

REMEDIAL B FALLA

May 2, 2006

Mr. Larry Lampman, P.E., Project Manager Remedial Bureau A – Division of Environmental Remediation New York State Department of Environmental Conservation 625 Broadway Albany, NY 12233-7015

Re: Interim Report Golden Horseshoe Shopping Center NYSDEC Voluntary Cleanup Program Site Number V – 00309-3 Index No. D3-0001-00-05

#### Dear Mr. Lampman:

The purpose of this interim report is to present the results of the recent round of groundwater, subslab vapor and indoor air sampling at the Golden Horseshoe Shopping Center in Scarsdale, New York (the "Site"). The sampling was performed in accordance with the approved Remedial Action Work Plan Addendum, dated February 2006 (the "RAWP Addendum"). Figure 1 shows the location of the Site.

### Background

The Golden Horseshoe Shopping Center is a single story shopping mall in Scarsdale, New York. A former dry cleaner (Sabrina's Cleaners) had occupied a space at the Site from 1984 to 1997. This past use resulted in elevated levels of chlorinated solvents in the soil and groundwater. Remediation of soil and groundwater was performed in accordance with a Remedial Action Work Plan for the Site, dated December 2, 2002. Currently, the United States Postal Service (USPS) occupies the former Sabrina's dry cleaner space (the "Post Office"). Other occupants of the Site near the Post Office include a nail salon and a different dry cleaner. Their relative location to the Post Office is shown on Figure 2.

#### Scope

TRC implemented the scope of testing proposed in the RAWP Addendum. This work consisted of the following:

a) Sampling of six existing monitoring wells at the Site, and analysis of groundwater

## Mr. Larry Lampman, P.E. New York State Department of Environmental Conservation Page 2 of 4 May 2, 2006

samples for Target Compound List volatile organic compounds (TCL VOCs),

- b) Collecting three sub-slab vapor and three indoor air samples inside the Post Office and one outdoor air sample upwind of the Post Office (the "background" sample) for TO-15 list VOCs, and
- c) Characterizing groundwater conditions in monitoring well MW-5 to evaluate the performance of prior remediation at this location ("Performance Groundwater Sampling").

TRC also inventoried chemicals utilized at the nearby dry cleaners because TRC believes that this upwind commercial space may have contributed to or be the source of some of the PCE identified in the indoor and outdoor air samples.

#### Results

The implementation of the RAWP Addendum field activities occurred on March 9, 2006. The results of the sub-slab vapor and air sampling are summarized on the enclosed Tables 1 and 2 and Figure 3. The results of the groundwater sampling are summarized on the enclosed Table 3 and Figure 4. The Performance Groundwater Sampling results are summarized on the enclosed Table 4.

TRC inventoried chemicals at the Post Office and the drycleaner at the Site. The findings of this chemical inventorying are presented in Appendix A.

TRC validated the groundwater sample results, and a copy of the Data Usability Summary Report is included in Appendix B. As indicated by the data validation, groundwater sampling results are usable for the project objectives with the exception of acetone, 2-hexanone, and 2-butanone due to a low response factor.

#### **Evaluation** Criteria

Solely for purposes of discussion in this report, the sub-slab vapor, background, and indoor air sampling results were compared to the criteria in the New York State Department of Health (NYSDOH) draft document titled *Guidance for Evaluating Soil Vapor Intrusion in the State of New* York<sup>1</sup>.

<sup>1</sup> Scarsdale Shopping Center Associates does not agree that this guidance is necessarily applicable to this matter. This guidance does not contain validly promulgated standards or criteria. In addition, in Scarsdale Shopping Center



# Mr. Larry Lampman, P.E. New York State Department of Environmental Conservation Page 3 of 4 May 2, 2006

The groundwater sampling results were compared to the New York State Ambient Water Quality Standards and Guidance Values for Class GA groundwater, as presented in the Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1. The results of the Performance Groundwater Sampling were compared to evaluation criteria provided in the RAWP Addendum.

#### Conclusions

The groundwater sampling results indicate that there are no exceedances of Class GA standards or guidance values for TCL VOCs in the wells at the Site. According to the NYSDOH draft guidance document, subslab vapor and indoor air sampling results may indicate a need for further monitoring of VOCs in the Post Office space, if the contaminants detected in indoor air samples are attributable to the former (i.e. remediated) soil or groundwater contamination as opposed to background or other sources of VOCs at the Site. In addition, in comparison to OSHA standards, no further action is warranted.

Other significant conclusions based upon the results of the first round of sampling are listed below.

- 1. The previous groundwater remediation undertaken at the Site has achieved the remedial objectives of restoring groundwater conditions to Class GA standards. Continuation of groundwater sampling at the Site therefore is no longer necessary. The groundwater monitoring wells should be properly abandoned.
- 2. The results of the performance groundwater sampling at MW-5 indicate that groundwater conditions are favorable for enhanced anaerobic bioremediation. After purging of MW-5, levels of dissolved oxygen were less than 1 mg/L, oxidation-reduction potential (ORP) was measured at negative values below -100 millivolts (mV), and nitrates were not detected in the well. In addition, a high concentration of soluble iron (greater than 10,000 parts per million or ppm) was measured, indicating a lack of available oxygen.
- 3. The concentrations of tetrachloroethene (PCE) detected in the indoor air of the Post Office may be attributed to other sources at the Site that are unrelated to the former soil and groundwater contamination that was remediated under the voluntary agreement. The concentration of PCE detected in the background air sample (32.38 ug/m<sup>3</sup>) was

Associates' view, this guidance is not relevant, appropriate or applicable. Therefore, the indoor air sampling results have also been compared to applicable OSHA standards.



Mr. Larry Lampman, P.E. New York State Department of Environmental Conservation Page 4 of 4 May 2, 2006

approximately equal to or greater than that detected in the indoor air samples collected in the Post Office. The nearby Wilmot dry cleaners, is located three stores to the east of the Post Office and utilizes PCE in connection with its normal operations. The dry cleaner represents a potential source for the PCE detected in the outdoor air and indoor air of the Post Office because the drycleaner was upwind of the Post Office at the time of TRC's sampling.

4. With the exception of PCE and trichloroethene (TCE), the compounds detected in the subslab vapor are inconsistent with the known past use of the Post Office space and soil and groundwater sampling results reported as part of previous investigations. Likely chemical use at the nearby and upwind nail salon and truck traffic associated with the Post Office may account for the other chemicals detected in the indoor air and subslab vapor.

Please do not hesitate to contact me at (212) 221-7822 if you have any questions.

Very truly yours, TRC ENGINEERS, INC.

William V. Silveri. Senior Project Manager

Attachments	
Table 1	Results of Sub-Slab Vapor Analyses
Table 2	Results of Air Sampling Analyses
Table 3	Results of Groundwater Sampling Anlayses
Tables 4A-4B	Results of Groundwater Performance Monitoring
Figure 1	Project Site Location
Figure 2	Potential Airborne Sources of VOCs at the Site
Figure 3	Summary of Results of Sub-Slab Vapor and Indoor Air Sampling
Figure 4	Groundwater Sample Locations and Results
Appendix A	Inventory of Chemical Usage at the Site
Appendix B	Data Usability Summary Report

cc: D. Glass







#### TABLE 1 GOLDEN HORSESHOE SHOPPING CENTER SCARSDALE, NEW YORK RESULTS OF SUB-SLAB VAPOR ANALYSES March 9, 2006

Sample Location	SS-1	SS-2	SS-3
Date Collected	03/09/06	03/09/06	03/09/06
Dilution	4	10	10
Compound	ug/m <sup>3</sup>	ug/m <sup>3</sup>	ug/m <sup>3</sup>
1,1,2,2-Tetrachloroethane	1.31U	3.24U	3.24U
1,1,1-Trichloroethane	0.6U	1.53U	1.53U
1,1,2-Trichloroethane	0.93U	2.34U	2.34U
1,2,4-Trichlorobenzene	1.48U	3.78U	3.78U
1,1,2-Trichlorotrifluoroethane	0.74U	1.84U	1.84U
1,2,4-Trimethylbenzene	1.57	2.46U	2.46U
1,3,5-Trimethylbenzene	1.08U	2.66U	2.66U
2,2,4-Trimethylpentane	91.57	21.49	28.5
Acetone	41.6	113.39	80.82
Allyl Chloride	0.32U	0.79U	0.79U
Benzene	3.07	8.31	15.98
Benzyl Chloride	0.81U	2.02U	2.02U
Bromoform	1.45U	3.63U	3.63U
Bromodichloromethane	0.94U	2.35U	2.35U
Bromoethene	0.75U	1.84U	1.84U
Bromomethane	0.34U	0.86U	0.86U
2-Butanone	0.83U	2.07U	2.07U
1,3-Butadiene	0.62U	1.53U	1.53U
Carbon disulfide	1.12	0.69U	0.69U
Carbon Tetrachloride	1.51U	3.85U	3.85U
Chlorobenzene	0.88U	2.18U	2.18U
Chloroform	5.07	10.73	3.41
Chloromethane	0.49	1.64	1.23
Chloroethane	0.26U	0.64U	0.64U
Cyclohexane	0.94U	2.35U	2.35U
Dibromochloromethane	1.36U	3.50U	3.50U
1,2- Dibromoethane	1.23U	3.16U	3.16U
1,2-Dichlorobenzene	1.20U	2.95U	2.95U
1,3-Dichlorobenzene	1.57U	3.92U	3.92U
1,4-Dichlorobenzene	1.33U	3.25U	3.25U
1,1-Dichloroethane	0.49U	1.22U	1.22U
1,2-Dichloroethane	1.05U	2.64U	2.64U
1,1-Dichloroethene	0.560	1.350	1.350
cis-1,2-Dichloroethene	0.080	1./10	1./10

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# TABLE 1 GOLDEN HORSESHOE SHOPPING CENTER SCARSDALE, NEW YORK RESULTS OF SUB-SLAB VAPOR ANALYSES March 9, 2006

Sample Location	SS-1	SS-2	SS-3
Date Collected	03/09/06	03/09/06	03/09/06
Dilution	4	10	10
Compound	ug/m <sup>3</sup>	ug/m <sup>3</sup>	ug/m <sup>3</sup>
trans-1,2-Dichloroethene	0.60U	1.51U	1.51U
1,2-Dichloropropane	1.02U	2.50U	2.50U
Cis-1,3-Dichloropropene	0.44U	1.09U	1.09U
Trans-1,3-Dichloropropene	0.86U	2.14U	2.14U
1,4-Dioxane	0.79U	1.95U	1.95U
Dichloro-difluoro-methane (Freon 12)	3.37	21.32	176.54
Dichlorotertafluoroethane	0.77U	1.96U	1.96U
Ethyl Acetate	179.61	988.2 D***	1060.33 D***
Ethylbenzene	1.22	1.48U	1.48U
4-Ethyltoluene	0.69U	1.77U	1.77U
Heptane	0.45U	1.15U	1.15U
Hexane	0.34U	0.85U	0.85U
2-Hexanone	0.66U	1.64U	1.64U
Hexachloro -1,3-butadiene	3.42B	7.06U	7.06U
Isopropyl Alcohol	5.02	26.07	8.11
m, p-Xylene	4.52	3.91	3.65U
Methylene chloride	11.43B	9.06B	8.71B
Methyl tert-butyl ether	0.61U	1.55U	1.55U
4-Methyl-2-pentanone	4.1	2.87	5.33
Propene	5.78	0.81U	0.81U
o-Xylene	1.39	2.17U	2.17U
Styrene	0.68U	1.70U	1.70U
Tetrachloroethene (PCE)	214.3	153.07	474.87
Tetrahydrofuran	0.71U	1.77U	1.77U
Toluene	63.34	120.66	70.51
Trichloroethene (TCE)	0.86U	3.76	12.35
Trichlorofluoromethane (Freon 11)	1.57	2.25U	2.25U
Vinyl Acetate	0.28U	0.70U	0.70U
Vinyl Chloride	0.31U	0.77U	0.77U

Notes:

 $ug/m^3 = micrograms per cubic meter$ U=Not detected above laboratory reporting limit B = Analyte found in associated method blank D\*\*\* = Concentration for analyte for sample diluted at 20x

#### TABLE 2 GOLDEN HORSESHOE SHOPPING CENTER SCARSDALE, NEW YORK RESULTS OF INDOOR/AMBIENT AIR ANALYSES March 9, 2006

Sample Location	NY State Background Levels	OSHA PEL	OA-1: Site-Specific Background Sample	IA-1	IA-2	IA-3
Date Collected			03/09/06	03/09/06	03/09/06	03/09/06
Dilution			4	2	4	4
Compound	ug/m <sup>3</sup>	ug/m <sup>3</sup>	ug/m <sup>3</sup>	ug/m <sup>3</sup>	ug/m <sup>3</sup>	ug/m <sup>3</sup>
1,1,2,2-Tetrachloroethane	<0.25	35,000	1.31U	0.65U	1.31U	1.31U
1,1,1-Trichloroethane	0.38	45,000	0.60U	0.44	0.65	0.65
1,1,2-Trichloroethane	<0.25	45,000	0.93U	0.47U	0.93U	0.93U
1,2,4-Trichlorobenzene	NA	NS	2.08	0.74U	1.48U	1.48U
1,1,2-Trichlorotrifluoroethane	NA	7,600,000	0.74U	0.61	0. <b>74</b> U	0.74U
1,2,4-Trimethylbenzene	1.0	NS	6.30	6.69	3.54	5.7
1,3,5-Trimethylbenzene	0.44	NS	1.97	1.97	1.18	1.77
2,2,4-Trimethylpentane	NA	NS	1.12	0.24U	0.47U	0.93
Acetone	23	2,400,000	51.11	55.62	54.2	68.7
Allyl Chloride	NA	3,000	0.32U	0.16U	0.32U	0.32U
Benzene	2.6	3,190	6.52	6.14	6.39	7.03
Benzyl Chloride	NA	5,000	0.81U	0.40U	0.81U	0.81U
Bromoform	NA	5,000	1.45U	0. <b>7</b> 3U	1.45U	1.45U
Bromodichloromethane	NA	NS	0.94U	0.47U	0.94U	0.94U
Bromoethene	NA	NS	0.75U	0.37U	0.75U	0.75U
Bromomethane	<0.25	80,000	0.34U	0.17U	0.34U	0.34U
2-Butanone	NA	590,000	0.83U	0.41U	0.83U	0.83U
1,3-Butadiene	NA	2,210	0.62U	0.31U	0.62U	0.62U
Carbon disulfide	NA	62,200	0.27U	0.14U	0.27U	0.27U
Carbon Tetrachloride	0.68	629,000	1.51U	0.76U	1.51U	1.51U
Chlorobenzene	<0.25	350,000	0.88U	0.44U	0.88U	0.88U
Chloroform	<0.25	240,000	0.78	0.88	0.59	0.78
Chloroethane	NA	2,560	0.26U	0.13U	0.26U	0.26U
Chloromethane	NA	207,000	1.23	1.07	1.15	1.23
Cyclohexane	NA	1,050,000	0.94U	0.47U	0.94U	0.94U
Dibromochloromethane	NA	NS	1.36U	0.70U	1.36U	1.36U
1,2- Dibromomethane	<0.25	NS	1.23U	0.63U	1.23U	1.23U
1,2-Dichlorobenzene	<0.25	300,000	1.20U	0.59U	1.20U	1.20U
1,3-Dichlorobenzene	<0.25	NS	1.57U	0.78U	1.57U	1.57U
1,4-Dichlorobenzene	NA	450,000	1.69	1.2	1.33U	1.33U
1,1-Dichloroethane	<0.25	400,000	0.49U	0.24U	0.49U	0.49U
1,2-Dichloroethane	<0.25	202,500	1.05U	0.53U	1.05U	1.05U
1,1-Dichloroethene	<0.25	NS	0.56U	0.27U	0.56U	0.56U

#### TABLE 2 GOLDEN HORSESHOE SHOPPING CENTER SCARSDALE, NEW YORK RESULTS OF INDOOR/AMBIENT AIR ANALYSES March 9, 2006

Sample Location	NY State Background Levels	OSHA PEL	OA-1: Site-Specific Background Sample	IA-1	IA-2	IA-3
Date Collected			03/09/06	03/09/06	03/09/06	03/09/06
Dilution			4	2	4	4
Compound	ug/m <sup>3</sup>	ug/m <sup>3</sup>	ug/m <sup>3</sup>	ug/m <sup>3</sup>	ug/m <sup>3</sup>	ug/m <sup>3</sup>
cis-1,2-Dichloroethene	<0.25	NS	0.68U	0.34U	0.68U	0.68U
trans-1,2-Dichloroethene	NA	790,000	0.60U	0.30U	0.60U	0.60U
1,2-Dichloropropane	<0.25	350,000	1.02U	0.51U	1.02U	1.02U
Cis-1,3-Dichloropropene	NA	NS	0.44U	0.22U	0.44U	0.44U
Trans-1,3-Dichloropropene	NA	NS	0.86U	0.43U	0.86U	0.86U
1,4-Dioxane	NA	360,000	0. <b>79</b> U	0.40U	0.79U	0. <b>7</b> 9U
Dichloro-difluoro-methane (Freon 12)	NA	4,950,000	3.17	3.07	3.37	3.97
Dichlorotertafluoroethane	NA	7,000,000	0. <b>77</b> U	0.39U	0. <b>77</b> U	0. <b>77</b> U
Ethyl Acetate	NA	1,400,000	157.97	172.39 D*	280.95	595.08 D**
Ethylbenzene	0.61	435,000	2.43	2.26	1.56	2.09
4-Ethyltoluene	NA	NS	2.36	2.26	1.38	2.16
Heptane	NA	2,000,000	1.64	1.72	1.48	1.97
Hexane	NA	1,800,000	0.34U	0.1 <b>7</b> U	0.34U	0.17U
2-Hexanone	NA	410,000	0.66U	0.33U	0.66U	0.66U
Hexachloro -1,3-butadiene	NA	NS	3.42B	1.71B	3.00B	3.00B
Isopropyl Alcohol	NA	980,000	12.59	12.69	8.26	13.97
m, p-Xylene	0.69	435,000	7.30	7.12	4.87	6.43
Methylene chloride	2.0	86,750	6.69B	7.25B	7.94B	4.47B
Methyl tert-butyl ether	1.0	NS	0.61U	0.31U	0.61U	0.61U
4-Methyl-2-pentanone	NA	410000	1.8	1.8	1.48	2.46
Propene	NA	NS	2.43	5.71	5.44	0.33U
o-Xylene	0.74	435,000	2.43	2.43	1.56	2.09
Styrene	<0.25	426,000	9.68	0.68	0.68U	0.68U
Tetrachloroethene (PCE)	0.34	678,000	32.38	29.93	30.75	34.29
Tetrahydrofuran	NA	590,000	0.71U	0.35U	0.71U	0.71U
Toluene	3.3	754,000	208.89	220.57 D*	144.41	234.15
Trichloroethene (TCE)	<0.25	537,000	0.91U	0.43U	5.15	4.08
Trichlorofluoromethane (Freon 11)	NA	5,600,000	1.8	1.68	1.57	1.8
Vinyl Acetate	NA	NS	0.35U	0.18U	0.36U	0.35U
Vinyl Chloride	<0.25	2,560	0.31U	0.16U	0.31U	0.31U

Notes:

New York State Background Levels based upon NYSDOH Summary of Indoor and Outdoor Levels of Volatile Organic Compounds From Fuel Oil Heated Homes in NYS, 1997 to 2003. Unpublished. New York State Department of Health, Bureau of Toxic Substance Assessment.

ug/m<sup>3</sup>= micrograms per cubic meter NA = Not established

NS = No Standard

U=Not detected above laboratory reporting limit

B = Analyte found in associated method blank

Bold/shaded= Exceeds NYSDOH Study for outdoor concentrations

D\* = Concentration for analyte for sample diluted at 4x D\*\* = Concentration for analyte for sample diluted at 10x

#### TABLE 3 GOLDEN HORSESHOE SHOPPING CENTER SCARSDALE, NEW YORK RESULTS OF GROUNDWATER SAMPLING ANALYSES March 9, 2006

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Sample ID	Class GA	TRC-MW-1	TRC-MW-2	TRC-MW-3	TRC-MW-4	TRC-MW-5	TRC-MW-6	FIELDBLANK	TRIPBLANK
Lab Sample Number	Standards	X1904-01	X1904-02	X1904-03	X1904-04	X1904-05	X1904-06	X1904-07	X1904-08
Sampling Date	and Guidance	3/9/2006	3/9/2006	3/9/2006	3/9/2006	3/9/2006	3/9/2006	3/9/2006	3/9/2006
Matrix	Values	WATER	WATER						
Dilution Factor	1	1	1	1	1	1	1	1	1
Units									
COMPOUND	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1.1.1.2-Tetrachloroethane	5.0	ND	ND						
1.1.1-Trichloroethane	5.0	ND	ND						
1.1.2.2-Tetrachloroethane	5.0	ND	ND						
1.1.2-Trichloroethane	1.0	ND	ND						
1,1-Dichloroethane	5.0	ND	ND	NĎ	ND	ND	ND	ND	ND
1,1-Dichloroethene	5.0	ND	ND						
1,1-Dichloropropene	5.0	ND	ND						
1,2,3-Trichlorobenzene	5.0	ND	ND						
1,2,3-Trichloropropane	0.04	ND	ND						
1,2,4-Trichlorobenzene	5.0	ND	ND						
1,2,4-Trimethylbenzene	5.0	ND	ND						
1,2-Dibromo-3-Chloropropane	0.04	ND	ND						
1,2-Dibromoethane	5.0	ND	ND						
1,2-Dichlorobenzene	3.0	ND	ND						
1,2-Dichloroethane	5.0	ND	ND						
1,2-Dichloropropane	5.0	ND	ND						
1,3,5-Trimethylbenzene	5.0	ND	ND						
1,3-Dichlorobenzene	5.0	ND	ND						
1,3-Dichloropropane	5.0	ND	ND						
1,4-Dichlorobenzene	5.0	ND	ND						
2,2-Dichloropropane	5.0	ND	ND						
2-Butanone	50.0	ND -R	2.1 B						
2-Chloroethyl vinyl ether	5.0	ND	ND						
2-Chlorotoluene	5.0	ND	ND						
2-Hexanone	50.0	ND -R	0.78 R	ND -R	ND -R				
4-Chlorotoluene	5.0	ND	ND						
4-Methyl-2-Pentanone	NE	ND	ND	ND	ND	1.2 J	ND	ND	ND
Acetone	50.0	ND -R	ND -R	ND-R	ND -R	ND -R	ND -R	ND -R	ND -R
Acrolein	5.0	ND	ND						
Acrylonitrile	5.0	ND	ND						
Benzene	1.0	ND	ND	ND	ND	0.80 J	ND	ND	ND
Bromobelane	5.0	ND	ND						
Bromodichloromethane	50.0	ND	ND						
Bromoform	50.0	ND	ND						
Bromomethane	50	ND	ND						
Carbon Disulfide	NE	ND	ND						
Carbon Tatrachlorida	50	ND	ND	ND	ND	0.80 I	ND	ND	ND
Chlorobenzene	5.0	ND	ND						
Chloroethane	5.0	ND	ND						
Chloroform	7.0	0.38 I	ND	ND	ND	ND	ND	ND	ND
Chloromethane	5.0	ND	ND						
cis-1.2-Dichloroethene	5.0	ND	ND						
cis-1.3-Dichloropropene	0.4	ND	ND						
Dibromochloromethane	50.0	ND	ND						
Dibromomethane	5.0	ND	ND						
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#### TABLE 3 GOLDEN HORSESHOE SHOPPING CENTER SCARSDALE, NEW YORK RESULTS OF GROUNDWATER SAMPLING ANALYSES March 9, 2006

			TOC MUL	TRO MAY 2	TRC MIL	TDC MW 5	TOC MW 6	FIELDELANK	TRIPRIANK
Sample ID	Class GA	1RC-WW-1 ¥1004-01	1RC-MW-2 ¥1004-02	¥1004-03	¥1004-04	¥1904-05	¥1904-06	X1904-07	X1904-08
Lab Sample Number	Standards	2/0/2006	2/0/2006	2/0/2006	3/0/2006	2/0/2006	2/0/2006	3/0/2006	3/0/2006
Sampling Date	and Guidance	3/9/2000	3/9/2000	3/9/2000	3/9/2000	3/9/2000	3/9/2000	3/3/2000	3/7/2000
Matrix	Values	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
Dilution Factor		1	1	1	1	1	1	1	1
Units	ue/L	ne/L	ng/L	ug/L	ue/L	ug/L	ug/L	ug/L	ug/L
COMPOUND	<b>46.2</b>	46.2	-B	-g	-8	-8	-8	-6	
Dichlorodifluoromethane	5.0	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Benzene	5.0	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	0.5	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	5.0	ND	ND	ND	ND	ND	ND	ND	ND
m/p-Xylenes	5.0	ND	ND	0.65 J	ND	ND	ND	ND	ND
Methyl tert-butyl Ether	10.0	0.63 J	ND	ND	ND	1.5	5.3	ND	ND
Methylene Chloride	5.0	ND -B	ND -B	ND -B	ND	ND -B	ND	1.4	1.4
Naphthalene	10.0	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	5.0	ND	ND	ND	ND	ND	ND	ND	ND
n-propylbenzene	5.0	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	5.0	ND	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	5.0	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	5.0	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	5.0	ND	ND	NĎ	ND	ND	ND	ND	ND
t-1,3-Dichloropropene	0.4	ND	ND	ND	ND	ND	ND	ND	ND
Tert butyl alcohol	5.0	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	5.0	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5.0	0.50J	ND	ND	3.1	ND	ND	ND	ND
Toluene	5.0	ND	ND	0.32 J	ND	0.35 J	ND	ND	ND
trans-1,2-Dichloroethene	5.0	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5.0	ND	ND	0.55 J	0.41 J	ND	0.67 J	ND	ND
Trichlorofluoromethane	5.0	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Acetate	NE	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	2.0	0.40 J	ND	ND	ND	ND	ND	ND	ND

#### Qualifiers:

U - The compound was not detected at the indicated concentration.
 J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than zero. The concentration given is an approximate value.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.
 R - The nondetect or results for these compounds were rejected due to a low response factor (rf).
 For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

NR -Not analyzed

E - The reported result exceeds the calibrated range of the instrument for that test

ug/l - microgram per liter

NE- Criteria not establised

Bold indicates concentration exceeds Class GA value.

			1 million						
						-			

#### TABLE 4A GOLDEN HORSESHOE SHOPPING CENTER SCARSDALE, NEW YORK HRC PERFORMANCE MONITORING FIELD MEASUREMENTS MARCH 2006

Time	Purged	pH	(ma/T)					
			(mg/L)	e OC	(mS/Cm)	(mV)	(NTUs)	PID (ppm)
								NA
Initial	0 0.6 1.2 1.8 2	9.14 7.35 7.27 7.22 7.23	1.5 0.74 0.66 0.62 0.6	11.14 11.2 11.2 11.2 11.2	24.5 14.2 11 9.7 9.4	-170 -168 -166 -164 -163	198 12 0 0	
	Initial	Initial 0 0.6 1.2 1.8 2	Initial 0 9.14 0.6 7.35 1.2 7.27 1.8 7.22 2 7.23	Initial         0         9.14         1.5           0.6         7.35         0.74           1.2         7.27         0.66           1.8         7.22         0.62           2         7.23         0.6	Initial09.141.511.140.67.350.7411.21.27.270.6611.21.87.220.6211.227.230.611.2	Initial         0         9.14         1.5         11.14         24.5           0.6         7.35         0.74         11.2         14.2           1.2         7.27         0.66         11.2         11           1.8         7.22         0.62         11.2         9.7           2         7.23         0.6         11.2         9.4	Initial         0         9.14         1.5         11.14         24.5         -170           0.6         7.35         0.74         11.2         14.2         -168           1.2         7.27         0.66         11.2         11         -166           1.8         7.22         0.62         11.2         9.7         -164           2         7.23         0.6         11.2         9.4         -163	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

Notes:

Parameters were collected using a Horiba U-22 water meter

NA - not available

mg/L - milligrams per liter

mS/cm - millisiemens per centimeter

mV - millivolts

NTUs - nephelometric turbidity unit

PID - photo ionization detector

ppm - parts per million

# TABLE 4B GOLDEN HORSESHOE SHOPPING CENTER SCARSDALE, NEW YORK HRC PERFORMANCE MONITORING RESULTS MARCH 2006

	MW-5
Sample Date	3/9/2006
Metabolic Acids (mg/L):	
Lactic	<1.0
Acetic	<1.0
Pyruvic	<1.0
n-Butryic	<1.0
Prioponic	<1.0
Nitrates/Sulfates (mg/L)	
Nitrates	ND
Sulfates	10
Field Kits:	
Chemets Kit (K-7512) Dissolved Oxygen 1-	
12 ppm range	<1.0
Chemets Kit (K-6502) Dissolved Manganese	
0-2 ppm range	0
Chemets Kit (K-6502D) Dissolved	
Manganese 0-50 ppm range	0
Chemets Kit (K-6010) Soluble Iron 0-10	
ppm range	>10
Chemets Kit (K-6010) Total Iron 0-10 ppm	
range	>10
Chemets Kit (K-6010C) Soluble Iron 0-	
10,000 ppm range	>10,000
Hach Kit (1R-18C) Ferrous Iron 0 - 10 ppm	>10
range	

#### Notes:

mg/L= milligrams per liter (parts per million)

ND = Compound not detected abouve laboratory practical quantitation limit

Chemets and Hach Kits test were run during sample collection from flow cell or disposable teflon bailer except for dissolved oxygen

Dissolved Oxygen sample was collected using an in-situ snapper sampler.

\*High range tests not necessary due to low range results.

NA - Not Available

ppm - parts per million

# APPENDIX A INVENTORY OF CHEMICAL USAGE



NEW YORK STATE DEPARTMENT OF HEALTH INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY CENTER FOR ENVIRONMENTAL HEALTH
This form must be completed for each residence involved in indoor air testing.
Preparer's Name Date/Time PreparedApril 20, 2006
Preparer's Affiliation TRC Engineers Phone No. 212-221-7822
Purpose of Investigation Chemical inventory to assess background sample result
1. OCCUPANT:
Interviewed: ¥/N
Last Name: Crenshaw First Name: Tara, Post Office Supervisor
Address: Golden Horseshoe Post Office, Wilmot Road, New Rochelle, New York
County: Westchester
Home Phone: Office Phone: 914-725-8142
Number of Occupants/persons at this location 25 Age of Occupants Greater than 18
2. OWNER OR LANDLORD: (Check if same as occupant)
Interviewed: Y / N
Last Name: Fine IFirst Name: Leah
Address:
County:
Home Phone: 203-715-2384 Office Phone: 914-472-6326
3. BUILDING CHARACTERISTICS
Type of Building: (Circle appropriate response)
Residential School Commercial/Multi-use

School Church

Industrial

Commercial/Multi-use Other: Post Office

Ranch	2-Family	3-Fam	ily
Raised Ranch	Split Level	Coloni	al
Cape Cod	Contemporary	Mobile	e Home
Duplex	Apartment Hou	se Townł	nouses/Condos
Modular	Log Home	Other:	
If multiple units, how man	iy?		
If the property is commer-	cial, type?		
Business Type(s) Strip I	Mall. Unit of concern is	s the post office.	
Does it include residen	ces (i.e., multi-use)?	Y / N	If yes, how many?
Other characteristics:			
Number of floors 1 - spl	it level	Building age_	
Is the building insulated	1?¥/N	How air tight?	Tight / Average / Not Tight
<ol> <li>AIRFLOW</li> <li>Use air current tubes or treated and the second seco</li></ol>	acer smoke to eval	uate airflow pa	tterns and qualitatively describe:
<ol> <li>AIRFLOW</li> <li>Use air current tubes or treated and the second seco</li></ol>	acer smoke to eval	uate airflow pa	tterns and qualitatively describe:
4. AIRFLOW Use air current tubes or th Airflow between floors NA Airflow peer source	acer smoke to eval	uate airflow pa	tterns and qualitatively describe:
4. AIRFLOW Use air current tubes or th Airflow between floors NA Airflow near source	acer smoke to eval	uate airflow pa	tterns and qualitatively describe:
4. AIRFLOW Use air current tubes or th Airflow between floors NA Airflow near source	racer smoke to eval	uate airflow pa	tterns and qualitatively describe:
4. AIRFLOW Use air current tubes or th Airflow between floors NA Airflow near source	acer smoke to eval	uate airflow pa	tterns and qualitatively describe:
4. AIRFLOW Use air current tubes or tr Airflow between floors NA Airflow near source Outdoor air infiltration	acer smoke to evalu	uate airflow pa	tterns and qualitatively describe:
4. AIRFLOW Use air current tubes or tr Airflow between floors NA Airflow near source Outdoor air infiltration Doors to loading dock often le	ft open to allow access	uate airflow pa	tterns and qualitatively describe:
4. AIRFLOW Use air current tubes or tr Airflow between floors NA Airflow near source Outdoor air infiltration Doors to loading dock often le	ft open to allow access	uate airflow pa	tterns and qualitatively describe:
4. AIRFLOW Use air current tubes or tr Airflow between floors NA Airflow near source Outdoor air infiltration Doors to loading dock often le	ft open to allow access	uate airflow pa	tterns and qualitatively describe:
4. AIRFLOW Use air current tubes or tr Airflow between floors NA Airflow near source Outdoor air infiltration Doors to loading dock often le Infiltration into air ducts	ft open to allow access	uate airflow pa	tterns and qualitatively describe:

### 5. BASEMENT AND CONSTRUCTION CHARACTERISTICS (Circle all that apply)

a. Above grade construction	: wood frame	concrete	stone	brick
b. Basement type:	full	crawlspace	slab	other
c. Basement floor:	concrete	dirt	stone	other
d. Basement floor:	uncovered	covered	covered with _	
e. Concrete floor:	unsealed	sealed	sealed with tili	ng
f. Foundation walls:	poured	block	stone	other
g. Foundation walls:	unsealed	sealed	sealed with	
h. The basement is:	wet	damp	dry	moldy
i. The basement is:	finished	unfinished	partially finish	ed
j. Sump present?	Y/N			
k. Water in sump?	Y / N / <del>not applicable</del>			

Basement/Lowest level depth below grade: \_\_\_\_\_(feet)

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)

#### 6. HEATING, VENTING and AIR CONDITIONING (Circle all that apply)

#### Type of heating system(s) used in this building: (circle all that apply – note primary)

Hot air circulation Space Heaters Electric baseboard	Heat Stream Wood	pump n radiation l stove	Hot water baseboard Radiant floor Outdoor wood boiler	Other
The primary type of fuel used	d is:			
<del>Natural Gas</del> Electric Wood	Fuel ( Propa Coal	Dil ne	Kerosene Solar	
Domestic hot water tank fuel	ed by:			
Boiler/furnace located in:	Basement	Outdoors	Main Floor	Other

None

4

Are there air distribution ducts present? Y / N

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.

Air is retrieved from outdoor at the roof. It is pumped through an air conditioning unit that uses hydronic anitfreeze and

pumped through baseboards within the post office.

#### 7. OCCUPANCY

Is basement/lov	west level occupied?	Full-time	Occasionally	Seldom	Almost Never
Level	General Use of Each I	Floor (e.g., fam	nilyroom, bedro	om, laundry, wo	orkshop, storage)
Basement				e	
1 <sup>st</sup> Floor	Mail sorting and custome	r service. Some o	ffice space for sup	ervisors.	
2 <sup>nd</sup> Floor					
3 <sup>rd</sup> Floor					
4 <sup>th</sup> Floor					
8. FACTORS	THAT MAY INFLUE	NCE INDOOR	AIR QUALITY	7	
a. Is there an	attached garage?			Y/N	
b. Does the g	arage have a separate	heating unit?		Y / N / <del>NA</del>	
c. Are petrol stored in t	eum-powered machine he garage (e.g., lawnmo	es or vehicles ower, atv, car)		Y / ₩ / NA Please specify_	
d. Has the bu	uilding ever had a fire?	?		Y/N When?	
e. Is a kerose	ene or unvented gas spa	ace heater prese	ent?	Y/N Where	?
f. Is there a v	workshop or hobby/cra	aft area?	Y/N	Where & Type	?
g. Is there sn	noking in the building	?	Y / N	How frequently	r?
h. Have clear	ning products been use	ed recently?	¥/N	When & Type?	

Cleaning is conducted twice per day at 6 am and 1:30 pm for approximately two hours each shift.

i. Have cosmetic products been used recently?

Y/N When & Typ	e?
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5

j. Has painting/stai	ning been done	in the last 6 mo	nths? Y / N	Where & Whe	en?
k. Is there new carp	oet, drapes or ot	her textiles?	Y / N	Where & Whe	en?
l. Have air freshene	ers been used re	cently?	¥/N	When & Type	? Bathrooms since 4/6/06
m. Is there a kitche	n exhaust fan?		Y / N	If yes, where v	vented?
n. Is there a bathro	oom exhaust fan	If yes, where y	vented?		
o. Is there a clothes	dryer?		Y / N	If yes, is it ver	nted outside? Y / N
p. Has there been a	pesticide applie	cation?	Y / N	When & Type	?
Are there odors in a If yes, please descr	<b>the building?</b> ibe:		Y / N		
<b>Do any of the building</b> (e.g., chemical manufa boiler mechanic, pestic	g occupants use cturing or labora tide application,	solvents at wor tory, auto mecha cosmetologist	<b>k?</b> Y / <del>N</del> anic or auto body	shop, painting,	fuel oil delivery,
If yes, what types of	solvents are use	d?			
If yes, are their cloth	nes washed at wo	rk?	Y / N		
<b>Do any of the building</b> response)	g occupants reg	ularly use or we	ork at a dry-clea	aning service? (	(Circle appropriate
Yes, use dry-c Yes, use dry-c Yes, work at a	leaning regularly leaning infrequen dry-cleaning ser	y (weekly) ntly (monthly or vice	less)	No <del>Unknown</del>	
Is there a radon mitig Is the system active o	gation system fo r passive?	r the building/s Active/Passive	tructure? Y/N	Date of Install	ation:
9. WATER AND SEV	WAGE				
Water Supply:	Public Water	Drilled Well	Driven Well	Dug Well	Other:
Sewage Disposal:	Public Sewer	Septic Tank	Leach Field	Dry Well	Other:
10. RELOCATION I	NFORMATION	N (for oil spill re	esidential emerg	ency)	
a. Provide reason	s why relocation	n is recommend	ed:		

b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel

#### **12. OUTDOOR PLOT**

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.

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c. Responsibility for costs associated with reimbursement explained? Y / N
 d. Relocation package provided and explained to residents? Y / N
 6

#### **11. FLOOR PLANS**

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

**Basement:** 



#### **13. PRODUCT INVENTORY FORM**

Make & Model of field instrument used: None

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition <sup>*</sup>	Chemical Ingredients	Field Instrument Reading (units)	Photo ** <u>Y / N</u>
storage	2 - "So-sure" deicing/	14 oz	Used	Nitrogen and methylene alcohol		
closet in back of	defrosting liquid	Aero				
building at lunchroom	"Turner Labs" Deicer	11.5 oz Aero	Used	Methyl alcohol		
	"Krylon" metal flake spray	13 oz	Used	colors sebring green #3305 and		
	paint	Aero		rallye red #3301		
	"Krylon" upside down	17 oz	Used			
	marking paint	Aero				
	"Last n Last" ultra clear	32 oz	Used	acrylic urethane; max VOC=410 g/L		
	wood finish gloss					
	2 - "Pine Oil" Disinfectant Detergent	32 oz	Used	60% pine oil, 40% inert ingredients		
	"State" High Gloss Protectant	10 oz	Used	Water, polydimethylsiloxane (#63148-62 propane (#74-98-6)	-9), butane (#106	5-97-8),
	"Nuco" Citrisolv all purpose	1 ga	Used	D-limonene (#5989-27-5), sodium metas	ilicate (#6834-92	-0),
	cleaner & deodorizer			water, nonylphenolethoxylate (#9016-45 pyrophosphate (7320-34-5)	-9), tetrapotassiu	m
	"Kinzua" KC-77C natural degreaser	1 ga	Used	Petroleum distillate (#64742-96-7), D-lin	onene (#5989-2	7-5)
	"Aqua-Wise" universal bowl	1 L	Used			
	cleaner					
boiler room	Transmission fluid	1 L	Used			

\* Describe the condition of the product containers as Unopened (UO), Used (U), or Deteriorated (D)

\*\* Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

Industrial

Church

#### NEW YORK STATE DEPARTMENT OF HEALTH INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY CENTER FOR ENVIRONMENTAL HEALTH

This form must be completed for each residence involved in indoor air testing.

Preparer's Name	do	Date/Time Prepared	April 20, 2006
Preparer's Affiliation TRC Eng	ineers	Phone No. 212-221-782	2
Purpose of Investigation Chem	ical inventory to as	sess background sample result	
1. OCCUPANT:			
Interviewed: ¥/N			
Last Name: Mooshyun, Business	owner First	st Name: Lee	
Address: Wilmot Dry Cleaners, 1	126 Wilmot Road, I	New Rochelle, New York	
County: Westchester			
Home Phone:	Office P	Phone:	
Number of Occupants/persons	at this location $\frac{7}{2}$	Age of Occupants Greater th	nan 18
2. OWNER OR LANDLORI	): (Check if same	e as occupant)	
Interviewed: Y / N			
Last Name: Fine	First	Name: _Leah	
Address:			
County:			
Home Phone: 203-715-2384	Office I	Phone: 914-472-6326	
3. BUILDING CHARACTE	RISTICS		
Type of Building: (Circle app	ropriate response)	)	
Residential	School	Commercial/Multi-use	

Other: Dry Cleaner

#### **13. PRODUCT INVENTORY FORM**

Make & Model of field instrument used: None

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition <sup>*</sup>	Chemical Ingredients	Field Instrument Reading (units)	Photo ** <u>Y / N</u>
Near dry	(4) Pyrate stain remover "RR Street & Co."	12 oz	Used			
cleaner in center of	"Zuds" synthetic detergent	12 oz	Used			
store.	"Chemspec" Paint, oil and grease remover	1 L	Used	Amelyacetic (#628-63-7), linear primary (#68131-39-5)	alchohol ethoxyl	ate
	"Wilson-go-product" Rust Go	14 oz	Used			
	"Yellow-go-dye" stripper	1 L	Used			
	"Crown Pince" Low T	14 oz	Used			
	detergent, bleach, and enzyme laundry product					
	"Kleens All" Soap	10 ga	Used			
	"RSR" digestive agent	16 oz	Used			
	(2) "Logos" Sodium Perbate	12 oz	Used			
	"Streets" Picrin touch up	1 ga	Used			
	"Kirkland" Institutional laundry detergent	32 lbs	Used			2
	"CPS" Paint and oil grease spotter	1 ga	Used			
	"Laidlaw" mothproofing sol.	1 ga	Used			
	"Streets" Aqua Ammonia	1 ga	Used			
	"Streets" Streetex spray	1 ga	Used			
	spotter "Shower pruf west side"	1 ga	Used	no solvents		
	water repellent "Kurts & Wolfe" Amyl Acetate	1 ga	Used	Amyl acetate (#628-63-7)		
	Near back are approximately	a dozen o	f the 32 ga buc	kets of "Kirkland" laundry detergent.		

\* Describe the condition of the product containers as **Unopened (UO)**, **Used (U)**, or **Deteriorated (D)** \*\* Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

\*\*\*Tetrachloroethene is contained in the Victory 5000 dry cleaner by Sovrana located in the center of the store. Tetrachloroethene is not stored anywhere else within the facility.

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**APPENDIX B Data Usability Summary Report** 

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### **Data Usability Summary Report**

Site:	Golden Horseshoe Shopping Center, Scarsdale, New York
Laboratory:	Chemtech, Mountainside, NJ
Case No.:	X1904
<b>Reviewer:</b>	Lorie MacKinnon/TRC Environmental Corporation
Date:	April 10, 2006

#### Samples Reviewed and Evaluation Summary

VOC:	6/Groundwater/	TRC-MW-1, TRC-MW-2, TRC-MW-3, TRC-MW-4, TRC-MW-5, TRC-MW-6
	1/Field Blank/ 1/Trip Blank/	Field Blank-Equipment Blank Trip Blank

The above-listed samples were collected on March 9, 2006 and analyzed for site-specific volatile organic compounds (VOCs) by SW-846 method 8260B. The data validation was performed in accordance with the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, EPA 540/R-99/008 (October 1999), modified as necessary to accommodate the non-CLP methodology used, the project specific QC criteria detailed in the Quality Assurance Project Plan (QAPP), and Region II validation actions.

The organic data were evaluated based on the following parameters:

- Overall Evaluation of Data and Potential Usability Issues
- Data Completeness
- Holding Times and Sample Preservation
  - Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
    - Initial and Continuing Calibrations
    - Blanks
    - Surrogate Recoveries
      - Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
  - Internal Standards
- Laboratory Control Sample (LCS) Results
- NA Field Duplicate Results
  - Sample Quantitation and Reported Quantitation Limits
  - Target Compound Identification

\* - All criteria were met.

NA - A field duplicate pair was not associated with this sample set.

### **Overall Evaluation of Data and Potential Usability Issues**

All results are usable for project objectives with the exception of acetone and 2-hexanone in all samples and 2-butanone in samples TRC-MW-1, TRC-MW-2, TRC-MW-3, TRC-MW-4, TRC-MW-5, TRC-MW-6, and Field Blank-Equipment Blank.

Qualifications applied to the data as a result of sampling error are discussed below.

• The positive results for methylene chloride in samples TRC-MW-1, TRC-MW-2, TRC-MW-3, and TRC-MW-5 were qualified as nondetects due to field blank contamination. These results are still usable for project objectives. This qualification may have a minor impact on the data usability.

Qualifications applied to the data as a result of analytical error are discussed below.

- Potential uncertainty exists for select VOC results which were below the lowest calibration standard and quantitation limit. These results were qualified as estimated (J) in the associated samples by the laboratory. These results can be used for project objectives as estimated values which may have a minor impact on the data usability.
- The nondetect results for acetone and 2-hexanone in all samples and 2-butanone in samples TRC-MW-1, TRC-MW-2, TRC-MW-3, TRC-MW-4, TRC-MW-5, TRC-MW-6, and Field Blank were rejected (R) due to a low response factor (RF). The results are not usable for project objectives which may have a major impact on the data usability.
- The positive result for 2-butanone in sample Trip Blank was qualified as estimated (J) due to a low RF. This result can be used for project objectives as an estimated value which may have a minor impact on the data usability.

The validation recommendation listed above was based on the following information.

### **Data Completeness**

The data packages were complete as defined under the requirements for the NYSDEC ASP Category B deliverables.

### **Holding Times and Sample Preservation**

All analytical holding time and sample preservation criteria were met.

### **GC/MS Tunes**

All criteria were met.

### **Initial and Continuing Calibrations**

The percent relative standard deviation (%RSD) of acetone (58.6) was outside of the acceptance criteria in the initial calibration associated with all samples. Validation actions were not required as these results were subsequently rejected due to low RF.

The response factors for acetone (0.020, 0.016), 2-butanone (0.048, 0.047), and 2-hexanone (0.043, 0.041) were outside of the acceptance criteria in the initial and continuing calibration standards associated with all samples. The positive result for 2-butanone in sample Trip Blank was qualified as estimated (J). The nondetect results for acetone and 2-hexanone in all samples and 2-butanone in samples TRC-MW-1, TRC-MW-2, TRC-MW-3, TRC-MW-4, TRC-MW-5, TRC-MW-6, and Field Blank-Equipment Blank were rejected (R) due to the low response factors.

#### <u>Blanks</u>

Target compounds were detected in the laboratory method blanks, field blank, and trip blank samples. The presence of blank contamination indicates that false positives may exist for these compounds in the associated samples. Action Levels (ALs) were established for these compounds at 10x the highest concentrations detected. The following table summarizes the ALs.

Compound	Blank ID	Concentration Detected (µg/L)	Action Level (µg/L)
2-Butanone	Method Blank	1.1	11
Methylene chloride	Trip Blank	1.4	14
2-Butanone	Trip Blank	2.1	21

Sample results were qualified as follows:

•If sample concentration was < the quantitation limit (QL) and  $\le$  the Action Level, qualify the result as a nondetect (U) at the quantitation limit (QL).

•If sample concentration was  $\geq$  the QL and  $\leq$  the Action Level, qualify the result as not detected (U) at the reported concentration.

•If the sample concentration was > the QL and > the Action Level, qualification of the data was not required.

The positive results for methylene chloride in samples TRC-MW-1, TRC-MW-2, TRC-MW-3, and TRC-MW-5 were qualified as nondetects due to the field blank contamination.

#### Surrogate Recoveries

All criteria were met.

### **MS/MSD Results**

The laboratory performed MS/MSD analyses on sample TRC-MW-1. The percent recoveries and the relative percent differences (RPDs) of these target compounds were within the acceptance criteria with the exception of 2-butanone (MS 164%, 43% RPD). Validation action was not required on this basis.

# **Internal Standards**

All criteria were met.

### LCS Results

All criteria were met.

### **Field Duplicate Results**

A field duplicate pair was not associated with this sample group. Validation action was not required on this basis.

### Sample Quantitation and Reported Quantitation Limits

Sample calculations were spot-checked; there were no errors noted. All quantitation limits (QLs) were found to be less than or equal to the project-required QLs.

Select VOC results were reported which were below the lowest calibration standard level and quantitation limit. These results were qualified as estimated (J) by the laboratory.

### **Target Compound Identification**

All criteria were met with the exception of 2-hexanone in sample TRC-MW-2. Upon review of the raw data, the relative intensities of the characteristic ions and compound retention time did not meet acceptance criteria. The validator changed the result for 2-hexanone to nondetect at the QL.

# Qualified Form Is

CHEMITECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

# **Report of Analysis**

Client: Project:	TRC Environmental Corp., NY Proj# 49632 Golden HorseShoe, Scar	Date Collected: Date Received:	3/9/2006 3/10/2006
Client Sample ID:	TRC-MW-1	SDG No.:	X1904
Lab Sample ID:	X1904-01	Matrix:	WATER
Analytical Method:	8260-Low	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	սԼ		

File ID:         Dilution:         Date Analyzed         Analytical Batch ID							
VF001470.D	) 1	3/22/2006		VF031906			
CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units	
TARGETS							
74-87-3	Chloromethane	0.08	U	1.0	0.08	ug/L	
75-01-4	Vinyl chloride	0.40	J	1.0	0.09	ug/L	
74-83-9	Bromomethane	0.18	U	1.0	0.18	ug/L	
75-00-3	Chloroethane	0.46	U	1.0	0.46	ug/L	
75-69-4	Trichlorofluoromethane	0.10	U	1.0	0.10	ug/L	
76-13-1	1,1,2-Trichlorotrifluoroethane	0.13	U	1.0	0.13	ug/L	
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19	ug/L	
67-64-1	Acetone	-1.6 R .	<del>-U-</del>	5.0	1.6	ug/L	
75-15-0	Carbon disulfide	0.11	U	1.0	0.11	ug/L	
1634-04-4	Methyl tert-butyl Ether	0.63	J	1.0	0.22	ug/L	
79-20-9	Methyl Acetate	0.16	U	1.0	0.16	ug/L	
75-09-2	Methylene Chloride	1.5 U ·		1.0	0.42	ug/L	
156-60-5	trans-1,2-Dichloroethene	0.10	U	1.0	0.10	ug/L	
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17	ug/L	
110-82-7	Cyclohexane	0.15	U	1.0	0.15	ug/L	
78-93-3	2-Butanone	-0.23 R.	-U-	5.0	0.23	ug/L	
56-23-5	Carbon Tetrachloride	0.16	U	1.0	0.16	ug/L	
74-97-5	Bromochloromethane	0.14	U	1.0	0.14	ug/L	
67-66-3	Chloroform	0.38	J	1.0	0.16	ug/L	
71-55-6	1,1,1-Trichloroethane	0.16	U	1.0	0.16	ug/L	
108-87-2	Methylcyclohexane	0.14	U	1.0	0.14	ug/L	
71-43-2	Benzene	0.15	U	1.0	0.15	ug/L	
107-06-2	1,2-Dichloroethane	0.13	U	1.0	0.13	ug/L	
79-01-6	Trichloroethene	0.12	U	1.0	0.12	ug/L	
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15	ug/L	
75-27-4	Bromodichloromethane	0.14	U	1.0	0.14	ug/L	
108-10-1	4-Methyl-2-Pentanone	0.46	U	5.0	0.46	ug/L	
108-88-3	Toluene	0.11	U	1.0	0.11	ug/L	
10061-02-6	t-1,3-Dichloropropene	0.10	U	1.0	0.10	ug/L	
142-28-9	1,3-Dichloropropane	0.14	U	1.0	0.14	ug/L	
591-78-6	2-Hexanone	0.57 - R.	÷	5.0	0.57	ug/L	
124-48-1	Dibromochloromethane	0.13	U	1.0	0.13	ug/L	

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

CHEITTIECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Client: Project:	TRC Environmental Corp., NY Proj# 49632 Golden HorseShoe, Scar	Date Collected: Date Received:	3/9/2006 3/10/2006
Client Sample ID:	TRC-MW-1	SDG No.:	X1904
Lab Sample ID:	X1904-01	Matrix:	WATER
Analytical Method:	8260-Low	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	uL		

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reput	<b>OI AIIAIYSIS</b>

Son Aliquot Vol	i: uL					
File ID: VF001470 D	Dilution:	Date Analyzed		Analytical I	Batch ID	
VI001470.D	1	5/22/2000		VF051900		
CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12	ug/L
127-18-4	Tetrachloroethene	0.50	J	1.0	0.12	ug/L
108-90-7	Chlorobenzene	0.11	U	1.0	0.11	ug/L
100-41-4	Ethyl Benzene	0.11	U	1.0	0.11	ug/L
126777-61-2	m&p-Xylenes	0.24	U	1.0	0.24	ug/L
95-47-6	o-Xylene	0.13	U	1.0	0.13	ug/L
100-42-5	Styrene	0.11	U	1.0	0.11	ug/L
98-82-8	Isopropylbenzene	0.12	U	1.0	0.12	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.09	U	1.0	0.09	ug/L
96-18-4	1,2,3-Trichloropropane	0.17	U	1.0	0.17	ug/L
103-65-1	n-propylbenzene	0.10	U	1.0	0.10	ug/L
108-67-8	1,3,5-Trimethylbenzene	0.09	U	1.0	0.09	ug/L
98-06-6	tert-Butylbenzene	0.15	U	1.0	0.15	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.10	U	1.0	0.10	ug/L
135-98-8	Sec-butylbenzene	0.13	U	1.0	0.13	ug/L
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13	ug/L
541-73-1	1,3-Dichlorobenzene	0.10	U	1.0	0.10	ug/L
106-46-7	1,4-Dichlorobenzene	0.12	U	1.0	0.12	ug/L
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12	ug/L
95-50-1	1,2-Dichlorobenzene	0.08	U	1.0	0.08	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.20	U	1.0	0.20	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.08	U	1.0	0.08	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.10	U	1.0	0.10	ug/L
SURROGATES						
1868-53-7	Dibromofluoromethane	10.46	105 %	85 - 115		SPK: 10
17060-07-0	1,2-Dichloroethane-d4	11.13	111 %	72 - 119		SPK: 10
2037-26-5	Toluene-d8	10.23	102 %	81 - 120		SPK: 10
460-00-4	4-Bromofluorobenzene	10.47	105 %	76 - 119		SPK: 10
INTERNAL STA	NDARDS					
363-72-4	Pentafluorobenzene	1186228	7.97			
540-36-3	1.4-Difluorobenzene	1542679	9.29			
3114-55-4	Chlorobenzene-d5	1244813	15.24			
		1211015	1.2.2.1			

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E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

CHEMIECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

# **Report of Analysis**

Client:	TRC Environmental Corp., NY	Date Collected:	3/9/2006
Project:	Proj# 49632 Golden HorseShoe, Scar	Date Received:	3/10/2006
Client Sample ID:	TRC-MW-1	SDG No.:	X1904
Lab Sample ID:	X1904-01	Matrix:	WATER
Analytical Method:	8260-Low	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	uL		

File ID: VF001470.D	Dilution: 1	Date Analyzed 3/22/2006	2	Analytical F VF031906	Batch ID	
CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
3855-82-1	1,4-Dichlorobenzene-d4	704802	20.61			an ad autopan stronge
TENTITIVE IDE	NTIFIED COMPOUNDS					
000156-60-5	Ethene, 1,2-dichloro-, (E)-	6.5	J	6.90	1	ug/L

U = Not Detected RL = Reporting Limit MDL = Method Detection Limit E = Value Exceeds Calibration Range J = Estimated Value

B = Analyte Found in Associated Method Blank

CHEITTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Client: Project:	TRC Environmental Corp Proj# 49632 Golden Horse	., NY Shoe, Scar	Date Colle Date Recei	cted: ved:	3/9/2006 3/10/2006
Client Sample	D: TRC-MW-2		SDG No.: X1904		X1904
Lab Sample ID	× X1904-02		Matrix:		WATER
Analytical Mat			% Moistu	ro.	100
Analytical Met	100: 8260-LOW		76 WIOISLU	ie.	100
Sample wuwo	1: 25.0 Units: mL		Soil Extract	Vol:	սե
Soil Aliquot Vo	d: uL	*****			
File ID:	Dilution:	Date Analyzed	A	Analyti	cal Batch ID
VF001469.D	) 1	3/22/2006		VF031	906
CAS Number	Parameter	Conc.	Qualifier	RL	MDL Units
TARGETS					
74-87-3	Chloromethane	0.08	U	1.0	0.08 ug/L
75-01-4	Vinyl chloride	0.09	U	1.0	0.09 ug/L
74-83-9	Bromomethane	0.18	U	1.0	0.18 ug/L
75-00-3	Chloroethane	0.46	U	1.0	0.46 ug/L
75-69-4	Trichlorofluoromethane	0.10	U	1.0	0.10 ug/L
76-13-1	1,1.2-Trichlorotrifluoroethane	0.13	U	1.0	0.13 ug/L
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19 ug/L
67-64-1	Acetone	-1.6 R.	<del>-U-</del>	5.0	1.6 ug/L
75-15-0	Carbon disulfide	0.11	U	1.0	0.11 ug/L
1634-04-4	Methyl tert-butyl Ether	0.22	U	1.0	0.22 ug/L
79-20-9	Methyl Acetate	0.16	U	1.0	0.16 ug/L
75-09-2	Methylene Chloride	1.3 U·		1.0	0.42 ug/L
156-60-5	trans-1,2-Dichloroethene	0.10	U	1.0	0.10 ug/L
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17 ug/L
110-82-7	Cyclohexane	0.15	U	1.0	0.15 ug/L
78-93-3	2-Butanone	-0.23 R.	-U-	5.0	0.23 ug/L
56-23-5	Carbon Tetrachloride	0.16	U	1.0	0.16 ug/L
74-97-5	Bromochloromethane	0.14	U	1.0	0.14 ug/L
67-66-3	Chloroform	0.16	U	1.0	0.16 ug/L
71-55-6	1,1,1-Trichloroethane	0.16	U	1.0	0.16 ug/L
108-87-2	Methylcyclohexane	0.14	U	1.0	0.14 ug/L
71-43-2	Benzene	0.15	U	1.0	0.15 ug/L
107-06-2	1,2-Dichloroethane	0.13	U	1.0	0.13 ug/L
79-01-6	Trichloroethene	0.12	U	1.0	0.12 ug/L
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15 ug/L
75-27-4	Bromodichloromethane	0.14	U	1.0	0.14 ug/L
108-10-1	4-Methyl-2-Pentanone	0.46	U	5.0	0.46 ug/L
108-88-3	Toluene	0.11	U	1.0	0.11 ug/L
10061-02-6	t-1,3-Dichloropropene	0.10	U	1.0	0.10 ug/L
142-28-9	1,3-Dichloropropane	0.14	U	1.0	0.14 ug/L
591-78-6	2-Hexanone	R . 0.78 -0.51	- ++	5.0	0.57 ug/L
124-48-1	Dibromochloromethane	0.13	U	1.0	0.13 ug/L

# **Report of Analysis**

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

CHEMIECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922 **Report of Analysis** 

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Client:	TRC Environmental Corp., NY	Date Collected:	3/9/2006
Project:	Proj# 49632 Golden HorseShoe, Scar	Date Received:	3/10/2006
Client Sample ID:	TRC-MW-2	SDG No.:	X1904
Lab Sample ID:	X1904-02	Matrix:	WATER
Analytical Method:	8260-Low	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	uL		

File ID: **Dilution: Date Analyzed Analytical Batch ID** VF001469.D VF031906 1 3/22/2006 **CAS** Number Parameter Conc. Qualifier RL MDL Units 106-93-4 U ug/L 1,2-Dibromoethane 0.12 1.0 0.12 ug/L 127-18-4 Tetrachloroethene 0.12 U 1.0 0.12 U 0.11 ug/L 108-90-7 Chlorobenzene 0.11 1.0 U Ethyl Benzene 0.11 1.0 0.11 ug/L 100-41-4 U 0.24 ug/L 126777-61-2 m&p-Xylenes 0.24 1.0 95-47-6 o-Xylene 0.13 U 1.0 0.13 ug/L ·U 1.0 0.11 ug/L 100-42-5 Styrene 0.11 Isopropylbenzene 0.12 U 1.0 0.12 ug/L 98-82-8 0.09 ug/L 0.09 U 1.0 79-34-5 1,1,2,2-Tetrachloroethane U 1.0 0.17 ug/L 96-18-4 1,2,3-Trichloropropane 0.17 U 1.0 0.10 ug/L 0.10 103-65-1 n-propylbenzene 1,3,5-Trimethylbenzene 0.09 U 1.0 0.09 ug/L 108-67-8 U 1.0 0.15 ug/L 98-06-6 tert-Butylbenzene 0.15 95-63-6 1,2,4-Trimethylbenzene 0.10 U 1.0 0.10 ug/L 0.13 U 1.0 0.13 ug/L Sec-butylbenzene 135-98-8 0.13 U 1.0 0.13 ug/L 99-87-6 4-Isopropyltoluene 0.10 U 1.0 0.10 ug/L 1.3-Dichlorobenzene 541-73-1 0.12 1.4-Dichlorobenzene 0.12 U 1.0 ug/L 106-46-7 0.12 U 1.0 0.12 ug/L 104-51-8 n-Butylbenzene 95-50-1 1,2-Dichlorobenzene 0.08 U 1.0 0.08 ug/L 96-12-8 1,2-Dibromo-3-Chloropropane 0.20 U 1.0 0.20 ug/L 120-82-1 1,2,4-Trichlorobenzene 0.08 U 1.0 0.08 ug/L 87-61-6 1,2,3-Trichlorobenzene 0.10 U 1.0 0.10 ug/L SURROGATES SPK: 10 Dibromofluoromethane 9.68 97 % 85 - 115 1868-53-7 SPK: 10 17060-07-0 1,2-Dichloroethane-d4 9.85 99 % 72 - 119 Toluene-d8 10.17 102 % 81 - 120 SPK: 10 2037-26-5 460-00-4 4-Bromofluorobenzene 9.89 99 % 76 - 119 SPK: 10

#### INTERNAL STANDARDS

363-72-4	Pentafluorobenzene	1343545	7.98
540-36-3	1,4-Difluorobenzene	1752504	9.30
3114-55-4	Chlorobenzene-d5	1404660	15.25

U = Not Detected

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J = Estimated Value

B = Analyte Found in Associated Method Blank

CHEMIECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Client:	TRC Environmental Corp., NY	Date Collected:	3/9/2006
Project:	Proj# 49632 Golden HorseShoe, Scar	Date Received:	3/10/2006
Client Sample ID:	TRC-MW-2	SDG No.:	X1904
Lab Sample ID:	X1904-02	Matrix:	WATER
Analytical Method:	8260-Low	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	uL		

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ICOULT	UI.	Alla.	1 7 515

File ID:	Dilution:	Date Analyzed	A	Analytica	l Batch ID	
VF001469.]	D 1	3/22/2006		VF03190	6	
CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
3855-82-1	1,4-Dichlorobenzene-d4	775028	20.61			a na an

U = Not Detected RL = Reporting Limit MDL = Method Detection Limit E = Value Exceeds Calibration Range J = Estimated Value

B = Analyte Found in Associated Method Blank

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Client:	TRC Environmental Corp., NY	Date Collected:	3/9/2006
Project:	Proj# 49632 Golden HorseShoe, Scar	Date Received:	3/10/2006
Client Sample ID:	TRC-MW-3	SDG No.:	X1904
Lab Sample ID:	X1904-03	Matrix:	WATER
Analytical Method:	8260-Low	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	uL		

### Report of Analysis

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VF001468.D	1	3/21/2006	VF031906

CAS Number	Parameter	Conc.	Qualifier	RL	MDL Units
TARGETS					
74-87-3	Chloromethane	0.08	U	1.0	0.08 ug/L
75-01-4	Vinyl chloride	0.09	U	1.0	0.09 ug/L
74-83-9	Bromomethane	0.18	U	1.0	0.18 ug/L
75-00-3	Chloroethane	0.46	U	1.0	0.46 ug/L
75-69-4	Trichlorofluoromethane	0.10	U	1.0	0.10 ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.13	U	1.0	0.13 ug/L
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19 ug/L
67-64-1	Acetone	-1.6 R	·U·	5.0	1.6 ug/L
75-15-0	Carbon disulfide	0.11	U	1.0	0.11 ug/L
1634-04-4	Methyl tert-butyl Ether	0.22	U	1.0	0.22 ug/L
79-20-9	Methyl Acetate	0.16	U	1.0	0.16 ug/L
75-09-2	Methylene Chloride	1.1 U·		1.0	0.42 ug/L
156-60-5	trans-1,2-Dichloroethene	0.10	U	1.0	0.10 ug/L
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17 ug/L
110-82-7	Cyclohexane	0.15	U	1.0	0.15 ug/L
78-93-3	2-Butanone	-0.23 R ·	<del>-U-</del>	5.0	0.23 ug/L
56-23-5	Carbon Tetrachloride	0.16	U	1.0	0.16 ug/L
74-97-5	Bromochloromethane	0.14	U	1.0	0.14 ug/L
67-66-3	Chloroform	0.16	U	1.0	0.16 ug/L
71-55-6	1,1,1-Trichloroethane	0.16	U	1.0	0.16 ug/L
108-87-2	Methylcyclohexane	0.14	U	1.0	0.14 ug/L
71-43-2	Benzene	0.15	U	1.0	0.15 ug/L
107-06-2	1,2-Dichloroethane	0.13	U	1.0	0.13 ug/L
79-01-6	Trichloroethene	0.55	J	1.0	0.12 ug/L
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15 ug/L
75-27-4	Bromodichloromethane	0.14	U	1.0	0.14 ug/L
108-10-1	4-Methyl-2-Pentanone	0.46	U	5.0	0.46 ug/L
108-88-3	Toluene	0.32	J	1.0	0.11 ug/L
10061-02-6	t-1,3-Dichloropropene	0.10	U	1.0	0.10 ug/L
142-28-9	1,3-Dichloropropane	0.14	U	1.0	0.14 ug/L
591-78-6	2-Hexanone	-0.57 - R	<del>-U-</del>	5.0	0.57 ug/L
124-48-1	Dibromochloromethane	0.13	U	1.0	0.13 ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

# **Report of Analysis**

Client:	TRC Environmental Corp., NY	Date Collected:	3/9/2006
Project:	Proj# 49632 Golden HorseShoe, Scar	Date Received:	3/10/2006
Client Sample ID:	TRC-MW-3	SDG No.:	X1904
Lab Sample ID:	X1904-03	Matrix:	WATER
Analytical Method:	8260-Low	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	Analytical Batch ID	
VF001468.D	1	3/21/2006	VF031906	

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12	ug/L
127-18-4	Tetrachloroethene	0.12	U	1.0	0.12	ug/L
108-90-7	Chlorobenzene	0.11	U	1.0	0.11	ug/L
100-41-4	Ethyl Benzene	0.11	U	1.0	0.11	ug/L
126777-61-2	m&p-Xylenes	0.65	J	1.0	0.24	ug/L
95-47-6	o-Xylene	0.13	U	1.0	0.13	ug/L
100-42-5	Styrene	0.11	U	1.0	0.11	ug/L
98-82-8	Isopropylbenzene	0.12	U	1.0	0.12	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.09	U	1.0	0.09	ug/L
96-18-4	1,2,3-Trichloropropane	0.17	U	1.0	0.17	ug/L
103-65-1	n-propylbenzene	0.10	U	1.0	0.10	ug/L
108-67-8	1,3,5-Trimethylbenzene	0.09	U	1.0	0.09	ug/L
98-06-6	tert-Butylbenzene	0.15	U	1.0	0.15	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.10	U	1.0	0.10	ug/L
135-98-8	Sec-butylbenzene	0.13	U	1.0	0.13	ug/L
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13	ug/L
541-73-1	1,3-Dichlorobenzene	0.10	U	1.0	0.10	ug/L
106-46-7	1,4-Dichlorobenzene	0.12	U	1.0	0.12	ug/L
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12	ug/L
95-50-1	1,2-Dichlorobenzene	0.08	U	1.0	0.08	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.20	U	1.0	0.20	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.08	U	1.0	0.08	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.10	U	1.0	0.10	ug/L
SURROGATES						
1868-53-7	Dibromofluoromethane	10.44	104 %	85 - 115		SPK: 10
17060-07-0	1,2-Dichloroethane-d4	11.59	116 %	72 - 119		SPK: 10
2037-26-5	Toluene-d8	10.16	102 %	81 - 120		SPK: 10
460-00-4	4-Bromofluorobenzene	10.45	105 %	76 - 119		SPK: 10
INTERNAL STA	NDARDS					
363-72-4	Pentafluorobenzene	1144672	7.97			
540-36-3	1,4-Difluorobenzene	1516035	9.29			
3114-55-4	Chlorobenzene-d5	1228258	15.26			

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3855-82-1

1,4-Dichlorobenzene-d4

GENTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Client: Project: Client Sample ID: Lab Sample ID: Analytical Method: Sample Wt/Wol: Soil Aliquot Vol:	TRC Environmental Co Proj# 49632 Golden Ho TRC-MW-3 X1904-03 8260-Low 25.0 Units: mL uL	rp., NY rseShoe, Scar	Date Collected: Date Received: SDG No.: Matrix: % Moisture: Soil Extract Vol:	3/9/2006 3/10/2006 X1904 WATER 100	uL
File ID:	Dilution:	Date Analyzed	ed Analytical Batch ID		
VF001468.D	1	3/21/2006	VF031906		
CAS Number Para	ameter	Conc.	Qualifier RL MDL Units		

716368

20.61

# **Report of Analysis**

U = Not Detected RL = Reporting Limit MDL = Method Detection Limit E = Value Exceeds Calibration Range J = Estimated Value

B = Analyte Found in Associated Method Blank

# CHEMITECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:	TRC Environmental Corp., NY	Date Collected:	3/9/2006
Project:	Proj# 49632 Golden HorseShoe, Scar	Date Received:	3/10/2006
Client Sample ID:	TRC-MW-4	SDG No.:	'X1904
Lab Sample ID:	X1904-04	Matrix:	WATER
Analytical Method:	8260-Low	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	uL		

File ID: VF001440.	Dilution: D 1	Date Analyzed 3/19/2006		Analytical 1 VF031906	Batch ID	
CAS Number	, Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
74-87-3	Chloromethane	0.08	U	1.0	0.08	ug/L
75-01-4	Vinyl chloride	0.09	U	1.0	0.09	ug/L
74-83-9	Bromomethane	0.18	U	1.0	0.18	ug/L
75-00-3	Chloroethane	0.46	U	1.0	0.46	ug/L
75-69-4	Trichlorofluoromethane	0.10	U	1.0	0.10	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.13	U	1.0	0.13	ug/L
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19	ug/L
67-64-1	Acetone	-1.6 - R.	<del>-U</del> -	5.0	1.6	ug/L
75-15-0	Carbon disulfide	0.11	U	1.0	0.11	ug/L
1634-04-4	Methyl tert-butyl Ether	0.22	U	1.0	0.22	ug/L
79-20-9	Methyl Acetate	0.16	U	1.0	0.16	ug/L
75-09-2	Methylene Chloride	0.42	U	1.0	0.42	ug/L
156-60-5	trans-1,2-Dichloroethene	0.10	U	1.0	0.10	ug/L
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17	ug/L
110-82-7	Cyclohexane	0.15	U	1.0	0.15	ug/L
78-93-3	2-Butanone	-0.23 R .	-U-	5.0	0.23	ug/L
56-23-5	Carbon Tetrachloride	0.16	U	1.0	0.16	ug/L
74-97-5	Bromochloromethane	0.14	U	1.0	0.14	ug/L
67-66-3	Chloroform	0.16	U	1.0	0.16	ug/L
71-55-6	1,1,1-Trichloroethane	0.16	U	1.0	0.16	ug/L
108-87-2	Methylcyclohexane	0.14	U	1.0	0.14	ug/L
71-43-2	Benzene	0.15	U	1.0	0.15	ug/L
107-06-2	1,2-Dichloroethane	0.13	U	1.0	0.13	ug/L
79-01-6	Trichloroethene	0.41	J	1.0	0.12	ug/L
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15	ug/L
75-27-4	Bromodichloromethane	0.14	U	1.0	0.14	ug/L
108-10-1	4-Methyl-2-Pentanone	0.46	U	5.0	0.46	ug/L
108-88-3	Toluene	0.11	U	1.0	0.11	ug/L
10061-02-6	t-1,3-Dichloropropene	0.10	U	1.0	0.10	ug/L
142-28-9	1,3-Dichloropropane	0.14	U	1.0	0.14	ug/L
591-78-6	2-Hexanone	-0.57 R.	-U-	5.0	0.57	ug/L
124-48-1	Dibromochloromethane	0.13	U	1.0	0.13	ug/L

U = Not Detected

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J = Estimated Value

B = Analyte Found in Associated Method Blank

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922 **Report of Analysis** 

Client:	TRC Environmental Corp., NY	Date Collected:	3/9/2006
Project:	Proj# 49632 Golden HorseShoe, Scar	Date Received:	3/10/2006
Client Sample ID:	TRC-MW-4	SDG No.:	X1904
Lab Sample ID:	X1904-04	Matrix:	WATER
Analytical Method:	8260-Low	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	uL		

File ID:	Dilution:	Date Analyzed	1	Analytical H	Batch ID	
VF001440.D	1	3/19/2006	-	VF031906		
CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12	ug/L
127-18-4	Tetrachloroethene	3.1		1.0	0.12	ug/L
108-90-7	Chlorobenzene	0.11	U	1.0	0.11	ug/L
100-41-4	Ethyl Benzene	0.11	U	1.0	0.11	ug/L
126777-61-2	m&p-Xylenes	0.24	U	1.0	0.24	ug/L
95-47-6	o-Xylene	0.13	U	1.0	0.13	ug/L
100-42-5	Styrene	0.11	U	1.0	0.11	ug/L
98-82-8	Isopropylbenzene	0.12	U	1.0	0.12	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.09	U	1.0	0.09	ug/L
96-18-4	1,2,3-Trichloropropane	0.17	U	1.0	0.17	ug/L
103-65-1	n-propylbenzene	0.10	U	1.0	0.10	ug/L
108-67-8	1,3,5-Trimethylbenzene	0.09	U	1.0	0.09	ug/L
98-06-6	tert-Butylbenzene	0.15	U	1.0	0.15	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.10	U	1.0	0.10	ug/L
135-98-8	Sec-butylbenzene	0.13	U	1.0	0.13	ug/L
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13	ug/L
541-73-1	1,3-Dichlorobenzene	0.10	U	1.0	0.10	ug/L
106-46-7	1,4-Dichlorobenzene	0.12	U	1.0	0.12	ug/L
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12	ug/L
95-50-1	1,2-Dichlorobenzene	0.08	U	1.0	0.08	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.20	U	1.0	0.20	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.08	U	1.0	0.08	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.10	U	1.0	0.10	ug/L
SURROGATES						
1868-53-7	Dibromofluoromethane	10.33	103 %	85 - 115		SPK: 10
17060-07-0	1,2-Dichloroethane-d4	11.16	112 %	72 - 119		SPK: 10
2037-26-5	Toluene-d8	10.16	102 %	81 - 120		SPK: 10
460-00-4	4-Bromofluorobenzene	10.68	107 %	76 - 119		SPK: 10
INTERNAL STA	NDARDS					
363-72-4	Pentafluorobenzene	1339492	7.98			
540-36-3	1,4-Difluorobenzene	1723010	9.30			
3114-55-4	Chlorobenzene-d5	1391476	15.25			

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CHEMIECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Client: Project:	TRC Environmental Corp., NY Proj# 49632 Golden HorseShoe, Scar		Date Collected: Date Received:	3/9/2006 3/10/2006
Client Sample ID:	TRC-MW-4		SDG No.:	X1904
Lab Sample ID:	X1904-04		Matrix:	WATER
Analytical Method:	8260-Low		% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL		Soil Extract Vol:	uL
Soil Aliquot Vol:	uL	-		
File ID:	Dilution:	Date Analyzed	Analytical Batch ID	
VF001440.D	1	3/19/2006	VF031906	

# **Report of Analysis**

CAS Number Parameter Conc. Qualifier 3855-82-1 1,4-Dichlorobenzene-d4 825667 20.60

U = Not Detected RL = Reporting Limit MDL = Method Detection Limit E = Value Exceeds Calibration Range J = Estimated Value

B = Analyte Found in Associated Method Blank

RL

MDL Units