DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

RCRA Corrective Action
Environmental Indicator (EI) RCRAInfo code (CA725)
Current Human Exposures Under Control

Facility Name: **Summit Research Labs, Inc.**
Facility Address: **15 Big Pond Road, Huguenot NY, 12746**
Facility EPA ID #: **NYD001391200**

BACKGROUND

Definition of Environmental Indicators (for the RCRA Corrective Action)

Environmental Indicators (EIs) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EIs developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

Definition of "Current Human Exposures Under Control" EI

A positive "Current Human Exposures Under Control" EI determination ("YE" status code) indicates that there are no "unacceptable" human exposures to "contamination" (i.e., contaminants in concentrations in excess of appropriate risk-based levels) that can be reasonably expected under current land- and groundwater-use conditions (for all "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

Relationship of EI to Final Remedies

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EIs are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, GPRA). The "Current Human Exposures Under Control" EI are for reasonably expected human exposures under current land- and groundwater-use conditions ONLY, and do not consider potential future land- or groundwater-use conditions or ecological receptors. The RCRA Corrective Action program's overall mission to protect human health and the environment requires that Final remedies address these issues (i.e., potential future human exposure scenarios, future land and groundwater uses, and ecological receptors).

Duration / Applicability of EI Determinations

EI Determinations status codes should remain in RCRAInfo national database ONLY as long as they remain true (i.e., RCRAInfo status codes must be changed when the regulatory authorities become aware of contrary information).

Background:

Summit Research Labs, Inc. manufactures aluminum chlorhydrate powder and other metal salts that are active ingredients in antiperspirants. The plant began operations at this site in 1962, owned and operated at the time by Wickhen Products. Dow Corning Corporation purchased the plant in 1986 and operated it until 1992, at which time it was sold to Summit. During Wickhen's time on site, benzene was reportedly used in some processes during the 1970s.

The site is in a small village, five miles northeast of Port Jervis, New York. The plant occupies about 10.9 acres and is comprised of a main operations and manufacturing building, three warehouses, and various support facilities. A portion of the site is wooded on the northwest side. There are homes to the west, south and east. There is currently no other significant industry in the area.

Figures 1 and 2 show the site location and the rural nature of the site.

1. Has **all** available relevant/significant information on known and reasonably suspected releases to soil, groundwater, surface water/sediments, and air, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been **considered** in this EI determination?

   ___**X**___ If yes - check here and continue with #2 below.

   _____ If no - re-evaluate existing data, or

   _____ If data is not available skip to #6 and enter "IN" (more information needed) status code.

2. Are groundwater, soil, surface water, sediments, or air **media** known or reasonably suspected to be **"contaminated"**[1] above appropriately protective risk-based "levels" (applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action (from SWMUs, RUs or AOCs)?

	YES	NO	?	Rationale/Key Contaminants
Groundwater	X			Benzene
Air (indoors)[2]		X		
Surface Soil (e.g., <2 ft)		X		
Surface Water		X		
Sediment		X		
Subsurface Soil (e.g., >2 ft)	X			
Air (outdoors)		X		

_____ If no (for all media) - skip to #6, and enter "YE," status code after providing or citing appropriate "levels," and referencing sufficient supporting documentation demonstrating that these "levels" are not exceeded.

X If yes (for any media) - continue after identifying key contaminants in each "contaminated" medium, citing appropriate "levels" (or provide an explanation for the determination that the medium could pose an unacceptable risk), and referencing supporting documentation.

_____ If unknown (for any media) - skip to #6 and enter "IN" status code.

Rationale and Reference(s):

GROUNDWATER CONTAMINAION

Groundwater is contaminated by benzene that leaked from an underground wastewater pipeline sometime between 1970 and 1977. The pipeline was decommissioned in 1977 and capped at both ends. Detections of benzene found in the Phase 1 Site Investigation were as high as 85,000 *u*g/l. In addition to benzene, groundwater monitoring occasionally detected trace concentrations of other process-related VOCs including cyclohexane, isopropyl alcohol (IPA) and 2-ethylhexanol. Traces of toluene, methane, and xylene were also detected from time to time. These were believed to be from an historical fuel oil spill. (Wehran Engineering 1987 & 1989)

[1] "Contamination" and "contaminated" describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriately protective risk-based "levels" (for the media, that identify risks within the acceptable risk range).

[2] Recent evidence (from the Colorado Dept. of Public Health and Environment, and others) suggests that unacceptable indoor air concentrations are more common in structures above groundwater with volatile contaminants than previously believed. This is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration necessary to be reasonably certain that indoor air (in structures located above (and adjacent to) groundwater with volatile contaminants) does not present unacceptable risks.

Active remediation in the unsaturated zone was done in the source area near MW 12 (Figure 3) using a soil vapor extraction system installed in 1991 and operated as needed through 1997. The peak benzene concentration in the blower exhaust of 1,402 parts per million by volume (ppmv) was detected right after startup. Subsequent concentrations, even after down periods, averaged 10 ppmv in 28 monitoring events from 1992 through 1997. The system was shut down in November 1997. At that time the benzene concentration in the exhaust was 1.3 ppmv. (Emcon, 2000)

During the time that the soil vapor extraction system was reducing the flux of benzene from the unsaturated zone to the groundwater system, natural attenuation was also reducing benzene concentrations in the groundwater. This was demonstrated through groundwater monitoring that showed a reduction in the benzene concentrations and the extent of groundwater impacts on the site. The role of microorganisms in the natural attenuation processes was documented by a laboratory study performed on behalf of Dow Corning in 1991 and 1992. (Dow Chemical Company, 2000)

Long-term groundwater monitoring has demonstrated a substantial decline in the concentrations of benzene and the size of the plume. (Figure 4)

Groundwater is not used as a source of potable water on the site. The on-site sentinel wells (MW-11 and MW-11R) continue to verify the absence of benzene at the downgradient site boundary. (Cardinal Resources LLC, July 2008) (Figure 3)

Over the entire 19 year monitoring period (July 1990 – May 2009) the benzene concentration in the former source area (MW-12) shows a 90% decline from an average of over 2,000 ug/L in 1990-1991 to an average of about 200ug/L in 2008-2009. (Figure 5)

Monitoring over the past 8 years demonstrates that this significant reduction in source area concentrations in MW-12 are still occurring; declining about 80% from an average in 2000-2001 of 1,048 *u*g/L, to an average of 214 *u*g.L in 2008-2009. (Table 1 – Figure 5)

Percentage concentration reductions elsewhere in the contaminated area were even greater, with over 95% decline for the same period in MW-8, MW-9 and MW-10. Of these, MW 9 and MW 10 showed no detectable benzene in the last two rounds of sampling. (Table 1 - Figure 6)

TABLE 1

Well No.	2000 - 2001 Average Benzene Concentration *U*g/L	2008 - 2009 Average Benzene Concentration *U*g/L	Percent Reduction from 2000-2001 to 2006-2009
Source Area Well			
MW-12	1,048	214	80%
Other Wells			
MW-2	202	3.4	98%
MW-8	1,668	83	95%
MW-10	97	3	97%

Subsurface Soil

Residual levels of benzene are assumed to be present, even after SVE operations. This soil is paved or beneath site buildings.

References:

Wehran Engineering, December 1987, *Phase 1 Site Investigation Report*, Prepared for Wickhen Products, Inc. Huguenot, New York.

Wehran EnviroTech, September 1989, *Site Investigation Report - Summary of Phase II Investigations*, Prepared for Dow Corning Corporation, Middletown, N.Y., Wehran-New York Inc.

Dow Chemical Company, April 1992, *Natural Attenuation of Benzene in Groundwater: The Dow Corning Huguenot Site*, Environmental Toxicology and Chemistry Research Laboratory, Midland, MI. Prepared on behalf of Dow Corning Corporation.

Emcon, January 2000, Letter to J.R. Meacham of NYSDEC regarding operations summary for soil vapor extraction system at Summit Research Labs, Huguenot, New York; prepared on behalf of Dow Corning Corporation.

Cardinal Resources LLC, July 2008, Letter Report, Groundwater Monitoring Program – May 2008, Summit Research Labs, Huguenot, New York, Prepared on behalf of Summit Research Labs.

3. Are there **complete pathways** between "contamination" and human receptors such that exposures can be reasonably expected under the current (land- and groundwater-use) conditions?

Summary Exposure Pathway Evaluation Table

	Potential **Human Receptors** (Under Current Conditions)						
"Contaminated" Media	Residents	Workers	Day-Care	Construction	Trespassers	Recreation	Food[3]
Groundwater	NO	NO	NO	NO	NO	NO	NO
~~Air (indoors)~~							
~~Soil (surface, e.g., <2 ft)~~							
Surface Water	NO	NO	NO	NO	NO	NO	NO
~~Sediment~~							
Soil (subsurface e.g., >2 ft)	NO	NO	NO	NO	NO	NO	NO
~~Air (outdoors)~~							

Instructions for Summary Exposure Pathway Evaluation Table:

1. Strike-out specific Media including Human Receptors' spaces for Media which are not "contaminated" as identified in #2 above.

2. enter "yes" or "no" for potential "completeness" under each "Contaminated" Media -- Human Receptor combination (Pathway).

Note: In order to focus the evaluation to the most probable combinations some potential "Contaminated" Media - Human Receptor combinations (Pathways) do not have check spaces ("_---_"). While these combinations may not be probable in most situations they may be possible in some settings and should be added as necessary.

_X_ If no (pathways are not complete for any contaminated media-receptor combination) - skip to #6, and enter "YE" status code, after explaining and/or referencing condition(s) in-place, whether natural or man-made, preventing a complete exposure pathway from each contaminated medium (e.g., use optional Pathway Evaluation Work Sheet to analyze major pathways).

____ If yes (pathways are complete for any "Contaminated" Media - Human Receptor combination) - continue after providing supporting explanation.

____ If unknown (for any "Contaminated" Media - Human Receptor combination) - skip to #6 and enter "IN" status code

Rationale and Reference(s):

Groundwater is not migrating offsite (See rational for question #2)

[3] Indirect Pathway/Receptor (e.g., vegetables, fruits, crops, meat and dairy products, fish, shellfish, etc.)

Indoor Air/Soil Vapor impacts are not present at the site. On February 3, 2010, Summit Research conducted a Sub-Slab and Ambient Air investigation to determine if there are soil vapor impacts related to historic operations at the plant. The investigation included sub-slab and indoor air samples in two locations within the building. The first location was in the break room on the lower level of the building. The second was in the office area on the upper level. (The building is constructed on two levels over a bench that has been cut into a pre-existing hillside so both levels sit on a slab.)

Based on this study, the New York State Department of Health (NYSDOH) has determined that:

- Indoor and outdoor ambient air concentrations are below 90th percentile concentrations found inside and outside public and commercial buildings throughout the country in a U.S. EPA study; and inside and outside fuel-oil heated homes in a NYSDOH study.

- All detected concentrations in indoor are below typical background concentrations. The results are shown in the following tables.

- No further actions are required to address soil vapor intrusion at the site.

The results are shown in the following tables.

References:

Cardinal Resources LLC, June 2010; revised Sub-Slab and Ambient Air Sampling Report, February 2010 Summit Research Labs, Huguenot, New York.

Analytes in Sub-Slab Monitoring Samples

Analyte	Sub-Slab Results (ug/m³)		
	SS-1	SS-2	SS-3
Location	Break Room	Break Room (Duplicate)	Storage Room
Benzene	0.63	0.51	2.2
2-Butanone (Methyl Ethyl Ketone)	3.6	3.4	6.2
tert-Butyl Alcohol	ND	ND	2.0
Carbon Tetrachloride	0.37	0.38	ND
Chloromethane	0.7	0.8	0.76
Cyclohexane	1.3	2.2	6.2
1,4-Dichlorobenzene	19	19	8.8
Dichlorodifluoromethane	2.0	2.0	1.6
Ethanol (Ethyl Alcohol)	22	15	18
Ethylbenzene	0.65	0.79	13
n-Hexane	ND	ND	1.0
Methylene Chloride	1.4	1.4	1.7
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	2.9	2.5	2.6
Styrene	ND	0.36	1.9
Toluene	4.5	5.5	9.0
1,1,1-Trichloroethane	ND	ND	0.56
Trichloroethene (TCE)	ND	ND	0.88
Trichlorofluoromethane	1.2	1.1	1.5
1,2,4-Trimethylbenzene	1.7	1.2	8.6
1,3,5-Trimethylbenzene	0.43	ND	3.2
m-Xylene & p-Xylene	2.0	2.8	38
o-Xylene	0.74	0.94	5.2

Notes:
ND = Not detected

Analytes in Ambient Indoor Air Monitoring Samples

Analyte	Ambient Indoor Air Results (ug/m³)[3]		90th Percentile (ug/m³)	90th Percentile (ug/m³)
	AA-1	AA-2		
Location	Break Room	Storage Room	Indoor Public and Commercial Building Assessment and Survey Evaluation[1]	NYSDOH 2003 Study of VOCs in Indoor Air-Fuel Oil-Heated Homes[2]
Benzene	0.38	1.6	9.4	15
2-Butanone (Methyl Ethyl Ketone)	1.1	3.3	12.0	16
tert-Butyl Alcohol	ND	1.2	NA	NA
Carbon Tetrachloride	ND	0.39	<1.3	0.8
Chloromethane	1.4	1.6	3.7	3.3
Cyclohexane	ND	9.6	NA	8.1
1,4-Dichlorobenzene	ND	0.53	5.5	1.3
Dichlorodifluoromethane	2.3	2.3	16.5	15
Ethanol (Ethyl Alcohol)	9	38	210.0	1,400
Ethylbenzene	ND	0.99	5.7	7.3
n-Hexane	ND	0.95	10.2	18
Methylene Chloride	2.0	2.0	10.0	22
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ND	ND	6.0	2.2
Styrene	ND	ND	1.9	1.3
Toluene	ND	2.7	43.0	58
1,1,1-Trichloroethane	ND	ND	20.6	3.1
Trichloroethene (TCE)	ND	ND	4.2	0.5
Trichlorofluoromethane	1.5	1.6	18.1	17
1,2,4-Trimethylbenzene	ND	0.40	9.5	9.5
1,3,5-Trimethylbenzene	ND	ND	3.7	3.6
m-Xylene & p-Xylene	ND	4.6	22.2	12
o-Xylene	ND	3.0	7.9	7.6

Notes:
[1]U.S. EPA, 2001 - From NYSDOH Soil Vapor Intrusion Guidance, Table C2, October 2006.
[2]NYSDOH, 2003 - From NYSDOH Soil Vapor Intrusion Guidance, Table C1.
ND = Not detected
NE = Not established
NA = Not analyzed

Analytes in Ambient Outdoor Air Monitoring Sample

Analyte	Ambient Outdoor Air Results (ug/m³)	90th Percentile (ug/m³)	90th Percentile (ug/m³)
	AA-3		
Location	Outside Front Entrance	Outdoor Public and Commercial Building Assessment and Survey Evaluation[1]	NYSDOH 2003 Study of VOCs in Outdoor Air-Fuel Oil-Heated Homes[2]
Benzene	1.2	6.6	4.3
2-Butanone (Methyl Ethyl Ketone)	1.9	11.3	6.3
tert-Butyl Alcohol	ND	NA	NA
Carbon Tetrachloride	0.39	0.7	0.8
Chloromethane	1.5	3.7	3.2
Cyclohexane	ND	NA	1.3
1,4-Dichlorobenzene	ND	1.2	0.5
Dichlorodifluoromethane	2.2	8.1	7.5
Ethanol (Ethyl Alcohol)	ND	57.0	31
Ethylbenzene	0.67	3.5	1.1
n-Hexane	ND	6.4	2.6
Methylene Chloride	1.7	6.1	1.6
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ND	1.9	0.9
Styrene	ND	1.3	0.4
Toluene	1.5	33.7	5.9
1,1,1-Trichloroethane	ND	2.6	0.6
Trichloroethene (TCE)	ND	1.3	0.3
Trichlorofluoromethane	1.1	4.3	3.6
1,2,4-Trimethylbenzene	1.5	5.8	1.7
1,3,5-Trimethylbenzene	0.56	2.7	0.7
m-Xylene & p-Xylene	3.0	12.8	1.4
o-Xylene	1.4	4.6	1.7

Notes:
[1]U.S. EPA, 2001 - From NYSDOH Soil Vapor Intrusion Guidance, Table C2, October 2006.
[2]NYSDOH, 2003 - From NYSDOH Soil Vapor Intrusion Guidance, Table C1.
NE = Not established
NA = Not analyzed

4. Can the **exposures** from any of the complete pathways identified in #3 be reasonably expected to be **"significant"**[4] (i.e., potentially "unacceptable" because exposures can be reasonably expected to be: 1) greater in magnitude (intensity, frequency and/or duration) than assumed in the derivation of the acceptable "levels" (used to identify the "contamination"); or 2) the combination of exposure magnitude (perhaps even though low) and contaminant concentrations (which may be substantially above the acceptable "levels") could result in greater than acceptable risks)?

   _____ If no (exposures can not be reasonably expected to be significant (i.e., potentially "unacceptable") for any complete exposure pathway) - skip to #6 and enter "YE" status code after explaining and/or referencing documentation justifying why the exposures (from each of the complete pathways) to "contamination" (identified in #3) are not expected to be "significant."

   _____ If yes (exposures could be reasonably expected to be "significant" (i.e., potentially "unacceptable") for any complete exposure pathway) - continue after providing a description (of each potentially "unacceptable" exposure pathway) and explaining and/or referencing documentation justifying why the exposures (from each of the remaining complete pathways) to "contamination" (identified in #3) are not expected to be "significant."

   _____ If unknown (for any complete pathway) - skip to #6 and enter "IN" status code

Rationale and Reference(s):

5. Can the "significant" **exposures** (identified in #4) be shown to be within **acceptable** limits?

   _____ If yes (all "significant" exposures have been shown to be within acceptable limits) - continue and enter "YE" after summarizing and referencing documentation justifying why all "significant" exposures to "contamination" are within acceptable limits (e.g., a site-specific Human Health Risk Assessment).

   ____ If no (there are current exposures that can be reasonably expected to be "unacceptable") - continue and enter "NO" status code after providing a description of each potentially "unacceptable" exposure.

   _____ If unknown (for any potentially "unacceptable" exposure) - continue and enter "IN" status code

Rationale and Reference(s):

[4] If there is any question on whether the identified exposures are "significant" (i.e., potentially "unacceptable") consult a human health Risk Assessment specialist with appropriate education, training and experience.

6. Check the appropriate RCRA Info status codes for the Current Human Exposures Under Control EI event code (CA725), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (and attach appropriate supporting documentation as well as a map of the facility):

__X__ YE - Yes, "Current Human Exposures Under Control" has been verified. Based on a review of the information contained in this EI Determination, "Current Human Exposures" are expected to be "Under Control" at the Summit Research Labs, Inc facility located at 15 Big Pond Road in Huguenot, NY, under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant changes at the facility.

_____ NO - "Current Human Exposures" are NOT "Under Control."

_____ IN - More information is needed to make a determination.

Completed by: _____ Date: 07-15-2010
Name Larry A. Rosenmann
Title Engineering Geologist 2

Supervisor: _____ Date: 07-15-2010
Denise Radtke
Supervisor, Engineering Geology Section
Bureau of Hazardous Waste and Radiation Management
Division of Solid and Hazardous Materials

Director: _____ Date: 07-15-2010
Name Robert J. Phaneuf, P.E. - Acting Director
Bureau of Hazardous Waste and Radiation Management
Division of Solid and Hazardous Materials

Locations where References may be found:

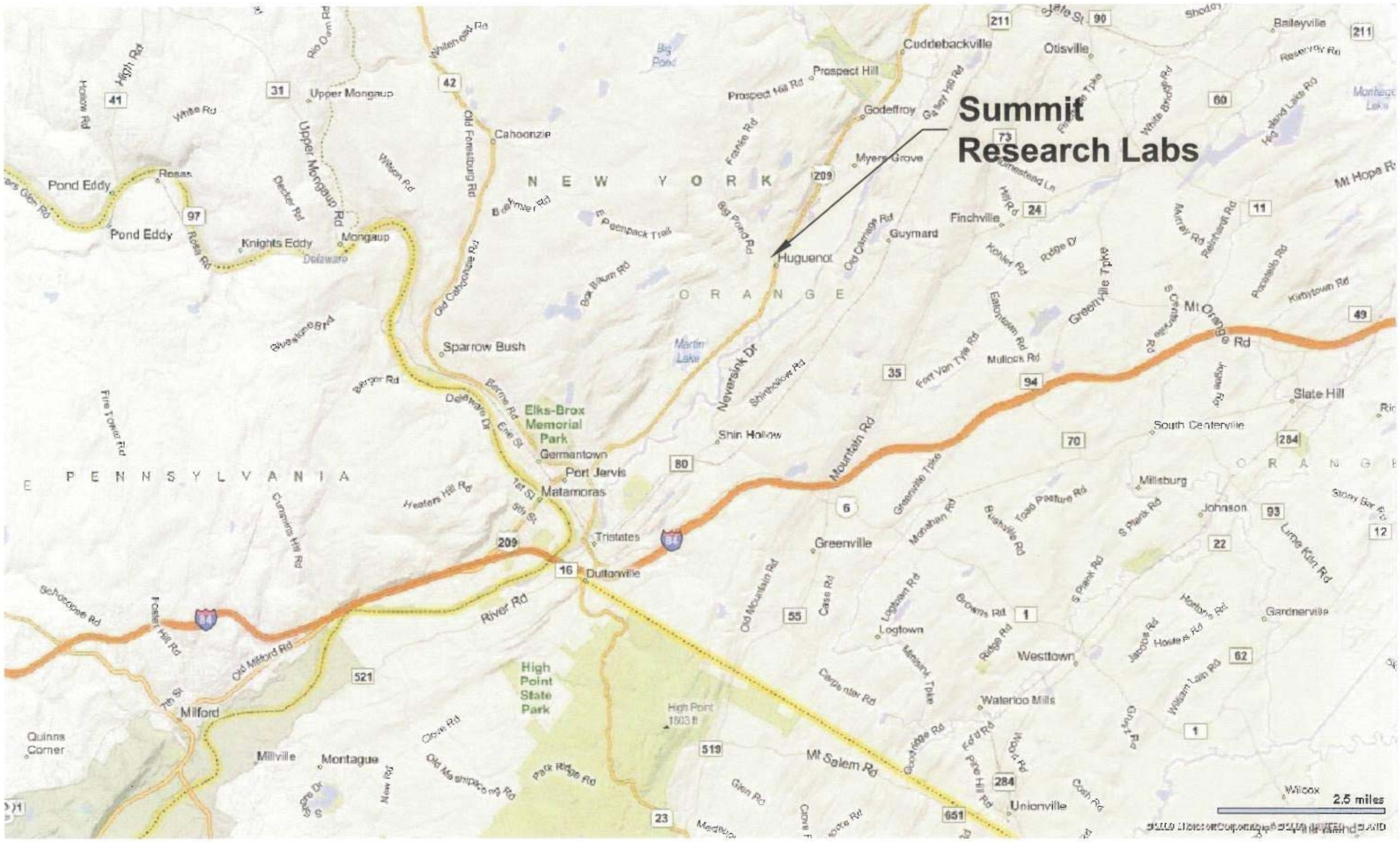
New York State Department of Environmental Conservation, Central Office
Division of Solid and Hazardous Materials
625 Broadway 9th Floor
Albany, New York 12233-7252

Contact telephone and e-mail numbers:

Larry Rosenmann
(518) 402-8585
lrosenma@gw.dec.state.ny.us

FINAL NOTE: THE HUMAN EXPOSURES EI IS A QUALITATIVE SCREENING OF EXPOSURES AND THE DETERMINATIONS WITHIN THIS DOCUMENT SHOULD NOT BE USED AS THE SOLE BASIS FOR RESTRICTING THE SCOPE OF MORE DETAILED (E.G., SITE-SPECIFIC) ASSESSMENTS OF RISK.

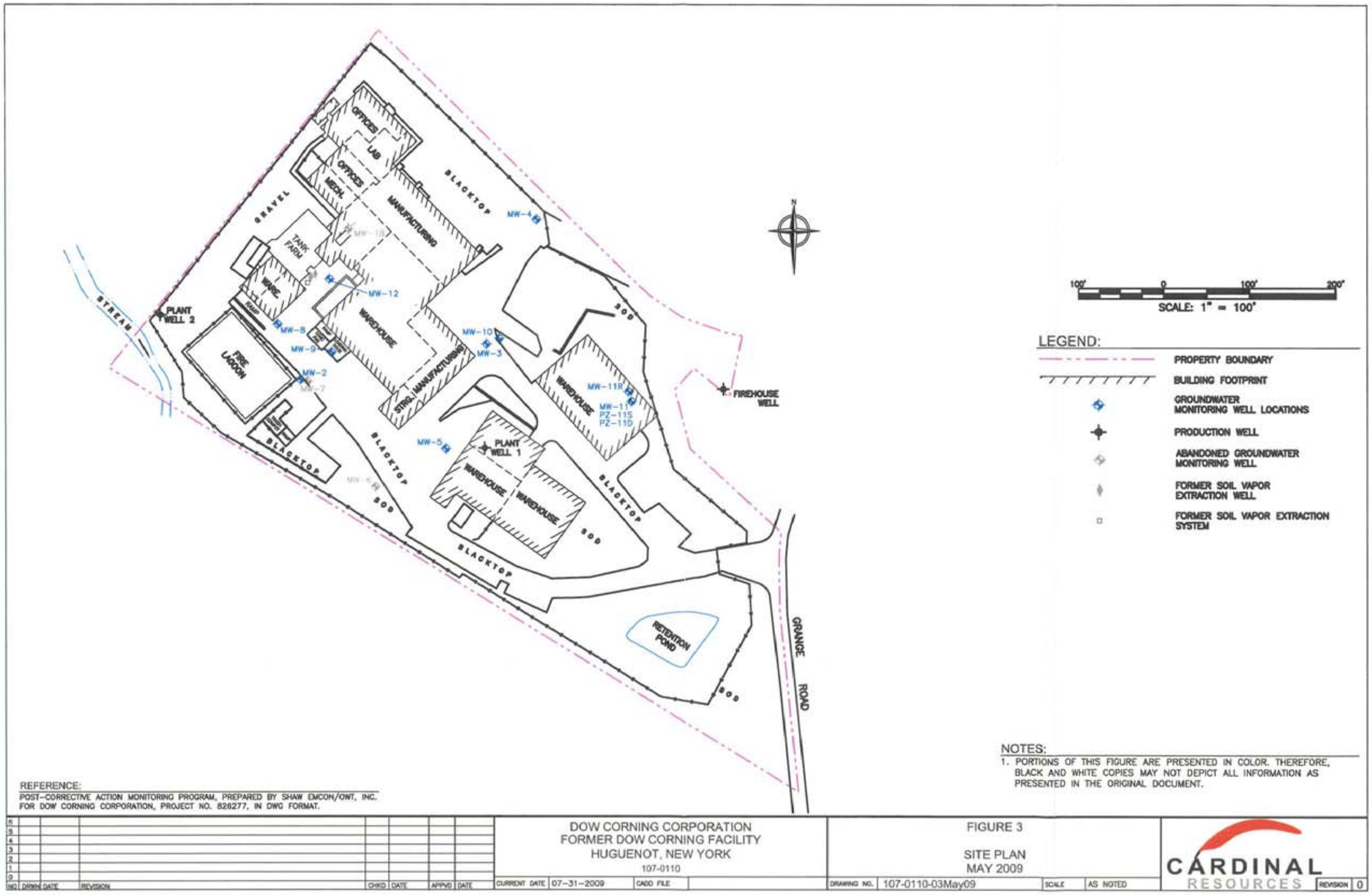
FIGURES


Summit
Research Labs
Huguenot
Cuddebackville
Otisville
Prospect Hill
Godeffroy
Myers Grove
Finchville
Guymard
N E W Y O R K
O R A N G E
P E N N S Y L V A N I A
Pond Eddy
Knights Eddy
Mongaup
Upper Mongaup
Cahoonzie
Sparrow Bush
Elks-Brox
Memorial
Park
Germantown
Port Jervis
Matamoras
Tristates
Huguenot
Shin Hollow
Greenville
Mt Orange Rd
Slate Hill
South Centerville
Millsburg
Johnson
Gardnerville
Westtown
Logtown
Waterloo Mills
Unionville
Milford
Quinns Corner
Millville
Montague
High Point State Park
Mt Salem Rd
2.5 miles

DOW CORNING CORPORATION FORMER DOW CORNING FACILITY HUGUENOT, NEW YORK 107-0110	FIGURE 1 SITE LOCATION	CARDINAL RESOURCES
CURRENT DATE 07-31-2009 FILE	DWG NO. FIG1 SCALE	REVISION 0

NO	DRWN	DATE	REVISION	CHKD	DATE	APPVD	DATE


Big Pond Rd
Summit Research Labs
15 Big Pond Rd, NY 12746
209
Orange Rd
Huguenot
Image © 2009 DigitalGlobe
© 2009 Tele Atlas
Google
NO. DRWN DATE REVISION CHKD DATE APPVD DATE
DOW CORNING CORPORATION
FORMER DOW CORNING FACILITY
HUGUENOT, NEW YORK
107-0110
CURRENT DATE 07-31-2009
FILE
FIGURE 2
SITE VICINITY
DWG NO. FIG2
SCALE
CARDINAL RESOURCES
REVISION 0


OFFICES
LAB
OFFICES
MECH.
MANUFACTURING
TANK FARM
WAREHOUSE
STRG. MANUFACTURING
FIRE LAGOON
WAREHOUSE
WAREHOUSE
WAREHOUSE
RETENTION POND
GRAVEL
STREAM
BLACKTOP
SOD
PLANT WELL 2
PLANT WELL 1
FIREHOUSE WELL
MW-2
MW-3
MW-4
MW-5
MW-8
MW-9
MW-10
MW-11R
MW-11
PZ-11S
PZ-11D
MW-12
GRANGE ROAD
SCALE: 1" = 100'
LEGEND:
PROPERTY BOUNDARY
BUILDING FOOTPRINT
GROUNDWATER MONITORING WELL LOCATIONS
PRODUCTION WELL
ABANDONED GROUNDWATER MONITORING WELL
FORMER SOIL VAPOR EXTRACTION WELL
FORMER SOIL VAPOR EXTRACTION SYSTEM
NOTES:
1. PORTIONS OF THIS FIGURE ARE PRESENTED IN COLOR. THEREFORE, BLACK AND WHITE COPIES MAY NOT DEPICT ALL INFORMATION AS PRESENTED IN THE ORIGINAL DOCUMENT.
REFERENCE:
POST-CORRECTIVE ACTION MONITORING PROGRAM, PREPARED BY SHAW EMCON/OWT, INC. FOR DOW CORNING CORPORATION, PROJECT NO. 826277, IN DWG FORMAT.
DOW CORNING CORPORATION
FORMER DOW CORNING FACILITY
HUGUENOT, NEW YORK
107-0110
CURRENT DATE 07-31-2009
FIGURE 3
SITE PLAN
MAY 2009
DRAWING NO. 107-0110-03May09
SCALE AS NOTED
CARDINAL RESOURCES
REVISION 0

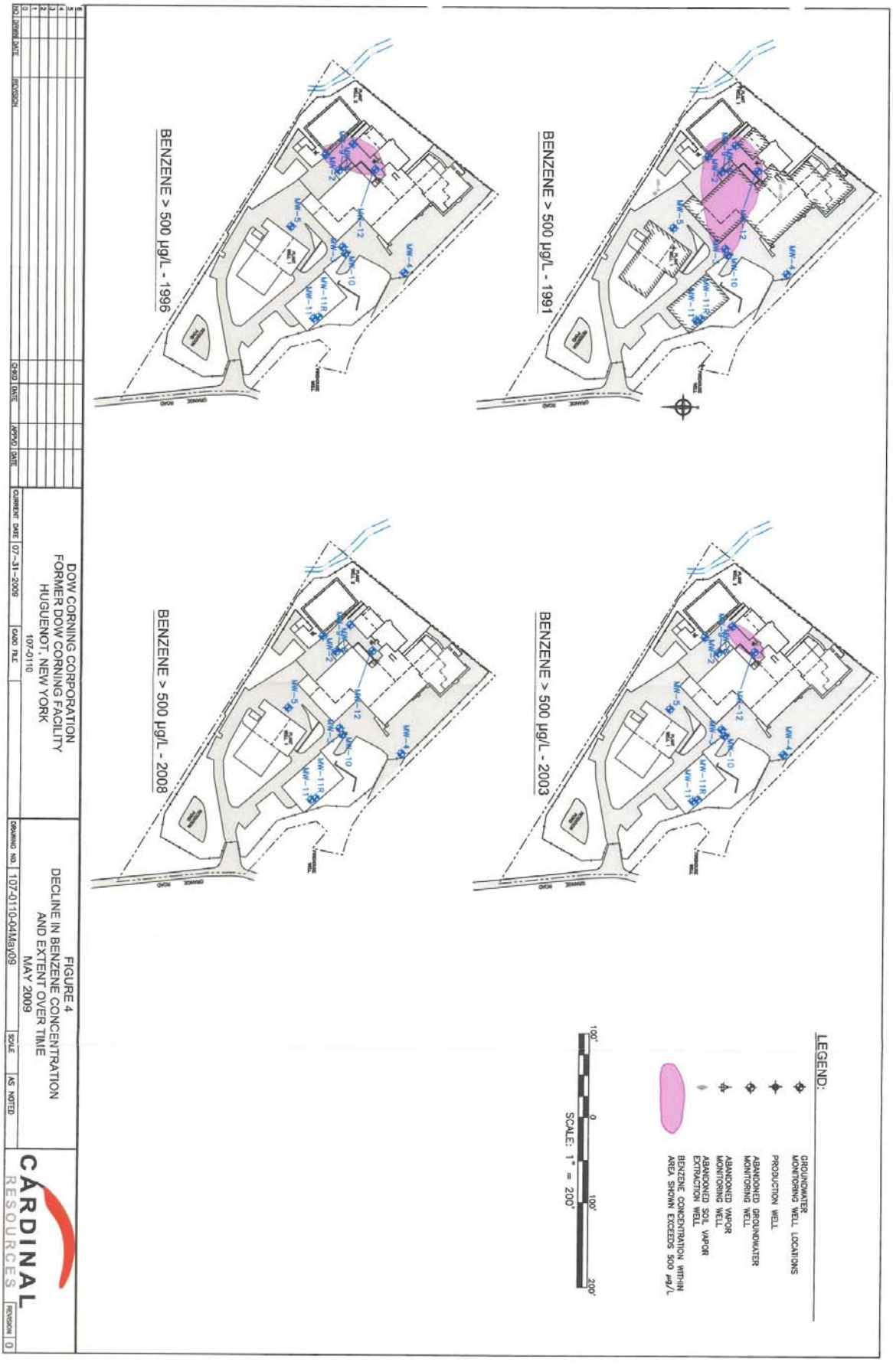

BENZENE > 500 µg/L - 1991
BENZENE > 500 µg/L - 1996
BENZENE > 500 µg/L - 2003
BENZENE > 500 µg/L - 2008
LEGEND:
GROUNDWATER MONITORING WELL LOCATIONS
PRODUCTION WELL
ABANDONED GROUNDWATER MONITORING WELL
ABANDONED VAPOR MONITORING WELL
ABANDONED SOIL VAPOR EXTRACTION WELL
BENZENE CONCENTRATION WITHIN AREA SHOWN EXCEEDS 500 µg/L
SCALE: 1" = 200'
100'
0
100'
200'
DOW CORNING CORPORATION
FORMER DOW CORNING FACILITY
HUGUENOT, NEW YORK
107-0110
CURRENT DATE 07-31-2009
CAD/D FILE
FIGURE 4
DECLINE IN BENZENE CONCENTRATION AND EXTENT OVER TIME
MAY 2009
DRAWING NO. 107-0110-04May09
SCALE AS NOTED
CARDINAL RESOURCES
REVISION 0
NO. DRWN DATE REVISION CHKD DATE APPVD DATE

Figure 5
Concentration Trend in MW-12
July 1990 to May 2009

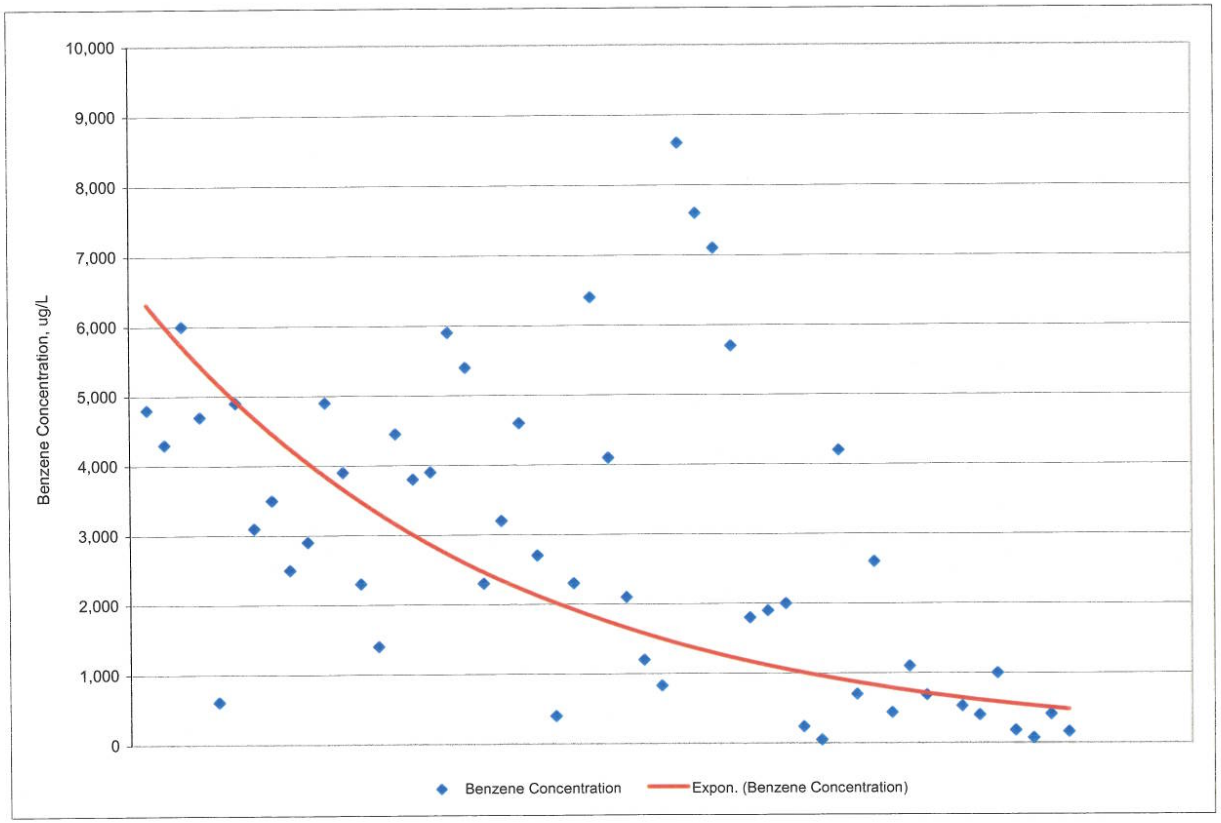
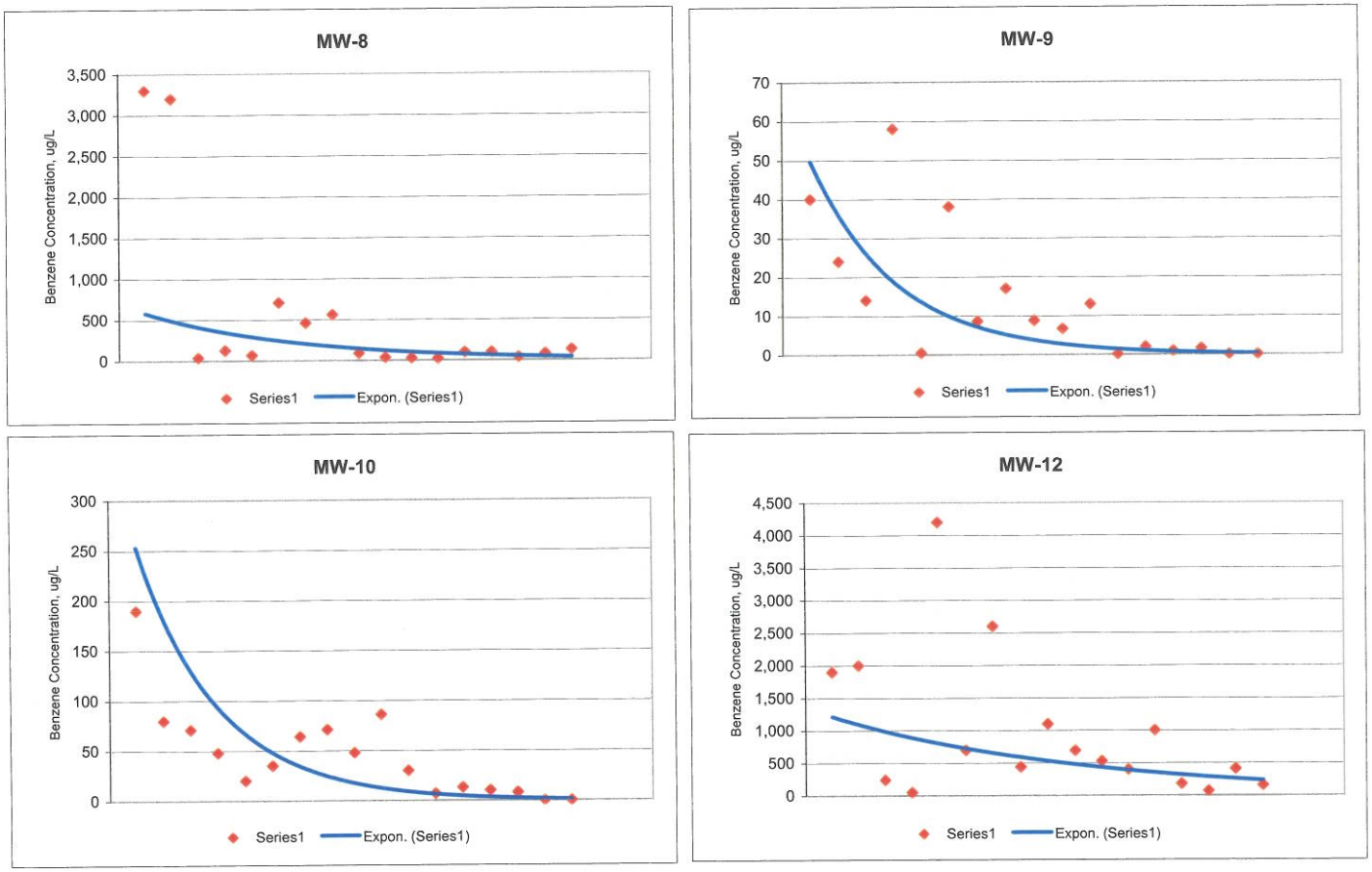


Figure 6
Concentration Trends in MW-8, MW-9, MW-10, and MW-12
April 2000 to May 2009



C:Projects/107-0110/May09/Fig 6 - Conc Trends-Apr 00 to May 09

1 of 1

8/5/2009