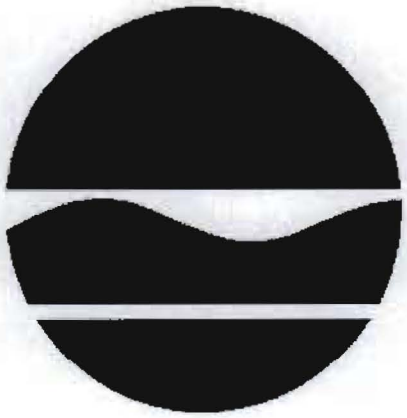
DECISION DOCUMENT

Coral Graphics, Inc. (840 Broadway)
Operable Unit Number 02: Off-site Remedial Program
Voluntary Cleanup Program
Hicksville, Nassau County
Site No. V00383
April 2012



Prepared by
Division of Environmental Remediation
New York State Department of Environmental Conservation

DECLARATION STATEMENT - DECISION DOCUMENT

Coral Graphics, Inc. (840 Broadway)
Operable Unit Number: 02
Voluntary Cleanup Program
Hicksville, Nassau County
Site No. V00383
April 2012

Statement of Purpose and Basis

This document presents the remedy for Operable Unit Number: 02: Off-site Remedial Program of the Coral Graphics, Inc. (840 Broadway) site, a voluntary cleanup site. The remedial program was chosen in accordance with the New York State Environmental Conservation Law and applicable guidance.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for Operable Unit Number: 02 of the Coral Graphics, Inc. (840 Broadway) site and the public's input to the proposed remedy presented by the Department.

Description of Selected Remedy

The elements of the remedy are as follows:

Based upon previous investigations of off-site groundwater quality, a groundwater monitoring program is being proposed whereby a network of selected monitoring wells which delineates the areal extent of the plume will be sampled on a semi-annual basis. The details of the groundwater monitoring program will be described in a site management plan approved by NYSDEC. It is expected, as a result of on-site source remediation, that contaminant levels in off-site groundwater will continue to diminish. Based upon the evaluation of off-site groundwater quality, the Department may choose to modify the groundwater monitoring program as necessary. If contaminant levels in shallow groundwater are found to increase, an off-site soil vapor intrusion evaluation may be conducted.

Declaration

The remedy conforms with promulgated standards and criteria that are directly applicable, or that are relevant and appropriate and takes into consideration Department guidance, as appropriate. The remedy is protective of public health and the environment.

April 2, 2012

Date

James Harrington, Director
Remedial Bureau A

DECISION DOCUMENT

Coral Graphics, Inc. (840 Broadway)
Hicksville, Nassau County
Site No. V00383
April 2012

SECTION 1: SUMMARY AND PURPOSE

The New York State Department of Environmental Conservation (the Department), in consultation with the New York State Department of Health (NYSDOH), has selected a remedy for the above referenced site. The disposal of contaminants at the site has resulted in threats to public health and the environment that would be addressed by the remedy. The disposal or release of contaminants at this site, as more fully described in this document, has contaminated various environmental media. Contaminants include hazardous waste and/or petroleum.

The Voluntary Cleanup Program (VCP) is a voluntary program. The goal of the VCP is to enhance private sector cleanup of brownfields by enabling parties to remediate sites using private rather than public funds and to reduce the development pressures on "greenfields." This document is a summary of the information that can be found in the site-related reports and documents.

SECTION 2: CITIZEN PARTICIPATION

The Department seeks input from the community on all remedies. A public comment period was held, during which the public was encouraged to submit comment on the proposed remedy. All comments on the remedy received during the comment period were considered by the Department in selecting a remedy for the site. Site-related reports and documents were made available for review by the public at the following document repositories:

Hicksville Public Library
169 Jerusalem Avenue
Hicksville, NY 11801
Phone: (516) 931-1417

New York State Department of Environmental Conservation
50 Circle Road
Stony Brook, NY 11790
Phone: (631) 444-0240

Receive Site Citizen Participation Information By Email

Please note that the Department's Division of Environmental Remediation (DER) is "going

paperless" relative to citizen participation information. The ultimate goal is to distribute citizen participation information about contaminated sites electronically by way of county email listservs. Information will be distributed for all sites that are being investigated and cleaned up in a particular county under the State Superfund Program, Environmental Restoration Program, Brownfield Cleanup Program, Voluntary Cleanup Program, and Resource Conservation and Recovery Act Program. We encourage the public to sign up for one or more county listservs at http://www.dec.ny.gov/chemical/61092.html

SECTION 3: SITE DESCRIPTION AND HISTORY

Site Location: Coral Graphics is located at 840 Broadway (Route 107) in Hicksville, Town of Oyster Bay, Nassau County.

Site Features: The site is 4.66 acres in size and has been the corporate headquarters for Coral Graphics since 1995. Those portions of the site not occupied by the facility building are parking areas. The facility building is a two-story concrete building containing office space and printing areas. While there are multiple stormwater leaching pools on-site, the facility has been connected to the municipal sewer system since 1995.

Current Zoning/Use(s): The site is zoned for commercial/industrial use. The site is currently owned by F.C. Properties. Previous occupants include the Grumman Aerospace Corp. and other printing and warehousing companies.

Historical Use(s) and Source(s) of Contamination: Historically, solvents (primarily tetrachloroethene) were used to remove solvent-based inks that were used by the company. Contamination from a rag storage area and various spills associated with a trash compactor are the primary sources of solvents detected in on-site soil and groundwater. Dry wells and former leaching pools that were found to be contaminated with solvents, heavy metals, and oil related semi-volatile organics were cleaned out to the satisfaction of the NYSDEC. The facility has switched to soy-based inks as a substitute for the solvent based inks. An air sparge/soil vapor extraction system (AS/SVES) treated on-site groundwater contamination and prevents potential vapor migration from the site. The AS was terminated in June 2008 but the SVES continues to operate as designed.

Site Geology/Hydrogeology: Groundwater is encountered in the Upper Glacial Aquifer approximately 50' below land surface. The site specific groundwater flow direction is generally south/southeast. Some seasonal variation occurs due to active recharge basins located east of the site which receive cooling water in the summer months.

Operable Units: Operable Unit 01 (OU-1) is comprised of the on-site remedial actions, monitoring of the remedial system and monitoring of on-site groundwater and vapor intrusion sampling. A Decision Document was previously issued for OU-1. Operable Unit 02 (OU-2) is comprised of monitoring of off-site groundwater quality, and if need be, additional off-site vapor intrusion sampling.

Operable Unit (OU) Number 02 is the subject of this document.

A Decision Document was issued previously for OU 01.

A site location map is attached as Figure 1.

SECTION 4: LAND USE AND PHYSICAL SETTING

The Department may consider the current, intended, and reasonably anticipated future land use of the site and its surroundings when evaluating a remedy for soil remediation. For this site, at a minimum, alternatives (or an alternative) that restrict(s) the use of the site to commercial use (which allows for industrial use) as described in DER-10, Technical Guidance for Site Investigation and Remediation were/was evaluated.

A comparison of the results of the Remedial Investigation (RI) to the appropriate standards, criteria and guidance values (SCGs) for the identified land use and the unrestricted use SCGs for the site contaminants is available in the RI Report.

SECTION 5: ENFORCEMENT STATUS

The voluntary cleanup agreement is with a Volunteer. If the Volunteer elects not to complete the remedial program under the VCP, the Department will make a determination if the site poses a significant threat to human health and the environment. If the site is determined to pose a significant threat, the Department will approach the potentially responsible parties (PRPs) to implement the remedy. PRPs are those who may be legally liable for contamination at a site. This may include past or present owners and operators, waste generators, and haulers.

The voluntary cleanup agreement is with a responsible party. The agreement requires the party to address on-site and off-site contamination. Accordingly, no enforcement actions are necessary.

SECTION 6: SITE CONTAMINATION

6.1: Summary of the Remedial Investigation

A remedial investigation (RI) serves as the mechanism for collecting data to:

- characterize site conditions;
- determine the nature of the contamination; and
- assess risk to human health and the environment.

The RI is intended to identify the nature (or type) of contamination which may be present at a site and the extent of that contamination in the environment on the site, or leaving the site. The RI reports on data gathered to determine if the soil, groundwater, soil vapor, indoor air, surface water or sediments may have been contaminated. Monitoring wells are installed to assess groundwater and soil borings or test pits are installed to sample soil and/or waste(s) identified. If other natural resources are present, such as surface water bodies or wetlands, the water and sediment may be sampled as well. Based on the presence of contaminants in soil and

groundwater, soil vapor will also be sampled for the presence of contamination. Data collected in the RI influence the development of remedial alternatives. The RI report is available for review in the site document repository and the results are summarized in section 6.3.

The analytical data collected on this site includes data for:

- groundwater
- soil vapor
- indoor air

6.1.1: Standards, Criteria, and Guidance (SCGs)

The remedy must conform to promulgated standards and criteria that are directly applicable or that are relevant and appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, Criteria and Guidance are hereafter called SCGs.

To determine whether the contaminants identified in various media are present at levels of concern, the data from the RI were compared to media-specific SCGs. The Department has developed SCGs for groundwater, surface water, sediments, and soil. The NYSDOH has developed SCGs for drinking water and soil vapor intrusion. For a full listing of all SCGs see: http://www.dec.ny.gov/regulations/61794.html

6.1.2: RI Results

The data have identified contaminants of concern. A "contaminant of concern" is a contaminant that is sufficiently present in frequency and concentration in the environment to require evaluation for remedial action. Not all contaminants identified on the property are contaminants of concern. The nature and extent of contamination and environmental media requiring action are summarized below. Additionally, the RI Report contains a full discussion of the data. The contaminant(s) of concern identified for this Operable Unit at this site is/are:

tetrachloroethene (PCE)

The contaminant(s) of concern exceed the applicable SCGs for:

- groundwater

6.2: Interim Remedial Measures

An interim remedial measure (IRM) is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before issuance of the Decision Document.

There were no IRMs performed at this site during the RI.

6.3: Summary of Environmental Assessment

This section summarizes the assessment of existing and potential future environmental impacts presented by the site. Environmental impacts may include existing and potential future exposure pathways to fish and wildlife receptors, wetlands, groundwater resources, and surface water. The RI report presents a detailed discussion of any existing and potential impacts from the site to fish and wildlife receptors.

Nature and Extent of Contamination: The main contaminant of concern on-site (OU-1) and off-site (OU-2) is tetrachloroethene (PCE). The impacted media for OU-1 is soil, soil gas, indoor air and groundwater. The impacted media for OU-2 is groundwater and soil gas.

OU-1: SCG soil exceedances existed for PCE in multiple sample locations on-site. Soil samples collected in 2002 and 2003 from on-site leaching pools revealed PCE levels as high as 34 ppm. Soil quality data was compared to the recommended soil cleanup objectives for PCE found in TAGM #4046 which is 1.4 ppm. Contaminated soil was excavated in 2002 and 2003 and was disposed of at a permitted off-site disposal facility.

In 2003, soil gas samples collected from 14 soil vapor points detected PCE ranging from 44 ug/m3 to 970,000 ug/m3. Groundwater sampling conducted in March 2004 revealed PCE at 5,000 ppb. The Class GA Groundwater Standard for PCE is 5 ppb. In June 2005, an air sparge/soil vapor extraction system (AS/SVES) was constructed in the former source area to remediate groundwater and capture soil gas. The captured vapors are decontaminated by passing through a carbon vessel prior to being discharged to the atmosphere. Subsequent soil gas and sub-slab soil gas sampling found PCE levels to be below 100 ug/m3 sitewide. Indoor air samples collected from four locations within the facility detected PCE ranging from 7.4 ug/m3 to 17 ug/m3. Groundwater samples collected in June 2010 downgradient of the source area found PCE levels to be non detect (ND) in shallow groundwater.

OU-2: Sub-slab soil gas samples taken in March 2009 from an adjacent property downgradient of the site revealed PCE levels below 100 ug/m3. PCE levels in indoor air were ND. Vacuum measurements taken within the adjacent off-site building revealed that the SVES was reducing the off-site migration of soil vapor.

Groundwater samples collected off-site in March 2003 revealed PCE at 1,000 ppb. In June 2010, PCE levels in off-site groundwater had diminished to 18 ppb as a result of remedial activities undertaken at the site. PCE levels in deeper groundwater have diminished from 1,140 ppb in May 2005 to 193 ppb in June 2010.

6.4: Summary of Human Exposure Pathways

This human exposure assessment identifies ways in which people may be exposed to site-related contaminants. Chemicals can enter the body through three major pathways (breathing, touching or swallowing). This is referred to as *exposure*.

People are not drinking the contaminated groundwater because the area is served by a public water supply that is not affected by this contamination. Volatile organic compounds in the groundwater or soil may move into the soil vapor (air spaces within the soil), which in turn may

move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. A soil vapor extraction system (a system that removes the air from beneath a building) installed on-site is preventing the indoor air quality from being affected by the contamination in soil vapor in the on-site building or the adjacent off-site buildings.

6.5: Summary of the Remediation Objectives

The objectives for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375. The goal for the remedial program is to restore the site to pre-disposal conditions to the extent feasible. At a minimum, the remedy shall eliminate or mitigate all significant threats to public health and the environment presented by the contamination identified at the site through the proper application of scientific and engineering principles.

The remedial action objectives for this site are:

Groundwater

RAOs for Public Health Protection

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of volatiles, from contaminated groundwater.

RAOs for Environmental Protection

- Restore groundwater aquifer to pre-disposal/pre-release conditions, to the extent practicable.

SECTION 7: ELEMENTS OF THE SELECTED REMEDY

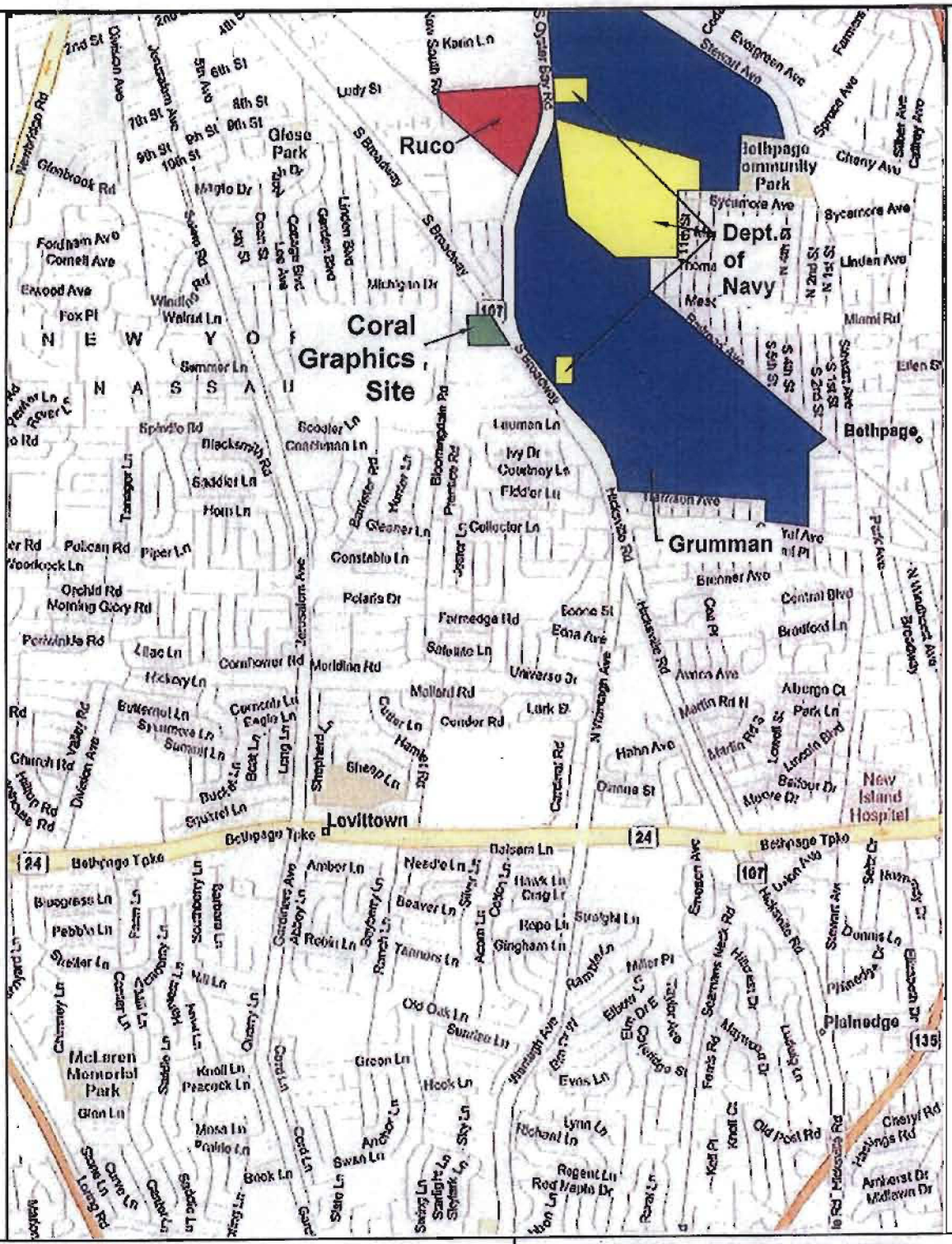
The alternatives developed for the site and the evaluation of the remedial criteria are presented in the Alternative Analysis. The remedy is selected pursuant to the remedy selection criteria set forth in DER-10, Technical Guidance for Site Investigation and Remediation.

The selected remedy is referred to as the remedy.

The elements of the selected remedy, as shown in Figure 2, are as follows:

Based upon previous investigations of off-site groundwater quality, a groundwater monitoring program is being proposed whereby a network of selected monitoring wells which delineates the areal extent of the plume will be sampled on a semi-annual basis. The details of the groundwater monitoring program will be described in a site management plan approved by NYSDEC. It is expected, as a result of on-site source remediation, that contaminant levels in off-site groundwater will continue to diminish. Based upon the evaluation of off-site groundwater quality, the Department may choose to modify the groundwater monitoring program as necessary. The SMP will also include a provision that if contaminant levels in shallow

groundwater are found to increase, the need for additional off-site soil vapor intrusion evaluation will be considered.

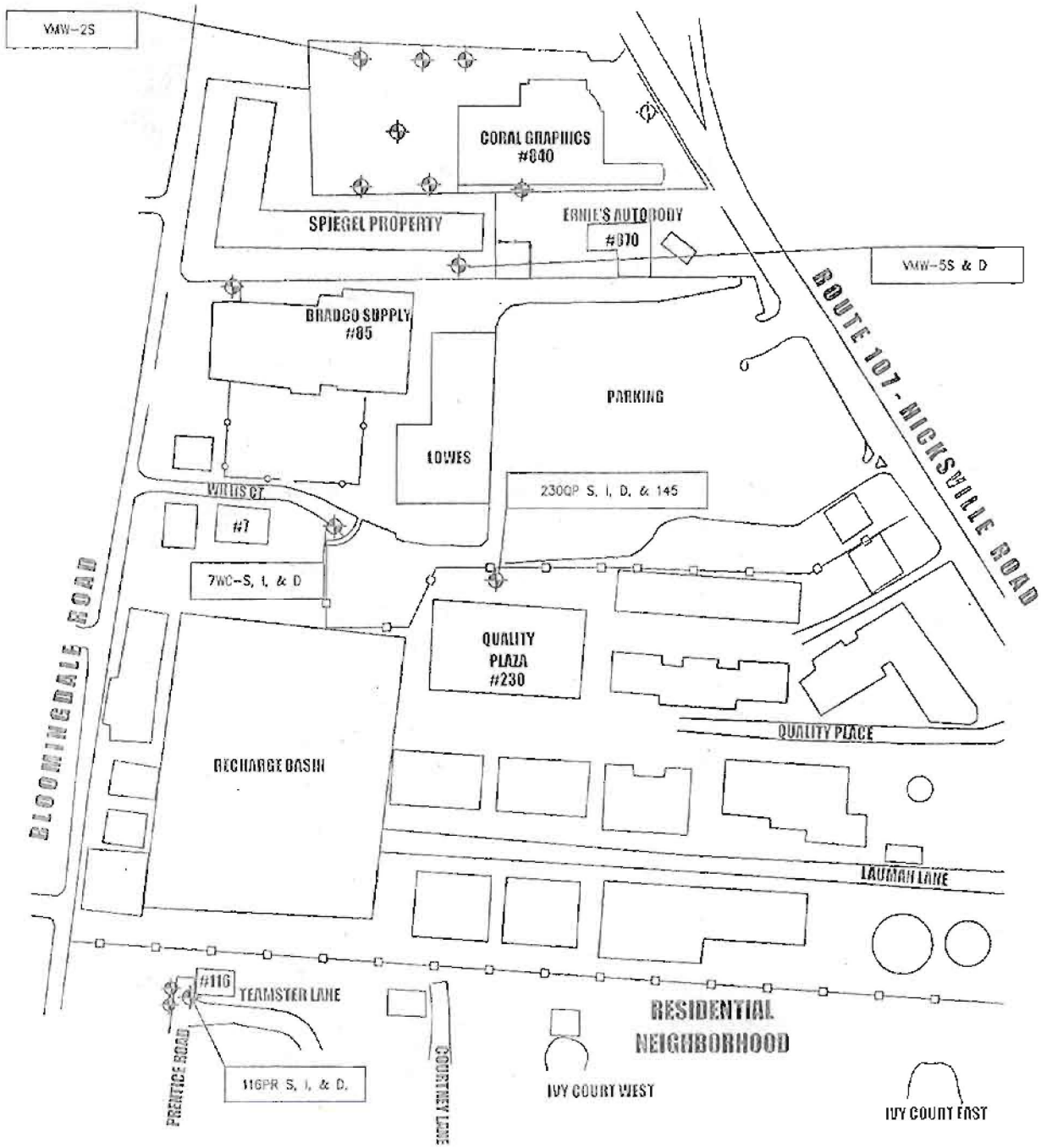


CA RICH CONSULTANTS, INC.

Certified Ground-Water and Environmental Specialists
17 Dupont Street, Plainview, New York 11803

TITLE: Site Location Map	DATE: 6/5/2009
	SCALE: N.T.S.
FIGURE: 1	DRAWN BY: J.T.C.
DRAWING NO: 2009-14	APPR. BY: E.A.W.

Coral Graphics
840 S. Broadway
Hicksville, New York



LEGEND

- EXISTING MONITORING WELL LOCATION
- #116 STRUCTURE AND BUILDING NUMBER

ADAPTED FROM A PHOTOGRAPH DATED MARCH 4, 2000

N W E S

CA RICH CONSULTANTS, INC.

Environmental Specialist Since 1982

17 Dupont Street, Plainview, New York 11803

TITLE: Locations of Groundwater Monitoring Wells Included in the Off-Site Remedy		DATE: 9/22/2011
		SCALE: As Shown
FIGURE: 2	Coral Graphics Facility 840 South Broadway Hicksville, New York	DRAWN BY: J.T.C.
DRAWING NO: 2011-1		APPR. BY: E.A.W.