Dalton, Olmsted & Fuglevand, Inc. *Environmental Consultants*

6034 N Star Rd. • Ferndale, Washington 98248
Telephone (360) 380-0862 (FAX 360-380-0862)
Cell (206) 498-6616 e-mail: mdalton@dofnw.com
(Kirkland, WA Office – 425-827-4588)

MEMORANDUM

TO: Dave Maryatt – American Linen

FROM: Matt Dalton

DATE: December 21, 2004

SUBJECT: Results of Ground Water Sampling
American Linen Site
773 Valley Street, Seattle, Washington

REF. NO: SUM-002 (GMW3 memo 12-04.doc)

CC: Ralph Palumbo – Summit Law Group

This memorandum presents the results of our recent ground-water sampling and analysis at the American Linen site at 773 Valley Street, Seattle, Washington. The purpose of the sampling was to generally assess current ground-water quality conditions on the down gradient (south east) portion of the site. Wells R-MW4, R-MW6 and G-MW3 were to be sampled. Well locations are shown on Figure 1 along with the estimated area where high concentrations of solvents are present based on previous soil and ground-water sampling and analysis.

An attempt to sample the wells was made on December 10, 2004. Only one of the three proposed well locations (G-MW3) was successfully sampled for the following reasons:

- R-MW4 appears to have been destroyed when a new pump station was installed by METRO.
- R-MW6 had only about a half of foot of water in the well and did not recover after bailing. The observed water was likely trapped in the end cap of the well.

A sample from G-MW3 was obtained using a bailer. Approximately four casing volumes were removed from the well prior to sampling. The sample was submitted to CCI Laboratories, Everett, Washington for analysis of volatile organic constituents (VOCs) including common solvents. Field measurements are summarized below. Laboratory data sheets are provided in Attachment A.

Field Measurements (12-10-04)

Depth to Water – 15.3 feet (measured from top of PVC riser pipe)
Height of Water in Well – 10.6 feet
pH – 6.7
Electrical conductivity – 758 us
Temperature – 16.4 degrees centigrade

ANALTYICAL RESULTS

G-MW3 was previously sampled by Geoengineers in July 2001. The December 2004 and July 2001 sample results along with cleanup levels (based on drinking water standards) contained in the Washington State Model Toxics Control Act (MTCA) are summarized below. Method A values are listed except for cis-1,2-dichloroethene where the Method B value is listed.

Constituent	July 2001	December 2004	Cleanup Level
Benzene	0.52	<2	5
Toluene	6.9	7	1000
Ethylbenzene	0.46	<2	700
Xylenes	2.1	2	1000
Tetrachloroethene	47700	220000	5
Trichloroethene	385	1200	5
Cis-1,2-Dichloroethene	----	570	70
Vinyl Chloride	42.5	19	0.2

Note: Concentrations in ug/l [parts per billion (ppb)].

Comparison of the July 2001 and December 2004 results indicates that at G-MW3 petroleum hydrocarbon constituents (benzene, toluene, ethylbenzene and xylenes) meet cleanup levels. However, concentrations of the dry-cleaning solvent tetrachloroethene and breakdown products (trichloroethene, cis-1,2-dichloroethene, vinyl chloride) exceed cleanup levels.

The December 2004 concentrations are higher than the July 2001 concentrations. This does not necessarily mean concentrations have increased; rather it is likely the results indicate seasonal and sampling variability. The data also indicate that separate phase solvent may be present that can also introduce wide variability in the sample results. The December 2004 sample concentration exceeded the equilibrium solubility in water for tetrachloroethene of approximately 150,000 ug/l (Howard 1990). Pankow and Cherry (1996) suggest that separate phase solvent is likely present if concentrations exceed 10% of the equilibrium solubility in water.

LIMITATIONS

The services described in this memorandum were performed consistent with generally accepted professional consulting principles and practices. No other warranty, expressed or implied, is made. This report is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

Opinions and recommendations contained in this report apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this report.

REFERENCES

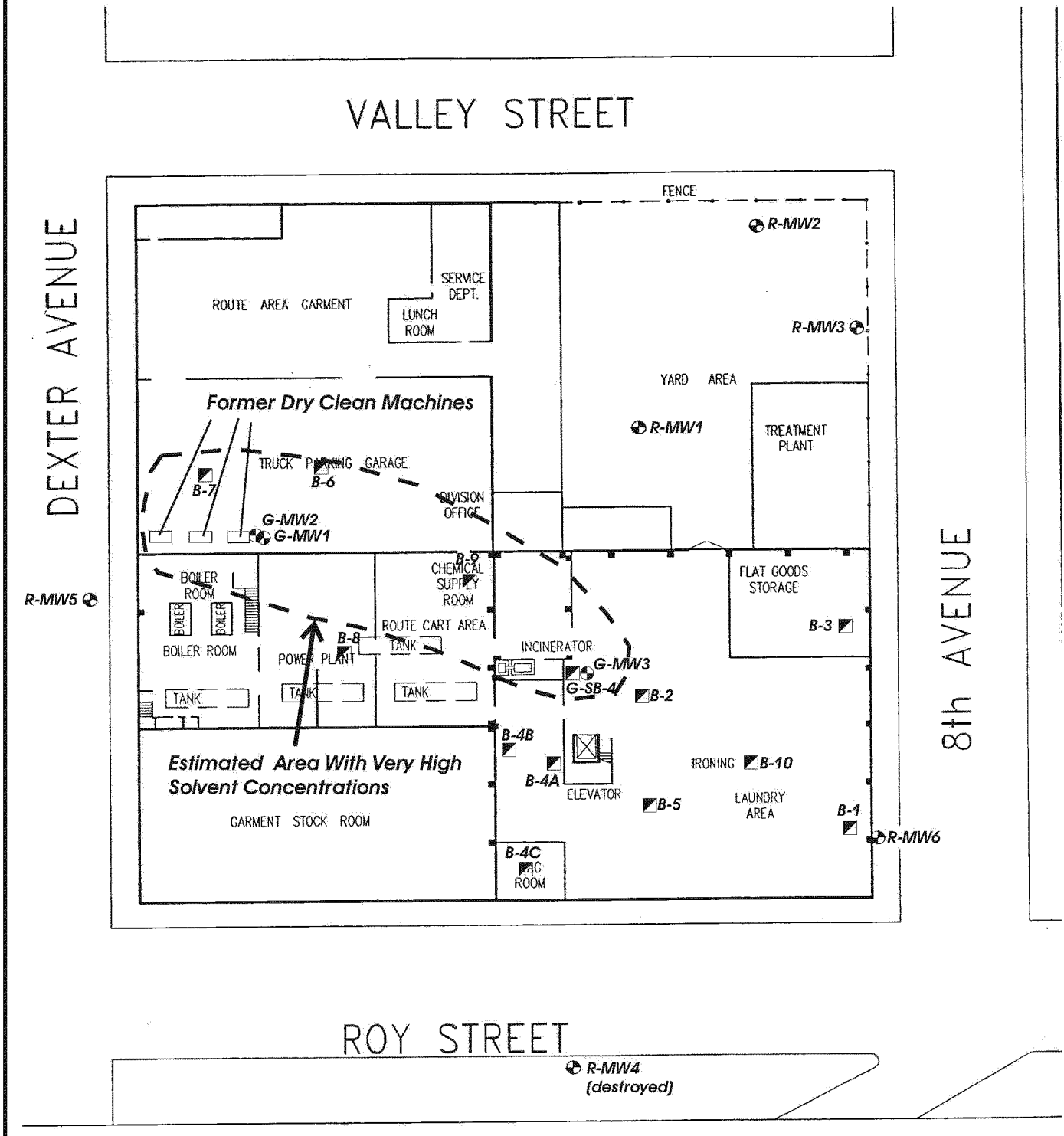
Howard, P.H., 1990, Handbook of Environmental Fate and Exposure Data for Organic Chemicals, Volume II Solvents, Lewis Publishers, Chelsea, Michigan.

Pankow, J.F. and J.A. Cherry, 1996, Dense Chlorinated Solvents and other DNAPLs in Groundwater, Waterloo Press, Portland, OR.

Attachments

Figure 1 – Well Locations and Estimated Area With Very High Solvent Concentrations

Attachment A – Laboratory Data Sheets



Ref: Sol Area.cdr

American Linen Property
773 Valley Street, Seattle, Washington

Well Locations and Estimated Area With Very High Solvent Concentrations

SUM-002 **FIGURE 1** Dec. 2004

Dalton, Olmsted & Fuglevand, Inc.

ATTACHMENT A
Laboratory Data Sheets

CERTIFICATE OF ANALYSIS

CLIENT: DALTON OLMSTED & FUGLEVAND, INC.
6034 N. STAR RD.
FERNDALE, WA 98248

DATE: 12/17/2004
CCIL JOB #: 412066
CCIL SAMPLE #: 1
DATE RECEIVED: 12/10/2004
WDOE ACCREDITATION #: C142

CLIENT CONTACT: MATT DALTON

CLIENT PROJECT ID: AMERICAN LINEN
CLIENT SAMPLE ID: G-MW3 12/10/04 1000

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
DICHLORODIFLUOROMETHANE	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN
CHLOROMETHANE	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN
VINYL CHLORIDE	EPA-8260	19	UG/L	12/13/2004	CCN
BROMOMETHANE	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN
CHLOROETHANE	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN
TRICHLOROFLUOROMETHANE	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN
ACETONE	EPA-8260	ND(<25)	UG/L	12/13/2004	CCN
1,1-DICHLOROETHENE	EPA-8260	12	UG/L	12/13/2004	CCN
METHYLENE CHLORIDE	EPA-8260	ND(<5)	UG/L	12/13/2004	CCN
ACRYLONITRILE	EPA-8260	ND(<10)	UG/L	12/13/2004	CCN
METHYL T-BUTYL ETHER	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN
TRANS-1,2-DICHLOROETHENE	EPA-8260	6	UG/L	12/13/2004	CCN
1,1-DICHLOROETHANE	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN
2-BUTANONE	EPA-8260	ND(<10)	UG/L	12/13/2004	CCN
CIS-1,2-DICHLOROETHENE	EPA-8260	570	UG/L	12/13/2004	CCN
2,2-DICHLOROPROPANE	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN
BROMOCHLOROMETHANE	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN
CHLOROFORM	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN
1,1,1-TRICHLOROETHANE	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN
1,1-DICHLOROPROPENE	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN
CARBON TETRACHLORIDE	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN
1,2-DICHLOROETHANE	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN
BENZENE	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN
TRICHLOROETHENE	EPA-8260	1200	UG/L	12/13/2004	CCN
1,2-DICHLOROPROPANE	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN
DIBROMOMETHANE	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN
BROMODICHLOROMETHANE	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN
TRANS-1,3-DICHLOROPROPENE	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN
4-METHYL-2-PENTANONE	EPA-8260	ND(<10)	UG/L	12/13/2004	CCN
TOLUENE	EPA-8260	7	UG/L	12/13/2004	CCN
CIS-1,3-DICHLOROPROPENE	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN
1,1,2-TRICHLOROETHANE	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN
2-HEXANONE	EPA-8260	ND(<10)	UG/L	12/13/2004	CCN
1,3-DICHLOROPROPANE	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN
TETRACHLOROETHYLENE	EPA-8260	220000	UG/L	12/13/2004	CCN
DIBROMOCHLOROMETHANE	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN
1,2-DIBROMOETHANE	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN
CHLOROBENZENE	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN

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CLIENT SAMPLE ID: G-MW3 12/10/04 1000

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1,1,1,2-TETRACHLOROETHANE	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN
ETHYLBENZENE	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN
M+P XYLENE	EPA-8260	ND(<4)	UG/L	12/13/2004	CCN
STYRENE	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN
O-XYLENE	EPA-8260	2	UG/L	12/13/2004	CCN
BROMOFORM	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN
ISOPROPYLBENZENE	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN
1,1,2,2-TETRACHLOROETHANE	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN
1,2,3-TRICHLOROPROPANE	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN
BROMOBENZENE	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN
N-PROPYL BENZENE	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN
2-CHLOROTOLUENE	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN
1,3,5-TRIMETHYLBENZENE	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN
4-CHLOROTOLUENE	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN
T-BUTYL BENZENE	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN
1,2,4-TRIMETHYLBENZENE	EPA-8260	4	UG/L	12/13/2004	CCN
S-BUTYL BENZENE	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN
P-ISOPROPYLTOLUENE	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN
1,3 DICHLOROBENZENE	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN
1,4-DICHLOROBENZENE	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN
N-BUTYLBENZENE	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN
1,2-DICHLOROBENZENE	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN
1,2-DIBROMO 3-CHLOROPROPANE	EPA-8260	ND(<10)	UG/L	12/13/2004	CCN
1,2,4-TRICHLOROBENZENE	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN
HEXACHLOROBUTADIENE	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN
NAPHTHALENE	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN
1,2,3-TRICHLOROBENZENE	EPA-8260	ND(<2)	UG/L	12/13/2004	CCN

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* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

APPROVED BY: