AVOCET
ENVIRONMENTAL, INC.

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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
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Results of Low-Flow (Minimal Drawdown)
Groundwater Sampling Method Evaluation
Boeing Corporate Real Estate Former C-6 Facility
Los Angeles, California

Dear Ms. Townsend:

This letter provides an overview of the results of a low-flow (minimal drawdown) groundwater sampling method evaluation conducted for the Boeing Corporate Real Estate Former C-6 Facility (the site) located in Los Angeles, California. This evaluation was conducted to identify a suitable sampling method that will be efficient and reliable for long-term monitoring; produce representative, repeatable results consistent with historical results; be compatible with site conditions; and generate smaller volumes of purge water.

BACKGROUND

Groundwater quality sampling has been conducted at the site since 1987. The site has been the subject of more than 50 groundwater monitoring events resulting in the analytical testing of more than 1,250 samples for volatile organic compounds (VOCs) and other constituents. Groundwater quality sampling is performed as a part of continued site characterization efforts as well as to monitor in-situ bioremediation of VOCs in groundwater pursuant to Waste Discharge Requirements (WDR) issued by the California Regional Water Quality Control Board, Los Angeles Region (LARWQCB). Generally, groundwater sampling conducted for site characterization has been performed using conventional (i.e., three wetted casing volumes) purging methods, whereas sampling conducted to monitor in-situ bioremediation has been performed using low-flow (i.e., minimal drawdown) purging methods. As a result, in the last few years, several wells have been sampled using both conventional and low-flow purging methods.

EVALUATION CRITERIA

Evaluation involved direct comparison of historical VOC analytical results for several wells sampled using both low-flow and conventional purging methods. To identify wells suitable for

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evaluation, Field Data, Groundwater Monitoring, and WDR Monitoring reports issued during the past several years were reviewed to locate field "Groundwater Sampling Data Sheets" (Data Sheets). These Data Sheets, filled out by the field technician at the wellhead, document the details of well purging and groundwater sampling (i.e., well completion, field equipment, purging rates, water level, geochemical stabilization parameters, etc.). To be considered a "low-flow" event, the well had to be sampled using the following criteria:

- Flow rate of 500 milliliters per minute (ml/min) or less.
- Drawdown during purging of 0.3 foot or less.
- Field parameters, including conductivity, dissolved oxygen (DO), turbidity, and pH, have stabilized (i.e., last three readings are within ±3 percent for conductivity, ±10 percent for DO and turbidity, and ±0.1 for pH).

If one or more of these criteria was not met, the well was not considered low-flow. To be considered a conventional well, the well had to be sampled using the following criteria:

- Total purge volume equal to or greater than three wetted casing volumes.
- Field parameters (conductivity, DO, turbidity, and pH) have stabilized (i.e., last three readings are within ±3 percent for conductivity, ±10 percent for DO and turbidity, and ±0.1 for pH).

If one or more of these conditions was not met, the well was not considered to have been purged by conventional methods. Moreover, Data Sheets could not been located for all of the sampling events. If the Data Sheet could not be reviewed, even if the report indicated that the wells were sampled by a specific method, the well was not considered in the evaluation.

Table 1 includes a subset of the historical VOC analytical results for several wells sampled using both conventional and low-flow techniques. The wells listed in the table were constructed in 2003 to monitor in-situ bioremediation in the former Building 2 area and were routinely sampled pursuant to WDR Order Number R4-2002-0030 (Series 007). The wells are completed in the B- or C-Sand hydrostratigraphic units, are of typical construction, contain the types and concentrations of VOCs common to the site, and are, therefore, considered representative of the other wells present at the site. To simplify the table, only those VOCs detected with the greatest frequency and/or at the highest concentrations are included. The Table 1 column labeled "Sampling Method" indicates the method used to purge the well prior to sampling, either conventional or low-flow as determined by review of the Data Sheets. The "sampling methods" shaded in Table 1 were used in the evaluation. Although the number of analytes was edited to simplify the table, the number of sampling events was not. Table 1 is complete in terms of the sampling events available for each of the wells considered in the evaluation. Sampling events not used in the evaluation were left in the table to show the consistency of the results regardless of the sampling method.

RESULTS COMPARISON

Groundwater samples collected using each sampling method were analyzed for VOCs using EPA Method 8260B and the results for the most commonly detected VOCs are summarized in Table 1 and graphed on a logarithmic plot in Figure 1. Lines representing a one-to-one correlation (relative percent difference[1] [RPD] = 0), a range of 25 to -25 RPD, and a range of one order of magnitude difference were placed on Figure 1 to provide an indication of precision and correlation between paired results from conventional and low-flow sampling events.

Comparison of the results indicates a good correlation between sampling methods (Figure 1). Points falling along the diagonal line in Figure 1 indicate a perfect correlation (i.e., the analyte concentrations in both the low-flow and conventional samples were equal [RPD=0]). Points falling below the diagonal line indicate the analyte concentration in the conventional sample was greater than the low-flow sample; whereas points falling above the diagonal line indicate the analyte concentration in the conventional sample was less than the low-flow sample. For the most part, the points fall along the diagonal line, within the range of ±25 RPD, indicating a good correlation.

PLANNED TRANSITION TO LOW-FLOW SAMPLING METHOD

Over the past several years, precedence has been established for low-flow groundwater sampling at other Boeing sites in the Los Angeles area. Based on evaluations of low-flow sampling at the Boeing Former C-1 Facility in Long Beach, California (Hargis + Associates, December 2005) and at the Boeing Former Compton Site in Compton, California (Hargis + Associates, January 2007), low-flow sampling was determined to provide the most representative and repeatable results and was selected, at these sites, as the preferred method for groundwater sampling.

Based on the site-specific evaluation of the low-flow sampling method and the results of similar evaluations conducted at other nearby sites with similar hydrostratigraphic and water quality conditions, Boeing intends to transition to the low-flow sampling method beginning with the March 2008 annual groundwater monitoring event. Further information regarding specific wells and equipment, and a Standard Operating Procedure (SOP) for low-flow sampling will be provided as part of the 2008 Groundwater Monitoring Workplan that will be submitted to the LARWQCB for review by the end of January 2008.

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[1] RPD is a measure of precision and is calculated by: RPD% = $((X_1 - X_2)/X)*100$, where X_1 = concentration for Sample 1 of duplicate, X_2 = concentration for Sample 2 of duplicate, and X = mean of Samples 1 and 2.

If you have any questions regarding this evaluation or require additional information, please do not hesitate to call.

Respectfully submitted,

AVOCET ENVIRONMENTAL, INC.

Michael A. Rendina, P.G.
Principal

MAR:sh
Attachments
cc: Jennifer Wiley – Boeing
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Tables

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Table 1
Select Historical Groundwater Quality Data
Boeing Corporate Real Estate, Former C-6 Facility
Los Angeles, California

Well ID	Screened Unit	Sampled Date	Sampling Method	1,1-Dichloroethane	1,1-Dichloroethene	1,2-Dichloroethane	Benzene	Chlorobenzene	Chloroform	cis-1,2-Dichloroethene	Tetrachloroethene	trans-1,2-Dichloroethene	Trichloroethene	Vinyl chloride
CMW001	C-Sand	09-Oct-03		120 U	120 U	120 U	120 U	7300	60 J	120 U	120 U	120 U	120 U	120 U
		23-Mar-04		250 U	250 U	120 U	250 U	12000	250 U	250 U	250 U	250 U	250 U	120 U
		24-Sep-04	Conventional	170 U	170 U	83 U	170 U	13000	170 U	170 U	170 U	170 U	170 U	83 U
		21-Dec-04		250 U	250 U	120 U	250 U	11000	250 U	250 U	250 U	250 U	130 J	120 U
		05-Jan-05		250 U	250 U	250 U	250 U	12000	250 U	250 U	250 U	250 U	250 U	250 U
		03-Mar-05	Conventional	250 U	250 U	120 U	250 U	9800	250 U	250 U	250 U	250 U	250 U	120 U
		18-Mar-05		400 U	400 U	400 U	400 U	15000	400 U	400 U	400 U	400 U	400 U	400 U
		15-Jun-05		120 U	120 U	120 U	120 U	9000	120 U	120 U	120 U	120 U	120 U	120 U
		22-Sep-05		120 U	120 U	120 U	120 U	11000	120 U	120 U	120 U	120 U	120 U	120 U
		21-Dec-05		120 U	120 U	120 U	120 U	6900	120 U	120 U	120 U	120 U	120 U	120 U
		14-Mar-06	Conventional	1 U	1 U	0.5 U	1 U	10000	0.4 J	1 U	2	1 U	5.8	0.5 U
		13-Jun-06		1 U	1 U	0.5 U	11	5500	1 U	1 U	1.3	1 U	4.5	0.5 U
		06-Sep-06	Low-flow	10 U	10 U	5 U	15	6800	10 U	10 U	10 U	10 U	4.9 J	5 U
		04-Dec-06	Low-flow	1 U	1 U	0.5 U	10	5700	1 U	0.32 J	0.8 J	1 U	3.3	0.5 U
		22-Mar-07		1 U	1 U	0.5 U	11	6500	1 U	1 U	0.66 J	1 U	2.9	0.5 U
		08-Jun-07		25 U	25 U	12 U	10 J	8400	25 U	25 U	25 U	25 U	14 J	12 U
		18-Sep-07	Low-flow	2 U	2 U	1 U	1.5 J	660	2 U	31	2 J	2 U	1.7 J	1 U
CMW002	C-Sand	08-Oct-03		100 U	100 U	100 U	100 U	3600	100 U	100 U	100 U	100 U	460	100 U
		23-Mar-04	Conventional	100 U	100 U	50 U	33 J	5400	100 U	100 U	100 U	100 U	540	50 U
		24-Sep-04	Conventional	120 U	120 U	62 U	120 U	6700	120 U	120 U	120 U	120 U	400	62 U
		24-Sep-04	Conventional	120 U	120 U	62 U	120 U	7100	120 U	120 U	120 U	120 U	430	62 U
		21-Dec-04		100 U	100 U	50 U	32 J	5300	100 U	100 U	100 U	100 U	400	50 U
		03-Jan-05		120 U	120 U	120 U	120 U	4900	120 U	120 U	120 U	120 U	330	120 U
		04-Mar-05		200 U	200 U	100 U	200 U	9700	200 U	200 U	200 U	200 U	690 J	100 U
		18-Mar-05		100 U	100 U	100 U	38 J	6300	100 U	100 U	100 U	100 U	390	100 U
		15-Jun-05		100 U	100 U	100 U	50 J	7400	100 U	100 U	100 U	100 U	430	100 U
		22-Sep-05		100 U	32 J	100 U	100 U	100 U	100 U	5800	100 U	100 U	100	100 U
		21-Dec-05		100 U	100 U	100 U	56 J	6500	100 U	100 U	100 U	100 U	340	100 U
		22-Mar-06	Low-flow*	2 U	1.5 J	1 U	70	6900	1.2 J	11	3.2	2 U	330	1 U
		14-Jun-06		1 U	1.2	0.5 U	57	9200 QC	1.2	3	2.7	1 U	400	0.5 U
		11-Sep-06	Low-flow	20 U	20 U	10 U	67	9700	20 U	20 U	20 U	20 U	410	10 U
		06-Dec-06	Low-flow*	20 U	20 U	10 U	63	8600	20 U	20 U	20 U	20 U	340	10 U
		22-Mar-07	Low-flow	1 U	1.2	0.5 U	60	7400	1.1	3.3	1.8	1 U	340	0.5 U
		06-Jun-07		1 U	1.2	0.5 U	66	9700	1.1	4.5	2.2	1 U	350	10 U
		18-Sep-07	Low-flow	1 U	1 U	0.5 U	2.3	690	1 U	54	1 U	0.55 J	3	7.5
CMW026	C-Sand	07-Oct-03		25 U	65	25 U	25 U	25 U	21 J	25 U	25 U	25 U	1200	25 U
		24-Mar-04		6.8 J	130	12 U	25 U	25 U	21 J	10 J	25 U	25 U	1300	12 U
		24-Mar-04		4.1 J	72	5 U	10 U	10 U	12	6.3 J	10 U	10 U	810	5 U
		23-Sep-04	Conventional	4.8 J	80	6.2 U	12 U	12 U	8.6 J	280	12 U	4.2 J	600	6.2 U
		19-Nov-04		1.5 J	41	5 U	5 U	5 U	5 U	280	5 U	2.6 J	35	5 U
		21-Dec-04		4.6 J	120	4.2 U	8.3 U	8.3 U	6.2 J	360	8.3 U	4.6 J	500	4.2 U
		05-Jan-05		1 U	3.8	1 U	1 U	1 U	1 U	17	1 U	1 U	6.5	1 U
		28-Jan-05		0.71 J	16	1 J	2.5 U	2.5 U	2.5 U	160	2.5 U	1.2 J	30	2.5 U
		07-Mar-05	Conventional	4.5 J	140	5 U	10 U	10 U	5.4 J	410	10 U	4.3 J	420	5 U
		19-Mar-05		1 U	11	1 U	1 U	1 U	1 U	40	1 U	0.47 J	3.8	1 U
		22-Sep-05		0.44 J	18	1 U	1 U	1 U	1 U	91	1 U	1.1	24	1 U
		21-Dec-05		1 U	4.8	1 U	1 U	2.4	1 U	29	1 U	1 U	4.8	1 U
		21-Mar-06	Low-flow*	0.27 J	8.4	0.5 U	1 U	1 U	1 U	43	1 U	1 U	12	0.5 U
		14-Jun-06		1 U	4.8	0.5 U	1 U	0.43 J	1 U	68	1 U	0.3 J	2.6	16
		08-Sep-06	Low-flow	4.1	93	1.9	0.34 J	1 U	1 U	580	1 U	3.1	47	110
		06-Dec-06	Low-flow*	1.7	32	0.71	0.33 J	1.1	1 U	320	1 U	1.8	5.1	200
		28-Mar-07	Low-flow	5.2	79	0.5 U	0.36 J	1 U	1 U	530	1 U	3.2	58	220
		07-Jun-07		6.1	110	2.2	0.43 J	1 U	1 U	530	1 U	3.7	69	510
		18-Sep-07	Low-flow*	0.27 J	3.2	0.5 U	1 U	1 U	1 U	26	1 U	0.34 J	6.8	20
IRZCMW001	C-Sand	08-Oct-03		13 J	350	62 U	62 U	62 U	76	22 J	62 U	62 U	1300	62 U
		18-Nov-04		8.6 J	200	6.4 J	12 U	12 U	44	15	12 U	6.3 J	920	12 U
		04-Jan-05		8.4 J	250	25 U	25 U	25 U	41	16 J	25 U	25 U	1000	25 U
		19-Mar-05		15 J	420	11 J	25 U	25 U	55	24 J	25 U	12 J	1600	25 U
		22-Sep-05		16 J	510	10 J	20 U	20 U	9.5 J	39	20 U	8.3 J	1500	20 U
		21-Dec-05		9.3 J	250	4.8 J	10 U	10 U	3.1 J	24	10 U	4 J	930	10 U
		21-Mar-06	Conventional	12	420	11	0.8 J	2	12	44	0.8 J	6.7	1500	7.3
		14-Jun-06		15	720	13	0.61 J	0.65 J	6.3	72	0.52 J	5.1	1400 QC	16
		11-Sep-06	Low-flow	17 QC	420 QC	17 QC	4 UQC	4 UQC	8.3 QC	24 QC	2.8 JQC	8.2 QC	1100 QC	7.2 QC
		06-Dec-06	Low-flow	19	540	16	5 U	5 U	12	38	5 U	9.9	1700	3.8
		26-Mar-07	Low-flow*	27	780	25	0.98 J	1 U	14	48	0.78 J	13	1500	1.4
		05-Jun-07		22	360	25	0.78 J	2 U	10	42	2 U	8.5	1100	2.9
		18-Sep-07	Low-flow	5	1 U	3.3	1 U	1 U	0.59 J	1.2	1 U	2.3	4.5	360
IRZCMW002	C-Sand	08-Oct-03		100 U	39 J	100 U	100 U	100 U	36 J	100 U	100 U	100 U	4600	100 U
		05-Jan-05		120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	5200	120 U
		19-Mar-05		120 U	38 J	120 U	120 U	120 U	120 U	120 U	120 U	120 U	7700	120 U
		15-Jun-05		50 U	32 J	50 U	50 U	50 U	50 U	4800	50 U	25 J	87	50 U
		22-Sep-05		100 U	100 U	100 U	42 J	7900	100 U	100 U	100 U	100 U	360	100 U

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Select Historical Groundwater Quality Data
Boeing Corporate Real Estate, Former C-6 Facility
Los Angeles, California

Well ID	Screened Unit	Sampled Date	Sampling Method	1,1-Dichloroethane	1,1-Dichloroethene	1,2-Dichloroethane	Benzene	Chlorobenzene	Chloroform	cis-1,2-Dichloroethene	Tetrachloroethene	trans-1,2-Dichloroethene	Trichloroethene	Vinyl chloride
IRZCMW002		21-Dec-05		50 U	18 J	50 U	50 U	50 U	50 U	3100	50 U	18 J	43 J	50 U
		22-Mar-06	Conventional	4 U	25	2 U	4 U	4 U	4 U	2100	4 U	18	510 QC	410 QC
		16-Jun-06		5 U	5 U	2.5 U	5 U	5 U	5 U	24	5 U	13	1.8 J	1300
		11-Sep-06	Low-flow*	2 U	1.5 J	1 U	2 U	2.6	2 U	2.3	2 U	8.2	3.7	1000
		04-Dec-06	Low-flow	1 U	1 U	0.5 U	1 U	29	1 U	14	1 U	8.9	2.3	1300
		22-Mar-07	Low-flow	0.34 J	0.78 J	0.5 U	1 U	2.7	0.59 J	18	1 U	6.9	9.2	920
		07-Jun-07		10 U	10 U	5 U	10 U	10 U	10 U	11	10 U	8 J	10 U	1500
		18-Sep-07	Low-flow*	2 U	2 U	1 U	2 U	0.88 J	2 U	19	2 U	4.9	3.2	660
IRZCMW003	C-Sand	07-Oct-03		100 U	83 J	100 U	100 U	100 U	36 J	100 U	100 U	100 U	2900	100 U
		05-Jan-05		100 U	46 J	100 U	100 U	100 U	100 U	100 U	100 U	100 U	4300	100 U
		28-Jan-05		100 U	49 J	100 U	100 U	100 U	100 U	44 J	100 U	100 U	5000	100 U
		19-Mar-05		120 U	69 J	120 U	120 U	120 U	120 U	350	120 U	120 U	5700	120 U
		22-Sep-05		50 U	59	50 U	50 U	50 U	16 J	1700	50 U	50 U	3900	50 U
		21-Dec-05		50 U	52	50 U	50 U	50 U	16 J	1100	50 U	50 U	4400	50 U
		22-Mar-06	Conventional	1.2	29	0.44 J	1 U	2 U	20	390	2.4	33	6100	0.75
		15-Jun-06		4 U	52	2 U	4 U	4 U	17	810	1.9 J	3.7 J	8500	6.2
		12-Sep-06	Low-flow	0.78 J	45	1.2 U	2.5 U	2.5 U	12	420	1.4 J	3.3	5800	20
		06-Dec-06	Low-flow	100 U	100 U	50 U	100 U	45 J	100 U	490	100 U	100 U	8400	50 U
		28-Mar-07	Low-flow	20 U	46	10 U	20 U	20 U	14 J	650	20 U	20 U	8000	130
		04-Jun-07		25 U	31	12 U	25 U	25 U	10 J	560	25 U	14 J	7400	100
		18-Sep-07	Low-flow	0.33 J	11	0.5 U	1 U	1 U	3.2	2700	1 U	8.5	88	30
		18-Sep-07	Low-flow	0.36 J	12	0.5 U	1 U	1 U	3.2	3000	1 U	11	77	34
IRZMW001A	B-Sand	30-Oct-03		500 U	500 U	500 U	500 U	500 U	500 U	500 U	500 U	500 U	11000	500 U
		18-Nov-04		120 U	77 J	120 U	120 U	120 U	120 U	43 J	120 U	120 U	7200	120 U
		04-Jan-05		120 U	66 J	120 U	120 U	120 U	120 U	120 U	120 U	120 U	6900	120 U
		27-Jan-05		120 U	58 J	120 U	120 U	120 U	120 U	38 J	120 U	120 U	7700	120 U
		19-Mar-05		250 U	81 J	250 U	250 U	250 U	250 U	120 J	250 U	250 U	9800	250 U
		21-Sep-05		310 U	100 J	310 U	310 U	310 U	310 U	100 J	310 U	310 U	16000	310 U
		23-Mar-06	Conventional	5	85 QC	0.65	2.6	1 U	18	290	3.2	1.3	14000	0.5 U
		15-Jun-06		5.6	70	0.73	2.5	1 U	20	400	3.3	2	18000	0.5 U
		13-Sep-06		20 U	93	10 U	20 U	20 U	19 J	430	20 U	20 U	16000	10 U
		06-Dec-06	Low-flow	40 U	65	20 U	40 U	15 J	18 J	450	40 U	40 U	19000	20 U
		23-Mar-07	Low-flow	20 U	67	10 U	20 U	20 U	17 J	460	20 U	20 U	16000	22
		04-Jun-07		50 U	68	25 U	50 U	50 U	18 J	490	50 U	50 U	17000	24 J
IRZMW003A	B-Sand	31-Oct-03		500 U	180 J	500 U	500 U	500 U	500 U	500 U	500 U	500 U	20000	500 U
		04-Jan-05		250 U	97 J	250 U	250 U	250 U	250 U	120 J	250 U	250 U	11000	250 U
		27-Jan-05		250 U	78 J	250 U	250 U	250 U	250 U	220 J	250 U	250 U	14000	250 U
		19-Mar-05		500 U	500 U	500 U	500 U	500 U	500 U	500 U	500 U	500 U	18000	500 U
		21-Sep-05		420 U	420 U	420 U	420 U	420 U	420 U	420 U	420 U	420 U	24000	420 U
		20-Dec-05		170 U	63 J	170 U	170 U	170 U	170 U	190	170 U	170 U	11000	170 U
		23-Mar-06	Conventional	2.6	100	0.5 U	1.3	1 U	17	120	4.6	1.5	20000	0.43 J
		15-Jun-06		100 U	96 J	50 U	100 U	100 U	100 U	130	100 U	100 U	18000	50 U
		13-Sep-06	Low-flow	50 U	93	25 U	50 U	50 U	50 U	50 U	50 U	50 U	18000	32
		04-Dec-06	Low-flow	2.1	70	0.5 U	0.91 J	1 U	13	250	3.7	8.7	18000	20 U
		23-Mar-07	Low-flow*	50 U	68	25 U	50 U	50 U	50 U	700	50 U	56	16000	25 U
		04-Jun-07		50 U	90	25 U	50 U	50 U	50 U	480	50 U	50 U	18000	25 U
IRZMW004	B-Sand	07-Oct-03		250 U	81 J	250 U	250 U	250 U	110 J	250 U	250 U	250 U	8700	250 U
		14-Dec-04		170 U	96 J	170 U	170 U	170 U	120 J	170 U	170 U	170 U	6600	170 U
		05-Jan-05		100 U	71 J	100 U	100 U	100 U	74 J	100 U	100 U	100 U	5600	100 U
		14-Jan-05		120 U	48 J	120 U	120 U	120 U	140	120 U	76 J	120 U	5800	120 U
		11-Feb-05		100 U	82 J	100 U	100 U	100 U	60 J	100 U	100 U	100 U	6200	100 U
		20-Mar-05		120 U	73 J	120 U	120 U	120 U	46 J	48 J	120 U	120 U	6600	120 U
		15-Jun-05		120 U	110 J	120 U	120 U	120 U	83 J	840	120 U	120 U	7100	120 U
		21-Sep-05		50 U	50	50 U	50 U	50 U	50 U	3500	50 U	50 U	470	240
		21-Dec-05		50 U	59	50 U	50 U	50 U	49 J	670	50 U	50 U	3800	52
		22-Mar-06	Conventional	0.59 J	48	0.5 U	1.1	1 U	36 QC	1200	2.2	30 QC	3900	0.5 UQC
		22-Mar-06	Conventional	0.53 J	47	0.5 U	1	1 U	33	1300	1.9	17	3600	58
		15-Jun-06		0.84 J	54	0.35 J	1.6	1 U	69	3800	1.4	12	2400	44
		15-Jun-06		1	54	0.37 J	1.6	1 U	72	3800	1.4	18	2400	44
		12-Sep-06		10 U	64	5 U	10 U	10 U	23	4400	10 U	13	250	500
		12-Sep-06	Low-flow	10 U	66	5 U	10 U	10 U	24	3800	10 U	12	240	480
		06-Dec-06	Low-flow	10 U	41	5 U	10 U	10 U	81	3000	10 U	8 J	1200	620
		28-Mar-07	Low-flow	1.2 J	49	2 U	1.2 J	4 U	150	950	5.4	6	3400	360
		05-Jun-07		10 U	55	5 U	10 U	10 U	100	450	11	7.3 J	4000	52
IRZMW005	B-Sand	09-Oct-03		170 U	75 J	170 U	170 U	170 U	56 J	170 U	170 U	170 U	6000	170 U
		19-Nov-04		120 U	74 J	120 U	120 U	120 U	51 J	61 J	120 U	120 U	6500	120 U
		14-Dec-04		170 U	84 J	170 U	170 U	170 U	54 J	170	170 U	170 U	7300	170 U
		05-Jan-05		25 U	12 J	25 U	25 U	25 U	8.3 J	1200	25 U	25 U	110	25 U
		14-Jan-05		100 U	60 J	100 U	100 U	100 U	43 J	5200	100 U	100 U	740	100 U
		28-Jan-05		120 U	52 J	120 U	120 U	120 U	40 J	5500	120 U	120 U	880	120 U
		11-Feb-05		100 U	58 J	100 U	100 U	100 U	35 J	5800	100 U	100 U	540	100 U
		20-Mar-05		120 U	41 J	120 U	120 U	120 U	120 U	7100	120 U	120 U	170	120 U
		22-Sep-05		50 U	28 J	50 U	50 U	50 U	50 U	3400	50 U	50 U	340	50 U

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Table 1
Select Historical Groundwater Quality Data
Boeing Corporate Real Estate, Former C-6 Facility
Los Angeles, California

Well ID	Screened Unit	Sampled Date	Sampling Method	1,1-Dichloroethane	1,1-Dichloroethene	1,2-Dichloroethane	Benzene	Chlorobenzene	Chloroform	cis-1,2-Dichloroethene	Tetrachloroethene	trans-1,2-Dichloroethene	Trichloroethene	Vinyl chloride
IRZMW005		21-Dec-05		50 U	19 J	50 U	50 U	50 U	50 U	2700	50 U	50 U	30 J	130
		21-Mar-06	Conventional	0.54 J	40	0.5 U	0.29 J	0.61 J	2.4	1800	0.59 J	5.6	2700	130
		15-Jun-06		10 U	25	5 U	10 U	10 U	10 U	830	10 U	10 U	3500	57
		12-Sep-06	Low-flow	5 U	36	2.5 U	5 U	5 U	2.2 J	3900	5 U	26	1200	84
		06-Dec-06	Low-flow	10 U	21	5 U	10 U	10 U	10 U	2400	10 U	18	1400	780
		27-Mar-07	Low-flow*	5 U	12	2.5 U	5 U	5 U	5 U	2100	5 U	18	370	1800
		06-Jun-07		0.41 J	28	0.5 U	0.95 J	1 U	1.8	3200	1 U	21	330	720

Notes:
All results are reported in micrograms per liter (ug/L)
Only selected analytes are shown on this table.
"Conventional" indicates wells sampled following the removal of 3 wetted casing volumes. "Low-flow" indicates wells sampled using minimal drawdown methods. * - Indicates low-flow events wherein one or more of the method requirements (i.e., flow rate, drawdown, stabilization, etc.) was not achieved.
Sampling events with shaded sampling methods were used in the low-flow method evaluation.
U = Not detected at a concentration greater than the laboratory reporting limit indicated
J = Estimated concentration detected below the laboratory reporting limit
B = Analyte detected in associated laboratory method blank
QC = Laboratory quality control issue identified; may not impact data usability

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Figures

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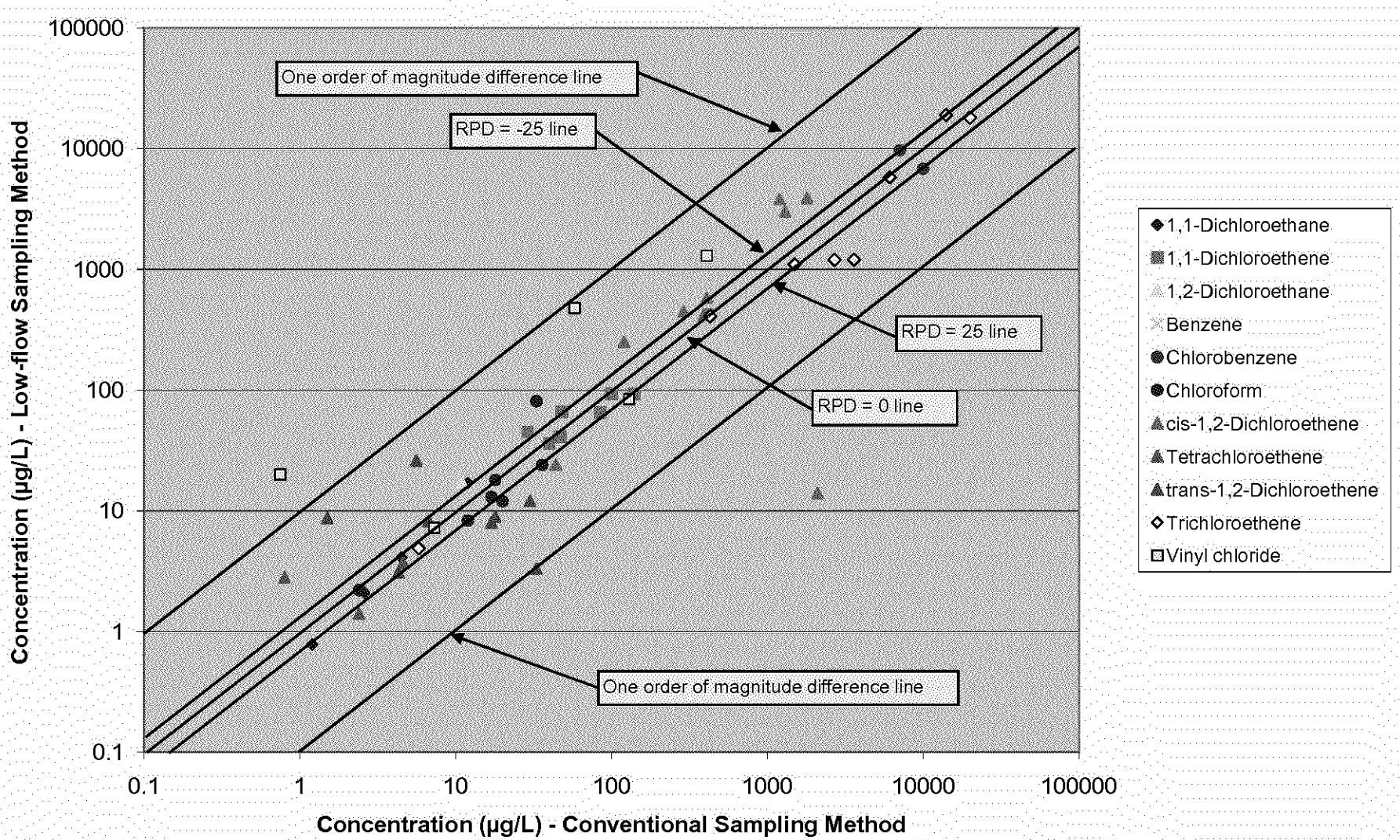
Figure 1 - Comparison of Paired Results



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