichlorobenzene	< 2.00
1,4-Dichlorobenzene	< 2.00
Dichlorodifluoromethane	< 2.00
1,1-Dichloroethane	< 2.00
1,2-Dichloroethane	< 2.00
1,1-Dichloroethene	< 2.00
cis-1,2-Dichloroethene	< 2.00
trans-1,2-Dichloroethene	< 2.00

Compound	Results in ug / L
1,2-Dichloropropane	< 2.00
cis-1,3-Dichloropropene	< 2.00
trans-1,3-Dichloropropene	< 2.00
1,4-Dioxane	< 20.0
Ethylbenzene	< 2.00
Freon 113	< 2.00
2-Hexanone	< 5.00
Isopropylbenzene	< 2.00
Methyl acetate	< 2.00
Methyl tert-butyl Ether	< 2.00
Methylcyclohexane	< 2.00
Methylene chloride	< 5.00
4-Methyl-2-pentanone	< 5.00
Styrene	< 5.00
1,1,2,2-Tetrachloroethane	< 2.00
Tetrachloroethene	< 2.00
Toluene	< 2.00
1,2,3-Trichlorobenzene	< 5.00
1,2,4-Trichlorobenzene	< 5.00
1,1,1-Trichloroethane	< 2.00
1,1,2-Trichloroethane	< 2.00
Trichloroethene	< 2.00
Trichlorofluoromethane	< 2.00
Vinyl chloride	< 2.00
m,p-Xylene	< 2.00
o-Xylene	< 2.00

ELAP Number 10958 Method: EPA 8260B Data File: V94666.D

Comments: ug / L = microgram per Liter
Matrix Spike outliers indicate probable matrix interference

Signature: M. Mull for:
Bruce Hoogesteger: Technical Director

PARADIGM
179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Non-potable Water

Client: Lu Engineers

Client Job Site:	Former Churchville Ford Site GW Monitoring	**Lab Project Number:**	11-5626A
		Lab Sample Number:	18406
Client Job Number:	5701-11		
Field Location:	CF-MW-JCL03-12/29/11	**Date Sampled:**	12/29/2011
Field ID Number:	N/A	**Date Received:**	12/29/2011
Sample Type:	Water	**Date Analyzed:**	01/05/2012

Tentatively Identified Compounds	CAS Number	Retention Time	Results in ug / L	Percent Fit
Unknown	N/A	12.12	B 6.84	N/A

ELAP Number 10958 Method: EPA 8260B Data File: V94666.D

Comments: ug / L = microgram per Liter
Matrix Spike outliers indicate probable matrix interference

Signature: M. McD for:
Bruce Hoogesteger: Technical Director

PARADIGM ENVIRONMENTAL SERVICES, INC.
179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Non-potable Water

Client: Lu Engineers

Client Job Site:	Former Churchville Ford Site GW Monitoring	**Lab Project Number:**	11-5626A
		Lab Sample Number:	18407
Client Job Number:	5701-11		
Field Location:	Trip Blank-12/29/11	**Date Sampled:**	12/29/2011
Field ID Number:	N/A	**Date Received:**	12/29/2011
Sample Type:	Water	**Date Analyzed:**	01/03/2012

Compound	Results in ug / L	Compound	Results in ug / L
Acetone	< 10.0	1,2-Dichloropropane	< 2.00
Benzene	< 0.700	cis-1,3-Dichloropropene	< 2.00
Bromochloromethane	< 5.00	trans-1,3-Dichloropropene	< 2.00
Bromodichloromethane	< 2.00	1,4-Dioxane	< 20.0
Bromoform	< 5.00	Ethylbenzene	< 2.00
Bromomethane	< 2.00	Freon 113	< 2.00
2-Butanone	< 10.0	2-Hexanone	< 5.00
Carbon disulfide	< 2.00	Isopropylbenzene	< 2.00
Carbon Tetrachloride	< 2.00	Methyl acetate	< 2.00
Chlorobenzene	< 2.00	Methyl tert-butyl Ether	< 2.00
Chloroethane	< 2.00	Methylcyclohexane	< 2.00
Chloroform	< 2.00	Methylene chloride	< 5.00
Chloromethane	< 2.00	4-Methyl-2-pentanone	< 5.00
Cyclohexane	< 10.0	Styrene	< 5.00
Dibromochloromethane	< 2.00	1,1,2,2-Tetrachloroethane	< 2.00
1,2-Dibromo-3-Chloropropane	< 10.0	Tetrachloroethene	< 2.00
1,2-Dibromoethane	< 2.00	Toluene	< 2.00
1,2-Dichlorobenzene	< 2.00	1,2,3-Trichlorobenzene	< 5.00
1,3-Dichlorobenzene	< 2.00	1,2,4-Trichlorobenzene	< 5.00
1,4-Dichlorobenzene	< 2.00	1,1,1-Trichloroethane	< 2.00
Dichlorodifluoromethane	< 2.00	1,1,2-Trichloroethane	< 2.00
1,1-Dichloroethane	< 2.00	Trichloroethene	< 2.00
1,2-Dichloroethane	< 2.00	Trichlorofluoromethane	< 2.00
1,1-Dichloroethene	< 2.00	Vinyl chloride	< 2.00
cis-1,2-Dichloroethene	< 2.00	m,p-Xylene	< 2.00
trans-1,2-Dichloroethene	< 2.00	o-Xylene	< 2.00

ELAP Number 10958 Method: EPA 8260B Data File: V94603.D

Comments: ug / L = microgram per Liter

Signature: M. Mull for:

Bruce Hoogesteger: Technical Director

PARADIGM ENVIRONMENTAL SERVICES, INC.
179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Non-potable Water

Client: Lu Engineers

Client Job Site:	Former Churchville Ford Site GW Monitoring	**Lab Project Number:**	11-5626A
		Lab Sample Number:	18407
Client Job Number:	5701-11		
Field Location:	Trip Blank-12/29/11	**Date Sampled:**	12/29/2011
Field ID Number:	N/A	**Date Received:**	12/29/2011
Sample Type:	Water	**Date Analyzed:**	01/03/2012

Tentatively Identified Compounds	CAS Number	Retention Time	Results in ug / L	Percent Fit
None Found	N/A	N/A	< 5.00	N/A

ELAP Number 10958 Method: EPA 8260B Data File: V94603.D

Comments: ug / L = microgram per Liter

Signature: M. Mily for

Bruce Hoogesteger: Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt.

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179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Non-potable Water

Client: Lu Engineers

Client Job Site:	Former Churchville Ford Site GW Monitoring	**Lab Project Number:**	11-5626A
		Lab Sample Number:	Water LRB 01/03
Client Job Number:	5701-11		
Field Location:	N/A	**Date Sampled:**	N/A
Field ID Number:	N/A	**Date Received:**	N/A
Sample Type:	Water	**Date Analyzed:**	01/03/2012

Compound	Results in ug / L	Compound	Results in ug / L
Acetone	< 10.0	1,2-Dichloropropane	< 2.00
Benzene	< 0.700	cis-1,3-Dichloropropene	< 2.00
Bromochloromethane	< 5.00	trans-1,3-Dichloropropene	< 2.00
Bromodichloromethane	< 2.00	1,4-Dioxane	< 20.0
Bromoform	< 5.00	Ethylbenzene	< 2.00
Bromomethane	< 2.00	Freon 113	< 2.00
2-Butanone	< 10.0	2-Hexanone	< 5.00
Carbon disulfide	< 2.00	Isopropylbenzene	< 2.00
Carbon Tetrachloride	< 2.00	Methyl acetate	< 2.00
Chlorobenzene	< 2.00	Methyl tert-butyl Ether	< 2.00
Chloroethane	< 2.00	Methylcyclohexane	< 2.00
Chloroform	< 2.00	Methylene chloride	< 5.00
Chloromethane	< 2.00	4-Methyl-2-pentanone	< 5.00
Cyclohexane	< 10.0	Styrene	< 5.00
Dibromochloromethane	< 2.00	1,1,2,2-Tetrachloroethane	< 2.00
1,2-Dibromo-3-Chloropropane	< 10.0	Tetrachloroethene	< 2.00
1,2-Dibromoethane	< 2.00	Toluene	< 2.00
1,2-Dichlorobenzene	< 2.00	1,2,3-Trichlorobenzene	< 5.00
1,3-Dichlorobenzene	< 2.00	1,2,4-Trichlorobenzene	< 5.00
1,4-Dichlorobenzene	< 2.00	1,1,1-Trichloroethane	< 2.00
Dichlorodifluoromethane	< 2.00	1,1,2-Trichloroethane	< 2.00
1,1-Dichloroethane	< 2.00	Trichloroethene	< 2.00
1,2-Dichloroethane	< 2.00	Trichlorofluoromethane	< 2.00
1,1-Dichloroethene	< 2.00	Vinyl chloride	< 2.00
cis-1,2-Dichloroethene	< 2.00	m,p-Xylene	< 2.00
trans-1,2-Dichloroethene	< 2.00	o-Xylene	< 2.00

ELAP Number 10958 Method: EPA 8260B Data File: V94596.D

Comments: ug / L = microgram per Liter

Signature: M. Mull for:

Bruce Hoogesteger: Technical Director

PARADIGM
179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Non-potable Water

Client: Lu Engineers

Client Job Site:	Former Churchville Ford Site GW Monitoring	**Lab Project Number:**	11-5626A
		Lab Sample Number:	Water LRB 01/03
Client Job Number:	5701-11		
Field Location:	N/A	**Date Sampled:**	N/A
Field ID Number:	N/A	**Date Received:**	N/A
Sample Type:	Water	**Date Analyzed:**	01/03/2012

Tentatively Identified Compounds	CAS Number	Retention Time	Results in ug / L	Percent Fit
Unknown	N/A	12.12	5.58	N/A

ELAP Number 10958 Method: EPA 8260B Data File: V94596.D

Comments: ug / L = microgram per Liter

Signature: M. Mull for

Bruce Hoogesteger: Technical Director

PARADIGM ENVIRONMENTAL SERVICES, INC.
179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Non-potable Water

Client: Lu Engineers

Client Job Site:	Former Churchville Ford Site GW Monitoring	**Lab Project Number:**	11-5626A
		Lab Sample Number:	Water LRB 01/05
Client Job Number:	5701-11		
Field Location:	N/A	**Date Sampled:**	N/A
Field ID Number:	N/A	**Date Received:**	N/A
Sample Type:	Water	**Date Analyzed:**	01/05/2012

Compound	Results in ug / L
Acetone	< 10.0
Benzene	< 0.700
Bromochloromethane	< 5.00
Bromodichloromethane	< 2.00
Bromoform	< 5.00
Bromomethane	< 2.00
2-Butanone	< 10.0
Carbon disulfide	< 2.00
Carbon Tetrachloride	< 2.00
Chlorobenzene	< 2.00
Chloroethane	< 2.00
Chloroform	< 2.00
Chloromethane	< 2.00
Cyclohexane	< 10.0
Dibromochloromethane	< 2.00
1,2-Dibromo-3-Chloropropane	< 10.0
1,2-Dibromoethane	< 2.00
1,2-Dichlorobenzene	< 2.00
1,3-Dichlorobenzene	< 2.00
1,4-Dichlorobenzene	< 2.00
Dichlorodifluoromethane	< 2.00
1,1-Dichloroethane	< 2.00
1,2-Dichloroethane	< 2.00
1,1-Dichloroethene	< 2.00
cis-1,2-Dichloroethene	< 2.00
trans-1,2-Dichloroethene	< 2.00

Compound	Results in ug / L
1,2-Dichloropropane	< 2.00
cis-1,3-Dichloropropene	< 2.00
trans-1,3-Dichloropropene	< 2.00
1,4-Dioxane	< 20.0
Ethylbenzene	< 2.00
Freon 113	< 2.00
2-Hexanone	< 5.00
Isopropylbenzene	< 2.00
Methyl acetate	< 2.00
Methyl tert-butyl Ether	< 2.00
Methylcyclohexane	< 2.00
Methylene chloride	< 5.00
4-Methyl-2-pentanone	< 5.00
Styrene	< 5.00
1,1,2,2-Tetrachloroethane	< 2.00
Tetrachloroethene	< 2.00
Toluene	< 2.00
1,2,3-Trichlorobenzene	< 5.00
1,2,4-Trichlorobenzene	< 5.00
1,1,1-Trichloroethane	< 2.00
1,1,2-Trichloroethane	< 2.00
Trichloroethene	< 2.00
Trichlorofluoromethane	< 2.00
Vinyl chloride	< 2.00
m,p-Xylene	< 2.00
o-Xylene	< 2.00

ELAP Number 10958 Method: EPA 8260B Data File: V94665.D

Comments: ug / L = microgram per Liter

Signature: M. Mull for

Bruce Hoogesteger: Technical Director

PARADIGM
ENVIRONMENTAL SERVICES, INC.
179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Non-potable Water

Client: Lu Engineers

Client Job Site:	Former Churchville Ford Site GW Monitoring	**Lab Project Number:**	11-5626A
		Lab Sample Number:	Water LRB 01/05
Client Job Number:	5701-11		
Field Location:	N/A	**Date Sampled:**	N/A
Field ID Number:	N/A	**Date Received:**	N/A
Sample Type:	Water	**Date Analyzed:**	01/05/2012

Tentatively Identified Compounds	CAS Number	Retention Time	Results in ug / L	Percent Fit
Unknown	N/A	12.12	11.9	N/A

ELAP Number 10958 Method: EPA 8260B Data File: V94665.D

Comments: ug / L = microgram per Liter

Signature: M. Mill for:

Bruce Hoogesteger: Technical Director

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

PARADIGM ENVIRONMENTAL SERVICES, INC.

CHAIN OF CUSTODY

REPORT TO:

COMPANY: LU Engineers
ADDRESS: 175 Sully's Trail, Suite 202
CITY: Pittsford STATE: NY ZIP: 14534
PHONE: 385-7417 FAX:
ATTN: Eric Detweiler / Greg Andrus

INVOICE TO:

COMPANY: Same
ADDRESS:
CITY: STATE: ZIP:
PHONE: FAX:
ATTN:

LAB PROJECT #: 11-5626A
CLIENT PROJECT #: 5701-11

TURNAROUND TIME: (WORKING DAYS)
10 Day TAT
STD OTHER
☐ 1 ☐ 2 ☐ 3 ☒ 10 ☐

PROJECT NAME/SITE NAME: Former Churchville Ford Site GW Monitoring

COMMENTS: INVOICE P.O.# 222812 / edetweiler@luengineers.com * Electronic deliverables, NYSDEC Equis EDD format

Quotation # MSO20310A

REQUESTED ANALYSIS

	DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	NUMBER CONTAINERS	TCL 8260 VOCs + TICs	Fe	Mn	REMARKS	PARADIGM LAB SAMPLE NUMBER
											Report 8260 TCL ASP2008 List. EAH 12/29	
1	12/29/11	13:17		X	CF-MW01-12/29/11	water	3	✓	✓	✓	ASP w/ Cat B	18399
2		15:00			CF-MW03-12/29/11						deliverables (electronic)	18400
3		16:01			CF-MW06-12/29/11							18401
4		10:55			CF-MW13-12/29/11							18402
5		11:22			CF-MW-JCL01-12/29/11							18403
6		13:19			CF-MW-JCL02Dup-12/29/11							18404
7		13:18			CF-MW-JCL02-12/29/11							18405
8		14:40			CF-MW-JCL03-12/29/11							
9		14:40			CF-MW-JCL03 MS-12/29/11							18406
10		14:40			CF-MW-JCL03 MSD-12/29/11							
					TRIP BLANK 12/29/11	W	1	✓				18407

LAB USE ONLY BELOW THIS LINE

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter	NELAC Compliance	
Container Type:	Y ☒	N ☐
Preservation:	Y ☒	N ☐
Holding Time:	Y ☒	N ☐
Temperature:	Y ☒	N ☐

Comments: For samples 18402, 18403, & 18406, had to decant water for metals due to sediment at bottoms of the containers, per client. cyp 12/30

Comments: 10°C iced @ 1740 12/29 from temp blk

Sampled By	Eric Detweiler	12/29/11 ~~4:55~~
Relinquished By		12/29/11 4:55
Received By		12/29/11 1655
Received @ Lab By	Elizabeth A Honch	12/29/11 1750

Total Cost:

P.I.F.

Cooler delivered by Luso Custody Seals N/A EAH 12/29

Lab Project Number : 10-1101

Client: Lu Engineers

Project Name: Former Churchville Ford

Analysis Parameters: EPA TO-15

Report of Analysis
&
QC Deliverables

REPORT PREPARED BY
Paradigm Environmental Services, Inc.
179 Lake Avenue, Rochester, New York 14608

Lab Project Narrative

PARADIGM
ENVIRONMENTAL SERVICES, INC.
WWW.PARADIGMENV.COM
179 Lake Avenue, Rochester, NY 14608 PHONE: 585-647-2530 TOLL FREE: 800-724-1997 FAX: 585-647-3311

LAB PROJECT NARRATIVE

CLIENT: Lu Engineers
PROJECT NAME: Former Churchville Ford
LAB PROJECT: 10-1101
DATE: April 2, 2010

Six one liter canister samples were collected by Lu field staff on 3/17/2010 and received at the Paradigm laboratory on 3/19/2010. The samples were submitted for volatiles analysis by EPA Method TO-15. The results of analysis are attached, along with the supporting raw data.

The majority of samples were sufficiently contaminated to require running at a dilution. Even at the maximum dilution (20 fold), some analytes remained above the calibration range, and are reported with an "E" qualifier indicating estimated values. The sample "OA-JCL-04b" contained only lower level concentrations, and was run without dilution. The method blanks and canister cleaning blanks contained low levels of acetone and methylene chloride. Sample results for these two analytes are flagged with a "B". All samples were within method limits for Internal Standard Areas. The batch QC LCS was out slightly high for the IS chlorobenzene-d5. Sample data is not affected. No other QC or data qualifications apply to this data set.

Summary Data

PARADIGM
ENVIRONMENTAL SERVICES, INC. 179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Air

Client: Lu Engineers

Client Job Site: Former Churchville Ford
Client Job Number: 5701-11
Field Location: SVS-JCL-02b
Field ID Number: C-1009
Sample Type: Air

Lab Project Number: 10-1101
Lab Sample Number: 4259

Date Sampled: 03/17/2010
Date Received: 03/19/2010
Date Analyzed: 03/29/2010

Halocarbons	PPBv	ug / m3
Bromodichloromethane	ND< 1.90	ND< 12.6
Bromoform	ND< 1.90	ND< 19.4
Bromomethane	ND< 1.90	ND< 7.30
Carbon Tetrachloride	ND< 0.762	ND< 4.74
Chlorethane	ND< 3.81	ND< 9.97
Chloroform	ND< 1.90	ND< 9.17
Chloromethane	ND< 1.90	ND< 3.89
Dibromochloromethane	ND< 1.90	ND< 16.0
1,2 Dibromoethane	ND< 1.90	ND< 14.5
1,1-Dichloroethane	ND< 1.90	ND< 7.62
1,1-Dichloroethene	ND< 1.90	ND< 7.46
1,2-Dichloroethane	ND< 1.90	ND< 7.62
cis-1,2-Dichloroethene	ND< 1.90	ND< 7.46
trans-1,2-Dichloroethene	ND< 1.90	ND< 7.46
1,2-Dichloropropane	ND< 3.81	ND< 17.5
cis-1,3-Dichloropropene	ND< 1.90	ND< 8.55
trans-1,3-Dichloropropene	ND< 1.90	ND< 8.55
Methylene Chloride	23.6	81.1
1,1,2,2-Tetrachloroethane	ND< 1.90	ND< 12.9
Tetrachloroethene	14.5	97.3
1,1,1-Trichloroethane	2.27	12.3
1,1,2-Trichloroethane	ND< 1.90	ND< 10.3
Trichloroethene	ND< 0.895	ND< 4.76
Trichlorofluoromethane	ND< 1.90	ND< 10.6
Freon 113	ND< 1.90	ND< 14.5
Vinyl Chloride	ND< 1.90	ND< 4.82

Aromatics	PPBv	ug / m3
Benzene	9.18	29.3
Chlorobenzene	ND< 1.90	ND< 8.70
Ethylbenzene	ND< 1.90	ND< 8.24
Toluene	13.7	51.6
m,p-Xylene	ND< 1.90	ND< 8.24
o-Xylene	ND< 1.90	ND< 8.24
Styrene	ND< 1.90	ND< 8.08
1,2-Dichlorobenzene	ND< 1.90	ND< 11.3
1,3-Dichlorobenzene	ND< 1.90	ND< 11.3
1,4-Dichlorobenzene	ND< 1.90	ND< 11.3

Ketones	PPBv	ug / m3
Acetone	E 122	E 289
2-Butanone	ND< 9.52	ND< 28.0
2-Hexanone	ND< 9.52	ND< 38.9
4-Methyl-2-Pentanone	E 93.3	E 382

Miscellaneous	PPBv	ug / m3
Carbon Disulfide	ND< 9.52	ND< 29.6
Methyl-tert-Butyl Ether	ND< 1.90	ND< 6.84
Vinyl Acetate	ND< 1.90	ND< 6.68

ELAP Number 10958 Method: EPA TO-15 Data File: A4582.d

Comments: ND denotes Non Detect
PPBv = Parts per Billion volume
ug / m3 - Microgram per cubic meter.

Signature: _____
Bruce Hoogesteger: Technical Director

PARADIGM
ENVIRONMENTAL SERVICES, INC. 179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Air

Client: Lu Engineers

Client Job Site: Former Churchville Ford
Client Job Number: 5701-11
Field Location: IA-JCL-02b
Field ID Number: C-1020
Sample Type: Air

Lab Project Number: 10-1101
Lab Sample Number: 4260

Date Sampled: 03/17/2010
Date Received: 03/19/2010
Date Analyzed: 03/29/2010

Halocarbons	PPBv	ug / m3
Bromodichloromethane	ND< 1.90	ND< 12.6
Bromoform	ND< 1.90	ND< 19.4
Bromomethane	ND< 1.90	ND< 7.30
Carbon Tetrachloride	ND< 0.762	ND< 4.74
Chlorethane	ND< 3.81	ND< 9.97
Chloroform	ND< 1.90	ND< 9.17
Chloromethane	ND< 1.90	ND< 3.89
Dibromochloromethane	ND< 1.90	ND< 16.0
1,2 Dibromoethane	ND< 1.90	ND< 14.5
1,1-Dichloroethane	ND< 1.90	ND< 7.62
1,1-Dichloroethene	ND< 1.90	ND< 7.46
1,2-Dichloroethane	ND< 1.90	ND< 7.62
cis-1,2-Dichloroethene	ND< 1.90	ND< 7.46
trans-1,2-Dichloroethene	ND< 1.90	ND< 7.46
1,2-Dichloropropane	ND< 3.81	ND< 17.5
cis-1,3-Dichloropropene	ND< 1.90	ND< 8.55
trans-1,3-Dichloropropene	ND< 1.90	ND< 8.55
Methylene Chloride	26.3	90.4
1,1,2,2-Tetrachloroethane	ND< 1.90	ND< 12.9
Tetrachloroethene	42.5	285
1,1,1-Trichloroethane	ND< 1.90	ND< 10.3
1,1,2-Trichloroethane	ND< 1.90	ND< 10.3
Trichloroethene	ND< 0.895	ND< 4.76
Trichlorofluoromethane	ND< 1.90	ND< 10.6
Freon 113	ND< 1.90	ND< 14.5
Vinyl Chloride	ND< 1.90	ND< 4.82

Aromatics	PPBv	ug / m3
Benzene	7.30	23.3
Chlorobenzene	ND< 1.90	ND< 8.70
Ethylbenzene	5.31	23.0
Toluene	70.7	266
m,p-Xylene	19.6	85.0
o-Xylene	5.50	23.8
Styrene	ND< 1.90	ND< 8.08
1,2-Dichlorobenzene	ND< 1.90	ND< 11.3
1,3-Dichlorobenzene	ND< 1.90	ND< 11.3
1,4-Dichlorobenzene	ND< 1.90	ND< 11.3

Ketones	PPBv	ug / m3
Acetone	72.4	172
2-Butanone	ND< 9.52	ND< 28.0
2-Hexanone	ND< 9.52	ND< 38.9
4-Methyl-2-Pentanone	ND< 9.52	ND< 38.9

Miscellaneous	PPBv	ug / m3
Carbon Disulfide	ND< 9.52	ND< 29.6
Methyl-tert-Butyl Ether	ND< 1.90	ND< 6.84
Vinyl Acetate	ND< 1.90	ND< 6.68

ELAP Number 10958 Method: EPA TO-15 Data File: A4583.d

Comments: ND denotes Non Detect
PPBv = Parts per Billion volume
ug / m3 - Microgram per cubic meter.

Signature: _____
Bruce Hoogesteger, Technical Director

PARADIGM
ENVIRONMENTAL SERVICES, INC. 179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Air

Client: Lu Engineers

Client Job Site: Former Churchville Ford
Client Job Number: 5701-11
Field Location: IA-JCL-02b Dup
Field ID Number: C-1015
Sample Type: Air

Lab Project Number: 10-1101
Lab Sample Number: 4261

Date Sampled: 03/17/2010
Date Received: 03/19/2010
Date Analyzed: 03/29/2010

Halocarbons	PPBv	ug / m3
Bromodichloromethane	ND< 2.00	ND< 13.3
Bromoform	ND< 2.00	ND< 20.4
Bromomethane	ND< 2.00	ND< 7.69
Carbon Tetrachloride	ND< 0.800	ND< 4.97
Chlorethane	ND< 4.00	ND< 10.5
Chloroform	ND< 2.00	ND< 9.65
Chloromethane	ND< 2.00	ND< 4.09
Dibromochloromethane	ND< 2.00	ND< 16.9
1,2 Dibromoethane	ND< 2.00	ND< 15.2
1,1-Dichloroethane	ND< 2.00	ND< 8.02
1,1-Dichloroethene	ND< 2.00	ND< 7.85
1,2-Dichloroethane	ND< 2.00	ND< 8.02
cis-1,2-Dichloroethene	ND< 2.00	ND< 7.85
trans-1,2-Dichloroethene	ND< 2.00	ND< 7.85
1,2-Dichloropropane	ND< 4.00	ND< 18.3
cis-1,3-Dichloropropene	ND< 2.00	ND< 9.00
trans-1,3-Dichloropropene	ND< 2.00	ND< 9.00
Methylene Chloride	26.2	90.0
1,1,2,2-Tetrachloroethane	ND< 2.00	ND< 13.6
Tetrachloroethene	51.0	342
1,1,1-Trichloroethane	ND< 2.00	ND< 10.8
1,1,2-Trichloroethane	ND< 2.00	ND< 10.8
Trichloroethene	ND< 0.940	ND< 5.00
Trichlorofluoromethane	ND< 2.00	ND< 11.1
Freon 113	ND< 2.00	ND< 15.2
Vinyl Chloride	ND< 2.00	ND< 5.07

Aromatics	PPBv	ug / m3
Benzene	6.76	21.6
Chlorobenzene	ND< 2.00	ND< 9.16
Ethylbenzene	5.76	25.0
Toluene	E 90.4	E 340
m,p-Xylene	21.8	94.5
o-Xylene	6.32	27.4
Styrene	ND< 2.00	ND< 8.51
1,2-Dichlorobenzene	ND< 2.00	ND< 11.9
1,3-Dichlorobenzene	ND< 2.00	ND< 11.9
1,4-Dichlorobenzene	ND< 2.00	ND< 11.9

Ketones	PPBv	ug / m3
Acetone	77.4	184
2-Butanone	ND< 10.0	ND< 29.4
2-Hexanone	ND< 10.0	ND< 40.9
4-Methyl-2-Pentanone	ND< 10.0	ND< 40.9

Miscellaneous	PPBv	ug / m3
Carbon Disulfide	ND< 10.0	ND< 31.1
Methyl-tert-Butyl Ether	ND< 2.00	ND< 7.20
Vinyl Acetate	ND< 2.00	ND< 7.03

ELAP Number 10958 Method: EPA TO-15 Data File: A4584.d

Comments: ND denotes Non Detect
PPBv = Parts per Billion volume
ug / m3 - Microgram per cubic meter.

Signature: _____
Bruce Hoogesteger: Technical Director

PARADIGM
ENVIRONMENTAL SERVICES, INC. 179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Air

Client: Lu Engineers

Client Job Site: Former Churchville Ford
Client Job Number: 5701-11
Field Location: SVS-JCL-03b
Field ID Number: C-1001
Sample Type: Air

Lab Project Number: 10-1101
Lab Sample Number: 4262

Date Sampled: 03/17/2010
Date Received: 03/19/2010
Date Analyzed: 03/29/2010

Halocarbons	PPBv	ug / m3
Bromodichloromethane	ND< 2.00	ND< 13.3
Bromoform	ND< 2.00	ND< 20.4
Bromomethane	ND< 2.00	ND< 7.69
Carbon Tetrachloride	ND< 0.800	ND< 4.97
Chlorethane	E 226	592
Chloroform	ND< 2.00	ND< 9.65
Chloromethane	ND< 2.00	ND< 4.09
Dibromochloromethane	ND< 2.00	ND< 16.9
1,2 Dibromoethane	ND< 2.00	ND< 15.2
1,1-Dichloroethane	51.8	208
1,1-Dichloroethene	15.4	60.5
1,2-Dichloroethane	ND< 2.00	ND< 8.02
cis-1,2-Dichloroethene	E 4,700	18,500
trans-1,2-Dichloroethene	E 52.0	204
1,2-Dichloropropane	ND< 4.00	ND< 18.3
cis-1,3-Dichloropropene	ND< 2.00	ND< 9.00
trans-1,3-Dichloropropene	ND< 2.00	ND< 9.00
Methylene Chloride	24.2	83.1
1,1,2,2-Tetrachloroethane	ND< 2.00	ND< 13.6
Tetrachloroethene	46.6	313
1,1,1-Trichloroethane	47.4	256
1,1,2-Trichloroethane	ND< 2.00	ND< 10.8
Trichloroethene	57.4	305
Trichlorofluoromethane	ND< 2.00	ND< 11.1
Freon 113	ND< 2.00	ND< 15.2
Vinyl Chloride	E 982	2,490

Aromatics	PPBv	ug / m3
Benzene	24.4	77.8
Chlorobenzene	ND< 2.00	ND< 9.16
Ethylbenzene	20.0	86.7
Toluene	36.4	137
m,p-Xylene	25.8	112
o-Xylene	7.86	34.1
Styrene	ND< 2.00	ND< 8.51
1,2-Dichlorobenzene	ND< 2.00	ND< 11.9
1,3-Dichlorobenzene	ND< 2.00	ND< 11.9
1,4-Dichlorobenzene	ND< 2.00	ND< 11.9

Ketones	PPBv	ug / m3
Acetone	E 342	E 811
2-Butanone	ND< 10.0	ND< 29.4
2-Hexanone	ND< 10.0	ND< 40.9
4-Methyl-2-Pentanone	46.2	189

Miscellaneous	PPBv	ug / m3
Carbon Disulfide	ND< 10.0	ND< 31.1
Methyl-tert-Butyl Ether	ND< 2.00	ND< 7.20
Vinyl Acetate	ND< 2.00	ND< 7.03

ELAP Number 10958 Method: EPA TO-15 Data File: A4584.d

Comments: ND denotes Non Detect
PPBv = Parts per Billion volume
ug / m3 - Microgram per cubic meter.

Signature: _____
Bruce Hoogesteger: Technical Director

PARADIGM
ENVIRONMENTAL SERVICES, INC. 179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Air

Client: Lu Engineers

Client Job Site: Former Churchville Ford
Client Job Number: 5701-11
Field Location: IA-JCL-03b
Field ID Number: C-1019
Sample Type: Air

Lab Project Number: 10-1101
Lab Sample Number: 4263
Date Sampled: 03/17/2010
Date Received: 03/19/2010
Date Analyzed: 03/29/2010

Halocarbons	PPBv	ug / m3
Bromodichloromethane	ND< 2.00	ND< 13.3
Bromoform	ND< 2.00	ND< 20.4
Bromomethane	ND< 2.00	ND< 7.69
Carbon Tetrachloride	ND< 0.800	ND< 4.97
Chlorethane	ND< 4.00	ND< 10.5
Chloroform	ND< 2.00	ND< 9.65
Chloromethane	ND< 2.00	ND< 4.09
Dibromochloromethane	ND< 2.00	ND< 16.9
1,2 Dibromoethane	ND< 2.00	ND< 15.2
1,1-Dichloroethane	ND< 2.00	ND< 8.02
1,1-Dichloroethene	ND< 2.00	ND< 7.85
1,2-Dichloroethane	ND< 2.00	ND< 8.02
cis-1,2-Dichloroethene	ND< 2.00	ND< 7.85
trans-1,2-Dichloroethene	ND< 2.00	ND< 7.85
1,2-Dichloropropane	ND< 4.00	ND< 18.3
cis-1,3-Dichloropropene	ND< 2.00	ND< 9.00
trans-1,3-Dichloropropene	ND< 2.00	ND< 9.00
Methylene Chloride	19.5	67.0
1,1,2,2-Tetrachloroethane	ND< 2.00	ND< 13.6
Tetrachloroethene	35.2	236
1,1,1-Trichloroethane	ND< 2.00	ND< 10.8
1,1,2-Trichloroethane	ND< 2.00	ND< 10.8
Trichloroethene	ND< 0.940	ND< 5.00
Trichlorofluoromethane	ND< 2.00	ND< 11.1
Freon 113	ND< 2.00	ND< 15.2
Vinyl Chloride	ND< 2.00	ND< 5.07

Aromatics	PPBv	ug / m3
Benzene	16.8	53.6
Chlorobenzene	ND< 2.00	ND< 9.16
Ethylbenzene	7.20	31.2
Toluene	E 91.2	E 343
m,p-Xylene	28.2	122
o-Xylene	8.04	34.9
Styrene	ND< 2.00	ND< 8.51
1,2-Dichlorobenzene	ND< 2.00	ND< 11.9
1,3-Dichlorobenzene	ND< 2.00	ND< 11.9
1,4-Dichlorobenzene	ND< 2.00	ND< 11.9

Ketones	PPBv	ug / m3
Acetone	63.2	150
2-Butanone	ND< 10.0	ND< 29.4
2-Hexanone	ND< 10.0	ND< 40.9
4-Methyl-2-Pentanone	ND< 10.0	ND< 40.9

Miscellaneous	PPBv	ug / m3
Carbon Disulfide	ND< 10.0	ND< 31.1
Methyl-tert-Butyl Ether	ND< 2.00	ND< 7.20
Vinyl Acetate	ND< 2.00	ND< 7.03

ELAP Number 10958 Method: EPA TO-15 Data File: A4586.d

Comments: ND denotes Non Detect
PPBv = Parts per Billion volume
ug / m3 - Microgram per cubic meter.

Signature: _____
Bruce Hoogesteger: Technical Director

PARADIGM
ENVIRONMENTAL SERVICES, INC. 179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Air

Client: Lu Engineers

Client Job Site: Former Churchville Ford
Client Job Number: 5701-11
Field Location: OA-JCL-04b
Field ID Number: C-1010
Sample Type: Air

Lab Project Number: 10-1101
Lab Sample Number: 4264

Date Sampled: 03/17/2010
Date Received: 03/19/2010
Date Analyzed: 03/28/2010

Halocarbons	PPBv	ug / m3
Bromodichloromethane	ND< 0.100	ND< 0.663
Bromoform	ND< 0.100	ND< 1.02
Bromomethane	ND< 0.100	ND< 0.384
Carbon Tetrachloride	0.0989	0.615
Chlorethane	ND< 0.200	ND< 0.524
Chloroform	ND< 0.100	ND< 0.483
Chloromethane	0.638	1.30
Dibromochloromethane	ND< 0.100	ND< 0.843
1,2 Dibromoethane	ND< 0.100	ND< 0.761
1,1-Dichloroethane	ND< 0.100	ND< 0.401
1,1-Dichloroethene	ND< 0.100	ND< 0.393
1,2-Dichloroethane	ND< 0.100	ND< 0.401
cis-1,2-Dichloroethene	ND< 0.100	ND< 0.393
trans-1,2-Dichloroethene	ND< 0.100	ND< 0.393
1,2-Dichloropropane	ND< 0.200	ND< 0.916
cis-1,3-Dichloropropene	ND< 0.100	ND< 0.450
trans-1,3-Dichloropropene	0.645	2.90
Methylene Chloride	2.87	9.86
1,1,2,2-Tetrachloroethane	ND< 0.100	ND< 0.679
Tetrachloroethene	ND< 0.100	ND< 0.671
1,1,1-Trichloroethane	ND< 0.100	ND< 0.540
1,1,2-Trichloroethane	ND< 0.100	ND< 0.540
Trichloroethene	ND< 0.0470	ND< 0.250
Trichlorofluoromethane	0.255	1.42
Freon 113	ND< 0.100	ND< 0.761
Vinyl Chloride	ND< 0.100	ND< 0.254

Aromatics	PPBv	ug / m3
Benzene	0.261	0.833
Chlorobenzene	ND< 0.100	ND< 0.458
Ethylbenzene	ND< 0.100	ND< 0.434
Toluene	0.477	1.79
m,p-Xylene	0.347	1.50
o-Xylene	0.123	0.533
Styrene	ND< 0.100	ND< 0.425
1,2-Dichlorobenzene	ND< 0.100	ND< 0.597
1,3-Dichlorobenzene	ND< 0.100	ND< 0.597
1,4-Dichlorobenzene	ND< 0.100	ND< 0.597

Ketones	PPBv	ug / m3
Acetone	E 8.71	E 20.7
2-Butanone	0.570	1.68
2-Hexanone	ND< 0.500	ND< 2.04
4-Methyl-2-Pentanone	ND< 0.500	ND< 2.04

Miscellaneous	PPBv	ug / m3
Carbon Disulfide	ND< 0.500	ND< 1.55
Methyl-tert-Butyl Ether	ND< 0.100	ND< 0.360
Vinyl Acetate	ND< 0.100	ND< 0.352

ELAP Number 10958 Method: EPA TO-15 Data File: A4573.d

Comments: ND denotes Non Detect
PPBv = Parts per Billion volume
ug / m3 - Microgram per cubic meter.

Signature:
Bruce Hoogesteger: Technical Director

PARADIGM ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue
Rochester, NY 14608
(585) 647-2530 * (800) 724-1997

TO-15 CHAIN OF CUSTODY

REPORT TO:		INVOICE TO:	
COMPANY:	Lu Engineers	COMPANY:	SAME
ADDRESS:	2230 Penfield Rd.	ADDRESS:	
CITY:	Penfield	STATE: NY	ZIP: 14526
PHONE:	377-1450	FAX: 377-1266	
ATTN:	Eric Detweiler	ATTN:	

LAB PROJECT #: 10-1101
CLIENT PROJECT #: 5701-11

TURNAROUND TIME: (WORKING DAYS) STD ☐ 3 ☐ 5 ☒ 7 OTHER ☐

PROJECT NAME/SITE NAME: Former Churchville Ford

COMMENTS: DUSR Ready Package needed.

Quotation #

Sampling Procedure

DATE	SAMPLE LOCATION/FIELD ID	MATRIX	CANISTER	REGULATOR	START VACUUM in Hg	START TIME	END TIME	END DATE	END VACUUM in Hg	ANALYSIS: TCL	ANALYSIS: Halo	ANALYSIS: Site Specific	RETURN VACUUM	PARADIGM LAB SAMPLE NUMBER
3/17/10	SVS-JCL-02b	AIR	C 1009	R 5208	-28" Hg	9:21	5:15	3/17/10	-8	X			10	42594
3/17/10	IA-JCL-02b	AIR	C 1020	R 5097	-27	9:22	5:15	3/17/10	-5	X			8	42600
3/17/10	IA-JCL-02b Dup.	AIR	C 1015	R 5038	-28	9:24	5:16	3/17/10	-10	X			11	42601
3/17/10	SVS-JCL-03b	AIR	C 1001	R 5087	-27.5	9:53	5:23	3/17/10	-10	X			12	42602
3/17/10	IA-JCL-03b	AIR	C 1019	R 5014	-28.5	9:54	5:23	3/17/10	-4	X			5	42603
3/17/10	OA-JCL-04b	AIR	C 1010	R 5044	-30	9:57	5:32	3/17/10	-9	X			10	42604
		AIR	C	R										
		AIR	C	R										
		AIR	C	R										
		AIR	C	R										

Remarks:

* 1 ug/m³ w/ 0.25 ug/m³ CT & TCE by TO-15 w/ CAT B Reporting

* Possible TCE contamination in subslab

****LAB USE ONLY BELOW THIS LINE****

Eric Detweiler/Christina Karas 3/17/10
Sampled By — Date/Time

Relinquished By — 3/19/10 8:00
Date/Time

Received By — 3/19/10 8:16
Date/Time

Elizabeth A. Honch 3/19/10 1445
Received @ Lab By — Date/Time

Total Cost:

P.I.F.

PARADIGM ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue
Rochester, NY 14608
(585) 647-2530 * (800) 724-1997

TO-15 EQUIPMENT CHAIN OF CUSTODY

REPORT TO:	INVOICE TO:
COMPANY: Lu Engineers	COMPANY: Lu Engineers
ADDRESS: 2230 Penfield Rd.	ADDRESS: 2230 Penfield Rd.
CITY: Penfield STATE: NY ZIP: 14526	CITY: Penfield STATE: NY ZIP: 14526
PHONE: (585) 377-1450 FAX: 377-1266	PHONE: (585) 377-1450 FAX:
ATTN: Eric Detweiler	ATTN: Eric Detweiler
COMMENTS:	

LAB PROJECT #: 10-1101
CLIENT PROJECT #: 5701-11

TURNAROUND TIME: (WORKING DAYS) STD OTHER
☐ 3 ☐ 5 ☒ 7 ☐

Quotation #

PROJECT NAME/SITE NAME: Former Churchville Ford

Equipment Tracking

CANISTER	SHIPPED VACUUM
C 1019	30
C 1016	30
C 1001	30
C 1015	30
C 1009	30
C 1020	30
C	
C	
C	
C	

CANISTER	SHIPPED VACUUM
C	
C	
C	
C	
C	
C	
C	
C	
C	
C	

CANISTER	SHIPPED VACUUM
C	
C	
C	
C	
C	
C	
C	
C	
C	
C	

Equipment Tracking

REGULATOR	FLOW
R 5108	1.4
R 5210	
R 5103	
R 5109	
R 5104	
R 5101	
R	
R	
R	
R	

REGULATOR	FLOW
R	
R	
R	
R	
R	
R	
R	
R	
R	
R	

REGULATOR	FLOW
R	
R	
R	
R	
R	
R	
R	
R	
R	
R	

1 gauge

3 canisters

Remarks: All equipment recd in good condition, 3/19.
EAH 3/19

****LAB USE ONLY BELOW THIS LINE****

Client
Picked up By — Date/Time

Total Cost:

Returned By — Date/Time

Received By — Date/Time

P.I.F.

Elizabeth A. Honch 3/19/10 1445
Received @ Lab By — Date/Time

PARADIGM

ENVIRONMENTAL SERVICES, INC.

TO-15 Sampling Equipment Request

Client:	**Lu Engineers**	**Contact:**	**Eric Detweiler**
Ship to Address:		**Project :**	**Former Churchville Ford**
Telephone:	**377-1450, ext. 227**		

Date Required	Return Date	# of Samples	Sample Type	Sample Collection	Turnaround
3/16/10	3/18/10	3	☒ Ambient Air ☐ Soil Vapor/ Sub/slab	☐ Grab ☐ 2 hr comp. ☒ 8 hr comp. (**Standard**) ☐ Hour Comp	☒ 5-7 Day (**Standard**) ☐ Rush Day

Analyte List	Canister QC	Reporting
☒TCL 8260 Volatiles (**Standard**) ☐ Other (please attach list)	☒ Batch QC (**Standard**) ☐ Individually Tested Canister QC	☐ **Standard** Paradigm Lab Report ☒ DUSR Ready Package (summary & raw data)

Date Required	Return Date	# of Samples	Sample Type	Sample Collection	Turnaround
3/16/10	3/18/10	3	☐ Ambient Air ☒ Soil Vapor/ Sub/slab	☐ Grab ☐ 2 hr comp. ☒ 8 hr comp. (**Standard**) ☐ Hour Comp	☒ 5-7 Day (**Standard**) ☐ Rush Day

Analyte List	Canister QC	Reporting
☒TCL 8260 Volatiles (**Standard**) ☐ Other (please attach list)	☒ Batch QC (**Standard**) ☐ Individually Tested Canister QC	☐ **Standard** Paradigm Lab Report ☒ DUSR Ready Package (summary & raw data)

- Any custom (non standard) item will need to be reviewed for pricing and availability.
- For Sub-slab and soil vapor sampling our regulators are set up to be utilized with ¼"OD tubing. The client is responsible for supplying the nut for the compression fitting unless otherwise agreed to by Paradigm.

Supporting QC
&
Raw Data

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Paradigm Environmental Contract: _____

Lab code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

(Client Project Name) (Client Project No.)

Lab File ID (Standard): _____ Date Analyzed: 3/19/2010

Instrument ID: _____ Time Analyzed: _____

GC Column: _____ ID: ____ (mm)

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	19994	5.27	33582	6.72	34120	10.60
UPPER LIMIT	27991	5.77	47015	7.22	47768	11.10
LOWER LIMIT	11996	4.77	20149	6.22	20472	10.10
Lab Sample No.						
4ppb 3/19/10	21209	5.28	37540	6.71	42491	10.60
2ppb 3/19/10	22178	5.27	33923	6.72	37048	10.60
1ppb 3/19/10	18643	5.27	33310	6.73	32740	10.60
0.4ppb 3/19/10	19697	5.27	32904	6.72	31108	10.60
0.1ppb 3/19/10	18241	5.28	30233	6.72	27214	10.60
Average	19994	5.27	33582	6.72	34120	10.60
2ppb 3/28/10	20182	5.28	35011	6.72	35882	10.60
Method Blank 3/28/10	18136	5.28	28751	6.72	27288	10.60
4264	12745	5.28	28269	6.72	29829	10.60
2.0ppb 3/29/10	22226	5.27	40761	6.73	41717	10.60
Method Blank 3/29/10	22751	5.28	38888	6.72	35315	10.60
4259	22495	5.26	38713	6.72	37758	10.60
4260	19414	5.28	37017	6.72	33002	10.60
4261	19556	5.27	31987	6.72	32734	10.60
4262	17609	5.27	31615	6.72	33581	10.60
4263	20928	5.26	36581	6.72	35814	10.61
LCS 2/29/10	23535	5.27	42683	6.72	48488 *	10.60

Column used to flag values outside QC limits with an asterisk

* Values outside of QC limits.

IS1 (BCM) = Bromochloromethane

IS2 (DFB) = 1,4-Difluorobenzene

IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +40% of internal standard area

AREA LOWER LIMIT = -40% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

PARADIGM
ENVIRONMENTAL SERVICES, INC. 179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Air

Client: Lu Engineers

Client Job Site: Former Churchville Ford
Client Job Number: 5701-11
Field Location: N/A
Field ID Number: N/A
Sample Type: Air

Lab Project Number: 10-1101
Lab Sample Number: Method Blank
Date Sampled: N/A
Date Received: N/A
Date Analyzed: 03/28/2010

Halocarbons	PPBv	ug / m3
Bromodichloromethane	ND< 0.102	ND< 0.676
Bromoform	ND< 0.102	ND< 1.04
Bromomethane	ND< 0.102	ND< 0.392
Carbon Tetrachloride	ND< 0.0409	ND< 0.254
Chlorethane	ND< 0.204	ND< 0.534
Chloroform	ND< 0.102	ND< 0.492
Chloromethane	ND< 0.102	ND< 0.209
Dibromochloromethane	ND< 0.102	ND< 0.859
1,2 Dibromoethane	ND< 0.102	ND< 0.776
1,1-Dichloroethane	ND< 0.102	ND< 0.409
1,1-Dichloroethene	ND< 0.102	ND< 0.400
1,2-Dichloroethane	ND< 0.102	ND< 0.409
cis-1,2-Dichloroethene	ND< 0.102	ND< 0.400
trans-1,2-Dichloroethene	ND< 0.102	ND< 0.400
1,2-Dichloropropane	ND< 0.204	ND< 0.934
cis-1,3-Dichloropropene	ND< 0.102	ND< 0.459
trans-1,3-Dichloropropene	ND< 0.102	ND< 0.459
Methylene Chloride	0.783	2.69
1,1,2,2-Tetrachloroethane	ND< 0.102	ND< 0.693
Tetrachloroethene	ND< 0.102	ND< 0.684
1,1,1-Trichloroethane	ND< 0.102	ND< 0.551
1,1,2-Trichloroethane	ND< 0.102	ND< 0.551
Trichloroethene	ND< 0.0481	ND< 0.256
Trichlorofluoromethane	ND< 0.102	ND< 0.567
Freon 113	ND< 0.102	ND< 0.776
Vinyl Chloride	ND< 0.102	ND< 0.259

Aromatics	PPBv	ug / m3
Benzene	ND< 0.102	ND< 0.325
Chlorobenzene	ND< 0.102	ND< 0.467
Ethylbenzene	ND< 0.102	ND< 0.442
Toluene	ND< 0.102	ND< 0.384
m,p-Xylene	ND< 0.102	ND< 0.442
o-Xylene	ND< 0.102	ND< 0.442
Styrene	ND< 0.102	ND< 0.434
1,2-Dichlorobenzene	ND< 0.102	ND< 0.609
1,3-Dichlorobenzene	ND< 0.102	ND< 0.609
1,4-Dichlorobenzene	ND< 0.102	ND< 0.609

Ketones	PPBv	ug / m3
Acetone	0.806	1.91
2-Butanone	ND< 0.511	ND< 1.50
2-Hexanone	ND< 0.511	ND< 2.09
4-Methyl-2-Pentanone	ND< 0.511	ND< 2.09

Miscellaneous	PPBv	ug / m3
Carbon Disulfide	ND< 0.511	ND< 1.59
Methyl-tert-Butyl Ether	ND< 0.102	ND< 0.367
Vinyl Acetate	ND< 0.102	ND< 0.359

ELAP Number 10958 Method: EPA TO-15 Data File: A4567.d

Comments: ND denotes Non Detect
PPBv = Parts per Billion volume
ug / m3 - Microgram per cubic meter.

Signature:
Bruce Hoogesteger: Technical Director

PARADIGM
ENVIRONMENTAL SERVICES, INC. 179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Air

Client: Lu Engineers

Client Job Site: Former Churchville Ford
Client Job Number: 5701-11
Field Location: N/A
Field ID Number: N/A
Sample Type: Air

Lab Project Number: 10-1101
Lab Sample Number: Method Blank
Date Sampled: N/A
Date Received: N/A
Date Analyzed: 03/29/2010

Halocarbons	PPBv	ug / m3
Bromodichloromethane	ND< 0.0998	ND< 0.661
Bromoform	ND< 0.0998	ND< 1.02
Bromomethane	ND< 0.0998	ND< 0.384
Carbon Tetrachloride	ND< 0.0399	ND< 0.248
Chlorethane	ND< 0.200	ND< 0.524
Chloroform	ND< 0.0998	ND< 0.482
Chloromethane	ND< 0.0998	ND< 0.204
Dibromochloromethane	ND< 0.0998	ND< 0.841
1,2 Dibromoethane	ND< 0.0998	ND< 0.759
1,1-Dichloroethane	ND< 0.0998	ND< 0.400
1,1-Dichloroethene	ND< 0.0998	ND< 0.392
1,2-Dichloroethane	ND< 0.0998	ND< 0.400
cis-1,2-Dichloroethene	ND< 0.0998	ND< 0.392
trans-1,2-Dichloroethene	ND< 0.0998	ND< 0.392
1,2-Dichloropropane	ND< 0.200	ND< 0.916
cis-1,3-Dichloropropene	ND< 0.0998	ND< 0.449
trans-1,3-Dichloropropene	ND< 0.0998	ND< 0.449
Methylene Chloride	2.00	6.87
1,1,2,2-Tetrachloroethane	ND< 0.0998	ND< 0.678
Tetrachloroethene	ND< 0.0998	ND< 0.669
1,1,1-Trichloroethane	ND< 0.0998	ND< 0.539
1,1,2-Trichloroethane	ND< 0.0998	ND< 0.539
Trichloroethene	ND< 0.0469	ND< 0.249
Trichlorofluoromethane	ND< 0.0998	ND< 0.555
Freon 113	ND< 0.0998	ND< 0.759
Vinyl Chloride	ND< 0.0998	ND< 0.253

Aromatics	PPBv	ug / m3
Benzene	ND< 0.0998	ND< 0.318
Chlorobenzene	ND< 0.0998	ND< 0.457
Ethylbenzene	ND< 0.0998	ND< 0.433
Toluene	ND< 0.0998	ND< 0.376
m,p-Xylene	ND< 0.0998	ND< 0.433
o-Xylene	ND< 0.0998	ND< 0.433
Styrene	ND< 0.0998	ND< 0.425
1,2-Dichlorobenzene	ND< 0.0998	ND< 0.596
1,3-Dichlorobenzene	ND< 0.0998	ND< 0.596
1,4-Dichlorobenzene	ND< 0.0998	ND< 0.596

Ketones	PPBv	ug / m3
Acetone	2.33	5.53
2-Butanone	ND< 0.499	ND< 1.47
2-Hexanone	ND< 0.499	ND< 2.04
4-Methyl-2-Pentanone	ND< 0.499	ND< 2.04

Miscellaneous	PPBv	ug / m3
Carbon Disulfide	0.569	1.77
Methyl-tert-Butyl Ether	ND< 0.0998	ND< 0.359
Vinyl Acetate	ND< 0.0998	ND< 0.351

ELAP Number 10958 Method: EPA TO-15 Data File: A4581.d

Comments: ND denotes Non Detect
PPBv = Parts per Billion volume
ug / m3 - Microgram per cubic meter.

Signature: _____
Bruce Hoogesteger: Technical Director

PARADIGM
ENVIRONMENTAL SERVICES, INC. 179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Air

Client: Lu Engineers

Client Job Site: Former Churchville Ford
Client Job Number: 5701-11
Field Location: N/A
Field ID Number: N/A
Sample Type: Air

Lab Project Number: 10-1101
Lab Sample Number: Can C-1001

Date Sampled: N/A
Date Received: N/A
Date Analyzed: 03/11/2010

Halocarbons	PPBv	ug / m3
Bromodichloromethane	ND< 0.105	ND< 0.696
Bromoform	ND< 0.105	ND< 1.07
Bromomethane	ND< 0.105	ND< 0.404
Carbon Tetrachloride	ND< 0.0419	ND< 0.260
Chlorethane	ND< 0.209	ND< 0.547
Chloroform	ND< 0.105	ND< 0.507
Chloromethane	ND< 0.105	ND< 0.215
Dibromochloromethane	ND< 0.105	ND< 0.885
1,2 Dibromoethane	ND< 0.105	ND< 0.799
1,1-Dichloroethane	ND< 0.105	ND< 0.421
1,1-Dichloroethene	ND< 0.105	ND< 0.412
1,2-Dichloroethane	ND< 0.105	ND< 0.421
cis-1,2-Dichloroethene	ND< 0.105	ND< 0.412
trans-1,2-Dichloroethene	ND< 0.105	ND< 0.412
1,2-Dichloropropane	ND< 0.209	ND< 0.957
cis-1,3-Dichloropropene	ND< 0.105	ND< 0.472
trans-1,3-Dichloropropene	ND< 0.105	ND< 0.472
Methylene Chloride	1.29	4.43
1,1,2,2-Tetrachloroethane	ND< 0.105	ND< 0.713
Tetrachloroethene	ND< 0.105	ND< 0.704
1,1,1-Trichloroethane	ND< 0.105	ND< 0.567
1,1,2-Trichloroethane	ND< 0.105	ND< 0.567
Trichloroethene	ND< 0.0492	ND< 0.262
Trichlorofluoromethane	ND< 0.105	ND< 0.584
Freon 113	ND< 0.105	ND< 0.799
Vinyl Chloride	ND< 0.105	ND< 0.266

Aromatics	PPBv	ug / m3
Benzene	ND< 0.105	ND< 0.335
Chlorobenzene	ND< 0.105	ND< 0.481
Ethylbenzene	ND< 0.105	ND< 0.455
Toluene	ND< 0.105	ND< 0.395
m,p-Xylene	ND< 0.105	ND< 0.455
o-Xylene	ND< 0.105	ND< 0.455
Styrene	ND< 0.105	ND< 0.447
1,2-Dichlorobenzene	ND< 0.105	ND< 0.627
1,3-Dichlorobenzene	ND< 0.105	ND< 0.627
1,4-Dichlorobenzene	ND< 0.105	ND< 0.627

Ketones	PPBv	ug / m3
Acetone	0.855	2.03
2-Butanone	ND< 0.524	ND< 1.54
2-Hexanone	ND< 0.524	ND< 2.14
4-Methyl-2-Pentanone	ND< 0.524	ND< 2.14

Miscellaneous	PPBv	ug / m3
Carbon Disulfide	ND< 0.524	ND< 1.63
Methyl-tert-Butyl Ether	ND< 0.105	ND< 0.378
Vinyl Acetate	ND< 0.105	ND< 0.369

ELAP Number 10958 Method: EPA TO-15 Data File: A4518.d

Comments: ND denotes Non Detect
PPBv = Parts per Billion volume
ug / m3 - Microgram per cubic meter.

Signature:
Bruce Hoogesteger: Technical Director

PARADIGM
ENVIRONMENTAL SERVICES, INC. 179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Air

Client: Lu Engineers

Client Job Site: Former Churchville Ford
Client Job Number: 5701-11
Field Location: N/A
Field ID Number: N/A
Sample Type: Air

Lab Project Number: 10-1101
Lab Sample Number: Can C-1009

Date Sampled: N/A
Date Received: N/A
Date Analyzed: 03/11/2010

Halocarbons	PPBv	ug / m3
Bromodichloromethane	ND< 0.0998	ND< 0.661
Bromoform	ND< 0.0998	ND< 1.02
Bromomethane	ND< 0.0998	ND< 0.384
Carbon Tetrachloride	ND< 0.0399	ND< 0.248
Chlorethane	ND< 0.200	ND< 0.524
Chloroform	ND< 0.0998	ND< 0.482
Chloromethane	ND< 0.0998	ND< 0.204
Dibromochloromethane	ND< 0.0998	ND< 0.841
1,2 Dibromoethane	ND< 0.0998	ND< 0.759
1,1-Dichloroethane	ND< 0.0998	ND< 0.400
1,1-Dichloroethene	ND< 0.0998	ND< 0.392
1,2-Dichloroethane	ND< 0.0998	ND< 0.400
cis-1,2-Dichloroethene	ND< 0.0998	ND< 0.392
trans-1,2-Dichloroethene	ND< 0.0998	ND< 0.392
1,2-Dichloropropane	ND< 0.200	ND< 0.916
cis-1,3-Dichloropropene	ND< 0.0998	ND< 0.449
trans-1,3-Dichloropropene	ND< 0.0998	ND< 0.449
Methylene Chloride	0.598	2.05
1,1,2,2-Tetrachloroethane	ND< 0.0998	ND< 0.678
Tetrachloroethene	ND< 0.0998	ND< 0.669
1,1,1-Trichloroethane	ND< 0.0998	ND< 0.539
1,1,2-Trichloroethane	ND< 0.0998	ND< 0.539
Trichloroethene	ND< 0.0469	ND< 0.249
Trichlorofluoromethane	ND< 0.0998	ND< 0.555
Freon 113	ND< 0.0998	ND< 0.759
Vinyl Chloride	ND< 0.0998	ND< 0.253

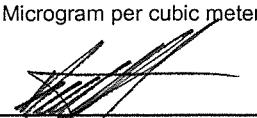
Aromatics	PPBv	ug / m3
Benzene	ND< 0.0998	ND< 0.318
Chlorobenzene	ND< 0.0998	ND< 0.457
Ethylbenzene	ND< 0.0998	ND< 0.433
Toluene	ND< 0.0998	ND< 0.376
m,p-Xylene	ND< 0.0998	ND< 0.433
o-Xylene	ND< 0.0998	ND< 0.433
Styrene	ND< 0.0998	ND< 0.425
1,2-Dichlorobenzene	ND< 0.0998	ND< 0.596
1,3-Dichlorobenzene	ND< 0.0998	ND< 0.596
1,4-Dichlorobenzene	ND< 0.0998	ND< 0.596

Ketones	PPBv	ug / m3
Acetone	ND< 0.499	ND< 1.18
2-Butanone	ND< 0.499	ND< 1.47
2-Hexanone	ND< 0.499	ND< 2.04
4-Methyl-2-Pentanone	ND< 0.499	ND< 2.04

Miscellaneous	PPBv	ug / m3
Carbon Disulfide	ND< 0.499	ND< 1.55
Methyl-tert-Butyl Ether	ND< 0.0998	ND< 0.359
Vinyl Acetate	ND< 0.0998	ND< 0.351

ELAP Number 10958 Method: EPA TO-15 Data File: A4526.d

Comments: ND denotes Non Detect
PPBv = Parts per Billion volume
ug / m3 - Microgram per cubic meter.

Signature: 

Bruce Hoogesteger: Technical Director

PARADIGM
ENVIRONMENTAL SERVICES, INC. 179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Air

Client: Lu Engineers

Client Job Site: Former Churchville Ford
Client Job Number: 5701-11
Field Location: N/A
Field ID Number: N/A
Sample Type: Air

Lab Project Number: 10-1101
Lab Sample Number: Can C-1010

Date Sampled: N/A
Date Received: N/A
Date Analyzed: 03/11/2010

Halocarbons	PPBv	ug / m3
Bromodichloromethane	ND< 0.100	ND< 0.663
Bromoform	ND< 0.100	ND< 1.02
Bromomethane	ND< 0.100	ND< 0.384
Carbon Tetrachloride	ND< 0.0400	ND< 0.249
Chlorethane	ND< 0.200	ND< 0.524
Chloroform	ND< 0.100	ND< 0.483
Chloromethane	ND< 0.100	ND< 0.204
Dibromochloromethane	ND< 0.100	ND< 0.843
1,2 Dibromoethane	ND< 0.100	ND< 0.761
1,1-Dichloroethane	ND< 0.100	ND< 0.401
1,1-Dichloroethene	ND< 0.100	ND< 0.393
1,2-Dichloroethane	ND< 0.100	ND< 0.401
cis-1,2-Dichloroethene	ND< 0.100	ND< 0.393
trans-1,2-Dichloroethene	ND< 0.100	ND< 0.393
1,2-Dichloropropane	ND< 0.200	ND< 0.916
cis-1,3-Dichloropropene	ND< 0.100	ND< 0.450
trans-1,3-Dichloropropene	ND< 0.100	ND< 0.450
Methylene Chloride	1.30	4.47
1,1,2,2-Tetrachloroethane	ND< 0.100	ND< 0.679
Tetrachloroethene	ND< 0.100	ND< 0.671
1,1,1-Trichloroethane	ND< 0.100	ND< 0.540
1,1,2-Trichloroethane	ND< 0.100	ND< 0.540
Trichloroethene	ND< 0.0470	ND< 0.250
Trichlorofluoromethane	ND< 0.100	ND< 0.556
Freon 113	ND< 0.100	ND< 0.761
Vinyl Chloride	ND< 0.100	ND< 0.254

Aromatics	PPBv	ug / m3
Benzene	ND< 0.100	ND< 0.319
Chlorobenzene	ND< 0.100	ND< 0.458
Ethylbenzene	ND< 0.100	ND< 0.434
Toluene	ND< 0.100	ND< 0.376
m,p-Xylene	ND< 0.100	ND< 0.434
o-Xylene	ND< 0.100	ND< 0.434
Styrene	ND< 0.100	ND< 0.425
1,2-Dichlorobenzene	ND< 0.100	ND< 0.597
1,3-Dichlorobenzene	ND< 0.100	ND< 0.597
1,4-Dichlorobenzene	ND< 0.100	ND< 0.597

Ketones	PPBv	ug / m3
Acetone	0.634	1.50
2-Butanone	ND< 0.500	ND< 1.47
2-Hexanone	ND< 0.500	ND< 2.04
4-Methyl-2-Pentanone	ND< 0.500	ND< 2.04

Miscellaneous	PPBv	ug / m3
Carbon Disulfide	ND< 0.500	ND< 1.55
Methyl-tert-Butyl Ether	ND< 0.100	ND< 0.360
Vinyl Acetate	ND< 0.100	ND< 0.352

ELAP Number 10958 Method: EPA TO-15 Data File: A4526.d

Comments: ND denotes Non Detect
PPBv = Parts per Billion volume
ug / m3 - Microgram per cubic meter.

Signature: _____
Bruce Hoogesteger: Technical Director

PARADIGM
ENVIRONMENTAL SERVICES, INC. 179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Air

Client: Lu Engineers

Client Job Site: Former Churchville Ford
Client Job Number: 5701-11
Field Location: N/A
Field ID Number: N/A
Sample Type: Air

Lab Project Number: 10-1101
Lab Sample Number: Can C-1015
Date Sampled: N/A
Date Received: N/A
Date Analyzed: 03/11/2010

Halocarbons	PPBv	ug / m3
Bromodichloromethane	ND< 0.102	ND< 0.676
Bromoform	ND< 0.102	ND< 1.04
Bromomethane	ND< 0.102	ND< 0.392
Carbon Tetrachloride	ND< 0.0409	ND< 0.254
Chlorethane	ND< 0.204	ND< 0.534
Chloroform	ND< 0.102	ND< 0.492
Chloromethane	ND< 0.102	ND< 0.209
Dibromochloromethane	ND< 0.102	ND< 0.859
1,2 Dibromoethane	ND< 0.102	ND< 0.776
1,1-Dichloroethane	ND< 0.102	ND< 0.409
1,1-Dichloroethene	ND< 0.102	ND< 0.400
1,2-Dichloroethane	ND< 0.102	ND< 0.409
cis-1,2-Dichloroethene	ND< 0.102	ND< 0.400
trans-1,2-Dichloroethene	ND< 0.102	ND< 0.400
1,2-Dichloropropane	ND< 0.204	ND< 0.934
cis-1,3-Dichloropropene	ND< 0.102	ND< 0.459
trans-1,3-Dichloropropene	ND< 0.102	ND< 0.459
Methylene Chloride	0.961	3.30
1,1,2,2-Tetrachloroethane	ND< 0.102	ND< 0.693
Tetrachloroethene	ND< 0.102	ND< 0.684
1,1,1-Trichloroethane	ND< 0.102	ND< 0.551
1,1,2-Trichloroethane	ND< 0.102	ND< 0.551
Trichloroethene	ND< 0.0481	ND< 0.256
Trichlorofluoromethane	ND< 0.102	ND< 0.567
Freon 113	ND< 0.102	ND< 0.776
Vinyl Chloride	ND< 0.102	ND< 0.259

Aromatics	PPBv	ug / m3
Benzene	ND< 0.102	ND< 0.325
Chlorobenzene	ND< 0.102	ND< 0.467
Ethylbenzene	ND< 0.102	ND< 0.442
Toluene	ND< 0.102	ND< 0.384
m,p-Xylene	ND< 0.102	ND< 0.442
o-Xylene	ND< 0.102	ND< 0.442
Styrene	ND< 0.102	ND< 0.434
1,2-Dichlorobenzene	ND< 0.102	ND< 0.609
1,3-Dichlorobenzene	ND< 0.102	ND< 0.609
1,4-Dichlorobenzene	ND< 0.102	ND< 0.609

Ketones	PPBv	ug / m3
Acetone	0.715	1.70
2-Butanone	ND< 0.511	ND< 1.50
2-Hexanone	ND< 0.511	ND< 2.09
4-Methyl-2-Pentanone	ND< 0.511	ND< 2.09

Miscellaneous	PPBv	ug / m3
Carbon Disulfide	ND< 0.511	ND< 1.59
Methyl-tert-Butyl Ether	ND< 0.102	ND< 0.367
Vinyl Acetate	ND< 0.102	ND< 0.359

ELAP Number 10958 Method: EPA TO-15 Data File: A4532.d

Comments: ND denotes Non Detect
PPBv = Parts per Billion volume
ug / m3 - Microgram per cubic meter.

Signature: _____
Bruce Hoogesteger: Technical Director

PARADIGM
ENVIRONMENTAL SERVICES, INC. 179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Air

Client: Lu Engineers

Client Job Site: Former Churchville Ford
Client Job Number: 5701-11
Field Location: N/A
Field ID Number: N/A
Sample Type: Air

Lab Project Number: 10-1101
Lab Sample Number: Can C-1019

Date Sampled: N/A
Date Received: N/A
Date Analyzed: 03/11/2010

Halocarbons	PPBv	ug / m3
Bromodichloromethane	ND< 0.105	ND< 0.696
Bromoform	ND< 0.105	ND< 1.07
Bromomethane	ND< 0.105	ND< 0.404
Carbon Tetrachloride	ND< 0.0420	ND< 0.261
Chlorethane	ND< 0.210	ND< 0.550
Chloroform	ND< 0.105	ND< 0.507
Chloromethane	ND< 0.105	ND< 0.215
Dibromochloromethane	ND< 0.105	ND< 0.885
1,2 Dibromoethane	ND< 0.105	ND< 0.799
1,1-Dichloroethane	ND< 0.105	ND< 0.421
1,1-Dichloroethene	ND< 0.105	ND< 0.412
1,2-Dichloroethane	ND< 0.105	ND< 0.421
cis-1,2-Dichloroethene	ND< 0.105	ND< 0.412
trans-1,2-Dichloroethene	ND< 0.105	ND< 0.412
1,2-Dichloropropane	ND< 0.210	ND< 0.962
cis-1,3-Dichloropropene	ND< 0.105	ND< 0.472
trans-1,3-Dichloropropene	ND< 0.105	ND< 0.472
Methylene Chloride	0.916	3.15
1,1,2,2-Tetrachloroethane	ND< 0.105	ND< 0.713
Tetrachloroethene	ND< 0.105	ND< 0.704
1,1,1-Trichloroethane	ND< 0.105	ND< 0.567
1,1,2-Trichloroethane	ND< 0.105	ND< 0.567
Trichloroethene	ND< 0.0494	ND< 0.263
Trichlorofluoromethane	ND< 0.105	ND< 0.584
Freon 113	ND< 0.105	ND< 0.799
Vinyl Chloride	ND< 0.105	ND< 0.266

Aromatics	PPBv	ug / m3
Benzene	ND< 0.105	ND< 0.335
Chlorobenzene	ND< 0.105	ND< 0.481
Ethylbenzene	ND< 0.105	ND< 0.455
Toluene	ND< 0.105	ND< 0.395
m,p-Xylene	ND< 0.105	ND< 0.455
o-Xylene	ND< 0.105	ND< 0.455
Styrene	ND< 0.105	ND< 0.447
1,2-Dichlorobenzene	ND< 0.105	ND< 0.627
1,3-Dichlorobenzene	ND< 0.105	ND< 0.627
1,4-Dichlorobenzene	ND< 0.105	ND< 0.627

Ketones	PPBv	ug / m3
Acetone	ND< 0.525	ND< 1.25
2-Butanone	ND< 0.525	ND< 1.55
2-Hexanone	ND< 0.525	ND< 2.15
4-Methyl-2-Pentanone	ND< 0.525	ND< 2.15

Miscellaneous	PPBv	ug / m3
Carbon Disulfide	ND< 0.525	ND< 1.63
Methyl-tert-Butyl Ether	ND< 0.105	ND< 0.378
Vinyl Acetate	ND< 0.105	ND< 0.369

ELAP Number 10958 Method: EPA TO-15 Data File: A4536.d

Comments: ND denotes Non Detect
PPBv = Parts per Billion volume
ug / m3 - Microgram per cubic meter

Signature: _____
Bruce Hoogesteger: Technical Director

PARADIGM
ENVIRONMENTAL SERVICES, INC. 179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Air

Client: Lu Engineers

Client Job Site: Former Churchville Ford
Client Job Number: 5701-11
Field Location: N/A
Field ID Number: N/A
Sample Type: Air

Lab Project Number: 10-1101
Lab Sample Number: Can C-1020
Date Sampled: N/A
Date Received: N/A
Date Analyzed: 03/11/2010

Halocarbons	PPBv	ug / m3
Bromodichloromethane	ND< 0.103	ND< 0.682
Bromoform	ND< 0.103	ND< 1.05
Bromomethane	ND< 0.103	ND< 0.396
Carbon Tetrachloride	ND< 0.0410	ND< 0.255
Chlorethane	ND< 0.205	ND< 0.537
Chloroform	ND< 0.103	ND< 0.497
Chloromethane	ND< 0.103	ND< 0.211
Dibromochloromethane	ND< 0.103	ND< 0.868
1,2 Dibromoethane	ND< 0.103	ND< 0.784
1,1-Dichloroethane	ND< 0.103	ND< 0.413
1,1-Dichloroethene	ND< 0.103	ND< 0.404
1,2-Dichloroethane	ND< 0.103	ND< 0.413
cis-1,2-Dichloroethene	ND< 0.103	ND< 0.404
trans-1,2-Dichloroethene	ND< 0.103	ND< 0.404
1,2-Dichloropropane	ND< 0.205	ND< 0.939
cis-1,3-Dichloropropene	ND< 0.103	ND< 0.463
trans-1,3-Dichloropropene	ND< 0.103	ND< 0.463
Methylene Chloride	0.887	3.05
1,1,2,2-Tetrachloroethane	ND< 0.103	ND< 0.699
Tetrachloroethene	ND< 0.103	ND< 0.691
1,1,1-Trichloroethane	ND< 0.103	ND< 0.556
1,1,2-Trichloroethane	ND< 0.103	ND< 0.556
Trichloroethene	ND< 0.0482	ND< 0.256
Trichlorofluoromethane	ND< 0.103	ND< 0.573
Freon 113	ND< 0.103	ND< 0.784
Vinyl Chloride	ND< 0.103	ND< 0.261

Aromatics	PPBv	ug / m3
Benzene	ND< 0.103	ND< 0.329
Chlorobenzene	ND< 0.103	ND< 0.472
Ethylbenzene	ND< 0.103	ND< 0.447
Toluene	ND< 0.103	ND< 0.388
m,p-Xylene	ND< 0.103	ND< 0.447
o-Xylene	ND< 0.103	ND< 0.447
Styrene	ND< 0.103	ND< 0.438
1,2-Dichlorobenzene	ND< 0.103	ND< 0.615
1,3-Dichlorobenzene	ND< 0.103	ND< 0.615
1,4-Dichlorobenzene	ND< 0.103	ND< 0.615

Ketones	PPBv	ug / m3
Acetone	0.575	1.36
2-Butanone	ND< 0.513	ND< 1.51
2-Hexanone	ND< 0.513	ND< 2.10
4-Methyl-2-Pentanone	ND< 0.513	ND< 2.10

Miscellaneous	PPBv	ug / m3
Carbon Disulfide	ND< 0.513	ND< 1.59
Methyl-tert-Butyl Ether	ND< 0.103	ND< 0.371
Vinyl Acetate	ND< 0.103	ND< 0.362

ELAP Number 10958 Method: EPA TO-15 Data File: A45.7.d

Comments: ND denotes Non Detect
PPBv = Parts per Billion volume
ug / m3 - Microgram per cubic meter

Signature: _____
Bruce Hoogesteger: Technical Director

Appendix H
SVI Product Inventory

Workshop Product Inventory (as of 1/15/07)

PRODUCT NAME	QUANTITY	OPENED (O) / UNOPENED (U)	CONDITION	INGREDIENTS
PAINT BOOTH				
Lacquer Thinner	1 gallon	O	Good	Toluene, methanol, light alphatic solvent naptha, acetone, glycol ether, petroleum distillates, ketones, esters
Final Klean	6 x 1 gallon	1 gal - O / 5 gal - U	Good / New	VM&P naptha, toluene, heptane, xylene, cyclohexane, mixed octanes
Zep Non-streaking Cleaner	24 fl. oz.	O	Good	Isopropyl alcohol, ethylene glycol monobutyl ether, Isobutane, n-butane
Grow Automotive HET Super Klean Grease, Wax & Silicone Remover	3 x 1 gallon	O	Good	VM&P naptha, naptha, toluene, isopropyl alcohol, benzene
Denatured alcohol	1 gallon	O	Good	Alcohol
Dupont ChromaSystem Base Cleaner	1 gallon	O	Good	Isobutyl alcohol, acetone, methyl isobutyl ketone, toluene, isopropyl alcohol, methyl amyl ketone, petroleum naptha, ethylbenzene, xylene
Dupont ChromaClear HC-7600S	1 gallon	O	Good	Acrylic polymer, acetone, MEK, methyl isobutyl ketone, toluene, ethylbenzene, xylene, synthetic resin
Dupont ChromaClear HC-7605S	1 quart	O	Good	Isophorone Diisocyanate homopolymer, aliphatic polyisocyanate resin, butyl acetate, ethylbenzene, xylene
Dupont Variprime 620S Fast Converter	1 gallon	U	New	Heptane, toluene, acetone, isobutyl alcohol, water, phosphoric acid
Reflex RX700A Grip Coat (bedliner)	5 x 5 gallon	U	New	Polyeurathane prepolymer, 4,4-Diphenylmethane Diisocyanate, Diphenylmethane Diisocyanate
Reflex RX700B	5 x 5 gallon	U	New	Polyether polyol, Diethyl toluene, diamine, tertiary amine
Paint pigments / Resin Additive	15 x 1 gallon	O / U	Good / New	Polyether polyol, Diethyltoluenediamine
Engine Compartment Enamel	10 spray cans	O	Good	Acetone, toluol, VM&P naptha, propane, n-butane
MAIN WORKSHOP				
PPC PC-5 Lacquer Thinner	20 gallon steel drum	O	New	Toluene, methanol, light alphatic solvent naptha, acetone, glycol ether, petroleum distillates, ketones, esters
Zep Formula 300 Industrial Solvent for Cold Degreasing	20 gallon steel drum	U	New	1,1,1-benzene, carbon tetrachloride or trichloroethylene
Zep All Around Vinyl & Rubber Protectant	1 x 5 gallon	U	New	Not listed
WD-40	2 x 8 oz. spray cans	U	New	Petroleum distillates
Aratari Monster Wax	8 cans	U	New	DI water, aliphatic hydrocarbons, Dimethylpolysiloxane, 1,1-Difluoroethane
Zep 45NC Penetrating Lubricant w/ teflon	3 x 8 oz. spray cans	O	Good	Aromatic naptha, aliphatic naptha, ethanol, petroleum lubricant
Spray Adhesive	1 x 12 oz. can	O	Good	Methylene chloride

Workshop Product Inventory (as of 4/5/07)

PRODUCT NAME	QUANTITY	OPENED (O) / UNOPENED (U)	CONDITION	INGREDIENTS
PAINT BOOTH				
Lacquer Thinner	1 gallon	O	Good	Toluene, methanol, light alphatic solvent naptha, acetone, glycol ether, petroleum distillates, ketones, esters
Final Klean	6 x 1 gallon	1 gal - O / 5 gal - U	Good / New	VM&P naptha, toluene, heptane, xylene, cyclohexane, mixed octanes
Zep Non-streaking Cleaner	24 fl. oz.	O	Good	Isopropyl alcohol, ethylene glycol monobutyl ether, Isobutane, n-butane
Grow Automotive HET Super Klean Grease, Wax & Silicone Remover	3 x 1 gallon	O	Good	VM&P naptha, naptha, toluene, isopropyl alcohol, benzene
Denatured alcohol	1 gallon	O	Good	Alcohol
Dupont ChromaSystem Base Cleaner	1 gallon	O	Good	Isobutyl alcohol, acetone, methyl isobutyl ketone, toluene, isopropyl alcohol, methyl amyl ketone, petroleum naptha, ethylbenzene, xylene
Dupont ChromaClear HC-7600S	1 gallon	O	Good	Acrylic polymer, acetone, MEK, methyl isobutyl ketone, toluene, ethylbenzene, xylene, synthetic resin
Dupont ChromaClear HC-7605S	1 quart	O	Good	Isophorone Diisocyanate homopolymer, aliphatic polyisocyanate resin, butyl acetate, ethylbenzene, xylene
Dupont Variprime 620S Fast Converter	1 gallon	U	New	Heptane, toluene, acetone, isobutyl alcohol, water, phosphoric acid
Reflex RX700A Grip Coat (bedliner)	5 x 5 gallon	U	New	Polyeurathane prepolymer, 4,4-Diphenylmethane Diisocyanate, Diphenylmethane Diisocyanate
Reflex RX700B	5 x 5 gallon	U	New	Polyether polyol, Diethyl toluene, diamine, tertiary amine
Paint pigments / Resin Additive	15 x 1 gallon	O / U	Good / New	Polyether polyol, Diethyltoluenediamine
Engine Compartment Enamel	10 spray cans	O	Good	Acetone, toluol, VM&P naptha, propane, n-butane
MAIN WORKSHOP				
PPC PC-5 Lacquer Thinner	20 gallon steel drum	O	New	Toluene, methanol, light alphatic solvent naptha, acetone, glycol ether, petroleum distillates, ketones, esters
Zep Formula 300 Industrial Solvent for Cold Degreasing	20 gallon steel drum	U	New	1,1,1-benzene, carbon tetrachloride or trichloroethylene
Zep All Around Vinyl & Rubber Protectant	1 x 5 gallon	U	New	(NIL) No Ingredients Listed
WD-40	5 x 8 oz. spray cans	U	New	Petroleum distillates
Aratari Monster Wax	9 cans	O – 1 can U – 8 cans	New	DI water, aliphatic hydrocarbons, Dimethylpolysiloxane, 1,1-Difluoroethane
Zep 45NC Penetrating Lubricant w/ teflon	6 x 8 oz. spray cans	O – 5 cans U – 1 can	Good	Aromatic naptha, aliphatic naptha, ethanol, petroleum lubricant
Spray Adhesive	1 x 12 oz. can	O	Good	Methylene chloride

PRODUCT NAME	QUANTITY	OPENED (O) / UNOPENED (U)	CONDITION	INGREDIENTS
MAIN WORKSHOP (cont.)				
Power Service Diesel Fuel Supplement	1 qt.	O	Good	NIL (No Ingredients Listed)
Spray Nine Marine Cleaner	1 qt.	O	Good	n-Alkyl dimethybenzyl ammonium chloride, n-Alkyl dimethyl ethylbenzyl ammonium chloride
Zep Aid NC Silicone Spray	24 fl. oz.	O	Good	Heptane, polydimethylsiloxane, CO_2
Zep ID Red (spray)	5 x 24 fl. oz.	O (all)	Good	Heptane, alcohol mixture, CO_2
CRC Engine Stor Marine	13 oz.	O	Good	petroleum distillates, butyl stearate, fatty acid ester, propane, isobutene, n-butane
Aratari Monster Foam Fabric Cleaner	2 x 19 oz.	O	Good	DI water, Diethylene glycol monobutyl ether, liquefied petroleum gas
BECT Chemical Penetrating Oil	16 oz.	O	Good	Methylene chloride, aliphatic hydrocarbon, CO_2
Zep-Flo Liquid Drain Solvent	32 fl. oz.	O	Good	Sulfuric acid, no other ingredients listed
Napa Premium Starting Fluid	11 oz.	O	Good	NIL
Sprayway Glass Cleaner	3 x 19 oz.	O	Good	2-butoxyethanol, ethyl alcohol, methyl alcohol, DI water, liquified petroleum, gas
CRC Electric Cleaner (Marine)	11 oz.	O	Good	Methanol, n-hexane, isohexane, petroleum distillates, CO_2
Napa CRC Brakleen (spray)	1 lb. 3 oz.	U	New	Tetrachloroethylene, CO_2
Sta-Put II Adhesive	2 x 13 oz.	O	Good	Hexane, dimethyl ether
Liquid Gold Wood Cleaner	12 oz.	O	Good	Petroleum distillates
Pyroil Brake Parts Cleaner	13 oz.	O	Good	xylene, methyl alcohol, acetone, heptane, CO_2
Pyroil Carb & Choke Cleaner	13 oz.	O	Good	xylene, methyl alcohol, acetone, CO_2
Zep Choke & Carb Cleaner	20 fl. oz.	O	Good	Methylene chloride, xylene, methanol, morpholine, CO_2
Zep Zepunch Engine Degreaser	24 fl. oz.	O	Good	Light aromatic naptha, tetrachloroethylene, monoisopropylbiphenols, nonionic surfactant, CO_2
LPS Rust Inhibitor (spray)	11 oz.	O	Good	Mineral spirits, petroleum oil, microcrystalline wax, calcium carbonate, CO_2
PARTS SUPPLY ROOM				
Zep Zepunch Engine Degreaser	10 x 24 fl. oz.	U	New	Light aromatic naptha, tetrachloroethylene, monoisopropylbiphenols, nonionic surfactant, CO_2
Napa CRC Brakleen (spray)	11 x 1 lb. 3 oz.	U	New	Tetrachloroethylene, CO_2
Zep Aid NC Silicone Spray	20 x 24 fl. oz.	U	New	Heptane, polydimethylsiloxane, CO_2
Zep 40 Non-streaking Cleaner	24 fl. oz.	O	Good	Isopropyl alcohol, ethylene glycol, monobutyl ether, isobutene, n-butane
CRC Ultra Screw Loose	11 fl. oz.	O	Good	Petroleum distillates, oleic acid, CO_2
Zep Magnet Dust Mop & Cloth Spray	20 fl. oz.	U	New	Aliphatic naptha, isobutene, propane, n-butane
Zep-Flo Liquid Drain Solvent	11 x 32 fl. oz.	U	New	Sulfuric acid, no other ingredients listed

PRODUCT NAME	QUANTITY	OPENED (O) / UNOPENED (U)	CONDITION	INGREDIENTS
PARTS SUPPLY ROOM (cont.)				
Yamaha Ring Free Fuel Additive	12 x 32 fl. oz. 8 x 12 fl. oz.	U	New	Petroleum distillates, trimethyl benzene
Yamaha Silicone Protectant & Lube	12 x 12.5 oz.	U	New	Perchloroethylene, parafinic petroleum distillates
Evinrude/Johnson Touch-Up Paint (spray)	2 x 12 oz.	U	New	Acetone, propane, toluol, n-butane, titanium dioxide, methyl propyl ketone, isobutyl acetate, glycol ether
Zep 45NC Penetrating Lubricant w/ teflon	8 oz. spray can	U	New	Aromatic naptha, aliphatic naptha, ethanol, petroleum lubricant

Workshop Product Inventory (as of 3/17/10)

PRODUCT NAME	QUANTITY	OPENED (O) or UNOPENED (U)/ PID READING (ppb)	CONDITION	INGREDIENTS
Cabinet *Background PID reading for entire cabinet is 95,000 ppb (at doors while closed)				
Spray Paint	10 x 11oz	O	Good	Toluene, Acetone, Xylene
Spray Stripper	1 x 19oz	O	Good	Methanol, Methylene Chloride
WD-40	1 x 8oz	U	Good	Petroleum distillates
Self Etching Primer	1 x 11oz	O	Good	Acetone, Toluene, MEK
Glass Cleaner	6 x 19oz	O	Good	Butoxyethanol, Ethyl Alcohol, Methane, Propane
Monster Spay Wax	7 x 11oz	O	Good	Aliphatic hydrocarbon, cyclo methyl chloro, 1,1-difluroethene
Engine Fogging Fluid	4 x 13oz	O	Good	Petroleum distillates, Isobutene, n-Butane
Brakleen	1 x 19oz	O	Good	Tetrachloroethylene
Zep Sheen Furniture Cleaner	1 x 16oz	O	Good	Isoparaffinic solvent, Isobutane, Propane
Monster Spray Foam	8 x 19oz	O	Good	Liquefied petroleum gas, monobutyl ether
Zep Silicone Spray	7 x 1lb	O	Good	Heptane, Polydimethyl, solokane
Spray Adhesive	1 x 13oz	O	Good	Methylene Chloride, MEK, Hexane, Isobutane
Napa Carborator Cleaner	1 x12oz	O	Good	Xylene, Methyl alcohol, Acetone, Ethylbenzene
Dapt Contact Cement	1 x 32oz	O	Good	Petroleum, Naphthalene, MEK, Toluene
Stripeeze	1 x 1quart	O	Good	Petroleum distillates, Toluene, Methanol, Acetone
Adhesive Remover solvent	1 x 1 gal	O	No Lid	Naphthalene petroleum, Petroleum distillates, Aromatic hydro carbons
South End (Bay 3)				
Spray Adhesive		O / 1616	Good	Methyl Chloride, Hydrocarbon mixture
Napa Silicone Spray		O / 275	Good	Acetone, Hexane Propane 2,3-Dimethylbutane, Cyclohexane, Dimethylbutane
Once Over		O / 1515	Good	Propane, Isobutane, Dipropylene glycol, Methyl ether
Di-Electric Grease		O / 1560	Good	Dimethylpolysiloxane
East Wall-Bench				
2-26 electric Cleaner	1 x 11 oz	O /1550	Good	Petroleum Distillates, Butyl Sterates
Di-Electric Grease	1 x 33 oz	O/487	Good	Petroleum Distillates, Butyl Sterates
Once Over		O / 1360	Good	Petroleum Distillates, Butyl Sterates
Spray Paint	1 x 11 oz	O/ 2664	Good	Hydrocarbon, Keytone, Toluene
Aratari Auto Finisher Cleaner/Wax	1 x 32 oz	O / 260,000	Good	-
Yamaha Silicon Protectant and Lube	1 x 12.5 oz	O / 476,000	Good	Perchloroethylene, Paraffin, Petroleum Distillates
Zep 40 Cleaner	1 x 24 oz	O / 1362	Good	Alcone, Ether
Parts Washing Bin	1 x 35 gal	O / 54,000	Good	Petroleum Distillates, Tetrachloroethylene
CCR Tyme-1 Carbonator Cleaner	1 x 5 gal	O / 3773	Good	Cyclohexanol, Potassium oleate, Tetrachloroethylene
Parts Supply Room				
Zep Formula 3000	1 x 1 gal	U / 3050	Good	1,1,1-Benzene, Carbon tetrachloride
South Wall (Bay 4)				
Spray Paint	1 x 11 oz	O / 1241	Good	Toluene, Naphthalene, Acetone, Propane, n-Butane
Brakleen (Brake Cleaner	2 x 22 oz	O / 1458	Good	Tetrachloroethylene (PCE)
Brake Fluid	1 x 32 oz	O	-	Not listed-
Disc Brake Fluid	1 x 9 oz	O / 95,000	-	Not listed-

PRODUCT NAME	QUANTITY	OPENED (O) or UNOPENED (U)/ PID READING (ppb)	CONDITION	INGREDIENTS
South Wall (Bay 4) cont.				
Zepunch Engine Degreaser	1 24 oz	O / 1122	Good	Light aromatic Naphthalene, Tetrachloroethylene, Mono Isopropyl Biphenyls, Nonionic surfactant, CO_2
Wrestley's Bleach-White	1 x 32 oz	O/748	Good	Not listed
Waste Oil Tank	300-400 gal	O/1126	Spillage on floor	Not listed
Bathroom				
Excelon Floor Polish	1 x 2 gal	O/347	Good	Ethyl Ether, Dipropylene glycol methyl ether

Appendix I
DUSR

DATA USABILITY SUMMARY REPORT

FOR

Former Churchville Ford Air Data

SDG No. 10-1101

VOLATILES

Sampling Date: March 17, 2010

Submitted to:

Lu Engineers
2230 Penfield Road
Penfield, New York 14526
(888) 377-1450

For

New York State Department of Environmental Conservation
Albany, New York

Prepared by:
Environmental Data Validation Inc (EDV, Inc.,)
1326 Orangewood Ave
Pittsburgh, PA 15216
(412) 341-5281

Site: Former Churchville Ford SDG #: 10-1101

Client: Lu Engineers Date: August 17, 2010

Laboratory: Paradigm Environmental Services, Inc. Reviewer: D. McGuire

Client ID	Laboratory ID	Matrix	VOA
SVS-JCL-02b	4259	Air	X
IA-JCL-02b	4260	Air	X
IA-JCL-02b Dup	4261	Air	X
SVS-JCL-03b	4262	Air	X
IA-JCL-03b	4263	Air	X
OA-JCL-04b	4264	Air	X

The data package contained six (6) air samples. The samples were analyzed via Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air; Method TO-15, Second Edition, EPA/625/R-96/010b, January 1999. The adherence of laboratory analytical performance to this method's Analytical Specifications was evaluated during the data validation process. The data package was evaluated for its usability as defined by the Guidance for the Development of Data Usability Summary Reports (NYSDEC, 10/02). USEPA Region II checklist SOP# HW-31 rev 4 October 2006 was used as a guidance document. According to the NYSDEC Guidance for the Development of Data Usability Summary Reports, the following QC data were evaluated: blanks, instrument tunings, calibration standards, calibration verifications, replicate analyses, laboratory control and sample data. All QC data were within quality control limits, except the following issues:

Cover letter, Narrative and Data Reporting Forms (Form 1s): All criteria were met. The deficiencies noted in the case narrative have been discussed in applicable sections.

Chain of Custody (COC) and Traffic Report: All were present.

Holding Time: Holding time was within acceptable criterion.

Calibration Quality Control: Although methylene chloride calibration sample results were outside criteria; no data required qualification.

Blanks Quality Control: The following results were qualified due to blank contamination;

Sample ID	Analyte	Qualifier
4259	Acetone	289U
4259	Methylene Chloride	81.1 U
4260	Acetone	90.4U

Sample ID	Analyte	Qualifier
4260	Methylene Chloride	172U
4261	Acetone	184U
4261	Methylene Chloride	90.0U
4262	Methylene Chloride	83.1U
4263	Acetone	150U
4263	Methylene Chloride	67.0U
4264	Acetone	20.7U
4264	Methylene Chloride	9.86U

Laboratory Control Sample (LCS): Although several recoveries were outside the upper acceptance limits, no data required qualification.

Field Quality Control: Field QC samples were acceptable.

Additional Comments: The following results were estimated due to exceeding the calibration range;

Sample ID	Analyte	Qualifier
4259	4-Methyl-2-Pentanone	J
4261	Toluene	J
4262	Acetone, Chloroethane, cis-1,2-Dichloroethene, trans-1,2-Dichloroethene, Vinyl Chloride	J
4263	Toluene	J

Data usability: Data qualified with the "UJ" qualifier are to be used cautiously as they are estimated data with some quality control issues. Data qualified with the "J" qualifier are to be used cautiously as they are estimated data with some quality control issues. Data qualified with the "R" qualifier are not usable due to severe quality control issues. Data qualified with the "U" qualifier are usable as there are no quality control issues.

ATTACHMENT A

VALIDATED AND QUALIFIED DATA SHEETS (FORM 1s)

PARADIGM
ENVIRONMENTAL SERVICES, INC. 179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Air

Client: Lu Engineers

Client Job Site: Former Churchville Ford
Client Job Number: 5701-11
Field Location: SVS-JCL-02b
Field ID Number: C-1009
Sample Type: Air

Lab Project Number: 10-1101
Lab Sample Number: 4259

Date Sampled: 03/17/2010
Date Received: 03/19/2010
Date Analyzed: 03/29/2010

Halocarbons	PPBv	ug / m3
Bromodichloromethane	ND< 1.90 U	ND< 12.6 U
Bromoform	ND< 1.90 U	ND< 19.4 U
Bromomethane	ND< 1.90 U	ND< 7.30 U
Carbon Tetrachloride	ND< 0.762 U	ND< 4.74 U
Chlorethane	ND< 3.81 U	ND< 9.97 U
Chloroform	ND< 1.90 U	ND< 9.17 U
Chloromethane	ND< 1.90 U	ND< 3.89 U
Dibromochloromethane	ND< 1.90 U	ND< 16.0 U
1,2 Dibromoethane	ND< 1.90 U	ND< 14.5 U
1,1-Dichloroethane	ND< 1.90 U	ND< 7.62 U
1,1-Dichloroethene	ND< 1.90 U	ND< 7.46 U
1,2-Dichloroethane	ND< 1.90 U	ND< 7.62 U
cis-1,2-Dichloroethene	ND< 1.90 U	ND< 7.46 U
trans-1,2-Dichloroethene	ND< 1.90 U	ND< 7.46 U
1,2-Dichloropropane	ND< 3.81 U	ND< 17.5 U
cis-1,3-Dichloropropene	ND< 1.90 U	ND< 8.55 U
trans-1,3-Dichloropropene	ND< 1.90 U	ND< 8.55 U
Methylene Chloride	23.6 U	81.1 U
1,1,2,2-Tetrachloroethane	ND< 1.90 U	ND< 12.9 U
Tetrachloroethene	14.5	97.3
1,1,1-Trichloroethane	2.27	12.3
1,1,2-Trichloroethane	ND< 1.90 U	ND< 10.3 U
Trichloroethene	ND< 0.895 U	ND< 4.76 U
Trichlorofluoromethane	ND< 1.90 U	ND< 10.6 U
Freon 113	ND< 1.90 U	ND< 14.5 U
Vinyl Chloride	ND< 1.90 U	ND< 4.82 U

Aromatics	PPBv	ug / m3
Benzene	9.18	29.3
Chlorobenzene	ND< 1.90 U	ND< 8.70 U
Ethylbenzene	ND< 1.90 U	ND< 8.24 U
Toluene	13.7	51.6
m,p-Xylene	ND< 1.90 U	ND< 8.24 U
o-Xylene	ND< 1.90 U	ND< 8.24 U
Styrene	ND< 1.90 U	ND< 8.08 U
1,2-Dichlorobenzene	ND< 1.90 U	ND< 11.3 U
1,3-Dichlorobenzene	ND< 1.90 U	ND< 11.3 U
1,4-Dichlorobenzene	ND< 1.90 U	ND< 11.3 U

Ketones	PPBv	ug / m3
Acetone	E 122 U	E 289 U
2-Butanone	ND< 9.52 U	ND< 28.0 U
2-Hexanone	ND< 9.52 U	ND< 38.9 U
4-Methyl-2-Pentanone	E 93.3 J	E 382 J

Miscellaneous	PPBv	ug / m3
Carbon Disulfide	ND< 9.52 U	ND< 29.6 U
Methyl-tert-Butyl Ether	ND< 1.90 U	ND< 6.84 U
Vinyl Acetate	ND< 1.90 U	ND< 6.68 U

ELAP Number 10958 Method: EPA TO-15 Data File: A4582.d

Comments: ND denotes Non Detect
PPBv = Parts per Billion volume
ug / m3 - Microgram per cubic meter.

Signature: _____
Bruce Hoogesteger: Technical Director

DLM 8/16/10

PARADIGM
ENVIRONMENTAL SERVICES, INC. 179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Air

Client: Lu Engineers

Client Job Site: Former Churchville Ford
Client Job Number: 5701-11
Field Location: IA-JCL-02b
Field ID Number: C-1020
Sample Type: Air

Lab Project Number: 10-1101
Lab Sample Number: 4260

Date Sampled: 03/17/2010
Date Received: 03/19/2010
Date Analyzed: 03/29/2010

Halocarbons	PPBv	ug / m3
Bromodichloromethane	ND< 1.90 U	ND< 12.6 U
Bromoform	ND< 1.90 U	ND< 19.4 U
Bromomethane	ND< 1.90 U	ND< 7.30 U
Carbon Tetrachloride	ND< 0.762 U	ND< 4.74 U
Chlorethane	ND< 3.81 U	ND< 9.97 U
Chloroform	ND< 1.90 U	ND< 9.17 U
Chloromethane	ND< 1.90 U	ND< 3.89 U
Dibromochloromethane	ND< 1.90 U	ND< 16.0 U
1,2 Dibromoethane	ND< 1.90 U	ND< 14.5 U
1,1-Dichloroethane	ND< 1.90 U	ND< 7.62 U
1,1-Dichloroethene	ND< 1.90 U	ND< 7.46 U
1,2-Dichloroethane	ND< 1.90 U	ND< 7.62 U
cis-1,2-Dichloroethene	ND< 1.90 U	ND< 7.46 U
trans-1,2-Dichloroethene	ND< 1.90 U	ND< 7.46 U
1,2-Dichloropropane	ND< 3.81 U	ND< 17.5 U
cis-1,3-Dichloropropene	ND< 1.90 U	ND< 8.55 U
trans-1,3-Dichloropropene	ND< 1.90 U	ND< 8.55 U
Methylene Chloride	26.3 U	90.4 U
1,1,2,2-Tetrachloroethane	ND< 1.90 U	ND< 12.9 U
Tetrachloroethene	42.5	285
1,1,1-Trichloroethane	ND< 1.90 U	ND< 10.3 U
1,1,2-Trichloroethane	ND< 1.90 U	ND< 10.3 U
Trichloroethene	ND< 0.895 U	ND< 4.76 U
Trichlorofluoromethane	ND< 1.90 U	ND< 10.6 U
Freon 113	ND< 1.90 U	ND< 14.5 U
Vinyl Chloride	ND< 1.90 U	ND< 4.82 U

Aromatics	PPBv	ug / m3
Benzene	7.30	23.3
Chlorobenzene	ND< 1.90 U	ND< 8.70 U
Ethylbenzene	5.31	23.0
Toluene	70.7	266
m,p-Xylene	19.6	85.0
o-Xylene	5.50	23.8
Styrene	ND< 1.90 U	ND< 8.08 U
1,2-Dichlorobenzene	ND< 1.90 U	ND< 11.3 U
1,3-Dichlorobenzene	ND< 1.90 U	ND< 11.3 U
1,4-Dichlorobenzene	ND< 1.90 U	ND< 11.3 U

Ketones	PPBv	ug / m3
Acetone	72.4 U	172 U
2-Butanone	ND< 9.52 U	ND< 28.0 U
2-Hexanone	ND< 9.52 U	ND< 38.9 U
4-Methyl-2-Pentanone	ND< 9.52 U	ND< 38.9 U

Miscellaneous	PPBv	ug / m3
Carbon Disulfide	ND< 9.52 U	ND< 29.6 U
Methyl-tert-Butyl Ether	ND< 1.90 U	ND< 6.84 U
Vinyl Acetate	ND< 1.90 U	ND< 6.68 U

ELAP Number 10958 Method: EPA TO-15 Data File: A4583.d

Comments: ND denotes Non Detect
PPBv = Parts per Billion volume
ug / m3 - Microgram per cubic meter.

Signature: _____
Bruce Hoogesteger, Technical Director

DLM 8/16/10

PARADIGM
ENVIRONMENTAL SERVICES, INC. 179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Air

Client: Lu Engineers

Client Job Site: Former Churchville Ford
Client Job Number: 5701-11
Field Location: IA-JCL-02b Dup
Field ID Number: C-1015
Sample Type: Air

Lab Project Number: 10-1101
Lab Sample Number: 4261

Date Sampled: 03/17/2010
Date Received: 03/19/2010
Date Analyzed: 03/29/2010

Halocarbons	PPBv		ug / m3	
Bromodichloromethane	ND< 2.00	U	ND< 13.3	U
Bromoform	ND< 2.00	U	ND< 20.4	U
Bromomethane	ND< 2.00	U	ND< 7.69	U
Carbon Tetrachloride	ND< 0.800	U	ND< 4.97	U
Chlorethane	ND< 4.00	U	ND< 10.5	U
Chloroform	ND< 2.00	U	ND< 9.65	U
Chloromethane	ND< 2.00	U	ND< 4.09	U
Dibromochloromethane	ND< 2.00	U	ND< 16.9	U
1,2 Dibromoethane	ND< 2.00	U	ND< 15.2	U
1,1-Dichloroethane	ND< 2.00	U	ND< 8.02	U
1,1-Dichloroethene	ND< 2.00	U	ND< 7.85	U
1,2-Dichloroethane	ND< 2.00	U	ND< 8.02	U
cis-1,2-Dichloroethene	ND< 2.00	U	ND< 7.85	U
trans-1,2-Dichloroethene	ND< 2.00	U	ND< 7.85	U
1,2-Dichloropropane	ND< 4.00	U	ND< 18.3	U
cis-1,3-Dichloropropene	ND< 2.00	U	ND< 9.00	U
trans-1,3-Dichloropropene	ND< 2.00	U	ND< 9.00	U
Methylene Chloride	26.2	U	90.0	U
1,1,2,2-Tetrachloroethane	ND< 2.00	U	ND< 13.6	U
Tetrachloroethene	51.0		342	
1,1,1-Trichloroethane	ND< 2.00	U	ND< 10.8	U
1,1,2-Trichloroethane	ND< 2.00	U	ND< 10.8	U
Trichloroethene	ND< 0.940	U	ND< 5.00	U
Trichlorofluoromethane	ND< 2.00	U	ND< 11.1	U
Freon 113	ND< 2.00	U	ND< 15.2	U
Vinyl Chloride	ND< 2.00	U	ND< 5.07	U

Aromatics	PPBv		ug / m3	
Benzene	6.76		21.6	
Chlorobenzene	ND< 2.00	U	ND< 9.16	U
Ethylbenzene	5.76		25.0	
Toluene	E 90.4	J	E 340	J
m,p-Xylene	21.8		94.5	
o-Xylene	6.32		27.4	
Styrene	ND< 2.00	U	ND< 8.51	U
1,2-Dichlorobenzene	ND< 2.00	U	ND< 11.9	U
1,3-Dichlorobenzene	ND< 2.00	U	ND< 11.9	U
1,4-Dichlorobenzene	ND< 2.00	U	ND< 11.9	U

Ketones	PPBv		ug / m3	
Acetone	77.4	U	184	U
2-Butanone	ND< 10.0	U	ND< 29.4	U
2-Hexanone	ND< 10.0	U	ND< 40.9	U
4-Methyl-2-Pentanone	ND< 10.0	U	ND< 40.9	U

Miscellaneous	PPBv		ug / m3	
Carbon Disulfide	ND< 10.0	U	ND< 31.1	U
Methyl-tert-Butyl Ether	ND< 2.00	U	ND< 7.20	U
Vinyl Acetate	ND< 2.00	U	ND< 7.03	U

ELAP Number 10958 Method: EPA TO-15 Data File: A4584.d

Comments: ND denotes Non Detect
PPBv = Parts per Billion volume
ug / m3 - Microgram per cubic meter.

Signature:
Bruce Hoogesteger: Technical Director

DLH 8/16/10

PARADIGM
ENVIRONMENTAL SERVICES, INC. 179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Air

Client: Lu Engineers

Client Job Site: Former Churchville Ford
Client Job Number: 5701-11
Field Location: SVS-JCL-03b
Field ID Number: C-1001
Sample Type: Air

Lab Project Number: 10-1101
Lab Sample Number: 4262

Date Sampled: 03/17/2010
Date Received: 03/19/2010
Date Analyzed: 03/29/2010

Halocarbons	PPBv	ug / m3
Bromodichloromethane	ND< 2.00 U	ND< 13.3 U
Bromoform	ND< 2.00 U	ND< 20.4 U
Bromomethane	ND< 2.00 U	ND< 7.69 U
Carbon Tetrachloride	ND< 0.800 U	ND< 4.97 U
Chlorethane	E 226 J	592 J
Chloroform	ND< 2.00 U	ND< 9.65 U
Chloromethane	ND< 2.00 U	ND< 4.09 U
Dibromochloromethane	ND< 2.00 U	ND< 16.9 U
1,2 Dibromoethane	ND< 2.00 U	ND< 15.2 U
1,1-Dichloroethane	51.8	208
1,1-Dichloroethene	15.4	60.5
1,2-Dichloroethane	ND< 2.00 U	ND< 8.02 U
cis-1,2-Dichloroethene	E 4,700 J	18,500 J
trans-1,2-Dichloroethene	E 52.0 J	204 J
1,2-Dichloropropane	ND< 4.00 U	ND< 18.3 U
cis-1,3-Dichloropropene	ND< 2.00 U	ND< 9.00 U
trans-1,3-Dichloropropene	ND< 2.00 U	ND< 9.00 U
Methylene Chloride	24.2 U	83.1 U
1,1,2,2-Tetrachloroethane	ND< 2.00 U	ND< 13.6 U
Tetrachloroethene	46.6	313
1,1,1-Trichloroethane	47.4	256
1,1,2-Trichloroethane	ND< 2.00 U	ND< 10.8 U
Trichloroethene	57.4	305
Trichlorofluoromethane	ND< 2.00 U	ND< 11.1 U
Freon 113	ND< 2.00 U	ND< 15.2 U
Vinyl Chloride	E 982 J	2,490 J

Aromatics	PPBv	ug / m3
Benzene	24.4	77.8
Chlorobenzene	ND< 2.00 U	ND< 9.16 U
Ethylbenzene	20.0	86.7
Toluene	36.4	137
m,p-Xylene	25.8	112
o-Xylene	7.86	34.1
Styrene	ND< 2.00 U	ND< 8.51 U
1,2-Dichlorobenzene	ND< 2.00 U	ND< 11.9 U
1,3-Dichlorobenzene	ND< 2.00 U	ND< 11.9 U
1,4-Dichlorobenzene	ND< 2.00 U	ND< 11.9 U

Ketones	PPBv	ug / m3
Acetone	E 342 J	E 811 J
2-Butanone	ND< 10.0 U	ND< 29.4 U
2-Hexanone	ND< 10.0 U	ND< 40.9 U
4-Methyl-2-Pentanone	46.2	189

Miscellaneous	PPBv	ug / m3
Carbon Disulfide	ND< 10.0 U	ND< 31.1 U
Methyl-tert-Butyl Ether	ND< 2.00 U	ND< 7.20 U
Vinyl Acetate	ND< 2.00 U	ND< 7.03 U

ELAP Number 10958 Method: EPA TO-15 Data File: A4584.d

Comments: ND denotes Non Detect
PPBv = Parts per Billion volume
ug / m3 - Microgram per cubic meter.

Signature: _____
Bruce Hoogesteger: Technical Director

PARADIGM
ENVIRONMENTAL SERVICES, INC. 179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Air

Client: Lu Engineers

Client Job Site: Former Churchville Ford
Client Job Number: 5701-11
Field Location: IA-JCL-03b
Field ID Number: C-1019
Sample Type: Air

Lab Project Number: 10-1101
Lab Sample Number: 4263

Date Sampled: 03/17/2010
Date Received: 03/19/2010
Date Analyzed: 03/29/2010

Halocarbons	PPBv	ug / m3
Bromodichloromethane	ND< 2.00 U	ND< 13.3 U
Bromoform	ND< 2.00 U	ND< 20.4 U
Bromomethane	ND< 2.00 U	ND< 7.69 U
Carbon Tetrachloride	ND< 0.800 U	ND< 4.97 U
Chlorethane	ND< 4.00 U	ND< 10.5 U
Chloroform	ND< 2.00 U	ND< 9.65 U
Chloromethane	ND< 2.00 U	ND< 4.09 U
Dibromochloromethane	ND< 2.00 U	ND< 16.9 U
1,2 Dibromoethane	ND< 2.00 U	ND< 15.2 U
1,1-Dichloroethane	ND< 2.00 U	ND< 8.02 U
1,1-Dichloroethene	ND< 2.00 U	ND< 7.85 U
1,2-Dichloroethane	ND< 2.00 U	ND< 8.02 U
cis-1,2-Dichloroethene	ND< 2.00 U	ND< 7.85 U
trans-1,2-Dichloroethene	ND< 2.00 U	ND< 7.85 U
1,2-Dichloropropane	ND< 4.00 U	ND< 18.3 U
cis-1,3-Dichloropropene	ND< 2.00 U	ND< 9.00 U
trans-1,3-Dichloropropene	ND< 2.00 U	ND< 9.00 U
Methylene Chloride	19.5 U	67.0 U
1,1,2,2-Tetrachloroethane	ND< 2.00 U	ND< 13.6 U
Tetrachloroethene	35.2	236
1,1,1-Trichloroethane	ND< 2.00 U	ND< 10.8 U
1,1,2-Trichloroethane	ND< 2.00 U	ND< 10.8 U
Trichloroethene	ND< 0.940 U	ND< 5.00 U
Trichlorofluoromethane	ND< 2.00 U	ND< 11.1 U
Freon 113	ND< 2.00 U	ND< 15.2 U
Vinyl Chloride	ND< 2.00 U	ND< 5.07 U

Aromatics	PPBv	ug / m3
Benzene	16.8	53.6
Chlorobenzene	ND< 2.00 U	ND< 9.16 U
Ethylbenzene	7.20	31.2
Toluene	E 91.2 J	E 343 J
m,p-Xylene	28.2	122
o-Xylene	8.04	34.9
Styrene	ND< 2.00 U	ND< 8.51 U
1,2-Dichlorobenzene	ND< 2.00 U	ND< 11.9 U
1,3-Dichlorobenzene	ND< 2.00 U	ND< 11.9 U
1,4-Dichlorobenzene	ND< 2.00 U	ND< 11.9 U

Ketones	PPBv	ug / m3
Acetone	63.2 U	150 U
2-Butanone	ND< 10.0 U	ND< 29.4 U
2-Hexanone	ND< 10.0 U	ND< 40.9 U
4-Methyl-2-Pentanone	ND< 10.0 U	ND< 40.9 U

Miscellaneous	PPBv	ug / m3
Carbon Disulfide	ND< 10.0 U	ND< 31.1 U
Methyl-tert-Butyl Ether	ND< 2.00 U	ND< 7.20 U
Vinyl Acetate	ND< 2.00 U	ND< 7.03 U

ELAP Number 10958 Method: EPA TO-15 Data File: A4586.d

Comments: ND denotes Non Detect
PPBv = Parts per Billion volume
ug / m3 - Microgram per cubic meter.

Signature: _____
Bruce Hoogesteger: Technical Director

DRM 8/14/10

PARADIGM
ENVIRONMENTAL SERVICES, INC. 179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Air

Client: Lu Engineers

Client Job Site: Former Churchville Ford
Client Job Number: 5701-11
Field Location: OA-JCL-04b
Field ID Number: C-1010
Sample Type: Air

Lab Project Number: 10-1101
Lab Sample Number: 4264

Date Sampled: 03/17/2010
Date Received: 03/19/2010
Date Analyzed: 03/28/2010

Halocarbons	PPBv	ug / m3
Bromodichloromethane	ND< 0.100 U	ND< 0.663 U
Bromoform	ND< 0.100 U	ND< 1.02 U
Bromomethane	ND< 0.100 U	ND< 0.384 U
Carbon Tetrachloride	0.0989	0.615
Chlorethane	ND< 0.200 U	ND< 0.524 U
Chloroform	ND< 0.100 U	ND< 0.483 U
Chloromethane	0.638	1.30
Dibromochloromethane	ND< 0.100 U	ND< 0.843 U
1,2 Dibromoethane	ND< 0.100 U	ND< 0.761 U
1,1-Dichloroethane	ND< 0.100 U	ND< 0.401 U
1,1-Dichloroethene	ND< 0.100 U	ND< 0.393 U
1,2-Dichloroethane	ND< 0.100 U	ND< 0.401 U
cis-1,2-Dichloroethene	ND< 0.100 U	ND< 0.393 U
trans-1,2-Dichloroethene	ND< 0.100 U	ND< 0.393 U
1,2-Dichloropropane	ND< 0.200 U	ND< 0.916 U
cis-1,3-Dichloropropene	ND< 0.100 U	ND< 0.450 U
trans-1,3-Dichloropropene	0.645	2.90
Methylene Chloride	2.87 U	9.86 U
1,1,2,2-Tetrachloroethane	ND< 0.100 U	ND< 0.679 U
Tetrachloroethene	ND< 0.100 U	ND< 0.671 U
1,1,1-Trichloroethane	ND< 0.100 U	ND< 0.540 U
1,1,2-Trichloroethane	ND< 0.100 U	ND< 0.540 U
Trichloroethene	ND< 0.0470 U	ND< 0.250 U
Trichlorofluoromethane	0.255	1.42
Freon 113	ND< 0.100 U	ND< 0.761 U
Vinyl Chloride	ND< 0.100 U	ND< 0.254 U

Aromatics	PPBv	ug / m3
Benzene	0.261	0.833
Chlorobenzene	ND< 0.100 U	ND< 0.458 U
Ethylbenzene	ND< 0.100 U	ND< 0.434 U
Toluene	0.477	1.79
m,p-Xylene	0.347	1.50
o-Xylene	0.123	0.533
Styrene	ND< 0.100 U	ND< 0.425 U
1,2-Dichlorobenzene	ND< 0.100 U	ND< 0.597 U
1,3-Dichlorobenzene	ND< 0.100 U	ND< 0.597 U
1,4-Dichlorobenzene	ND< 0.100 U	ND< 0.597 U

Ketones	PPBv	ug / m3
Acetone	E 8.71 U	E 20.7 U
2-Butanone	0.570	1.68
2-Hexanone	ND< 0.500 U	ND< 2.04 U
4-Methyl-2-Pentanone	ND< 0.500 U	ND< 2.04 U

Miscellaneous	PPBv	ug / m3
Carbon Disulfide	ND< 0.500 U	ND< 1.55 U
Methyl-tert-Butyl Ether	ND< 0.100 U	ND< 0.360 U
Vinyl Acetate	ND< 0.100 U	ND< 0.352 U

ELAP Number 10958 Method: EPA TO-15 Data File: A4573.d

Comments: ND denotes Non Detect
PPBv = Parts per Billion volume
ug / m3 - Microgram per cubic meter.

Signature:
Bruce Hoogesteger: Technical Director

DLH 8/16/10

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt.

101101A8.XLS

ATTACHMENT B

CASE NARRATIVE AND CHAIN OF CUSTODY

PARADIGM
ENVIRONMENTAL SERVICES, INC.
WWW.PARADIGMENV.COM
179 Lake Avenue, Rochester, NY 14608 PHONE: 585-647-2530 TOLL FREE: 800-724-1997 FAX: 585-647-3311

LAB PROJECT NARRATIVE

CLIENT: Lu Engineers
PROJECT NAME: Former Churchville Ford
LAB PROJECT: 10-1101
DATE: April 2, 2010

Six one liter canister samples were collected by Lu field staff on 3/17/2010 and received at the Paradigm laboratory on 3/19/2010. The samples were submitted for volatiles analysis by EPA Method TO-15. The results of analysis are attached, along with the supporting raw data.

The majority of samples were sufficiently contaminated to require running at a dilution. Even at the maximum dilution (20 fold), some analytes remained above the calibration range, and are reported with an "E" qualifier indicating estimated values. The sample "OA-JCL-04b" contained only lower level concentrations, and was run without dilution. The method blanks and canister cleaning blanks contained low levels of acetone and methylene chloride. Sample results for these two analytes are flagged with a "B". All samples were within method limits for Internal Standard Areas. The batch QC LCS was out slightly high for the IS chlorobenzene-d5. Sample data is not affected. No other QC or data qualifications apply to this data set.

PARADIGM ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue
Rochester, NY 14608
(585) 647-2530 * (800) 724-1997

TO-15 CHAIN OF CUSTODY

REPORT TO:		INVOICE TO:	
COMPANY:	Lu Engineers	COMPANY:	SAME
ADDRESS:	2230 Penfield Rd.	ADDRESS:	
CITY:	Penfield	STATE: NY	ZIP: 14526
PHONE:	377-1450	FAX: 377-1266	
ATTN:	Eric Detweiler	ATTN:	

LAB PROJECT #: 10-1101
CLIENT PROJECT #: 5701-11

TURNAROUND TIME: (WORKING DAYS) STD ☐ 3 ☐ 5 ☒ 7 OTHER ☐

PROJECT NAME/SITE NAME: Former Churchville Ford

COMMENTS: DUSR Ready Package needed.

Quotation #

Sampling Procedure

DATE	SAMPLE LOCATION/FIELD ID	MATRIX	CANISTER	REGULATOR	START VACUUM in Hg	START TIME	END TIME	END DATE	END VACUUM in Hg	ANALYSIS: TCL	ANALYSIS: Halo	ANALYSIS: Site Specific	RETURN VACUUM	PARADIGM LAB SAMPLE NUMBER
3/17/10	SVS-JCL-02b	AIR	C 1009	R 5208	-28" Hg	9:21	5:15	3/17/10	-8	X			10	42594
3/17/10	IA-JCL-02b	AIR	C 1020	R 5097	-27	9:22	5:15	3/17/10	-5	X			8	42600
3/17/10	IA-JCL-02b Dup.	AIR	C 1015	R 5038	-28	9:24	5:16	3/17/10	-10	X			11	42601
3/17/10	SVS-JCL-03b	AIR	C 1001	R 5087	-27.5	9:53	5:23	3/17/10	-10	X			12	42602
3/17/10	IA-JCL-03b	AIR	C 1019	R 5014	-28.5	9:54	5:23	3/17/10	-4	X			5	42603
3/17/10	OA-JCL-04b	AIR	C 1010	R 5044	-30	9:57	5:32	3/17/10	-9	X			10	42604
		AIR	C	R										
		AIR	C	R										
		AIR	C	R										
		AIR	C	R										

Remarks:

* 1 ug/m³ w/ 0.25 ug/m³ CT & TCE by TO-15 w/ CAT B Reporting

* Possible TCE contamination in subslab

****LAB USE ONLY BELOW THIS LINE****

Eric Detweiler/Christina Karas 3/17/10
Sampled By — Date/Time

Relinquished By — 3/19/10 8:00
Date/Time

Received By — 3/19/10 8:16
Date/Time

Elizabeth A. Honch 3/19/10 1445
Received @ Lab By — Date/Time

Total Cost:

P.I.F.

PARADIGM ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue
Rochester, NY 14608
(585) 647-2530 * (800) 724-1997

TO-15 EQUIPMENT CHAIN OF CUSTODY

REPORT TO:	INVOICE TO:
COMPANY: Lu Engineers	COMPANY: Lu Engineers
ADDRESS: 2230 Penfield Rd.	ADDRESS: 2230 Penfield Rd.
CITY: Penfield STATE: NY ZIP: 14526	CITY: Penfield STATE: NY ZIP: 14526
PHONE: (585) 377-1450 FAX: 377-1266	PHONE: (585) 377-1450 FAX:
ATTN: Eric Detweiler	ATTN: Eric Detweiler
COMMENTS:	

LAB PROJECT #: 10-1101
CLIENT PROJECT #: 5701-11

TURNAROUND TIME: (WORKING DAYS) STD OTHER
☐ 3 ☐ 5 ☒ 7 ☐

Quotation #

PROJECT NAME/SITE NAME: Former Churchville Ford

Equipment Tracking

CANISTER	SHIPPED VACUUM
C 1019	30
C 1016	30
C 1001	30
C 1015	30
C 1009	30
C 1020	30
C	
C	
C	
C	

CANISTER	SHIPPED VACUUM
C	
C	
C	
C	
C	
C	
C	
C	
C	
C	

CANISTER	SHIPPED VACUUM
C	
C	
C	
C	
C	
C	
C	
C	
C	
C	

Equipment Tracking

REGULATOR	FLOW
R 5108	1.4
R 5210	
R 5103	
R 5109	
R 5104	
R 5101	
R	
R	
R	
R	

REGULATOR	FLOW
R	
R	
R	
R	
R	
R	
R	
R	
R	
R	

REGULATOR	FLOW
R	
R	
R	
R	
R	
R	
R	
R	
R	
R	

1 gauge

3 canisters

Remarks: All equipment recd in good condition, 3/19.
EAH 3/19

****LAB USE ONLY BELOW THIS LINE****

Client
Picked up By — Date/Time

Total Cost:

Returned By — Date/Time

Received By — Date/Time

P.I.F.

Elizabeth A. Honch 3/19/10 1445
Received @ Lab By — Date/Time

Appendix J
Deed Restriction

MONROE COUNTY CLERK'S OFFICE

ROCHESTER, NY

THIS IS NOT A BILL. THIS IS YOUR RECEIPT

Receipt # 599296

Index DEEDS

Book 11046 Page 11

No. Pages : 5

Instrument DECLARATION OF RESTRICTION AND COVENANTS

Date : 09/27/2011

Time : 10:08:49AM

Control # 201109270318

TT # TT0000002803

Ref 1 #

Employee : RebeccaZ

Return To:
BOX 14 1/2
WFD
-

MEYERS AT CHURCHVILLE LLC

COUNTY FEE TP584	$	5.00
MISCELLANEOUS COUNTY FEE	$	0.00
COUNTY FEE NUMBER PAGES	$	20.00
RECORDING FEE	$	45.00
STATE FEE TRANSFER TAX	$	0.00

Total $ 70.00

State of New York

MONROE COUNTY CLERK'S OFFICE

WARNING - THIS SHEET CONSTITUTES THE CLERKS ENDORSEMENT, REQUIRED BY SECTION 317-a(5) & SECTION 319 OF THE REAL PROPERTY LAW OF THE STATE OF NEW YORK. DO NOT DETACH OR REMOVE.

TRANSFER AMT

TRANSFER AMT $1.00

CHERYL DINOLFO

MONROE COUNTY CLERK

PI182-201109270318-5

Box 1442 WHD

CORRECTIVE DECLARATION of COVENANTS and RESTRICTIONS

THIS COVENANT is made the 26th day of September, 2011, by Meyer's at Churchville, LLC, a New York limited liability corporation and having an office for the transaction of business at 111 South Main Street, Churchville, New York 14428.

WHEREAS, the former Churchville Ford Site is the subject of a Voluntary Cleanup Agreement executed by Joseph Ognibene and Antonio Gabriele as part of the New York State Department of Environmental Conservation's (the "Department's") Voluntary Cleanup Program, namely that parcel of real property located on 111 South Main Street in the Town of Riga in the Village of Churchville, County of Monroe, State of New York, which is part of lands conveyed by Joseph Ognibene and Antonio Gabriele to Meyer's at Churchville, LLC by deed dated April 23, 2004 and recorded in the Monroe County Clerk's Office in Liber 9947 of Deeds, Page 428 and being more particularly described in Appendix "A", attached to this declaration and made a part hereof, and hereinafter referred to as "the Property"; and

WHEREAS, the Department approved a remedy to eliminate or mitigate all significant threats to the environment presented by the contamination disposed at the Property and such remedy requires that the Property be subject to restrictive covenants.

NOW, THEREFORE, Meyer's at Churchville, LLC, for itself and its successors and/or assigns, covenants that:

First, the Property subject to this Declaration of Covenants and Restrictions is as shown on a map attached to this declaration as Appendix "B" and made a part hereof.

Second, unless prior written approval by the Department or, if the Department shall no longer exist, any New York State agency or agencies subsequently created to protect the environment of the State and the health of the State's citizens, hereinafter referred to as "the Relevant Agency," is first obtained, where contamination remains at the Property subject to the provisions of the Site Management Plan ("SMP"), there shall be no construction, use or occupancy of the Property that results in the disturbance or excavation of the Property which threatens the integrity of the engineering controls or which results in unacceptable human exposure to contaminated soils.

Third, the owner of the Property shall not disturb, remove, or otherwise interfere with the installation, use, operation, and maintenance of engineering controls required for the Remedy, which are described in the SMP, unless in each instance the owner first obtains a written waiver of such prohibition from the Department or Relevant Agency.

Fourth, the owner of the Property shall prohibit the Property from ever being used for purposes other than for commercial and/or industrial use without the express written waiver of such prohibition by the Department or Relevant Agency.

Fifth, the owner of the Property shall prohibit the use of the groundwater underlying the Property without treatment rendering it safe for drinking water or industrial purposes, as

2011 FEB 27 AM 10:08
MONROE COUNTY CLERK
RECORDED

5592357.1

appropriate, unless the user first obtains permission to do so from the Department or Relevant Agency.

Sixth, the owner of the Property shall provide a periodic certification, prepared and submitted by a professional engineer or environmental professional acceptable to the Department or Relevant Agency, which will certify that the institutional and engineering controls put in place are unchanged from the previous certification, comply with the SMP, and have not been impaired.

Seventh, the owner of the Property shall continue in full force and effect any institutional and engineering controls required for the Remedy and maintain such controls, unless the owner first obtains permission to discontinue such controls from the Department or Relevant Agency, in compliance with the approved SMP, which is incorporated and made enforceable hereto, subject to modifications as approved by the Department or Relevant Agency.

Eighth, this Declaration is and shall be deemed a covenant that shall run with the land, and shall be binding upon all future owners of the Property, and shall provide that the owner and its successors and assigns consent to enforcement by the Department or Relevant Agency of the prohibitions and restrictions that the Voluntary Cleanup Agreement requires to be recorded, and hereby covenant not to contest the authority of the Department or Relevant Agency to seek enforcement.

Ninth, any deed of conveyance of the Property, or any portion thereof, shall recite, unless the Department or Relevant Agency has consented to the termination of such covenants and restrictions, that said conveyance is subject to this Declaration of Covenants and Restrictions.

THE SOLE PURPOSE OF THIS DOCUMENT IS TO CORRECTLY RECITE THE NAME OF THE GRANTOR FROM MEYER'S OF CHURCHVILLE, LLC TO MEYER'S AT CHURCHVILLE, LLC. Recorded in Book 11045 page 117 on 09/23/11

IN WITNESS WHEREOF, the undersigned has executed this instrument the day written below.

MEYER'S AT CHURCHVILLE, LLC

By: _____
Mark D. Meyer, Sole Member and Manager

STATE OF NEW YORK)
COUNTY OF MONROE) ss.:

On the 26th day of September, in the year 2011, before me, the undersigned, personally appeared Mark D. Meyer, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

_____
Notary Public

WAYNE F. DeHOND
Notary Public, State of New York
No. 02DE0903433
Qualified in Monroe County
Commission Expires November 30, 2013

5592357.1

SURVEY DESCRIPTION

ALL THAT TRACT OR PARCEL OF LAND situate in part of Lot 52, Township 2, Range 2, West Pultney Tract, Phelps & Gorham Purchase, Village of Churchville, County of Monroe, and State of New York and more particularly described as follows:

Beginning at a point on the north line of N.Y.S.D.O.T. Acquisition Map No. 2061, Parcel No. 2061 by deed on file in the Monroe County Clerk's Office in Liber 10214 of Deeds, page 89 said point being the southeast corner of Lot 1 of the Meyers Subdivision by map on file in the Monroe County Clerk's office in Liber 326 of Maps, page 56, thence;

1) N 01°44'00" W and along the east line of said Lot 1 of the Meyers Subdivision, a distance of 670.79 feet to a point being the northeast corner thereof, thence;

2) N 88°16'00" E a distance of 703.23 feet to a point on the west right-of-way line of South Main Street (N.Y.S, Route 36) (66' R.O.W.), thence;

3) S 00°33'20" E and along the said west right-of-way line of South Main Street, a distance of 43.40 feet to a point, thence;

4) S 05°00'14" W and continuing along the said west right-of-way line of South Main Street, a distance of 222.08 feet to a point on the northeast corner of said N.Y.S.D.O.T. Acquisition Map No. 2061, Parcel No. 2061, thence;

5) S 70°02'39" W and along the said north line of N.Y.S.D.O.T. Acquisition Map No. 2061, Parcel No. 2061, a distance of 90.67 feet to a point, thence;

6) S 80°57'18" W and continuing along the said north line of N.Y.S.D.O.T. Acquisition Map No. 2061, Parcel No. 2061, a distance of 92.60 feet to a point, thence;

7) S 73°15'39" W and continuing along the said north line of N.Y.S.D.O.T. Acquisition Map No. 2061, Parcel No. 2061, a distance of 203.14 feet to a point, thence;

8) S 56°47'09" W and continuing along the said north line of N.Y.S.D.O.T. Acquisition Map No. 2061, Parcel No. 2061, a distance of 135.60 feet to a point, thence;

9) S 41°42'12" W and continuing along the said north line of N.Y.S.D.O.T. Acquisition Map No. 2061, Parcel No. 2061, a distance of 164.41 feet to a point, thence;

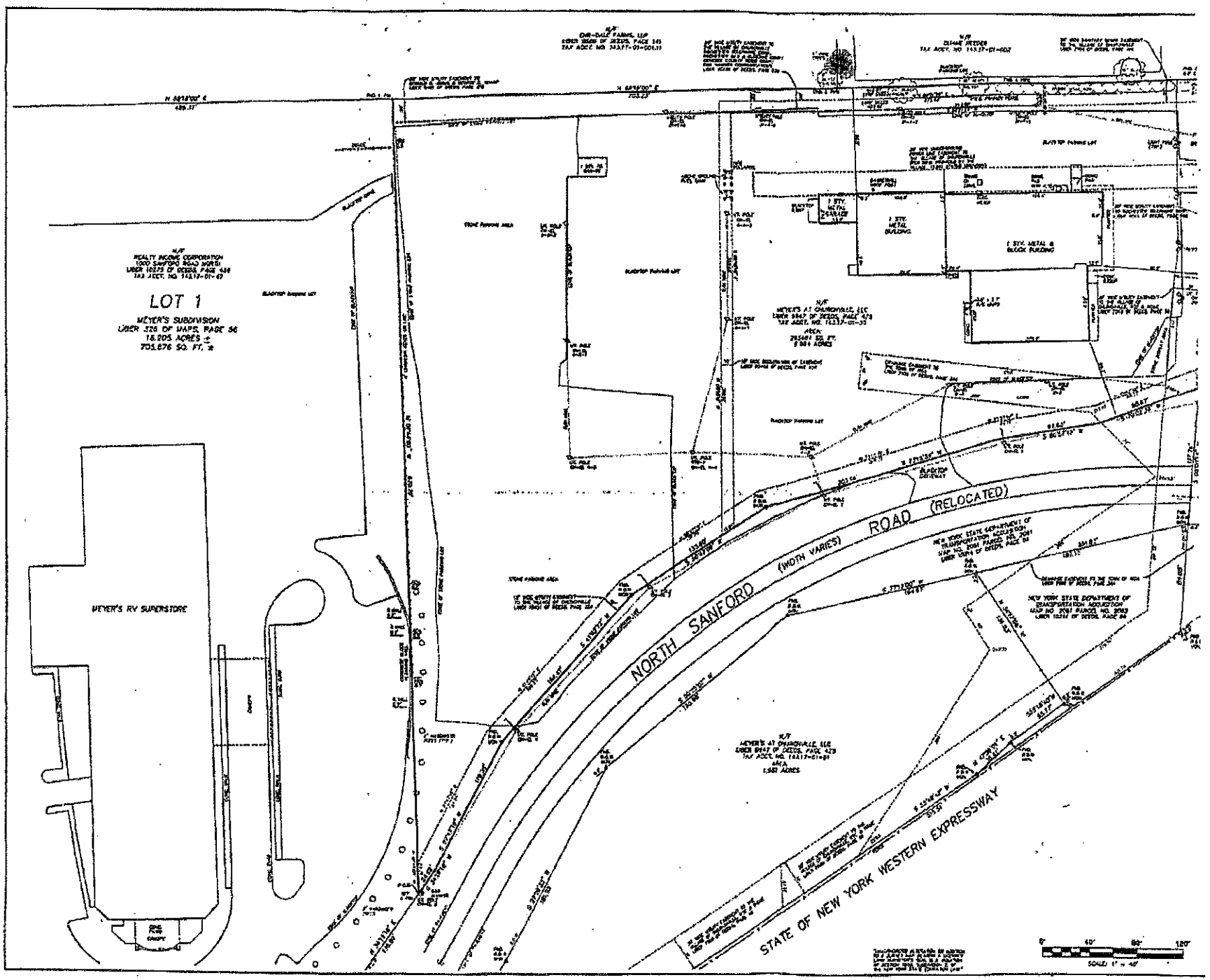
10) S 27°47'16" W and continuing along the said north line of N.Y.S.D.O.T. Acquisition Map No. 2061, Parcel No. 2061, a distance of 119.35 feet to a point, thence;

11) S 34°19'18" W and continuing along the said north line of N.Y.S.D.O.T. Acquisition Map No. 2061, Parcel No. 2061, a distance of 24.82 feet to the point and place of beginning.

Containing 6.094 acres of land more or less.

PROPERTY ADDRESS: 111 South Main Street, Churchville, NY 14428

TAX ACCOUNT NO.: 143.17-1-50


LOT 1
MEYER'S SUBDIVISION
LIBER 328 OF MAPS, PAGE 56
18.205 ACRES ±
793,676 SQ. FT. ±
MEYER'S RV SUPERSTORE
NORTH SANFORD (WIDTH VARIES) ROAD (RELOCATED)
STATE OF NEW YORK WESTERN EXPRESSWAY
1 STY. METAL BUILDING
1 STY. METAL & BRICK BUILDING
SCALE: 1" = 40'

Appendix K
Waste Disposal Documentation

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CESQG
2. Page 1 of: 1
3. Emergency Response Phone: 585-314-4082
4. Manifest Tracking Number: 006785843 3JJK

5. Generator's Name and Mailing Address:
Mark Meyer
5364 East Lake Road
Conesus NY 14435
Att: Mark Meyer

Generator's Site Address (if different than mailing address):
Meyer's at Churchville, LLC
111 South Main Street
Churchville NY 14428

Generator's Phone: 585 0314-4082

6. Transporter 1 Company Name: Freehold Cartage, Inc — U.S. EPA ID Number: NJD054126164

7. Transporter 2 Company Name: — U.S. EPA ID Number:

8. Designated Facility Name and Site Address:
EQ Detroit, Inc
1923 Frederick Street
Detroit MI 48211
Facility's Phone: 313 923-0080
U.S. EPA ID Number: MID980991566

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. USDOT Non-Regulated, Non-Hazardous Decon Water	001	DM	055	G	029L
	2. USDOT Non-Regulated, Non-Hazardous Soil Borings	009	DM	4500	P	NONE
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1. E122082DET, 55Gal.
2. E122080DET, 55Gal.
Conf. # 375285
Plate#

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Mark Meyer — Signature: [signature] — Month/Day/Year: 05/29/12

16. International Shipments: Import to U.S. / Export from U.S. — Port of entry/exit: — Date leaving U.S.:
Transporter signature (for exports only):

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Wm. Kirchoff — Signature: Wm. Kirchoff — Month/Day/Year: 05/30/12
Transporter 2 Printed/Typed Name: — Signature: — Month/Day/Year:

18. Discrepancy
18a. Discrepancy Indication Space: Quantity / Type / Residue / Partial Rejection / Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator): — U.S. EPA ID Number:
Facility's Phone:
18c. Signature of Alternate Facility (or Generator): — Month/Day/Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. | 2. | 3. | 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Julie Gurich — Signature: [signature] — Month/Day/Year: 5/31/12

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

orig

THE ENVIRONMENTAL QUALITY COMPANY
EQ Detroit · 1923 FREDERICK STREET · DETROIT, MI 48211 · tel 800-495-6059 · fax 313-923-3375 · www.eqonline.com

CERTIFICATE OF DISPOSAL

This certificate is to verify that the wastes specified on manifest # 006785843JJK have been properly disposed of in accordance with all local, state, and federal regulations.

"Disposed of" means: Processed as specified in 40 CFR et sea.

FACILITY NAME:	EQ Detroit, Inc. EPA ID # MID 980991566
ADDRESS:	1923 Frederick Street Detroit, MI 48211
PHONE NUMBER:	313-347-1300 800-495-6059
FAX NUMBER:	313-923-3375

Authorized Signature: _____