

September 2008 Groundwater Monitoring
LeatherCare, Inc.
901/921 Elliott Avenue West
Seattle, Washington
VCP # NW1805

January 15, 2009

Prepared For:
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901 Elliott Avenue West
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CDM Project No. 56498-68247

A Report Prepared For:
LeatherCare, Inc.
901 Elliott Avenue West
Seattle, Washington 98119

**SEPTEMBER 2008 GROUNDWATER MONITORING
LEATHERCARE INC
901/921 ELLIOTT AVENUE W
SEATTLE, WASHINGTON
VCP #NW1805**

January 15, 2009

A handwritten signature in cursive script that reads "Mary Lou Fox". The signature is written in black ink and is positioned above a solid horizontal line.

Mary Lou Fox
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Contents

Section 1 Introduction

1.1	General	1-1
1.2	Background.....	1-1
1.3	Purpose and Scope of Work	1-2

Section 2 Field Investigation Methods

2.1	Water Levels	2-1
2.2	Water Sampling.....	2-1
2.3	Laboratory Analysis	2-1

Section 3 Findings and Discussion

3.1	Water Levels	3-1
3.2	Field Monitored Parameters.....	3-1
3.3	Groundwater Analytical Results	3-2
3.3.1	PCE	3-2
3.3.2	TCE	3-2
3.3.3	c-1,2-DCE, t-1,2-DCE, 1,1-DCE.....	3-2
3.3.4	Vinyl Chloride.....	3-3
3.3.5	Dissolved Gasses.....	3-3
3.4	cVOC Trends	3-3

Section 4 Conclusions and Recommendations 4-1

Section 5 References 5-1

Distribution

Tables

Figures

Appendix A Analytical Laboratory Reports

Tables

Table 1	Groundwater Elevation Data
Table 2	Groundwater Analytical Summary - LeatherCare, Greg Thompson Productions, and W. Roy Street Properties
Table 3	Mann-Kendall Statistical Summary

Figures

Figure 1	Vicinity Map
Figure 2	Site Plan
Figure 3	Potentiometric Surface Map - September 24, 2008

Section 1

Introduction

1.1 General

This report presents the results of the ninth round (September 2008) of ongoing groundwater monitoring for the LeatherCare, Inc. site located at 901 & 921 Elliott Avenue West in Seattle, Washington (**Figure 1**). Camp Dresser & McKee Inc. (CDM) is conducting this work on behalf of LeatherCare, Inc. (LeatherCare) in accordance with the Master Environmental Services Agreement dated March 18, 2007 between LeatherCare and CDM, and CDM's proposal dated September 12, 2008. Site work is being conducted under the Washington State Department of Ecology's (Ecology) Voluntary Cleanup Program (VCP). The VCP site number is NW1805.

1.2 Background

LeatherCare is a large, industrial dry cleaning facility that has occupied this location since 1985. LeatherCare initially used tetrachloroethene (PCE) as a dry cleaning solvent. PCE use was discontinued in phases beginning in March 2000. The replacement of PCE dry cleaning machines was completed in October 2005.

In July 2006, CDM completed an assessment of volatile organic compounds (VOCs) and petroleum hydrocarbons throughout the LeatherCare parcel, an adjacent parcel to the northwest (also owned by Mr. Ritt), West Roy Street to the southwest, and the Darigold property (formerly referred to as WestFarm Foods) north and central parking lots. (CDM, 2006) The Darigold property is currently owned by Elliott Holding Company, Inc. (Elliott Holding). The two Ritt-owned parcels and W Roy Street are collectively referred to as the "Subject Property." **Figure 2** shows the layout of the Subject Property and the former layout of the Darigold property (prior to current ongoing redevelopment activities).

PCE and/or its degradation products were identified in groundwater in areas of the Subject Property, but at relatively low concentrations. The contaminant profile across the Subject Property was found to be indicative of small, incidental releases that may have occurred at several locations. PCE concentrations are not high enough to be indicative of the presence of free phase product.

Low concentrations of chlorinated VOCs (cVOCs), in particular, vinyl chloride, which is the last degradation product of PCE prior to degradation into nontoxic compounds, also occurred in the former north parking lot area of the Darigold property where there was also a petroleum hydrocarbon plume that originated on the Darigold property.

CDM's investigations indicate that biological degradation processes are actively occurring to reduce cVOC concentrations, as based on field monitoring and chemical and biological testing data conducted in soil and groundwater, along with historical groundwater chemical data collected throughout the Investigation Area.

Elliott Holding began redevelopment of the Darigold property in 2007. According to a Cleanup Action Plan completed by ENTRIX, Inc. in July 2007, the redevelopment was intended to be completed in 2008, but it is apparent that this schedule will not be met. The planned development includes two 4-story commercial buildings, a plaza, and an underground parking structure beneath the entire complex. The parking level foundation will be as much as 20 feet below existing grade. A subsurface impermeable cutoff pile wall has been installed to enable construction of the below ground parking structure. At the time of CDM's September 2008 groundwater monitoring round, construction was occurring on Elliott Holding's property.

1.3 Purpose and Scope of Work

The purpose of continued groundwater monitoring over time is to establish the natural variation in contaminant concentrations (i.e., seasonal), to confirm that the plume is continuing to collapse, to characterize degradation processes, and to confirm natural attenuation of cVOCs. During the first three groundwater monitoring rounds CDM collected samples from monitoring wells in the Darigold north parking lot. After that, these wells were dropped from the monitoring schedule due to imminent construction activities and limitations on access. ENTRIX continued to sample these wells for a period of time, but it is presumed that groundwater monitoring ceased on the Darigold site by December 2007 when construction began.

The scope of work completed during this sampling event consisted of the following:

- Conducted a complete round of water level measurements for all existing monitoring wells throughout the Subject Property.
- Purged each of the groundwater monitoring wells on the Subject Property and collected data on field measured parameters.
- Collected groundwater samples and submitted them for laboratory analysis of selected cVOCs and dissolved gasses (ethane, ethene, and methane).
- Evaluated the data and prepared this report documenting our findings and conclusions.

Section 2

Field Investigation Methods

Groundwater monitoring was conducted on September 24, 2008. Monitored wells included GT1 through GT3, LC1 through LC3, and LC6. Monitoring wells LC4 and LC5 have apparently been destroyed by Elliot Holding's construction activities. This section describes the field and analytical methods employed.

2.1 Water Levels

Water levels were measured in all monitoring wells throughout the Subject Property between 10:05 am and 10:42 am on September 24, 2008. Water levels were measured using a SINCO electronic sounder.

2.2 Water Sampling

Each monitoring well/piezometer was purged prior to collecting groundwater samples using dedicated stainless steel bladder pumps with Teflon lined tubing. Each well was purged at a rate of approximately 200 to 250 milliliters per minute (ml/min). Physical parameters were monitored during purging using a YSI meter. In order to minimize contact with ambient air, the YSI meter was secured in a flow-through cell that was situated after the pump and before the purge water tubing discharge. Parameters measured during purging included: pH, temperature, specific conductance (SC), turbidity, and dissolved oxygen (DO). The wells were purged until the physical parameter measurements stabilized.

The samples were collected by disconnecting the tubing from the flow-through cell and directly discharging the water into laboratory-supplied containers appropriate for the analyses to be conducted. Collected samples were stored in chilled coolers and delivered under chain-of-custody protocol to the analytical laboratories described in Section 2.3.

2.3 Laboratory Analysis

CDM submitted the groundwater samples to Analytical Resources Inc. (ARI) in Tukwila, Washington and MicroSeeps in Pittsburg, Pennsylvania.

ARI conducted analyses for cVOCs by EPA Method 8260B (using a 20-milliliter purge volume for groundwater in order to reach detection limits of 0.2 micrograms per liter [$\mu\text{g}/\text{L}$]). Specifically, the analytes included PCE, trichloroethene (TCE), *cis*-1,2-dichloroethene (*c*-1,2-DCE), *trans*-1,2-dichloroethene (*t*-1,2-DCE), 1,1-dichloroethene (1,1-DCE), and vinyl chloride (VC).

MicroSeeps conducted analyses of the dissolved gasses methane, ethane, and ethene by method AM20GAX on all of the groundwater samples.

Section 3

Findings and Discussion

3.1 Water Levels

Water levels and elevations are summarized on **Table 1**. Water levels ranged between 1.63 and 5.55 feet below the top of the well casings (the well casings start approximately 3 to 6 inches below ground surface), which correspond to the water table elevations ranging from 10.52 to 11.32 feet. Water levels dropped in all wells by between 0.25 and 0.34 feet between the June 2008 and September 2008 sampling rounds. This drop is consistent with a lower water table at the end of summer.

Figure 3 shows the potentiometric surface on September 24, 2008. Groundwater contours for September 24, 2008 are consistent with those observed during prior sampling rounds. From the LeatherCare building, the groundwater flow direction is toward the north. Without LC4 and/or LC5, no gradient can be ascertained for W. Roy Street.

3.2 Field Monitored Parameters

A discussion of field measured parameters is provided below and the data are summarized in **Table 2**.

Temperature: Groundwater temperatures varied between 17.6 and 22.1 degrees Celsius (°C). As expected, temperatures in the groundwater are warmer at the end of summer, as opposed to the spring groundwater temperatures.

Dissolved Oxygen: DO concentrations ranged from approximately 0.08 to 1.36 milligrams per liter (mg/L). DO concentrations less than 0.5 mg/L are indicative of anoxic conditions, which may be conducive for reductive dechlorination. The DO values for all wells except LC1 exceeded 0.5 mg/L. While higher DO concentrations are not conducive for reductive dechlorination, they can be conducive for degradation of VC via oxidation.

Oxidation-Reduction Potential: ORP was not measured during the September 2008 sampling round.

Specific Conductance: SC values ranged between 774 and 1,353 microsiemens per centimeter ($\mu\text{S}/\text{cm}$). Overall, SC values were slightly lower than observed for the June 2008 sampling round. The SC value for GT3 was approximately half of the value observed in the June 2008 sampling round.

pH: The pH values ranged between approximately 6.55 and 6.72 standard units (SU) for all wells except GT1. The pH value for GT1 was 3.97. This low value is an anomaly and is suspected to be due to a malfunction of the meter.

Ferrous Iron: Ferrous iron was not measured during the September 2008 sampling round.

Turbidity: Turbidity values were higher than in previous sampling rounds with values from 18.2 to 187 nephelometric turbidity units (NTU). GT3, which showed the highest value at 187 NTU, consistently contains an orange or brown biofloc. The turbidity measurements for the September 2008 sampling round were significantly higher than in previous rounds. Unlike prior sampling rounds, the turbidity measurements taken during the September sampling round were taken from water being discharged from the flow-through cell, which, for many of the wells, contained biofloc that influences the turbidity values. It was noted that the water used to fill the bottles for the analytical work, which was not passed through the flow-through cell, was clear for all samples except GT3, which had a slightly orange color.

3.3 Groundwater Analytical Results

Copies of the analytical reports are included in **Appendix A**. Current and historical groundwater analytical data, as well as field measured and general groundwater chemistry data, are summarized in **Table 2**. Contaminant concentrations are compared against Model Toxics Control Act (MTCA) Method A groundwater cleanup levels. In the absence of Method A cleanup levels, contaminant concentrations are compared against Method B cleanup levels as obtained from Ecology's Cleanup Levels and Risk Calculations (CLARC) database.

3.3.1 PCE

PCE was detected in three of the seven groundwater samples and ranged from 3.2 to 5.8 µg/L when detected. The detections of 5.8 and 5.1 µg/L in the LC1 and LC3 samples, respectively, exceeded the Method A cleanup level of 5 µg/L. Typically, PCE detections at LC1 and LC3 sometimes slightly exceed the Method A cleanup level. The PCE concentrations are lower than the previous sampling round.

3.3.2 TCE

TCE was detected in all of the seven groundwater samples, except GT1. The TCE concentration in only one of the samples, LC1 exceeded the Method A cleanup level (5 µg/L) slightly at 5.1 µg/L.

3.3.3 *c*-1,2-DCE, *t*-1,2-DCE, 1,1-DCE

Of these degradation products of PCE, *c*-1,2-DCE was detected in all seven groundwater samples, *t*-1,2-DCE in three samples, and 1,1-DCE was not detected in any sample. Concentrations ranged between 1 and 20 µg/L when detected. The concentrations of *c*-1,2-DCE and *t*-1,2-DCE did not exceed their Method B cleanup levels (80 and 160 µg/L, respectively) in any samples.

3.3.4 Vinyl Chloride

Vinyl chloride was detected in six groundwater samples ranging between 0.2 and 16 µg/L when detected. VC continues to be below detection limits in the most downgradient well on the GTP parcel, even with the site's highest VC concentration being observed at the next upgradient well (GT2), only 110 feet away. The VC concentration at LC6 remained unchanged from the June 2008 sampling round at 0.2 µg/L, the Method A cleanup level. The VC concentration at LC3 remained unchanged from the June 2008 sampling round at 0.9 µg/L while the VC concentrations at the remaining wells increased as compared to the June 2008 sampling event, but are within the typical concentration ranges for these wells.

3.3.5 Dissolved Gasses

Methane was detected in every groundwater sample, ranging between 73 µg/L and 370 µg/L. The presence of methane is indicative of methanogenesis—a favorable condition for reductive dechlorination. Ethene, the end product of the reductive dechlorination of PCE, was detected in all six of the wells at concentrations ranging between 0.034 µg/L and 1.0 µg/L. Ethane was detected in all groundwater samples at concentrations ranging between 0.064 µg/L and 0.27 µg/L.

Ethene concentrations are the highest at GT2 and GT3 where the VC concentrations are the highest, indicating complete natural breakdown of PCE to nontoxic compounds and elements.

3.4 cVOC Trends

CDM applied the Mann-Kendall statistical test to the cVOCs on the Subject Property. The Mann-Kendall test indicates the presence or absence of a statistically significant increasing or decreasing trend in concentrations at a monitoring point. The results of the Mann-Kendall trend analysis are summarized on Table 3.

Decreasing trends are noted for VC concentrations at all of the wells, except GT3, where an increasing trend was observed with a probability value of $p=0.46$, which is not significant (i.e. $p \leq 0.1$). Probability values for the decreasing trends at LC3 and LC6 improved. The probability values for a decreasing trend for VC at GT2, LC1, and LC2 increased from the previous round (June 2008), although the value for LC2 remains significant (i.e. $p \leq 0.1$). PCE and TCE concentrations continue to show a mix of decreasing and increasing trends. The trend at GT2 for PCE changed from increasing in the June 2008 round to no trend currently with a probability value of $p=0.5$. The exceedance of the TCE cleanup level at LC1 in the September 2008 sampling event was by less than 0.2 µg/L, while the PCE exceedances of the PCE cleanup level at LC1 and LC3 were by less than 1 µg/L. As indicated previously, because the Mann Kendall does not account for seasonal variations, it is not going to accurately predict the PCE and TCE trends until there is a sufficient amount of data to overcome bias from the seasonal high fluctuations.

Section 4

Conclusions and Recommendations

Overall, VC concentrations continue to show decreasing trends. PCE concentrations in two wells and the TCE concentration in one well continue to fluctuate around the cleanup level.

Based on these findings, CDM continues to recommend implementation of a program of regular groundwater sampling to ensure that monitored natural attenuation is a viable remedial approach for this site. Unfortunately, the two monitoring wells lost as a result of construction activities cannot be replaced until after the construction activities have ceased in this area.

Section 5

References

CDM. 2006. Contamination Assessment, LeatherCare, Inc. 901/921 Elliott Avenue, Seattle, Washington. CDM Project No. 38057-47522. July 25.

Entrix, Inc. 2007. Cleanup Action Plan, Darigold Facility - VCP NW 1267, 635 Elliott Avenue West, Seattle, WA. Prepared for Elliott Holding Company, L.L.C. Seattle, WA. July 2007.

Distribution

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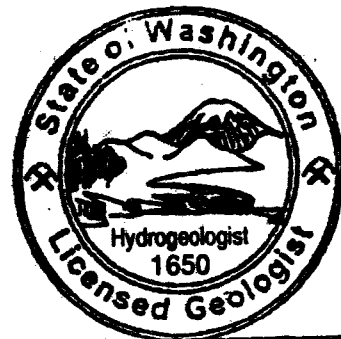
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Tables

Table 1
Groundwater Elevation Data
 LeatherCare, Inc.
 Seattle, Washington

Monitoring Well I.D.	Date Measured	Time (hours)	Top of Casing Elevation ^a (feet)	Depth to Groundwater (ft below TOC)	Groundwater Elevation (feet)
GT1	05/10/06	0912	12.74	1.84	10.90
	09/05/06	0955		2.46	10.28
	02/12/07	0918		1.69	11.05
	06/20/07	0857		2.13	10.61
	09/19/07	0904		2.46	10.28
	12/19/07	0940		1.20	11.54
	03/19/08	0908		1.80	10.94
	06/18/08	0825		1.95	10.79
	09/24/08	1005		2.22	10.52
GT2	05/10/06	0910	12.45	1.23	11.22
	09/05/06	1000		1.99	10.46
	02/12/07	0920		1.09	11.36
	06/20/07	0853		2.56	9.89 NU
	09/19/07	0911		1.94	10.51
	12/19/07	0936		0.67	11.78
	03/19/08	0904		1.18	11.27
	06/18/08	0822		1.35	11.10
	09/24/08	1015		1.63	10.82
GT3	05/10/06	0909	13.36	2.18	11.18
	09/05/06	1004		2.91	10.45
	02/12/07	0922		1.95	11.41
	06/20/07	0851		2.49	10.87
	09/19/07	0907		2.94	10.42
	12/19/07	0916		1.64	11.72
	03/19/08	0914		2.12	11.24
	06/18/08	0820		2.21	11.15
	09/24/08	1020		2.54	10.82
LC1	05/10/06	0916	13.17	1.57	11.60
	09/05/06	1010		2.43	10.74
	02/12/07	0941		1.40	11.77
	06/20/07	0844		1.99	11.18
	09/19/07	0904		2.46	10.71
	12/19/07	0954		1.01	12.16
	03/19/08	0857		1.54	11.63
	06/18/08	0836		1.55	11.62
	09/24/08	1034		1.89	11.28
LC2	05/10/06	0919	13.41	2.01	11.40
	09/05/06	1012		2.74	10.67
	02/12/07	0943		1.80	11.61
	06/20/07			2.35	11.06
	09/19/07	0901		2.75	10.66
	12/19/07	0948		1.23	12.18
	03/19/08	0859		1.90	11.51
	06/18/08	0832		2.05	11.36
	09/24/08	1030		2.30	11.11

Table 1
Groundwater Elevation Data

LeatherCare, Inc.
Seattle, Washington

Monitoring Well I.D.	Date Measured	Time (hours)	Top of Casing Elevation ^a (feet)	Depth to Groundwater (ft below TOC)	Groundwater Elevation (feet)
LC3	05/10/06	0925	14.16	2.56	11.60
	09/05/06	1014		3.41	10.75
	02/12/07			2.37	11.79
	06/20/07	0837		2.98	11.18
	09/19/07	0853		3.48	10.68
	12/19/07	0906		1.99	12.17
	03/19/08	0847		2.55	11.61
	06/18/08	0839		2.58	11.58
	09/24/08	1038		2.84	11.32
LC4	05/10/06	0921	14.72	3.16	11.56
	09/05/06	1026		3.99	10.73
	02/12/07			2.93	11.79
	06/20/07	0832		3.59	11.13
	09/19/07	0845		4.09	10.63
	12/19/07	0856		2.48	12.24
	03/19/08	b		--	--
LC5	05/10/06	0922	14.13	2.57	11.56
	09/05/06	1030		3.46	10.67
	02/12/07			2.37	11.76
	06/20/07	0834		2.97	11.16
	09/19/07	0858		3.48	10.65
	12/19/07	0901		1.89	12.24
	03/19/08	1114		2.49	11.64
	06/18/08	b		--	--
LC6	05/10/06	0928	16.85	5.26	11.59
	09/05/06	1022		6.10	10.75
	02/12/07	0933		5.03	11.82
	06/20/07	0839		5.68	11.17
	09/19/07	0850		6.19	10.66
	12/19/07	0911		4.67	12.18
	03/19/08	0852		5.24	11.61
	06/18/08	0844		5.22	11.63
	09/24/08	1042		5.55	11.30

Notes:

- a) Top of casing elevations in feet relative to a brass monument located at the south corner of Elliot Avenue W. and W. Roy Street, marked as Elevation 19.78 feet. No verifiable City of Seattle datum could be found in the site area.
 - b) Well believed to have been destroyed by construction on adjacent property.
- ft bgs - feet below ground surface.
 -- not measured.
 NU - Data not used; measurement believed to have been misread.
 TOC - top of casing.

Table 2
Groundwater Analytical Summary - LeatherCare, Greg Thompson Productions, and W. Roy Street Properties
 LeatherCare, Inc.
 Seattle, Washington

Analyte	Date Sampled	Method A Cleanup Levels ^a	Monitoring Well I.D. ^b										Field Blank	Trip Blank
			GT1	GT2	GT3	LC1	LC2	LC3	LC4 ⁱ	LC5 ⁱ	LC6			
Field-Measured Parameters pH	05/06	N/A	7.23	7.03	7.10	7.05	7.43	6.95	7.18	6.95	6.99	--	--	
	09/06		7.33	7.19	7.13	7.19	7.26	7.07	7.03	7.05	7.07	--	--	
	02/07		6.77	6.64	6.57	6.46	6.42	6.62	6.06	6.43	6.70	--	--	
	06/07		7.15	7.01	6.95	6.99	7.23	7.00	6.97	6.91	6.90	--	--	
	09/07		7.11	7.00	6.88	7.00	7.16	6.92	6.83	6.88	6.91	--	--	
	12/07		7.47	7.42	7.30	6.50	7.36	7.45	6.42	6.59	7.02	--	--	
	03/08		7.75	7.77	7.51	7.67	8.04	8.36	--	8.42	8.19	--	--	
	06/08		7.23	6.89	6.97	***	6.96	6.70	--	--	6.96	--	--	
	09/08		***	6.59	6.55	6.62	6.72	6.58	--	--	6.66	--	--	
	ORP ^d (mV)	05/06	N/A	-33	-27	-56	-72	-152	-33	-50	-82	-50	--	--
09/06			-119	-97	-68	-113	-90	-71	-50	-107	-78	--	--	
02/07			-33	-2	17	-60	-32	56	80	-30	31	--	--	
06/07			-211	-171	-38	-61	-162	-183	-116	-214	-111	--	--	
09/07			-96	-95	-71	-125	-132	-83	-75	-126	-95	--	--	
12/07			**	**	**	**	**	**	**	**	**	--	--	
03/08			-54	-27	10	-28	-30	-59	--	-107	-43	--	--	
06/08			-57	-49	142	**	112	-17	--	--	-17	--	--	
09/08			--	--	--	--	--	--	--	--	--	--	--	
Temperature (°C)		05/06	N/A	16.0	16.2	15.1	18.3	18.2	15.9	14.1	13.8	14.2	--	--
	09/06		20.0	21.3	20.8	23.1	22.6	22.6	22.2	22.5	20.6	--	--	
	02/07		13.6	9.3	10.0	16.8	16.2	11.4	9.7	10.0	11.8	--	--	
	06/07		17.8	20.2	18.7	20.7	20.0	19.3	18.6	18.0	17.6	--	--	
	09/07		19.3	19.4	19.2	22.3	21.7	22.2	20.2	20.4	20.0	--	--	
	12/07		11.9	8.8	9.3	17.3	15.5	11.6	12.3	11.4	12.6	--	--	
	03/08		13.0	10.3	9.5	15.9	16.3	11.8	--	11.3	12.4	--	--	
	06/08		16.1	17.0	17.2	18.3	19.8	16.4	--	--	16.3	--	--	
	09/08		18.7	17.9	17.8	22.1	21.8	19.6	--	--	17.6	--	--	
	Specific Conductivity (µS/cm)	05/06	N/A	1,243	1,283	1,264	1,190	1,183	1,345	1,360	1,322	1,281	--	--
09/06			811	856	864	866	736	870	853	856	856	--	--	
02/07			831	971	915	951	519	1,020	496	795	948	--	--	
06/07			786	813	833	836	676	820	808	804	842	--	--	
09/07			808	844	879	873	622	841	737	824	828	--	--	
12/07			732	706	829	1,017	181	778	553	543	920	--	--	
03/08			637	915	926	928	518	902	--	114 ^j	970	--	--	
06/08			998	1,701	1,471	1,561	1,490	1,493	--	--	1,363	--	--	
09/08			774	1,236	798	1,318	963	1,269	--	--	1,353	--	--	
Dissolved Oxygen (mg/L)		05/06	N/A	0.70	0.34	0.70	0.24	0.40	0.42	0.43	0.33	0.39	--	--
	09/06		0.15	0.17	0.14	0.20	0.35	0.23	0.19	0.09	0.09	--	--	
	02/07		0.31 ^g	0.13 ^g	-- ^g	-- ^g	-- ^g	1.18 ^g	1.14 ^g	0.14 ^g	0.28 ^g	--	--	
	06/07		0.19	0.22	0.24	0.34	0.91	0.35	0.47	0.39	1.13	--	--	
	09/07		0.41	0.34	0.27	0.24	0.25	0.58	0.78	0.55	0.58	--	--	
	12/07		0.33	0.47	0.17	0.72	3.05	1.44	1.00	0.29	0.28	--	--	

Table 2
Groundwater Analytical Summary - LeatherCare, Greg Thompson Productions, and W. Roy Street Properties
 LeatherCare, Inc.
 Seattle, Washington

Analyte	Date Sampled	Method A Cleanup Levels ^a	Monitoring Well I.D. ^b									Field Blank	Trip Blank
			GT1	GT2	GT3	LC1	LC2	LC3	LC4 ^l	LC5 ^l	LC6		
Dissolved Oxygen (mg/L) (cont.)	03/08		0.34	0.34	1.28	0.31	1.12	0.44	--	0.37	0.34	--	--
	06/08		0.20	1.09	0.71	0.29	0.35	0.71	--	--	0.28	--	--
	09/08		1.32	1.12	1.06	0.08	0.84	1.36	--	--	1.34	--	--
Turbidity (NTU)	05/06	N/A	1.76	0.83	0.66	5.76	62 ^c	1.05	1.79	2.82	2.01	--	--
	09/06		*	0.47	0.70	0.7	*	5.5	2.4	1.8	*	--	--
	02/07		3.1 ^h	0.0 ^h	>999 ^h	0.0 ^h	0.0 ^h	22.4 ^h	0.0 ^h	16.3 ^h	26 ^h	--	--
	06/07		0.7	1.1	2.2	0.9	1.9	2.6	1.8	0.2	3.8	--	--
	09/07	N/A	0.9	0.9	1.6	*	0.5	2.3	6.5	0.14	3.8	--	--
	12/07		--	--	--	--	--	--	--	--	--	--	--
	03/08		16.9	8.8	168 ^k	2.3	0.7	20.9	--	9.6	4.4	--	--
	06/08		0.7	1.8	34.5/227 ^k	0.5	0.0 ^m	1.1	--	--	0.0 ^m	--	--
	09/08		54.8 ^h	53.2 ^h	187 ^h	18.2 ^h	48.2 ^h	179 ^h	--	--	44.6 ^h	--	--
Ferrous Iron (ppm)	05/06	N/A	0.1	0.2	0.2	0.5	0.3	0.3	0.2	1	0.5	--	--
	09/06		0.3	0.2	0.6	--	0.1	0.6	0.4	1	1	--	--
	02/07		0.4	0.6	0.3	0.6	--	0.2	0.1	1	0.4	--	--
	06/07		0.3	0.4	0.2	0.5	0	0.2	0.6	0.1	0.3	--	--
	09/07		0.2	0.3	0.2	0.4	0.2	0.4	0.6	0.8	0.8	--	--
	12/07		0.1	0	0	0.6	0	0.2	0.1	0.8	0.3	--	--
	03/08		0.3	0.8	0.4	0.4	0.1	0.4	--	0.8	0.4	--	--
	06/08		0.2	1	0	0.6	0	1	--	--	0.6	--	--
	09/08		--	--	--	--	--	--	--	--	--	--	--
Manganese (ppm)	06/07	N/A	0	0	0	0	0	0	0	0	0	--	--
Sulfide (ppm)	06/07	N/A	0	0	0	0	0	0	0	0	0	--	--
General Groundwater Chemistry													
Chloride (EPA Method 325.2) (mg/L)	05/06	N/A	7.4	7.9	16.5	20.5	8.8	16.1	6.8/6.7	14.0	17.5	--	--
Sulfate (EPA Method 375.2) (mg/L)	05/06	N/A	62.3	64.4	77.8	88.9	52.7	69.7	39.3/39.5	39.5	54.2	--	--
Chemical Oxygen Demand (EPA Method 410.4) (mg/L)	05/06	N/A	6.18	5.68	9.29	12.8	12.4	7.71	10.1/6.87	10.1	12.8	--	--
Alkalinity (SM 2320) (mg/L CaCO3)	05/06	N/A	336	406	358	368	309	398	233/233	372	401	--	--
Carbonate (SM 2320) (mg/L CaCO3)	05/06	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0/<1.0	<1.0	<1.0	--	--
Bicarbonate (SM 2320) (mg/L CaCO3)	05/06	N/A	336	406	358	368	309	398	233/233	372	401	--	--
Hydroxide (SM 2320) (mg/L CaCO3)	05/06	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0/<1.0	<1.0	<1.0	--	--
Dehalococcoides spp. (QCPR)^a	05/06	N/A	-	+	+	+	-	+	-/-	+	+	--	--
Reductive Dechlorination End Products (µg/L)													
Methane	05/06	N/A	98	140	100	110	590	33	98/87	220	77	--	--
	09/06		160	1,400	140/130	94	310	28	130	170	92	--	--
	02/07		150	510	51/50	45	710	96	88	140	150	--	--
	06/07		150	200	110	46	870	24	100/140	310	99	--	--
	09/07		130	2,100	120	86	520	100	130/130	500	28	--	--
	12/07		110	100	91	51	58	16	94/99	530	360	--	--

Table 2
Groundwater Analytical Summary - LeatherCare, Greg Thompson Productions, and W. Roy Street Properties

LeatherCare, Inc.
 Seattle, Washington

Analyte	Date Sampled	Method A Cleanup Levels ^a	Monitoring Well I.D. ^b										Field Blank	Trip Blank
			GT1	GT2	GT3	LC1	LC2	LC3	LC4 ⁱ	LC5 ⁱ	LC6			
Methane (cont.)	03/08		170	120	76/56	33	73	23	--	160	120	--	--	
	06/08		180	170	27	110	20	140	--	--	370	--	--	
	09/08		150	260	73	150	260	120	--	--	370	--	--	
Ethane	05/06	N/A	<12	<12	<12	<12	<12	<12	<12/<12	<12	<12	--	--	
	09/06		0.49	0.34	0.05/0.045	0.24	0.22	0.04	0.11	0.21	0.097	--	--	
	02/07		0.18	0.37	0.088/0.087	0.093	0.42	0.078	0.054	0.14	0.12	--	--	
	06/07		0.24	0.30	0.054	0.034	0.32	0.033	0.10/0.11	0.21	0.088	--	--	
	09/07		0.3	0.29	0.034	0.33	0.21	<0.025	0.052/0.052	0.22	<0.025	--	--	
	12/07		0.22	0.15	0.059	0.091	<0.025	0.030	0.081/0.084	0.28	0.058	--	--	
	03/08		0.098	0.23	0.052/0.045	0.040	0.038	0.026	--	0.16	0.065	--	--	
	06/08		0.22	0.29	0.037	0.087	0.053	0.044	--	--	0.067	--	--	
	09/08		0.18	0.27	0.068	0.11	0.073	0.064	--	--	0.11	--	--	
Ethene	05/06	N/A	<11	<11	<11	<11	<11	<11	<11/<11	<11	<11	--	--	
	09/06		0.041	1.8	0.21/0.19	0.82	0.46	<0.025	0.05	0.31	<0.025	--	--	
	02/07		0.031	1.2	0.079/0.072	0.034	0.92	0.035	0.046	0.21	0.046	--	--	
	06/07		0.083	1.4	0.15	0.11	0.29	0.10	0.15/0.080	0.29	0.094	--	--	
	09/07		<0.025	1.9	0.08	0.35	0.35	0.051	0.039/0.036	0.23	<0.025	--	--	
	12/07		<0.025	0.81	0.51	0.027	<0.025	0.22	0.029/0.034	0.18	<0.025	--	--	
	03/08		<0.025	0.9	0.16/0.13	0.028	<0.025	<0.025	--	0.12	<0.025	--	--	
	06/08		<0.025	0.65	0.1	<0.025	0.079	<0.025	--	--	<0.025	--	--	
	09/08		0.035	1.0	0.14	0.11	0.071	0.044	--	--	0.034	--	--	
Petroleum Hydrocarbons (NWTPH-Dx) (mg/L)														
Diesel	05/06	0.50	<0.25	0.32	<0.25	<0.25	<0.25	<0.25	<0.25/<0.25	0.35	0.35	--	--	
	09/06	0.50	<0.25	<0.25	<0.25/<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	--	--	
	02/07	0.50	--	--	--	--	--	0.28	<0.25	0.42/<0.25 ⁱ	0.76/<0.25 ⁱ	--	--	
Motor Oil	05/06	0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50/<0.50	<0.50	<0.50	--	--	
	09/06	0.50	<0.50	<0.50	<0.50/0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	
	02/07	0.50	--	--	--	--	--	<0.50	<0.50	<0.50/<0.5 ⁱ	<0.50/<0.5 ⁱ	--	--	
Detected Volatile Organic Compounds (EPA SW8260B) (µg/L)														
Tetrachloroethene	05/06	5	<0.2	<0.2	0.4	2.0	9.4	2.9	14/14	0.4	<0.2	<0.2	<0.2	
	09/06	5	<0.2	<0.2	<0.2/<0.2	4.4	9.3	2.8	8.6	<0.2	<0.2	--	--	
	02/07	5	<0.2	<0.2	0.4/0.4	2.2	2.5	5.9	20 ^D	0.3	<0.2	--	<0.2	
	06/07	5	<0.2	<0.2	<0.2	1.4	1.5	2.6	9.8/9.9	0.2	<0.2	--	--	
	09/07	5	<0.2	<0.2	<0.2	5.2	1.9	3.0	7.9/7.4	<0.2	<0.2	--	--	
	12/07	5	<0.2	<0.2	<0.2	4.5	2.7	6.8	25/23 ^D	1.0	<0.2	--	--	
	03/08	5	<0.2	<0.2	<0.2/<0.2	3.6	2.6	3.0	--	<0.2	<0.2	--	--	
	06/08	5	<0.2	<0.2	<0.2	6.2	3.3	6.8	--	--	<0.2	--	--	
	09/08	5	<0.2	<0.2	<0.2/<0.2	5.8	3.2	5.1	--	--	<0.2	--	--	
Trichloroethene	05/06	5	0.4	0.6	11	2.8	4	0.6	2.4/2.4	0.5	<0.2	<0.2	<0.2	
	09/06	5	0.3	0.6	1.2/1.2	6.5	3	1.2	2.9	0.4	0.3	--	--	
	02/07	5	0.4	0.4	6.3/6.9	2.8	1.4	1.2	3.8	1.0	0.2	--	<0.2	

Table 2
Groundwater Analytical Summary - LeatherCare, Greg Thompson Productions, and W. Roy Street Properties
 LeatherCare, Inc.
 Seattle, Washington

Analyte	Date Sampled	Method A Cleanup Levels ^a	Monitoring Well I.D. ^b									Field Blank	Trip Blank
			GT1	GT2	GT3	LC1	LC2	LC3	LC4 ¹	LC5 ¹	LC6		
Trichloroethene (cont.)	06/07	5	0.2	0.5	2.8	3.2	2.5	1.0	4.8/5.0	0.4	0.3	--	--
	09/07	5	<0.2	0.5	0.6	4.8	1.7	1.8	3.2/3.1	0.4	0.2	--	--
	12/07	5	<0.2	0.5	1.4	6.1	0.5	2.2	1.8/1.8	1.2	<0.2	--	--
	03/08	5	<0.2	0.6	2.6/2.6	4.6	1.3	0.8	--	0.8	<0.2	--	--
	06/08	5	<0.2	0.6	1.5	4.8	4.1	1.6	--	--	0.3	--	--
	09/08	5	<0.2	0.5	1.1/1.0	5.1	2.2	1.2	--	--	0.2	--	--
cis-1,2-Dichloroethene	05/06	80 ^f	4.2	16	49 D	5.9	14	2.4	7.6/7.9	3.4	2.4	<0.2	<0.2
	09/06	80 ^f	3.7	24 D	13/13	15	15	4.3	10	2.5	2.6	--	--
	02/07	80 ^f	4.9	10	35/34 D	6.3	8.4	2.4	7.7	4.9	2.5	--	<0.2
	06/07	80 ^f	3.0	22 D	16	7.6	5.0	2.4	8.6/9.0	1.6	1.8	--	--
	09/07	80 ^f	2.3	18 D	5.0	9.7	6.9	6.4	11/11	1.7	1.7	--	--
	12/07	80 ^f	1.8	12	14	9.9	1.2	8.0	7.7/7.7	4.6	1.7	--	--
	03/08	80 ^f	1.8	18 D	19/19	6.6	2.5	2.1	--	3.3	1.5	--	--
	06/08	80 ^f	2.0	11	15	4.6	7.0	2.7	--	--	1.3	--	--
	09/08	80 ^f	2.1	8.2	1	7.9	5.2	2.9	--	--	1.0	--	--
trans-1,2-Dichloroethene	05/06	160 ^f	<0.2	5	9.4	<0.2	0.9	<0.2	0.4/0.4	0.2	<0.2	<0.2	<0.2
	09/06	160 ^f	<0.2	6.9	5.4/5.4	0.4	1.3	<0.2	0.5	<0.2	<0.2	--	--
	02/07	160 ^f	0.2	3.3	5.1/5.2	<0.2	0.5	<0.2	0.3	0.3	<0.2	--	<0.2
	06/07	160 ^f	<0.2	4.8	4.5	<0.2	0.6	<0.2	0.4/0.5	<0.2	<0.2	--	--
	09/07	160 ^f	<0.2	5.3	2.4	<0.2	0.5	<0.2	0.3/0.4	<0.2	<0.2	--	--
	12/07	160 ^f	<0.2	2.9	4.2	<0.2	<0.2	<0.2	0.2/0.2	0.3	<0.2	--	--
	03/08	160 ^f	<0.2	3.1	3.3/3.1	<0.2	<0.2	<0.2	--	<0.2	<0.2	--	--
	06/08	160 ^f	<0.2	3.9	4.6	<0.2	<0.2	<0.2	--	--	<0.2	--	--
	09/08	160 ^f	<0.2	2.9	5.9/5.2	0.4	0.3	<0.2	--	--	<0.2	--	--
1,1-Dichloroethene	05/06	0.073 ^f	<0.2	<0.2	0.3	<0.2	<0.2	<0.2	<0.2/<0.2	<0.2	<0.2	<0.2	<0.2
	09/06	0.073 ^f	<0.2	<0.2	<0.2/<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	--	--
	02/07	0.073 ^f	<0.2	<0.2	<0.2/<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	--	<0.2
	06/07	0.073 ^f	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2/<0.2	<0.2	<0.2	--	--
	09/07	0.073 ^f	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2/<0.2	<0.2	<0.2	--	--
	12/07	0.073 ^f	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2/<0.2	<0.2	<0.2	--	--
	03/08	0.073 ^f	<0.2	<0.2	<0.2/<0.2	<0.2	<0.2	<0.2	--	<0.2	<0.2	--	--
	06/08	0.073 ^f	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	--	--	<0.2	--	--
	09/08	0.073 ^f	<0.2	<0.2	<0.2/<0.2	<0.2	<0.2	<0.2	--	--	<0.2	--	--
Vinyl Chloride	05/06	0.2	<0.2	19 D	9.7	1.1	2.8	2	2.6/2.6	4.8	1.2	<0.2	<0.2
	09/06	0.2	0.2	35 D	5.7/5.4	3.0	3.8	1.6	1.6	2.4	1.0	--	--
	02/07	0.2	<0.2	14	1.9/1.6	0.7	3.1	1.8	1.2	3.3	1.9	--	<0.2
	06/07	0.2	<0.2	12	2.3	0.9	1.8	0.6	1.2/1.2	1.5	0.7	--	--
	09/07	0.2	<0.2	22 D	2.1	1.4	1.4	1.0	0.8/0.8	1.3	0.3	--	--

Table 2
Groundwater Analytical Summary - LeatherCare, Greg Thompson Productions, and W. Roy Street Properties

LeatherCare, Inc.
 Seattle, Washington

Analyte	Date Sampled	Method A Cleanup Levels ^a	Monitoring Well I.D. ^b										
			GT1	GT2	GT3	LC1	LC2	LC3	LC4 ⁱ	LC5 ⁱ	LC6	Field Blank	Trip Blank
Vinyl Chloride (cont.)	12/07	0.2	<0.2	13	16	1.4	<0.2	5.6	1.2/1.1	3.5	1.8	--	--
	03/08	0.2	<0.2	12	2.8/2.4	0.7	0.3	0.8	--	1.9	1.1	--	--
	06/08	0.2	<0.2	18	4.8	0.3	0.5	0.9	--	--	0.2	--	--
	06/08	0.2	<0.2	16	5.2/4.6	0.9	1.1	0.9	--	--	0.2	--	--
1,1,1-Trichloroethane	05/06	200	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	<0.2/<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2-Trichloroethane	05/06	0.77 ^f	0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2/<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethane	05/06	800 ^f	<0.2	<0.2	<0.2	<0.2	0.9	<0.2	0.4/0.4	<0.2	<0.2	<0.2	<0.2
Benzene	05/06	5	<0.2	1.5	1.4	<0.2	0.4	<0.2	0.7/0.6	<0.2	<0.2	<0.2	<0.2
Toluene	05/06	1,000	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2/<0.2	<0.2	<0.2	0.4	<0.2
Dibromochloromethane	05/06	0.52 ^f	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2/<0.2	<0.2	<0.2	<0.2	<0.2
tert-Butylbenzene	05/06	N/A	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2/<0.2	<0.2	<0.2	<0.2	<0.2
Acetone	05/06	800 ^f	3.4 M	5.3 M	<1.0	1.5	2.3	1.3	1.5/1.7	2.1	1.7	5.2	1.5
Methylene Chloride	05/06	5	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3/<0.3	<0.3	<0.3	<0.3	0.4

Notes:

Bold and boxed values exceed Method A/B cleanup level.

* Turbidity meter malfunctioned; judged to be <10 NTU prior to sampling based on clarity of water.

** ORP meter malfunctioned.

*** pH connection believed to be bad

a) Washington Administrative Code Chapter 173-340, Model Toxics Control Act Cleanup Regulation, promulgated August 15, 2001. Method A suggested groundwater cleanup level used when available.

b) Second set of concentrations are from blind duplicate samples.

c) Water in LC2 had a strong hydrogen sulfide odor and would not clear up fully; suspect turbidity is suspended organics.

d) Silver-silver chloride reference electrode.

e) + means dehalococoides detected; - means dehalococoides not detected.

f) Method B cleanup level from Washington Dept. of Ecology's Cleanup Levels and Risk Calculations (CLARC) tables.

g) Dissolved oxygen meter not working correctly. Measurements, when provided, were taken on 2/20/07 and were in situ down hole measurements.

h) Turbidity readings taken from flow-cell and high turbidity readings influenced by biofloc.

i) Resampled and reanalyzed for TPH on February 20, 2007. The TPH analyses were run with a silica gel cleanup to remove interference by potential naturally occurring organics.

j) Value believed to be incorrect.

k) Turbidity influenced by biofloc.

l) Destroyed by construction.

m) "10" standard was checked and confirmed the correct instrument reading.

°C - degrees Celsius.

mV - millivolts.

NTU - Nephelometric turbidity units.

ORP - oxidation reduction potential.

N/A - not applicable.

µS/cm - microsiemens per centimeter.

µg/L - micrograms per liter.

mg/L - milligrams per liter.

ppm - parts per million.

J - estimated value.

D - value from a diluted sample.

M - estimated amount of analyte found and confirmed by analyst but with low GC/MS spectral match.

-- not analyzed or not measured.

< - analyte not detected at or greater than the listed concentration.

Table 3
Mann-Kendall Statistical Summary
 LeatherCare, Inc.
 Seattle, Washington

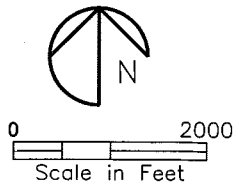
		GT1 Monitoring Well	GT2 Monitoring Well	GT3 Monitoring Well	LC1 Monitoring Well	LC2 Monitoring Well	LC3 Monitoring Well	LC6 Monitoring Well
1,1-Dichloroethene	Count (data)	9	9	9	9	9	9	9
	Count (nondetects)	9	9	8	9	9	9	9
	S Statistic	NC	NC	NC	NC	NC	NC	NC
	Var(S)	NC	NC	NC	NC	NC	NC	NC
	Trend	NC	NC	NC	NC	NC	NC	NC
	Probability (of no real trend)	NC	NC	NC	NC	NC	NC	NC
cis-1,2-Dichloroethene	Count (data)	9	9	9	9	9	9	9
	Count (nondetects)	0	0	0	0	0	0	0
	S Statistic	-21	-15	-2	0	-16	5	-31
	Var(S)	91	91	92	92	92	88	91
	Trend	Decreasing	Decreasing	Decreasing	None	Decreasing	Increasing	Decreasing
	Probability (of no real trend)	1.80%	7.11%	45.85%	50.00%	5.89%	33.52%	0.08%
Tetrachloroethene	Count (data)	9	9	9	9	9	9	9
	Count (nondetects)	9	9	7	0	0	0	9
	S Statistic	NC	NC	NC	18	-2	14	NC
	Var(S)	NC	NC	NC	92	92	90	NC
	Trend	NC	NC	NC	Increasing	Decreasing	Increasing	NC
	Probability (of no real trend)	NC	NC	NC	3.82%	45.85%	8.53%	NC
trans-1,2-Dichloroethene	Count (data)	9	9	9	9	9	9	9
	Count (nondetects)	8	0	0	7	3	9	9
	S Statistic	NC	-20	-10	NC	-22	NC	NC
	Var(S)	NC	90	92	NC	87	NC	NC
	Trend	NC	Decreasing	Decreasing	NC	Decreasing	NC	NC
	Probability (of no real trend)	NC	2.26%	17.40%	NC	1.23%	NC	NC
Trichloroethene	Count (data)	9	9	9	9	9	9	9
	Count (nondetects)	5	0	0	0	0	0	3
	S Statistic	NC	0	-13	12	-8	9	-2
	Var(S)	NC	75	91	90	92	88	60
	Trend	NC	None	Decreasing	Increasing	Decreasing	Increasing	Decreasing
	Probability (of no real trend)	NC	50.00%	10.42%	12.31%	23.28%	19.73%	44.86%
Vinyl Chloride	Count (data)	9	9	9	9	9	9	9
	Count (nondetects)	8	0	0	0	1	0	0
	S Statistic	NC	-9	2	-11	-20	-11	-17
	Var(S)	NC	91	92	89	92	91	91
	Trend	NC	Decreasing	Increasing	Decreasing	Decreasing	Decreasing	Decreasing
	Probability (of no real trend)	NC	20.08%	45.85%	14.46%	2.38%	14.73%	4.67%

Figures



INVESTIGATION
AREA

Source: USGS SEATTLE NORTH, 7.5 MIN. QUADRANGLE, 1973

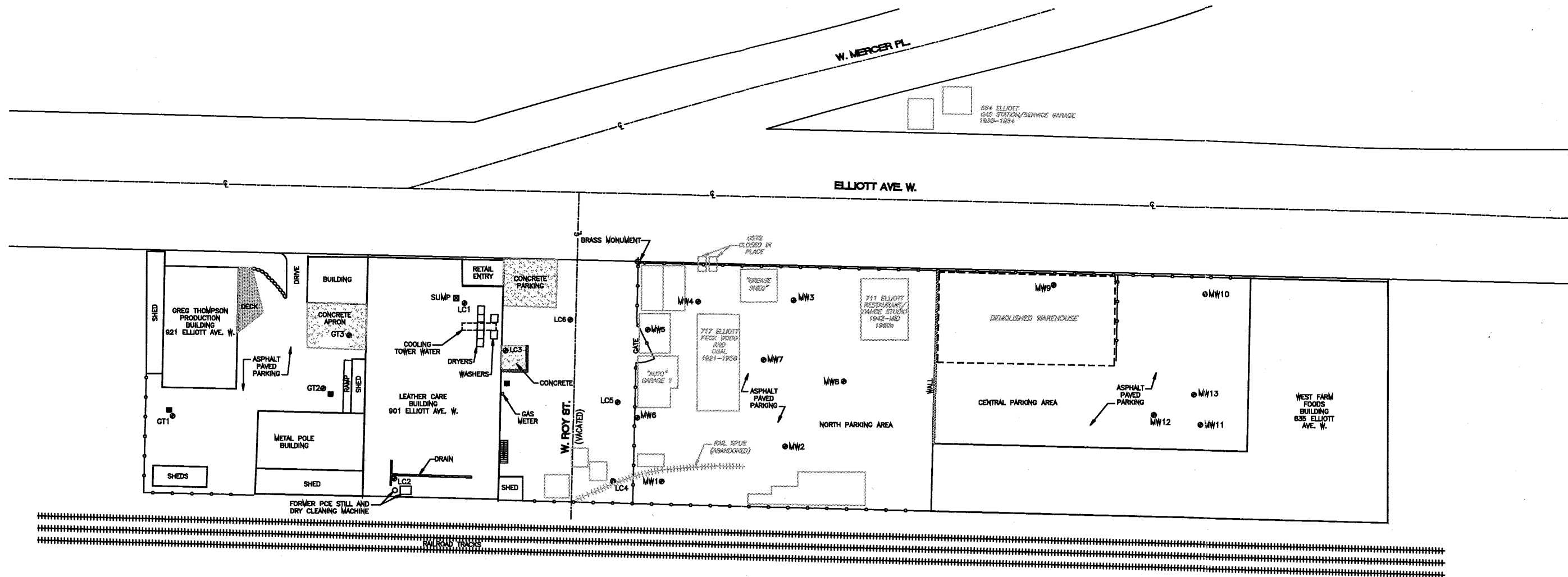


P:\56498\59679\Steve R.H\ Fig-1 07/09/07 09:39 riehlepj

CDM

LEATHERCARE INC.
SEATTLE, WASHINGTON

Figure No. 1
VICINITY MAP



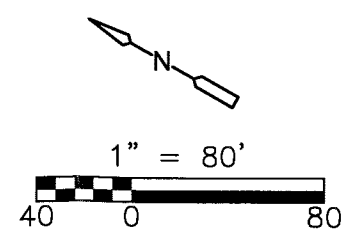
REFERENCES:

- SURVEY OF MONITORING WELL LOCATIONS BY APEX ENGINEERING ON MAY 10, 2006 USING AN ASSUMED VERTICAL DATUM AND BASIS OF BEARING.
- FIELD MEASUREMENTS OF LEATHERCARE AND GREG THOMPSON PRODUCTION BUILDINGS BY CDM ON MAY 10, 2006.
- ENTRIX, WEST FARM FOODS FIELD INVESTIGATION DATA SUMMARY REPORT, MAY 10, 2001, FIGURE 2.
- ENTRIX ENVIRONMENTAL DATA SUMMARY FROM PREVIOUS STUDIES AND REPORTS, WEST FARM FOODS SITE, MAY 10, 2001, FIGURE-3.
- HISTORICAL AERIAL PHOTOGRAPHS DATED 1936 AND 1946.
- SANBORN MAP DATED 1950.
- POLK DIRECTORIES DATED 1938-1996

- LEGEND:**
- MW1 ● MONITORING WELL LOCATION AND DESIGNATION AND ELEVATION IN FEET
 - FENCE
 - ++++ RAILROAD TRACKS
 - CATCH BASIN
 - HISTORICAL FEATURES HISTORICAL FEATURES
 - ◆ SURVEY MONUMENT

VERTICAL DATUM:
 STAMPED ON BRASS MONUMENT NOT TIED TO CITY OF SEATTLE (NOT PUBLISHED)

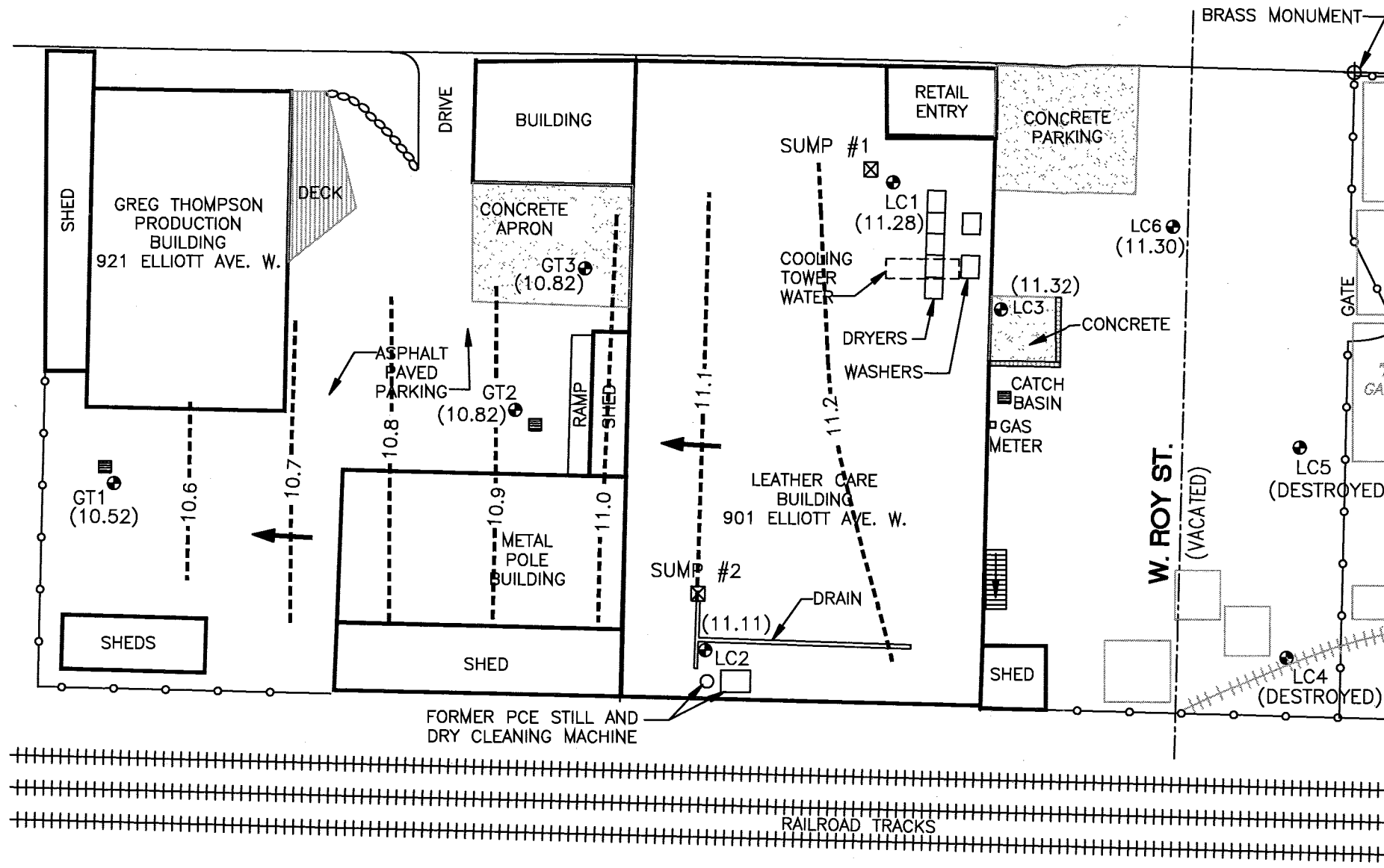
BASIS OF BEARING:
 BASIS OF BEARING ASSUMED DUE WEST



LEATHERCARE INC.
 SEATTLE, WASHINGTON

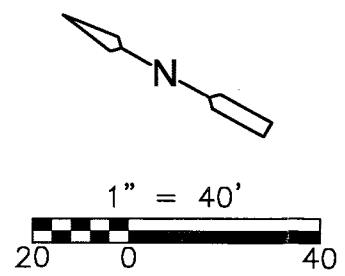
Figure No. 2
 SITE PLAN

P:\56498\68247\Fig-3 SEPT 24 2008 11/24/08 14:33 riehepj XREFS: 11X17BDR, DEC 12 07-site



REFERENCES:

- SURVEY OF MONITORING WELL LOCATIONS BY APEX ENGINEERING ON MAY 10, 2006 USING AN ASSUMED VERTICAL DATUM AND BASIS OF BEARING.
- FIELD MEASUREMENTS OF LEATHERCARE AND GREG THOMPSON PRODUCTION BUILDINGS BY CDM ON MAY 10, 2006.
- ENTRIX, WEST FARM FOODS FIELD INVESTIGATION DATA SUMMARY REPORT, MAY 10, 2001, FIGURE 2.
- ENTRIX ENVIRONMENTAL DATA SUMMARY FROM PREVIOUS STUDIES AND REPORTS, WEST FARM FOODS SITE, MAY 10, 2001, FIGURE-3.
- HISTORICAL AERIAL PHOTOGRAPHS DATED 1936 AND 1946.
- SANBORN MAP DATED 1950.
- POLK DIRECTORIES DATED 1938-1996



LEGEND:

- LC6 (11.30) MONITORING WELL LOCATION AND DESIGNATION WITH GROUNDWATER ELEVATION IN FEET
- 10.7 --- POTENTIOMETRIC CONTOURS, CONTOUR INTERVAL IS 0.1 FT. (AVERAGE) OR 0.05 FT.
- ← DIRECTION OF GROUNDWATER FLOW
- FENCE
- ++++ RAILROAD TRACKS
- CATCH BASIN
- INDICATES HISTORICAL FEATURES
- ⊕ SURVEY MONUMENT

VERTICAL DATUM:

STAMPED ON BRASS MONUMENT NOT TIED TO CITY OF SEATTLE (NOT PUBLISHED)

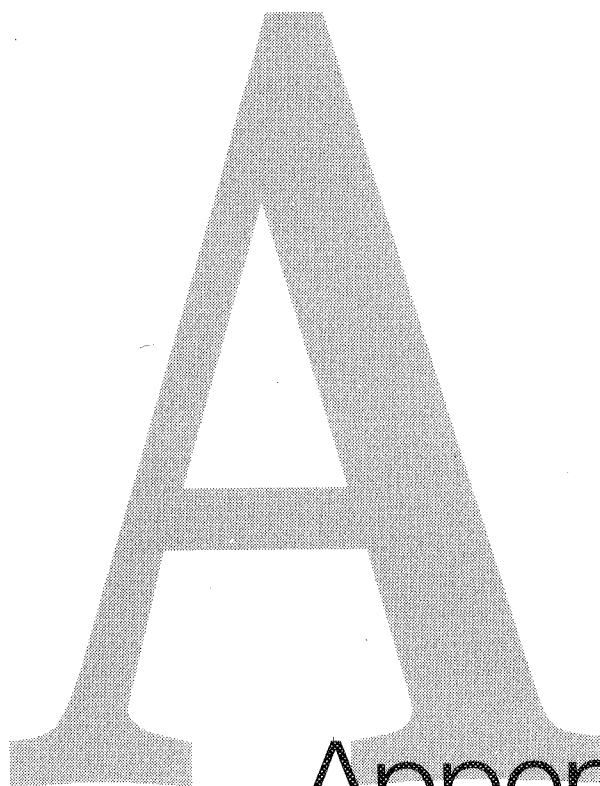
BASIS OF BEARING:

BASIS OF BEARING ASSUMED DUE WEST

LEATHERCARE
SEATTLE, WASHINGTON

Figure No. 3
Potentiometric Surface Map
September 24, 2008





Appendix
A

Appendix A

Analytical Laboratory Reports



Analytical Resources, Incorporated
Analytical Chemists and Consultants

October 3, 2008

Ms. Pam Morrill
CDM
11811 NE 1st, Suite 201
Bellevue, WA 98009

RE: Project ID: Leather Care
ARI Job No: NQ98

Dear Pam:

Please find enclosed the original chain of custody (COC) record, sample receipt documentation, and the final results for the samples from the project referenced above. Analytical Resources Inc. (ARI) accepted eight water samples and a trip blank on September 25, 2008. Please review the Cooler Receipt Form for more details.

The samples were analyzed for Volatile Organics by SW8260B, as requested on the COC.

The samples were analyzed within recommended holding times. There were no anomalies associated with the analyses of these samples.

A copy of this report as well as all supporting data will remain on file electronically with ARI. If you have any questions or require additional information, please contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

Susan D. Dunning
Director, Client Services
206-695-6207
sue@arilabs.com
www.arilabs.com

cc: Efile NQ98

Enclosures

007 07 2008

Chain of Custody Record & Laboratory Analysis Request



Analytical Resources, Incorporated
 Analytical Chemists and Consultants
 4611 South 134th Place, Suite 100
 Tukwila, WA 98168
 206-695-6200 206-695-6201 (fax)

ARI Assigned Number: NQ 98	Turn-around Requested: STD.	Page: 1 of 1
ARI Client Company: CDM	Phone: 425-453-8383	Date: 9/25/08 Ice Present? Y
Client Contact: Pam Morrill	No. of Coolers: 1	Cooler Temps: 7.2

Client Project Name: Leather Care	Analysis Requested	Notes/Comments
Client Project #:	HVOCs	

Sample ID	Date	Time	Matrix	No. Containers
GT 1	9/24/08	1200	W	3
GT 2		1245		
GT 3		1355		
GT 4		1455		
LC 1		1625		
LC 2		1540		
LC 3	✓	1440	✓	✓
LC 6	9/24/08	1710	W	3

Comments/Special Instructions	Relinquished by: (Signature) <i>August Weld</i>	Received by: (Signature) <i>[Signature]</i>	Relinquished by: (Signature)	Received by: (Signature)
	Printed Name: August Weld	Printed Name: Barbara Keizer	Printed Name:	Printed Name:
	Company: CDM	Company: ARI	Company:	Company:
	Date & Time: 9/25/08 1017	Date & Time: 9/25/08 1017	Date & Time:	Date & Time:

Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, notwithstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate



Cooler Receipt Form

ARI Client: CDM
COC No: _____
Assigned ARI Job No: NQ 98

Project Name: Leathercare
Delivered by: Hand
Tracking No: _____

Preliminary Examination Phase:

- Were intact, properly signed and dated custody seals attached to the outside of to cooler? YES NO
- Were custody papers included with the cooler? YES NO
- Were custody papers properly filled out (ink, signed, etc.) YES NO
- Record cooler temperature (recommended 2.0-6.0 °C for chemistry) 7.2 °C

Cooler Accepted by: [Signature] Date: 9/25/08 Time: 1017
Complete custody forms and attach all shipping documents

Log-In Phase:

- Was a temperature blank included in the cooler? YES NO
- What kind of packing material was used? SB
- Was sufficient ice used (if appropriate)? BC YES NO *
- Were all bottles sealed in individual plastic bags? YES NO
- Did all bottle arrive in good condition (unbroken)? YES NO
- Were all bottle labels complete and legible? YES NO
- Did all bottle labels and tags agree with custody papers? YES NO
- Were all bottles used correct for the requested analyses? YES NO
- Do any of the analyses (bottles) require preservation? (attach preservation checklist) YES NO
- Were all VOC vials free of air bubbles? NA YES NO *
- Was sufficient amount of sample sent in each bottle? YES NO

Samples Logged by: BC Complete Date: 9/25/08 Time: 1135

**** Notify Project Manager of discrepancies or concerns ****

Explain discrepancies or negative responses:

* - COOLER TEMP > 6.0°

to - Peakubbles in 2 of 3 vials for sample: LC 2

By: _____ Date: _____

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B

Page 1 of 1

Sample ID: GT1

SAMPLE

Lab Sample ID: NQ98A

LIMS ID: 08-25371

Matrix: Water

Data Release Authorized:

Reported: 10/02/08

QC Report No: NQ98-CDM, Inc.

Project: Leather Care

Date Sampled: 09/24/08

Date Received: 09/25/08

Instrument/Analyst: NT5/JZ

Date Analyzed: 09/29/08 19:01

Sample Amount: 20.0 mL

Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	2.1	
79-01-6	Trichloroethene	0.2	< 0.2	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	103%
d8-Toluene	98.5%
Bromofluorobenzene	103%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: GT2

Page 1 of 1

SAMPLE


Lab Sample ID: NQ98B

QC Report No: NQ98-CDM, Inc.

LIMS ID: 08-25372

Project: Leather Care

Matrix: Water

Data Release Authorized: 

Date Sampled: 09/24/08

Reported: 10/02/08

Date Received: 09/25/08

Instrument/Analyst: NT5/JZ

Sample Amount: 20.0 mL

Date Analyzed: 09/29/08 19:29

Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.2	16	
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	2.9	
156-59-2	cis-1,2-Dichloroethene	0.2	8.2	
79-01-6	Trichloroethene	0.2	0.5	
127-18-4	Tetrachloroethene	0.2	< 0.2	U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	108%
d8-Toluene	99.5%
Bromofluorobenzene	101%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B
Page 1 of 1

Sample ID: GT3
SAMPLE

Lab Sample ID: NQ98C

QC Report No: NQ98-CDM, Inc.

LIMS ID: 08-25373

Project: Leather Care

Matrix: Water

Data Release Authorized:

Date Sampled: 09/24/08

Reported: 10/02/08

Date Received: 09/25/08

Instrument/Analyst: NT5/JZ

Sample Amount: 20.0 mL

Date Analyzed: 09/29/08 19:56

Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.2	5.2	
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	5.9	
156-59-2	cis-1,2-Dichloroethene	0.2	19	E
79-01-6	Trichloroethene	0.2	1.1	
127-18-4	Tetrachloroethene	0.2	< 0.2	U

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	105%
d8-Toluene	99.0%
Bromofluorobenzene	99.5%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B
Page 1 of 1

Sample ID: GT3
DILUTION

Lab Sample ID: NQ98C
LIMS ID: 08-25373
Matrix: Water
Data Release Authorized: *[Signature]*
Reported: 10/02/08

QC Report No: NQ98-CDM, Inc.
Project: Leather Care

Date Sampled: 09/24/08
Date Received: 09/25/08

Instrument/Analyst: NT5/JZ
Date Analyzed: 09/30/08 17:48

Sample Amount: 6.67 mL
Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.6	5.7	
75-35-4	1,1-Dichloroethene	0.6	< 0.6	U
156-60-5	trans-1,2-Dichloroethene	0.6	6.1	
156-59-2	cis-1,2-Dichloroethene	0.6	20	
79-01-6	Trichloroethene	0.6	1.2	
127-18-4	Tetrachloroethene	0.6	< 0.6	U

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	113%
d8-Toluene	98.2%
Bromofluorobenzene	97.2%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B
Page 1 of 1

Sample ID: GT4
SAMPLE

Lab Sample ID: NQ98D

QC Report No: NQ98-CDM, Inc.

LIMS ID: 08-25374

Project: Leather Care

Matrix: Water

Data Release Authorized:

Date Sampled: 09/24/08

Reported: 10/02/08

Date Received: 09/25/08

Instrument/Analyst: NT5/JZ

Sample Amount: 20.0 mL

Date Analyzed: 09/29/08 20:24

Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.2	4.6	
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	5.2	
156-59-2	cis-1,2-Dichloroethene	0.2	18	E
79-01-6	Trichloroethene	0.2	1.0	
127-18-4	Tetrachloroethene	0.2	< 0.2	U

Reported in $\mu\text{g/L}$ (ppb)


Volatile Surrogate Recovery

d4-1,2-Dichloroethane	105%
d8-Toluene	93.8%
Bromofluorobenzene	99.0%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B
Page 1 of 1

Sample ID: GT4
DILUTION

Lab Sample ID: NQ98D
LIMS ID: 08-25374
Matrix: Water
Data Release Authorized: 
Reported: 10/02/08

QC Report No: NQ98-CDM, Inc.
Project: Leather Care

Date Sampled: 09/24/08
Date Received: 09/25/08

Instrument/Analyst: NT5/JZ
Date Analyzed: 09/30/08 18:15

Sample Amount: 6.67 mL
Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.6	5.7	
75-35-4	1,1-Dichloroethene	0.6	< 0.6	U
156-60-5	trans-1,2-Dichloroethene	0.6	6.2	
156-59-2	cis-1,2-Dichloroethene	0.6	20	
79-01-6	Trichloroethene	0.6	1.1	
127-18-4	Tetrachloroethene	0.6	< 0.6	U

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	112%
d8-Toluene	98.8%
Bromofluorobenzene	95.8%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B
Page 1 of 1

Sample ID: LC1
SAMPLE

Lab Sample ID: NQ98E

QC Report No: NQ98-CDM, Inc.

LIMS ID: 08-25375

Project: Leather Care

Matrix: Water

Date Sampled: 09/24/08

Data Release Authorized: *[Signature]*

Date Received: 09/25/08

Reported: 10/02/08

Instrument/Analyst: NT5/JZ

Sample Amount: 20.0 mL

Date Analyzed: 09/29/08 20:51

Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.2	0.9	
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	0.4	
156-59-2	cis-1,2-Dichloroethene	0.2	7.9	
79-01-6	Trichloroethene	0.2	5.1	
127-18-4	Tetrachloroethene	0.2	5.8	

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	108%
d8-Toluene	99.0%
Bromofluorobenzene	99.8%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B
Page 1 of 1


Sample ID: LC2
SAMPLE

Lab Sample ID: NQ98F

QC Report No: NQ98-CDM, Inc.
Project: Leather Care

LIMS ID: 08-25376

Matrix: Water

Data Release Authorized: 

Date Sampled: 09/24/08

Reported: 10/02/08

Date Received: 09/25/08

Instrument/Analyst: NT5/JZ

Sample Amount: 20.0 mL

Date Analyzed: 09/29/08 21:19

Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.2	1.1	
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	0.3	
156-59-2	cis-1,2-Dichloroethene	0.2	5.2	
79-01-6	Trichloroethene	0.2	2.2	
127-18-4	Tetrachloroethene	0.2	3.2	

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	108%
d8-Toluene	100%
Bromofluorobenzene	98.8%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B
Page 1 of 1

Sample ID: LC3
SAMPLE

Lab Sample ID: NQ98G

QC Report No: NQ98-CDM, Inc.

LIMS ID: 08-25377

Project: Leather Care

Matrix: Water

Data Release Authorized:

Date Sampled: 09/24/08

Reported: 10/02/08

Date Received: 09/25/08

Instrument/Analyst: NT5/JZ

Sample Amount: 20.0 mL

Date Analyzed: 09/29/08 21:46

Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.2	0.9	
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	2.9	
79-01-6	Trichloroethene	0.2	1.2	
127-18-4	Tetrachloroethene	0.2	5.1	

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	110%
d8-Toluene	99.0%
Bromofluorobenzene	97.2%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: LC6

Page 1 of 1

SAMPLE


Lab Sample ID: NQ98H

QC Report No: NQ98-CDM, Inc.

LIMS ID: 08-25378

Project: Leather Care

Matrix: Water

Data Release Authorized: 

Date Sampled: 09/24/08

Reported: 10/02/08

Date Received: 09/25/08

Instrument/Analyst: NT5/JZ

Sample Amount: 20.0 mL

Date Analyzed: 09/30/08 18:42

Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.2	0.2	
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	1.0	
79-01-6	Trichloroethene	0.2	0.2	
127-18-4	Tetrachloroethene	0.2	< 0.2	U

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	116%
d8-Toluene	99.8%
Bromofluorobenzene	96.0%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B
Page 1 of 1

Sample ID: TRIP BLANK
SAMPLE

Lab Sample ID: NQ98I
LIMS ID: 08-25386
Matrix: Water
Data Release Authorized:
Reported: 10/02/08

QC Report No: NQ98-CDM, Inc.
Project: Leather Care

Date Sampled: 09/24/08
Date Received: 09/25/08

Instrument/Analyst: NT5/JZ
Date Analyzed: 09/29/08 13:59

Sample Amount: 20.0 mL
Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	102%
d8-Toluene	102%
Bromofluorobenzene	99.8%

VOA SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: NQ98-CDM, Inc.
Project: Leather Care

ARI ID	Client ID	PV	DCE	TOL	BFB	DCB	TOT OUT
NQ98A	GT1	20	103%	98.5%	103%	NA	0
NQ98B	GT2	20	108%	99.5%	101%	NA	0
NQ98C	GT3	20	105%	99.0%	99.5%	NA	0
NQ98CRE	GT3	20	113%	98.2%	97.2%	NA	0
NQ98D	GT4	20	105%	93.8%	99.0%	NA	0
NQ98DRE	GT4	20	112%	98.8%	95.8%	NA	0
NQ98E	LC1	20	108%	99.0%	99.8%	NA	0
NQ98F	LC2	20	108%	100%	98.8%	NA	0
NQ98G	LC3	20	110%	99.0%	97.2%	NA	0
MB-093008	Method Blank	20	110%	101%	101%	NA	0
LCS-093008	Lab Control	20	108%	100%	102%	NA	0
LCSD-093008	Lab Control Dup	20	111%	100%	102%	NA	0
NQ98H	LC6	20	116%	99.8%	96.0%	NA	0
MB-092908	Method Blank	20	105%	100%	101%	NA	0
LCS-092908	Lab Control	20	104%	101%	102%	NA	0
LCSD-092908	Lab Control Dup	20	104%	100%	104%	NA	0
NQ98I	TRIP BLANK	20	102%	102%	99.8%	NA	0

LCS/MB LIMITS

QC LIMITS

SW8260B

(DCE) = d4-1,2-Dichloroethane
(TOL) = d8-Toluene
(BFB) = Bromofluorobenzene
(DCB) = d4-1,2-Dichlorobenzene

70-131
80-120
74-121
80-120

64-146
78-125
71-120
80-121

Prep Method: SW5030B
Log Number Range: 08-25371 to 08-25386

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B
Page 1 of 1

Sample ID: LCS-092908
LAB CONTROL SAMPLE

Lab Sample ID: LCS-092908
LIMS ID: 08-25386
Matrix: Water
Data Release Authorized:
Reported: 10/02/08

QC Report No: NQ98-CDM, Inc.
Project: Leather Care
Date Sampled: NA
Date Received: NA

Instrument/Analyst LCS: NT5/JZ
LCS: NT5/JZ
Date Analyzed LCS: 09/29/08 12:25
LCS: 09/29/08 12:54

Sample Amount LCS: 20.0 mL
LCS: 20.0 mL
Purge Volume LCS: 20.0 mL
LCS: 20.0 mL

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCS	Spike Added-LCS	LCS Recovery	RPD
Vinyl Chloride	4.0	4.0	100%	3.9	4.0	97.5%	2.5%
1,1-Dichloroethene	4.1	4.0	102%	4.0	4.0	100%	2.5%
trans-1,2-Dichloroethene	4.0	4.0	100%	4.0	4.0	100%	0.0%
cis-1,2-Dichloroethene	4.0	4.0	100%	4.0	4.0	100%	0.0%
Trichloroethene	4.1	4.0	102%	4.0	4.0	100%	2.5%
Tetrachloroethene	4.1	4.0	102%	3.9	4.0	97.5%	5.0%

Reported in $\mu\text{g/L}$ (ppb)

RPD calculated using sample concentrations per SW846.


Volatile Surrogate Recovery

	LCS	LCS
d4-1,2-Dichloroethane	104%	104%
d8-Toluene	101%	100%
Bromofluorobenzene	102%	104%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B
Page 1 of 1

Sample ID: LCS-093008
LAB CONTROL SAMPLE

Lab Sample ID: LCS-093008
LIMS ID: 08-25378
Matrix: Water
Data Release Authorized: 
Reported: 10/02/08

QC Report No: NQ98-CDM, Inc.
Project: Leather Care

Date Sampled: NA
Date Received: NA

Instrument/Analyst LCS: NT5/JZ
LCSD: NT5/JZ
Date Analyzed LCS: 09/30/08 11:21
LCSD: 09/30/08 12:46

Sample Amount LCS: 20.0 mL
LCSD: 20.0 mL
Purge Volume LCS: 20.0 mL
LCSD: 20.0 mL

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Vinyl Chloride	3.7	4.0	92.5%	4.2	4.0	105%	12.7%
1,1-Dichloroethene	3.8	4.0	95.0%	4.2	4.0	105%	10.0%
trans-1,2-Dichloroethene	3.8	4.0	95.0%	4.2	4.0	105%	10.0%
cis-1,2-Dichloroethene	3.8	4.0	95.0%	4.2	4.0	105%	10.0%
Trichloroethene	3.9	4.0	97.5%	4.2	4.0	105%	7.4%
Tetrachloroethene	3.6	4.0	90.0%	4.1	4.0	102%	13.0%

Reported in $\mu\text{g/L}$ (ppb)

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	108%	111%
d8-Toluene	100%	100%
Bromofluorobenzene	102%	102%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: MB-092908

Page 1 of 1

METHOD BLANK

Lab Sample ID: MB-092908

QC Report No: NQ98-CDM, Inc.

LIMS ID: 08-25386

Project: Leather Care

Matrix: Water

Data Release Authorized: 

Date Sampled: NA

Reported: 10/02/08

Date Received: NA

Instrument/Analyst: NT5/JZ

Sample Amount: 20.0 mL

Date Analyzed: 09/29/08 13:22

Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	105%
d8-Toluene	100%
Bromofluorobenzene	101%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B
Page 1 of 1

Sample ID: MB-093008
METHOD BLANK

Lab Sample ID: MB-093008

QC Report No: NQ98-CDM, Inc.

LIMS ID: 08-25378

Project: Leather Care

Matrix: Water

Data Release Authorized: *B*

Date Sampled: NA

Reported: 10/02/08

Date Received: NA

Instrument/Analyst: NT5/JZ

Sample Amount: 20.0 mL

Date Analyzed: 09/30/08 12:19

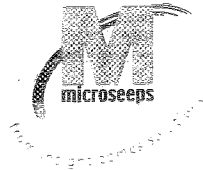
Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result	Q
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	110%
d8-Toluene	101%
Bromofluorobenzene	101%



OCT 07 2008

Client Name: Camp Dresser and McKee
Contact: Pam Morrill
Address: 11811 Northeast First Street
Suite 201
Bellevue, WA 98005

Page: Page 1 of 8
Lab Proj #: P0809342
Report Date: 10/03/08
Client Proj Name: Leathercare
Client Proj #: 56498-59679

Laboratory Results

Total pages in data package: 9

<u>Lab Sample #</u>	<u>Client Sample ID</u>
P0809342-01	GT1
P0809342-02	GT2
P0809342-03	GT3
P0809342-04	LC1
P0809342-05	LC2
P0809342-06	LC3
P0809342-07	LC6

Microseeps test results meet all the requirements of the NELAC standards or provide reasons and/or justification if they do not.

Approved By: Debbie Hallo Date: 10-3-08

Project Manager: Debbie Hallo

The analytical results reported here are reliable and usable to the precision expressed in this report. As required by some regulating authorities, a full discussion of the uncertainty in our analytical results can be obtained at our web site or through customer service. Unless otherwise specified, all results are reported on a wet weight basis.

*As a valued client we would appreciate your comments on our service.
Please call customer service at (412)826-5245 or email customerservice@microseeps.com.*

Case Narrative:

Client Name: Camp Dresser and McKee
 Contact: Pam Morrill
 Address: 11811 Northeast First Street
 Suite 201
 Bellevue, WA 98005

Page: Page 2 of 8
 Lab Proj #: P0809342
 Report Date: 10/03/08
 Client Proj Name: Leathercare
 Client Proj #: 56498-59679

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>		
GT1	Water	P0809342-01	24 Sep. 08 12:00	26 Sep. 08 10:32		
<u>Analyte(s)</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<u>RiskAnalysis</u>						
N Ethane	0.180	0.025	ug/L	AM20GAX	10/1/08	rw
N Ethene	0.035	0.025	ug/L	AM20GAX	10/1/08	rw
N Methane	150.000	0.100	ug/L	AM20GAX	10/1/08	rw



Client Name: Camp Dresser and McKee
Contact: Pam Morrill
Address: 11811 Northeast First Street
Suite 201
Bellevue, WA 98005

Page: Page 3 of 8
Lab Proj #: P0809342
Report Date: 10/03/08
Client Proj Name: Leathercare
Client Proj #: 56498-59679

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>		
GT2	Water	P0809342-02	24 Sep. 08 12:45	26 Sep. 08 10:32		
<u>Analyte(s)</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<u>RiskAnalysis</u>						
N Ethane	0.270	0.025	ug/L	AM20GAX	10/1/08	rw
N Ethene	1.000	0.025	ug/L	AM20GAX	10/1/08	rw
N Methane	260.000	0.100	ug/L	AM20GAX	10/1/08	rw

Client Name: Camp Dresser and McKee
Contact: Pam Morrill
Address: 11811 Northeast First Street
Suite 201
Bellevue, WA 98005

Page: Page 4 of 8
Lab Proj #: P0809342
Report Date: 10/03/08
Client Proj Name: Leathercare
Client Proj #: 56498-59679

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>		
GT3	Water	P0809342-03	24 Sep. 08 13:55	26 Sep. 08 10:32		
<u>Analyte(s)</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<u>RiskAnalysis</u>						
N Ethane	0.068	0.025	ug/L	AM20GAX	10/1/08	rw
N Ethene	0.140	0.025	ug/L	AM20GAX	10/1/08	rw
N Methane	73.000	0.100	ug/L	AM20GAX	10/1/08	rw



Client Name: Camp Dresser and McKee
 Contact: Pam Morrill
 Address: 11811 Northeast First Street
 Suite 201
 Bellevue, WA 98005

Page: Page 5 of 8
 Lab Proj #: P0809342
 Report Date: 10/03/08
 Client Proj Name: Leathercare
 Client Proj #: 56498-59679

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>		
LC1	Water	P0809342-04	24 Sep. 08 16:25	26 Sep. 08 10:32		
<u>Analyte(s)</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<u>Risk Analysis</u>						
N Ethane	0.110	0.025	ug/L	AM20GAX	10/1/08	rw
N Ethene	0.110	0.025	ug/L	AM20GAX	10/1/08	rw
N Methane	150.000	0.100	ug/L	AM20GAX	10/1/08	rw



Client Name: Camp Dresser and McKee
 Contact: Pam Morrill
 Address: 11811 Northeast First Street
 Suite 201
 Bellevue, WA 98005

Page: Page 6 of 8
 Lab Proj #: P0809342
 Report Date: 10/03/08
 Client Proj Name: Leathercare
 Client Proj #: 56498-59679

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>		
LC2	Water	P0809342-05	24 Sep. 08 15:40	26 Sep. 08 10:32		
<u>Analyte(s)</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<u>RiskAnalysis</u>						
N Ethane	0.073	0.025	ug/L	AM20GAX	10/1/08	rw
N Ethene	0.071	0.025	ug/L	AM20GAX	10/1/08	rw
N Methane	260.000	0.100	ug/L	AM20GAX	10/1/08	rw



Client Name: Camp Dresser and McKee
 Contact: Pam Morrill
 Address: 11811 Northeast First Street
 Suite 201
 Bellevue, WA 98005

Page: Page 7 of 8
 Lab Proj #: P0809342
 Report Date: 10/03/08
 Client Proj Name: Leathercare
 Client Proj #: 56498-59679

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>		
LC3	Water	P0809342-06	24 Sep. 08 14:40	26 Sep. 08 10:32		
<u>Analyte(s)</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<u>RiskAnalysis</u>						
N Ethane	0.064	0.025	ug/L	AM20GAX	10/1/08	rw
N Ethene	0.044	0.025	ug/L	AM20GAX	10/1/08	rw
N Methane	120.000	0.100	ug/L	AM20GAX	10/1/08	rw



Client Name: Camp Dresser and McKee
 Contact: Pam Morrill
 Address: 11811 Northeast First Street
 Suite 201
 Bellevue, WA 98005

Page: Page 8 of 8
 Lab Proj #: P0809342
 Report Date: 10/03/08
 Client Proj Name: Leathercare
 Client Proj #: 56498-59679

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>		
LC6	Water	P0809342-07	24 Sep. 08 17:10	26 Sep. 08 10:32		
<u>Analyte(s)</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
RiskAnalysis						
N Ethane	0.110	0.025	ug/L	AM20GAX	10/1/08	rw
N Ethene	0.034	0.025	ug/L	AM20GAX	10/1/08	rw
N Methane	370.000	0.100	ug/L	AM20GAX	10/1/08	rw





Microseeps
Lab. Proj. #

CHAIN - OF - CUSTODY RECORD

Microseeps
COC cont. #

Phone: (412) 826-5245 Microseeps, Inc. - 220 William Pitt Way - Pittsburgh, PA 15238 Fax No.: (412) 826-3433

Company : CDM
 Co. Address : 11811 NE 1st St, Ste. 201, Bellevue, WA 98005
 Phone #: 425-453-8383 Fax #: 425-453-8383
 Proj. Manager : Pam Morrill
 Proj. Name/Number : Leather Case
 Sampler's signature : Agnes Wolden

Parameters Requested	
Ethene/Ethane	Methane

Results to : CDM
Attn: Pam Morrill
 Invoice to : CDM
Attn: Pam Morrill

Cooler Temp. _____

Sample ID	Sample Description	Sample Type			Date	Time	# bottles	Parameters Requested										Remarks								
		Water	Vapor	Solid				Ethene/Ethane	Methane																	
GT 1		W			9/24/08	1200	2	X	X																	
GT 2						1245	1	X	X																	
GT 3						1355	1	X	X																	
LC 1						(4) 1685	1	X	X																	
LC 2						(4) 1625/10	1	X	X																	
LC 3						1140	1	X	X																	
LC 6		W			9/24/08	1710	2	X	X																	

Relinquished by : <u>Agnes Wolden</u>	Company : <u>CDM</u>	Date : <u>9/25/08</u>	Time : <u>1400</u>	Received by : <u>[Signature]</u>	Company : <u>[Signature]</u>	Date : <u>9/26</u>	Time : <u>4:00</u>
Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :
Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :

Chain of Custody Record & Laboratory Analysis Request



Analytical Resources, Incorporated
 Analytical Chemists and Consultants
 4611 South 134th Place, Suite 100
 Tukwila, WA 98168
 206-695-6200 206-695-6201 (fax)

ARI Assigned Number:	Turn-around Requested: STD.	Page: 1 of 1
ARI Client Company: CDM	Phone: 425-453-8383	Date: 9/25/08 Ice Present? Y
Client Contact: Pam Merrill		No. of Coolers: 1 Cooler Temps: 7.2

Client Project Name: Leather core	Analysis Requested	Notes/Comments
Client Project #: August Welder		

Sample ID	Date	Time	Matrix	No. Containers	AVOCs										
GT 1	9/24/08	1200	W	3											
GT 2		1245													
GT 3		1355													
GT 4		1455													
LC 1		1625													
LC 2		1540													
LC 3		1440													
LC 6	9/24/08	1715	W	3											

Comments/Special Instructions	Relinquished by: <i>[Signature]</i>	Received by: <i>[Signature]</i>	Relinquished by:	Received by:
	Printed Name: August Welder	Printed Name: K. M. [Signature]	Printed Name:	Printed Name:
	Company: CDM	Company: ARI	Company:	Company:
	Date & Time: 9/25/08 1017	Date & Time: 9/25/08 1017	Date & Time:	Date & Time:

Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, notwithstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.



Microseeps
Lab. Proj. #

CHAIN - OF - CUSTODY RECORD

Microseeps
COC cont. #

Phone: (412) 826-5245

Microseeps, Inc. - 220 William Pitt Way - Pittsburgh, PA 15238

Fax No. : (412) 826-3433

Company : CDM
 Co. Address : 11811 ALE 1ST ST STE 201 PLYMOUTH PA 15007
 Phone # : 412-453-8293 Fax # : 412-453-8295
 Proj. Manager : Pam Merrill
 Proj. Name/Number : Lehigh Corc.
 Sampler's signature : [Signature]

Parameters Requested	
Ethene/Ethane	Methane

Results to : CDM
Pam Merrill
 Invoice to : CDM
Pam Merrill

Cooler Temp.

Sample ID	Sample Description	Sample Type			Date	Time	# bottles	Parameters Requested										Remarks									
		Water	Vapor	Solid				1	2	3	4	5	6	7	8	9	10		11	12							
GT 1		W			9/24/02	1200	2	X	X																		
GT 2		W				1045	1	X	X																		
GT 3		W				1115	1	X	X																		
GT 101		W				11625	1	X	X																		
GT 2		W				1140/340	1	X	X																		
GT 3		W				1140	1	X	X																		
GT 6		W				1140/1710	1	X	X																		

Relinquished by : <u>[Signature]</u>	Company : <u>[Signature]</u>	Date : <u>9/24/02</u>	Time : <u>11:00</u>	Received by :	Company :	Date :	Time :
Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :
Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :

CDM[®]

consulting • engineering • construction • operations

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