

VCP v00084



SUMMARY REPORT

FIRST QUARTERLY GROUNDWATER MONITORING EVENT

**WEGMANS FOOD MARKET
601 AMHERST STREET
BUFFALO, NEW YORK**

JULY 1997

Prepared by:

**URS Greiner, Inc.
Buffalo, New York**

Prepared for:

**Wegmans Food Markets, Inc.
1500 Brooks Avenue, Box 844
Rochester, New York**

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TABLE OF CONTENTS

	<u>Page No.</u>
1.0 INTRODUCTION	1
2.0 ONSITE ACTIVITIES	1
3.0 ANALYTICAL DATA AND RESULTS	2
4.0 CONCLUSION	2

LIST OF TABLES

	<u>Following Page No.</u>
Table 1 - Summary of Monitoring Well Measurements	1
Table 2 - Summary of Field Parameter Measurements	1
Table 3 - Analytical Results Summary of Detected Analytes	2

ATTACHMENTS

Attachment A - Field Activities Log
Attachment B - Well Boring Logs
Attachment C - Analytical Report including Chain-of-Custody

1.0 INTRODUCTION

Wegmans recently completed remediation and demolition of an existing industrial facility at 601 Amherst Street in Buffalo, NY to allow construction of a new food market. The remediation was completed in accordance with the NYSDEC-approved Remedial Action Work Plan (CDM October, 1996). Additionally, the work plan requires monitoring of the three on-site groundwater monitoring wells (MW-5, MW-6, and MW-7R) every three months for a minimum period of one year with the first event to occur in the first quarter after completion of the remedial action. The groundwater monitoring consists of checking for the visual presence of light non-aqueous phase liquids (LNAPL), field measurement of temperature, conductivity and pH, and sampling for the analysis of target compound list (TCL) volatiles and target analyte list (TAL) metals (total and dissolved/or soluble).

Wegmans contracted URS Greiner, Inc. (URSG) to perform the required groundwater monitoring. Field activities, measurements and analytical results from the first monitoring event are summarized in this report.

2.0 ONSITE ACTIVITIES

The initial sampling event was completed by URSG on June 5, 1997. A copy of the field activities log is attached (Attachment A). Upon opening the protective casing, the headspace of each well was checked with a photoionization detector (PID) for the presence of volatile organic vapors and the reading recorded. The well was then checked for the presence of LNAPLs by lowering the clear teflon bailers into the top of the water column and then visually inspecting the extracted water. Water and well depth were measured, and the well volume determined. The wells were purged by removing a minimum of three (3) well volumes of water. Table 1 summarizes these measurements. Temperature, conductivity and pH were measured at the start and end of purging. Purge water was placed into a Department of Transportation (DOT) approved 55-gallon drum and staged on-site for future disposal. After the purged wells recovered at least 90% of their pre-purge volume, representative groundwater samples were collected and submitted to Columbia Analytical Services (CAS) Laboratory in Rochester, NY for analysis of TCL volatiles, total and dissolved TAL metals. Temperature, conductivity and pH measurements were taken again at the time of sampling. Table 2 summarizes these field parameters. Samples for dissolved metals were filtered in the field prior to preservation. All sample containers were

TABLE 1
SUMMARY OF MONITORING WELL MEASUREMENTS

Monitoring Well	MW-5	MW-6	MW-7R
PID Headspace (ppm)	125	4.2	ND
Depth to bottom (ft.)	11.65	11.83	19.83
Depth to water (ft.)	8.88	9.00	8.93
Water depth (ft.)	2.77	2.83	10.9
Water volume (gal.)	0.47	0.48	1.85
Purge volume (gal.)	1.5	1.5	6

TABLE 2
SUMMARY OF FIELD PARAMETER MEASUREMENTS

Monitoring Well		pH (Units)	Temperature (°C)	Conductivity (umhos/cm)
MW-5	Initial	7.08	17.0	690
	End	7.15	15.5	1700
	Sample	6.99	17.0	2250
MW-6	Initial	7.03	18.9	760
	End	6.98	13.5	1820
	Sample	6.97	15.8	2020
MW-7R	Initial	7.22	16.5	2200
	End	7.45	19.3	2030
	Sample	7.38	16.4	2340

pre-preserved by CAS. A sample of the drummed purge water was collected for analysis of TCL volatiles only. Dedicated, clear teflon bailers were secured and left in each monitoring well for use during subsequent sampling events. Four groundwater samples (3 monitoring wells plus one field duplicate), one drum sample (purge water) and one trip blank were analyzed by CAS. The groundwater samples were analyzed for TCL volatiles by EPA Method 8260 and TAL metals by EPA Method 200 series.

3.0 ANALYTICAL DATA AND RESULTS

The deliverable data package received by CAS consisted of analytical results and volatile method blank results. Quality control data was limited to volatile surrogate recoveries. The data was reviewed for holding time compliance and a comparison of total to dissolved metals. EPA Methods 6010 and 7000 series were requested for metals analysis, however, the laboratory used EPA 200 series methods. Whereas, there are some QC variations, the methods are essentially the same therefore usability of the data is not affected.

A summary of the detected parameters is presented in Table 3. The analytical data is presented in Attachment C. As indicated on Table 3, the only volatile compound detected was vinyl chloride, in MW-7R. For metals, barium, calcium, magnesium, manganese, potassium, sodium and zinc were detected in all samples. Iron was detected in all samples except MW-5 dissolved fraction only. Aluminum, copper and lead were detected in the total fraction only (except MW-5 which had no copper detected). Chromium and mercury were detected in MW-7R total fraction only.

The concentration of the detected parameters subsequently were compared with the NYSDEC Division of Water Technical and Operational Guidance Series (1.1.1) "Ambient Water Quality Standards and Guidance Values, October 1993" (Table 3). Based on this assessment, the concentration of vinyl chloride (0.022 mg/L) exceeds the allowable concentration of 0.002mg/L for class GA groundwater .

Additionally, with respect to the observed metals concentrations , MW-5 had an exceedance for iron, manganese, and sodium in the total fraction, and manganese, and sodium in the dissolved fraction. MW-6 had exceedances for iron, lead, manganese, sodium, and zinc in the total fraction, and iron, manganese,

TABLE 3
ANALYTICAL RESULTS SUMMARY OF DETECTED ANALYTES
WEGMANS AMHERST STREET SITE
MONITORING WELLS: FIRST QUARTERLY SAMPLING EVENT

Sample ID Fraction Compound	Sample Date	CRITERIA* (MG/L)	MW-5 TOTAL 06/05/97	MW-5 SOLUBLE 06/05/97	MW-6 TOTAL 06/05/97	MW-6 SOLUBLE 06/05/97	MW-7R TOTAL 06/05/97	MW-7R SOLUBLE 06/05/97	MW-7R DUP TOTAL 06/05/97	MW-7R DUP SOLUBLE 06/05/97	DRUM TOTAL 06/05/97	TRIP BLANK 06/04/97
VOLATILE (ppm)												
Vinyl chloride		0.002	--	--	--	--	0.022		0.024		--	--
METALS (ppm)												
Aluminum		na	1.97	--	1.23	--	18.9	--	16.7	--		
Arsenic		0.025	--	--	--	--	0.022	--	0.022	--		
Barium		1.0	0.116	0.095	0.196	0.182	0.474	0.285	0.463	0.279		
Calcium		na	134	132	163	164	173	164	174	165		
Chromium		0.05	--	--	--	--	0.045	--	0.035	--		
Copper		0.2	--	--	0.034	--	0.330	--	0.308	--		
Iron		0.3	2.23	--	4.03	1.34	25.2	8.63	23.9	8.91		
Lead		0.025	0.016	--	0.028	--	0.478	--	0.451	--		
Magnesium		35	21.3	20.3	18.0	18.0	38.5	35.1	38.5	34.8		
Manganese		0.3	0.391	0.424	0.480	0.459	0.631	0.443	0.620	0.431		
Mercury		0.002	--	--	--	--	0.00042	--	--	--		
Potassium		na	5.67	4.98	7.00	7.05	15.0	12.2	14.8	12.4		
Sodium		20	30.8	30.7	20.5	20.9	34.7	34.1	34.9	34.1		
Zinc		0.3	0.14	0.109	0.446	0.424	0.268	0.018	0.255	0.019		

Only detected results reported.

Not analyzed / analysis not required

-- Not detected

na Not applicable - No criteria

BOLD Exceeds criteria

*

New York State Department of Environmental Conservation, Division of Water Technical and Operational Guidance Series (1.1.1)
 "AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES,"

Article 17 of the Environmental Conservation Law and 6NYCRR Part 703, October 22, 1993.

Made by 606 7/10/97
 Checked by SMK 7/18/97

sodium, and zinc in the dissolved fraction. MW-7R had exceedances for copper, iron, lead, magnesium, manganese, and sodium in the total fraction, and iron, magnesium, manganese, and sodium in the dissolved fraction.

4.0 CONCLUSION

Based on the results of the analytical testing, the following conclusions can be reached.

- No volatile organic compounds were detected in any of the wells, with the exception of vinyl chloride in MW 7R
- Total metals (unfiltered samples), consisting of copper, iron, lead, magnesium, manganese, sodium, and zinc were detected at concentrations which exceed the groundwater standards for class GA waters.
- Soluble metals (filtered samples), consisting of iron, magnesium, manganese, sodium and zinc were detected at concentrations which only slightly exceed the groundwater standards for class GA waters.
- The copper, lead, and to some extent, the iron detected in the total metals analyses were not detected in the soluble metals analyses. It is likely that these metals are associated with sediment present in the samples, and are not indicative of soluble metals in the groundwater.
- Magnesium, manganese, sodium and zinc were detected at very similar levels in both the total and soluble analyses. This would tend to indicate that these metals are actually dissolved in the groundwater.

ATTACHMENT A

FIELD ACTIVITIES LOG

Wegmans 6/5/97 K.S.K.

MW-7R START TIME 1110
 DTW 8.93' END TIME 1140
 DTB 19.83' SAMPLE TIME 1315
 WELL DIA 2" PVC SAMPLE DTW 8.90'
 WELL VOLUME 1.85 gallons
 3 VOLUMES 5.55 gallons (6 gallons)
 PARAMETERS INT END - SAMPLE
 PH: 7.22 7.45 7.38
 TEMP: 16.5°C 19.3 16.4°C
 COND: 2,200 2,030 2,340
 APPEAR: clear, small orange clear then
 particulates brown tint become light brown
 after 1st bailer

ID: WEG-MW7 + DUPLICATES

NO (LNAPL) visible in bailer

K.S.K. Headspace - ND

Epar 602 on drum composite
 of all three wells purge H₂O
 as requested by Sheldon NOZIK.

Sample Time 1500
 Drum Composite
 For TEL-VOCs

Wegmans 6/5/97 K.S.K.

(HEADSPACE 125.0 ppm) NO (LNAPL) visible
 MW-5 START TIME 0930
 DTW 8.88' END TIME 0940
 DTB 11.65' SAMPLE TIME 1440
 WELL DIA 2" PVC SAMPLE DTW 8.87
 WELL VOLUME 0.47 gallons
 3 VOLUMES 1.41 gallons (Remained 1.5 gal)
 PARAMETERS INT END SAMPLE
 APPEARANCE clear tan tint clear, faint
 PH: 7.08 7.15 6.99
 TEMP: 17.0°C 15.5°C 17.0
 COND: 690 1,700 2,250

MW-6 START TIME 1030
 DTW 9.00' END TIME 1040
 DTB 11.83' SAMPLE TIME 1410
 WELL DIA 2" PVC SAMPLE DTW 9.00'
 WELL VOLUME 0.48 gallons
 3 VOLUMES 1.44 gallons (Remained 1.5 gal)
 PARAMETERS INT END SAMPLE
 PH: 7.03 6.98 6.97
 TEMP: 18.9 13.5 15.8°C
 COND: 760 1820 2020
 APPEAR: orange tint clear, orange tint, clear
 NO (LNAPL) visible with bailer
 HEADSPACE 4.2 ppm
 ID: WEG-MW6

Wegmans

6/5/97 weather, 60-70°F

Instrument Calibration

pH meter URS # 165

Standard Reading

7.00 7.05

4.01 4.07

10.00 10.05

Conductivity Meter URS # 130

Standard Reading

447 μ hos 440 μ hos

Water Level URS # 190

HNU - unit onsite

ISCO pump URS # 43

Wegmans 05-35480-01

6/5/97 weather Sunny, 60-70°F

Arrived onsite 0810

Went to store 0955 Ice & rope.

Purchase rope and Ice.

Purge remaining wells.

Take lunch 1200-1300.

Return site 1300

Start well sampling, 1300-1500

OFFSITE 1530

ISCO portable pump was used to purge wells.
3/4" HDPE tubing (dedicated)

Dedicated teflon bailers were used to sample the wells. Bailers were hung on hooks inside the wells.

ATTACHMENT B

WELL PURGING LOGS

WELL PURGING LOG

URS
CONSULTANTS, INC.

PROJECT TITLE: Wegmans
 PROJECT NO.: 35480-01
 STAFF: Kevin S. Kearney
 DATE: 6/5/97 START PURGE: 1110
 END PURGE: 1140

WELL NO.: MW-7R

1. TOTAL CASING AND SCREEN LENGTH (FT.):

19.83'

2. CASING INTERNAL DIAMETER (IN.):

2"

3. WATER LEVEL BELOW TOP OF CASING (FT.):

8.93'

4. VOLUME OF WATER IN CASING (GAL.):

1.85

#1-#3 x #2 (Gal./Ft.)

VOLUME OF 3 CASINGS: 5.55 GAL.

WELL ID. VOL. (GAL./FT.)

1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)									
	0	6		Sample						
pH	7.22	7.45		7.38						
SPEC. COND. (µmhos)	2,200	2,030		2,340						
Appearance	Clear Small orange particulates	Clear Brown tint		Clear then became light Brown						
TEMPERATURE (°C)	16.5	19.3		16.4						

COMMENTS: Sample time: 1315
Sample Depth to water: 8.90'

WELL PURGING LOG

URS
CONSULTANTS, INC.

PROJECT TITLE: Wegmans
 PROJECT NO.: 35480-01
 STAFF: Kevin Kearney
 DATE: 6/5/97 START PURGE: 1030
 END PURGE: 1040

WELL NO.: MW-6

	WELL ID.	VOL. (GAL./FT.)
1. TOTAL CASING AND SCREEN LENGTH (FT.): <u>11.83'</u>	1"	0.04
2. CASING INTERNAL DIAMETER (IN.): <u>2"</u>	2"	0.17
3. WATER LEVEL BELOW TOP OF CASING (FT.): <u>9.00'</u>	3"	0.38
4. VOLUME OF WATER IN CASING (GAL.): <u>0.48</u>	4"	0.66
#1-#3 x #2 (Gal./Ft.)	5"	1.04
	6"	1.50
	8"	2.60

VOLUME OF 3 CASINGS: 1.44 GAL.

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)									
	0	1.5		Sample						
pH	7.03	6.98		6.97						
SPEC. COND. (µmhos)	760	1820		2020						
Appearance	orange tint	clear orange tint		clear						
TEMPERATURE (°C)	18.9	13.5		15.8						

COMMENTS: Sample time: 1410
Sample Depth to water: 9.00'

WELL PURGING LOG

URS
CONSULTANTS, INC.

PROJECT TITLE: Wegmans
PROJECT NO.: 35480-01
STAFF: Kevin Kearney
DATE: 6/5/97 START PURGE: 0930
END PURGE: 0940

WELL NO.: MW-5

		WELL ID.	VOL. (GAL./FT.)
1. TOTAL CASING AND SCREEN LENGTH (FT.):	<u>11.65"</u>	1"	0.04
2. CASING INTERNAL DIAMETER (IN.):	<u>2'</u>	2"	0.17
3. WATER LEVEL BELOW TOP OF CASING (FT.):	<u>8.88'</u>	3"	0.38
4. VOLUME OF WATER IN CASING (GAL.):	<u>0.47</u>	4"	0.66
#1-#3 x #2 (Gal./Ft.)		5"	1.04
		6"	1.50
		8"	2.60

VOLUME OF 3 CASINGS: 1.41 GAL.

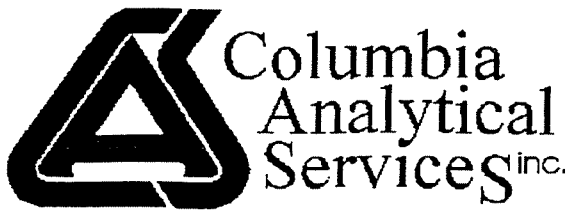
PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)									
	0	1.5		Sample						
pH	7.08	7.15		6.99						
SPEC. COND. (µmhos)	690	1,700		2,250						
Appearance	clear	clear tan tint		clear tan tint						
TEMPERATURE (°C)	17.0	15.5		17.0						

COMMENTS: Sample time : 1440
Sample Depth to water: 8.87'

ATTACHMENT C

ANALYTICAL REPORT

Including Chain-of-Custody

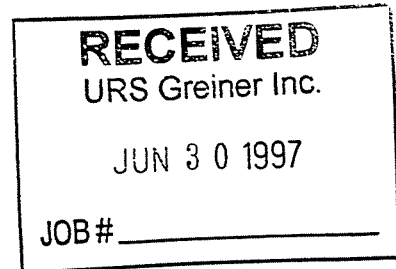


A FULL SERVICE ENVIRONMENTAL LABORATORY

June 24, 1997

Mr. Robert Henschel
URS Greiner
282 Delaware Avenue
Buffalo, NY 14202

PROJECT:35480-01 WEGMAN'S
Submission #:9706000145



Dear Mr. Henschel

Enclosed are the analytical results of the analyses requested. All data has been reviewed prior to report submission. Should you have any questions please contact me at (716) 288-5380.

Thank you for letting us provide this service.

Sincerely,

COLUMBIA ANALYTICAL SERVICES

Mark Wilson
Client Service Manager

Enc.

This package has been reviewed by Columbia Analytical Services' QA Department/Laboratory Director prior to report submittal.

1 Mustard St. • Suite 250 • Rochester, NY 14609 • Tele:(716)288-5380 • Fax:(716)288-8475
65 Ramapo Valley Rd. • Suite 16 • Mahwah, NJ 07430 • Tele:(201)512-3292 • Fax:(201)512-3362
12699 Roll Rd. • Akron, NY 14001 • Tele:(716)542-1264 • Fax:(716)542-3353



Effective 04/01/96

CAS LIST OF QUALIFIERS

(The basis of this proposal are the EPA-CLP Qualifiers)

- U - Indicates compound was analyzed for but was not detected. The sample quantitation limit must be corrected for dilution and for percent moisture.
- J - Indicates an estimated value. For further explanation see case narrative / cover letter.
- B - This flag is used when the analyte is found in the associated blank as well as in the sample.
- E - This flag identifies compounds whose concentrations exceed the calibration range.
- A - This flag indicates that a TIC is a suspected aldol-condensation product.
- N - Spiked sample recovery not within control limits.
(Flag the entire batch - Inorganic analysis only)
- * - Duplicate analysis not within control limits.
(Flag the entire batch - Inorganic analysis only)
 - Also used to qualify Organics QC data outside limits.
- D - Spike diluted out.
- S - Reported value determined by Method of Standard Additions. (MSA)
- X - As specified in the case narrative.

CAS Lab ID # for State Certifications

NY ID # in Rochester: 10145
CT ID # in Rochester: PH0556
MA ID # in Rochester: M-NY032

NJ ID # in Rochester: 73004
RI ID # in Rochester: 158

COLUMBIA ANALYTICAL SERVICES

Reported: 06/24/97

URS Greiner
Project Reference:35480-01 WEGMAN'S
Client Sample ID :MW-7

Date Sampled : 06/05/97
Date Received: 06/06/97

Order #:152281
Submission #:9706000145

Sample Matrix:WATER

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	ANALYTICAL DILUTION	ANALYST
METALS							
ALUMINUM	200.7	0.100	18.9	MG/L	06/10/97	1.0	CK
ANTIMONY	200.7	0.0600	0.0600 U	MG/L	06/10/97	1.0	CK
ARSENIC	206.2	0.0100	0.0222	MG/L	06/10/97	1.0	CK
BARIUM	200.7	0.0200	0.474	MG/L	06/10/97	1.0	CK
BERYLLIUM	200.7	0.00500	0.00500 U	MG/L	06/10/97	1.0	CK
CADMIUM	200.7	0.00500	0.00500 U	MG/L	06/10/97	1.0	CK
CALCIUM	200.7	0.500	173	MG/L	06/10/97	1.0	CK
CHROMIUM	200.7	0.0100	0.0448	MG/L	06/10/97	1.0	CK
COBALT	200.7	0.0500	0.0500 U	MG/L	06/10/97	1.0	CK
COPPER	200.7	0.0200	0.330	MG/L	06/10/97	1.0	CK
IRON	200.7	0.100	25.2	MG/L	06/10/97	1.0	CK
LEAD	239.2	0.00500	0.478	MG/L	06/10/97	1.0	CK
MAGNESIUM	200.7	0.500	38.5	MG/L	06/10/97	1.0	CK
MANGANESE	200.7	0.0100	0.631	MG/L	06/10/97	1.0	CK
MERCURY	245.1	0.000300	0.000420	MG/L	06/11/97	1.0	ZM
NICKEL	200.7	0.0400	0.0400 U	MG/L	06/10/97	1.0	CK
POTASSIUM	200.7	2.00	15.0	MG/L	06/11/97	1.0	ZM
SELENIUM	270.2	0.00500	0.00500 U	MG/L	06/10/97	1.0	CK
SILVER	200.7	0.0100	0.0100 U	MG/L	06/10/97	1.0	CK
SODIUM	200.7	0.500	34.7	MG/L	06/10/97	1.0	CK
THALLIUM	279.2	0.0100	0.0100 U	MG/L	06/10/97	1.0	CK
VANADIUM	200.7	0.0500	0.0500 U	MG/L	06/10/97	1.0	CK
ZINC	200.7	0.0100	0.268	MG/L	06/10/97	1.0	CK

COLUMBIA ANALYTICAL SERVICES

Reported: 06/24/97

URS Greiner

Project Reference:35480-01 WEGMAN'S

Client Sample ID :MW-7 SOLUBLE

Date Sampled : 06/05/97

Order #:152287

Sample Matrix:WATER

Date Received: 06/06/97

Submission #:9706000145

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	ANALYTICAL DILUTION	ANALYST
METALS							
ALUMINUM	200.7	0.100	0.100 U	MG/L	06/10/97	1.0	CK
ANTIMONY	200.7	0.0600	0.0600 U	MG/L	06/10/97	1.0	CK
ARSENIC	206.2	0.0100	0.0100 U	MG/L	06/10/97	1.0	CK
BARIUM	200.7	0.0200	0.285	MG/L	06/10/97	1.0	CK
BERYLLIUM	200.7	0.00500	0.00500 U	MG/L	06/10/97	1.0	CK
CADMIUM	200.7	0.00500	0.00500 U	MG/L	06/10/97	1.0	CK
CALCIUM	200.7	0.500	164	MG/L	06/10/97	1.0	CK
CHROMIUM	200.7	0.0100	0.0100 U	MG/L	06/10/97	1.0	CK
COBALT	200.7	0.0500	0.0500 U	MG/L	06/10/97	1.0	CK
COPPER	200.7	0.0200	0.0200 U	MG/L	06/10/97	1.0	CK
IRON	200.7	0.100	8.63	MG/L	06/10/97	1.0	CK
LEAD	239.2	0.00500	0.00500 U	MG/L	06/10/97	1.0	CK
MAGNESIUM	200.7	0.500	35.1	MG/L	06/10/97	1.0	CK
MANGANESE	200.7	0.0100	0.443	MG/L	06/10/97	1.0	CK
MERCURY	245.1	0.000300	0.000300 U	MG/L	06/11/97	1.0	ZM
NICKEL	200.7	0.0400	0.0400 U	MG/L	06/10/97	1.0	CK
POTASSIUM	200.7	2.00	12.2	MG/L	06/11/97	1.0	ZM
SELENIUM	270.2	0.00500	0.00500 U	MG/L	06/10/97	1.0	CK
SILVER	200.7	0.0100	0.0100 U	MG/L	06/10/97	1.0	CK
SODIUM	200.7	0.500	34.1	MG/L	06/10/97	1.0	CK
THALLIUM	279.2	0.0100	0.0100 U	MG/L	06/10/97	1.0	CK
VANADIUM	200.7	0.0500	0.0500 U	MG/L	06/10/97	1.0	CK
ZINC	200.7	0.0100	0.0180	MG/L	06/10/97	1.0	CK

COLUMBIA ANALYTICAL SERVICESVOLATILE ORGANICS
METHOD 8260 TCL
Reported: 06/24/97

URS Greiner

Project Reference: 35480-01 WEGMAN'S

Client Sample ID : MW-7

Date Sampled : 06/05/97 Order #: 152281 Sample Matrix: WATER
Date Received: 06/06/97 Submission #: 9706000145 Analytical Run 17986

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 06/10/97		
ANALYTICAL DILUTION:	1.0		
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	5.0	22	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	105	%
TOLUENE-D8	(88 - 110 %)	98	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	100	%

COLUMBIA ANALYTICAL SERVICES

Reported: 06/24/97

URS Greiner
Project Reference:35480-01 WEGMAN'S
Client Sample ID :MW-7 DUP

Date Sampled : 06/05/97
Date Received: 06/06/97

Order #:152282
Submission #:9706000145

Sample Matrix:WATER

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	ANALYTICAL DILUTION	ANALYST
METALS							
ALUMINUM	200.7	0.100	16.7	MG/L	06/10/97	1.0	CK
ANTIMONY	200.7	0.0600	0.0600 U	MG/L	06/10/97	1.0	CK
ARSENIC	206.2	0.0100	0.0223	MG/L	06/10/97	1.0	CK
BARIUM	200.7	0.0200	0.463	MG/L	06/10/97	1.0	CK
BERYLLIUM	200.7	0.00500	0.00500 U	MG/L	06/10/97	1.0	CK
CADMIUM	200.7	0.00500	0.00500 U	MG/L	06/10/97	1.0	CK
CALCIUM	200.7	0.500	174	MG/L	06/10/97	1.0	CK
CHROMIUM	200.7	0.0100	0.0345	MG/L	06/10/97	1.0	CK
COBALT	200.7	0.0500	0.0500 U	MG/L	06/10/97	1.0	CK
COPPER	200.7	0.0200	0.308	MG/L	06/10/97	1.0	CK
IRON	200.7	0.100	23.9	MG/L	06/10/97	1.0	CK
LEAD	239.2	0.00500	0.451	MG/L	06/10/97	1.0	CK
MAGNESIUM	200.7	0.500	38.5	MG/L	06/10/97	1.0	CK
MANGANESE	200.7	0.0100	0.620	MG/L	06/10/97	1.0	CK
MERCURY	245.1	0.000300	0.000300 U	MG/L	06/11/97	1.0	ZM
NICKEL	200.7	0.0400	0.0400 U	MG/L	06/10/97	1.0	CK
POTASSIUM	200.7	2.00	14.8	MG/L	06/11/97	1.0	ZM
SELENIUM	270.2	0.00500	0.00500 U	MG/L	06/10/97	1.0	CK
SILVER	200.7	0.0100	0.0100 U	MG/L	06/10/97	1.0	CK
SODIUM	200.7	0.500	34.9	MG/L	06/10/97	1.0	CK
THALLIUM	279.2	0.0100	0.0100 U	MG/L	06/10/97	1.0	CK
VANADIUM	200.7	0.0500	0.0500 U	MG/L	06/10/97	1.0	CK
ZINC	200.7	0.0100	0.255	MG/L	06/10/97	1.0	CK

COLUMBIA ANALYTICAL SERVICES

Reported: 06/24/97

URS Greiner

Project Reference:35480-01 WEGMAN'S

Client Sample ID :MW-7 DUP SOLUBLE

Date Sampled : 06/05/97

Order #:152288

Sample Matrix:WATER

Date Received: 06/06/97

Submission #:9706000145

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	ANALYTICAL DILUTION	ANALYST
METALS							
ALUMINUM	200.7	0.100	0.100 U	MG/L	06/10/97	1.0	CK
ANTIMONY	200.7	0.0600	0.0600 U	MG/L	06/10/97	1.0	CK
ARSENIC	206.2	0.0100	0.0100 U	MG/L	06/10/97	1.0	CK
BARIUM	200.7	0.0200	0.279	MG/L	06/10/97	1.0	CK
BERYLLIUM	200.7	0.00500	0.00500 U	MG/L	06/10/97	1.0	CK
CADMIUM	200.7	0.00500	0.00500 U	MG/L	06/10/97	1.0	CK
CALCIUM	200.7	0.500	165	MG/L	06/10/97	1.0	CK
CHROMIUM	200.7	0.0100	0.0100 U	MG/L	06/10/97	1.0	CK
COBALT	200.7	0.0500	0.0500 U	MG/L	06/10/97	1.0	CK
COPPER	200.7	0.0200	0.0200 U	MG/L	06/10/97	1.0	CK
IRON	200.7	0.100	8.91	MG/L	06/10/97	1.0	CK
LEAD	239.2	0.00500	0.00500 U	MG/L	06/10/97	1.0	CK
MAGNESIUM	200.7	0.500	34.8	MG/L	06/10/97	1.0	CK
MANGANESE	200.7	0.0100	0.431	MG/L	06/10/97	1.0	CK
MERCURY	245.1	0.000300	0.000300 U	MG/L	06/11/97	1.0	ZM
NICKEL	200.7	0.0400	0.0400 U	MG/L	06/10/97	1.0	CK
POTASSIUM	200.7	2.00	12.4	MG/L	06/11/97	1.0	ZM
SELENIUM	270.2	0.00500	0.00500 U	MG/L	06/10/97	1.0	CK
SILVER	200.7	0.0100	0.0100 U	MG/L	06/10/97	1.0	CK
SODIUM	200.7	0.500	34.1	MG/L	06/10/97	1.0	CK
THALLIUM	279.2	0.0100	0.0100 U	MG/L	06/10/97	1.0	CK
VANADIUM	200.7	0.0500	0.0500 U	MG/L	06/10/97	1.0	CK
ZINC	200.7	0.0100	0.0193	MG/L	06/10/97	1.0	CK

COLUMBIA ANALYTICAL SERVICESVOLATILE ORGANICS
METHOD 8260 TCL
Reported: 06/24/97

URS Greiner

Project Reference: 35480-01 WEGMAN'S

Client Sample ID : MW-7 DUP

Date Sampled : 06/05/97 Order #: 152282 Sample Matrix: WATER
Date Received: 06/06/97 Submission #: 9706000145 Analytical Run 17986

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 06/10/97			
ANALYTICAL DILUTION: 1.0			
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	5.0	24	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	103	%
TOLUENE-D8	(88 - 110 %)	98	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	103	%

COLUMBIA ANALYTICAL SERVICES

Reported: 06/24/97

URS Greiner
Project Reference:35480-01 WEGMAN'S
Client Sample ID :MW-6

Date Sampled : 06/05/97
Date Received: 06/06/97

Order #:152283
Submission #:9706000145

Sample Matrix:WATER

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	ANALYTICAL DILUTION	ANALYST
METALS							
ALUMINUM	200.7	0.100	1.23	MG/L	06/10/97	1.0	CK
ANTIMONY	200.7	0.0600	0.0600 U	MG/L	06/10/97	1.0	CK
ARSENIC	206.2	0.0100	0.0100 U	MG/L	06/10/97	1.0	CK
BARIUM	200.7	0.0200	0.196	MG/L	06/10/97	1.0	CK
BERYLLIUM	200.7	0.00500	0.00500 U	MG/L	06/10/97	1.0	CK
CADMIUM	200.7	0.00500	0.00500 U	MG/L	06/10/97	1.0	CK
CALCIUM	200.7	0.500	163	MG/L	06/10/97	1.0	CK
CHROMIUM	200.7	0.0100	0.0100 U	MG/L	06/10/97	1.0	CK
COBALT	200.7	0.0500	0.0500 U	MG/L	06/10/97	1.0	CK
COPPER	200.7	0.0200	0.0337	MG/L	06/10/97	1.0	CK
IRON	200.7	0.100	4.03	MG/L	06/10/97	1.0	CK
LEAD	239.2	0.00500	0.0284	MG/L	06/10/97	1.0	CK
MAGNESIUM	200.7	0.500	18.0	MG/L	06/10/97	1.0	CK
MANGANESE	200.7	0.0100	0.480	MG/L	06/10/97	1.0	CK
MERCURY	245.1	0.000300	0.000300 U	MG/L	06/11/97	1.0	ZM
NICKEL	200.7	0.0400	0.0400 U	MG/L	06/10/97	1.0	CK
POTASSIUM	200.7	2.00	7.00	MG/L	06/11/97	1.0	ZM
SELENIUM	270.2	0.00500	0.00500 U	MG/L	06/10/97	1.0	CK
SILVER	200.7	0.0100	0.0100 U	MG/L	06/10/97	1.0	CK
SODIUM	200.7	0.500	20.5	MG/L	06/10/97	1.0	CK
THALLIUM	279.2	0.0100	0.0100 U	MG/L	06/10/97	1.0	CK
VANADIUM	200.7	0.0500	0.0500 U	MG/L	06/10/97	1.0	CK
ZINC	200.7	0.0100	0.446	MG/L	06/10/97	1.0	CK

COLUMBIA ANALYTICAL SERVICES

Reported: 06/24/97

URS Greiner

Project Reference:35480-01 WEGMAN'S

Client Sample ID :MW-6 SOLUBLE

Date Sampled : 06/05/97

Order #:152289

Sample Matrix:WATER

Date Received: 06/06/97

Submission #:9706000145

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	ANALYTICAL DILUTION	ANALYST
METALS							
ALUMINUM	200.7	0.100	0.100 U	MG/L	06/10/97	1.0	CK
ANTIMONY	200.7	0.0600	0.0600 U	MG/L	06/10/97	1.0	CK
ARSENIC	206.2	0.0100	0.0100 U	MG/L	06/10/97	1.0	CK
BARIUM	200.7	0.0200	0.182	MG/L	06/10/97	1.0	CK
BERYLLIUM	200.7	0.00500	0.00500 U	MG/L	06/10/97	1.0	CK
CADMIUM	200.7	0.00500	0.00500 U	MG/L	06/10/97	1.0	CK
CALCIUM	200.7	0.500	164	MG/L	06/10/97	1.0	CK
CHROMIUM	200.7	0.0100	0.0100 U	MG/L	06/10/97	1.0	CK
COBALT	200.7	0.0500	0.0500 U	MG/L	06/10/97	1.0	CK
COPPER	200.7	0.0200	0.0200 U	MG/L	06/10/97	1.0	CK
IRON	200.7	0.100	1.34	MG/L	06/10/97	1.0	CK
LEAD	239.2	0.00500	0.00500 U	MG/L	06/10/97	1.0	CK
MAGNESIUM	200.7	0.500	18.0	MG/L	06/10/97	1.0	CK
MANGANESE	200.7	0.0100	0.459	MG/L	06/10/97	1.0	CK
MERCURY	245.1	0.000300	0.000300 U	MG/L	06/11/97	1.0	ZM
NICKEL	200.7	0.0400	0.0400 U	MG/L	06/10/97	1.0	CK
POTASSIUM	200.7	2.00	7.05	MG/L	06/11/97	1.0	ZM
SELENIUM	270.2	0.00500	0.00500 U	MG/L	06/10/97	1.0	CK
SILVER	200.7	0.0100	0.0100 U	MG/L	06/10/97	1.0	CK
SODIUM	200.7	0.500	20.9	MG/L	06/10/97	1.0	CK
THALLIUM	279.2	0.0100	0.0100 U	MG/L	06/10/97	1.0	CK
VANADIUM	200.7	0.0500	0.0500 U	MG/L	06/10/97	1.0	CK
ZINC	200.7	0.0100	0.424	MG/L	06/10/97	1.0	CK

COLUMBIA ANALYTICAL SERVICESVOLATILE ORGANICS
METHOD 8260 TCL
Reported: 06/24/97

URS Greiner

Project Reference: 35480-01 WEGMAN'S

Client Sample ID : MW-6

Date Sampled : 06/05/97 Order #: 152283 Sample Matrix: WATER
Date Received: 06/06/97 Submission #: 9706000145 Analytical Run 17986

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 06/10/97		
ANALYTICAL DILUTION:	1.0		
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	5.0	5.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	97	%
TOLUENE-D8	(88 - 110 %)	98	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	104	%

COLUMBIA ANALYTICAL SERVICES

Reported: 06/24/97

URS Greiner
Project Reference:35480-01 WEGMAN'S
Client Sample ID :MW-5

Date Sampled : 06/05/97
Date Received: 06/06/97

Order #:152284
Submission #:9706000145

Sample Matrix:WATER

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	ANALYTICAL DILUTION	ANALYST
METALS							
ALUMINUM	200.7	0.100	1.97	MG/L	06/10/97	1.0	CK
ANTIMONY	200.7	0.0600	0.0600 U	MG/L	06/10/97	1.0	CK
ARSENIC	206.2	0.0100	0.0100 U	MG/L	06/10/97	1.0	CK
BARIUM	200.7	0.0200	0.116	MG/L	06/10/97	1.0	CK
BERYLLIUM	200.7	0.00500	0.00500 U	MG/L	06/10/97	1.0	CK
CADMIUM	200.7	0.00500	0.00500 U	MG/L	06/10/97	1.0	CK
CALCIUM	200.7	0.500	134	MG/L	06/10/97	1.0	CK
CHROMIUM	200.7	0.0100	0.0100 U	MG/L	06/10/97	1.0	CK
COBALT	200.7	0.0500	0.0500 U	MG/L	06/10/97	1.0	CK
COPPER	200.7	0.0200	0.0200 U	MG/L	06/10/97	1.0	CK
IRON	200.7	0.100	2.23	MG/L	06/10/97	1.0	CK
LEAD	239.2	0.00500	0.0162	MG/L	06/10/97	1.0	CK
MAGNESIUM	200.7	0.500	21.3	MG/L	06/10/97	1.0	CK
MANGANESE	200.7	0.0100	0.391	MG/L	06/10/97	1.0	CK
MERCURY	245.1	0.000300	0.000300 U	MG/L	06/11/97	1.0	ZM
NICKEL	200.7	0.0400	0.0400 U	MG/L	06/10/97	1.0	CK
POTASSIUM	200.7	2.00	5.67	MG/L	06/11/97	1.0	ZM
SELENIUM	270.2	0.00500	0.00500 U	MG/L	06/10/97	1.0	CK
SILVER	200.7	0.0100	0.0100 U	MG/L	06/10/97	1.0	CK
SODIUM	200.7	0.500	30.8	MG/L	06/10/97	1.0	CK
THALLIUM	279.2	0.0100	0.0100 U	MG/L	06/10/97	1.0	CK
VANADIUM	200.7	0.0500	0.0500 U	MG/L	06/10/97	1.0	CK
ZINC	200.7	0.0100	0.140	MG/L	06/10/97	1.0	CK

COLUMBIA ANALYTICAL SERVICES

Reported: 06/24/97

URS Greiner

Project Reference:35480-01 WEGMAN'S

Client Sample ID :MW-5 SOLUBLE

Date Sampled : 06/05/97

Order #:152290

Sample Matrix:WATER

Date Received: 06/06/97

Submission #:9706000145

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	ANALYTICAL DILUTION	ANALYST
METALS							
ALUMINUM	200.7	0.100	0.100 U	MG/L	06/10/97	1.0	CK
ANTIMONY	200.7	0.0600	0.0600 U	MG/L	06/10/97	1.0	CK
ARSENIC	206.2	0.0100	0.0100 U	MG/L	06/10/97	1.0	CK
BARIUM	200.7	0.0200	0.0954	MG/L	06/10/97	1.0	CK
BERYLLIUM	200.7	0.00500	0.00500 U	MG/L	06/10/97	1.0	CK
CADMIUM	200.7	0.00500	0.00500 U	MG/L	06/10/97	1.0	CK
CALCIUM	200.7	0.500	132	MG/L	06/10/97	1.0	CK
CHROMIUM	200.7	0.0100	0.0100 U	MG/L	06/10/97	1.0	CK
COBALT	200.7	0.0500	0.0500 U	MG/L	06/10/97	1.0	CK
COPPER	200.7	0.0200	0.0200 U	MG/L	06/10/97	1.0	CK
IRON	200.7	0.100	0.100 U	MG/L	06/10/97	1.0	CK
LEAD	239.2	0.00500	0.00500 U	MG/L	06/10/97	1.0	CK
MAGNESIUM	200.7	0.500	20.3	MG/L	06/10/97	1.0	CK
MANGANESE	200.7	0.0100	0.424	MG/L	06/10/97	1.0	CK
MERCURY	245.1	0.000300	0.000300 U	MG/L	06/11/97	1.0	ZM
NICKEL	200.7	0.0400	0.0400 U	MG/L	06/10/97	1.0	CK
POTASSIUM	200.7	2.00	4.98	MG/L	06/11/97	1.0	ZM
SELENIUM	270.2	0.00500	0.00500 U	MG/L	06/10/97	1.0	CK
SILVER	200.7	0.0100	0.0100 U	MG/L	06/10/97	1.0	CK
SODIUM	200.7	0.500	30.7	MG/L	06/10/97	1.0	CK
THALLIUM	279.2	0.0100	0.0100 U	MG/L	06/10/97	1.0	CK
VANADIUM	200.7	0.0500	0.0500 U	MG/L	06/10/97	1.0	CK
ZINC	200.7	0.0100	0.109	MG/L	06/10/97	1.0	CK

COLUMBIA ANALYTICAL SERVICESVOLATILE ORGANICS
METHOD 8260 TCL
Reported: 06/24/97

URS Greiner

Project Reference: 35480-01 WEGMAN'S

Client Sample ID : MW-5

Date Sampled : 06/05/97 Order #: 152284 Sample Matrix: WATER
Date Received: 06/06/97 Submission #: 9706000145 Analytical Run 17986

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 06/10/97			
ANALYTICAL DILUTION: 1.0			
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	5.0	5.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	101	%
TOLUENE-D8	(88 - 110 %)	101	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	103	%

COLUMBIA ANALYTICAL SERVICESVOLATILE ORGANICS
METHOD 8260 TCL
Reported: 06/24/97

URS Greiner

Project Reference: 35480-01 WEGMAN'S

Client Sample ID : DRUM-1

Date Sampled : 06/05/97 Order #: 152285 Sample Matrix: WATER
Date Received: 06/06/97 Submission #: 9706000145 Analytical Run 17986

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 06/10/97		
ANALYTICAL DILUTION:	1.0		
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	5.0	5.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIESQC LIMITS

4-BROMOFLUOROBENZENE	(86 - 115 %)	103	%
TOLUENE-D8	(88 - 110 %)	101	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	105	%

COLUMBIA ANALYTICAL SERVICESVOLATILE ORGANICS
METHOD 8260 TCL
Reported: 06/24/97

URS Greiner

Project Reference: 35480-01 WEGMAN'S

Client Sample ID : TRIP BLANK

Date Sampled : 06/04/97 Order #: 152286 Sample Matrix: WATER
Date Received: 06/06/97 Submission #: 9706000145 Analytical Run 17986

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 06/11/97			
ANALYTICAL DILUTION: 1.0			
ACETONE	20	24	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	5.0	5.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIESQC LIMITS

4-BROMOFLUOROBENZENE	(86 - 115 %)	92	%
TOLUENE-D8	(88 - 110 %)	97	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	100	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260 TCL
Reported: 06/24/97Project Reference:
Client Sample ID : METHOD BLANK

Date Sampled :	Order #: 153971	Sample Matrix: WATER
Date Received:	Submission #:	Analytical Run 17986

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 06/10/97			
ANALYTICAL DILUTION: 1.0			
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	5.0	5.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	101	%
TOLUENE-D8	(88 - 110 %)	98	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	103	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260 TCL
Reported: 06/24/97

Project Reference:
Client Sample ID : METHOD BLANK

Date Sampled : Order #: 153972 Sample Matrix: WATER
Date Received: Submission #: Analytical Run 17986

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 06/11/97			
ANALYTICAL DILUTION: 1.0			
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	5.0	5.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

4-BROMOFLUOROBENZENE	(86 - 115 %)	98	%
TOLUENE-D8	(88 - 110 %)	97	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	100	%

91 + 06-145

CHAIN OF CUSTODY RECORD

PROJECT NO. 35480-01 SITE NAME Weymans

SAMPLERS (PRINT/SIGNATURE)

Kevin Kearney / Kevin Kearney

DELIVERY SERVICE: AIRBILL NO.:

TESTS

SW 846-6000/7000
TAL-Metal-1-Diss
SW 846-6000/7000
TAL-Metal-1-Diss
SW 846-6000/7000
TAL-Metal-1-Diss

BOTTLE TYPE AND PRESERVATIVE

TOTAL NO. OF CONTAINERS

MATRIX

SAMPLE ID

COMP/GRAB

TIME

DATE

LOCATION IDENTIFIER

MW-7	6/5/97	1315	Grab	WEG-MW-7	WG	4
MW-7	6/5/97	1315	Grab	WEG-MW-7-DUP	WG	4
MW-6	6/5/97	1410	Grab	WEG-MW-6	WG	4
MW-5	6/5/97	1440	Grab	WEG-MW-5	WG	4
Trip Blank	6/4/97	—	—	WEG-TB-1	WQ	2
DRUM-1	6/5/97	1500	Grab	WEG-DRUM-1	WG	2

REMARKS

Order # 152281
152287
288
289
290
Trip Blank
Purge H2O

SAMPLE TYPE

BEGINNING DEPTH (IN FEET)

ENDING DEPTH (IN FEET)

FIELD LOT NO. # (RPPMS ONLY)

MATRIX CODES

AA - AMBIENT AIR
SE - SEDIMENT
SH - HAZARDOUS SOLID WASTE

SL - SLUDGE
WP - DRINKING WATER
WW - WASTE WATER

WG - GROUND WATER
SO - SOIL
DC - DRILL CUTTINGS

WL - LEACHATE
GS - SOIL GAS
WG - DRILLING WATER

WO - OCEAN WATER
WS - SURFACE WATER
WQ - WATER FIELD QC

LH - HAZARDOUS LIQUID WASTE
LF - FLOATING/FREE PRODUCT ON GW TABLE

SAMPLE TYPE CODES

TB# - TRIP BLANK
SD# - MATRIX SPIKE DUPLICATE

RB# - RINSE BLANK
FR# - FIELD REPLICATE

NR - NORMAL ENVIRONMENTAL SAMPLE
MS# - MATRIX SPIKE

(# - SEQUENTIAL NUMBER (FROM 1 TO 9) TO ACCOMMODATE MULTIPLE SAMPLES IN A SINGLE DAY)

RELINQUISHED BY (SIGNATURE)

DATE

TIME

RECEIVED BY (SIGNATURE)

DATE

TIME

SPECIAL INSTRUCTIONS

RELINQUISHED BY (SIGNATURE)

DATE

TIME

RECEIVED FOR LAB BY (SIGNATURE)

DATE

TIME

Temp = 4.4°C

Distribution: Original accompanies shipment, copy to coordinator field files