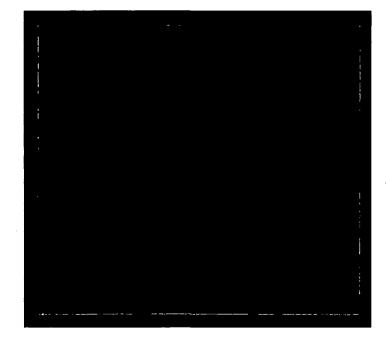
Report. C859025, 2002-09-11. GW\_MAPS\_SOIL\_GAS\_ SURVEY. pdf



September 11, 2002

Mr. Roger Murphy
New York State Department of Environmental Conservation
Division of Solid Waste and Hazardous Materials
Bureau of Solid Waste and Corrective Action, 8<sup>th</sup> Floor
625 Broadway
Albany, New York 12233-8646

BUNEAU OF ROUSE.

Re:

Revised Groundwater Flow Maps and Limited Soil Gas Survey Results

Pactiv's Former Macedon, New York Facility

Dear Mr. Murphy:

On Pactiv's behalf, URS Corporation is pleased to provide you with the revised groundwater flow maps and limited soil gas survey results for the former Pactiv facility in Macedon, New York. This submittal is provided in accordance with the revised schedule for submittals summarized in our letter dated August 16, 2002 and is the first of three submittals that had been requested by Ms. Lynn Winterburger of NYSDEC in a letter, dated July 22, 2002, which was sent to Mr. James Wakeman of Pactiv.

Revised Groundwater Flow Maps

The three revised water table maps for water level monitoring rounds completed on November 1, 1999, March 13, 2000, and June 12, 2000 show that the water levels in the canal are hydrogeologically connected to the water levels measured at the onsite wells. The revised water table maps shows that near the canal and the site boundary, water from the canal flows toward the site west of the Building 12 weir, around the weir, and then the water discharges to the canal east of the Building 12 weir.

Limited Soil Gas Survey Results

On July 17, 2002, URS and our subcontractor Zebra Environmental Corp. (Zebra) completed a limited soil gas survey near soil boring MSB-4, which is the only location at the site where PCE was previously detected. Five soil gas samples from four to six feet bgs were collected from four locations surrounding soil boring MSB-4 and analyzed for PCE. PCE was not detected in any of



the five soil gas samples. This suggests that there is not a large area of PCE-impacted soil or groundwater at the site and that the PCE detected at boring MSB-4 is limited in extent.

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If you have any questions or require additional information regarding this submittal please do not hesitate to contact us at the number below or Mr. Richard St. James of Pactiv at 585 393-5062.

Very truly yours,

**URS** Corporation

Eriko Fujita

**Project Geologist** 

Don Porterfield, P.E.

Manager - Clifton Park

Attachment

cc:

- J. Wakeman, Pactiv
- R. St. James, Pactiv
- G. Casper, NYSDEC
- L. Winterburger, NYSDEC
- R. Reott, Law Offices of Raymond T. Reott
- N. DelForte, Tyco Plastics
- J. Bruzzi, ExxonMobil Environmental Remediation



REVISED WATER TABLE MAPS SOIL GAS SURVEY FORMER PACTIV FACILITY MACEDON, NEW YORK

**SEPTEMBER 11, 2002** 

Prepared for:

PACTIV BAKERSFIELD, CALIFORNIA

Prepared by:

URS CORPORATION 646 PLANK ROAD, SUITE. 202 CLIFTON PARK, NY 12065

September 11, 2002

Mr. James Wakeman Regional Manager Environmental, Health and Safety Pactiv 2024 Norris Road Bakersfield, California 93308

Re: Revised Water Table Maps Soil Gas Survey Former Pactiv Facility Macedon, New York

Dear Mr. Wakeman:

This letter transmits the three revised water table maps and provides a summary of the limited soil gas survey conducted on July 17, 2002 at the former Pactiv facility in Macedon, New York. This work was conducted in accordance with our proposal, dated June 12, 2002, and reflects discussions during the May 22, 2002 meeting with Mr. Gary Casper of NYSDEC.

#### 1.0 BACKGROUND

The objective of the May 22, 2002 meeting was to discuss the NYSDEC's evaluation of the status of the former Pactiv facility under the RCRA Corrective Action Program following NYSDEC's review of documents related to the site. During the meeting, Mr. Gary Casper of NYSDEC identified two issues for which he requested additional information. These two issues are:

- Groundwater potentiometric surface along the barge canal north of the building.
- Extent of perchloroethylene (PCE) detected at soil boring MSB-4 north of the building.

Pactiv agreed to consider re-evaluating the water level measurements collected on November 1, 1999, March 13, 2000, and June 12, 2000 and revising the potentiometric surface maps to reflect the influence of the water levels in the adjacent barge canal to the onsite water levels. Pactiv also agreed to consider further evaluation of the extent of the PCE near soil boring MSB-4 by conducting a soil gas survey.

#### 2.0 COMPLETED SCOPE OF WORK

The completed scope of work consists of these two tasks.

Task 1 – Revise Three Water Table Maps

Task 2 – Conduct Limited Soil Gas Survey

These two tasks are further described below.

#### 2.1 TASK 1 - REVISE THREE WATER TABLE MAPS

The three revised water table maps from water level monitoring rounds completed on November 1, 1999, March 13, 2000, and June 12, 2000 are provided in Attachment 1. The approximate boundary of the barge canal and the weir near Building 12 were added to the base for the water table maps.

As requested by NYSDEC and Pactiv, the three groundwater flow maps were revised to reflect the influence of the water levels in the adjacent barge canal to the onsite water levels. The water table contour lines and groundwater flow lines were re-drawn to show that the water levels in the canal are hydrogeologically connected to the water levels measured at the onsite wells.

The influence of the canal levels and the water table measurements is most apparent adjacent to the canal where the hydraulic gradients are steep. The revised water table maps shows that near the canal and the site boundary, water from the canal flows toward the site west of the Building 12 weir, around the weir, and then the water discharges to the canal east of the Building 12 weir.

#### 2.2 TASK 2 – CONDUCT LIMITED SOIL GAS SURVEY

On July 17, 2002, URS completed a limited soil gas survey near soil boring MSB-4. The detection of PCE in a soil sample collected from 4 to 6 feet bgs at soil boring MSB-4 is the only indication of PCE at the site. The objective of the soil gas survey was to evaluate whether the PCE previously detected at soil boring MSB-4 is indicative of a larger issue or is an isolated occurrence.

URS' subcontractor Zebra Environmental Corp. (Zebra) used a truck-mounted Geoprobe unit to collect five soil gas samples (SG-1 through SG-5, includes one duplicate) from four locations surrounding soil boring MSB-4. At each soil gas collection location, Zebra advanced the drive point assembly to approximately 5 feet bgs and then retracted the assembly approximately six inches. Clean tubing was then inserted to the bottom of the drive point assembly and the tubing was purged of "stale" air using a vacuum pump. During purging, a photo-ionization detector (PID) was connected to the tubing and the measurements of organic vapors were recorded by URS. The PID readings during purging at each location were all at background level (0.0 ppm).

Following purging, a soil gas sample was collected in one-liter Tedlar bag. The soil gas samples were transported in a cooler (without ice) to Severn Trent Laboratories mobile laboratory in East

Rochester, New York for PCE analysis using Method 8010/8020. The analytical report is provided in Attachment 2.

All sampling tools were decontaminated with an Alconox and water wash between each location. Clean drive points and clean tubing were used at each soil gas sampling location. Each probe hole was backfilled with bentonite chips and the asphalt surface pavement was patched with cold batch asphalt.

### Analytical Results

Sample ID	Location	PCE result	Detection Limit (mg/m³)
SG-1	10 feet south of MSB-4	Not detected	0.020
SG-2	10 feet west of MSB-4	Not detected	0.020
SG-3	10 feet north of MSB-4	Not detected	0.020
SG-4	5 feet east of MSB-4	Not detected	0.020
SG-5 (SG-4 Duplicate)	5 feet east of MSB-4	Not detected	0.020

As shown, there were no detections of PCE in any of the five soil gas samples that were collected from the same approximate depth as the soil sample from soil boring MSB-4. Detections of PCE in the soil gas samples would have indicated the presence of an area of soil or groundwater near soil boring MSB-4 that contained significant concentrations of PCE. Thus, the soil gas results indicate that there is not a large area of PCE-impacted soil near soil boring MSB-4. PCE has not been detected in any of the other soil or groundwater samples collected to date at the site. Therefore, we believe that the PCE detected at boring MSB-4 is limited in extent.

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Please do not hesitate to call me if you should have any questions.

Very truly yours,

URS CORPORATION

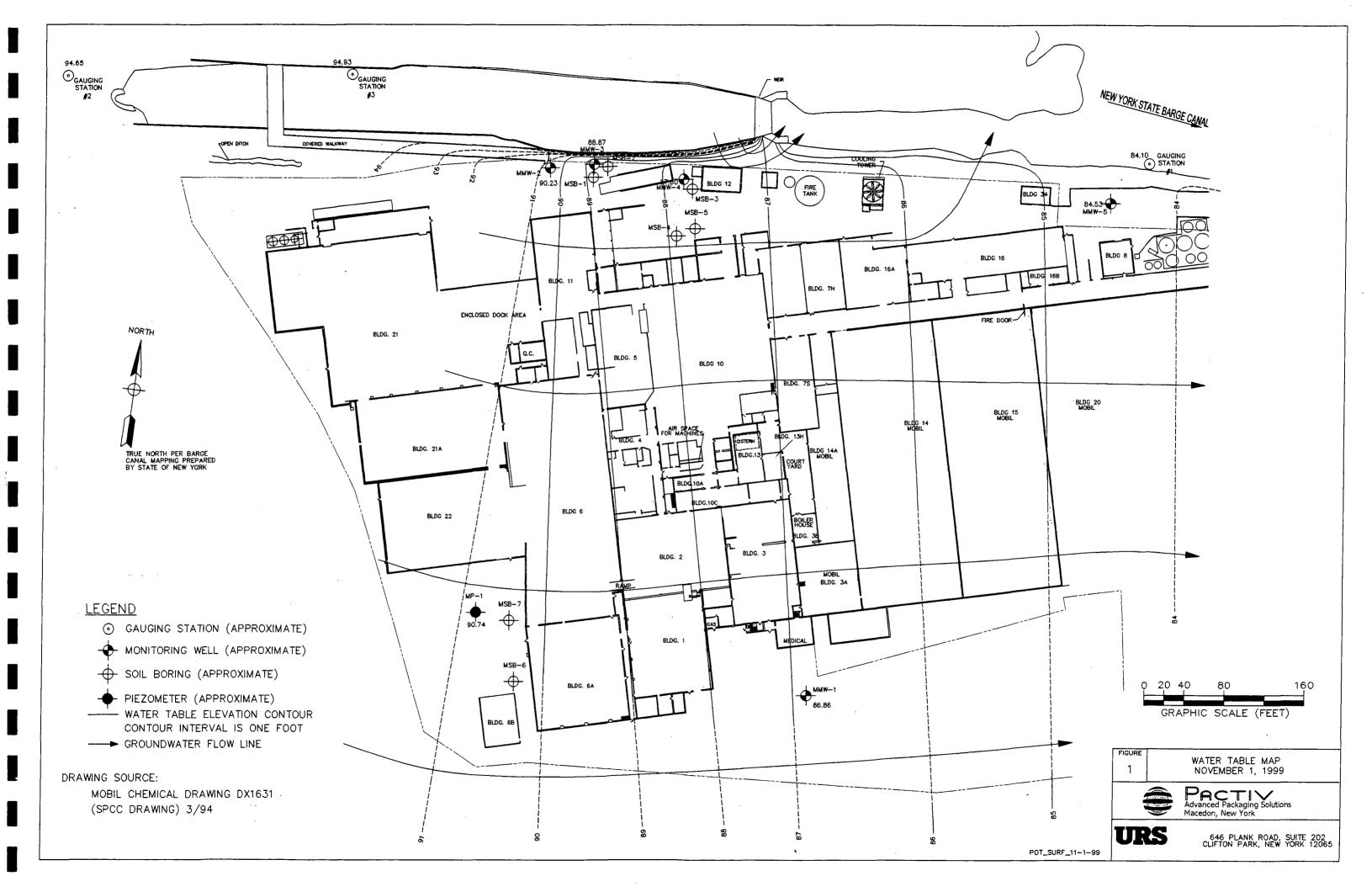
Eriko Fujita

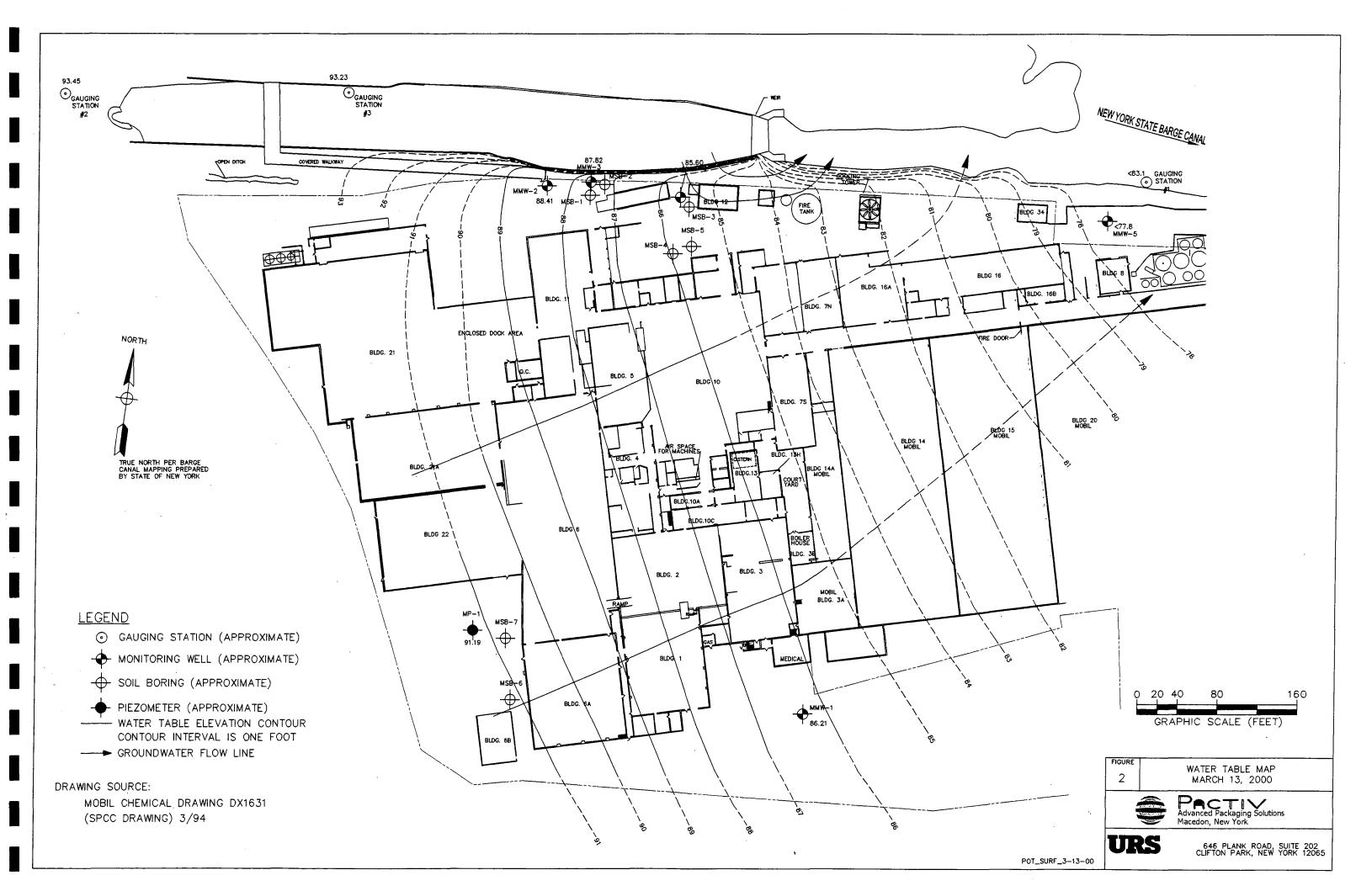
**Project Geologist** 

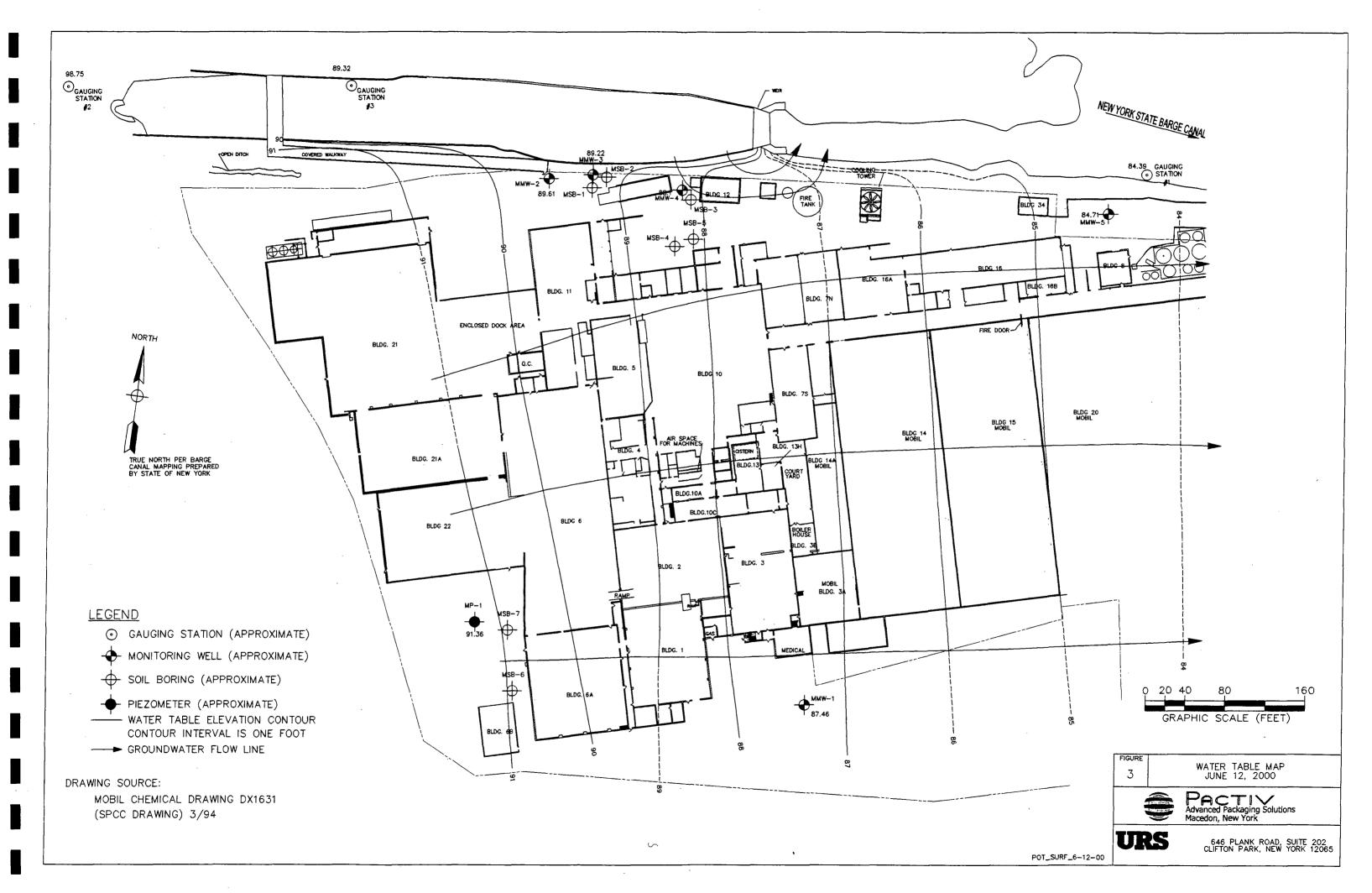
Don Porterfield, P.E. Manager - Clifton Park

cc: Dick St. James/Pactiv

# ATTACHMENT 1 REVISED WATER TABLE MAPS







# ATTACHMENT 2 ANALYTICAL REPORT



**STL On-Site Technologies** 

Westfield Executive Park 53 Southampton Road Westfield, MA 01085

Tel: 413 572 4000 Fax: 413 572 3707 www.stl-inc.com

02 August 2002

Mr. Eriko Fujita URS Corporation 646 Plank Road, Suite 202 Clifton Park, NY 12065

RE:

Field Analytical Report
Pactive-Tyco Site – Macedon, NY
July 17, 2002

Dear Mr. Fujita:

Enclosed please find the final results and report for the field analytical project for samples collected at the Pactive-Tyco Site site located in Macedon, NY for samples received on July 17, 2002. This five-section report provides a narrative, a summary of results, the final data results, quality control results and chain-of-custody forms.

It was a pleasure working with you and URS Corporation on this project and we look forward to working together again. If you have any questions on this report, please do not hesitate to contact me directly.

Very truly yours,

Gianina L. Burnett

Project Manager

STL On-Site Technologies



**STL On-Site Technologies** 

### TABLE OF CONTENTS

Section	Title
1.0	Narrative
2.0	Summary of Results
3.0	Data Results
4.0	QC Results
5.0	Chain-of-Custody Forms

**SECTION 1.0** 

Narrative



STL On-Site Technologies

#### **Narrative**

A field investigation was conducted at the Pactive-Tyco Site in Macedon, NY for samples received on July 17, 2002. The intent of this field effort was to measure the levels of contamination in soil gas samples for Volatile Organic Compounds (VOCs – Tetrachloroethene only) by Method 8021.

#### Sample Analysis - 8021

All samples were analyzed for VOC's using a Hewlett-Packard Model 5890 II Gas Chromatograph (GC) with Electrolytic Conductivity (ELCD) and Photoionization (PID) detectors. An OI Analytical Model 4560 Purge & Trap sample concentrator was used to purge the VOC's from the sample matrix, concentrate them onto a sorbent trap and desorb them onto the GC system. An OI Analytical MPM-16 multi-sampler was used to allow sample analysis to continue while the mobile laboratory was unmanned. The analytical system and parameters are similar to those used in EPA Method 8021. Data was processed on a Pentium-based Personal Computer using HP Chemstation Software. These reports have been reviewed and are presented in Section 3.0 of this report.

#### Volatile Organics Quality Control - 8021

Listed below is a description of the QC analysis and the acceptance criteria for the volatile organics analysis conducted:

- 1. <u>Initial Calibration</u> A 3-point initial calibration was conducted on the analytical system prior to project initiation. The instrument was calibrated and the correlation coefficient (r) calculated for each analyte. For all analytes the (r) value should have been greater than 0.990 or recalibration was performed.
- 2. Calibration Check Standards At the beginning of each day, after every 10 samples and at the end of each day a mid-point calibration check standard was analyzed to verify that the analytical sensitivity did not change from the initial calibration. Percent Recovery (%R) values were calculated for each analyte and compared to the 80 120% criteria. If the %R value was outside the control limits the analyst noted this on the QC form. If significant variances were observed, the system was recalibrated.



STL On-Site Technologies

- 3. QC Standards A QC standard was analyzed on a daily basis and used to verify the accuracy of the calibration standards. The QC standard was a standard from a second source, other than the calibration standards. %R values were calculated and compared to the 80 120% criteria.
- 4. Method Blanks A sample of analyte free water was processed at the beginning of the day and after every ten sample analyses to verify that the analytical system was contaminant-free. Concentrations of detected analytes should have been less than 1/2 the method detection limit. Small contaminants may have been noted as detected in the blank and labelled with a "B". Significant contaminant levels necessitate corrective action, i.e. cleaning of the instrument.
- 5. Surrogate Standards Surrogate standards were added to all samples, standards and method blanks to measure the potential for matrix interferences. % Recovery values were calculated (appear in the comments section of the data pages) and were compared to the 80 120% criteria. Small deviations were marked as outside control limits while large deviations necessitated reanalysis.
- 6. Matrix Spike/Matrix Spike Duplicate Analyses (MS/MSD) Five percent (5%) of the samples analyzed on each day were spiked with a mid-level standard. The %R values were calculated and compared to the 70-130% acceptance criteria. Relative Percent Difference values were calculated and compared to the ≤20% acceptance criteria.

All results are reported as obtained in the field unless otherwise noted above. This information is provided for your use in assessing overall data quality.

**SECTION 2.0** 

**Summary of Results** 

### URS Corporation Pactive-Tyco - Macedon, NY July 17, 2002

VOC's by 8021

VOC 3 DV 8021					
<u>ANALYTE</u>	SG-1	SG-2	SG-3	SG-4	SG-5
Dilution Factor	1	1	1	1	1
Tetrachloroethene	0.02 U				

U = Not Detected
All results reported in units of mg/cu.m.

**SECTION 3.0** 

**Sample Results** 

#### Field Report

PROJECT:

Pactive-Tyco

Macedon, NY

CLIENT:

D&M/URS

646 Plank Road, Suite 202

Clifton Park, NY 12065

Sample ID:

SG-1

GC Sample ID: SG-1 5 ml

W.O. #:

NΑ

Matrix:

SOIL GAS СН

Analyst:

File #:

060R0101.D

Instr. #:

GC#3

Date Coll:

7/17/02 11:32

Date Analyzed: 7/17/02 16:07

Dilution Factor: 1

Method:

071202P.MTH

**RESULTS:** 

EPA Method 8010/8020

Gas Chromatography for Volatile Organics

COMPOUND

DET. LIMIT mg/cu. m RESULT mg/cu. m.

Tetrachloroethene

0.020

ND

Notes:

Volatile Organic Compounds analyzed using EPA methods 8010/8020 from Test Methods for Evaluating Solid Waste, SW 846, U.S. E.P.A. Office of Solid Waste and Emergency Response, Washington, D.C., November 1986.

ND = Not Detected NA = Not Analyzed BQL = Detected below the minimum quantitation limit

B = Detected in the laboratory blank

Comments:

Surrogate Recovery = 107 %

Severn Trent Laboratories

Mobile Laboratory

(413)572-4000

#### Field Report

PROJECT: Pactive-Tyco Matrix: SOIL GAS Macedon, NY Analyst: СН **CLIENT:** D&M/URS File #: 061R0101.D 646 Plank Road, Suite 202 Instr. #: GC#3 Clifton Park, NY 12065 Date Coll: 7/17/02 11:52 Date Analyzed: 7/17/02 16:32 Sample ID: Dilution Factor: 1 GC Sample ID: SG-2 5 ml 071202P.MTH Method: W.O. #: NA EPA Method 8010/8020 **RESULTS:** Gas Chromatography for Volatile Organics DET. LIMIT mg/cu. m RESULT mg/cu. m. COMPOUND 0.020 ND Tetrachloroethene Notes: Volatile Organic Compounds analyzed using EPA methods 8010/8020 from Test Methods for Evaluating Solid Waste, SW 846, U.S. E.P.A. Office of Solid Waste and Emergency Response, Washington, D.C., November 1986. ND = Not Detected BQL = Detected below the minimum quantitation limit B = Detected in the laboratory blank NA = Not Analyzed Comments: Surrogate Recovery = 100 %

Mobile Laboratory

(413)572-4000

Severn Trent Laboratories

		Field Report		
PROJECT:	Pactive-Tyco		Matrix:	SOIL GAS
	Macedon, NY		Analyst:	СН
CLIENT:	D&M/URS		File #:	062R0101.D
	646 Plank Road, Suite 20	02	Instr. #:	GC#3
	Clifton Park, NY 12065		Date Coll:	7/17/02 12:15
			Date Analyzed:	
Sample ID:	SG-3	_	Dilution Factor:	1
GC Sample ID:		_	Method:	071202P.MTH
W.O. #:	NA	_		
RESULTS:	<del></del>	A Method 8010/ atography for Vol		<b>.</b>
	COMPOUND	DET. LIMIT mg/cu. m	RESULT ma/cu n	1
	Tetrachloroethene	0.020	ND	
Notes:			<del> </del>	<del></del>
Volatile Organic ( from Test Method	Compounds analyzed usin ds for Evaluating Solid Wa /aste and Emergency Resp	ste, SW 846, U.S.	E.P.A.	ber 1986.
ND = Not Detected NA = Not Analyzed		BQL = Detected bo B = Detected in the		m quantitation limit k

Mobile Laboratory

Severn Trent Laboratories

Reviewed 968/2/02

(413)572-4000

#### Field Report

PROJECT: Pactive-Tyco Matrix: SOIL GAS Macedon, NY Analyst: СН CLIENT: D&M/URS File #: 063R0101.D 646 Plank Road, Suite 202 Instr. #: GC#3 Clifton Park, NY 12065 Date Coll: 7/17/02 12:29 Date Analyzed: 7/17/02 17:20 Sample ID: SG-4 Dilution Factor: 1 GC Sample ID: SG-4 5 ml Method: 071202P.MTH W.O. #: NA EPA Method 8010/8020 **RESULTS:** Gas Chromatography for Volatile Organics COMPOUND DET. LIMIT mg/cu. m RESULT mg/cu. m. Tetrachloroethene 0.020 ND Notes: Volatile Organic Compounds analyzed using EPA methods 8010/8020 from Test Methods for Evaluating Solid Waste, SW 846, U.S. E.P.A. Office of Solid Waste and Emergency Response, Washington, D.C., November 1986. BQL = Detected below the minimum quantitation limit ND = Not Detected NA = Not Analyzed B = Detected in the laboratory blank **Comments:** Surrogate Recovery = 104 %

Mobile Laboratory

(413)572-4000

Severn Trent Laboratories

#### Field Report

PROJECT:	Pactive-Tyco		Matrix:	SOIL GAS
	Macedon, NY		Analyst:	СН
CLIENT:	D&M/URS		File #:	064R0101.D
	646 Plank Road, Suite 202		Instr. #:	GC#3
	Clifton Park, NY 12065		Date Coll:	7/17/02
			Date Analyzed:	7/17/02 17:44
Sample ID:	DUP 7/17/02		Dilution Factor:	1
GC Sample ID:	DUP 7/17/02 5 ml		Method:	071202P.MTH
W.O. #:	NA			
	EDA 1		2000	
RESULTS:		/lethod 8010/8		
	Gas Chromatog	graphy for Vola	atile Organics	;
	COMPOUND DE	ET. LIMIT mg/cu. m	RESULT mg/cu. n	٦.
	Tetrachloroethene	0.020	ND	
Notes:			-	
Volatile Organic	Compounds analyzed using E	PA methods 80	10/8020	
from Test Method	ds for Evaluating Solid Waste	, SW 846, U.S.	E.P.A.	
Office of Solid W	aste and Emergency Respon	se, Washington	, D.C., Novem	ber <b>1986</b> .
ND = Not Detected	B	QL = Detected be	low the minimur	n quantitation limit
NA = Not Analyzed	В	= Detected in the	laboratory blan	k ·
Comments:	Surrogate Recovery = 103 %			
0.40	. /			-11

Mobile Laboratory

(413)572-4000

Severn Trent Laboratories

**SECTION 4.0** 

QC Results

#### Matrix Spike/Surrogate Recovery Field Report

Analyst: CH

File #: C:\HPCHEM\1\DATA\071702-3\052R0101.D

Instr. #: GC#3

Method: 071202P.MTH

Date Collected: 7/17/02

Date Analyzed: 7/17/02

Sample Name: CCV STD

W.O. #: NA

Surrogate I	Recovery
-------------	----------

		ng	%		
Compound	· ng	spiked	Recovery	Low CL	High CL
4-Bromofluorobenzene	49	50	99	80	120

8.6	atrix	c	milea
17	aunx	3	Dike

		ng	%		
Compound	ng	spiked	Recovery	Low CL	High CL
Acetone	113	100	113	80	120
Tetrachloroethene	49	50	98	80	120

J. 7/19/02

glB8/2/02

#### Matrix Spike/QC Std. Field Report

Analyst: CH

File #: C:\HPCHEM\1\DATA\071702-3\053R0101.D

Instr. #: GC#3

Method: 071202P.MTH

Date Collected: 7/17/02

Date Analyzed: 7/17/02

Sample Name: QCS STD

W.O. #: NA

Surrogate Recovery					
		ng	%		
Compound	ng	spiked	Recovery	Low CL	High CL
4-Bromofluorobenzene	49	50	97	80	120

QC Std. Recovery					
		ng	%		
Compound	ng	spiked	Recovery	Low CL	High CL
Acetone	119	100	119	80	120
Tetrachloroethene	46	50	93	80	120

Japan 7/17/2

ges 8/2loz

#### Field Report

PROJECT:

Pactive-Tyco

Macedon, NY

CLIENT:

D&M/URS

646 Plank Road, Suite 202

Clifton Park, NY 12065

Sample ID:

m.blank #1 7/17 gas GC Sample ID: m.blank1 7/17gas

W.O. #:

NA

Matrix:

SOIL GAS

Analyst:

File #:

059R0101.D

Instr. #: Date Coll: GC#3 7/17/02

СН

Dilution Factor: 1

Date Analyzed: 7/17/02 15:43

Method:

071202P.MTH

**RESULTS:** 

EPA Method 8010/8020

Gas Chromatography for Volatile Organics

COMPOUND

DET. LIMIT mg/cu. m. RESULT mg/cu. m.

Tetrachloroethene

0.020

ND

Notes:

Volatile Organic Compounds analyzed using EPA methods 8010/8020 from Test Methods for Evaluating Solid Waste, SW 846, U.S. E.P.A. Office of Solid Waste and Emergency Response, Washington, D.C., November 1986.

ND = Not Detected

BQL = Detected below the minimum quantitation limit

NA = Not Analyzed

B = Detected in the laboratory blank

Comments:

Surrogate Recovery = 111 %

Severn Trent Laboratories

Mobile Laboratory

(413)572-4000

#### Matrix Spike/PE Field Report

Analyst: CH

File #: C:\HPCHEM\1\DATA\071702-3\066R0101.D

Instr. #: GC#3

Method: 071202P.MTH

Date Collected: 7/17/02

Date Analyzed: 7/17/02

Sample Name: SG-2 5 ml MS

W.O. #: NA

**Surrogate Recovery** 

Compound
4-Bromofluorobenzene

ng

51

ng spiked 50 % Recovery 102

Low CL 80 High CL

120

PE Recovery

Compound Tetrachloroethene

**ng** 51 ng sample ND ng spiked 50 % Recovery 101

Low CL 70

High CL 130

Jag 1/100

ges 8/2/02

#### Matrix Spike/PE Field Report

Analyst: CH

File #: C:\HPCHEM\1\DATA\071702-3\067R0101.D

Instr. #: GC#3

Method: 071202P.MTH

Date Collected: 7/17/02

Date Analyzed: 7/17/02

Sample Name: SG-2 5 ml MSD

W.O. #: NA

Surrogate Recovery

Tetrachloroethene

 ng
 %

 Compound
 ng
 spiked
 Recovery
 Low CL
 High CL

 4-Bromofluorobenzene
 49
 50
 98
 80
 120

ND

46

50

ges 8/2/02

91

70

130

10

#### Matrix Spike/Surrogate Recovery Field Report

Analyst: CH

File #: C:\HPCHEM\1\DATA\071702-3\068R0101.D

Instr. #: GC#3

Method: 071202P.MTH

Date Collected: 7/17/02

Date Analyzed: 7/17/02

Jakon 1 i She

Sample Name: CCV STD

**W.O.** #: NA

Surrogate Recovery					
		ng	%		
Compound	ng	spiked	Recovery	Low CL	High CL
4-Bromofluorobenzene	51	50	102	80	120

Matrix Spike						
			ng	%		
Compound		ng	spiked	Recovery	Low CL	High CL
Acetone		120	100	120	80	120
Tetrachloroethene	-	50	50	100	80	120

gussplor

PROJECT: Pactive-Tyco Macedon, NY CLIENT: D&M/URS 646 Plank Road, Suite 202 Clifton Park, NY 12065  Sample ID: M.Dlank2 7/17 gas M.Dlank2 7/17 gas M.Dlank2 7/17 gas M.Dlank2 7/17 gas Method: Method			Field Report									
Macedon, NY D&M/URS File #: O70R0101.D G46 Plank Road, Suite 202 Clifton Park, NY 12065 Date Coll: 7/17/02 Date Analyzed File #: O70R0101.D GC#3 Date Coll: 7/17/02 Date Analyzed Politution Factor: 1	PROJECT ·	Pactive-Tyco		Matrix:	SOU GAS							
CLIENT:  D&M/URS 646 Plank Road, Suite 202 Clifton Park, NY 12065  Date Coll: 7/17/02 Date Analyzed: 7/17/02 20:04  Sample ID: GC Sample ID: GC Sample ID: M.Dlank2 7/17 gas Method:  Method:  Dilution Factor: 1 07:1202P.MTH  RESULTS:  EPA Method 8010/8020 Gas Chromatography for Volatile Organics  COMPOUND Tetrachloroethene  DET. LIMIT mg/cu. m RESULT mg/cu. m. Tetrachloroethene  DO20 ND  Notes: Volatile Organic Compounds analyzed using EPA methods 8010/8020 from Test Methods for Evaluating Solid Waste, SW 846, U.S. E.P.A. Office of Solid Waste and Emergency Response, Washington, D.C., November 1986.  ND = Not Detected ND = Not Detected NA = Not Analyzed  BQL = Detected below the minimum quantitation limit B = Detected in the laboratory blank												
Compounds analyzed using EPA methods 8010/8020 from Test Methods for Evaluating Solid Waste, SW 846, U.S. E.P.A.    Office of Solid Waste and Emergency Response, Washington, D.C., November 1986.    Office of Solid Waste and Emergency Response, Washington, D.C., November 1986.    Office of Solid Waste and Emergency Response, Washington, D.C., November 1986.    Office of Solid Waste and Emergency Response, Washington, D.C., November 1986.    Office of Solid Waste and Emergency Response, Washington, D.C., November 1986.    Office of Solid Waste and Emergency Response, Washington, D.C., November 1986.    Office of Solid Waste and Emergency Response, Washington, D.C., November 1986.    Office of Solid Waste and Emergency Response, Washington, D.C., November 1986.    Office of Solid Waste and Emergency Response, Washington, D.C., November 1986.    Office of Solid Waste and Emergency Response, Washington, D.C., November 1986.    Office of Solid Waste and Emergency Response, Washington, D.C., November 1986.    Office of Solid Waste and Emergency Response, Washington, D.C., November 1986.    Office of Solid Waste and Emergency Response, Washington, D.C., November 1986.    Office of Solid Waste and Emergency Response, Washington, D.C., November 1986.	CLIENT:	•		,								
Sample ID: m.blank2 7/17 gas Dilution Factor: Method: 1  W.O. #: PPA Method 8010/8020  Gas Chromatography for Volatile Organics  COMPOUND DET. LIMIT mg/cu. m RESULT mg/cu. m.  Tetrachloroethene 0.020 ND  Notes:  Volatile Organic Compounds analyzed using EPA methods 8010/8020  from Test Methods for Evaluating Solid Waste, SW 846, U.S. E.P.A.  Office of Solid Waste and Emergency Response, Washington, D.C., November 1986.  ND = Not Detected  NA = Not Analyzed  BQL = Detected below the minimum quantitation limit B = Detected in the laboratory blank		646 Plank Road, Suite 20	)2	Instr. #:	GC#3							
Sample ID: m.blank2 7/17 gas m		Clifton Park, NY 12065		Date Coll:	7/17/02							
Method: 071202P.MTH  W.O. #: NA  RESULTS: EPA Method 8010/8020  Gas Chromatography for Volatile Organics  COMPOUND DET. LIMIT mg/cu. m RESULT mg/cu. m.  Tetrachloroethene 0.020 ND  Notes:  Volatile Organic Compounds analyzed using EPA methods 8010/8020 from Test Methods for Evaluating Solid Waste, SW 846, U.S. E.P.A.  Office of Solid Waste and Emergency Response, Washington, D.C., November 1986.  ND = Not Detected  NA = Not Analyzed  BQL = Detected below the minimum quantitation limit B = Detected in the laboratory blank				Date Analyzed:	7/17/02 20:04							
RESULTS:  EPA Method 8010/8020  Gas Chromatography for Volatile Organics  COMPOUND  Tetrachloroethene  DET. LIMIT mg/cu. m RESULT mg/cu. m.  Tetrachloroethene  0.020  ND  Notes:  Volatile Organic Compounds analyzed using EPA methods 8010/8020 from Test Methods for Evaluating Solid Waste, SW 846, U.S. E.P.A.  Office of Solid Waste and Emergency Response, Washington, D.C., November 1986.  ND = Not Detected  BQL = Detected below the minimum quantitation limit NA = Not Analyzed  B = Detected in the laboratory blank	Sample ID:	m.blank2 7/17 gas		Dilution Factor:	1							
RESULTS:  COMPOUND  COMPOUND  DET. LIMIT mg/cu. m RESULT mg/cu. m.  Tetrachloroethene  O.020  ND  Notes:  Volatile Organic Compounds analyzed using EPA methods 8010/8020 from Test Methods for Evaluating Solid Waste, SW 846, U.S. E.P.A.  Office of Solid Waste and Emergency Response, Washington, D.C., November 1986.  ND = Not Detected  NA = Not Analyzed  BQL = Detected below the minimum quantitation limit  B = Detected in the laboratory blank	GC Sample ID:	m.blank2 7/17gas	_	Method:	0712 <b>02</b> P.MTH							
COMPOUND DET. LIMIT mg/cu. m RESULT mg/cu. m. Tetrachloroethene 0.020 ND  Notes: Volatile Organic Compounds analyzed using EPA methods 8010/8020 from Test Methods for Evaluating Solid Waste, SW 846, U.S. E.P.A. Office of Solid Waste and Emergency Response, Washington, D.C., November 1986.  ND = Not Detected  BQL = Detected below the minimum quantitation limit NA = Not Analyzed  B = Detected in the laboratory blank	W.O. #:	NA	_									
COMPOUND DET. LIMIT mg/cu. m RESULT mg/cu. m. Tetrachloroethene 0.020 ND  Notes: Volatile Organic Compounds analyzed using EPA methods 8010/8020 from Test Methods for Evaluating Solid Waste, SW 846, U.S. E.P.A. Office of Solid Waste and Emergency Response, Washington, D.C., November 1986.  ND = Not Detected  BQL = Detected below the minimum quantitation limit NA = Not Analyzed  B = Detected in the laboratory blank			_									
COMPOUND DET. LIMIT mg/cu. m RESULT mg/cu. m. Tetrachloroethene 0.020 ND  Notes: Volatile Organic Compounds analyzed using EPA methods 8010/8020 from Test Methods for Evaluating Solid Waste, SW 846, U.S. E.P.A. Office of Solid Waste and Emergency Response, Washington, D.C., November 1986.  ND = Not Detected  BQL = Detected below the minimum quantitation limit NA = Not Analyzed  B = Detected in the laboratory blank												
COMPOUND Tetrachloroethene  DET. LIMIT mg/cu. m RESULT mg/cu. m.  0.020  ND  Notes:  Volatile Organic Compounds analyzed using EPA methods 8010/8020 from Test Methods for Evaluating Solid Waste, SW 846, U.S. E.P.A.  Office of Solid Waste and Emergency Response, Washington, D.C., November 1986.  ND = Not Detected  BQL = Detected below the minimum quantitation limit NA = Not Analyzed  B = Detected in the laboratory blank	RESULTS:	RESULTS: EPA Method 8010/8020										
Notes:  Volatile Organic Compounds analyzed using EPA methods 8010/8020 from Test Methods for Evaluating Solid Waste, SW 846, U.S. E.P.A.  Office of Solid Waste and Emergency Response, Washington, D.C., November 1986.  ND = Not Detected  BQL = Detected below the minimum quantitation limit NA = Not Analyzed  B = Detected in the laboratory blank		Gas Chroma	itography for Vo	latile Organics	5							
Notes:  Volatile Organic Compounds analyzed using EPA methods 8010/8020 from Test Methods for Evaluating Solid Waste, SW 846, U.S. E.P.A.  Office of Solid Waste and Emergency Response, Washington, D.C., November 1986.  ND = Not Detected  BQL = Detected below the minimum quantitation limit NA = Not Analyzed  B = Detected in the laboratory blank												
Notes:  Volatile Organic Compounds analyzed using EPA methods 8010/8020 from Test Methods for Evaluating Solid Waste, SW 846, U.S. E.P.A.  Office of Solid Waste and Emergency Response, Washington, D.C., November 1986.  ND = Not Detected  BQL = Detected below the minimum quantitation limit NA = Not Analyzed  B = Detected in the laboratory blank			J	ŭ	n.							
Volatile Organic Compounds analyzed using EPA methods 8010/8020 from Test Methods for Evaluating Solid Waste, SW 846, U.S. E.P.A.  Office of Solid Waste and Emergency Response, Washington, D.C., November 1986.  ND = Not Detected  BQL = Detected below the minimum quantitation limit  NA = Not Analyzed  B = Detected in the laboratory blank		Tetrachloroethene	0.020	ND								
Volatile Organic Compounds analyzed using EPA methods 8010/8020 from Test Methods for Evaluating Solid Waste, SW 846, U.S. E.P.A.  Office of Solid Waste and Emergency Response, Washington, D.C., November 1986.  ND = Not Detected  BQL = Detected below the minimum quantitation limit  NA = Not Analyzed  B = Detected in the laboratory blank												
NA = Not Analyzed B = Detected in the laboratory blank	Volatile Organic Compounds analyzed using EPA methods 8010/8020 from Test Methods for Evaluating Solid Waste, SW 846, U.S. E.P.A.											
Comments: Surrogate Recovery = 94 %					•							
	Comments:	Surrogate Recovery ≈ 94 %										

Mobile Laboratory

Severn Trent Laboratories

Reviewed GLB 8/2/02

(413)572-4000

### Matrix Spike/Surrogate Recovery Field Report

Analyst:	СН
File #:	C:\HPCHEM\1\DATA\071702-3\081R0101.D
Instr.#:	GC#3
Method:	071202P.MTH
Date Collected:	7/18/02
Date Analyzed:	7/18/02
Sample Name:	CCV STD
W O #	NΔ

Surrogate Recovery					
Compound	54	ng spikad	% Recovery	Low CL	High Ct
Compound 4-Bromofluorobenzene	<b>ng</b> 49	spiked 50	97	80 80	High CL 120
Matrix Spike		ng	%		
Compound	ng	spiked	Recovery	Low CL	High CL
Acetone	120	100	120	80	120
Tetrachloroethene	45	50	89	80	120

ges 8/2/02

118lor.

**SECTION 5.0** 

**Chain-of-Custody Forms** 

## **CHAIN-OF-CUSTODY RECORD**

WHITE COPY-Original (Accompanies Samples) YELLOW COPY-Collector PINK COPY-Project Manager

SAMPLE ID	DATE	TIME	SAMPLE MATRIX	SAMPLE BOTTLE SIZE/TYPE/PRES. G=GLASS P=PLASTIC	Total Number of Bottles	VOC. Requires		4	/		/	/	COMMENTS:	Laboratory ID
SG-1	7/17/02	1132	SOIL GAS	Tedlor Bag	1	×								
5G-2	7/17/02	1152	SOIL	Tedlor Bay	1	×								
SG-3	7/17/02	1215	SOIL GAS	Tedlor Bag	1	×								
SG-4.	7/17/02	1229	SOIL GAS	Ted or Bas	1	×								
DUP 7/17/02	7/17/02		SOIL	Tedla Bag	1	×								
,									-					
	,													
												ETTERN .		
RELINQUISHED BY: (Signature)  DATE/TIME RECEIVED BY: (Signature)					1	NO.:_								
RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)					PROJECT: Pactive-Tyco									
RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)					COL	PROJECT: Pactive-Tyco  LOCATION: Macedon, NY  COLLECTOR: Eichovendusk; DATE OF COLLECTION 7/17/02								
ANALYTICAL LABORATORY: STL					646 Plank Road, Suite 202									
LABORATORY CONTACT:						URS Clifton Park, NY 12065								
DAM CONTACT: Eriko Fujita PHONE: 518-688-0015											(518) 688-0015 Fax (518) 688-0022			