

CITY OF HOUSTON



**PUBLIC WORKS AND
ENGINEERING
PLANNING & DEVELOPMENT
DIVISION**

EXECUTIVE SUMMARY

Project Overview

InControl Technologies, Inc was retained by Gary K. Ferguson and Bohica Holdings, Ltd. d/b/a Randall's Center/ West Bellfort (the property owner), to provide environmental consulting services at Bellfort Cleaners located at 8761 West Bellfort in Houston, Texas. The subject property (site) consists of approximately 8.04 acres of land located southwest of downtown Houston, Harris County, Texas. The subject property is developed with a multi-tenant commercial complex which is occupied by various businesses including a dry cleaner. Approximately 60% of the subject property is covered with the aforementioned building. Approximately 35% of the subject property is covered with concrete and brick access drives and walkways, while an estimated 5% of the subject property is covered with decorative landscaping.

Historical Environmental Condition

Historic dry cleaning operations in the Bellfort Cleaners tenant space have resulted in chlorinated solvent impacts to soil and shallow groundwater. Tetrachloroethene (PCE) and its breakdown products (trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), trans-1,2-dichloroethene (trans-1,2-DCE), 1,1-dichloroethene (1,1-DCE) and vinyl chloride (VC)). The property to the adjacent south is a middle school (Welch Middle School, Houston Independent School District). Properties adjacent north, east and west are commercial mixed with undeveloped tracts of land.

Bellfort Cleaners was entered in to the TCEQ Voluntary Cleanup Program (VCP) in 2000 and was assigned VCP No. 1247.

IRC Liability Management (IRCLM) conducted soil response activities in March 2003. The activities included the construction of infiltration galleries in the source area to facilitate the introduction of a chemical oxidant (potassium permanganate) to the source area. In February and June 2005, IRCLM completed injection events to help reduce the concentration of VOCs in both the upper and lower groundwater bearing units. The injection process was suspended in September 2006.

Five groundwater monitoring wells (MW-1 through MW-5) were installed in 1998. Two additional wells (MW-6 and MW-7) were installed in the first quarter 2001. One groundwater monitoring well was installed into the lower transmissive unit (LTU) in the third quarter 2002 (DMW-13). In the first quarter of 2003, six more groundwater monitoring wells (MW-8 through MW-12, MW-18) were installed in the upper transmissive unit (UTU) and four more groundwater monitoring wells (DMW-14 through DMW-17) were installed in the lower transmissive unit

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(LTU). Two of these wells were installed on the off-site property south of the subject property (MW-9 and DMW-16) and one was installed on the off-site property to the north (MW-12). Four additional groundwater monitoring wells (DMW-19 through DMW-22) were installed in the LTZ during the second quarter 2003 to further delineate impacted groundwater. To further delineate impacts to the lower transmissive unit, InControl Technologies installed three additional deep monitor wells (DMW-23, DMW-24 and DMW-25) in the second quarter 2007. Two of the three deep zone groundwater monitoring wells (DMW-23 and DMW-24) were installed along the rear of the shopping center and one monitoring well (DMW-25) was installed on the adjacent property to the south of the subject property.

Quarterly groundwater sampling was conducted by InControl Technologies in August and November 2006, February, May and September 2007. All groundwater samples collected from the permanent groundwater monitoring wells were analyzed for VOCs by EPA Method 8260B. The analytical results from each sampling event were compared to the TCEQ Texas Risk Reduction Program (TRRP) Protective Concentration Levels (PCLs) (**Table 6.1** and **Table 6.2**).

Three subsurface soil samples collected from two soil sampling locations (DMW-13 and HSB-1) on the subject property was reported to contain at a concentration in excess of the most conservative TRRP Tier 1 ^{GW}Soil_{ing} PCL of 0.05 mg/kg (**Table 6.1**). Both of these locations were at the rear of the dry cleaner tenant space in the source area.

A review of the most recent groundwater sampling data (September 2007) indicates that the only COCs that currently exceed the most conservative TRRP Tier 1 ^{GW}GW_{ing} PCLs are PCE, TCE in both the UTU and LTU and cis-1,2-DCE in the UTU (**Table 6.2**). The most recent groundwater sampling data also indicates that the PCL exceedence (PCLE) zone in the UTU is confined to the subject property and the in the LTU extends barely off-site to the south (Welch Middle School). The area of impacted groundwater has been completely delineated in all directions in both the UTU and LTU.

A comparison of the sampling results from December 1998 and September 2007 indicates that the area of impact appears to be stable to decreasing over time. While the concentration of COCs declined drastically during the treatment process, the COC concentrations have since rebounded somewhat but remain less than the pretreatment concentration. The total mass in the source area has been reduced by at least 50 percent based on current groundwater monitoring results.

Ten (10) private water wells were identified within a ½-mile radius of the proposed MSD boundary. Sixty-eight (68) wells were identified in the water utility database report. All of these wells are located greater than ½-mile from the proposed MSD boundary. No surface water bodies were identified within a ½-mile radius of the proposed MSD boundary.

Item 1 – Legal Property Description

A copy of the legal description plus a metes and bounds description is included in **Appendix A**.

Item 2 – Site Maps

The figures set out in this section provide information required under **Item 2**. The maps depict the property location and topography, the area of groundwater contamination, the location of all soil sampling points and groundwater monitoring wells, the groundwater gradient, and the ingestion groundwater PCL exceedance zone.

The subject property is within the Brays Bayou watershed but is not located within the 100-year flood plain.

The following is a listing of figures found in **Appendix B**.

Figure 2.1 – Site location Map

Figure 2.2a – Topographic Map

Figure 2.2b – Watershed Map

Figure 2.2c – Floodplain Map

Figure 2.3 – Groundwater PCLE zone

Figure 2.4 – Groundwater and Soil sampling locations

Figure 2.5a – Groundwater Gradient Map – Upper Transmissive Unit (September 2007)

Figure 2.5b – Groundwater Gradient Map – Lower Transmissive Unit (September 2007)

Figure 2.6a – Soil PCL exceedance zone map

Figure 2.6b – Groundwater PCL exceedance zone maps – Upper Transmissive Unit (PCE, TCE, and cis-1,2-DCE)

Figure 2.6c – Groundwater PCL exceedance zone maps – Lower Transmissive Unit (PCE and TCE)

Item 3 – Property Use

The subject property (site) consists of approximately 8.04 acres of land located southwest of downtown Houston, Harris County, Texas (**Figure 3.1**). The affected property is located in a commercial and residential area located southwest of downtown Houston. The property owner, Randall's Center/ West Bellfort, developed the subject property in 1983 with the existing commercial complex. The 8.04-acre subject property is currently developed with a multi-tenant commercial complex.

Approximately 95% of the subject property is covered with parking spaces, walkways and retail shops (**Figure 3.1**). The remaining 5% is covered with decorative landscaped areas. Future use of the subject property is anticipated to remain commercial/ industrial.

- North – The subject property is bounded to the north by the West Bellfort Avenue right-of-way followed by commercial development
- East – The subject property is bounded to the east by the Gessner Road right-of-way followed by commercial development and undeveloped tracts of land.

- South – The subject property is bounded to the south by Houston Independent School District's Welch Middle School.
- West – The property to the west of the subject property is undeveloped.

Figure 3.1 provides a description of the surrounding land use within 500-feet of the boundary of the designated property.

Item 4 – PCLE Zone Discussion

A) A review of recent groundwater sampling indicates that the only COCs that currently exceed the conservative TRRP Tier 1 residential $^{GW}GW_{ing}$ PCLs are tetrachloroethene (PCE), trichloroethene (TCE) and cis-1,2-dichloroethene (cis-1,2-DCE). PCE is the only COC which exceeds the TRRP Tier 1 residential $^{GW}GW_{ing}$ PCL in the LTZ. PCL exceedences in the UTZ are confined to the subject property. The PCL exceedences in the LTZ extend off-site across the southern property boundary onto the Welch Middle School property. The area of groundwater impact in both the UTZ and LTZ is delineated in all directions. Impacted groundwater in the UTZ is delineated in all directions by groundwater monitoring wells MW-2, MW-4, MW-6, MW-8, MW-9, MW-10, MW-12, MW-18 and MW-22. Groundwater monitor wells installed on the property to the north (MW-12) indicate that off-site groundwater is not impacted by chlorinated solvents. This well defines the upgradient edge of the upper transmissive zone (UTZ) dissolved phase chlorinated solvent plume. The downgradient edge of the UTZ dissolved phase chlorinated solvent plume is defined by MW-8 and MW-22.

Impacted groundwater in the LTZ is delineated in all directions by groundwater monitoring wells DMW-14, DMW-16, DMW-19, DMW-20, DMW-21, DMW-23 and DMW-24. Therefore there is an ingestion PCLE zone in both the upper and lower transmissive zones across the subject property. Groundwater monitor wells located on the Welch Middle School property indicate the UTZ is not impacted by chlorinated solvents (MW-9) but the lower transmissive zone (LTZ) is impacted (DMW-25). Deep groundwater monitoring wells DMW-16, DMW-19 and DMW-20 define the southern edge of the dissolved phase chlorinated solvent plume in the LTZ. The downgradient edge of the LTZ dissolved phase chlorinated solvent plume is defined by monitor wells DMW-19 and DMW-24.

Based on a review of boring logs, the upper transmissive zone (UTZ) on the subject property is first encountered at a depth of approximately 14-20 feet below ground surface (ft-bgs) and the LTZ is first encountered at a depth of approximately 26-33 ft-bgs. The UTZ and LTZ are separated by 6-13 feet of stiff, massive clay to massive silty clay. The LTZ is underlain by a stiff, massive clay unit.

A comparison of the recent groundwater sampling results with applicable non-ingestion protective concentration levels (i.e., $^{GW}GW_{Class\ 3}$ and $^{Air}GW_{inh-v}$) indicates that all COC concentrations are less than the $^{GW}GW_{Class\ 3}$ and the $^{Air}GW_{inh-v}$ PCLs. Therefore, based on the recent groundwater monitoring results, there is no indication that there is a non-ingestion protective concentration level exceedence zone on the subject property.

B) The following table represents the groundwater ingestion PCL exceedences that were reported from the September 2007 monitoring event:

Table 4.1 – Groundwater ingestion PCL Exceedences

	TRRP PCL	PCE (mg/L)	TCE (mg/L)	Cis-1,2-DCE (mg/L)
	^{GW} GW _{ing}	0.005	0.005	0.07
	^{Air} GW _{inh-v}	330	160	10,000
Monitoring Well ID	Sample Date	Concentration (mg/L)		
MW-1	9/7/07	0.030	0.0026 J	0.002 J
MW-3	9/7/07	0.100	0.055	0.17
MW-5	9/7/07	0.087	0.014	0.028
DMW-15	9/7/07	0.071	<0.007	<0.005

Notes – Values in **Bold** exceed the ^{GW}GW_{ing} PCL (ingestion PCLE)

Values in **Bold Italics** exceed the ^{Air}GW_{inh-v} PCL (non-ingestion PCLE)

J- Result is above the laboratory detection limit, but below the laboratory reporting limit.

Groundwater COC concentrations do not exceed the ^{Air}GW_{inh-v} non-ingestion PCL, therefore there is no non-ingestion PCLE zone based on the September 2007 monitoring data.

C) The chlorinated solvents (tetrachloroethene, trichloroethene, 1,1-dichloroethene, cis-1,2-dichloroethene and vinyl chloride) detected in groundwater samples are associated with the historical dry cleaning operations in the Bellfort Cleaners tenant space.

Chlorinated solvents are characterized by their high volatilities, high densities, low viscosities, low interfacial tension, low absolute solubilities, high relative solubilities, low partitioning to soil materials and low degradabilities. Chlorinated solvents will dissolve in water at low concentrations but once the groundwater has reached the saturation limit for that compound, the chlorinated solvent will form a separate phase in equilibrium with the water. Because chlorinated solvents have higher densities relative to water, the separate phase will “sink”. These compounds are referred to as “dense non-aqueous phase liquids” (DNAPLs). In high concentrations DNAPLs will be able to penetrate the water table and form “pools” on the top of less permeable layers. Historically, DNAPL has not been identified in any of the monitor wells within the groundwater monitor well network.

The rate of flow of a DNAPL through a geologic medium is dependent on the density and viscosity of the DNAPL, the pressure driving the DNAPL, the intrinsic permeability of the geologic medium and the degree of DNAPL saturation of the pore spaces of the medium. Dissolved phase chlorinated solvents will move with groundwater flow. Chlorinated solvents will weakly bind to soil and rock meaning that sorption to soils will not significantly retard the movement of a chlorinated solvent.

Based on the field observations and laboratory results, it appears that the groundwater contaminants on the subject property are primarily dissolved in the shallow groundwater. There are two shallow groundwater zones identified on the subject property – the upper transmissive zone (UTZ) and the lower transmissive zone (LTZ). Groundwater samples collected from monitor wells installed into the UTZ and LTZ indicate both zones are impacted by dissolved phase chlorinated solvents. Groundwater samples collected from monitor wells installed in the UTZ indicate the dissolved phase plume is confined to the subject property. Groundwater samples collected from the LTZ indicate the dissolved phase plume is primarily on the subject property but extends across the southern property boundary onto the adjacent property (Welch Middle School).

Item 5 – COCs in Designated Groundwater Discussion

- A) Chlorinated solvents (PCE, TCE, 1,1-DCE, cis-1,2-DCE, trans-1,2-DCE and VC) were selected as target COCs based on the site history. During the history of the site, all of the selected COCs have been detected at concentrations greater than the laboratory detection limit as one time. However, 1,1-DCE has not been detected in groundwater samples collected from any of the wells since 2005 and is no longer considered a COC.

Refer to **Item 4** for a discussion of the contaminants of concern (COC) in the ingestion protective concentration level (PCL) exceedence zone. Current groundwater sampling results indicate that there are three identified COCs (PCE, TCE and cis-1,2-DCE) that exceed the ingestion protective concentration levels on the subject property in the UTZ and two identified COCs (PCE and TCE) that exceed the ingestion PCLs in the LTZ. Surface and subsurface soil samples reported COC concentrations less than the non-ingestion PCLs.

- B) Refer to **Item 4** for a tabulated comparison of COC concentrations with the respective TRRP Protective Concentration Levels (PCLs)
- C) Refer to **Item 4** for a discussion of the basic geochemical properties of the contaminants of concern (COCs) in the ingestion PCL exceedence zone.

Item 6 – Summary of Soil and Groundwater Concentration Data

The following tables summarize the concentration levels for the primary chemicals of concern in soil and groundwater. The tables include the concentration level, the ingestion protective concentration limits ($^{GW}Soil_{Ing}$ for soil and $^{GW}GW_{Ing}$ for groundwater), the non-ingestion protective concentration limits for soil ($^{Tot}Soil_{Comb}$ and $^{Air}Soil_{Inh-V}$) and groundwater ($^{Air}GW_{Inh-V}$), the critical protective concentration limits assuming no MSD is in place ($^{GW}Soil_{Ing}$ for soil and $^{GW}GW_{Ing}$ for groundwater), and the critical PCLs assuming that an MSD is in place ($^{Tot}Soil_{Comb}$ for soil and $^{Air}GW_{Inh-V}$ for groundwater).

Table 6.1 – Summary of Soil Sampling Results

Chemicals of Concern (CAS)		PCE (127-18-4)	TCE (79-01-6)	1,1-DCE (75-35-4)	cis-1,2-DCE (159-59-2)	trans-1,2-DCE (156-60-5)	VC (75-01-4)
Tier 1 ^{GW} Soil _{lnq} Critical PCL without MSD		0.05	0.03	0.05	0.25	0.49	0.02
Tier 1 ^{Tot} Soil _{comb} Critical PCL with MSD		98	150	1,800	770	1,400	3.7
Tier 1 ^{Air} Soil _{lnh-v} Critical PCL with MSD		620	210	3,100	12,000	12,000	41
Sample ID	Sample Depth	Date	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
SB-1	0-2	6/1/2000	<0.005	<0.005	<0.005	<0.005	<0.005
	4-6	6/1/2000	<0.005	<0.005	<0.005	<0.005	<0.005
	10-12	6/1/2000	<0.005	<0.005	<0.005	<0.005	<0.005
SB-2	2-3	6/1/2000	<0.005	<0.005	<0.005	<0.005	<0.005
	4-6	6/1/2000	<0.005	<0.005	<0.005	<0.005	<0.005
	11-12	6/1/2000	<0.005	<0.005	<0.005	<0.005	<0.005
SB-3	1-3	6/1/2000	0.006	<0.005	<0.005	<0.005	<0.005
	4-6	6/1/2000	<0.005	<0.005	<0.005	<0.005	<0.005
	10-11	6/1/2000	<0.005	<0.005	<0.005	<0.005	<0.005
SB-4	0-4	6/1/2000	<0.005	<0.005	<0.005	<0.005	<0.005
	4-6	6/1/2000	<0.005	<0.005	<0.005	<0.005	<0.005
	11-12	6/1/2000	<0.005	<0.005	<0.005	<0.005	<0.005
MW-9	14-16	10/16/2002	<0.0062	<0.0062	<0.0062	<0.0062	<0.0062
	18-20	10/16/2002	<0.006	<0.006	<0.006	<0.006	<0.006
MW-10	5-7.5	7/9/2002	<0.0002	<0.00017	<0.0003	<0.00023	<0.00036
	18-20	7/9/2002	<0.0002	<0.00017	<0.0003	<0.00023	<0.00036
MW-11	5-7.5	7/9/2002	<0.00019	<0.00016	<0.00029	<0.00022	<0.00035
	18-20	7/9/2002	<0.00021	<0.00017	<0.00031	<0.00023	<0.00037
DMW-13	2-4	10/16/2002	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059
	14-16	10/16/2002	0.124	0.0233	<0.0061	0.108	0.0071
	16-18	10/16/2002	0.0098	<0.0061	<0.0061	<0.0061	<0.0061
	18-20	10/16/2002	0.0971	<0.0061	<0.0061	<0.0061	<0.0061

Chemicals of Concern (CAS)		PCE (127-18-4)	TCE (79-01-6)	1,1-DCE (75-35-4)	cis-1,2-DCE (159-59-2)	trans-1,2-DCE (156-60-5)	VC (75-01-4)
Tier 1 ^{GW} Soil _{ing} Critical PCL without MSD		0.05	0.03	0.05	0.25	0.49	0.02
Tier 1 ^{Tot} Soil _{comb} Critical PCL with MSD		98	150	1,800	770	1,400	3.7
Tier 1 ^{Air} Soil _{inh-v} Critical PCL with MSD		620	210	3,100	12,000	12,000	41
Sample ID	Sample Depth	Date	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
DMW-13 Continued	22-24	10/16/2002	0.0426	<0.0061	<0.0061	<0.0061	<0.0061
	42-44	10/16/2002	<0.0064	<0.0061	<0.0061	<0.0061	<0.0061
	47	10/16/2002	<0.0061	<0.0061	<0.0061	<0.0061	<0.0061
HSB-1	2.5-5	8/9/2002	0.0133	<0.005	<0.005	<0.005	<0.005
	10-12.5	8/9/2002	<0.005	<0.005	<0.005	<0.005	<0.005
	17-18	8/9/2002	0.0324	<0.005	<0.005	<0.005	<0.005
	18.2	8/9/2002	0.14	<0.005	<0.005	<0.005	<0.005
HSB-2	2.5-5	8/9/2002	<0.005	<0.005	<0.005	<0.005	<0.005
	10-12	8/9/2002	<0.005	<0.005	<0.005	<0.005	<0.005
	16-17	8/9/2002	<0.005	<0.005	<0.005	<0.005	<0.005
	18-20	8/9/2002	<0.005	<0.005	<0.005	<0.005	<0.005
HSB-3	2.5-5	8/9/2002	<0.005	<0.005	<0.005	<0.005	<0.005
	7.5-10	8/9/2002	<0.005	<0.005	<0.005	<0.005	<0.005
	12.5-15	8/9/2002	<0.005	<0.005	<0.005	<0.005	<0.005
	18-20	8/9/2002	<0.005	<0.005	<0.005	<0.005	<0.005
HSB-4	0-2.5	8/9/2002	<0.005	<0.005	<0.005	<0.005	<0.005
	10-12.5	8/9/2002	<0.005	<0.005	<0.005	<0.005	<0.005
	16-17	8/9/2002	<0.005	<0.005	<0.005	<0.005	<0.005
	18-20	8/9/2002	<0.005	<0.005	<0.005	<0.005	<0.005

Table 6.2 – Summary of Groundwater Sampling Results

Chemicals of Concern (CAS)	PCE (127-18-4)	TCE (79-01-6)	1,1-DCE (75-35-4)	cis-1,2-DCE (159-59-2)	trans-1,2-DCE (156-60-5)	VC (75-01-4)
Tier 1 ^{GW} Critical PCL without MSD	0.005	0.005	0.007	0.07	0.1	0.002
Tier 1 ^{Air} ^{GW} Critical PCL with MSD	0.005	0.005	0.007	0.07	0.1	0.002
Well ID	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
MW-1						
	1.1	NA	NA	NA	NA	NA
	2.72	0.09	NA	0.393	<0.005	0.01
	0.14	<0.0005	<0.00099	<0.0005	<0.00052	<0.0005
	0.34	<0.0005	<0.00099	<0.0005	<0.00052	<0.0005
	0.0022	<0.0005	<0.00099	<0.0005	<0.00052	<0.0005
	<0.0025	<0.0025	<0.0049	<0.0026	<0.0026	<0.0025
	0.0175	<0.02	<0.02	<0.02	<0.02	<0.02
	1.06	0.068	0.0027	0.271	<0.002	<0.002
	0.28	<0.002	<0.002	<0.002	<0.002	<0.002
	0.547	<0.02	<0.02	<0.02	<0.02	<0.02
	0.0187	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	0.0018J	<0.002	<0.002	<0.002	<0.002	<0.002
	0.011	<0.005	<0.005	<0.005	<0.005	<0.002
	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002
	<0.0005	<0.0007	<0.0006	<0.0005	<0.0006	<0.0006
	0.040	<0.0007	<0.0006	<0.0005	<0.0006	<0.0006
	0.030	0.0026 J	<0.0006	0.002 J	<0.0006	<0.0006
MW-2						
	<0.005	NA	NA	NA	NA	NA
	<0.005	<0.005	NA	<0.005	<0.005	<0.005
	<0.0005	<0.0005	<0.00099	<0.0005	<0.00052	<0.0005
	<0.0005	<0.0005	<0.00099	<0.0005	<0.00052	<0.0005
	<0.0005	<0.0005	<0.00099	<0.0005	<0.00052	<0.0005
	<0.0005	<0.0005	<0.00099	<0.00053	<0.00052	<0.0005

Chemicals of Concern (CAS)	PCE (127-18-4)	TCE (79-01-6)	1,1-DCE (75-35-4)	cls-1,2-DCE (159-59-2)	trans-1,2-DCE (156-60-5)	VC (75-01-4)
Tier 1 ^{GW} Critical PCL without MSD	0.005	0.005	0.007	0.07	0.1	0.002
Tier 1 ^{Alr} ^{GW} Critical PCL with MSD	0.005	0.005	0.007	0.07	0.1	0.002
Well ID	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
MW-2	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Continued	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002
	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002
	<0.0005	<0.0007	<0.0006	<0.0005	<0.0006	<0.0006
	<0.0005	<0.0007	<0.0006	<0.0005	<0.0006	<0.0006
	<0.0005	<0.0007	<0.0006	<0.0005	<0.0006	<0.0006
MW-3	0.89	NA	NA	NA	NA	NA
	0.423	0.114	NA	0.381	0.006	<0.005
	0.01	<0.0005	<0.00099	<0.0005	<0.00052	<0.0005
	0.0038	<0.0005	0.002	<0.0005	<0.00052	<0.0005
	<0.0005	<0.0005	<0.00099	<0.0005	<0.00052	<0.0005
	<0.0005	<0.0005	<0.00099	<0.00053	<0.00052	<0.0005
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	0.023	<0.002	<0.002	<0.002	<0.002	<0.002
	0.0596	<0.002	<0.002	<0.002	<0.002	<0.002
	0.0085	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	0.210	0.018	<0.005	0.0072	<0.005	<0.002
	0.230	0.025	<0.005	0.015	<0.005	<0.002

Chemicals of Concern (CAS)	PCE (127-18-4)	TCE (79-01-6)	1,1-DCE (75-35-4)	cis-1,2-DCE (159-59-2)	trans-1,2-DCE (156-60-5)	VC (75-01-4)
Tier 1 ^{GW} Critical PCL without MSD	0.005	0.005	0.007	0.07	0.1	0.002
Tier 1 ^{Alr} GW _{Inh-V} Critical PCL with MSD	0.005	0.005	0.007	0.07	0.1	0.002
Well ID	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
MW-3	0.097	<0.0007	<0.0006	<0.0005	<0.0006	<0.0006
Continued	0.240	0.100	<0.0006	0.21	0.003 J	0.0017 J
	0.100	0.055	<0.0006	0.17	0.0023 J	0.0014 J
MW-4	<0.005	NA	NA	NA	NA	NA
	<0.005	<0.005	NA	<0.005	<0.005	<0.005
	0.0019	<0.0005	<0.00099	<0.0005	<0.00052	<0.0005
	<0.0005	<0.0005	0.0019	0.00064 J	<0.00052	<0.0005
	<0.0005	<0.0005	<0.00099	<0.00053	<0.00052	<0.0005
	<0.0005	<0.0005	<0.00099	<0.00053	<0.00052	<0.0005
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002
	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002
	<0.0005	<0.0007	<0.0006	<0.0005	<0.0006	<0.0006
	<0.0005	<0.0007	<0.0006	<0.0005	<0.0006	<0.0006
MW-5	0.027	0.032	NA	0.099	NA	0.006
	0.73	0.066	<0.00099	0.14	<0.00052	<0.0005
	0.06	0.007	0.0021	0.018	<0.00052	0.0054
	0.47	0.067	<0.00099	0.21	0.002	0.027
	0.29	0.037	<0.00099	0.17	0.0015	0.015
	0.246	0.0486	<0.002	0.195	0.0012	0.0125
	0.473	0.0769	<0.002	0.172	0.0015	0.0197

Chemicals of Concern (CAS)	PCE (127-18-4)	TCE (79-01-6)	1,1-DCE (75-35-4)	cis-1,2-DCE (159-59-2)	trans-1,2-DCE (156-60-5)	VC (75-01-4)
Tier 1 ^{GW} GW _{ing} Critical PCL without MSD	0.005	0.005	0.007	0.07	0.1	0.002
Tier 1 ^{Alt} GW _{inh-v} Critical PCL with MSD	0.005	0.005	0.007	0.07	0.1	0.002
Well ID	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
MW-5	0.356	0.0632	<0.002	0.162	0.0014 J	0.0118
Continued	0.874	0.149	<0.002	<0.02	<0.02	<0.02
	0.72	0.138	<0.002	0.235	0.0017 J	0.0106
	0.607	0.114	<0.002	0.165	0.0015	0.0079
	0.547	0.135	<0.002	0.196	0.0019 J	0.0073
	0.330	0.053	<0.005	0.061	<0.005	<0.002
	0.210	0.038	<0.005	0.04	<0.005	<0.002
	0.075	0.013	<0.0006	0.018	<0.0006	<0.0006
	0.093	0.015	<0.0006	0.027	<0.0006	<0.0006
	0.087	0.014	<0.0006	0.028	<0.0006	0.00077 J
MW-6	<0.005	<0.005	NA	<0.005	<0.005	<0.005
	<0.0005	<0.0005	<0.00099	<0.0005	<0.00052	<0.0005
	<0.0005	<0.0005	<0.00099	<0.00053	<0.00052	<0.0005
	<0.0005	<0.0005	<0.00099	<0.00053	<0.00052	<0.0005
	<0.0005	<0.0005	<0.00099	<0.00053	<0.00052	<0.0005
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	0.0011 J	<0.005	<0.005	<0.005	<0.005	<0.002
	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002
	<0.0005	<0.0007	<0.0006	<0.0005	<0.0006	<0.0006
	<0.0005	<0.0007	<0.0006	<0.0005	<0.0006	<0.0006

Chemicals of Concern (CAS)	PCE (127-18-4)	TCE (79-01-6)	1,1-DCE (75-35-4)	cis-1,2-DCE (159-59-2)	trans-1,2-DCE (156-60-5)	VC (75-01-4)
Tier 1 ^{GW} Critical PCL without MSD	0.005	0.005	0.007	0.07	0.1	0.002
Tier 1 ^{Alt} Critical PCL with MSD	0.005	0.005	0.007	0.07	0.1	0.002
Well ID	Date	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
MW-7	02/15/01	0.008	NA	0.005	<0.005	<0.005
	03/04/03	0.0012	<0.0005	<0.0005	<0.0005	<0.0005
	06/09/03	0.0016	<0.0005	<0.00099	<0.00052	<0.0005
	09/10/03	<0.0005	<0.0005	<0.00099	<0.00052	<0.0005
	12/10/03	0.0018	<0.0005	<0.00099	<0.00052	<0.0005
	04/05/04	0.0099	<0.002	<0.002	<0.002	<0.002
	07/06/04	0.0253	<0.002	<0.002	<0.002	<0.002
	10/04/04	0.0131	<0.002	<0.002	<0.002	<0.002
	01/12/05	0.0144	<0.002	<0.002	<0.002	<0.002
	03/30/05	0.028	<0.002	<0.002	<0.002	<0.002
	07/11/05	<0.002	<0.002	<0.002	<0.002	<0.002
	10/21/05	0.0033	<0.002	<0.002	<0.002	<0.002
	08/25/06	<0.005	<0.005	<0.005	<0.005	<0.002
	11/17/06	<0.005	<0.005	<0.005	<0.005	<0.002
	02/26/07	<0.0005	<0.0007	<0.0006	<0.0005	<0.0006
	05/31/07	0.011	<0.0007	<0.0006	<0.0005	<0.0006
09/06/07	0.014 J	<0.007	<0.006	<0.005	<0.006	
MW-8	09/10/03	<0.0005	<0.0005	<0.00099	<0.00052	<0.0005
	12/10/03	<0.0005	<0.0005	<0.00099	<0.00052	<0.0005
	04/07/04	<0.002	<0.002	<0.002	<0.002	<0.002
	07/06/04	0.0012	<0.002	<0.002	<0.002	<0.002
	10/04/04	<0.002	<0.002	<0.002	<0.002	<0.002
	01/13/05	0.0014 J	<0.002	<0.002	<0.002	<0.002
	03/30/05	0.0015 J	<0.002	<0.002	<0.002	<0.002
	07/08/05	0.0014 J	<0.002	<0.002	<0.002	<0.002
	10/20/05	<0.002	<0.002	<0.002	<0.002	<0.002
	08/25/06	0.0017 J	<0.005	<0.005	<0.005	<0.002

Chemicals of Concern (CAS)	PCE (127-18-4)	TCE (79-01-6)	1,1-DCE (75-35-4)	cis-1,2-DCE (159-59-2)	trans-1,2-DCE (156-60-5)	VC (75-01-4)
Tier 1 ^{GW} Critical PCL without MSD	0.005	0.005	0.007	0.07	0.1	0.002
Tier 1 ^{All} Critical PCL with MSD	0.005	0.005	0.007	0.07	0.1	0.002
Well ID	Date	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
MW-8 Continued	11/17/06	0.0011 J	<0.005	<0.005	<0.005	<0.002
	02/26/07	0.002 J	<0.0007	<0.0006	<0.0006	<0.0006
	05/31/07	0.0014 J	<0.0007	<0.0006	<0.0006	<0.0006
MW-9	02/28/03	<0.0005	<0.0005	<0.00099	<0.0005	<0.0005
	06/05/03	<0.0005	<0.0005	0.002	<0.0005	<0.0005
	09/09/03	<0.0005	<0.0005	<0.00099	<0.00053	<0.0005
	12/08/03	<0.0005	<0.0005	<0.00099	<0.00053	<0.0005
	04/08/04	<0.002	<0.002	<0.002	<0.002	<0.002
	07/08/04	<0.002	<0.002	<0.002	<0.002	<0.002
	10/05/04	<0.002	<0.002	<0.002	<0.002	<0.002
	01/11/05	0.0011 J	<0.002	<0.002	<0.002	<0.002
	03/30/05	<0.002	<0.002	<0.002	<0.002	<0.002
	07/08/05	<0.002	<0.002	<0.002	<0.002	<0.002
	10/20/05	<0.002	<0.002	<0.002	<0.002	<0.002
MW-10	08/25/06	<0.005	<0.005	<0.005	<0.005	<0.002
	11/17/06	<0.005	<0.005	<0.005	<0.005	<0.002
	02/26/07	<0.0005	<0.0007	<0.0006	<0.0005	<0.0006
	05/30/07	<0.0005	<0.0007	<0.0006	<0.0005	<0.0006
	03/04/03	<0.0005	<0.0005	<0.00099	<0.0005	<0.0005
	06/05/03	<0.0005	<0.0005	0.0021	<0.0005	<0.0005
	09/08/03	<0.0005	<0.0005	<0.00099	<0.0005	<0.0005
12/10/03	<0.0005	<0.0005	<0.00099	<0.00053	<0.0005	
04/07/04	<0.002	<0.002	<0.002	<0.002	<0.002	
07/08/04	<0.002	<0.002	<0.002	<0.002	<0.002	
10/05/04	<0.002	<0.002	<0.002	<0.002	<0.002	
01/13/05	0.0685	0.0372	<0.002	0.173	0.0021	0.0032

Chemicals of Concern (CAS)	PCE (127-18-4)	TCE (79-01-6)	1,1-DCE (75-35-4)	cis-1,2-DCE (159-59-2)	trans-1,2-DCE (156-60-5)	VC (75-01-4)
Tier 1 ^{GW} Critical PCL without MSD	0.005	0.005	0.007	0.07	0.1	0.002
Tier 1 ^{Alr} Critical PCL with MSD	0.005	0.005	0.007	0.07	0.1	0.002
Well ID	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
MW-10						
Continued	0.0338	0.0155	<0.002	0.112	0.0016	<0.002
	0.0162	0.0107	<0.002	0.0741	0.0014	0.0023
	0.0074	0.0067	<0.002	0.0787	<0.002	<0.002
	0.0065	0.0048	<0.002	0.0426	<0.002	<0.002
	0.0042	0.0046	<0.002	0.0259	<0.002	<0.002
	0.0055	0.0055	<0.005	0.320	0.00023 J	0.0036
	0.0044 J	0.005 J	<0.005	0.150	0.0013 J	<0.002
	0.0033 J	0.0054	<0.0006	0.330	0.0026 J	0.0065
	0.00089 J	<0.0007	<0.0006	0.052	<0.0006	0.0012 J
	<0.0005	<0.0007	<0.0006	0.043	<0.0006	0.0011 J
MW-11						
	<0.0005	<0.0005	<0.00099	<0.0005	<0.00052	<0.0005
	<0.0005	<0.0005	0.0021	<0.0005	<0.00052	<0.0005
	<0.0005	<0.0005	<0.00099	<0.00053	<0.00052	<0.0005
	<0.0005	<0.0005	<0.00099	<0.00053	<0.00052	<0.0005
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	0.0539	0.043	<0.002	0.213 E	0.0016J	0.0032
	0.0073	0.0026	<0.002	0.0088	<0.002	<0.002
	0.0061	0.002	<0.002	0.0063	<0.002	<0.002
	0.00093 J	<0.005	<0.005	0.065	<0.005	<0.002
	0.0016 J	0.0042 J	<0.005	0.15	<0.005	<0.002
	<0.0005	<0.0007	<0.0006	0.0032 J	<0.0006	<0.0006
	0.0011 J	0.0018 J	<0.0006	0.032	<0.0006	<0.0006
	0.0024 J	0.0021 J	<0.0006	0.035	<0.0006	0.001 J

Chemicals of Concern (CAS)	PCE (127-18-4)	TCE (79-01-6)	1,1-DCE (75-35-4)	cis-1,2-DCE (159-59-2)	trans-1,2-DCE (156-60-5)	VC (75-01-4)
Tier 1 ^{GW} Critical PCL without MSD	0.005	0.005	0.007	0.07	0.1	0.002
Tier 1 ^{Alr} Critical PCL with MSD	0.005	0.005	0.007	0.07	0.1	0.002
Well ID	Date	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
MW-12	03/05/03	<0.0005	<0.0005	<0.00099	<0.0005	<0.00052
	06/04/03	<0.0005	<0.0005	0.0022	<0.0005	<0.00052
	09/08/03	<0.0005	<0.0005	<0.00099	<0.00053	<0.00052
	12/08/03	<0.0005	<0.0005	<0.00099	<0.00053	<0.00052
	04/05/04	<0.002	<0.002	<0.002	<0.002	<0.002
	07/08/04	<0.002	<0.002	<0.002	<0.002	<0.002
	10/05/04	<0.002	<0.002	<0.002	<0.002	<0.002
	01/11/05	<0.002	<0.002	<0.002	<0.002	<0.002
	03/29/05	<0.002	<0.002	<0.002	<0.002	<0.002
	07/07/05	<0.002	<0.002	<0.002	<0.002	<0.002
	10/19/05	<0.002	<0.002	<0.002	<0.002	<0.002
	08/25/06	<0.005	<0.005	<0.005	<0.005	<0.005
	11/16/06	<0.005	<0.005	<0.005	<0.005	<0.005
	02/26/07	<0.0005	<0.0007	<0.0006	<0.0005	<0.0006
05/31/07	<0.0005	<0.0007	<0.0006	<0.0005	<0.0006	
DMW-13	10/28/02	0.0441	<0.005	<0.00099	<0.0005	<0.00052
	12/14/02	0.0479	<0.005	NA	<0.005	NA
	03/04/03	0.086	0.011	<0.00099	0.0014	<0.00052
	06/09/03	0.095	0.014	<0.00099	0.0022	<0.00052
	09/10/03	0.07	0.013	<0.00099	0.0028	<0.00052
	12/09/03	0.087	0.013	<0.00099	0.0024	<0.00052
	04/08/04	0.0796	0.0173	<0.002	<0.002	<0.002
	07/07/04	0.13	0.0191	<0.002	<0.002	<0.002
	10/04/04	0.0954	0.0181	<0.002	<0.002	<0.002
	01/12/05	0.0862	0.0187	<0.002	0.0098	<0.002
	03/31/05	0.0828	0.0127	<0.002	0.016	<0.002
	07/11/05	0.0729	0.0097	<0.002	0.0196	<0.002

Chemicals of Concern (CAS)	PCE (127-18-4)	TCE (79-01-6)	1,1-DCE (75-35-4)	cis-1,2-DCE (159-59-2)	trans-1,2-DCE (156-60-5)	VC (75-01-4)
Tier 1 ^{GW} Critical PCL without MSD	0.005	0.005	0.007	0.07	0.1	0.002
Tier 1 ^{Alt} Critical PCL with MSD	0.005	0.005	0.007	0.07	0.1	0.002
Well ID	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
DMW-13	0.0642	0.0087	<0.002	0.0106	<0.002	<0.002
Continued	0.037	0.0027 J	<0.005	0.0045 J	<0.005	<0.002
	0.044	0.0063	<0.005	0.0038 J	<0.005	<0.002
	0.027	0.0035 J	<0.0006	0.00083 J	<0.0006	<0.0006
	0.018	0.0027 J	<0.0006	0.00071 J	<0.0006	<0.0006
	0.0081 J	<0.007	<0.006	0.013 J	<0.006	<0.006
DMW-14	<0.0005	<0.0005	<0.00099	<0.0005	<0.00052	<0.0005
	<0.0005	<0.0005	0.0021	<0.00053	<0.00052	<0.0005
	<0.0005	<0.0005	<0.00099	<0.00053	<0.00052	<0.0005
	<0.0005	<0.0005	<0.00099	<0.00053	<0.00052	<0.0005
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002
	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002
	<0.0005	<0.0007	<0.0006	<0.0005	<0.0006	<0.0006
	<0.0005	<0.0007	<0.0006	<0.0005	<0.0006	<0.0006
	<0.0005	<0.0007	<0.0006	<0.0005	<0.0006	<0.0006
DMW-15	0.1	0.002	<0.00099	0.0013	<0.00052	<0.0005
	0.25	0.0036	0.0017	0.0031	<0.00052	<0.0005
	0.21	<0.0005	0.0022	0.0023	0.0037	<0.0005
	0.12	0.002	<0.00099	0.0014	<0.00052	<0.0005
	0.191	0.0054	<0.002	0.0036	<0.002	<0.002

Chemicals of Concern (CAS)	PCE (127-18-4)	TCE (79-01-6)	1,1-DCE (75-35-4)	cis-1,2-DCE (159-59-2)	trans-1,2-DCE (156-60-5)	VC (75-01-4)
Tier 1 ^{GW} Critical PCL without MSD	0.005	0.005	0.007	0.07	0.1	0.002
Tier 1 ^{Air} Critical PCL with MSD	0.005	0.005	0.007	0.07	0.1	0.002
Well ID	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
DMW-15	0.355	0.0054	<0.002	0.0032	<0.002	<0.002
Continued	0.152	0.0054	<0.002	<0.002	<0.002	<0.002
	0.109	<0.01	<0.01	<0.01	<0.01	<0.01
	0.093	0.0037	<0.002	0.0011J	<0.002	<0.002
	0.083	0.0032	<0.002	0.0019	<0.002	<0.002
	0.172	0.0078	<0.002	0.005	<0.002	<0.002
	0.250	0.0068	<0.005	0.0082	<0.005	<0.002
	0.230	0.0082	<0.005	0.005 J	<0.005	<0.002
	0.0077	0.0027 J	<0.0006	0.100	<0.0006	<0.0006
	0.200	0.0077	<0.0006	0.0061	<0.0006	<0.0006
	0.071	<0.007	<0.006	<0.005	<0.006	<0.006
DMW-16	0.021	0.0031	<0.00099	<0.0005	<0.00052	<0.0005
	<0.0005	<0.0005	0.0022	<0.00053	<0.00052	<0.0005
	0.015	0.003	<0.00099	<0.00053	<0.00052	<0.0005
	0.011	0.0021	<0.00099	<0.00053	<0.00052	<0.0005
	0.0037	<0.002	<0.002	<0.002	<0.002	<0.002
	0.0079	0.0015	<0.002	<0.002	<0.002	<0.002
	0.0049	<0.002	<0.002	<0.002	<0.002	<0.002
	0.0037	<0.002	<0.002	<0.002	<0.002	<0.002
	0.0014 J	<0.002	<0.002	<0.002	<0.002	<0.002
	0.0015 J	0.0012 J	<0.002	<0.002	<0.002	<0.002
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	0.00092 J	<0.005	<0.005	<0.005	<0.005	<0.002
	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002
	<0.0005	<0.0007	<0.0006	<0.0005	<0.0006	<0.0006
	<0.0005	<0.0007	<0.0006	<0.0005	<0.0006	<0.0006
	<0.0005	<0.0007	<0.0006	<0.0005	<0.0006	<0.0006

Chemicals of Concern (CAS)	PCE (127-18-4)	TCE (79-01-6)	1,1-DCE (75-35-4)	cis-1,2-DCE (159-59-2)	trans-1,2-DCE (156-60-5)	VC (75-01-4)
Tier 1 ^{GW} GW _{Inq} Critical PCL without MSD	0.005	0.005	0.007	0.07	0.1	0.002
Tier 1 ^{Allr} GW _{Inh-V} Critical PCL with MSD	0.005	0.005	0.007	0.07	0.1	0.002
Well ID	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
DMW-17	0.003	0.0007	<0.00099	<0.0005	<0.00052	<0.0005
	0.0033	<0.0005	<0.00099	<0.00053	<0.00052	<0.0005
	0.0025	<0.0005	<0.00099	<0.00053	<0.00052	<0.0005
	0.005	0.0015	<0.00099	<0.00053	<0.00052	<0.0005
	0.0067	0.005	<0.002	<0.002	<0.002	<0.002
	0.0158	0.0097	<0.002	0.0014 J	<0.002	<0.002
	0.0124	0.0109	<0.002	0.0026	<0.002	<0.002
	0.0144	0.0109	<0.002	0.002	<0.002	<0.002
	0.0112	0.0081	<0.002	0.0016 J	<0.002	<0.002
	0.0129	0.0102	<0.002	0.0031	<0.002	<0.002
	0.0152	0.0099	<0.002	0.0018 J	<0.002	<0.002
	0.021	0.011	<0.005	0.0045 J	<0.005	<0.002
	0.0096	0.0064	<0.005	0.0084	<0.005	<0.002
	0.016	0.0079	<0.0006	0.0011 J	<0.0006	<0.0006
	0.017	0.0076	<0.0006	0.0012 J	<0.0006	<0.0006
	0.0059 J	<0.007	<0.006	<0.005	<0.006	<0.006
MW-18	<0.0005	<0.0005	<0.00099	<0.0005	<0.00052	<0.0005
	<0.0005	<0.0005	<0.00099	<0.0005	<0.00052	<0.0005
	<0.0005	<0.0005	<0.00099	<0.0005	<0.00052	<0.0005
	<0.0005	<0.0005	<0.00099	<0.00053	<0.00052	<0.0005
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002

Chemicals of Concern (CAS)	PCE (127-18-4)	TCE (79-01-6)	1,1-DCE (75-35-4)	cis-1,2-DCE (159-59-2)	trans-1,2-DCE (156-60-5)	VC (75-01-4)
Tier 1 ^{GW} Critical PCL without MSD	0.005	0.005	0.007	0.07	0.1	0.002
Tier 1 ^{Alr} Critical PCL with MSD	0.005	0.005	0.007	0.07	0.1	0.002
Well ID	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
MW-18	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002
Continued	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002
	<0.0005	<0.0007	<0.0006	<0.0005	<0.0006	<0.0006
	<0.0005	<0.0007	<0.0006	<0.0005	<0.0006	<0.0006
DMW-19	0.0009 J	<0.0005	0.0019	0.00065 J	<0.00052	<0.0005
	<0.0005	<0.0005	<0.00099	<0.00053	<0.00052	<0.0005
	<0.0005	<0.0005	<0.00099	<0.00053	<0.00052	<0.0005
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002
	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002
	<0.0005	<0.0007	<0.0006	<0.0005	<0.0006	<0.0006
	<0.0005	<0.0007	<0.0006	<0.0005	<0.0006	<0.0006
DMW-20	0.001	<0.0005	<0.00099	<0.0005	<0.00052	<0.0005
	<0.00011	<0.00011	<0.00013	<0.00016	<0.00012	<0.00009
		Not gauged - groundwater monitor well buried				
		Not gauged - groundwater monitor well buried				
		Not gauged - groundwater monitor well buried				
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002

Chemicals of Concern (CAS)	PCE (127-18-4)	TCE (79-01-6)	1,1-DCE (75-35-4)	cis-1,2-DCE (159-59-2)	trans-1,2-DCE (156-60-5)	VC (75-01-4)
Tier 1 ^{GW} Critical PCL without MSD	0.005	0.005	0.007	0.07	0.1	0.002
Tier 1 ^{Alt} Critical PCL with MSD	0.005	0.005	0.007	0.07	0.1	0.002
Well ID	Date	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
DMW-20 Continued	07/08/05	<0.002	<0.002	<0.002	<0.002	<0.002
	10/20/05	0.0011 J	<0.002	<0.002	<0.002	<0.002
	08/24/06		Not gauged - groundwater monitor well not located			
	11/17/06	0.002 J	<0.005	<0.005	<0.005	<0.002
	02/26/07	<0.0005	<0.0007	<0.0005	<0.0005	<0.0006
	06/01/07	0.0077	0.0012 J	<0.0005	<0.0005	<0.0006
	09/07/07	<0.005	<0.007	<0.006	<0.005	<0.006
	06/09/03	<0.0005	<0.0005	<0.00099	<0.0005	<0.0005
	09/08/03	<0.0005	<0.0005	<0.00099	<0.00053	<0.0005
DMW-21	12/09/03	0.00056 J	<0.0005	<0.00099	<0.00053	<0.0005
	04/07/04	<0.002	<0.002	<0.002	<0.002	<0.002
	07/07/04	<0.002	<0.002	<0.002	<0.002	<0.002
	10/05/04	<0.002	<0.002	<0.002	<0.002	<0.002
	01/12/05	<0.002	<0.002	<0.002	<0.002	<0.002
	03/30/05	<0.002	<0.002	<0.002	<0.002	<0.002
	07/08/05	<0.002	<0.002	<0.002	<0.002	<0.002
	10/20/05	<0.002	<0.002	<0.002	<0.002	<0.002
	08/25/06	<0.005	<0.005	<0.005	<0.005	<0.002
	11/17/06	<0.005	<0.005	<0.005	<0.005	<0.002
MW-22	02/26/07	<0.0005	<0.0007	<0.0006	<0.0005	<0.0006
	06/01/07	<0.0005	<0.0007	<0.0006	<0.0005	<0.0006
	06/04/03	<0.0005	<0.0005	0.0022	<0.0005	<0.00052
	09/08/03	<0.0005	<0.0005	<0.00099	<0.0005	<0.00052
	12/08/03	<0.0005	<0.0005	<0.00099	<0.00053	<0.00052
	4/7/2004	<0.002	<0.002	<0.002	<0.002	<0.002
	7/7/2004	<0.002	<0.002	<0.002	<0.002	<0.002
	10/5/2004	<0.002	<0.002	<0.002	<0.002	<0.002

Chemicals of Concern (CAS)	PCE (127-18-4)	TCE (79-01-6)	1,1-DCE (75-35-4)	cis-1,2-DCE (159-59-2)	trans-1,2-DCE (156-60-5)	VC (75-01-4)
Tier 1 ^{GW} Critical PCL without MSD	0.005	0.005	0.007	0.07	0.1	0.002
Tier 1 ^{Air} Critical PCL with MSD	0.005	0.005	0.007	0.07	0.1	0.002
Well ID	Date	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
MW-22 Continued	1/12/2005	<0.002	<0.002	<0.002	<0.002	<0.002
	3/30/2005	<0.002	<0.002	<0.002	<0.002	<0.002
	7/7/2005	<0.002	<0.002	<0.002	<0.002	<0.002
	10/19/2005	<0.002	<0.002	<0.002	<0.002	<0.002
	08/24/06	<0.005	<0.005	<0.005	<0.005	<0.002
	11/17/06	<0.005	<0.005	<0.005	<0.005	<0.002
	02/26/07	<0.0005	<0.0007	<0.0006	<0.0006	<0.0006
	05/30/07	<0.0005	<0.0007	<0.0006	<0.0006	<0.0006
DMW-23	09/06/07	<0.0005	<0.0007	<0.0006	<0.0006	<0.0006
	6/1/2007	0.0099	0.0049 J	<0.0006	<0.0006	<0.0006
DMW-24	9/5/2007	0.0071 J	<0.007	<0.005	<0.006	<0.006
	6/1/2007	0.0047 J	0.0018 J	0.0037 J	<0.0006	<0.0006
	9/6/2007	<0.005	<0.007	<0.005	<0.006	<0.006
DMW-25	5/31/2007	0.0082	0.0032 J	<0.0005	<0.0006	<0.0006
	9/7/2007	0.034 J	<0.007	<0.005	<0.006	<0.006

Item 7 – Plume Stability

The Bellfort Cleaners property (the Site) has been affected by dissolved phase contaminants (PCE, TCE and cis-1,2-DCE) in the soil and groundwater. These contaminants are believed to be associated with the historic dry cleaning operations conducted in the Bellfort Cleaners tenant space.

The groundwater impact has been horizontally delineated in all directions in the UTZ and LTZ. Impacted groundwater in the LTZ has migrated off-site in the crossgradient direction (to the south). The UTZ is delineated in all directions by groundwater monitoring wells MW-2, MW-4, MW-6, MW-8, MW-9, MW-10, MW-12, MW-18 and MW-22. Groundwater monitor wells installed on the property to the north (MW-12) indicate that off-site groundwater is not impacted by chlorinated solvents. This well defines the upgradient edge of the upper transmissive zone (UTZ) dissolved phase chlorinated solvent plume. The downgradient edge of the UTZ dissolved phase chlorinated solvent plume is defined by MW-8 and MW-22.

Impacted groundwater in the LTZ is delineated in all directions by groundwater monitoring wells DMW-14, DMW-16, DMW-19, DMW-20, DMW-21, DMW-23 and DMW-24. Deep groundwater monitoring wells DMW-16, DMW-19 and DMW-20 define the southern edge of the dissolved phase chlorinated solvent plume in the LTZ. The downgradient edge of the LTZ dissolved phase chlorinated solvent plume is defined by monitor wells DMW-19 and DMW-24.

A comparison of the sampling results from December 1998 and September 2007 indicates that the area of impact appears to be stable to decreasing over time. The source area wells are MW-1, MW-2 and MW-3 in the UTZ and DMW-13 and DMW-14 in the LTZ.

While the concentration of COCs declined drastically during the treatment process, the COC concentrations have since rebounded somewhat but remain less than the pretreatment concentration. The total mass in the source area has been reduced by at least 50 percent based on current groundwater monitoring results.

Item 8 – Contamination Exceedence Discussion (without MSD)

On the Designated Property

As described in **Item 4**, PCE, TCE and cis-1,2-DCE were reported at concentrations that exceeded the TRRP residential assessment levels without a municipal setting designation. Groundwater samples collected from UTZ on-site monitoring wells MW-1, MW-3 and MW-5 and from LTZ on-site monitoring wells DMW-13, DMW-15, DMW-17 and DMW-23 reported PCE, TCE and/or cis-1,2-DCE at concentrations greater than the TRRP residential ingestion exceedence level with a municipal setting designation. The PCLE zone in the UTZ is within the designated property boundary. UTZ groundwater monitoring wells installed on the Welch Middle School property to the south (MW-9) and on the commercial property to the north (MW-12) confirm impacted groundwater in the upper transmissive zone

has not migrated off-site. A review of the most recent groundwater sampling data (September 2007) confirms these findings.

Off the Designated Property

LTZ groundwater monitoring well DMW-25 installed on the property to the adjacent south (Welch Middle School) confirm groundwater impacted by chlorinated solvents from the Bellfort Cleaners source area have extended to the adjacent property to the south. UTZ groundwater monitoring wells installed on the Welch Middle School property to the south (MW-9) and on the commercial property to the north (MW-12) confirm impacted groundwater in the upper transmissive zone has not migrated off-site. Groundwater samples collected from off-site LTZ monitoring well DMW-25 (located on property to adjacent south) reported PCE at a concentration greater than the TRRP residential ingestion exceedence level with a municipal setting designation. A review of the most recent groundwater sampling data (September 2007) confirm these findings.

Item 9 – Future Contamination Exceedence Discussion (with MSD)

Recent groundwater monitoring on the subject property indicates that the area of groundwater impact in both the UTZ and LTZ has been horizontally delineated. A comparison of the December 1998 and September 2007 sampling results indicates that the plume appears to be generally stable and is expected to be decreasing over time. Based on the results of historical and recent groundwater sampling results, InControl Technologies does anticipate continued impact to off-site areas from the subject property, specifically to the south (Welch Middle School).

Item 10 – Origin of Contamination

Bellfort Cleaners operated an on-site dry cleaning facility from 1983 through the present. Historic use of PCE as a dry cleaning solvent in the dry cleaning equipment is believed to have resulted in impacts to soil and groundwater in both the upper and lower transmissive units. PCE and its breakdown products have been identified in soil and groundwater. The property to the adjacent south is a middle school (Welch Middle School) and properties to the adjacent north, east and west are also commercial but, at this time, are not believed to have contributed to on-site contamination and are unrelated to the PCE contamination.

Item 11 – Regulatory Actions

Not Applicable. No regulatory actions have been taken in the last five years.

Item 12 – Existing State or EPA registrations, permits or identifications

According to the TCEQ's dry cleaner registration database, the registration issued to Dry Clean, Etc. is valid through December 31, 2007.

Texas State Customer Number – CN602915217
Texas State Registration Number – RN100617828

Item 13 – VCP Enrollment

In 2000, Randall's Center/ West Bellfort submitted a Voluntary Cleanup Program (VCP) Application and Agreement to the Texas Commission on Environmental Quality (TCEQ). Bellfort Cleaners was assigned VCP No. 1247.

Item 14 – TCEQ Submittals

Previous consultants Malcolm Pirnie and IRC submitted various documents to the TCEQ including an *Affected Property Assessment Report* submitted by IRC in October 2003. The following is a listing of those submittals.

- Application to Voluntary Cleanup Program, submitted in 2000
- *2003 GWM 1st Quarter Report*, dated March 1, 2003
- *2003 GWM Second Quarter Report*, dated June 1, 2003
- *2003 GWM Third Quarter Report*, dated September 1, 2003
- *Affected Property Assessment Report* dated October 17, 2003
- *2003 GWM Fourth Quarter Report*, dated December 19, 2003
- *Annual Groundwater Monitoring Report*, dated December 19, 2003
- *Response Action Plan (RAP)*, dated June 11, 2004
- *Quarterly Groundwater Monitoring Report (April 1 – June 30, 2004)*, dated September 10, 2004
- *Quarterly Groundwater Monitoring Report (July 1 – September 30, 2004)*, dated October 26, 2004
- *Remedial Action Site Soil Response Report*, dated December 28, 2004
- *Quarterly Groundwater Monitoring Report (October 1 – December 31, 2004)*, dated December 29, 2004
- *Annual Groundwater Monitoring Report (April 1, 2004 – March 31, 2005)*, dated March 30, 2005
- *Annual Groundwater Monitoring Report (March 2005 – January 2006)*, dated May 11, 2005
- *Response Action Summary Report*, dated May 14, 2005
- *First Quarter Groundwater Monitoring Report (March 2005)*, dated July 14, 2005
- *Response Action Summary Report, Response Action – Event No. 2*, dated July 20, 2005

- *Second Quarter Groundwater Monitoring Report (July 2005)*, dated August 26, 2005
- *Plume Stability Sampling Reports*, dated August 31, 2005 and September 29, 2005
- *Third Quarter Groundwater Monitoring Report*, dated January 16, 2006
- *Response Action Summary Report, Response Action – Event No. 3*, dated May 12, 2006

The following is a list of submittals by InControl Technologies:

- *August 2006 Groundwater Monitoring Report*, dated October 10, 2006
- *November 2006 Groundwater Monitoring Report*, dated February 8, 2007
- *February 2007 Groundwater Monitoring Report*, dated March 27, 2007
- *May 2007 Groundwater Monitoring Report*, dated July 26, 2007
- *September 2007 Groundwater Monitoring Report*, dated September 25, 2007.
- Responses to TCEQ comment letters dated December 7, 2006 and January 3, 2007.

Item 15 – Public Drinking Water Supply

Drinking water for the subject property is provided by the City of Houston. A review of the City of Houston 2006 Drinking Water Quality Report indicates that, "Houston drinking water met or exceeded all Federal and State standards for safe drinking water." Therefore, the City of Houston water supply system satisfies the requirements of Chapter 341 of the Texas Health and Safety Code.

The City of Houston 2006 Drinking Water Quality Report and the online City of Houston GIMS database indicated that the City of Houston water supply system appeared to be capable of supplying drinking water to the surrounding properties within a ½-mile radius of the subject property.

Item 16 – Private Water Well Owners within Five Miles of Subject Property

Refer to **Appendix P** for the names and address of identified water well owners and notifications. Notifications have been sent to 612 private water well owners (not including wells owned/operated by a public utility or municipality).

Item 17 – Retail Public Utility Operating Groundwater Supply Well within Five Miles of Subject Property

The following retail public utilities operate at least one groundwater supply well within five miles of the subject property:

- City of Houston,

- Southwest Harris County MUD 1,
- Harris County WCID Fondren Road,
- Fort Bend County WCID 2,
- Texas Instruments,
- City of Meadows Place,
- City of Bellaire,
- Fort Bend County MUD 26,
- Blue Ridge West MUD,
- Quail Valley Utility District,
- Fort Bend County Mud 42,
- Meadowcreek MUD,
- City of Sugar Land, and
- Schlumberger.

The above mentioned have been provided notice as required by section 361.805 of the Texas Health and Safety Code.

Refer to **Appendix Q** for the Water Utility Database Report and notifications.

Item 18 – Municipalities within One Half Mile of Subject Property

Not Applicable. There are no other municipalities within ½- mile of the subject site. Therefore, no notice has been provided.

Item 19 – Municipalities Operating Groundwater Supply Well within Five Miles of Subject Property

The following municipalities (other than the City of Houston) operate at least one groundwater supply well within five miles of the subject property:

- City of Meadows Place,
- City of Bellaire, and
- City of Sugar Land.

The above mentioned have been provided notice as required by section 361.805 of the Texas Health and Safety Code.

Refer to **Appendix S** for the Water Utility Database Report and notifications.

Item 20 – Real Property owners within 2,500 feet of Designated Property Boundary

Refer to **Appendix T** for a listing of real property owners within 2,500 feet of designated property boundary. Copies of mailing labels have also been included in **Appendix T**.

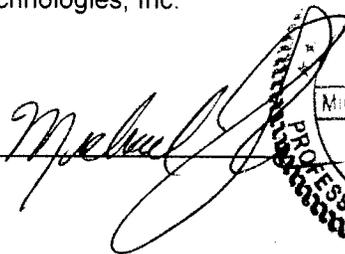
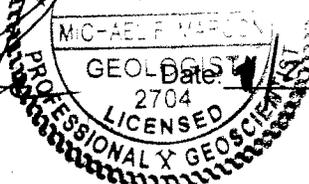
InControl Technologies, Inc.

Item 21 – Statement Regarding Completeness of Information and Potential for Off-Site Impact

To the best of my knowledge and belief, based upon a review of all public and private records and other information sources available to me in the exercise of due diligence, the opinions stated and conclusions made in this application are supported by such information, and the technical and scientific information submitted with the application is true, accurate, and complete. Based on such review, the contaminants of concern from the sources on the designated property more likely than not do not exceed a non-ingestion protective concentration level on property beyond the boundaries of the designated property.

Michael F. Marcon, P.G.
President, Principal
InControl Technologies, Inc.

Signature: _____

Item 22 – Determination of off-site source

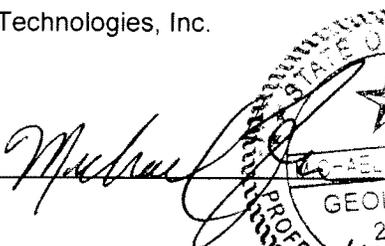
Not Applicable. The contaminants of concern from sources on the designated property do not exceed a non-ingestion protective concentration level beyond the boundary of the designated property.

Item 23 – Statement Regarding Accuracy of Information

I certify under penalty of law that this application and all attachments were prepared under my direction or supervision in a manner designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the persons responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Michael F. Marcon, P.G.
President, Principal
InControl Technologies, Inc.

Signature: _____




InControl Technologies, Inc.

08-04-30A09:48 RCVD

Item 24 – MSD Application submitted to TCEQ

A copy of the MSD application that was submitted to the TCEQ will be included as **Appendix X** once the City of Houston MSD application has been approved.

Item 25 – Signed Restrictive Covenant

The signed and notarized restrictive covenant on groundwater use at the site is pending approval of the MSD from the City of Houston. Once the MSD application is approved, a copy of the signed and notarized restrictive covenant will be included as **Appendix Y**.

Item 26 – Filing Fee

The initial filing fee of \$2,000 is attached.