

# Annual Groundwater, Soil Vapor and Indoor Air Monitoring Report for December 2011

Citizen Development Company / Flower Fashion Site 47 Northern Boulevard Great Neck, New York

NYSDEC Site # 1-30-070

January 2012

Prepared for:

Citizen Development Company 111-15 Queens Boulevard P.O. Box 10 Forest Hills, NY 11375

Prepared by:

CA Rich Consultants, Inc. 17 Dupont Street Plainview, NY 11803



January 27, 2012

New York State Department of Environmental Conservation At SUNY 50 Circle Road Stony Brook, New York 11794

Attention: Mr. Jamie Ascher

Re: Annual Report

December 2011 Groundwater, Soil Vapor & Indoor Air Monitoring Results The Citizens Development Company / Flower Fashion Site (the Site)

47 Northern Boulevard, Great Neck, New York

Dear Mr. Ascher:

In accordance with our Site Management Plan (SMP), attached is a copy of the Annual Groundwater, Soil Vapor & Indoor Air Monitoring Report and Certification (the Report) for the above-referenced Site. This document follows the Department's new "Periodic Review Report General Guidance" outline included in the NYSDEC's 45 – Day Reminder Notice. It also includes a signed Institutional and Engineering Controls Certification Form.

The findings presented in this Report indicate that the remedial activities completed remain effective in reducing the concentrations of perchloroethene (PCE) in the groundwater, soil vapor and indoor air at the Site and in the basements of the adjacent buildings. As described in detail within our Report, we recommend the following for this Site:

 We recommend that the program of indoor air monitoring and inspection of the SSD system continue on an annual basis in accordance with the SMP.

If there are any questions regarding this Report, please do not hesitate to call our Office.

Sincerely,

CA RICH CONSULTANTS, INC.

Eric A. Weinstock Vice President

cc: Rosalie K. Rusinko, Esq., NYSDEC-Tarrytown

Charlotte Biblow, Esq., Farrell Fritz

Sal Panico, Cord Meyer Development, LLC

Jacqueline Nealon, NYSDOH



A.

**Indoor Air Laboratory Results** 

	Table of Contents	Page
1.0	Introduction	2
2.0	Site Overview	3
3.0	Evaluation of Remedy Performance, Effectiveness and Protectiveness	5
4.0	Institutional Controls/Engineering Controls (IC/EC) Plan Compliance	7
5.0	Monitoring Plan Compliance	7
6.0	Operations & Maintenance Plan Compliance	8
7.0	Overall Periodic Review Report Conclusions and Recommendations	9
	References	10
	Figures	
1.	Property Location Map	
2.	Location of Subsurface Piping Layout for SSD Systems	
3.	Perchloroethene in Air Samples December 12, 2011	
<b>4</b> .	Location of Monitoring Wells	
	Tables	
1.	Summary of PCE Indoor Air Readings	
	Enclosures	
1.	Institutional and Engineering Control Certification Form	
	Appendices	



Periodic Review Report (PRR) – December 2011 Citizen Development Company /Flower Fashion Site 47 Northern Boulevard Great Neck, New York NYSDEC Site # 1-30-070

#### 1.0 Introduction

The Citizen Development Corp./Fashion Flower (CDC/FF) site (the Site), located at 47 Northern Boulevard in Great Neck, New York (Figure 1), is currently occupied by an AT&T cellular telephone store. Previous tenants of this Property were: a Cingular cellular telephone store; a florist; and a dry cleaner. For the purposes of this document, the contaminant of concern is tetrachloroethene (a.k.a perchloroethene or "PCE") which is a remnant of the operation of the former dry cleaner. The media that were impacted included soil, soil vapor, groundwater and indoor air.

# A. Nature & Extent of Contamination and Remedial History

During the 1980's and 1990's, a series of investigative and remedial activities including soil borings, well installations & sampling, soil vapor surveys, a soil excavation, soil vapor extraction (SVE) system and groundwater pump & treat systems were employed at the CDC/FF Site to address a release of the dry cleaning chemical perchloroethene and its degradation products. During the 2000's, this was followed by a Sub-Slab Depressurization (SSD) system below the building, an additional soil vapor survey, a second soil removal effort, a program of in-situ chemical oxidation, the operation of a second SVE system, the installation of additional monitoring wells and the installation of a second SSD system.

As displayed in the chronologic tabulation included in Section 2 of this report, this Site has a long history of environmental investigative and remedial activities. A list of references for the work performed is included at the end of this Report. For the purposes of this periodic review, this Report will focus on the most recent investigative and remedial effort as outlined in the Site Management Plan (SMP) (Ref 12). These are: in-situ chemical oxidation; operation of an SVE system in the rear of the Property; operation of the SSD system below the building; and post remediation groundwater and indoor air monitoring.

## B. Effectiveness of Remedial Program

The effectiveness of the corrective actions implemented at this Site has been evaluated by reviewing data collected regarding the following components of the remedial program. These are discussed in detail in Section 3 of this Report.

<u>In-Situ Chemical Oxidation</u> – The last in-situ chemical oxidation application was applied during the summer of 2006. Based on the results of samples collected from the monitoring wells downgradient of the application Site, this remedial effort is deemed to have been effective. In response to our 2010 Annual Monitoring Report (Ref. 16), the NYSDEC has agreed that groundwater monitoring at this site may be discontinued. A copy of the letter (Ref 17) is attached.



Operation of the SVE System in the Rear of the Property – The SVE system has remained in operation from January 2005 to the July 2011. A final post remediation soil boring was performed in December 2010 and the results included in the Annual Monitoring Report for that year.. Based on those results, the NYSDEC concurred that the SVE system could be turned off and converted to an SSD system by replacing the blower with an energy efficient vapor abatement fan (Ref. 17). This conversion was performed in July 2011. The layout of the SSD systems are illustrated on Figure 2.

Operation of the SSD System Below the Building – The operation of the SSD fan is checked on a regular basis. No operational problems have been reported during 2011. Based on the results of the indoor air samples collected in the AT&T store, the SSD system is deemed to have been effective and protective.

<u>Post Remediation Groundwater and Indoor Air Monitoring</u> – The results of the indoor air monitoring program are discussed in Sections 2 of this Report. The indoor air PCE results collected in December 2011 were below the action level of 100 ug/m<sup>3</sup>.

Groundwater monitoring is no longer required or performed at this site.

## C. Compliance

The Site is currently in compliance with the Site Management Plan (SMP)

#### D. Recommendations

We recommend that the program of indoor air monitoring and inspection of the SSD systems continue on an annual basis in accordance with the SMP.

#### 2.0 Site Overview

## A. Chronology of Investigative and Remedial Activities

During the 1980's and 1990's, a series of investigative and remedial activities including soil borings, well installations & sampling, soil vapor surveys, soil excavation, soil vapor extraction (SVE) system and groundwater pump & treat systems were employed at the CDC/FF Site to address a release of the dry cleaning chemical perchloroethene and its degradation products. During the 2000's, this was followed by a sub-slab depressurization (SSD) system below the building, an additional soil vapor survey, a second soil removal effort, a program of in-situ chemical oxidation, the operation of a second SVE system and the installation of additional monitoring wells.

As displayed in the chronologic tabulation below, this Site has a long history of environmental investigative and remedial activities. A list of references for the work performed is included at the end of this Report.

A chronology of the Site activities is presented in the following tabulation.



Action	Time Period
Initial subsurface investigations	1983 – 1984
Initial soil removal action in northwest corner of Property	1984
Operation of the initial SVE and groundwater pump and treat systems	1986 – 1990
Post remediation groundwater monitoring	1990 – 2010
Installation and operation of a SSD system below the building	2002 - Present
Post remediation indoor air monitoring	2002 - Present
Performance of a second soil vapor survey	2003
Second soil removal action in northeast corner of Property	2004
Application of in-situ chemical oxidation in rear of Property	2004 – 2006
Installation of additional deep monitoring wells	2005
Operation of second SVE system	2005 – 2011
Preparation of a Site Management Plan	2006
Performance of post-remediation borings	2009
Installation of two new shallow SVE wells	2009
Performance of additional post-remediation borings	2010
Conversion of SVE system to SSD system	2011

#### B. Nature and Extent of Contamination

As the source of contamination was the operation of a former dry cleaning facility, the contaminant of concern is tetrachloroethene (a.k.a perchloroethene, PCE or "Perc") which is the trade name for dry cleaning fluid. The media that were impacted included soil, soil vapor, groundwater and indoor air. The extent of contamination in each of these media is discussed below.

<u>Soil</u> – Two known areas of soil contamination existed below the rear of the Property in the past. One portion of contaminated soil located below the northwest portion of the property was removed in 1984 under the oversight of the Nassau County Department of Health.

A second soil removal action was performed in the northeast portion of the Property in 2004 under the oversight of the NYSDEC (Ref. 8). This was followed by in-situ treatments with permanganate, a chemical oxidant, followed by the operation of a SVE system (Ref. 9).

<u>Soil Vapor</u> – In the past, elevated PCE levels were measured in the rear of the Property. During 2004, concentrations as high as 2,400,000 ug/m<sup>3</sup> of PCE were recorded in the rear yard of the Property. Since that time, a soil removal effort followed by chemical oxidation treatment and the operation of an SVE system have been employed. The concentration of PCE in the exhaust of

the SVE system during our December 2010 sampling event was 4,342 ug/m³, a significant improvement since the 2004 sample collection. The historical results of the VOCs detected in the exhaust of the SVE system are included in the 2010 Annual Monitoring Report (Ref. 16). Based on decreasing concentrations of the SVE exhaust and the results of the post remediation borings, the SVE system was converted to an SSD system in July 2011.

Indoor Air Quality – Indoor air sampling was initiated in 2002. Samples were collected from the basement and ground floor level of 47 Northern Blvd.; the basement of 55 Northern Blvd.; the ground floor level of 45 Northern Blvd. (an adjoining strip-type shopping center which has no basement); and from a designated outdoor sampling point. PCE was detected above the NYSDOH background level of 10 ug/m³ and action level of 100 ug/m³ in both 47 and 55 Northern Blvd. locations during the initial 2002 sampling event. Results decreased after the SSD and SVE systems were placed into operation. During the December 2011 sampling event, the PCE levels at all locations were below the NYSDOH action level. The historical results of PCE detected in the indoor air are included on Table 1.

Groundwater – A series of groundwater wells had been installed at the Site. Wells MW-1A, 1B, 1C, and 1D are all upgradient water table monitoring wells. These have historically shown low, but measurable, levels of PCE entering the Property. The locations of the wells are illustrated on Figure 4.

Wells MW-2, 3, 4 are downgradient water table monitoring wells located along the northern boundary of the Site. In the past, these have contained PCE levels in the range of 100 to 1,000 ug/l with well MW-4 displaying the highest concentrations. Since the completion of the chemical oxidation program, the PCE levels decreased significantly. In fact, during the December 2009 sampling round, the PCE concentrations in wells MW-2 and 3 were 2.0 ug/l and 0.85 ug/l. Well MW-4, the well that has historically had the highest PCE levels at the site, contained 7.1 ug/l in December 2010, just slightly above the groundwater standard of 5.0 ug/l.

A series of multi-depth monitoring wells were installed in the area of MW-4. These are identified as MW-4(75) which is 75 feet deep, MW-4(90) which is 90 feet deep, and MW-4D which is 146 feet deep. During the December 2009 monitoring event, PCE was not detected in the water samples from any of these wells.

There were also a series of off-site wells installed for this Site. These are identified as wells MW-5, 6, 7, 8 and 10. The off-site wells were last sampled in 2005. At that time, the PCE detections were all relatively low, between 1 and 13 ug/l.

Based on the low levels of PCE detected in the 2010 sampling round, the NYSDEC agreed that groundwater monitoring could be discontinued at this Site. As such, groundwater monitoring is no longer performed.

# 3.0 Evaluation of Remedy Performance, Effectiveness and Protectiveness

For the purposes of our periodic review, this report will evaluate the most recent investigative and remedial efforts as outlined in the SMP. These are: in-situ chemical oxidation; operation of an SVE system in the rear of the Property; operation of the SSD system below the building; and post remediation groundwater and indoor air monitoring.

<u>In-Situ Chemical Oxidation</u> – Permanganate is a strong oxidizer that has a long history of application for the control of odors at wastewater treatment plants. The application of permanganate directly to subsurface soils and groundwater has been proven successful for the remediation of PCE. Once in contact with PCE, the permanganate converts the contaminant to harmless by-products as shown below:



2NaMnO4 + C2HCl4 → 2CO2 + 2MnO2 + 2H+ + 2Na- +4Cl -

(Permanganate + Perchloroethene → Carbon Dioxide Gas + Manganese Dioxide + Hydrogen ions + Sodium ions + Chlorine ions)

During the Fall of 2004, liquid permanganate was applied to a series of 27 shallow injection points and two water table injection points located in the rear of the Property. Additional applications of permanganate were applied to the water table injection points during the Summers of 2005 and 2006 (Ref 9).

The monitoring wells downgradient of the permanganate application site, wells MW-2, 3 and 4, were monitored periodically after the application program. The PCE levels in these wells have declined as a result of this treatment. During the December 2010 sampling round, the PCE concentrations in wells MW-2 and 3 were 2.0 ug/l and 0.85 ug/l. Well MW-4, the well that has historically had the highest PCE levels at the Site, contained 7.1 ug/l, just slightly above the groundwater standard of 5.0 ug/l.

Based on these results, the chemical oxidation program is deemed to have been effective and protective.

Operation of the SVE System in the Rear of the Property – After the permanganate application program was completed, an SVE system was placed in the northeast portion of the rear yard to remove the remnant PCE vapors that were not addressed by the soil removal and in-situ chemical oxidation programs. The SVE system for this Site included three shallow horizontal SVE wells installed in the backfilled excavation area. Five of the shallow permanganate injection points were also converted in SVE wells. A description of the SVE system is included in Reference 9.

The SVE system remained in operation from January 2005 to July 2011 except for periodic repairs. Over that period of time, it has been effective in reducing the concentration of remnant PCE soil vapors below the rear portion of the Property. The initial PCE concentration in the untreated or "raw" soil vapor in January 2005 was 540,000 ug/m<sup>3</sup>. During the December 2010 sampling round, this was reduced to 4,342 ug/m<sup>3</sup>.

With respect to termination of the SVE system, the SMP states that once the levels of total VOCs in the SVE wells decreases to a near constant or asymptotic concentration, operation of the system will be suspended. In addition it states that three soil borings will then be placed in the rear yard. Soil samples will be collected at a level of 3 to 4 feet below grade in the native soil below the imported fill and analyzed for halogenated volatile organics. If the concentration of PCE and its degradation products in these samples do not exceed the NYSDEC TAGM (Ref.11) Cleanup Objectives, the SVE blower will be replaced with a smaller SSD blower.

Three post-remediation soil borings were installed in the rear of the Property (Ref. 13). In 2009, the soil samples in two of these borings were below the TAGM. Two new shallow SVE wells were installed later that year in the area of the third boring, the boring that exceeded the TAGM (Ref. 14). The boring in the third location was re-installed and tested for VOCs in March 2010 (Ref. 15) and December 2010 (Ref. 16). Based on those result, the termination criteria had been achieved and the SVE blower was replaced with a more energy efficient SSD fan as outlined in the SMP.

Operation of the SSD System Below the Building – The operation of the SSD fans is checked on a regular basis. No operational problems have been reported during 2011.

Based on the results of the indoor air samples collected in the AT&T store, the SSD systems are deemed to have been effective and protective.



<u>Post Remediation Groundwater and Indoor Air Monitoring</u> – The results of the indoor air monitoring program are discussed in Section 2 of this Report. The PCE indoor air sample results are all below the action level of 100 ug/m<sup>3</sup>. The groundwater monitoring portion of this project has been completed and monitoring of the groundwater is no longer performed.

Based on these results, we believe the remedy and the post remediation monitoring program have been effective and protective.

# 4.0 Institutional Controls/Engineering Controls (IC/EC) Plan Compliance

#### A. Requirements and Compliance

<u>Institutional Controls</u> – Two institutional controls have been implemented for the site: 1) development of a deed restriction is currently in progress; and 2) groundwater beneath the Site cannot be used for potable or industrial purposes without treatment unless first obtaining permission to do so from NYSDEC. The deed notification will be filed, and the groundwater beneath the Site is not being used for potable or industrial purposes.

<u>Engineering Controls</u> – There are two SSD systems operating at the site. The SSD systems are performing properly as described in Section 3 of this Report.

#### B. Certification

An annual inspection of the Site is performed, and an Annual Certification is provided to the NYSDEC as required in the SMP.

# 5.0 Monitoring Plan Compliance

The following monitoring programs are described in the SMP and include: groundwater monitoring, soil vapor monitoring, and indoor air quality monitoring.

## 5.1 Groundwater Monitoring

Groundwater monitoring is no longer required at this site.

## 5.2 Soil Vapor

Soil vapor monitoring is no longer required at this site.

# 5.3 Sub-Slab Depressurization System

Monitoring of the SSD systems will consist of checking to confirm that the SSD blowers are operating. A field technician visited the Site in June and December and confirmed that there was a flow of air out of the SSD systems and that the blower was functioning.

<u>Termination Criteria</u> -The SSD systems will be terminated when monitoring of the indoor air confirms that there are no impacts to the indoor quality of the Cingular store (now an AT&T store) and the 3 adjoining stores after the SSD blowers have been turned off for a period of 30 days during winter conditions.

#### 5.4 Indoor Air Quality

Indoor air samples were collected at the following locations on an annual basis during the winter heating season.



#### BUILDING

#### SAMPLE LOCATION & IDENTIFICATION

CDC/FF Site (Cingular Store)

47 Northern Blvd.

Ground Floor and Basement (Sample ID: PDM-1 and PDM-2)

Health Nut Store

45 Northern Blvd.

No longer sampled

Cambridge Educational Center

55 Northern Blvd.

Basement (waiting room and NW Test Center)

(Sample ID: PDM-4 and PDM-5)

Outdoor Ambient Air

Behind Site Building (Sample ID: PDM-6)

New 3M sampling badges were brought out to the Site and exposed for a period of approximately 24-hours. The samples were analyzed by ELAP-approved Galson Laboratories for the analysis of PCE. Monitoring of the indoor air quality at locations PDM-1 through 2 and 4 through 6 will continue as long as the soil vapor extraction and sub-slab depressurization systems are in operation or the NYSDEC indicates monitoring is no longer required.

During the December 2011 sampling event, the PCE levels at all locations were below the NYSDOH action level. The December 2011 monitoring round results are included on Table 1.

<u>Termination Criteria</u> - Once the air quality in the Cingular store (now an AT&T store) and the three adjoining stores remains at or below the established NYS background level for PCE (which is currently 10 ug/m³) during one round of sampling during the winter heating season with the SSD system turned off for a period of 30 days, the indoor air monitoring program will be terminated and the Site will be eligible for delisting from the Registry.

#### 6.0 Operations & Maintenance Plan Compliance

Currently there are two a sub-slab depressurization systems operating at the site.

#### 6.1 Sub-Slab Depressurization System

Currently, there is a Sub-Slab Depressurization (SSD) system operating in the basement of the existing building. The system consists of a perforated pipe buried beneath the basement floor that is connected to a Fantech® low pressure SSD blower that exhausts extracted soil vapor at a rate of approximately 150 cfm. A second SSD system is connected to the horizontal and shallow vertical vents that were installed for the SVE system. Indoor air quality tests currently indicate that this system is effectively controlling sub-slab PCE vapors.

Operations & Maintenance procedures that apply to the Fantec® low pressure blower includes a physical inspection of the blower to confirm that air is being discharged and that the fan is operating. These inspections were performed during 2011.

#### 7.0 Overall Periodic Review Report Conclusions and Recommendations

The corrective actions implemented at this Site have been evaluated by reviewing data collected at the Site, and they are deemed to be effective and protective.

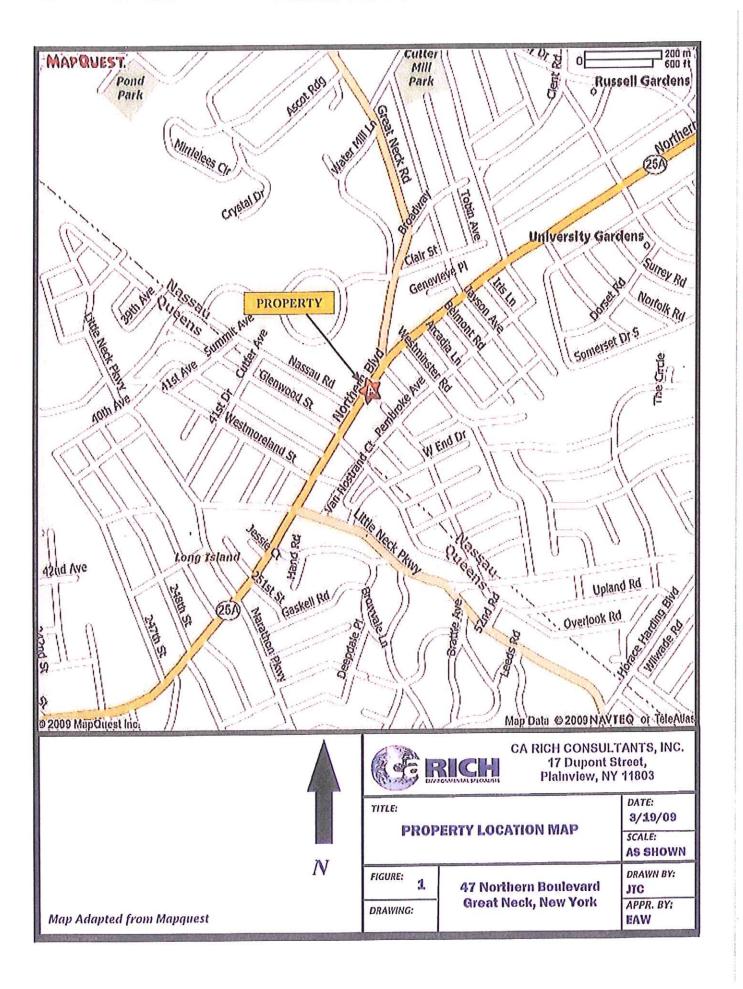
# **Ca RICH** Environmental Specialists

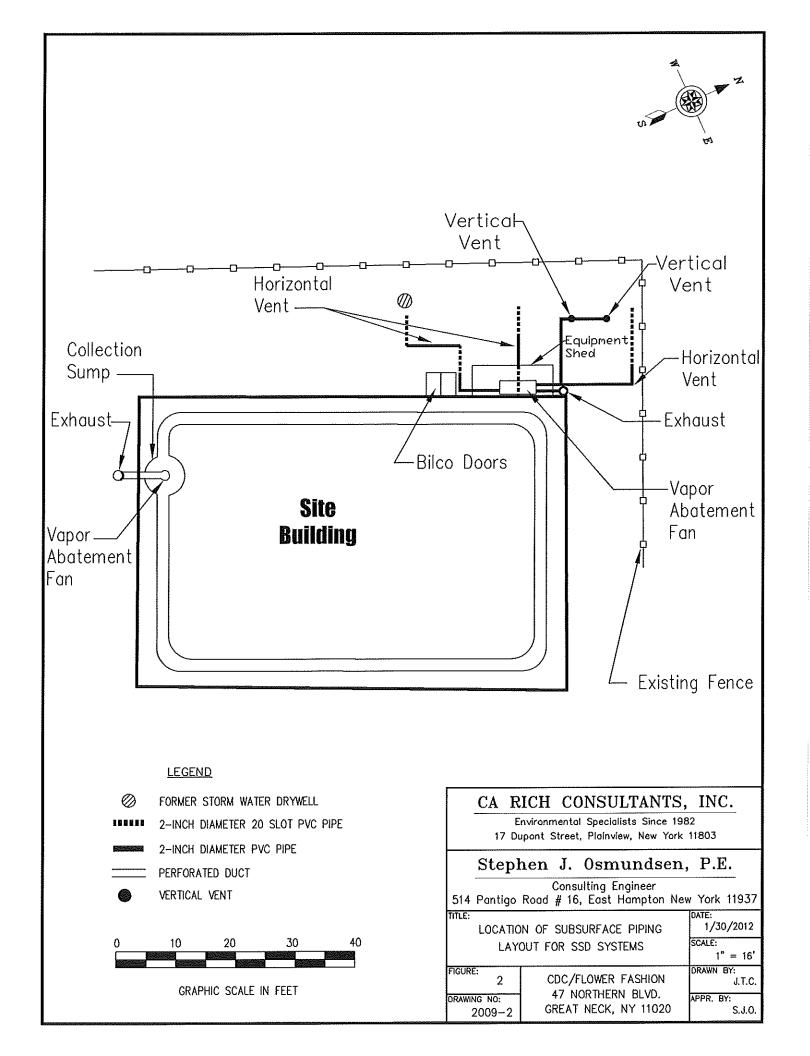
- The operation of the existing SSD fans are checked on a regular basis. No operational
  problems have been reported during 2011. Based on the results of the indoor air
  samples collected in the AT&T store and at 55 Northern Blvd., the SSD system is deemed
  to have been effective and protective. No modifications to the SSD systems are
  recommended at this time.
- We recommend that the program of indoor air monitoring and inspection of the SSD system continue on an annual basis in accordance with the SMP.

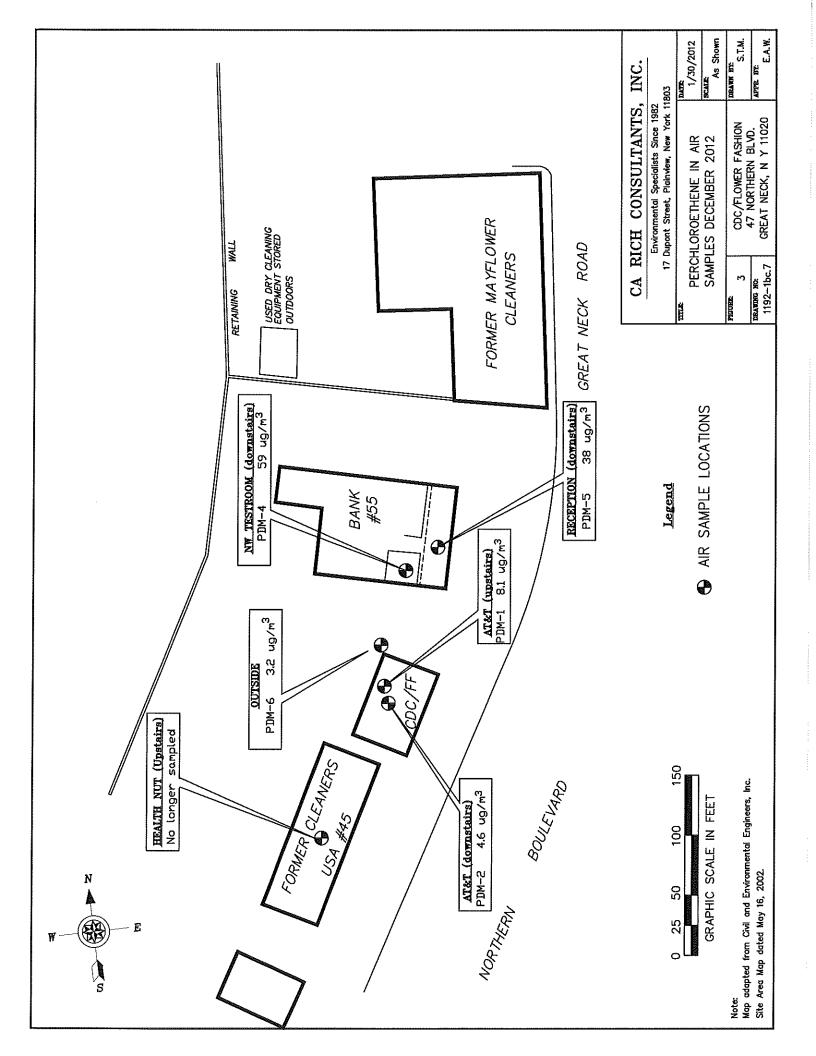
#### REFERENCES

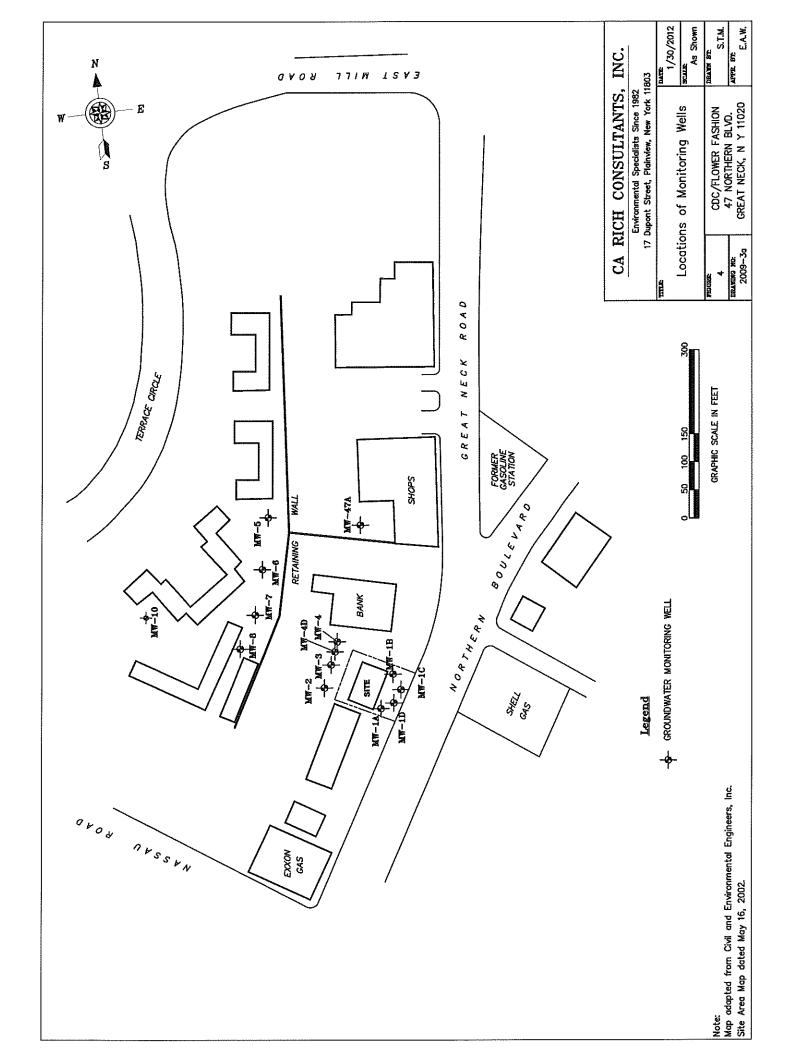
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- JR Kolmer + Associates, (February 1998), Citizen Development Company Final RI/FS Report.
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- 5. CEC, Inc., (June 2002), Supplemental Remedial Investigation Work Plan Citizen Development Company, Great Neck, New York.
- 6. CEC, Inc., (October 2002), Groundwater Quality Data for the Flower Fashion Site.
- 7. CA RICH, (2003 thru 2008), Annual Groundwater Monitoring Reports, Citizen Development Company, Flower Fashion Site, 47 Northern Blvd., Great Neck, New York.
- 8. CA RICH, (January 2005), Interim Remedial Measures Report Part A, The Citizens Development Company / Flower Fashion Site, 47 Northern Blvd., Great Neck, New York.
- CA RICH, (April 2005), Interim Remedial Measures Report Part B, Final Engineering Report and Operations, Maintenance & Monitoring Plan, The Citizens Development Company / Flower Fashion Site, 47 Northern Blvd., Great Neck, New York.
- CA RICH, (January 2006), Annual Groundwater and Indoor Air Monitoring Report December 2005, The Citizens Development Company / Flower Fashion Site, 47 Northern Blvd., Great Neck, New York.
- 11. NYSDEC, (January 24, 1994), Technical and Administrative Guidance Memorandum: Determination of Soil Cleanup Objectives and Cleanup Levels.
- 12. CA RICH, (June 2006), Site Management Plan, The Citizens Development Company / Flower Fashion Site, 47 Northern Blvd., Great Neck, New York.
- 13. CA RICH, (July 2009), Post-Remediation Borings Report, The Citizens Development Company / Flower Fashion Site, 47 Northern Blvd., Great Neck, New York.
- CA RICH, (August 2009), Additional SVE Well Installation Report, The Citizens Development Company / Flower Fashion Site, 47 Northern Blvd., Great Neck, New York.
- CA RICH (April 2010) Additional Post-Remediation Borings Report, The Citizens Development Company / Flower Fashion Site, 47 Northern Boulevard, Great Neck, New York
- CA RICH (April 2011) Annual Groundwater, Soil Vapor and Indoor Air Monitoring Report, The Citizens Development Company / Flower Fashion Site, 47 Northern Boulevard, Great Neck, New York
- 17. NYSDEC (May 16, 2011) Citizens Development Company Site #1-30-070 Site Management/Periodic Review Report Response Letter

# **Figures**









# **Tables**

Table 1
Citizens Development Co./Flower Fashion Site
Summary of Perchloroethene Indoor Air Readings
Units - ug/m3

Sample #:	PDM-1	PDM-2	PDM-3	PDM-4	PDM-5	PDM-6*
Location:	Cingular/AT&T	Cingular/AT&T	Health Nut		55 No. Blvd.	Outdoors
Level:	(Ground Fl.)	(Downstairs)	(Ground Fl.)	NW test rm. (Downstairs)	Reception (Downstairs)	NA
<u>Date</u> 11/20/02	120	280	NA	170	150	7
12/02/03	27	18	4	47	47	6.4
06/15/04	22	27	6.6	39	39	10
12/17/04	47	52	5.5	70	91	2.6
06/23/05	4.5	8.3	1.4	8.8	10	5.7
12/13/05	2.5	1.6	<0.5	6.2	6.2	<0.5
12/04/06	2.3	1.4	<1.4	9.7	8.9	<1.4
12/27/07	8.5	3.4	2.0	59	48	15
02/06/08	5.2	3.9	2.6	22	48	6.1
03/27/08	NA	NA	NA	21	17	3
04/29/08	NA	NA	NA	29	34	7.1
05/29/08	NA	NA	NA	14	17	11
12/05/08	3.1	2.0	<1	19	11	2.9
12/17/09	<1	<1	NA	30	32	<1
12/02/10	2	3.1	NA	40	37	<1
12/21/11	8.1	4.6	NA	59	38	3.2

#### Notes:

NA - Not Analyzed

See attached Figure 4 for sample locations

<sup>1-</sup>AT&T store also known as Cingular

<sup>2-</sup>Subslab venting system in basement of AT&T installed during the Spring of 2002

<sup>3-</sup>November 20, 2002 samples collected and analyzed by NYSDOH

<sup>4-</sup>SVE system in rear yard installed January 2005

<sup>5-</sup>December 27, 2007 - SVE system shut down for unknown time period (<1 month)

<sup>6-</sup>January 25, 2008 - SVE repairs completed and system restarted

<sup>7-</sup>Additional SVE wells added during August 2009

<sup>8-</sup>SVE System turned off and converted to a SSD System on 7/21/11

<sup>\* -</sup> Outdoor air sample

# **Enclosures**



# Enclosure 1 NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION Site Management Periodic Review Report Notice Institutional and Engineering Controls Certification Form



	Site Details	Box 1
S	ite No. 130070	
s	ite Name Citizens Development Co.	
Si	ite Address: 47 Northern Boulevard Zip Code: 11020	
C	ity/Town: Great Neck	
	ounty: Nassau	
Al	lowable Use(s) (if applicable, does not address local zoning): Industriàl	
íS	te Acreage: 1.0	
		Box 2
	Verlification of Site Details	YES NO
1.	Are the Site Details above, correct?	× □
	If NO, are changes handwritten above or included on a separate sheet?	.0
2.	Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment since the initial/last certification?	
	If YES, is documentation or evidence that documentation has been previously submitted included with this certification?	o
3,	Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property since the initial/last certification?	
	If YES, is documentation (or evidence that documentation has been previously submitted) included with this certification?	<b>.</b>
4.	If use of the site is restricted, is the curent use of the site consistent with those restrictions?	× 0
	If NO, is an explanation included with this certification?	
5.	For non-significant-threat Brownfield Cleanup Program Sites subject to ECL 27-1415.7( has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?	(c),
	If YES, is the new information or evidence that new information has been previously submitted included with this Certification?	
6.	For non-significant-threat Brownfield Cleanup Program Sites subject to ECL 27-1415.7( are the assumptions in the Qualitative Exposure Assessment still valid (must be certifled every five years)?	(c),

SITE NO. 130070

Box 3

Description of Institutional Controls.

Parcel

Institutional Control

S\_B\_L Image: 0020051202

Decision Document

Ground Water Use Restriction

Box 4

Description of Engineering Controls

<u>Parcel</u>

**Engineering Control** 

S\_B\_L Image: 0020051202

Vapor Mitigation

Attach documentation if IC/ECs cannot be certified or why IC/ECs are no longer applicable. (See instructions)

Control Description for Site No. 130070

Parcel: 0020051202

The OU-2 ROD calls for institutional controls in the form of an environmental easement to restrict groundwater use and continued OM&M of the soil vapor extraction system and the active sub-slab depressurization system.

	l				
		Periodic Review Report (PRR) Certification Statements			
	1.	I certify by checking "YES" below that:			
		<ul> <li>a) the Periodic Review report and all attachments were prepared under the directi reviewed by, the party making the certification;</li> </ul>			
		b) to the best of my knowledge and belief, the work and conclusions described in	this certific	cation	
		<ul> <li>b) to the best of my knowledge and belief, the work and controlled the secondarian and general are in accordance with the requirements of the site remedial program, and general</li> </ul>	ly accepte YES	ed NO	
			X	<b>D</b>	
		If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that following statements are true:			
ľ	Con	the Institutional Control and/or Engineering Control(s) employed at this site is unchange ntrol was put in-place, or was last approved by the Department;		he date that the	
ľ	the i	nothing has occurred that would impair the ability of such Control, to protect public heal environment;			
٩	eval	access to the site will continue to be provided to the Department, to evaluate the remediuate the continued maintenance of this Control;			
١	Con	nothing has occurred that would constitute a violation or failure to comply with the Site I			
(	(e) i and	if a financial assurance mechanism is required by the oversight document for the site, to sufficient for its intended purpose established in the document.	he mechar	nism remains vali	t
			YES	NO .	
			X		
3	3. J	If this site has an Operation and Maintenance (O&M) Plan (or equivalent as required in	the Decisi	ion Document)	t F
	1	I certify by checking "YES" below that the O&M Plan Requirements (or equivalent as re			
	I	Decision Document) are being met.	X		
4	i. 1	If this site has a Monitoring Plan (or equivalent as required in the remedy selection docu	ıment);		
				equired	
	1	I certify by checking "YES" below that the requirements of the Monitoring Plan (or equiv In the Decision Document) is being met.	YES	NO	
			×		
			,		

Box 5

#### IC CERTIFICATIONS SITE NO. 130070

Вох в

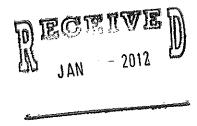
11375

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE I certify that all information and statements in Boxes 2 and/or 3 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. CDC, (Owner or Remedial Party) am certifying as for the Site named in the Site Details Section of this form. Signature of Owner or Remedial Party Rendering Certification IC/EC CERTIFICATIONS Box 7 QUALIFIED ENVIRONMENTAL PROFESSIONAL (QEP) SIGNATURE I certify that all information in Boxes 4 and 6 are true. I understand that a talse statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. 1 Eric Weinstock at CARich, 17 Dupont St., Plainniew. NY 11805 print name print business address am certifying as a Qualified Environmental Professional for the \_ (Owner or Remedial Party) for the Site named in the Site Details Section of this form. Date Stamp (If Required) Signature of Qualified Environmental Professional, for the Owner or Remedial Party, Rendering Certification

Signature of NYS Professional Engineer

# Appendix A Indoor Air Laboratory Data





Mr. Eric Weinstock CA Rich Consultants, Inc. 17 Dupont Street Plainview, NY 11803 January 05, 2012

**DOH ELAP# 11626** 

Account# 14715

Login# L256447

Dear Mr. Weinstock:

Enclosed are the analytical results for the samples received by our laboratory on December 23, 2011. All test results meet the quality control requirements of AIHA and NELAC unless otherwise stated in this report. All samples on the chain of custody were received in good condition unless otherwise noted.

Results in this report are based on the sampling data provided by the client and refer only to the samples as they were received at the laboratory. Unless otherwise requested, all samples will be discarded 14 days from the date of this report.

Please contact Charlene Moser at (888) 432-5227, if you would like any additional information regarding this report.

Thank you for using Galson Laboratories.

Mary & Unangst

Sincerely,

**Galson Laboratories** 

Mary G. Unangst Laboratory Director

Enclosure(s)



#### LABORATORY ANALYSIS REPORT

6601 Kirkville Road

East Syracuse, NY 13057

(315) 432-5227

FAX: (315) 437-0571

www.galsonlabs.com

Client

: CA Rich Consultants, Inc

Site

: 47 Northern Blvd.

Project No.

: FF-CDC

Date Sampled

: 21-DEC-11

Date Analyzed : 03-JAN-12

Date Received : 23-DEC-11

Report ID

: 721273

#### Perchloroethylene

Sample ID	<u>Lab ID</u>	Time minutes	Raw ug	Total <u>ug</u>	Conc ug/m3
PDM-1	L256447-1	1436	0.34	0.33	8.1
PDM-2	L256447-2	1438	0.19	0.19	4.6
PDM-4	L256447-3	1430	2.5	2.4	59
PDM-5	L256447-4	1430	1.6	1.5	38
PDM-6	L256447-5	1436	0.14	0.13	3.2

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Level of quantitation: 0.06 ug

Analytical Method : mod. NYS DOH 311-9

OSHA PEL (TWA)

: 100 ppm

Collection Media

: M3M-3500

Submitted by: CMJ Approved by : nkp

Date: 05-JAN-12 NYS DOH #: 11626

QC by: Karen Becker

< -Less Than

mg -Milligrams

m3 -Cubic Meters

kg -Kilograms

> -Greater Than

ug -Micrograms

1 -Liters NS -Not Specified

Account No.: 14715

Login No. : L256447

NA -Not Applicable

ND -Not Detected

ppm -Parts per Million



#### LABORATORY FOOTNOTE REPORT

Client Name : CA Rich Consultants, Inc

Site : 47 Northern Blvd.

Project No. : FF-CDC

6601 Kirkville Road East Syracuse, NY 13057 (315) 432-5227 FAX: (315) 437-0571 www.galsonlabs.com

Date Sampled : 21-DEC-11

Date Received: 23-DEC-11 Date Analyzed: 03-JAN-12 Account No.: 14715

Login No. : L256447

Unless otherwise noted below, all quality control results associated with the samples were within established control limits.

Unrounded results are carried through the calculations that yield the final result and the final result is rounded to the number of significant figures appropriate to the accuracy of the analytical method. Please note that results appearing in the columns preceeding the final result column may have been rounded in order to fit the report format and therefore, if carried through the calculations, may not yield an identical final result to the one reported.

The stated LOQs for each analyte represent the demonstrated LOQ concentrations prior to correction for desorption efficiency (if applicable).

L256447 (Report ID: 721273):

Total ug corrected for a desorption efficiency of 103%.

SOPs: GC-SOP-12(4), GC-SOP-16(7), GC-SOP-9(5)

< -Less Than
> -Greater Than
NA -Not Applicable

mg -Milligrams ug -Micrograms ND -Not Detected m3 -Cubic Meters 1 -Liters kg -Kilograms NS -Not Specified

ppm -Parts per Million

000	☐ New Client?	Report To*: Ease Weinstock	Enic Wei	nstock	<u>=</u>	Invoice To*:	SAMP	
GALSON	Client Account No.* :	· · · · · · · · · · · · · · · · · · ·	CA Rich	h Consultants	Inc			
6601 Kirkville Rd East Syracuse, NY 13057-9672	14715		Planniew	W. NY )	1803			
Tel: 315-432-5227 888-432-5027	,	Phone No.*:	576-576	16-8844		Phone No.:		
505 +525 Fax: 315-437-0571		Cell No.:				Email:		
www.galsoniabs.com	Email Result	Email Results To: @Weinstock@ Carichine. Com	ocka ca	richine.	no.	Purchase	Purchase Order No. :	
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Need Results By*: (surcharge)		Samples submitted using the FreePumpLoan" Program.	FreePumpLoar	n" Program.	Sam	ples submitted (	Samples submitted using the FreeSamplingBadges" Program.	s" Program.
5 Business Days 0%	Site Name: 47	47 Northern BI	lud.	Project:	F-00C		Sampled By: M. YAGER	ieR
	Comments:	1.12/21	In the		5 11c/m3		•	
A 2 Business Days 75%	- Kegaike	Keguiked Uctedion			//			
Next Day by 6pm 100%	List description o	List description of industry or process/interferences	ess/interfere		State samples were	legipai pacal	Place indicate which OEL this data will be used for	will be accept for:
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Same Day 200%			•		<u>&gt;</u>	□ MSHA	Other (specify):	
© Sample Identification* ©(Maximum of 20 characters, ID's longer than 20 C characters will be abbreviated.)	Date Sampled* (mm/dd/vv)	Collection	Sample Volume, Sample Time, or Sample Area*	Sample Units*: L, ml, min.,	Analysis Requested*	sted*	Method Reference^	Hexavalent Chromium Process (ex. welding,
o to the fix a mole to the fix	* 01/01/11 *	*2pc UW PVC	* 096 *	4 4 E & C	*Hexavalerit Chromium*(Cr6)*	ım"(Cř6)	*mod. OSHA ID-215	wer Welding # :
7-WQd G	12/20-12/21/11 3M3500 OVM	3M35000VM	1436	Mix	AWS host 12 WA	A PCE	MYSDOW 311.9	
Pow-2	12/20-12/21/11 3M 3500 DVM	3M 3500 DVM	1438	mix	MASSION SUNA		NYSDOH 311.9	
7	12/20-12/21/11	sn 3500 oun	1430	אַיַא	AMISTON BANG PLE	MA PLE		7447
PDM-5	12/20-12/21/11 3M 3500 ovm	3M 3500 OVM	1430	Min	MYBIDGHIVE	PCE	NYS DOH 311.9	
F PDM-6	12/20-12/21/11 3M 3500,00VM	3m 3500, 0Vm	1436	كيزيل	PRE		NYSAOH 311.9	
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carson Laboratories will substitute our routine/preferred method if it does not match the method listed on the COC unless this box is checked:	re our routine/preterr	ed method if it do	es not match	h the method	listed on the COC unle	ss this box is	비	Use method(s) listed on COC
or metals analysis: if requesting an analyte with the option of a lower LOQ please indicate if the lower LOQ is required (only available for certain analytes see SAG):	halyte with the option of	a lower LOQ please	indicate if th	e lower LOQ is	required (only available for	or certain analy	res see SAG):	
Chair of Court of State of Sta	ca needed inust be in	idicated (Quartz,	Cristobalite,	and/or Iridyn	nite)*:			
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Sar *Required fields. fail	Samples received after 3pm will be considered as next day's business. 'Required fields, failure to complete these fields may result in a delay in vour samples being processed.	)pm will be consider the fields may resu	lered as nex It in a delav i	#day's busine in vour samol	iss. es beina processed.		Page	of