AVOCET
ENVIRONMENTAL, INC.

September 14, 2009 Project No. 1155.010

Ms. Jennifer L. Wiley, PG, CEM
THE BOEING COMPANY
Environment, Health & Safety –
Environmental Remediation
4501 Conant Street, M/C D851-0097
Long Beach, California 90808

Field Data Report
September 2009 Groundwater Sampling
Site-Wide Semiannual Monitoring
Semiannual Monitoring at Building 1/36 Area
Quarter 4 Monitoring at Building 2 Area
Waste Discharge Requirements Order No. R4-2007-0040
Boeing Former C-6 Facility
Los Angeles, California

Dear Ms. Wiley:

This report has been prepared by Avocet Environmental, Inc. (Avocet) to summarize and present the field data collected during the September 2009 groundwater monitoring event at the Boeing Company's (Boeing's) Former C-6 Facility in Los Angeles, California. The September 2009 monitoring included sampling for the Building 1/36 Waste Discharge Requirements (WDR), Building 2 WDR, and Site-Wide Semiannual groundwater monitoring programs. The monitoring was conducted pursuant to and in accordance with the following:

Avocet Environmental, Inc., September 1, 2009, Technical Memorandum, September 2009 Groundwater Sampling and Analysis Plan, Site-Wide Semiannual Monitoring Semiannual Monitoring at Building 1/36 Area, Quarter 4 Monitoring at Building 2 Area, Waste Discharge Requirements Order No. R4-2007-0040, Boeing Corporate Real Estate Former C-6 Facility, Los Angeles, California (Attachment 1).

California Regional Water Quality Control Board, Los Angeles Region (LARWQCB), August 22, 2008, Approval of Revised Monitoring and Reporting Program CI-9310, Individual Waste Discharge Requirements Order No. R4-2007-0040, Boeing Corporate Real Estate, Former C-6 Facility, 19503 South Normandie, Los Angeles, California (File No. 95-036; SLIC No. 0410; Site ID No. 1846000).

Avocet Environmental, Inc., February 17, 2009, 2009 Groundwater Monitoring Work Plan, Boeing Former C-6 Facility, 19503 South Normandie Avenue, Los Angeles, California.

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Field activities performed during the September 2009 monitoring event are discussed in the following sections. Figures 1, 2, and 3 (Attachment 1) present the locations of the groundwater monitoring wells included in the programs.

METHANE AND VOC MONITORING

The concentration of volatile organic compounds (VOCs) within the "headspace" of the monitoring wells is routinely measured as part of the fluid level gauging process at the Former C-6 Facility. The headspace concentration is measured immediately upon removal of the well cap by holding the intake of a photoionization detector (PID) just inside the monitoring well casing and recording the maximum reading on the Groundwater Monitoring Well Gauging Sheet (Attachment 2). In response to past measurements of methane gas in several wells associated with the groundwater remediation programs, methane monitoring was added to the headspace monitoring program in March 2009. Monitoring of select wells, identified as containing elevated methane concentrations in March 2009, was performed as part of the September 2009 event. Similar to the VOCs measurements, methane was measured immediately upon removal of the well cap by holding the intake of a combustible gas meter approximately 1-inch above the center of the well casing and recording the maximum measurement in terms of the percent of the methane lower explosive limit (% LEL). For wells that displayed combustible gas concentrations greater than 2% of LEL, the "time to disperse" (i.e., the time required for concentrations to fall below 2% of LEL) was also recorded. The maximum combustible gas measurement and the "time to disperse" were recorded on the Groundwater Monitoring Well Gauging Sheet (Attachment 2). Wells that contained combustible gas concentrations of 1% LEL or greater were tagged with a yellow caution tag reading "THIS WELL MAY CONTAIN METHANE GAS". Twenty-five wells were monitored for the presence of combustible gas as part of the September 2009 semiannual groundwater monitoring event. Of the 25 wells, eight exhibited combustible gas concentrations of 1% or greater. All eight of these wells had previously been identified with a yellow caution tag.

WATER LEVEL MEASUREMENTS

Fluid level gauging was conducted in 56 monitoring wells on September 8, 2009. Two wells originally scheduled for gauging, XMW-9 and XMW-19, also referred to as the "Montrose Wells", were not gauged since an access agreement had not been finalized. Water level measurements consisted of using a Solinst water level meter to measure the depth of water from a surveyed reference point on top of the casing. Care was taken to ensure that all down-hole equipment was properly and thoroughly decontaminated prior to use in any well. Water level measurements were recorded on the Groundwater Monitoring Well Gauging Sheet (Attachment 2).

GROUNDWATER SAMPLING ACTIVITIES

Groundwater monitoring in September 2009 was conducted in accordance with two separate programs: 1) the Site-Wide Groundwater Monitoring Program, which has been performed periodically at the site since 1987, and 2) Revised Monitoring and Reporting Program CI-9310 (MRP), which is conducted in accordance with Individual WDR Order No. R4-2007-0040 (August 22, 2008).

The Building 1/36 WDR, Building 2 WDR, and Site-Wide Semiannual groundwater monitoring programs called for fluid level measurements in 58 wells and sample collection from 49 wells, as follows:

Quarterly Building 1/36 WDR Monitoring – Pursuant to the MRP, 15 wells (Groups A1, A2, B1, B2, C, and D) were gauged for fluid levels and sampled. Well WCC_12S was also part of the Site-Wide Program. Pursuant to comments received on the SAP, the two B2 wells were also sampled as part of the Building 1/36 September 2008 WDR Monitoring program.

Quarter 4 Building 2 WDR Monitoring - Pursuant to the MRP, six wells (Groups B, C, and D) were gauged for fluid levels and sampled. One of these wells, well CMW002, was also part of the Site-Wide Program.

Semiannual Site-Wide Groundwater Monitoring – Pursuant to the 2008 Work Plan, 37 wells were gauged for fluid levels and 29 wells were sampled. Three of these sampled wells (WCC_06S, WCC_12S and IRZCMW003) are also part of the Building 1/36 or Building 2 WDR programs and were gauged and sampled in accordance with MCP requirements.

All wells were also inspected for any damage or missing materials and described on field data forms. Field data forms are included in Attachment 2.

Fifteen Building 1/36 WDR wells, six Building 2 WDR wells, and 26 Site-wide wells were purged and sampled on September 9 through 11, 2009 using either dedicated or portable low-flow bladder pumps and flow-through cells. All WDR and site-wide wells were purged for sampling using low-flow (0.20-0.25 liters/minute) methods. For all of the WDR monitoring wells, ferrous iron testing was performed using HACH DR/890 Colorimeter. The flow-through cell dissolved oxygen measurements were confirmed in several wells using a CHEMetrics Inc. test kit. The field instruments were calibrated by the equipment suppliers prior to the event and the calibration data sheets are included in Attachment 2.

All 58 wells scheduled for water level measurement were gauged for depth to water on September 8, 2008 using a Solinst-type electronic water level sounder. The wells were also inspected for any damage or missing materials. All wells were in good condition.

At the completion of purging, groundwater samples were collected in laboratory supplied containers, properly labeled, identified on the chain-of-custody, and submitted to TestAmerica Laboratory, an appropriately certified environmental testing laboratory located in Irvine,

California. A normal 10-day turn-around time was requested for the lab analyses. For the WDR wells, groundwater samples were analyzed for one or more of the following:

- Volatile organic compounds (VOCs) by EPA Method 8260B,
- Total organic carbon (TOC) by EPA Method 9060,
- Volatile fatty acids (VFAs) by IC Method 8M23G (subcontracted by TestAmerica to Microseeps, Inc., Pittsburg, PA),
- Dissolved gases (ethane, ethene, and methane) by RSK 175 (subcontracted by TestAmerica to Air Technology Laboratory, Inc., City of Industry, CA),
- Dissolved minerals (sulfate, nitrate, nitrite, and chloride) by EPA Method 300 Series,
- Total Alkalinity by EPA Method 310,
- Quantitative polymerase chain reaction (qPCR) analysis for DHC 16S rRNA gene and functional genes tceA, bvcA, and vcrA (subcontracted by TestAmerica to North Wind, Inc., Pocatello, ID, (four Building 2, group B wells only), and
- Total dissolved solids (TDS) by EPA Method 160.1 (for the group C and D wells only).

Samples from the non-WDR wells were analyzed for VOCs using EPA Method 8260B.

Purge water (approximately 40 gallons) was placed in an appropriately labeled 55-gallon drum located adjacent to the treatment compound. The analytical results will be used to profile the purge water for transport to an appropriate off-site facility for treatment and disposal. Management, containerization, staging, profiling, and transportation will be conducted in accordance with procedures established by Boeing.

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

Respectfully submitted,

AVOCET ENVIRONMENTAL, INC.

Michael A. Rendina

Michael A. Rendina, C.Hg.
Principal

MAR:sh
Attachments:
Attachment 1: September 2009 Groundwater Sampling and Analysis Plan
Attachment 2: Field Data Forms

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Attachment 1

September 2009 Groundwater Sampling and Analysis Plan

AVOCET
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AVOCET
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September 1, 2009 Project No. 1155.010

Ms. Jennifer Wiley, P.G. (via electronic mail only)
THE BOEING COMPANY
Environment, Health & Safety –
Environmental Remediation
4501 East Conant Street, M/C D851-0097
Long Beach, California 90808

Technical Memorandum
September 2009 Groundwater Sampling and Analysis Plan
Site-Wide Semiannual Monitoring
Semiannual Monitoring at Building 1/36 Area
Quarter 4 Monitoring at Building 2 Area
Waste Discharge Requirements Order No. R4-2007-0040
Boeing Former C-6 Facility
Los Angeles, California

Dear Ms. Wiley:

This memorandum has been prepared by Avocet Environmental, Inc. (Avocet) and presents the sampling and analysis plan (SAP) for the September 2009 groundwater monitoring event at The Boeing Company's (Boeing's) Former C-6 Facility in Los Angeles, California. Groundwater monitoring in September 2009 will be conducted in accordance with two separate programs: 1) the Site-Wide Groundwater Monitoring Program, which has been performed periodically at the site since 1987, and 2) Revised Monitoring and Reporting Program CI-9310 (MRP), which is conducted in accordance with Individual Waste Discharge Requirements (WDR) Order No. R4-2007-0040 (August 22, 2008). The details of the Semiannual Site-Wide Groundwater Monitoring Program are provided in the *2009 Groundwater Monitoring Work Plan* (the Work Plan; Avocet, February 17, 2009). This Work Plan was submitted to the Regional Water Quality Control Board, Los Angeles Region (LARWQCB) and formally approved for implementation in a letter dated March 4, 2009 (LARWQCB, March 4, 2009). Under the revised WDR Order, the September 2009 MRP includes sample collection in two areas of the site in response to two separate bioremediation pilot tests: 1) semiannual sampling of wells at the Former Building 1/36 Biorecirculation Pilot Test wells, and 2) quarter four sampling of the Former Building 2 Periodic Slug Injection wells. Additional sample analyses, not included in the above-described programs, were added to this sampling event at the direction of CDM in order to more fully characterize methane generation and migration and to further assess the effects of the recent bioremediation efforts.

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Field Activities

Ground water monitoring will be conducted in September of 2009 and include the Semiannual Site-Wide Groundwater Monitoring Program and the Building 2 and Building 1/36 WDR groundwater monitoring programs. Details of the Building 1/36 WDR, Building 2 WDR, and Semiannual Site-Wide groundwater monitoring programs are presented in Tables 1 through 3, respectively. Maps showing the well locations are provided in Figures 1 through 3. Collectively, the three programs call for fluid level measurements in 58 wells and sample collection from 49 wells, as follows:

Semiannual Site-Wide Groundwater Monitoring – Pursuant to the 2009 Work Plan, 37 wells will be gauged for fluid levels and 28 wells are scheduled for sampling. Three of these wells (WCC_06S, WCC_12S and IRZCMW003) are also part of the Building 1/36 or Building 2 WDR programs and will be gauged and/or sampled in accordance with MCP requirements. The details of the Semiannual sampling program are presented in Table 3 and a map showing the well locations is provided in Figure 1.

Quarter 4 Building 2 WDR Monitoring - In accordance with the revised MRP, six wells are to be monitored at the Former Building 2 area. These six wells consist of the four Group B Wells (CMW026, IRZCMW002, IRZCMW003, and MWC024), the one Group C Well (CMW002), and the one Group D Well (IRZCMW001). Each of these wells will be gauged for water level and sampled. A list of the WDR wells to be monitored, broken out by Group, is provided in Table 2. A map showing the Building 2 WDR well locations is provided in Figure 3.

Quarterly Building 1/36 WDR Monitoring – Pursuant to the revised MRP, 15 wells in the Former Building 1/36 area are scheduled for fluid level gauging and 11 of the 15 wells for sampling. This includes the two Group A1 Wells (AW0066UB and AW0067UB), the six Group B1 Wells (AW0075UB, AW0076UB, AW0077UB, EWB002, AW0055UB, and AW0073C), the Group C Wells (TMW_07 and WCC_12S) and the Group D Well (MWB006). In response to comments from CDM, the two Group A2 wells (AW0064UB and AW0065UB) and the two Group B2 wells (WCC_06S and AW0074UB) were added to the September 2009 monitoring event. Therefore, all 15 Building 1/36 WDR wells will be sampled. A list of the WDR wells to be monitored, broken out by Group, is provided in Table 1. A map showing the WDR wells located in the Building 1/36 Area is provided in Figure 2.

The scope of work will include all tasks associated with collecting the field measurements and laboratory samples required to comply with the WDR Order and 2009 Work Plan. In brief, these activities will include water level measurements, groundwater well purging and sampling, and sample analyses. Additional activities such as pre-field documentation, waste management, and reporting are addressed in the Work Plan. Specifically, the September 2009 groundwater monitoring activities will include the following:

- Twenty-five (25) wells will be subject to methane monitoring. Immediately upon removal of the well cap, methane concentrations in the monitoring well "headspace" will be measured by holding the intake of a combustible gas meter

(RKI Eagle) approximately 1-inch above the center of the well casing and recording the maximum measurement in terms of the percent of the methane lower explosive limit (% LEL). For wells with combustible gas concentrations greater than 2% of LEL, the "time to disperse" (i.e., the time required for concentrations to fall below 2% of LEL) will also be recorded. The maximum combustible gas measurement and the "time to disperse" will be recorded on the Groundwater Monitoring Well Gauging Sheet. Wells that contain combustible gas concentrations of 1% LEL or greater will be tagged with a yellow caution tag reading "THIS WELL MAY CONTAIN METHANE GAS".

- The concentration of volatile organic compounds (VOCs) within the "headspace" of the monitoring wells will be measured as part of the fluid level gauging process at the Former C-6 Facility. The headspace concentration will be measured immediately upon removal of the well cap by holding the intake of a photoionization detector (PID) just inside the monitoring well casing and recording the maximum reading on the Groundwater Monitoring Well Gauging Sheet.
- Depth to groundwater will be measured to the nearest one-hundredth of a foot in each of the 58 wells scheduled for fluid level gauging using a Solinst (or equivalent) well sounder. All water level measurements will be collected within a single 24-hour period using calibrated water level sounders. Water levels in wells with submerged screens that are noted to be under pressure upon removal of the well cap will be allowed time to stabilize prior to water level gauging.
- Groundwater samples are scheduled for collection from 28 non-WDR wells (Table 3) and from 21 WDR wells (Tables 1 and 2) during the September 2009 monitoring event. Prior to sampling, the wells will be purged using low-flow methods to assure representative samples are collected from the formation. During purging, the flow rate at each location will be maintained between 100 and 500 milliliters (ml/min), dependent on site-specific and well-specific factors as drawdown is not to exceed 0.5 feet in any well. For wells purged at rates in excess of 100 ml/min, the flow rate will be reduced to 100 ml/min or less prior to collection of samples for volatile organic compounds (VOCs) analysis.
- During well purging, biogeochemical parameters including pH, temperature, electric conductivity (EC), dissolved oxygen (DO), and oxygen-reduction potential (ORP) will be periodically measured using a flow-thru cell and QED multiparameter meter or equivalent. In addition, turbidity will be measured using a Lamotte 2020 turbidimeter; approximately ten percent of the dissolved oxygen measurements will be confirmed using a CHEMetrics, Inc. test kit; and, for the WDR wells, ferrous iron (Fe(II)) will be measured using a Hach DR890 Colorimeter. Purging will continue until three consecutive

measurements are within +/-0.2 for pH, +/-3% for EC, +/-10% for DO, and +/-20 mV for ORP (ATSM, 2002).

- At the completion of purging, groundwater samples will be collected in laboratory-supplied containers, labeled in accordance with Boeing's Data Management Plan (CH2M Hill, 2007), placed on ice in a cooler, identified on the chain-of-custody, and submitted to appropriately-certified environmental testing laboratories.

Samples collected from the Building 2 and Building 1/36 WDR wells will be analyzed for one or more of the following as detailed in Tables 1 and 2:

- volatile organic compounds (EPA Method 8260B);
- total organic carbon (EPA 9060);
- volatile fatty acids by IC Method 8M23G (Microseeps, Inc., Pittsburg, PA);
- dissolved hydrocarbon gases (ethene, ethane, and methane by RSK 175);
- total alkalinity (EPA Method 310.1);
- anions (sulfate, nitrate, nitrite, and chloride by EPA Method 300 Series);
- total dissolved solids (EPA Method 160.1); and
- Quantitative Polymerase Chain Reaction (qPCR) analysis for DHC 16S rRNA gene and functional genes tceA, bvcA, and vcrA (North Wind, Inc., Pocatello, ID).

Samples from the non-WDR wells will be analyzed for volatile organic compounds using EPA Method 8260B (Table 3).

Closing Remarks

Ground water monitoring is scheduled to commence at the site on Tuesday, September 8, 2009 and is anticipated to require four days to complete. Avocet Environmental, Inc. appreciates the opportunity to be of service to The Boeing Company. If you have any questions, please do not hesitate to call.

Respectfully submitted,

AVOCET ENVIRONMENTAL, INC.

Michael A. Rendina, P.G.
Principal

MAR:sh
Enclosure

cc: Mr. Joe Weidmann – Haley & Aldrich
Mr. Ravi Subramanian - CDM

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Tables

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Table 1
September 2009 Building 1/36 WDR Groundwater Monitoring Program
Boeing Former C-6 Facility,
Los Angeles, California

Well Information			Field Program				Laboratory Program									
Well Name	Sampling Group	Hydrostratigraphic Unit	Total Select VOCs Concentration (µg/l)	Sampling Order	Water Level Measurement	Field Parameters	VOCs EPA 8260B	TOC EPA 9060 Modified	Volatile Fatty Acids IC Method 8M23G (Microseeps)	Dissolved Hydrocarbon Gases (DHGs) Methane, Ethane, Ethene RSK 175	Alkalinity EPA 310.1	Anions (NO_3, NO_2, SO_4) EPA 300.0	Chlorides EPA 300.0	Total Dissolved Solids EPA 160.1	DHC 16S rRNA gene and functional genes tceA, bvcA, and vcrA; by qPCR analysis (North Wind)	Comments
Group A Wells																
AW0066UB	A1	B-Sand	50	2	x	x	x	x		x		x				Semiannual - Year 2 WDR Monitoring
AW0067UB	A1	B-Sand	117	5	x	x	x	x		x		x				Semiannual - Year 2 WDR Monitoring
AW0064UB	A2	B-Sand	4,206	11	x	x	x	x		x		x				Group A2 Well, Additional Sampling for Evaluation
AW0065UB	A2	B-Sand	863	9	x	x	x	x		x		x				Group A2 Well, Additional Sampling for Evaluation
Group B Wells																
AW0075UB	B1	B-Sand	4,933	12	x	x	x	x		x		x				Semiannual - Year 2 WDR Monitoring
AW0076UB	B1	B-Sand	402	6	x	x	x	x		x		x				Semiannual - Year 2 WDR Monitoring
AW0077UB	B1	B-Sand	78	4	x	x	x	x		x		x				Semiannual - Year 2 WDR Monitoring
EWB002	B1	B-Sand	77	3	x	x	x	x		x		x				Semiannual - Year 2 WDR Monitoring
AW0055UB	B1	B-Sand	26,010	15	x	x	x	x		x		x				Semiannual - Year 2 WDR Monitoring
AW0073C	B1	B-Sand	535	7	x	x	x	x		x		x				Semiannual - Year 2 WDR Monitoring
WCC_06S	B2	B-Sand	542	8	x	x	x	x		x		x				Group B2 Well, Additional Sampling for Evaluation
AW0074UB	B2	C-Sand	6,820	13	x	x	x	x		x		x				Group B2 Well, Additional Sampling for Evaluation
Group C Wells																
TMW_07	C	B-Sand	1,005	10	x	x	x	x	x	x			x	x	x	Semiannual - Year 2 WDR Monitoring
WCC_12S	C	B-Sand	40	1	x	x	x	x	x	x			x	x	x	Semiannual - Year 2 WDR Monitoring
Group D Well																
MWB006	D	B-Sand	18,030	14	x	x	x	x	x	x			x	x	x	Semiannual - Year 2 WDR Monitoring
Quality Control Samples																
Duplicates (1 per 20 wells)							x (est. 1)									
Rinsate Blanks (1 per day)							x (est. 1)									
Trip Blanks (1 per cooler)							x (est. 2)									
			Totals:		15	15	19	15	3	15	0	12	3	3	3	

Notes: Field Parameters = pH, DO, ORP, EC, temp, turb, and ferrous iron.
pH = Potential of Hydrogen
DO = Dissolved Oxygen
ORP = Oxidation Reduction Potential
EC = Electrical Conductivity
Temp = Temperature
Turb = Turbidity
µg/l = Micrograms per liter

VOCs = Volatile organic compounds
EPA = U.S. Environmental Protection Agency
TOC = Total Organic Carbon
DHGs = Dissolved hydrocarbon gases
NO_3 = Nitrate, NO_2 = Nitrite, Cl = Chloride, SO_4 = Sulfate
DHC = *dehalococcoides spp.* strains
qPCR = Quantitative Polymerase Chain Reaction

Select VOCs for Total VOC calculation include PCE, TCE, cis-1,2-DCE, trans-1,2-DCE, and VC (March 2009).

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Table 2
September 2009 Building 2 WDR Groundwater Monitoring Program
Boeing Former C-6 Facility,
Los Angeles, California

Well Information			Field Program				Laboratory Program									
Well Name	Sampling Group	Hydrostratigraphic Unit	Total Select VOCs Concentration (µg/l)	Sampling Order	Water Level Measurement	Field Parameters	VOCs EPA 8260B	TOC EPA 9060 Modified	Volatile Fatty Acids IC Method 8M23G (Microseeps)	Dissolved Hydrocarbon Gases (DHGs) Methane, Ethane, Ethene RSK 175	Alkalinity EPA 310.1	Anions (NO_3, NO_2, SO_4) EPA 300.0	Chlorides EPA 300.0	Total Dissolved Solids EPA 160.1	DHC 16S rRNA gene and functional genes tceA, bvcA, and vcrA; by qPCR analysis (North Wind)	Comments
Group A Wells																
IRZC0001 & IRZC0003 through IRZC0020	A	C-Sand	-	-												Not accessible for sampling
Group B Wells																
CMW026	B	C-Sand	659	2	x	x	x	x	x	x	x	x	x		x	Quarter 4 - Year 1 WDR Monitoring
IRZCMW003	B	C-Sand	6,936	6	x	x	x	x	x	x	x	x	x		x	Quarter 4 - Year 1 WDR Monitoring
IRZCMW002	B	C-Sand	1,934	4	x	x	x	x	x	x	x	x	x		x	Quarter 4 - Year 1 WDR Monitoring
MWC024	B	C-Sand	3,129	5	x	x	x	x	x	x	x	x	x		x	Quarter 4 - Year 1 WDR Monitoring
Group C Wells																
CMW002	C	B-Sand	390	1	x	x	x	x	x	x	x	x	x	x	x	Quarter 4 - Year 1 WDR Monitoring
Group D Well																
IRZCMW001	D	B-Sand	1,136	3	x	x	x	x	x	x	x	x	x	x	x	Quarter 4 - Year 1 WDR Monitoring
Quality Control Samples																
Duplicates (1 per 20 wells)							x (est. 1)									
Rinsate Blanks (1 per day)							(est. 0)									dedicated pumps
Trip Blanks (1 per cooler)							x (est. 1)									
				Totals:	6	6	8	6	6	6	6	6	6	2	6	

Notes: Field Parameters = pH, DO, ORP, EC, temp, turb, and ferrous iron.
pH = Potential of Hydrogen
DO = Dissolved Oxygen
ORP = Oxidation Reduction Potential
EC = Electrical Conductivity
Temp = Temperature
Turb = Turbidity
µg/l = Micrograms per liter

VOCs = Volatile organic compounds
EPA = U.S. Environmental Protection Agency
TOC = Total Organic Carbon
DHGs = Dissolved hydrocarbon gases
NO_3 = Nitrate, NO_2 = Nitrite, Cl = Chloride, SO_4 = Sulfate
DHC = *dehalococcoides spp.* strains
qPCR = Quantitative Polymerase Chain Reaction

Select VOCs for Total VOC calculation include PCE, TCE, cis-1,2-DCE, trans-1,2-DCE, and VC (June 2009).

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Table 3
September 2009 Sitewide Groundwater Monitoring Program
Boeing Former C-6 Facility
Los Angeles, California

Well ID	Water-Bearing Unit	Total Select VOCs Concentration (µg/l)	Sampling Order	Dedicated Pump?	September 2009 Annual Event Analytical Program							Comments
					Methane Monitoring	Water Level Gauging	VOCs (8260B)	Field Parameters[1]	DHGs (MEE) (RSK 175)	Ferrous Iron?	WDR Analyses?	
B-Sand Monitoring Wells												
BL-03	B-Sand	533	36			x						
DAC-P1	B-Sand	10,116	69			x						
EWB001	B-Sand	143	29									Not Monitored in September 2009
EWB002	B-Sand	77	21	Yes	x	x	x	x	x	Yes[4]	Yes[6]	Monitored under Building 1/36 WDR Program
MW0005	B-Sand	1,871	53			x						
MWB003	B-Sand	5,615	66		x							
MWB006	B-Sand	18,030	74		x	x	x	x	x	Yes[4]	Yes[6]	Monitored under Building 1/36 WDR Program
MWB007	B-Sand	2,041	56	Yes		x	x	x				
MWB012	B-Sand	917	47									Not Monitored in September 2009
MWB013	B-Sand	8	4	Yes		x	x	x				
MWB014	B-Sand	107	27			x						
MWB019	B-Sand	425	33	Yes		x	x	x				
MWB020	B-Sand	45	18	Yes		x	x	x				
MWB027	B-Sand	801	43	Yes		x	x	x				
MWB028	B-Sand	916	46			x						
TMW_04	B-Sand											Not Monitored in September 2009
TMW_06	B-Sand	79	23			x						
TMW_07	B-Sand	1,005	48	Yes		x	x	x	x	Yes[4]	Yes[6]	Monitored under Building 1/36 WDR Program
TMW_08	B-Sand	1,161	50									Not Monitored in September 2009
TMW_10	B-Sand	11	7	Yes		x	x	x				
TMW_11	B-Sand	9	5	Yes		x	x	x				
TMW_14	B-Sand	12	8	Yes		x	x	x				
TMW_15	B-Sand	21	12	Yes		x	x	x				
WCC_03S	B-Sand	11,434	70	Yes	x	x	x	x				
WCC_04S	B-Sand	1,554	51	Yes		x	x	x				
WCC_05S	B-Sand	3	2	Yes		x	x	x				
WCC_06S	B-Sand	542	39		x	x	x	x	x	Yes[4]	Yes[6]	Group B2, Additional monitoring for evaluation
WCC_07S	B-Sand	153	30	Yes		x	x	x				
WCC_09S	B-Sand	46	19	Yes		x	x	x				
WCC_12S	B-Sand	40	16	Yes		x	x	x	x	Yes[4]	Yes[6]	Monitored under Building 1/36 WDR Program
XMW-09	B-Sand	91	24			x	x	x				
XMW-19	B-Sand	6	3			x	x	x				
C-Sand Monitoring Wells												
CMW001	C-Sand	10	6	Yes		x	x	x				
CMW002	C-Sand	390	31	Yes	x	x	x	x	x	Yes[4]	Yes[5]	Monitored under Building 2 WDR Program
CMW026	C-Sand	659	41	Yes	x	x	x	x	x	Yes[4]	Yes[5]	Monitored under Building 2 WDR Program
EWC001	C-Sand	4,432	64									Not Monitored in September 2009
EWC002	C-Sand					x						
IWC001	C-Sand	2,016	55			x						
IWC002	C-Sand				x							
MWC004	C-Sand	14	9	Yes	x	x	x	x				
MWC006	C-Sand	15	10									Not Monitored in September 2009
MWC007	C-Sand	3	1	Yes		x	x	x				
MWC009	C-Sand	91	25	Yes		x	x	x				
MWC011	C-Sand	105	26									Not Monitored in September 2009
MWC015	C-Sand	757	42			x						
MWC016	C-Sand	1,620	52									Not Monitored in September 2009
MWC017	C-Sand	441	34	Yes		x	x	x				
MWC021	C-Sand	19	11	Yes		x	x	x				
MWC022	C-Sand	45	17	Yes		x	x	x				
MWC023	C-Sand	871	45	Yes		x	x	x				
MWC024	C-Sand	3,129	60	Yes	x	x	x	x	x	Yes[4]	Yes[5]	Monitored under Building 2 WDR Program

AVOCET ENVIRONMENTAL, INC.

Table 3
September 2009 Sitewide Groundwater Monitoring Program
Boeing Former C-6 Facility
Los Angeles, California

Well ID	Water-Bearing Unit	Total Select VOCs Concentration (µg/l)	Sampling Order	Dedicated Pump?	September 2009 Annual Event Analytical Program							Comments
					Methane Monitoring	Water Level Gauging	VOCs (8260B)	Field Parameters[1]	DHGs (MEE) (RSK 175)	Ferrous Iron?	WDR Analyses?	
Gage Monitoring Wells												
MWG001	Gage	21	13	Yes		x	x	x				
MWG002	Gage	528	35	Yes		x	x	x				
MWG003	Gage	33	14	Yes		x	x	x				
MWG004	Gage	36	15	Yes		x	x	x				
Former and Current Bioremediation Monitoring Wells												
IRZMW001A	B-Sand	15,690	72		x							Methane Monitoring Only
IRZMW001B	B-Sand	535	37		x							Methane Monitoring Only
IRZMW002A	B-Sand	15,302	71									Not Monitored in September 2009
IRZMW002B	B-Sand	582	40									Not Monitored in September 2009
IRZMW003A	B-Sand	17,853	73									Not Monitored in September 2009
IRZMW003B	B-Sand	2,103	57									Not Monitored in September 2009
IRZMW004	B-Sand	3,784	61									Not Monitored in September 2009
IRZMW005	B-Sand	3,972	62									Not Monitored in September 2009
IRZB0081	B-Sand	2,287	59									Not Monitored in September 2009
IRZB0095	B-Sand	2,113	58									Not Monitored in September 2009
IRZCMW001	C-Sand	1,136	49	Yes	x	x	x	x	x	Yes[4]	Yes[5]	Monitored under Building 2 WDR Program
IRZCMW002	C-Sand	1,934	54	Yes	x	x	x	x	x	Yes[4]	Yes[5]	Monitored under Building 2 WDR Program
IRZCMW003	C-Sand	6,936	68	Yes	x	x	x	x	x	Yes[4]	Yes[5]	Monitored under Building 2 WDR Program
Building 1/36 WDR Monitoring Wells												
AW0066UB	Upper B-Sand	50	20		x	x	x	x	x	Yes[4]	Yes[6]	Monitored under Building 1/36 WDR Program
AW0067UB	Upper B-Sand	117	28		x	x	x	x	x	Yes[4]	Yes[6]	Monitored under Building 1/36 WDR Program
AW0064UB	Upper B-Sand	4,206	63		x	x	x	x	x	Yes[4]	Yes[6]	Group A2, WDR Monitoring Not Required
AW0065UB	Upper B-Sand	863	44		x	x	x	x	x	Yes[4]	Yes[6]	Group A2, WDR Monitoring Not Required
AW0075UB	Upper B-Sand	4,933	65	Yes	x	x	x	x	x	Yes[4]	Yes[6]	Monitored under Building 1/36 WDR Program
AW0076UB	Upper B-Sand	402	32	Yes	x	x	x	x	x	Yes[4]	Yes[6]	Monitored under Building 1/36 WDR Program
AW0077UB	B-Sand	78	22	Yes	x	x	x	x	x	Yes[4]	Yes[6]	Monitored under Building 1/36 WDR Program
AW0073C	C-Sand	535	37	Yes	x	x	x	x	x	Yes[4]	Yes[6]	Monitored under Building 1/36 WDR Program
AW0074UB	Upper B-Sand	6,820	67	Yes	x	x	x	x	x	Yes[4]	Yes[6]	Group B2, WDR Monitoring Not Required
AW0055UB	Upper B-Sand	26,010	75	Yes	x	x	x	x	x	Yes[4]	Yes[6]	Monitored under Building 1/36 WDR Program
Subtotals		Sitewide Program			6	37	28	28	0			
		WDR Program			19	21	21	21	21	21	21	
Quality Control Samples[3]												
Duplicates (1 per 20 wells)							x (3)					
Rinseate Blanks (1 per day)							x (5)					
Trip Blanks (1 per day)							x (5)					
Totals					25	58	62	49	21	21	21	

Notes:
VOCs = volatile organic compounds using EPA Method 8260B
TOC = Total Organic Carbon
DHGs = Dissolved hydrocarbon gases - MEE (Methane, Ethane, Ethene) using Method RSK 175
Field Parameters = pH, dissolved oxygen (DO), redox, turbidity, electrical conductivity, and temperature.
(1) As a quality assurance check on DO measurements, 10 percent of the samples will be analyzed in the field using a CHEMetrics, Inc test kit (K-7512 or K-7540).
(2) Well WCC_06S is included in the Building 1/36 WDR, but as a Group B2 well is not included in the September 2009 sampling event for that program.
(3) Quality control sample number based on estimated number of sampling days.
(4) Test for ferrous iron using the Hach DR890 Colorimeter.
(5) Analyze samples in accordance with the Building 2 WDR Program summarized in Table 2.
(6) Analyze samples in accordance with the Building 1/36 WDR Program summarized in Table 1.

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Figures

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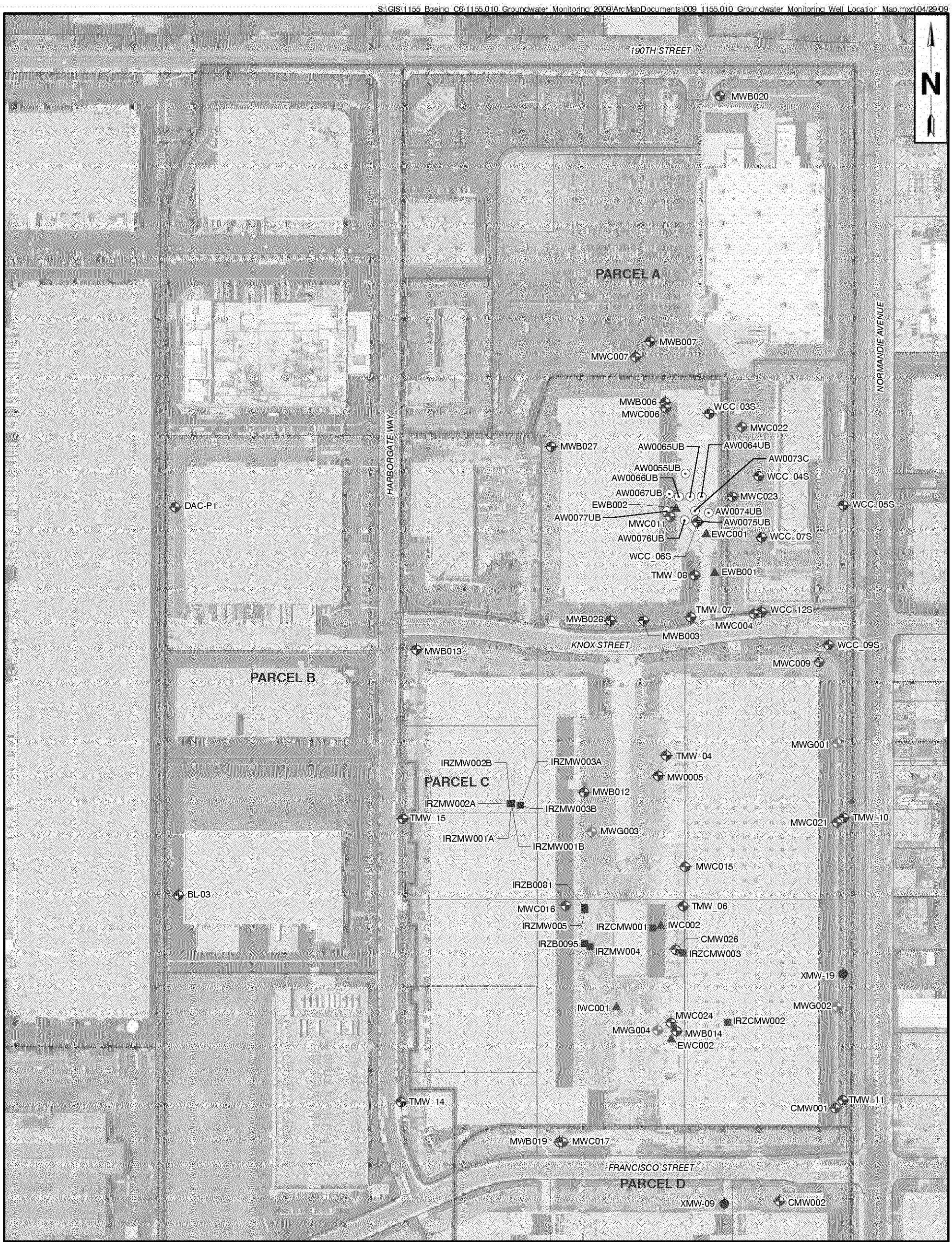
S:\GIS\1155 Boeing C6\1155.010 Groundwater Monitoring 2009\ArcMapDocuments\009_1155.010 Groundwater Monitoring Well Location Map.mxd\04/29/09



LEGEND

- Parcel Boundary
- B-Sand IRZ Bioremediation Monitoring Well
- C-Sand IRZ Bioremediation Monitoring Well
- B-Sand Montrose Monitoring Well
- B-Sand Monitoring Well
- C-Sand Monitoring Well
- Gage Monitoring Well
- B-Sand Observation Well
- C-Sand Observation Well
- B-Sand Ammendment Wells
- C-Sand Ammendment Wells

0 250 500
SCALE

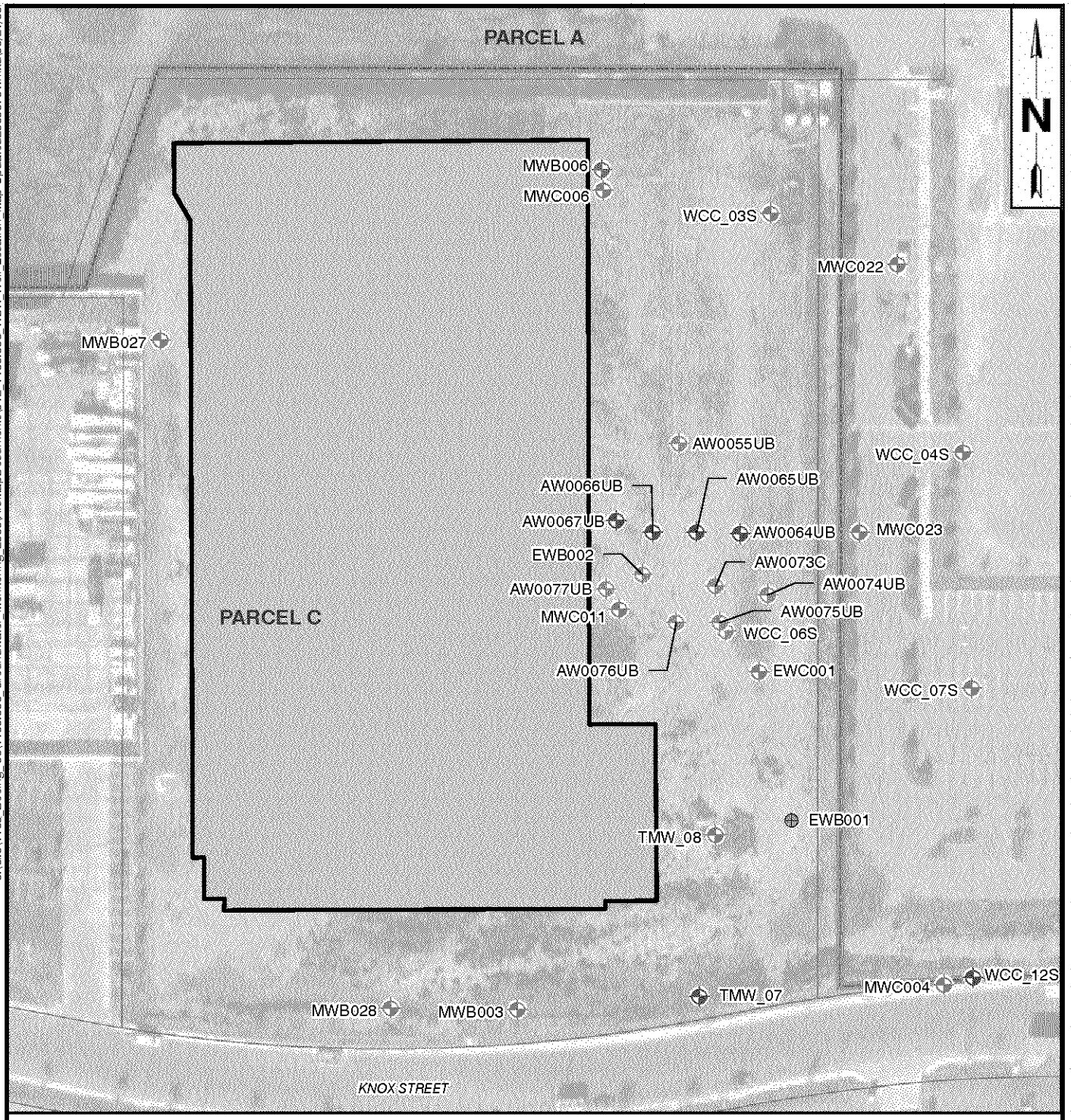
FIGURE 1

GROUNDWATER MONITORING WELL LOCATION MAP

BOEING ENTERPRISE REAL PROPERTY
FORMER C-6 FACILITY
LOS ANGELES, CALIFORNIA

AVOCET ENVIRONMENTAL, INC.

S:\GIS\1155_Boeing_C6\1155.006_Groundwater_Monitoring_2008\ArcMapDocuments\012_1155.006_WDR_Well_Location_Map-Updated20080731.mxd08/21/08



LEGEND

- Group A WDR Monitoring Well
- Group B WDR Monitoring Well
- Group C WDR Monitoring Well
- Group D WDR Monitoring Well
- Non-WDR Groundwater Monitoring Well
- Pilot Test Groundater Extraction Well
- 1451 Knox St.
- Parcel Boundary

0 100 200

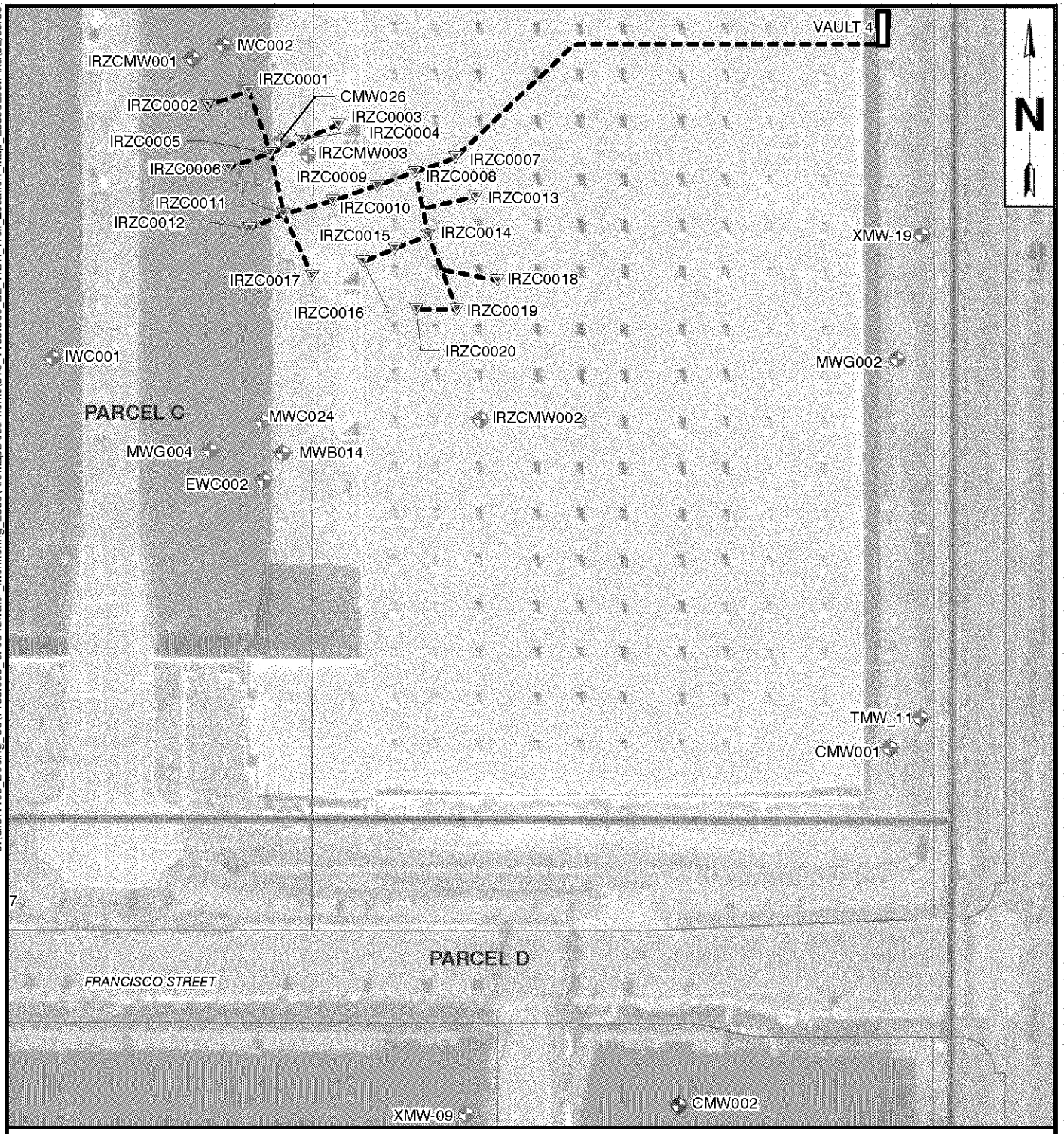
SCALE

FIGURE 2

WDR WELL LOCATION MAP
FORMER BUILDING 1/36 AREA

THE BOEING COMPANY
FORMER C-6 FACILITY
LOS ANGELES, CALIFORNIA

AVOCET ENVIRONMENTAL, INC.



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LEGEND

- WDR Amendment Point
- Non-WDR Amendment Point
- Group B WDR Monitoring Well
- Group C WDR Monitoring Well
- Group D WDR Monitoring Well
- Non-WDR Groundwater Monitoring Well
- Amendment Well Piping System

0 100 200

SCALE

FIGURE 3

WDR WELL LOCATION MAP
FORMER BUILDING 2 AREA

THE BOEING COMPANY
FORMER C-6 FACILITY
LOS ANGELES, CALIFORNIA

AVOCET ENVIRONMENTAL, INC.

Attachment 2

Field Data Forms

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Groundwater Monitoring Well Gauging Sheet

Project Name: Boeing C-6 September 2009 Gauging Event **Project Manager:** Michael Rendina **Project No.:** 1155.010

Location: Torrance, CA **Field Personnel:** Various **Date:** 9/8/2009

CGI Instrument ID: RKI Eagle Multi-Gas Detector **PID Instrument ID:** MiniRAE 2000 **Solinst ID:** Various

Field Conditions: Partly cloudy and cool (mean temp. 70.5°F), calm to light winds (3 to 16 mph) from the west, 74% humidity.

Sampling Methods: Initial CGI/PID collected approx. 1" above center of casing immediately after opening. Measure elapsed time when CGI ≤ 2%LEL

Well ID	Previous Measurement Date	Previous Depth to Water	Time	Well Diameter	PID (ppm)	Initial CGI (%LEL)	Time to Disperse (mm:ss)	Measurement Point	Depth to Water	Depth to Water #2	Change in DTW	Comments/Well Conditon
BL-03	Mar-09	65.68	9:39	2	0.0			TOC-N	65.61	65.61	0.07	Needs threads chased
DAC-P1	Mar-09	61.22	12:15	2	0.0			TOC-N	61.3	61.30	-0.08	
AW0066UB	Mar-09	59.22	8:19	4	0.0	0	-	TOC-N	59.67	59.67	-0.45	
EWB002	Mar-09	60.17	8:25	6	1.7	5	4:00	TOC-N	60.39	60.40	-0.22	Needs threads chased
AW0077UB	Mar-09	60.26	8:37	2	0.4	53	>15:00	TOC-N	60.61	60.61	-0.35	
AW0067UB	Mar-09	59.62	8:59	2	0.0	16	>15:00	TOC-N	59.92	59.92	-0.3	
AW0076UB	Mar-09	59.98	9:17	2	1.7	18	>15:00	TOC-N	60.37	60.38	-0.39	
AW0073C	Mar-09	59.71	10:01	2	0.0	0	-	TOC-N	60.17	60.17	-0.46	
WCC_06S	Mar-09	58.75	10:14	4	0.0	0	-	TOC-N	59.17	59.17	-0.42	Needs threads chased
MWB027	Mar-09	63.2	10:27	2	0.0			TOC-N	63.61	63.61	-0.41	
AW0065UB	Mar-09	58.95	10:35	2	0.0	0	-	TOC-N	59.39	59.39	-0.44	No well cap. Need 4" male threaded.
AW0064UB	Mar-09	58.64	10:56	2	7.9	10	>15:00	TOC-N	58.84	58.84	-0.2	Elevated CO (75 ppm)
AW0075UB	Mar-09	59.66	11:23	2	0.0	0	-	TOC-N	59.9	59.90	-0.24	
AW0074UB	Mar-09	59.11	11:39	2	4.3	5	>15:00	TOC-N	59.35	59.35	-0.24	Elevated CO (42 ppm)
WCC_03S	Mar-09	58.92	12:21	4	0.0	0	-	TOC-N	58.98	58.98	-0.06	Needs threads chased
MWB006	Mar-09	60.05	12:37	4	13.2	0	-	TOC-N	60.60	60.60	-0.55	Well initially pressurized. DTW measured 9/10/09
AW0055UB	Mar-09	59.85	12:32	2	32.2	71	>10:00	TOC-N	60.09	60.09	-0.24	3-8% LEL @ 10 min.
MWB028	Mar-09	63.38	10:42	2	0.0			TOC-N	63.72	63.72	-0.34	Needs threads chased
TMW_07	Mar-09	60.39	10:48	2	0.0			TOC-N	60.77	60.78	-0.38	
MWB003	Mar-09	63.44	11:31	2	0.0	0	-	TOC-N				Needs threads chased

AVOCET ENVIRONMENTAL, INC.

Groundwater Monitoring Well Gauging Sheet

Project Name: Boeing C-6 September 2009 Gauging Event **Project Manager:** Michael Rendina **Project No.:** 1155.010

Location: Torrance, CA **Field Personnel:** Various **Date:** 9/8/2009

CGI Instrument ID: RKI Eagle Multi-Gas Detector **PID Instrument ID:** MiniRAE 2000 **Solinst ID:** Various

Field Conditions: Partly cloudy and cool (mean temp. 70.5°F), calm to light winds (3 to 16 mph) from the west, 74% humidity.

Sampling Methods: Initial CGI/PID collected approx. 1" above center of casing immediately after opening. Measure elapsed time when CGI ≤ 2%LEL

Well ID	Previous Measurement Date	Previous Depth to Water	Time	Well Diameter	PID (ppm)	Initial CGI (%LEL)	Time to Disperse (mm:ss)	Measurement Point	Depth to Water	Depth to Water #2	Change in DTW	Comments/Well Conditon
MWB007	Mar-09	57.34	8:24	4	0.2			TOC-N	57.76	57.76	-0.42	
WCC_05S	Mar-09	59	8:43	4	0.0			TOC-N	59.31	59.31	-0.31	Overgrown by weeds.
MWC004	Mar-09	58.39	8:57	4	0.0	0	-	TOC-N	58.65	58.65	-0.26	No tubing evident.
WCC_12S	Mar-09	57.72	9:00	4	0.0			TOC-N	58.04	58.04	-0.32	
MWC022	Mar-09	57.71	9:32	4	0.0			TOC-N	58.11	58.11	-0.4	
MWB020	Mar-09	56.48	8:28	4	0.0			TOC-N	56.91	56.91	-0.43	
WCC_09S	Mar-09	61.38	9:18	4	0.0			TOC-N	61.66	61.66	-0.28	
WCC_07S	Mar-09	58.52	9:42	4	0.0			TOC-N	58.77	58.77	-0.25	No tubing evident.
MWC023	Mar-09	57.69	9:52	4	0.0			TOC-N	58.04	58.04	-0.35	
WCC_04S	Mar-09	58.41	10:04	4	0.0			TOC-N	58.78	58.78	-0.37	
MWC007	Mar-09	57.58	8:15	4	0.0			TOC-N	57.98	57.98	-0.4	
TMW_14	Mar-09	66.22	11:25	2	0.0			TOC-N	66.21	66.21	0.01	
TMW_15	Mar-09	64.36	11:56	2	0.0			TOC-N	64.42	64.42	-0.06	Rusted lock.
XMW-09	Mar-09	60.4						TOC-N				No access agreement.
CMW002	Jun-09	60.78	12:05	4	0.0	0	-	TOC-N	60.76	60.76	0.02	
MWB019	Mar-09	62.56	10:24	4	0.0			TOC-N	62.67	62.67	-0.11	
MWC017	Mar-09	62.92	10:26	4	0.0			TOC-N	63.22	63.22	-0.3	No well cap.
IRZMW001B	Mar-09	63.59	11:11	2	3.3	0	-	TOC-N				Expansion plug does not seal.
IRZCMW002	Jun-09	63.38	10:40	4	0.0	0	-	TOC-N	63.28	63.28	0.1	
IRZMW001A	Mar-09	63.63	10:53	2	7.1	12*	>10:00	TOC-N				20% LEL @ 10 min.

AVOCET ENVIRONMENTAL, INC.

Groundwater Monitoring Well Gauging Sheet

Project Name: Boeing C-6 September 2009 Gauging Event **Project Manager:** Michael Rendina **Project No.:** 1155.010

Location: Torrance, CA **Field Personnel:** Various **Date:** 9/8/2009

CGI Instrument ID: RKI Eagle Multi-Gas Detector **PID Instrument ID:** MiniRAE 2000 **Solinst ID:** Various

Field Conditions: Partly cloudy and cool (mean temp. 70.5°F), calm to light winds (3 to 16 mph) from the west, 74% humidity.

Sampling Methods: Initial CGI/PID collected approx. 1" above center of casing immediately after opening. Measure elapsed time when CGI ≤ 2%LEL

Well ID	Previous Measurement Date	Previous Depth to Water	Time	Well Diameter	PID (ppm)	Initial CGI (%LEL)	Time to Disperse (mm:ss)	Measurement Point	Depth to Water	Depth to Water #2	Change in DTW	Comments/Well Conditon
MWG003	Mar-09	61.35	8:13	2	1.7			TOC-N	61.80	61.8	-0.45	
MWG004	Mar-09	60.55	8:50	2	0.4			TOC-N	60.90	60.9	-0.35	
TMW_06	Mar-09	58.79	8:30	2	0.3			TOC-N	59.01	59.01	-0.22	
MWB014	Mar-09	58.91	8:53	4	0.6			TOC-N	59.10	59.1	-0.19	
CMW026	Jun-09	59.14	9:01	4	1.7	0.1	-	TOC-N	59.18	59.18	-0.04	
MWC015	Mar-09	59.67	9:06	4	0.4			TOC-N	59.92	59.92	-0.25	
IRZCMW001	Jun-09	59.24	9:15	4	0.3	0.4	-	TOC-N	59.32	59.32	-0.08	
MW0005	Mar-09	59.16	9:25	4	0.2			TOC-N	59.29	59.29	-0.13	
IWC001	Mar-09	60.65	9:34	4	0.3			TOC-N	60.96	60.96	-0.31	
MWC024	Jun-09	59.34	9:40	4	16.1	0.3	-	TOC-N	59.44	59.44	-0.1	
IRZCMW003	Jun-09	59.29	9:48	4	33.5	0.1	-	TOC-N	59.36	59.36	-0.07	
IWC002	Mar-09	58.89	9:51	4	2.0	0.2	-	TOC-N				
EWC002	Mar-09	59.35	9:53	4	0.4			TOC-N	59.57	59.57	-0.22	
XMW-19	Mar-09	56.26						TOC-N				No access agreement.
MWB013	Mar-09	61.62	10:30	4	0.2			TOC-N	61.97	61.97	-0.35	
TMW_11	Mar-09	56.91	10:50	2	0.1			TOC-N	57.21	57.21	-0.3	
CMW001	Mar-09	62.03	11:00	4	0.2			TOC-N	62.43	62.43	-0.4	
TMW_10	Mar-09	56.63	11:10	2	0.2			TOC-N	56.95	56.95	-0.32	
MWC021	Mar-09	61.44	11:15	2	0.1			TOC-N	61.96	61.96	-0.52	
MWG001	Mar-09	62.38	11:20	2	0.2			TOC-N	62.96	62.96	-0.58	
MWC009	Mar-09	60.80	11:30	2	0.1			TOC-N	61.21	61.21	-0.41	
MWG002	Mar-09	63.40	11:40	2	0.2			TOC-N	63.89	63.89	-0.49	

AVOCET ENVIRONMENTAL, INC.

GROUNDWATER SAMPLING DATA SHEET

Project Name:	Boeing C-6 Facility, WDR Sampling, Sep-09	**Date:**	9/ 9 /2009
Project No.:	1155.010	**Prepared by:**	BCB
Well Identification:	MWC024	**Weather:**	Clear / Hot
Measurement Point Description:	TOC-N	**Pump Intake:**	COS
		Screen:	96 - 121

A	B	C	D = C - B	E = B - A	G = D x F	H = Screen x F	I = (top screen – B) x F	
Depth to LNAPL (ft-bmp)	**Depth to Static Water Level** (ft-bmp)	**Well Total Depth** (ft-bmp)	**Water Column Height** (ft)	**LNAPL Thickness** (ft)	**One Casing Volume** (gallons)	**Screen Volume** (gallons)	**Above Screen Volume** (gal.)	**Total Purge Volume** (gal.)
—	59.44	121		—	N/A	N/A	N/A	N/A

	Gallons/Foot			
Well Diameter (inches) = 4	0.75	2	4	6
F - **Gallons per foot of casing**	0.02	0.16	0.65	1.47

Field Equipment: QED, Dedicated Low-flow

Purge Method: Micropurge

Well Condition: Need to chase threads on well box

Time	Flow Controller Settings	Volume Purged (Liters)	Flow Rate (mL/min)	Water Level (ft-bmp)	Temperature (°C) [+/- 10%]	Conductivity (mS/cm) [+/- 10%]	Dissolved Oxygen (mg/L) [+/- 10%]	pH [+/- 0.1 pH]	ORP (mV) [+/- 10%]	Turbidity (NTU) [+/- 10%]	Observations
1235	10/5 @ 80psi	0	250	59.44	25.25	1.479	4.32	7.31	-8	4.67	colorless
1238	↓	750	↓	59.49	24.07	1.472	2.15	7.28	-59	2.09	"
1241		1500		59.49	23.56	1.469	0.92	7.23	-52	0.06	"
1244		2250		59.49	22.89	1.458	0.33	7.21	-37	0.57	"
1247		3000		59.48	22.80	1.457	0.30	7.21	-33	0.72	"
1250	↓	3750	↓	59.48	22.70	1.454	0.28	7.20	-31	0.65	"

Purge Start Time	Purge End Time	Average Flow (mL/min)	Total Volume Purged (Liters)	Total Casing Volumes Purged	80% Recovery Water Level Depth (Dx0.20) + B	Water Level at Sampling Time (ft bmp)	Sample Collection Time	Sample Identification
1235	1250	250	3.75	N/A	NA		1250	MWC024_WG200909 09 _01

Notes: (units) [stabilization criteria]
Purging will continue until three consecutive measurements are within stabilization criterion.

Field Parameters

Ferrous Iron (mg/L)	PID (ppm):
0.08	16.1

DUP: MWC024_WG200909 09 _02

DRUM NO:

AVOCET ENVIRONMENTAL, INC.

GROUNDWATER SAMPLING DATA SHEET

Project Name:	Boeing C-6 Facility, WDR Sampling, Sep-09	**Date:**	9/ 9 /2009
Project No.:	1155.010	**Prepared by:**	BCB
Well Identification:	IRZCMW001	**Weather:**	Clear / Warm
Measurement Point Description:	TOC-N	**Pump Intake:**	COS
		Screen:	92 - 117

A	*B*	*C*	*D* = *C - B*	*E* = *B - A*	*G* = *D x F*	H = *Screen x F*	I = (top screen – B) *x F*	
Depth to LNAPL (ft-bmp)	**Depth to Static Water Level** (ft-bmp)	**Well Total Depth** (ft-bmp)	**Water Column Height** (ft)	**LNAPL Thickness** (ft)	**One Casing Volume** (gallons)	**Screen Volume** (gallons)	**Above Screen Volume** (gal.)	**Total Purge Volume** (gal.)
—	59.25	117		—	N/A	N/A	N/A	N/A

	Gallons/Foot				
Well Diameter (inches) = 4	0.75	2	4	6	
F - **Gallons per foot of casing**	0.02	0.16	0.65	1.47	

Field Equipment: QED, Dedicated Low-flow

Purge Method: Micropurge

Well Condition:

Time	Flow Controller Settings	Volume Purged (Liters)	Flow Rate (mL/min)	Water Level (ft-bmp)	Temperature (°C) [+/- 10%]	Conductivity (mS/cm) [+/- 10%]	Dissolved Oxygen (mg/L) [+/- 10%]	pH [+/- 0.1 pH]	ORP (mV) [+/- 10%]	Turbidity (NTU) [+/- 10%]	Observations
0949	1d5s @	0	250	59.25	23.94	1.273	5.35	6.99	-74	1.01	colorless
0952	↓	750	↓	59.32	23.12	1.269	1.99	6.98	-79	0.75	"
0955		1500		59.47	22.72	1.265	0.74	6.97	-83	0.39	"
0958		2250		59.48	22.54	1.255	0.44	7.00	-64	0.37	"
1001		3000		59.48	22.49	1.252	0.32	7.01	-59	0.41	"
1004	—	3750	—	59.48	22.47	1.253	0.28	7.00	-55	0.38	"

Purge Start Time	Purge End Time	Average Flow (mL/min)	Total Volume Purged (Liters)	Total Casing Volumes Purged	80% Recovery Water Level Depth (Dx0.20) + B	Water Level at Sampling Time (ft bmp)	Sample Collection Time	Sample Identification
0949	1004	250	3.75	N/A	NA	59.48	1004	IRZCMW001_WG200909 09 _01

Notes: (units) [stabilization criteria]
Purging will continue until three consecutive measurements are within stabilization criterion.

Field Parameters	
Ferrous Iron (mg/L)	PID (ppm):
0.4	0.2

DUP:
DRUM NO:

AVOCET ENVIRONMENTAL, INC.

GROUNDWATER SAMPLING DATA SHEET

Project Name:	Boeing C-6 Facility, WDR Sampling, Sep-09	**Date:**	9/ 9 /2009
Project No.:	1155.010	**Prepared by:**	BCB
Well Identification:	IRZCMW002	**Weather:**	clear / Coolish - Warmish
Measurement Point Description:	TOC-N	**Pump Intake:**	105
		Screen:	96 - 121

A	B	C	D = C - B	E = B - A	G = D x F	H = Screen x F	I = (top screen – B) x F	
Depth to LNAPL (ft-bmp)	**Depth to Static Water Level** (ft-bmp)	**Well Total Depth** (ft-bmp)	**Water Column Height** (ft)	**LNAPL Thickness** (ft)	**One Casing Volume** (gallons)	**Screen Volume** (gallons)	**Above Screen Volume** (gal.)	**Total Purge Volume** (gal.)
–	63.48	121		–	N/A	N/A	N/A	N/A

	Gallons/Foot			
Well Diameter (inches) = 4	0.75	2	4	6
F - **Gallons per foot of casing**	0.02	0.16	0.65	1.47

Field Equipment: QED, Dedicated Low-flow

Purge Method: Micropurge

Well Condition:

Time	Flow Controller Settings	Volume Purged (Liters)	Flow Rate (mL/min)	Water Level (ft-bmp)	Temperature (°C) [+/- 10%]	Conductivity (mS/cm) [+/- 10%]	Dissolved Oxygen (mg/L) [+/- 10%]	pH [+/- 0.1 pH]	ORP (mV) [+/- 10%]	Turbidity (NTU) [+/- 10%]	Observations
1107	10/5s @ 85psi	0	250	63.43	22.44	1.78	2.53	6.89	-82	3.45	colorless
1110	↓	750	↓	63.55	21.48	1.89	0.95	6.64	–		slight sulfate
1113		1500		63.78	21.49	1.90	0.44	6.62	-101	1.20	odor
1117		2250		63.89	21.42	1.88	0.31	6.59	–		light yellow
1120		3000		64.07	21.38	1.89	0.23	6.57	-121	0.94	"
1123	↓	3750	↓	64.01	21.40	1.87	0.20	6.56	–		"

Purge Start Time	Purge End Time	Average Flow (mL/min)	Total Volume Purged (Liters)	Total Casing Volumes Purged	80% Recovery Water Level Depth (Dx0.20) + B	Water Level at Sampling Time (ft bmp)	Sample Collection Time	Sample Identification
1107	1123	250	3.75	N/A	NA		1123	IRZCMW002_WG200909 09 _01

Notes: (units) [stabilization criteria]
Purging will continue until three consecutive measurements are within stabilization criterion.

Field Parameters

Ferrous Iron (mg/L)	PID (ppm):
3.21	0.0

DUP:
DRUM NO:

AVOCET ENVIRONMENTAL, INC.

GROUNDWATER SAMPLING DATA SHEET

Project Name:	Boeing C-6 Facility, WDR Sampling, Sep-09	**Date:**	9/ 9 /2009
Project No.:	1155.010	**Prepared by:**	BCB
Well Identification:	IRZCMW003	**Weather:**	Clear / Hot
Measurement Point Description:	TOC-N	**Pump Intake:**	COS
		Screen:	92 - 117

A	B	C	D = C - B	E = B - A	G = D x F	H = Screen x F	I = (top screen – B) x F	
Depth to LNAPL (ft-bmp)	**Depth to Static Water Level** (ft-bmp)	**Well Total Depth** (ft-bmp)	**Water Column Height** (ft)	**LNAPL Thickness** (ft)	**One Casing Volume** (gallons)	**Screen Volume** (gallons)	**Above Screen Volume** (gal.)	**Total Purge Volume** (gal.)
–	59.34	117		–	N/A	N/A	N/A	N/A

	Gallons/Foot				
Well Diameter (inches) = 4	0.75	2	(4)	6	**Field Equipment:** QED, Dedicated Low-flow
F - **Gallons per foot of casing**	0.02	0.16	0.65	1.47	**Purge Method:** Micropurge
					Well Condition:

Time	Flow Controller Settings	Volume Purged (Liters)	Flow Rate (mL/min)	Water Level (ft-bmp)	Temperature (°C) [+/- 10%]	Conductivity (mS/cm) [+/- 10%]	Dissolved Oxygen (mg/L) [+/- 10%]	pH [+/- 0.1 pH]	ORP (mV) [+/- 10%]	Turbidity (NTU) [+/- 10%]	Observations
1324	10/5s @ 80psi	0	250	59.34	32.69	0.988	5.79	7.40	-137	1.04	colorless
1327	↓	750	↓	59.44	22.91	1.092	3.36	7.	-139	0.99	w/ moderate
1330		1500		59.43	22.62	1.111	2.29	7.16	-141	0.99	sulfite odor
1333		2250		59.44	22.32	1.157	1.46	7.04	-131	0.69	"
1336		3000		59.44	22.30	1.160	1.11	7.03	-135	0.61	"
1339		3750		59.45	22.27	1.159	1.07	7.01	-138	0.52	"

Purge Start Time	Purge End Time	Average Flow (mL/min)	Total Volume Purged (Liters)	Total Casing Volumes Purged	80% Recovery Water Level Depth (Dx0.20) + B	Water Level at Sampling Time (ft bmp)	Sample Collection Time	Sample Identification
1324	1339	250	3.75	N/A	NA		1324	IRZCMW003_WG200909 09_01

Notes: (units) [stabilization criteria]
Purging will continue until three consecutive measurements are within stabilization criterion.

Field Parameters	
Ferrous Iron (mg/L)	PID (ppm):
0.0	

DUP:
DRUM NO:

AVOCET ENVIRONMENTAL, INC.

GROUNDWATER SAMPLING DATA SHEET

Project Name:	Boeing C-6 Facility, WDR Sampling, Sep-09	**Date:**	9/ 9 /2009
Project No.:	1155.010	**Prepared by:**	BCB
Well Identification:	CMW026	**Weather:**	Overcast / Cool
Measurement Point Description:	TOC-N	**Pump Intake:**	105
		Screen:	92 - 117

A	*B*	*C*	*D* = *C - B*	*E* = *B - A*	*G* = *D x F*	H = *Screen x F*	I = (top screen – B) *x F*	
Depth to LNAPL (ft-bmp)	**Depth to Static Water Level** (ft-bmp)	**Well Total Depth** (ft-bmp)	**Water Column Height** (ft)	**LNAPL Thickness** (ft)	**One Casing Volume** (gallons)	**Screen Volume** (gallons)	**Above Screen Volume** (gal.)	**Total Purge Volume** (gal.)
—	59.20	117		—	N/A	N/A	N/A	N/A

	Gallons/Foot			
Well Diameter (inches) = 4	0.75	2	(4)	6
F - **Gallons per foot of casing**	0.02	0.16	0.65	1.47

Field Equipment: QED, Dedicated Low-flow

Purge Method: Micropurge

Well Condition: Good

Time	Flow Controller Settings	Volume Purged (Liters)	Flow Rate (mL/min)	Water Level (ft-bmp)	Temperature (°C) [+/- 10%]	Conductivity (mS/cm) [+/- 10%]	Dissolved Oxygen (mg/L) [+/- 10%]	pH [+/- 0.1 pH]	ORP (mV) [+/- 10%]	Turbidity (NTU) [+/- 10%]	Observations
0857	10/5 s @ 75psi	0	250	59.20	23.67	1.87	5.83	7.32	67	1.11	colorless
0900	↓	750	↓	59.27	22.75	1.87	2.65	6.94	12	1.15	"
0903		1500		59.34	22.18	1.87	1.72	6.88	-106	0.96	"
0906		2250		59.40	21.91	1.71	0.37	6.64	-131	0.62	"
0909		3000		59.41	21.90	1.72	0.31	6.63	-135	0.56	"
0912	⊥	3750	⊥	59.41	21.89	1.71	0.29	6.62	-137	0.49	"

Purge Start Time	Purge End Time	Average Flow (mL/min)	Total Volume Purged (Liters)	Total Casing Volumes Purged	80% Recovery Water Level Depth (Dx0.20) + B	Water Level at Sampling Time (ft bmp)	Sample Collection Time	Sample Identification
0857	0912	250	3.75	N/A	NA	59.41	0912	CMW026_WG200909 09 _01

Notes: (units) [stabilization criteria]
Purging will continue until three consecutive measurements are within stabilization criterion.

Field Parameters

Ferrous Iron (mg/L)	PID (ppm):
2.25	0.7

DUP:
DRUM NO:

AVOCET ENVIRONMENTAL, INC.

GROUNDWATER SAMPLING DATA SHEET

Project Name:	Boeing C-6 Facility, WDR Sampling, Sep-09	**Date:**	9/ 9 /2009
Project No.:	1155.010	**Prepared by:**	BCB
Well Identification:	CMW002	**Weather:**	Overcast / Cool
Measurement Point Description:	TOC-N	**Pump Intake:**	COS
		Screen:	99 - 124

A	B	C	D = C - B	E = B - A	G = D x F	H = Screen x F	I = (top screen – B) x F	
Depth to LNAPL (ft-bmp)	**Depth to Static Water Level** (ft-bmp)	**Well Total Depth** (ft-bmp)	**Water Column Height** (ft)	**LNAPL Thickness** (ft)	**One Casing Volume** (gallons)	**Screen Volume** (gallons)	**Above Screen Volume** (gal.)	**Total Purge Volume** (gal.)
—	60.87	124		—	N/A	N/A	N/A	N/A

	Gallons/Foot			
Well Diameter (inches) = 4	0.75	2	(4)	6
F - **Gallons per foot of casing**	0.02	0.16	0.65	1.47

Field Equipment: QED, Dedicated Low-flow
Purge Method: Micropurge
Well Condition: Good

Time	Flow Controller Settings	Volume Purged (Liters)	Flow Rate (mL/min)	Water Level (ft-bmp)	Temperature (°C) [+/- 10%]	Conductivity (mS/cm) [+/- 10%]	Dissolved Oxygen (mg/L) [+/- 10%]	pH [+/- 0.1 pH]	ORP (mV) [+/- 10%]	Turbidity (NTU) [+/- 10%]	Observations
0741	10/55 @ 75psi	0	250	60.87	23.10	1.012	6.03	6.11	33	0.95	colorless
0744	↓	750	↓	60.88	22.91	1.014	3.05	6.32	11	0.84	"
0747		1500		60.88	22.23	1.015	1.04	6.49	-77	0.32	"
0750		2250		60.89	22.22	1.016	0.54	6.59	-55	0.21	"
0753		3000		60.88	22.21	1.015	0.42	6.63	-40	0.15	"
0756		3750		60.88	22.20	1.015	0.41	6.65	-35	0.11	"

Purge Start Time	Purge End Time	Average Flow (mL/min)	Total Volume Purged (Liters)	Total Casing Volumes Purged	80% Recovery Water Level Depth (Dx0.20) + B	Water Level at Sampling Time (ft bmp)	Sample Collection Time	Sample Identification
0741	0756	~250	3.75	N/A	NA	60.88	0756	CMW002_WG20090909 _01

Notes: (units) [stabilization criteria]
Purging will continue until three consecutive measurements are within stabilization criterion.

Field Parameters

Ferrous Iron (mg/L)	PID (ppm):
0.01	0.0

DUP:
DRUM NO:

AVOCET ENVIRONMENTAL, INC.

GROUNDWATER SAMPLING DATA SHEET

Project Name:	Boeing C-6 Facility, Sitewide Annual Sampling, Sep-09	**Date:**	9/ 9 /2009
Project No.:	1155.010	**Prepared by:**	DML
Well Identification:	TMW_10	**Weather:**	Clear, Warm
Measurement Point Description:	TOC	**Pump Intake:**	≈ 70.5
		Screen:	60.5 - 80.5

A	B	C	D = C - B	E = B - A	G = D x F	H = Screen x F	I = (top screen – B) x F	
Depth to LNAPL (ft-bmp)	**Depth to Static Water Level** (ft-bmp)	**Well Total Depth** (ft-bmp)	**Water Column Height** (ft)	**LNAPL Thickness** (ft)	**One Casing Volume** (gallons)	**Screen Volume** (gallons)	**Above Screen Volume** (gal.)	**Total Purge Volume** (gal.)
NA	56.95	80.5	23	NA	N/A	N/A	N/A	N/A

	Gallons/Foot				
Well Diameter (inches) = 2	0.75	2	4	6	
F - **Gallons per foot of casing**	0.02	0.16	0.65	1.47	

Field Equipment: QED, Dedicated Low-flow

Purge Method: Micropurge

Well Condition: Good

Time	Flow Controller Settings	Volume Purged (Liters)	Flow Rate (mL/min)	Water Level (ft-bmp)	Temperature (°C) [+/- 10%]	Conductivity (mS/cm) [+/- 10%]	Dissolved Oxygen (mg/L) [+/- 10%]	pH [+/- 0.1 pH]	ORP (mV) [+/- 10%]	Turbidity (NTU) [+/- 10%]	Observations
12:10	45psi 10/5	0	200	57.01	24.56	2.03	3.62	9.05	-60	2.85	clear
12:13	" "	0.6	200	<57.20	23.70	2.03	3.04	8.97	-58	1.96	"
12:16	" "	1.2	200	<57.20	23.64	2.03	2.98	8.96	-56	1.83	"
12:19	" "	1.8	200	57.09	23.60	2.03	2.79	8.95	-51	2.42	"
											tr. particles
											visible in sample

Purge Start Time	Purge End Time	Average Flow (mL/min)	Total Volume Purged (Liters)	Total Casing Volumes Purged	80% Recovery Water Level Depth (Dx0.20) + B	Water Level at Sampling Time (ft bmp)	Sample Collection Time	Sample Identification
12:10	12:19	206	1.8	N/A	NA	57.09	12:20	TMW_10_WG200909 09 _01

Notes: (units) [stabilization criteria]
Purging will continue until three consecutive measurements are within stabilization criterion.

Field Parameters

PID (ppm): 0.2

DUP:
DRUM NO:

AVOCET ENVIRONMENTAL, INC.

GROUNDWATER SAMPLING DATA SHEET

Project Name:	Boeing C-6 Facility, Sitewide Annual Sampling, Sep-09	**Date:**	9/9/2009
Project No.:	1155.010	**Prepared by:**	DMC
Well Identification:	CMW001	**Weather:**	Hazy, Warm
Measurement Point Description:	TOC-N	**Pump Intake:**	2 1/2'
		Screen:	99 - 124

A	B	C	D = C - B	E = B - A	G = D x F	H = Screen x F	I = (top screen – B) x F	
Depth to LNAPL (ft-bmp)	**Depth to Static Water Level** (ft-bmp)	**Well Total Depth** (ft-bmp)	**Water Column Height** (ft)	**LNAPL Thickness** (ft)	**One Casing Volume** (gallons)	**Screen Volume** (gallons)	**Above Screen Volume** (gal.)	**Total Purge Volume** (gal.)
NA	62.43	124	61	NA	N/A	N/A	N/A	N/A

	Gallons/Foot				
Well Diameter (inches) = 4	0.75	2	4	6	
F - **Gallons per foot of casing**	0.02	0.16	0.65	1.47	

Field Equipment: QED, Dedicated Low-flow

Purge Method: Micropurge

Well Condition: good.

Time	Flow Controller Settings	Volume Purged (Liters)	Flow Rate (mL/min)	Water Level (ft-bmp)	Temperature (°C) [+/- 10%]	Conductivity (mS/cm) [+/- 10%]	Dissolved Oxygen (mg/L) [+/- 10%]	pH [+/- 0.1 pH]	ORP (mV) [+/- 10%]	Turbidity (NTU) [+/- 10%]	Observations
11:24	65psi 9.5/5.5	0	200	62.45	25.51	0.730	2.03	9.22	-393	0.98	clear
11:27	" "	0.6	200	<62.5	25.01	0.735	0.88	9.21	-360	0.39	"
11:30	" "	1.2	200	<62.5	24.74	0.737	0.41	9.23	-331	0.33	"
11:33	" "	1.8	200	<62.5	24.67	0.738	0.31	9.23	-321	0.35	"
11:36	" "	2.4	200	62.45	24.63	0.739	0.23	9.24	-318	0.39	"

Purge Start Time	Purge End Time	Average Flow (mL/min)	Total Volume Purged (Liters)	Total Casing Volumes Purged	80% Recovery Water Level Depth (Dx0.20) + B	Water Level at Sampling Time (ft bmp)	Sample Collection Time	Sample Identification
11:24	11:36	200	2.4	N/A	NA	62.45	11:37	CMW001_WG200909 09 _01

Notes: (units) [stabilization criteria]
Purging will continue until three consecutive measurements are within stabilization criterion.

Field Parameters

PID (ppm): 0.2

DUP:
DRUM NO:

AVOCET ENVIRONMENTAL, INC.

GROUNDWATER SAMPLING DATA SHEET

Project Name:	Boeing C-6 Facility, Sitewide Annual Sampling, Sep-09	**Date:**	9/ 9 /2009
Project No.:	1155.010	**Prepared by:**	DML
Well Identification:	TMW_11	**Weather:**	Hazy, Warm
Measurement Point Description:		**Pump Intake:**	≈ 68'
		Screen:	58 - 78

A	B	C	D = C - B	E = B - A	G = D x F	H = Screen x F	I = (top screen – B) x F	
Depth to LNAPL (ft-bmp)	**Depth to Static Water Level** (ft-bmp)	**Well Total Depth** (ft-bmp)	**Water Column Height** (ft)	**LNAPL Thickness** (ft)	**One Casing Volume** (gallons)	**Screen Volume** (gallons)	**Above Screen Volume** (gal.)	**Total Purge Volume** (gal.)
NA	57.21	78	21	NA	N/A	N/A	N/A	N/A

	Gallons/Foot				
Well Diameter (inches) = 2	0.75	2	4	6	
F - **Gallons per foot of casing**	0.02	0.16	0.65	1.47	

Field Equipment: QED, Dedicated Low-flow

Purge Method: Micropurge

Well Condition:

Time	Flow Controller Settings	Volume Purged (Liters)	Flow Rate (mL/min)	Water Level (ft-bmp)	Temperature (°C) [+/- 10%]	Conductivity (mS/cm) [+/- 10%]	Dissolved Oxygen (mg/L) [+/- 10%]	pH [+/- 0.1 pH]	ORP (mV) [+/- 10%]	Turbidity (NTU) [+/- 10%]	Observations
10:49	45 psi 10/5	0	200	57.14	24.22	1.495	5.08	8.94	10	0.81	Clear
10:52	" "	0.6	200	<57.2	23.35	1.51	4.39	8.82	22	0.88	Clear
10:55	" "	1.2	200	<57.2	23.25	1.51	4.28	8.82	26	0.74	Clear
10:58	" "	1.8	200	57.15	23.24	1.51	4.24	8.82	26	0.98	

Purge Start Time	Purge End Time	Average Flow (mL/min)	Total Volume Purged (Liters)	Total Casing Volumes Purged	80% Recovery Water Level Depth (Dx0.20) + B	Water Level at Sampling Time (ft bmp)	Sample Collection Time	Sample Identification
10:49	10:58	200	1.8	N/A	NA	~~[illegible]~~ 57.15	11:00	TMW_11_WG200909 09 _01

Notes: (units) [stabilization criteria]
Purging will continue until three consecutive measurements are within stabilization criterion.

Field Parameters

PID (ppm): 0.1

DUP:
DRUM NO:

AVOCET ENVIRONMENTAL, INC.

GROUNDWATER SAMPLING DATA SHEET

Project Name:	Boeing C-6 Facility, Sitewide Annual Sampling, Sep-09	**Date:**	9/ 9 /2009
Project No.:	1155.010	**Prepared by:**	DMC
Well Identification:	WCC_05S	**Weather:**	Hazy, Warm
Measurement Point Description:	TOC -N	**Pump Intake:**	≈ 76'
		Screen:	61 - 91

A	B	C	D = C - B	E = B - A	G = D x F	H = Screen x F	I = (top screen – B) x F	
Depth to LNAPL (ft-bmp)	**Depth to Static Water Level** (ft-bmp)	**Well Total Depth** (ft-bmp)	**Water Column Height** (ft)	**LNAPL Thickness** (ft)	**One Casing Volume** (gallons)	**Screen Volume** (gallons)	**Above Screen Volume** (gal.)	**Total Purge Volume** (gal.)
NA	59.40	91	31.6	NA	N/A	N/A	N/A	N/A

	Gallons/Foot				
Well Diameter (inches) = 4	0.75	2	4	6	
F - **Gallons per foot of casing**	0.02	0.16	0.65	1.47	

Field Equipment: QED, Dedicated Low-flow

Purge Method: Micropurge

Well Condition: need to chase threads.

Time	Flow Controller Settings	Volume Purged (Liters)	Flow Rate (mL/min)	Water Level (ft-bmp)	Temperature (°C) [+/- 10%]	Conductivity (mS/cm) [+/- 10%]	Dissolved Oxygen (mg/L) [+/- 10%]	pH [+/- 0.1 pH]	ORP (mV) [+/- 10%]	Turbidity (NTU) [+/- 10%]	Observations
9:53	55psi 10.5/4.5	0	≈200	<59.50	23.20	1.408	4.90	8.79	2	0.80	Clear
9:56	" "	0.600	"	"	22.97	1.425	4.65	8.75	5	0.57	Clear
9:59	" "	1.2	"	"	22.90	1.424	4.55	8.76	7	0.92	Clear
10:02	" "	1.8	"	<59.50	22.88	1.429	4.46	8.77	9	0.81	Clear

Purge Start Time	Purge End Time	Average Flow (mL/min)	Total Volume Purged (Liters)	Total Casing Volumes Purged	80% Recovery Water Level Depth (Dx0.20) + B	Water Level at Sampling Time (ft bmp)	Sample Collection Time	Sample Identification
9:53	10:02			N/A	NA	59.41	10:03	WCC_05S_WG200909 09 _01

Notes: (units) [stabilization criteria]
Purging will continue until three consecutive measurements are within stabilization criterion.

Field Parameters

PID (ppm): 0.0

DUP:
DRUM NO:

AVOCET ENVIRONMENTAL, INC.

GROUNDWATER SAMPLING DATA SHEET

Project Name:	Boeing C-6 Facility, Sitewide Annual Sampling, Sep-09	**Date:**	9/9 /2009
Project No.:	1155.010	**Prepared by:**	DML
Well Identification:	MWC007	**Weather:**	Ptly Cloudy, Warm
Measurement Point Description:	TOC-N	**Pump Intake:**	107
		Screen:	97 - 117

A	B	C	D = C - B	E = B - A	G = D x F	H = Screen x F	I = (top screen – B) x F	
Depth to LNAPL (ft-bmp)	**Depth to Static Water Level** (ft-bmp)	**Well Total Depth** (ft-bmp)	**Water Column Height** (ft)	**LNAPL Thickness** (ft)	**One Casing Volume** (gallons)	**Screen Volume** (gallons)	**Above Screen Volume** (gal.)	**Total Purge Volume** (gal.)
NA	58.05	117	59	NA	N/A	N/A	N/A	N/A

	Gallons/Foot			
Well Diameter (inches) = 4	0.75	2	4	6
F - **Gallons per foot of casing**	0.02	0.16	0.65	1.47

Field Equipment: QED, Dedicated Low-flow, Hach 2100P Turbidimeter

Purge Method: Micropurge

Well Condition: Good.

Time	Flow Controller Settings	Volume Purged (Liters)	Flow Rate (mL/min)	Water Level (ft-bmp)	Temperature (°C) [+/- 10%]	Conductivity (mS/cm) [+/- 10%]	Dissolved Oxygen (mg/L) [+/- 10%]	pH [+/- 0.1 pH]	ORP (mV) [+/- 10%]	Turbidity (NTU) [+/- 10%]	Observations
9:09	140ft 9/6	0	200	58.05	24.82	0.916	3.17	8.95	-291	1.14	clear
9:12	" "	0.6	200	58.04	23.61	0.924	1.94	8.94	-217	1.62	clear
9:15	" "	1.2	200	58.04	23.09	0.924	1.80	8.93	-168	0.81	"
9:18	" "	1.8	200	58.04	23.06	0.923	1.74	8.93	-140	0.79	"
9:21	" "	2.4	200	58.04	23.01	0.922	1.72	8.92	-122	1.22	"

Purge Start Time	Purge End Time	Average Flow (mL/min)	Total Volume Purged (Liters)	Total Casing Volumes Purged	80% Recovery Water Level Depth (Dx0.20) + B	Water Level at Sampling Time (ft bmp)	Sample Collection Time	Sample Identification
9:09	9:21	200	2.4	N/A	NA	58.04	9:22	MWC007_WG200909 09 _01

Notes: (units) [stabilization criteria]
Purging will continue until three consecutive measurements are within stabilization criterion.

Field Parameters

PID (ppm): 0.0

DUP:
DRUM NO:

AVOCET ENVIRONMENTAL, INC.

GROUNDWATER SAMPLING DATA SHEET

Project Name:	Boeing C-6 Facility, Sitewide Annual Sampling, Sep-09	**Date:**	9/ 9 /2009
Project No.:	1155.010	**Prepared by:**	DMC
Well Identification:	MWB013	**Weather:**	Cloudy, mild
Measurement Point Description:	TOC - N	**Pump Intake:**	**Screen:** 65 - 85

A	B	C	D = C - B	E = B - A	G = D x F	H = Screen x F	I = (top screen – B) x F	
Depth to LNAPL (ft-bmp)	**Depth to Static Water Level** (ft-bmp)	**Well Total Depth** (ft-bmp)	**Water Column Height** (ft)	**LNAPL Thickness** (ft)	**One Casing Volume** (gallons)	**Screen Volume** (gallons)	**Above Screen Volume** (gal.)	**Total Purge Volume** (gal.)
NA	61.97	85'	23'	NA	N/A	N/A	N/A	N/A

	Gallons/Foot				
Well Diameter (inches) = 4	0.75	2	4	6	
F - **Gallons per foot of casing**	0.02	0.16	0.65	1.47	

Field Equipment: QED, Dedicated Low-flow
Purge Method: Micropurge
Well Condition: good

Time	Flow Controller Settings	Volume Purged (Liters)	Flow Rate (mL/min)	Water Level (ft-bmp)	Temperature (°C) [+/- 10%]	Conductivity (mS/cm) [+/- 10%]	Dissolved Oxygen (mg/L) [+/- 10%]	pH [+/- 0.1 pH]	ORP (mV) [+/- 10%]	Turbidity (NTU) [+/- 10%]	Observations
7:46	100ft 9.5/5.5	0	200	—	23.30	1.51	6.02	8.41	13	2.33	clear
7:51	"	1	200	61.98	23.16	1.51	6.03	8.57	14	2.33	clear
7:56	"	2	200	61.97	23.13	1.51	6.03	8.68	14	1.66	clear
8:01	"	3	200	61.98	23.15	1.51	6.04	8.75	13	1.14	clear

Purge Start Time	Purge End Time	Average Flow (mL/min)	Total Volume Purged (Liters)	Total Casing Volumes Purged	80% Recovery Water Level Depth (Dx0.20) + B	Water Level at Sampling Time (ft bmp)	Sample Collection Time	Sample Identification
7:46	8:02	200	3	N/A	NA	61.98	8:02	MWB013_WG20090909 _01

Notes: (units) [stabilization criteria]
Purging will continue until three consecutive measurements are within stabilization criterion.

Field Parameters		
	PID (ppm): 0.2	Chemetrics DO. = 5.5 mg/L

DUP:
DRUM NO:

AVOCET ENVIRONMENTAL, INC.

GROUNDWATER SAMPLING DATA SHEET

Project Name:	Boeing C-6 Facility, WDR Sampling, Sep-09	**Date:**	9/10/2009
Project No.:	1155.010	**Prepared by:**	TMC
Well Identification:	AW0066UB	**Weather:**	Sunny
Measurement Point Description:	TOC	**Pump Intake:**	69
		Screen:	69.5 - 89.5

A	B	C	D = C - B	E = B - A	G = D x F	H = Screen x F	I = (top screen – B) x F	
Depth to LNAPL (ft-bmp)	**Depth to Static Water Level** (ft-bmp)	**Well Total Depth** (ft-bmp)	**Water Column Height** (ft)	**LNAPL Thickness** (ft)	**One Casing Volume** (gallons)	**Screen Volume** (gallons)	**Above Screen Volume** (gal.)	**Total Purge Volume** (gal.)
	89.07				N/A	N/A	N/A	N/A

	Gallons/Foot			
Well Diameter (inches) = 2	0.75	2	4	6
F - **Gallons per foot of casing**	0.02	0.16	0.65	1.47

Field Equipment: QED, Portable Low-flow

Purge Method: Micropurge

Well Condition: Good

Time	Flow Controller Settings	Volume Purged (Liters)	Flow Rate (mL/min)	Water Level (ft-bmp)	Temperature (°C) [+/- 10%]	Conductivity (mS/cm) [+/- 10%]	Dissolved Oxygen (mg/L) [+/- 10%]	pH [+/- 0.1 pH]	ORP (mV) [+/- 10%]	Turbidity (NTU) [+/- 10%]	Observations
Previous Stabilized Parameters: 03-11-09					21.60	3.69	0.090	6.65	-213.00	140.00	
0918	cpm-4	0	200	59.67	22.97	6.95	3.71	6.94	-147	326	cloudy
0921		600		59.95	24.05	7.14	0.61	6.89	-158	294	
0924		1200		59.96	24.32	7.14	0.45	6.88	-161	165	
0927		1800		59.97	24.31	7.14	0.44	6.88	-162	181	
0930		2400		59.96	24.30	7.14	0.43	6.87	-165	182	
0933		3000									

Purge Start Time	Purge End Time	Average Flow (mL/min)	Total Volume Purged (Liters)	Total Casing Volumes Purged	80% Recovery Water Level Depth (Dx0.20) + B	Water Level at Sampling Time (ft bmp)	Sample Collection Time	Sample Identification
0918	0933	200	3.0	N/A	NA	59.96	0946	AW0066UB_WG200909/16_01

Notes: (units) [stabilization criteria]
Purging will continue until three consecutive measurements are within stabilization criterion.

Field Parameters

Ferrous Iron (mg/L)	PID (ppm):
1.06	4.0

DUP:
DRUM NO:
* HCL fizzing in bottles

AVOCET ENVIRONMENTAL, INC.

GROUNDWATER SAMPLING DATA SHEET

Project Name:	Boeing C-6 Facility, WDR Sampling, Sep-09	**Date:**	9/ 10 /2009
Project No.:	1155.010	**Prepared by:**	Tmc
Well Identification:	TMW_07	**Weather:**	Sunny
Measurement Point Description:	TOC	**Pump Intake:**	EOS
		Screen:	65 - 85

A	B	C	D = C - B	E = B - A	G = D x F	H = Screen x F	I = (top screen – B) x F	
Depth to LNAPL (ft-bmp)	**Depth to Static Water Level** (ft-bmp)	**Well Total Depth** (ft-bmp)	**Water Column Height** (ft)	**LNAPL Thickness** (ft)	**One Casing Volume** (gallons)	**Screen Volume** (gallons)	**Above Screen Volume** (gal.)	**Total Purge Volume** (gal.)
/	61.02	/	/	/	N/A	N/A	N/A	N/A

	Gallons/Foot				
Well Diameter (inches) = 2	0.75	2	4	6	**Field Equipment:** QED, Dedicated Low-flow
F - **Gallons per foot of casing**	0.02	0.16	0.65	1.47	**Purge Method:** Micropurge
					Well Condition: Good

Time	Flow Controller Settings	Volume Purged (Liters)	Flow Rate (mL/min)	Water Level (ft-bmp)	Temperature (°C) [+/- 10%]	Conductivity (mS/cm) [+/- 10%]	Dissolved Oxygen (mg/L) [+/- 10%]	pH [+/- 0.1 pH]	ORP (mV) [+/- 10%]	Turbidity (NTU) [+/- 10%]	Observations
Previous Stabilized Parameters: 03-11-09					19.99	1.66	6.460	7.09	23.00	11.70	
0840	CPM-4	0	200	61.02	23.59	1.61	6.19	7.22	76	9.87	clear
0843		600		61.12	22.81	1.66	6.16	7.12	40	8.30	
0846		1200		61.19	22.82	1.66	6.01	7.11	48	7.91	
0849		1800		61.20	22.83	1.66	6.05	7.10	46	6.5	
0852		2400		61.20	22.82	1.67	6.10	7.11	39	4.2	
0855		3000		61.21	22.83	1.66	6.11	7.10	40	5.1	
0858		3600		61.20	22.82	1.66	6.1[illegible]	7.10	39	5.3	

Purge Start Time	Purge End Time	Average Flow (mL/min)	Total Volume Purged (Liters)	Total Casing Volumes Purged	80% Recovery Water Level Depth (Dx0.20) + B	Water Level at Sampling Time (ft bmp)	Sample Collection Time	Sample Identification
0840	0859	200	3.6	N/A	NA	61.20	0905	TMW_07_WG20090910_01

Notes: (units) [stabilization criteria]
Purging will continue until three consecutive measurements are within stabilization criterion.

Field Parameters

Ferrous Iron (mg/L)	PID (ppm):
0.02	0.0

DUP:
DRUM NO:

AVOCET ENVIRONMENTAL, INC.

GROUNDWATER SAMPLING DATA SHEET

Project Name:	Boeing C-6 Facility, WDR Sampling, Sep-09	**Date:**	9/ /2009
Project No.:	1155.010	**Prepared by:**	Tmc
Well Identification:	AW0064UB	**Weather:**	Sunny
Measurement Point Description:	TOC	**Pump Intake:**	60.5 ft
Screen:	68.5 - 88.5		

A	B	C	D = C - B	E = B - A	G = D x F	H = Screen x F	I = (top screen – B) x F	
Depth to LNAPL (ft-bmp)	**Depth to Static Water Level** (ft-bmp)	**Well Total Depth** (ft-bmp)	**Water Column Height** (ft)	**LNAPL Thickness** (ft)	**One Casing Volume** (gallons)	**Screen Volume** (gallons)	**Above Screen Volume** (gal.)	**Total Purge Volume** (gal.)
	58.97				N/A	N/A	N/A	N/A

	Gallons/Foot				
Well Diameter (inches) = 2	0.75	2	4	6	
F - **Gallons per foot of casing**	0.02	0.16	0.65	1.47	

Field Equipment: QED, Portable Low-flow

Purge Method: Micropurge

Well Condition: Good

Time	Flow Controller Settings	Volume Purged (Liters)	Flow Rate (mL/min)	Water Level (ft-bmp)	Temperature (°C) [+/- 10%]	Conductivity (mS/cm) [+/- 10%]	Dissolved Oxygen (mg/L) [+/- 10%]	pH [+/- 0.1 pH]	ORP (mV) [+/- 10%]	Turbidity (NTU) [+/- 10%]	Observations
Previous Stabilized Parameters: 03-12-09					20.66	2.20	0.120	7.52	-257.00	47.70	
1210	CPM-4	0	200	58.84	23.95	2.58	2.55	6.74	-94	123.1	Cloudy
1243		600		58.99	23.99	3.52	1.34	6.61	-162	134	
1246		1200		59.04	24.01	3.56	0.75	6.60	-199	162	
1249		1800		59.06	24.02	3.52	0.43	6.60	-199	161	
1252		2400		59.05	24.01	3.52	0.42	6.61	-201	162	
1255		3000		59.05	24.01	3.53	0.41	6.61	-202	140	

Purge Start Time	Purge End Time	Average Flow (mL/min)	Total Volume Purged (Liters)	Total Casing Volumes Purged	80% Recovery Water Level Depth (Dx0.20) + B	Water Level at Sampling Time (ft bmp)	Sample Collection Time	Sample Identification
1240	1255	200	3.0	N/A	NA	59.05	1303	AW0064UB_WG200909 10_01

Notes: (units) [stabilization criteria]
Purging will continue until three consecutive measurements are within stabilization criterion.

Field Parameters

Ferrous Iron (mg/L)	PID (ppm):
1.33	7.9

DUP:
DRUM NO:

AVOCET ENVIRONMENTAL, INC.

GROUNDWATER SAMPLING DATA SHEET

Project Name:	Boeing C-6 Facility, WDR Sampling, Sep-09	**Date:**	9/10/2009
Project No.:	1155.010	**Prepared by:**	EMC
Well Identification:	EWB002	**Weather:**	sunny
Measurement Point Description:	TOC	**Pump Intake:**	60.5
		Screen:	60 - 90

A	*B*	*C*	*D* = *C - B*	*E* = *B - A*	*G* = *D x F*	*H* = *Screen x F*	*I* = (top screen – B) *x F*	
Depth to LNAPL (ft-bmp)	**Depth to Static Water Level** (ft-bmp)	**Well Total Depth** (ft-bmp)	**Water Column Height** (ft)	**LNAPL Thickness** (ft)	**One Casing Volume** (gallons)	**Screen Volume** (gallons)	**Above Screen Volume** (gal.)	**Total Purge Volume** (gal.)
	60.39				N/A	N/A	N/A	N/A

	Gallons/Foot			
Well Diameter (inches) = 6	0.75	2	4	6
F - **Gallons per foot of casing**	0.02	0.16	0.65	1.47

Field Equipment: QED, Dedicated Low-flow

Purge Method: Micropurge

Well Condition: Good

Time	Flow Controller Settings	Volume Purged (Liters)	Flow Rate (mL/min)	Water Level (ft-bmp)	Temperature (°C) [+/- 10%]	Conductivity (mS/cm) [+/- 10%]	Dissolved Oxygen (mg/L) [+/- 10%]	pH [+/- 0.1 pH]	ORP (mV) [+/- 10%]	Turbidity (NTU) [+/- 10%]	Observations
Previous Stabilized Parameters: 03-11-09					21.05	2.96	0.480	6.46	-105.00	23.20	
1315	CPM-4	0	200	60.39	23.15	3.41	3.26	6.92	-121.6	121.6	S. Cloudy
1318		600		60.61	23.56	3.21	1.46	6.76	-96.1	92.1	
1321		1200		60.63	23.60	3.01	0.82	6.71	-92.1	36.7	
1324		1800		60.62	23.61	3.00	0.54	6.70	-92.3	32.1	
1327		2400		60.64	23.59	2.99	0.56	6.70	-92.4	33.3	
1330		3000		60.65	23.60	3.00	0.57	6.71	-93.6	31.6	

Purge Start Time	Purge End Time	Average Flow (mL/min)	Total Volume Purged (Liters)	Total Casing Volumes Purged	80% Recovery Water Level Depth (Dx0.20) + B	Water Level at Sampling Time (ft bmp)	Sample Collection Time	Sample Identification
1315	1330	200	3.0	N/A	NA	60.65	1336	EWB002_WG200909 D _01

Notes: (units) [stabilization criteria]
Purging will continue until three consecutive measurements are within stabilization criterion.

Field Parameters

Ferrous Iron (mg/L)	PID (ppm):
1.62	1.7

DUP:
DRUM NO:

AVOCET ENVIRONMENTAL, INC.

GROUNDWATER SAMPLING DATA SHEET

Project Name:	Boeing C-6 Facility, WDR Sampling, Sep-09	**Date:**	9/ 16/2009
Project No.:	1155.010	**Prepared by:**	TmL
Well Identification:	MWB006	**Weather:**	Sunny
Measurement Point Description:	TOC	**Pump Intake:**	CDS / **Screen:** 65 - 90

A	B	C	D = C - B	E = B - A	G = D x F	H = Screen x F	I = (top screen – B) x F	
Depth to LNAPL (ft-bmp)	**Depth to Static Water Level** (ft-bmp)	**Well Total Depth** (ft-bmp)	**Water Column Height** (ft)	**LNAPL Thickness** (ft)	**One Casing Volume** (gallons)	**Screen Volume** (gallons)	**Above Screen Volume** (gal.)	**Total Purge Volume** (gal.)
—	60.60	—	—	—	N/A	N/A	N/A	N/A

	Gallons/Foot			
Well Diameter (inches) = 2	0.75	2	4	6
F - **Gallons per foot of casing**	0.02	0.16	0.65	1.47

Field Equipment: QED, Portable Low-flow
Purge Method: Micropurge
Well Condition: O/C

Time	Flow Controller Settings	Volume Purged (Liters)	Flow Rate (mL/min)	Water Level (ft-bmp)	Temperature (°C) [+/- 10%]	Conductivity (mS/cm) [+/- 10%]	Dissolved Oxygen (mg/L) [+/- 10%]	pH [+/- 0.1 pH]	ORP (mV) [+/- 10%]	Turbidity (NTU) [+/- 10%]	Observations
Previous Stabilized Parameters: 03-12-09					22.46	7.98	0.480	6.65	-149.00	5.13	
0727	IPM-4	0	200 mL/min	60.60	23.18	7.77	4.57	5.46	-28.0	7.6	clear
0730		600		60.87	23.53	7.81	1.17	5.53	-40	5.26	
0733		1200		60.88	23.75	7.81	0.85	5.57	-149	4.92	
0736		1800		60.87	23.82	7.83	0.44	5.64	-161	5.01	
0739		2400		60.88	23.91	7.84	0.45	5.63	-160	4.95	
0742		3000		60.88	23.94	7.83	0.45	5.65	-161	4.96	
~~Time~~											

Purge Start Time	Purge End Time	Average Flow (mL/min)	Total Volume Purged (Liters)	Total Casing Volumes Purged	80% Recovery Water Level Depth (Dx0.20) + B	Water Level at Sampling Time (ft bmp)	Sample Collection Time	Sample Identification
0727	0742	200	3.0	N/A	NA	60.88	0750	MWB006_WG200909 10 _01

Notes: (units) [stabilization criteria]
Purging will continue until three consecutive measurements are within stabilization criterion.

Field Parameters

Ferrous Iron (mg/L)	PID (ppm):
1.12	13.2

DUP:
DRUM NO:

AVOCET ENVIRONMENTAL, INC.

GROUNDWATER SAMPLING DATA SHEET

Project Name:	Boeing C-6 Facility, WDR Sampling, Sep-09	**Date:**	9/ 10 /2009
Project No.:	1155.010	**Prepared by:**	TMC
Well Identification:	WCC_12S	**Weather:**	Sunny
Measurement Point Description:	TOC	**Pump Intake:**	60's
		Screen:	60 - 90

A	B	C	D = C - B	E = B - A	G = D x F	H = Screen x F	I = (top screen – B) x F	
Depth to LNAPL (ft-bmp)	**Depth to Static Water Level** (ft-bmp)	**Well Total Depth** (ft-bmp)	**Water Column Height** (ft)	**LNAPL Thickness** (ft)	**One Casing Volume** (gallons)	**Screen Volume** (gallons)	**Above Screen Volume** (gal.)	**Total Purge Volume** (gal.)
/	58.29	/	/	/	N/A	N/A	N/A	N/A

	Gallons/Foot				
Well Diameter (inches) = 4	0.75	2	4	6	
F - **Gallons per foot of casing**	0.02	0.16	0.65	1.47	

Field Equipment: QED, Dedicated Low-flow

Purge Method: Micropurge

Well Condition: Good

Time	Flow Controller Settings	Volume Purged (Liters)	Flow Rate (mL/min)	Water Level (ft-bmp)	Temperature (°C) [+/- 10%]	Conductivity (mS/cm) [+/- 10%]	Dissolved Oxygen (mg/L) [+/- 10%]	pH [+/- 0.1 pH]	ORP (mV) [+/- 10%]	Turbidity (NTU) [+/- 10%]	Observations
Previous Stabilized Parameters: 03-11-09					19.24	1.79	6.970	7.04	120.00	1.20	
0805	CPM-4	0	200	58.34	21.63	1.81	7.53	6.80	-58	3.21	clear
0808	↓	600	↓	58.46	21.68	1.71	6.65	7.05	4	4.01	gmc
0811		1200		58.47	21.75	1.69	6.62	7.13	26	3.41	clear
0814		1800		58.48	21.77	1.69	6.45	7.16	34	3.41	↓
0817		2400		58.42	21.76	1.69	6.44	7.16	33	2.55	
0820	↓	3000	↓	58.45	21.77	1.69	6.42	7.15	31	2.65	↓
	TMC										

Purge Start Time	Purge End Time	Average Flow (mL/min)	Total Volume Purged (Liters)	Total Casing Volumes Purged	80% Recovery Water Level Depth (Dx0.20) + B	Water Level at Sampling Time (ft bmp)	Sample Collection Time	Sample Identification
0805	0820	200	3.0	N/A	NA	58.48	0830	WCC_12S_WG200909/10_01

Notes: (units) [stabilization criteria]
Purging will continue until three consecutive measurements are within stabilization criterion.

Field Parameters	
Ferrous Iron (mg/L)	PID (ppm):
0.06	0.0

DUP:
DRUM NO:

AVOCET ENVIRONMENTAL, INC.

GROUNDWATER SAMPLING DATA SHEET

Project Name:	Boeing C-6 Facility, WDR Sampling, Sep-09	**Date:**	9/10/2009
Project No.:	1155.010	**Prepared by:**	TMC
Well Identification:	AW0067UB	**Weather:**	Sunny
Measurement Point Description:	TOC	**Pump Intake:**	65 ft
		Screen:	70 - 90

A	B	C	D = C - B	E = B - A	G = D x F	H = Screen x F	I = (top screen – B) x F	
Depth to LNAPL (ft-bmp)	**Depth to Static Water Level** (ft-bmp)	**Well Total Depth** (ft-bmp)	**Water Column Height** (ft)	**LNAPL Thickness** (ft)	**One Casing Volume** (gallons)	**Screen Volume** (gallons)	**Above Screen Volume** (gal.)	**Total Purge Volume** (gal.)
	59.92				N/A	N/A	N/A	N/A

	Gallons/Foot			
Well Diameter (inches) = 2	0.75	2	4	6
F - **Gallons per foot of casing**	0.02	0.16	0.65	1.47

Field Equipment: QED, Portable Low-flow
Purge Method: Micropurge
Well Condition: Good

Time	Flow Controller Settings	Volume Purged (Liters)	Flow Rate (mL/min)	Water Level (ft-bmp)	Temperature (°C) [+/- 10%]	Conductivity (mS/cm) [+/- 10%]	Dissolved Oxygen (mg/L) [+/- 10%]	pH [+/- 0.1 pH]	ORP (mV) [+/- 10%]	Turbidity (NTU) [+/- 10%]	Observations
Previous Stabilized Parameters: 03-11-09					21.33	6.23	0.060	6.57	-242.00	63.10	
1010	CAM-4	0	200	59.92	23.06	7.29	2.46	6.91	-150.0	79.26	cloudy
1013		600		59.99	23.30	7.34	0.85	6.91	-201.0	68.11	
1016		1200		60.10	23.37	7.33	0.66	6.91	-211.1	70.2	
1019		1800		60.11	23.40	7.32	0.41	6.91	-211.6	70.9	
1022		2400		60.11	23.41	7.32	0.46	6.91	-211.5	71.1	
1025		3000		60.09	23.40	7.32	0.41	6.91	-211.6	71.1	

Purge Start Time	Purge End Time	Average Flow (mL/min)	Total Volume Purged (Liters)	Total Casing Volumes Purged	80% Recovery Water Level Depth (Dx0.20) + B	Water Level at Sampling Time (ft bmp)	Sample Collection Time	Sample Identification
1010	1025	200	3.0	N/A	NA	60.09	1035	AW0067UB_WG200909 10_01

Notes: (units) [stabilization criteria]
Purging will continue until three consecutive measurements are within stabilization criterion.

Field Parameters	
Ferrous Iron (mg/L)	PID (ppm):
0.07	0.0

DUP:
DRUM NO: Purge bottles (HCl)

AVOCET ENVIRONMENTAL, INC.

GROUNDWATER SAMPLING DATA SHEET

Project Name:	Boeing C-6 Facility, WDR Sampling, Sep-09	**Date:**	9/10/2009
Project No.:	1155.010	**Prepared by:**	TMC
Well Identification:	AW0065UB	**Weather:**	Sunny
Measurement Point Description:	TOC	**Pump Intake:**	CPS
		Screen:	68.5 - 88.5

A	B	C	D = C - B	E = B - A	G = D x F	H = Screen x F	I = (top screen – B) x F	
Depth to LNAPL (ft-bmp)	**Depth to Static Water Level** (ft-bmp)	**Well Total Depth** (ft-bmp)	**Water Column Height** (ft)	**LNAPL Thickness** (ft)	**One Casing Volume** (gallons)	**Screen Volume** (gallons)	**Above Screen Volume** (gal.)	**Total Purge Volume** (gal.)
	59.39				N/A	N/A	N/A	N/A

	Gallons/Foot			
Well Diameter (inches) = 2	0.75	2	4	6
F - **Gallons per foot of casing**	0.02	0.16	0.65	1.47

Field Equipment: QED, Portable Low-flow

Purge Method: Micropurge

Well Condition: Missing well cap

Time	Flow Controller Settings	Volume Purged (Liters)	Flow Rate (mL/min)	Water Level (ft-bmp)	Temperature (°C) [+/- 10%]	Conductivity (mS/cm) [+/- 10%]	Dissolved Oxygen (mg/L) [+/- 10%]	pH [+/- 0.1 pH]	ORP (mV) [+/- 10%]	Turbidity (NTU) [+/- 10%]	Observations
Previous Stabilized Parameters: 03-11-09					22.69	2.71	0.060	7.28	-203.00	136.00	
1050	CPM-4	0	200	59.39	23.45	3.23	2.92	6.78	-84	256.	cloudy
1053		600		59.48	24.38	3.13	0.62	6.51	-161	141	
1056		1200		59.52	24.33	3.12	0.51	6.46	-185	138	
1059		1800		59.51	24.29	3.11	0.45	6.47	-180	162	
1102		2400		59.51	24.28	3.10	0.44	6.46	-181	161	
1105		3000		59.52	24.29	3.11	0.44	6.46	-176	151	
1108		3600		59.52	24.29	3.11	0.45	6.46	-179	155	
~~TMC~~											

Purge Start Time	Purge End Time	Average Flow (mL/min)	Total Volume Purged (Liters)	Total Casing Volumes Purged	80% Recovery Water Level Depth (Dx0.20) + B	Water Level at Sampling Time (ft bmp)	Sample Collection Time	Sample Identification
1050	1108	200	3.6	N/A	NA	59.51	1115	AW0065UB_WG200909 10_01

Notes: (units) [stabilization criteria]
Purging will continue until three consecutive measurements are within stabilization criterion.

Field Parameters

Ferrous Iron (mg/L)	PID (ppm):
1.65	0.0

DUP:
DRUM NO: effervesing bottles

well cap gone. Tire rubber making it down well

AVOCET ENVIRONMENTAL, INC.

GROUNDWATER SAMPLING DATA SHEET

Project Name:	Boeing C-6 Facility, WDR Sampling, Sep-09	**Date:**	9/10/2009
Project No.:	1155.010	**Prepared by:**	Emc
Well Identification:	WCC_06S	**Weather:**	Sunny
Measurement Point Description:	TOC	**Pump Intake:**	105
		Screen:	60 - 90

A	B	C	D = C - B	E = B - A	G = D x F	H = Screen x F	I = (top screen – B) x F	
Depth to LNAPL (ft-bmp)	**Depth to Static Water Level** (ft-bmp)	**Well Total Depth** (ft-bmp)	**Water Column Height** (ft)	**LNAPL Thickness** (ft)	**One Casing Volume** (gallons)	**Screen Volume** (gallons)	**Above Screen Volume** (gal.)	**Total Purge Volume** (gal.)
	63.61				N/A	N/A	N/A	N/A

	Gallons/Foot			
Well Diameter (inches) = 4	0.75	2	4	6
F - **Gallons per foot of casing**	0.02	0.16	0.65	1.47

Field Equipment: QED, Portable Low-flow

Purge Method: Micropurge

Well Condition:

Time	Flow Controller Settings	Volume Purged (Liters)	Flow Rate (mL/min)	Water Level (ft-bmp)	Temperature (°C) [+/- 10%]	Conductivity (mS/cm) [+/- 10%]	Dissolved Oxygen (mg/L) [+/- 10%]	pH [+/- 0.1 pH]	ORP (mV) [+/- 10%]	Turbidity (NTU) [+/- 10%]	Observations
Previous Stabilized Parameters: 03-11-09					21.88	3.91	8.020	7.72	-48.00	5.20	
1125	cpm-4	0	200	63.61	23.41	3.96	6.43	7.37	-23.00	26.2	s. cloudy
1128		600		63.87	23.39	3.66	6.92	7.22	16.1	13.6	clear
1131		1200		68.86	23.38	3.66	6.95	7.20	12.7	16.2	
1134		1800		68.86	23.38	3.66	6.92	7.21	12.3	17.1	
1137		2400		68.85	23.39	3.66	6.93	7.20	12.6	17.2	

Purge Start Time	Purge End Time	Average Flow (mL/min)	Total Volume Purged (Liters)	Total Casing Volumes Purged	80% Recovery Water Level Depth (Dx0.20) + B	Water Level at Sampling Time (ft bmp)	Sample Collection Time	Sample Identification
1125	1137	200	2.4	N/A	NA	68.85	1146	WCC_06S_WG200909 1127_01

Notes: (units) [stabilization criteria]
Purging will continue until three consecutive measurements are within stabilization criterion.

Field Parameters	
Ferrous Iron (mg/L)	PID (ppm):
1.03	0.0

DUP:
DRUM NO:

AVOCET ENVIRONMENTAL, INC.

GROUNDWATER SAMPLING DATA SHEET

Project Name:	Boeing C-6 Facility, Sitewide Annual Sampling, Sep-09	**Date:**	9/10/2009
Project No.:	1155.010	**Prepared by:**	DML
Well Identification:	MWC022	**Weather:**	Clear, Warm
Measurement Point Description:	TOC	**Pump Intake:**	107
		Screen:	97 - 117

A	B	C	D = C - B	E = B - A	G = D x F	H = Screen x F	I = (top screen – B) x F	
Depth to LNAPL (ft-bmp)	**Depth to Static Water Level** (ft-bmp)	**Well Total Depth** (ft-bmp)	**Water Column Height** (ft)	**LNAPL Thickness** (ft)	**One Casing Volume** (gallons)	**Screen Volume** (gallons)	**Above Screen Volume** (gal.)	**Total Purge Volume** (gal.)
NA	58.24	117	58	NA	N/A	N/A	N/A	N/A

	Gallons/Foot				
Well Diameter (inches) = 4	0.75	2	4	6	
F - **Gallons per foot of casing**	0.02	0.16	0.65	1.47	

Field Equipment: QED, Dedicated Low-flow

Purge Method: Micropurge

Well Condition: good.

Time	Flow Controller Settings	Volume Purged (Liters)	Flow Rate (mL/min)	Water Level (ft-bmp)	Temperature (°C) [+/- 10%]	Conductivity (mS/cm) [+/- 10%]	Dissolved Oxygen (mg/L) [+/- 10%]	pH [+/- 0.1 pH]	ORP (mV) [+/- 10%]	Turbidity (NTU) [+/- 10%]	Observations
Previous Stabilized Parameters: 03-16-09					25.42	0.91	0.400	8.38	-143	1.00	
13:~~46~~50	pi	0	200	58.24	26.83	0.778	1.36	9.70	-286	2.03	clear
13:53		0.6	200	58.25	24.92	0.799	0.40	9.67	-291	0.54	
13:56		1.2	200	58.25	24.58	0.801	0.23	9.67	-275	0.35	
13:59		1.8	200	58.25	24.55	0.802	0.19	9.67	-261	0.15	

Purge Start Time	Purge End Time	Average Flow (mL/min)	Total Volume Purged (Liters)	Total Casing Volumes Purged	80% Recovery Water Level Depth (Dx0.20) + B	Water Level at Sampling Time (ft bmp)	Sample Collection Time	Sample Identification
13:50	13:59	200	1.8	N/A	NA	58.25	14:01	MWC022_WG200909 10 _01

Notes: (units) [stabilization criteria]
Purging will continue until three consecutive measurements are within stabilization criterion.

Field Parameters

PID (ppm): 0.0

DUP:
DRUM NO:

AVOCET ENVIRONMENTAL, INC.

GROUNDWATER SAMPLING DATA SHEET

Project Name:	Boeing C-6 Facility, Sitewide Annual Sampling, Sep-09	**Date:**	9/10/2009
Project No.:	1155.010	**Prepared by:**	DML
Well Identification:	MWG004	**Weather:**	Warm, Clear
Measurement Point Description:	TOC	**Pump Intake:**	≈170
		Screen:	155 - 185

A	B	C	D = C - B	E = B - A	G = D x F	H = Screen x F	I = (top screen – B) x F	
Depth to LNAPL (ft-bmp)	**Depth to Static Water Level** (ft-bmp)	**Well Total Depth** (ft-bmp)	**Water Column Height** (ft)	**LNAPL Thickness** (ft)	**One Casing Volume** (gallons)	**Screen Volume** (gallons)	**Above Screen Volume** (gal.)	**Total Purge Volume** (gal.)
NA	60.95	185	124	NA	N/A	N/A	N/A	N/A

	Gallons/Foot			
Well Diameter (inches) = 2	0.75	2	4	6
F - **Gallons per foot of casing**	0.02	0.16	0.65	1.47

Field Equipment: QED, Dedicated Low-flow
Purge Method: Micropurge
Well Condition: Good

Time	Flow Controller Settings	Volume Purged (Liters)	Flow Rate (mL/min)	Water Level (ft-bmp)	Temperature (°C) [+/- 10%]	Conductivity (mS/cm) [+/- 10%]	Dissolved Oxygen (mg/L) [+/- 10%]	pH [+/- 0.1 pH]	ORP (mV) [+/- 10%]	Turbidity (NTU) [+/- 10%]	Observations
Previous Stabilized Parameters: 03-10-09					21.99	0.66	0.160	7.66	-210	5.86	
13:00	95psi 10/5	0	200	60.97	24.77	0.572	3.17	9.57	-334	4.69	clear
13:03	" "	0.6	200	60.99	24.10	0.442	1.46	9.57	-352	5.15	clear
13:06	" "	1.2	200	60.99	23.80	0.541	0.72	9.70	-358	3.77	clear
13:09	" "	1.8	200	60.99	23.78	0.570	0.41	9.84	-359	2.50	clear
13:12	" "	2.4	200	60.99	23.80	0.572	0.37	9.84	-359	2.03	clear

Purge Start Time	Purge End Time	Average Flow (mL/min)	Total Volume Purged (Liters)	Total Casing Volumes Purged	80% Recovery Water Level Depth (Dx0.20) + B	Water Level at Sampling Time (ft bmp)	Sample Collection Time	Sample Identification
13:00	13:12	200	2.4	N/A	NA	60.99	13:14	MWG004_WG200909 10 _01

Notes: (units) [stabilization criteria]
Purging will continue until three consecutive measurements are within stabilization criterion.

Field Parameters
PID (ppm): 0.4

DUP:
DRUM NO:

AVOCET ENVIRONMENTAL, INC.

GROUNDWATER SAMPLING DATA SHEET

Project Name:	Boeing C-6 Facility, Sitewide Annual Sampling, Sep-09	**Date:**	9/10 /2009
Project No.:	1155.010	**Prepared by:**	DML
Well Identification:	MWG001	**Weather:**	Warm, Partly Cloudy
Measurement Point Description:		**Pump Intake:**	≈ 161' bgs — **Screen:** 156 - 186

A	B	C	D = C - B	E = B - A	G = D x F	H = Screen x F	I = (top screen – B) x F	
Depth to LNAPL (ft-bmp)	**Depth to Static Water Level** (ft-bmp)	**Well Total Depth** (ft-bmp)	**Water Column Height** (ft)	**LNAPL Thickness** (ft)	**One Casing Volume** (gallons)	**Screen Volume** (gallons)	**Above Screen Volume** (gal.)	**Total Purge Volume** (gal.)
NA	62.98	186	123	NA	N/A	N/A	N/A	N/A

	Gallons/Foot				
Well Diameter (inches) = 2	0.75	2	4	6	
F - **Gallons per foot of casing**	0.02	0.16	0.65	1.47	

Field Equipment: QED, Dedicated Low-flow

Purge Method: Micropurge

Well Condition: good, pump is pulled up 10', will not settle down to max depth

Time	Flow Controller Settings	Volume Purged (Liters)	Flow Rate (mL/min)	Water Level (ft-bmp)	Temperature (°C) [+/- 10%]	Conductivity (mS/cm) [+/- 10%]	Dissolved Oxygen (mg/L) [+/- 10%]	pH [+/- 0.1 pH]	ORP (mV) [+/- 10%]	Turbidity (NTU) [+/- 10%]	Observations
Previous Stabilized Parameters: 03-13-09					23.16	0.55	1.130	7.95	-232	3.10	
10:37	95psi 9/6	0	200	62.98	27.80	0.546	1.33	9.84	-480	0.36	clear
10:40	" "	0.6	200	62.98	25.89	0.584	0.39	9.93	-388	0.35	clear
10:43	" "	1.2	200	62.98	25.84	0.585	0.26	9.93	-348	0.31	clear
10:46	" "	1.8	200	62.98	25.82	0.585	0.23	9.93	-338	0.42	clear

Purge Start Time	Purge End Time	Average Flow (mL/min)	Total Volume Purged (Liters)	Total Casing Volumes Purged	80% Recovery Water Level Depth (Dx0.20) + B	Water Level at Sampling Time (ft bmp)	Sample Collection Time	Sample Identification
10:37	10:46	200	1.8	N/A	NA	62.98	10:48	MWG001_WG200909 10 _01

Notes: (units) [stabilization criteria]
Purging will continue until three consecutive measurements are within stabilization criterion.

Field Parameters

PID (ppm): 0.2

DUP:
DRUM NO:

AVOCET ENVIRONMENTAL, INC.

GROUNDWATER SAMPLING DATA SHEET

Project Name:	Boeing C-6 Facility, Sitewide Annual Sampling, Sep-09	**Date:**	9/10/2009
Project No.:	1155.010	**Prepared by:**	DML
Well Identification:	MWC021	**Weather:**	Clear, Warm
Measurement Point Description:	TOC	**Pump Intake:**	≈
		Screen:	97 - 122

A	B	C	D = C - B	E = B - A	G = D x F	H = Screen x F	I = (top screen – B) x F	
Depth to LNAPL (ft-bmp)	**Depth to Static Water Level** (ft-bmp)	**Well Total Depth** (ft-bmp)	**Water Column Height** (ft)	**LNAPL Thickness** (ft)	**One Casing Volume** (gallons)	**Screen Volume** (gallons)	**Above Screen Volume** (gal.)	**Total Purge Volume** (gal.)
NA	61.94	122	60	NA	N/A	N/A	N/A	N/A

	Gallons/Foot			
Well Diameter (inches) = 4	0.75	2	4	6
F - **Gallons per foot of casing**	0.02	0.16	0.65	1.47

Field Equipment: QED, Dedicated Low-flow

Purge Method: Micropurge

Well Condition:

Time	Flow Controller Settings	Volume Purged (Liters)	Flow Rate (mL/min)	Water Level (ft-bmp)	Temperature (°C) [+/- 10%]	Conductivity (mS/cm) [+/- 10%]	Dissolved Oxygen (mg/L) [+/- 10%]	pH [+/- 0.1 pH]	ORP (mV) [+/- 10%]	Turbidity (NTU) [+/- 10%]	Observations
Previous Stabilized Parameters: 03-13-09					23.47	0.91	0.520	7.46	-161	0.50	
8:12	70psi 9.5/5.5	0	200	61.99	24.39	0.824	2.25	9.59	-386	1.07	clear
8:15	"	0.6	200	61.99	24.01	0.829	1.09	9.61	-353	0.52	clear
8:18	"	1.2	200	61.99	23.92	0.829	0.58	9.61	-320	0.51	clear
8:21	"	1.8	200	61.99	23.81	0.829	0.37	9.62	-295	0.35	clear
8:24		2.4	200	61.99	23.77	0.829	0.32	9.62	-292	0.33	
8:27		3.0	200	61.99	23.78	0.828	0.30	9.62	-286	0.34	

Purge Start Time	Purge End Time	Average Flow (mL/min)	Total Volume Purged (Liters)	Total Casing Volumes Purged	80% Recovery Water Level Depth (Dx0.20) + B	Water Level at Sampling Time (ft bmp)	Sample Collection Time	Sample Identification
8:12	8:27	200	3	N/A	NA	61.99	8:29	MWC021_WG200909 10 _01

Notes: (units) [stabilization criteria]
Purging will continue until three consecutive measurements are within stabilization criterion.

Field Parameters

PID (ppm): 0.1

DUP:
DRUM NO:

AVOCET ENVIRONMENTAL, INC.

GROUNDWATER SAMPLING DATA SHEET

Project Name:	Boeing C-6 Facility, Sitewide Annual Sampling, Sep-09	**Date:**	9/10/2009
Project No.:	1155.010	**Prepared by:**	DML
Well Identification:	TMW_14	**Weather:**	Partly Cloudy, cool
Measurement Point Description:	TOC	**Pump Intake:**	≈75' **Screen:** 65 - 85

A	B	C	D = C - B	E = B - A	G = D x F	H = Screen x F	I = (top screen – B) x F	
Depth to LNAPL (ft-bmp)	**Depth to Static Water Level** (ft-bmp)	**Well Total Depth** (ft-bmp)	**Water Column Height** (ft)	**LNAPL Thickness** (ft)	**One Casing Volume** (gallons)	**Screen Volume** (gallons)	**Above Screen Volume** (gal.)	**Total Purge Volume** (gal.)
NA	66.28	85	18.7	NA	N/A	N/A	N/A	N/A

	Gallons/Foot			
Well Diameter (inches) = 2	0.75	2	4	6
F - **Gallons per foot of casing**	0.02	0.16	0.65	1.47

Field Equipment: QED, Dedicated Low-flow
Purge Method: Micropurge
Well Condition: good

Time	Flow Controller Settings	Volume Purged (Liters)	Flow Rate (mL/min)	Water Level (ft-bmp)	Temperature (°C) [+/- 10%]	Conductivity (mS/cm) [+/- 10%]	Dissolved Oxygen (mg/L) [+/- 10%]	pH [+/- 0.1 pH]	ORP (mV) [+/- 10%]	Turbidity (NTU) [+/- 10%]	Observations
Previous Stabilized Parameters: 03-13-09					20.61	3.16	5.230	6.81	-70	1.30	
7:30	50psi 10.5/4.5	0	200	66.31	22.20	2.65	5.40	8.82	63	2.42	clear
7:33	" "	0.6	200	66.31	22.22	2.62	5.56	8.91	62	4.66	clear
7:36	" "	1.2	260	66.31	22.24	2.61	5.55	8.97	58	2.22	clear

Purge Start Time	Purge End Time	Average Flow (mL/min)	Total Volume Purged (Liters)	Total Casing Volumes Purged	80% Recovery Water Level Depth (Dx0.20) + B	Water Level at Sampling Time (ft bmp)	Sample Collection Time	Sample Identification
7:30	7:36	200	1.2	N/A	NA	66.31	7:38	TMW_14_WG200909/10 _01

Notes: (units) [stabilization criteria]
Purging will continue until three consecutive measurements are within stabilization criterion.

Field Parameters
PID (ppm): 0.0

≈ 1L additional water purged prior to flow stabilization @ 7:30

DUP:
DRUM NO:

AVOCET ENVIRONMENTAL, INC.

GROUNDWATER SAMPLING DATA SHEET

Project Name:	Boeing C-6 Facility, Sitewide Annual Sampling, Sep-09	**Date:**	9/10/2009
Project No.:	1155.010	**Prepared by:**	DML
Well Identification:	MWG003	**Weather:**	Clear, Hot
Measurement Point Description:	TOC	**Pump Intake:**	170'
		Screen:	154.5 - 184.5

A	B	C	D = C - B	E = B - A	G = D x F	H = Screen x F	I = (top screen – B) x F	
Depth to LNAPL (ft-bmp)	**Depth to Static Water Level** (ft-bmp)	**Well Total Depth** (ft-bmp)	**Water Column Height** (ft)	**LNAPL Thickness** (ft)	**One Casing Volume** (gallons)	**Screen Volume** (gallons)	**Above Screen Volume** (gal.)	**Total Purge Volume** (gal.)
NA	61.81	184.5	122'	NA	N/A	N/A	N/A	N/A

	Gallons/Foot			
Well Diameter (inches) = 2	0.75	2	4	6
F - **Gallons per foot of casing**	0.02	0.16	0.65	1.47

Field Equipment: QED, Dedicated Low-flow

Purge Method: Micropurge

Well Condition: good, pump needs dead weight

Time	Flow Controller Settings	Volume Purged (Liters)	Flow Rate (mL/min)	Water Level (ft-bmp)	Temperature (°C) [+/- 10%]	Conductivity (mS/cm) [+/- 10%]	Dissolved Oxygen (mg/L) [+/- 10%]	pH [+/- 0.1 pH]	ORP (mV) [+/- 10%]	Turbidity (NTU) [+/- 10%]	Observations
~~11:26~~	Previous Stabilized Parameters: 03-13-09				22.80	0.30	0.490	7.80	0	10.10	
11:26	95psi 9.5/5.5	0	200	61.81	26.40	0.739	1.60	9.45	-393	3.10	clear
11:29	" "	0.6	200	61.81	25.12	0.341	0.34	11.42	-433	8.72	
11:32	" "	1.2	200	61.81	25.00	0.296	0.24	11.15	-442	5.46	
11:35	" "	1.8	200	61.81	25.05	0.346	0.19	10.62	-428	3.31	
11:38	" "	2.4	200	61.81	25.11	0.482	0.16	9.95	-408	2.50	
11:41	" "	3.0	200	61.81	24.98	0.734	0.16	9.79	-380	1.53	
11:44	" "	3.6	200	61.81	24.94	0.797	0.16	9.75	-369	0.67	
11:47	" "	4.2	200	61.81	24.88	0.813	0.16	9.75	-366	0.77	

Purge Start Time	Purge End Time	Average Flow (mL/min)	Total Volume Purged (Liters)	Total Casing Volumes Purged	80% Recovery Water Level Depth (Dx0.20) + B	Water Level at Sampling Time (ft bmp)	Sample Collection Time	Sample Identification
11:26	11:47	200	4.2	N/A	NA	61.81	11:49	MWG003_WG200909 10 _01

Notes: (units) [stabilization criteria]
Purging will continue until three consecutive measurements are within stabilization criterion.

Field Parameters

PID (ppm): 1.7

DUP:
DRUM NO:

AVOCET ENVIRONMENTAL, INC.

GROUNDWATER SAMPLING DATA SHEET

Project Name:	Boeing C-6 Facility, Sitewide Annual Sampling, Sep-09	**Date:**	9/10/2009
Project No.:	1155.010	**Prepared by:**	DMC
Well Identification:	TMW_15	**Weather:**	Clear, warm
Measurement Point Description:	TOC	**Pump Intake:**	≈75
		Screen:	62 - 87

A	B	C	D = C - B	E = B - A	G = D x F	H = Screen x F	I = (top screen – B) x F	
Depth to LNAPL (ft-bmp)	**Depth to Static Water Level** (ft-bmp)	**Well Total Depth** (ft-bmp)	**Water Column Height** (ft)	**LNAPL Thickness** (ft)	**One Casing Volume** (gallons)	**Screen Volume** (gallons)	**Above Screen Volume** (gal.)	**Total Purge Volume** (gal.)
NA	64.55	87	22.5	NA	N/A	N/A	N/A	N/A

	Gallons/Foot			
Well Diameter (inches) = 2	0.75	2	4	6
F - **Gallons per foot of casing**	0.02	0.16	0.65	1.47

Field Equipment: QED, Dedicated Low-flow

Purge Method: Micropurge

Well Condition: needs new lock, lock rusted

Time	Flow Controller Settings	Volume Purged (Liters)	Flow Rate (mL/min)	Water Level (ft-bmp)	Temperature (°C) [+/- 10%]	Conductivity (mS/cm) [+/- 10%]	Dissolved Oxygen (mg/L) [+/- 10%]	pH [+/- 0.1 pH]	ORP (mV) [+/- 10%]	Turbidity (NTU) [+/- 10%]	Observations
Previous Stabilized Parameters: 03-13-09					20.41	1.59	5.470	7.15	60	3.60	
8:57	50psi 10/5	0	200	64.71	22.17	1.428	5.07	9.41	-56	3.02	Clear w/ suspended solids
9:00	" "	0.6	200	64.71	22.08	1.437	5.42	9.43	-47	1.15	as above
9:03	" "	1.2	200	64.71	22.12	1.438	5.47	9.44	-40	1.43	
9:06	" "	1.8	200	64.71	22.18	1.438	5.48	9.44	-35	0.51	

Purge Start Time	Purge End Time	Average Flow (mL/min)	Total Volume Purged (Liters)	Total Casing Volumes Purged	80% Recovery Water Level Depth (Dx0.20) + B	Water Level at Sampling Time (ft bmp)	Sample Collection Time	Sample Identification
8:57	9:06	200	1.8	N/A	NA	64.71	9:08	TMW_15_WG200909 10 _01

Notes: (units) [stabilization criteria]
Purging will continue until three consecutive measurements are within stabilization criterion.

Field Parameters

PID (ppm): 0.0

DUP:

DRUM NO:

AVOCET ENVIRONMENTAL, INC.

GROUNDWATER SAMPLING DATA SHEET

Project Name:	Boeing C-6 Facility, Sitewide Annual Sampling, Sep-09	**Date:**	9/10/2009
Project No.:	1155.010	**Prepared by:**	DML
Well Identification:	MWC004	**Weather:**	Clear, warm
Measurement Point Description:	TOC	**Pump Intake:**	~106'
		Screen:	96 - 116

A	B	C	D = C - B	E = B - A	G = D x F	H = Screen x F	I = (top screen – B) x F	
Depth to LNAPL (ft-bmp)	**Depth to Static Water Level** (ft-bmp)	**Well Total Depth** (ft-bmp)	**Water Column Height** (ft)	**LNAPL Thickness** (ft)	**One Casing Volume** (gallons)	**Screen Volume** (gallons)	**Above Screen Volume** (gal.)	**Total Purge Volume** (gal.)
NA	58.85	116	57'	NA	N/A	N/A	N/A	N/A

	Gallons/Foot			
Well Diameter (inches) = 4	0.75	2	4	6
F - **Gallons per foot of casing**	0.02	0.16	0.65	1.47

Field Equipment: QED, Dedicated Low-flow

Purge Method: Micropurge

Well Condition: good, no tubing

Time	Flow Controller Settings	Volume Purged (Liters)	Flow Rate (mL/min)	Water Level (ft-bmp)	Temperature (°C) [+/- 10%]	Conductivity (mS/cm) [+/- 10%]	Dissolved Oxygen (mg/L) [+/- 10%]	pH [+/- 0.1 pH]	ORP (mV) [+/- 10%]	Turbidity (NTU) [+/- 10%]	Observations
Previous Stabilized Parameters: 03-16-09					22.15	0.91 ✓	0.440 ✓	8.17 ✓	-168 ✓		
9:45	65psi 10/5	0	200	58.91	22.83	0.753	2.74	9.86	-317	0.83	clear
9:48	" "	0.6	"	58.91	22.64	0.788	1.17	9.65	-288	0.40	clear
9:51	" "	1.2	"	58.91	22.63	0.788	0.66	9.62	-258	0.40	clear
9:54	" "	1.8	"	58.91	22.64	0.789	0.44	9.60	-247	0.36	clear

Purge Start Time	Purge End Time	Average Flow (mL/min)	Total Volume Purged (Liters)	Total Casing Volumes Purged	80% Recovery Water Level Depth (Dx0.20) + B	Water Level at Sampling Time (ft bmp)	Sample Collection Time	Sample Identification
9:45	9:56	200	1.8	N/A	NA	58.91	9:56	MWC004_WG200909 10 _01

Notes: (units) [stabilization criteria]
Purging will continue until three consecutive measurements are within stabilization criterion.

Field Parameters

PID (ppm): 0.0

DUP:

DRUM NO:

AVOCET ENVIRONMENTAL, INC.

GROUNDWATER SAMPLING DATA SHEET

Project Name:	Boeing C-6 Facility, Sitewide Annual Sampling, Sep-09	**Date:**	9/11/2009
Project No.:	1155.010	**Prepared by:**	BCB
Well Identification:	MWC009	**Weather:**	Clear / Hot
Measurement Point Description:	TOC-N	**Pump Intake:**	COS
		Screen:	101 - 121

A	B	C	D = C - B	E = B - A	G = D x F	H = Screen x F	I = (top screen – B) x F	
Depth to LNAPL (ft-bmp)	**Depth to Static Water Level** (ft-bmp)	**Well Total Depth** (ft-bmp)	**Water Column Height** (ft)	**LNAPL Thickness** (ft)	**One Casing Volume** (gallons)	**Screen Volume** (gallons)	**Above Screen Volume** (gal.)	**Total Purge Volume** (gal.)
–	61.20	121		–	N/A	N/A	N/A	N/A

	Gallons/Foot			
Well Diameter (inches) = 4	0.75	2	(4)	6
F - **Gallons per foot of casing**	0.02	0.16	0.65	1.47

Field Equipment: QED, Dedicated Low-flow

Purge Method: Micropurge

Well Condition:

Time	Flow Controller Settings	Volume Purged (Liters)	Flow Rate (mL/min)	Water Level (ft-bmp)	Temperature (°C) [+/- 10%]	Conductivity (mS/cm) [+/- 10%]	Dissolved Oxygen (mg/L) [+/- 10%]	pH [+/- 0.1 pH]	ORP (mV) [+/- 10%]	Turbidity (NTU) [+/- 10%]	Observations
Previous Stabilized Parameters: 03-16-09					21.83	0.90	0.400	8.25	-156	1.00	
0835	10/5s @ 85psi	0	250	61.20	24.12	0.837	2.36	7.56	53	2.95	Cobbles
0838	↓	750	↓	61.24	22.99	0.849	1.11	7.52	49	2.71	"
0841	↓	1500	↓	61.25	22.61	0.857	0.94	7.47	44	2.44	"
0844	↓	2250	↓	61.25	22.03	0.856	0.41	7.44	38	2.25	"
0847	↓	3000	↓	61.24	22.00	0.855	0.35	7.41	25	2.37	"
0850	↓	3750	↓	61.25	21.97	0.855	0.30	7.39	17	2.20	"

Purge Start Time	Purge End Time	Average Flow (mL/min)	Total Volume Purged (Liters)	Total Casing Volumes Purged	80% Recovery Water Level Depth (Dx0.20) + B	Water Level at Sampling Time (ft bmp)	Sample Collection Time	Sample Identification
0835	0850	250	3.75	N/A	NA	61.25	0850	MWC009_WG200909 11 _01

Notes: (units) [stabilization criteria]
Purging will continue until three consecutive measurements are within stabilization criterion.

Field Parameters

DO. = 2.10

PID (ppm): 0.1

DUP: MWC009_WG20090911-02
DRUM NO:

AVOCET ENVIRONMENTAL, INC.

GROUNDWATER SAMPLING DATA SHEET

Project Name:	Boeing C-6 Facility, Sitewide Annual Sampling, Sep-09	**Date:**	9/ 11 /2009
Project No.:	1155.010	**Prepared by:**	BCB
Well Identification:	MWB019	**Weather:**	Clear / Hot
Measurement Point Description:	TOC-N	**Pump Intake:**	60s
		Screen:	65 - 85

A	B	C	D = C - B	E = B - A	G = D x F	H = Screen x F	I = (top screen – B) x F	
Depth to LNAPL (ft-bmp)	**Depth to Static Water Level** (ft-bmp)	**Well Total Depth** (ft-bmp)	**Water Column Height** (ft)	**LNAPL Thickness** (ft)	**One Casing Volume** (gallons)	**Screen Volume** (gallons)	**Above Screen Volume** (gal.)	**Total Purge Volume** (gal.)
—	62.67	85	—	—	N/A	N/A	N/A	N/A

	Gallons/Foot			
Well Diameter (inches) = 4	0.75	2	(4)	6
F - **Gallons per foot of casing**	0.02	0.16	0.65	1.47

Field Equipment: QED, Dedicated Low-flow

Purge Method: Micropurge

Well Condition: Need to chase threads on well box

Time	Flow Controller Settings	Volume Purged (Liters)	Flow Rate (mL/min)	Water Level (ft-bmp)	Temperature (°C) [+/- 10%]	Conductivity (mS/cm) [+/- 10%]	Dissolved Oxygen (mg/L) [+/- 10%]	pH [+/- 0.1 pH]	ORP (mV) [+/- 10%]	Turbidity (NTU) [+/- 10%]	Observations
Previous Stabilized Parameters: 03-13-09					20.30	3.15	5.130	6.75	72	0.80	
0935	10/5s @ 70psi	0	250	62.67	23.19	3.00	4.90	6.99	96	2.75	Cobbles
0938	↓	750	↓	62.69	22.85	3.00	4.77	6.90	99	1.24	"
0941		1500		62.72	22.57	3.00	4.58	6.82	102	0.99	"
0944		2250		62.69	22.31	3.01	4.52	6.78	111	0.91	"
0947		3000		62.70	22.10	3.00	4.44	6.75	116	1.04	"
0950		3750		62.72	22.20	3.00	4.36	6.75	120	1.07	"

Purge Start Time	Purge End Time	Average Flow (mL/min)	Total Volume Purged (Liters)	Total Casing Volumes Purged	80% Recovery Water Level Depth (Dx0.20) + B	Water Level at Sampling Time (ft bmp)	Sample Collection Time	Sample Identification
0935	0950	250	3.75	N/A	NA	62.72	0950	MWB019_WG200909 11 _01

Notes: (units) [stabilization criteria]
Purging will continue until three consecutive measurements are within stabilization criterion.

Field Parameters	
D.O. < 1	PID (ppm): 0.0

DUP: MWB019_WG200909 11 _02
DRUM NO:

AVOCET ENVIRONMENTAL, INC.

GROUNDWATER SAMPLING DATA SHEET

Project Name:	Boeing C-6 Facility, Sitewide Annual Sampling, Sep-09	**Date:**	9/ 11 /2009
Project No.:	1155.010	**Prepared by:**	BCB
Well Identification:	MWC017	**Weather:**	Clear / Hot
Measurement Point Description:	TOC-N	**Pump Intake:**	COS
		Screen:	100 - 125

A	B	C	D = C - B	E = B - A	G = D x F	H = Screen x F	I = (top screen – B) x F	
Depth to LNAPL (ft-bmp)	**Depth to Static Water Level** (ft-bmp)	**Well Total Depth** (ft-bmp)	**Water Column Height** (ft)	**LNAPL Thickness** (ft)	**One Casing Volume** (gallons)	**Screen Volume** (gallons)	**Above Screen Volume** (gal.)	**Total Purge Volume** (gal.)
–	63.27	125	–	–	N/A	N/A	N/A	N/A

	Gallons/Foot			
Well Diameter (inches) = 4	0.75	2	(4)	6
F - **Gallons per foot of casing**	0.02	0.16	0.65	1.47

Field Equipment: QED, Dedicated Low-flow

Purge Method: Micropurge

Well Condition: Need to chase threads in well box, Need covers (blue cap)

Time	Flow Controller Settings	Volume Purged (Liters)	Flow Rate (mL/min)	Water Level (ft-bmp)	Temperature (°C) [+/- 10%]	Conductivity (mS/cm) [+/- 10%]	Dissolved Oxygen (mg/L) [+/- 10%]	pH [+/- 0.1 pH]	ORP (mV) [+/- 10%]	Turbidity (NTU) [+/- 10%]	Observations
Previous Stabilized Parameters: 03-13-09					19.49	1.32	0.320	7.15	-138	1.90	
1010	10/5 s @ 80 psi	0 ~~63.27~~	250	63.27	24.61	0.847	2.63	7.57	-167	3.64	Colorless
1013	↓	750	↓	63.31	23.64	0.860	1.42	7.	-164	3.17	"
1016		1500		63.29	23.23	0.864	0.46	7.49	-162	2.75	"
1019		2250		63.27	23.09	0.867	0.37	7.	-155	2.61	"
1022		3000		63.28	22.96	0.869	0.25	7.40	-150	2.44	"
1025		3750		63.27	22.98	0.868	0.22	7.	-151	2.32	"

Purge Start Time	Purge End Time	Average Flow (mL/min)	Total Volume Purged (Liters)	Total Casing Volumes Purged	80% Recovery Water Level Depth (Dx0.20) + B	Water Level at Sampling Time (ft bmp)	Sample Collection Time	Sample Identification
1010	1025	250	3.75	N/A	NA	63.27	1025	MWC017_WG200909 11 _01

Notes: (units) [stabilization criteria]
Purging will continue until three consecutive measurements are within stabilization criterion.

Field Parameters

D.O. < 1

PID (ppm): 0.0

DUP:

DRUM NO:

AVOCET ENVIRONMENTAL, INC.

GROUNDWATER SAMPLING DATA SHEET

Project Name:	Boeing C-6 Facility, Sitewide Annual Sampling, Sep-09	**Date:**	9/ 11 /2009
Project No.:	1155.010	**Prepared by:**	BCB
Well Identification:	MWG002	**Weather:**	Clear / Hot
Measurement Point Description:	TOC-N	**Pump Intake:**	COS
		Screen:	162 - 192

A	B	C	D = C - B	E = B - A	G = D x F	H = Screen x F	I = (top screen – B) x F	
Depth to LNAPL (ft-bmp)	**Depth to Static Water Level** (ft-bmp)	**Well Total Depth** (ft-bmp)	**Water Column Height** (ft)	**LNAPL Thickness** (ft)	**One Casing Volume** (gallons)	**Screen Volume** (gallons)	**Above Screen Volume** (gal.)	**Total Purge Volume** (gal.)
—	63.90	192		—	N/A	N/A	N/A	N/A

	Gallons/Foot			
Well Diameter (inches) = 2	0.75	2	(4)	6
F - **Gallons per foot of casing**	0.02	0.16	0.65	1.47

Field Equipment: QED, Dedicated Low-flow

Purge Method: Micropurge

Well Condition:

Time	Flow Controller Settings	Volume Purged (Liters)	Flow Rate (mL/min)	Water Level (ft-bmp)	Temperature (°C) [+/- 10%]	Conductivity (mS/cm) [+/- 10%]	Dissolved Oxygen (mg/L) [+/- 10%]	pH [+/- 0.1 pH]	ORP (mV) [+/- 10%]	Turbidity (NTU) [+/- 10%]	Observations
Previous Stabilized Parameters: 03-10-09					22.86	0.72	0.080	7.77	-302	1.26	
1111	10/5s @ 110psi	0	250	63.90	25.20	0.695	0.73	7.74	-242	3.17	Colorless
1114	↓	750	↓	63.92	24.71	0.702	0.51	8.03	-2	2.62	"
1117		1500		63.95	24.37	0.704	0.22	8.04	-275	2.39	"
1120		2250		63.95	24.23	0.705	0.17	8.03	-2	2.11	"
1123		3000		63.97	24.15	0.707	0.15	8.02	-279	2.30	"
1126		3750		63.97	24.09	0.706	0.14	8.02	-2	2.09	"

Purge Start Time	Purge End Time	Average Flow (mL/min)	Total Volume Purged (Liters)	Total Casing Volumes Purged	80% Recovery Water Level Depth (Dx0.20) + B	Water Level at Sampling Time (ft bmp)	Sample Collection Time	Sample Identification
1111	1126	250	3.75	N/A	NA	63.97	1126	MWG002_WG200909 11 _01

Notes: (units) [stabilization criteria]
Purging will continue until three consecutive measurements are within stabilization criterion.

Field Parameters		
D.O.: 1.1	PID (ppm): 0.2	

DUP:
DRUM NO:

AVOCET ENVIRONMENTAL, INC.

GROUNDWATER SAMPLING DATA SHEET

Project Name:	Boeing C-6 Facility, Sitewide Annual Sampling, Sep-09	**Date:**	9/ 11 /2009
Project No.:	1155.010	**Prepared by:**	BCB
Well Identification:	MWB027	**Weather:**	Overcast (Warm & Humid
Measurement Point Description:	TOC-N	**Pump Intake:**	**Screen:** 67.5 - 87.5

A	*B*	*C*	*D* = *C - B*	*E* = *B - A*	*G* = *D x F*	**H** = *Screen x F*	**I** = (top screen – B) *x F*	
Depth to LNAPL (ft-bmp)	**Depth to Static Water Level** (ft-bmp)	**Well Total Depth** (ft-bmp)	**Water Column Height** (ft)	**LNAPL Thickness** (ft)	**One Casing Volume** (gallons)	**Screen Volume** (gallons)	**Above Screen Volume** (gal.)	**Total Purge Volume** (gal.)
—	63.63	87.5		—	N/A	N/A	N/A	N/A

	Gallons/Foot			
Well Diameter (inches) = 2	0.75	(2)	4	6
F - **Gallons per foot of casing**	0.02	0.16	0.65	1.47

Field Equipment: QED, Dedicated Low-flow
Purge Method: Micropurge
Well Condition: Good

Time	**Flow Controller Settings**	**Volume Purged** (Liters)	**Flow Rate** (mL/min)	**Water Level** (ft-bmp)	**Temperature** (°C) [+/- 10%]	**Conductivity** (mS/cm) [+/- 10%]	**Dissolved Oxygen** (mg/L) [+/- 10%]	**pH** [+/- 0.1 pH]	**ORP** (mV) [+/- 10%]	**Turbidity** (NTU) [+/- 10%]	**Observations**
Previous Stabilized Parameters: 03-16-09					22.54	2.15	4.470	7.86	-64	5.65	
1147	10/5s @ 60psi	0	250	63.63	23.94	2.04	5.20	7.46	-30	10.2	Colorless
1150	↓	750	↓	63.92	23.19	2.05	4.61	7.25	-14	9.04	"
1153		1500		64.15	22.25	2.06	3.82	7.10	-7	7.91	"
1156		2250		64.21	22.14	2.09	3.79	7.05	3	6.77	"
1159		3000		64.29	22.22	2.11	3.76	7.03	6	6.22	"
1202	—	3750	—	64.34	22.24	2.11	3.72	7.03	8	6.01	"

Purge Start Time	**Purge End Time**	**Average Flow** (mL/min)	**Total Volume Purged** (Liters)	**Total Casing Volumes Purged**	**80% Recovery Water Level Depth** (Dx0.20) + B	**Water Level at Sampling Time** (ft bmp)	**Sample Collection Time**	**Sample Identification**
1147	1202	250	3.75	N/A	NA	64.34	1202	MWB027_WG200909 11 _01

Notes: (units) [stabilization criteria]
Purging will continue until three consecutive measurements are within stabilization criterion.

Field Parameters
D.O. = 2.17
PID (ppm): 0.0

DUP:
DRUM NO:

AVOCET ENVIRONMENTAL, INC.

GROUNDWATER SAMPLING DATA SHEET

Project Name:	Boeing C-6 Facility, Sitewide Annual Sampling, Sep-09	**Date:**	9/ /2009
Project No.:	1155.010	**Prepared by:**	Zme
Well Identification:	WCC_03S	**Weather:**	Sunny
Measurement Point Description:	TOC	**Pump Intake:**	025
		Screen:	69 - 89

A	B	C	D = C - B	E = B - A	G = D x F	H = Screen x F	I = (top screen – B) x F	
Depth to LNAPL (ft-bmp)	**Depth to Static Water Level** (ft-bmp)	**Well Total Depth** (ft-bmp)	**Water Column Height** (ft)	**LNAPL Thickness** (ft)	**One Casing Volume** (gallons)	**Screen Volume** (gallons)	**Above Screen Volume** (gal.)	**Total Purge Volume** (gal.)
/	58.98	/	/	/	N/A	N/A	N/A	N/A

	Gallons/Foot				
Well Diameter (inches) = 4	0.75	2	4	6	
F - **Gallons per foot of casing**	0.02	0.16	0.65	1.47	

Field Equipment: QED, Dedicated Low-flow

Purge Method: Micropurge

Well Condition:

Time	Flow Controller Settings	Volume Purged (Liters)	Flow Rate (mL/min)	Water Level (ft-bmp)	Temperature (°C) [+/- 10%]	Conductivity (mS/cm) [+/- 10%]	Dissolved Oxygen (mg/L) [+/- 10%]	pH [+/- 0.1 pH]	ORP (mV) [+/- 10%]	Turbidity (NTU) [+/- 10%]	Observations
Previous Stabilized Parameters: 03-17-09					22.23	4.01	0.380	6.48	-181	6.00	
1012	CPM-4	0	200	58.98	23.95	3.96	3.23	7.46	-215	7	clear
1015		600		59.21	23.76	3.75	1.17	6.95	-165	8	
1018		1200		59.20	23.54	3.62	0.75	6.71	-162	9	
1021		1800		59.21	23.55	3.62	0.60	6.69	-161	2	
1024		2400		59.21	23.54	3.61	0.59	6.70	-159	1	
1027		3000		59.20	23.53	3.62	0.59	6.68	-159	.5	
~~TMC~~											

Purge Start Time	Purge End Time	Average Flow (mL/min)	Total Volume Purged (Liters)	Total Casing Volumes Purged	80% Recovery Water Level Depth (Dx0.20) + B	Water Level at Sampling Time (ft bmp)	Sample Collection Time	Sample Identification
1022	1027	200	3.6	N/A	NA	59.20	1029	WCC_03S_WG200909 / _01

Notes: (units) [stabilization criteria]
Purging will continue until three consecutive measurements are within stabilization criterion.

Field Parameters

PID (ppm): 0.0

DUP:

DRUM NO:

AVOCET ENVIRONMENTAL, INC.

GROUNDWATER SAMPLING DATA SHEET

Project Name:	Boeing C-6 Facility, Sitewide Annual Sampling, Sep-09	**Date:**	9/ 11 /2009
Project No.:	1155.010	**Prepared by:**	[illegible]
Well Identification:	WCC_07S	**Weather:**	Sunny
Measurement Point Description:	TOC	**Pump Intake:**	CDS
		Screen:	60 - 90

A	B	C	D = C - B	E = B - A	G = D x F	H = Screen x F	I = (top screen – B) x F	
Depth to LNAPL (ft-bmp)	**Depth to Static Water Level** (ft-bmp)	**Well Total Depth** (ft-bmp)	**Water Column Height** (ft)	**LNAPL Thickness** (ft)	**One Casing Volume** (gallons)	**Screen Volume** (gallons)	**Above Screen Volume** (gal.)	**Total Purge Volume** (gal.)
	58.77				N/A	N/A	N/A	N/A

	Gallons/Foot				
Well Diameter (inches) = 4	0.75	2	4	6	**Field Equipment:** QED, Dedicated Low-flow
F - **Gallons per foot of casing**	0.02	0.16	0.65	1.47	**Purge Method:** Micropurge
					Well Condition: O/C

Time	Flow Controller Settings	Volume Purged (Liters)	Flow Rate (mL/min)	Water Level (ft-bmp)	Temperature (°C) [+/- 10%]	Conductivity (mS/cm) [+/- 10%]	Dissolved Oxygen (mg/L) [+/- 10%]	pH [+/- 0.1 pH]	ORP (mV) [+/- 10%]	Turbidity (NTU) [+/- 10%]	Observations
Previous Stabilized Parameters: 03-16-09					23.67	2.98	6.000	7.94	-22	1.00	
1030	CPM 4	0	200	58.77	24.02	2.21	7.73	7.05	-56	3.2	dew
1033		600		58.92	24.35	2.21	5.38	7.84	-12	5.6	
1036		1200		58.99	23.96	2.21	5.34	7.84	-6	3.6	
1039		1800		59.05	23.94	2.21	5.36	7.84	-3	1.2	
1042		2400		59.01	23.95	2.20	5.34	7.83	-5	1.6	
1045		3000		59.00	23.92	2.19	5.34	7.84	-6	1.5	

Purge Start Time	Purge End Time	Average Flow (mL/min)	Total Volume Purged (Liters)	Total Casing Volumes Purged	80% Recovery Water Level Depth (Dx0.20) + B	Water Level at Sampling Time (ft bmp)	Sample Collection Time	Sample Identification
1030	1045	200	3.0	N/A	NA	59.00	1053	WCC_07S_WG200909 11 _01

Notes: (units) [stabilization criteria]
Purging will continue until three consecutive measurements are within stabilization criterion.

Field Parameters

PID (ppm): 0.0

DUP:
DRUM NO:

AVOCET ENVIRONMENTAL, INC.

GROUNDWATER SAMPLING DATA SHEET

Project Name:	Boeing C-6 Facility, Sitewide Annual Sampling, Sep-09	**Date:**	9/ 11 /2009
Project No.:	1155.010	**Prepared by:**	Tmc
Well Identification:	WCC_04S	**Weather:**	Sunny
Measurement Point Description:	TOC	**Pump Intake:**	80
		Screen:	70.5 - 90.5

A	B	C	D = C - B	E = B - A	G = D x F	H = Screen x F	I = (top screen – B) x F	
Depth to LNAPL (ft-bmp)	**Depth to Static Water Level** (ft-bmp)	**Well Total Depth** (ft-bmp)	**Water Column Height** (ft)	**LNAPL Thickness** (ft)	**One Casing Volume** (gallons)	**Screen Volume** (gallons)	**Above Screen Volume** (gal.)	**Total Purge Volume** (gal.)
—	58.78	—	—	—	N/A	N/A	N/A	N/A

	Gallons/Foot			
Well Diameter (inches) = 4	0.75	2	4	6
F - **Gallons per foot of casing**	0.02	0.16	0.65	1.47

Field Equipment: QED, Dedicated Low-flow

Purge Method: Micropurge

Well Condition: O/O

Time	Flow Controller Settings	Volume Purged (Liters)	Flow Rate (mL/min)	Water Level (ft-bmp)	Temperature (°C) [+/- 10%]	Conductivity (mS/cm) [+/- 10%]	Dissolved Oxygen (mg/L) [+/- 10%]	pH [+/- 0.1 pH]	ORP (mV) [+/- 10%]	Turbidity (NTU) [+/- 10%]	Observations
Previous Stabilized Parameters: 03-17-09					22.03	2.39	2.940	6.93	66	1.90	
1100	CPM-4	0	200	58.78	24.25	1.42	6.15	7.36	79	4.9	Clear
1103		600		58.91	23.95	1.07	3.30	6.99	80	3.2	
1106		1200		58.97	23.80	2.10	3.26	6.96	82	2.1	
1109		1800		58.99	23.81	2.11	3.21	6.95	83	4.1	
1112		2400		58.96	23.86	2.13	3.25	6.94	81	3.2	
~~Time~~											

Purge Start Time	Purge End Time	Average Flow (mL/min)	Total Volume Purged (Liters)	Total Casing Volumes Purged	80% Recovery Water Level Depth (Dx0.20) + B	Water Level at Sampling Time (ft bmp)	Sample Collection Time	Sample Identification
1100	1112	200	2.4	N/A	NA	58.96	1120	WCC_04S_WG200909 11 _01

Notes: (units) [stabilization criteria]
Purging will continue until three consecutive measurements are within stabilization criterion.

Field Parameters

PID (ppm): 0.0

DUP: WCC_04S_WG200909 11 _02

DRUM NO:

AVOCET ENVIRONMENTAL, INC.

GROUNDWATER SAMPLING DATA SHEET

Project Name:	Boeing C-6 Facility, Sitewide Annual Sampling, Sep-09	**Date:**	9/ 11 /2009
Project No.:	1155.010	**Prepared by:**	Ame
Well Identification:	MWB007	**Weather:**	Sunny
Measurement Point Description:	TOC	**Pump Intake:**	COST
		Screen:	60 - 90

A	*B*	*C*	*D* = *C* - *B*	*E* = *B* - *A*	*G* = *D* x *F*	**H** = *Screen* x *F*	**I** = (top screen – B) x *F*	
Depth to LNAPL (ft-bmp)	**Depth to Static Water Level** (ft-bmp)	**Well Total Depth** (ft-bmp)	**Water Column Height** (ft)	**LNAPL Thickness** (ft)	**One Casing Volume** (gallons)	**Screen Volume** (gallons)	**Above Screen Volume** (gal.)	**Total Purge Volume** (gal.)
—	57.76	—	—	—	N/A	N/A	N/A	N/A

	Gallons/Foot				
Well Diameter (inches) = 4	0.75	2	4	6	
F - **Gallons per foot of casing**	0.02	0.16	0.65	1.47	

Field Equipment: QED, Dedicated Low-flow
Purge Method: Micropurge
Well Condition: OK

Time	Flow Controller Settings	Volume Purged (Liters)	Flow Rate (mL/min)	Water Level (ft-bmp)	Temperature (°C) [+/- 10%]	Conductivity (mS/cm) [+/- 10%]	Dissolved Oxygen (mg/L) [+/- 10%]	pH [+/- 0.1 pH]	ORP (mV) [+/- 10%]	Turbidity (NTU) [+/- 10%]	Observations
Previous Stabilized Parameters: 03-17-09					21.52	1.92	3.730	7.08	55	2.10	
1130	CPM-4	0	200	57.76	21.22	1.72	4.04	7.20	121	3.9	clear
1133		600		57.92	23.89	1.77	3.75	7.10	76	6.2	
1136		1200		58.02	23.76	1.82	3.60	7.02	42	5.1	
1139		1800		58.10	23.75	1.81	3.56	7.03	51	4.3	
1142		2400		58.16	23.76	1.81	3.64	7.02	50	3.6	
1145		3000		58.11	23.75	1.81	3.61	7.02	49	3.7	
1148		3600		58.12	23.76	1.82	3.62	7.03	46	5.7	

Purge Start Time	Purge End Time	Average Flow (mL/min)	Total Volume Purged (Liters)	Total Casing Volumes Purged	80% Recovery Water Level Depth (Dx0.20) + B	Water Level at Sampling Time (ft bmp)	Sample Collection Time	Sample Identification
1130	1148	200	3.6	N/A	NA	58.11	1155	MWB007_WG200909 11 _01

Notes: (units) [stabilization criteria]
Purging will continue until three consecutive measurements are within stabilization criterion.

Field Parameters
PID (ppm): 0.2

DUP:
DRUM NO:

AVOCET ENVIRONMENTAL, INC.

GROUNDWATER SAMPLING DATA SHEET

Project Name:	Boeing C-6 Facility, Sitewide Annual Sampling, Sep-09	**Date:**	9/ // /2009
Project No.:	1155.010	**Prepared by:**	Tmc
Well Identification:	MWC023	**Weather:**	Sunny
Measurement Point Description:	TOC	**Pump Intake:**	EOB
		Screen:	97 - 117

A	B	C	D = C - B	E = B - A	G = D x F	H = Screen x F	I = (top screen – B) x F	
Depth to LNAPL (ft-bmp)	**Depth to Static Water Level** (ft-bmp)	**Well Total Depth** (ft-bmp)	**Water Column Height** (ft)	**LNAPL Thickness** (ft)	**One Casing Volume** (gallons)	**Screen Volume** (gallons)	**Above Screen Volume** (gal.)	**Total Purge Volume** (gal.)
—	58.04	—	—	—	N/A	N/A	N/A	N/A

	Gallons/Foot				
Well Diameter (inches) = 4	0.75	2	4	6	
F - **Gallons per foot of casing**	0.02	0.16	0.65	1.47	

Field Equipment: QED, Dedicated Low-flow

Purge Method: Micropurge

Well Condition: OK

Time	Flow Controller Settings	Volume Purged (Liters)	Flow Rate (mL/min)	Water Level (ft-bmp)	Temperature (°C) [+/- 10%]	Conductivity (mS/cm) [+/- 10%]	Dissolved Oxygen (mg/L) [+/- 10%]	pH [+/- 0.1 pH]	ORP (mV) [+/- 10%]	Turbidity (NTU) [+/- 10%]	Observations
Previous Stabilized Parameters: 03-16-09					23.28	1.24	0.420	8.03	-217	1.00	
1200	CPM-4	0	200	58.04	24.25	0.875	3.45	7.90	-11	3.7	clear
1203		600		58.32	23.96	0.914	0.99	7.47	-136	6.2	
1206		1200		58.36	23.75	0.926	0.46	7.42	-201	6.9	
1209		1800		58.36	23.75	0.930	0.45	7.42	-211	7.3	
1212		2400		58.37	23.74	0.931	0.42	7.41	-217	4.2	
1215		3000		58.36	23.73	0.933	0.38	7.40	-218	3.8	

Purge Start Time	Purge End Time	Average Flow (mL/min)	Total Volume Purged (Liters)	Total Casing Volumes Purged	80% Recovery Water Level Depth (Dx0.20) + B	Water Level at Sampling Time (ft bmp)	Sample Collection Time	Sample Identification
1200	1215	200	3.0	N/A	NA	58.36	1220	MWC023_WG200909 // _01

Notes: (units) [stabilization criteria]
Purging will continue until three consecutive measurements are within stabilization criterion.

Field Parameters

PID (ppm): 0.0

DUP:
DRUM NO:

AVOCET ENVIRONMENTAL, INC.

GROUNDWATER SAMPLING DATA SHEET

Project Name:	Boeing C-6 Facility, Sitewide Annual Sampling, Sep-09	**Date:**	9/ 11 /2009
Project No.:	1155.010	**Prepared by:**	BCB
Well Identification:	MWB020	**Weather:**	Clear / Cool
Measurement Point Description:	TOC-N	**Pump Intake:**	60.5
		Screen:	59.5 - 89.5

A	*B*	*C*	*D* = *C* - *B*	*E* = *B* - *A*	*G* = *D* x *F*	**H** = *Screen* x *F*	**I** = (top screen – B) x *F*	
Depth to LNAPL (ft-bmp)	**Depth to Static Water Level** (ft-bmp)	**Well Total Depth** (ft-bmp)	**Water Column Height** (ft)	**LNAPL Thickness** (ft)	**One Casing Volume** (gallons)	**Screen Volume** (gallons)	**Above Screen Volume** (gal.)	**Total Purge Volume** (gal.)
—	56.85	89.5		—	N/A	N/A	N/A	N/A

	Gallons/Foot				
Well Diameter (inches) = 4	0.75	2	(4)	6	
F - **Gallons per foot of casing**	0.02	0.16	0.65	1.47	

Field Equipment: QED, Dedicated Low-flow

Purge Method: Micropurge

Well Condition: Good

Time	Flow Controller Settings	Volume Purged (Liters)	Flow Rate (mL/min)	Water Level (ft-bmp)	Temperature (°C) [+/- 10%]	Conductivity (mS/cm) [+/- 10%]	Dissolved Oxygen (mg/L) [+/- 10%]	pH [+/- 0.1 pH]	ORP (mV) [+/- 10%]	Turbidity (NTU) [+/- 10%]	Observations
Previous Stabilized Parameters: 03-10-09					21.85	2.08	4.320	7.10	7	0.15	
0717	10/5/5 @ 65psi	0	250	56.85	23.29	2.01	4.02	6.62	124	3.75	cloudy
0720	↓	750	↓	56.94	22.45	2.03	4.00	6.69	123	1.22	"
0723		1500		56.99	22.01	2.04	3.98	6.72	122	0.61	"
0726		2250		57.02	21.87	2.04	3.97	6.74	123	0.59	"
0729		3000		57.05	21.87	2.05	3.92	6.75	122	0.67	"
0732		3750		57.07	21.86	2.05	3.88	6.78	121	0.63	"

Purge Start Time	Purge End Time	Average Flow (mL/min)	Total Volume Purged (Liters)	Total Casing Volumes Purged	80% Recovery Water Level Depth (Dx0.20) + B	Water Level at Sampling Time (ft bmp)	Sample Collection Time	Sample Identification
0717	0732	250	3.75	N/A	NA	57.07	0732	MWB020_WG200909 11 _01

Notes: (units) [stabilization criteria]
Purging will continue until three consecutive measurements are within stabilization criterion.

Field Parameters

Ds = 2.72	PID (ppm): 0.0

DUP:
DRUM NO:

AVOCET ENVIRONMENTAL, INC.

GROUNDWATER SAMPLING DATA SHEET

Project Name:	Boeing C-6 Facility, Sitewide Annual Sampling, Sep-09	**Date:**	9/ 11 /2009
Project No.:	1155.010	**Prepared by:**	BCB
Well Identification:	WCC_09S	**Weather:**	Clear/Warm
Measurement Point Description:	TOC-N	**Pump Intake:**	60
		Screen:	60 - 90

A	B	C	D = C - B	E = B - A	G = D x F	H = Screen x F	I = (top screen – B) x F	
Depth to LNAPL (ft-bmp)	**Depth to Static Water Level** (ft-bmp)	**Well Total Depth** (ft-bmp)	**Water Column Height** (ft)	**LNAPL Thickness** (ft)	**One Casing Volume** (gallons)	**Screen Volume** (gallons)	**Above Screen Volume** (gal.)	**Total Purge Volume** (gal.)
—	61.70	90		—	N/A	N/A	N/A	N/A

	Gallons/Foot				
Well Diameter (inches) = 4	0.75	2	(4)	6	
F - **Gallons per foot of casing**	0.02	0.16	0.65	1.47	

Field Equipment: QED, Dedicated Low-flow

Purge Method: Micropurge

Well Condition:

Time	Flow Controller Settings	Volume Purged (Liters)	Flow Rate (mL/min)	Water Level (ft-bmp)	Temperature (°C) [+/- 10%]	Conductivity (mS/cm) [+/- 10%]	Dissolved Oxygen (mg/L) [+/- 10%]	pH [+/- 0.1 pH]	ORP (mV) [+/- 10%]	Turbidity (NTU) [+/- 10%]	Observations
Previous Stabilized Parameters: 03-17-09					20.93	2.25	6.290	7.01	85	2.10	
0750	10/5 @ 65psi	0	250	61.70	22.25	2.26	5.25	6.81	103	4.22	Colorless
0753	↓	750	↓	61.81	22.19	2.20	5.56	6.81	101	3.59	"
0756		1500		61.92	22.12	2.14	5.79	6.80	100	3.01	"
0759		2250		61.91	22.10	2.14	5.69	6.80	101	2.92	"
0802		3000		61.90	22.09	2.13	5.61	6.80	102	2.95	"
0805	—	3750	—	61.90	22.11	2.13	5.57	6.80	103	3.01	"

Purge Start Time	Purge End Time	Average Flow (mL/min)	Total Volume Purged (Liters)	Total Casing Volumes Purged	80% Recovery Water Level Depth (Dx0.20) + B	Water Level at Sampling Time (ft bmp)	Sample Collection Time	Sample Identification
0750	0805	250	3.75	N/A	NA	61.90	0805	WCC_09S_WG200909 11 _01

Notes: (units) [stabilization criteria]
Purging will continue until three consecutive measurements are within stabilization criterion.

Field Parameters

PID (ppm): 0.0

DUP:

DRUM NO:

AVOCET ENVIRONMENTAL, INC.

GROUNDWATER SAMPLING DATA SHEET

Project Name:	Boeing C-6 Facility, WDR Sampling, Sep-09	**Date:**	9/11/2009
Project No.:	1155.010	**Prepared by:**	Tmc
Well Identification:	AW0077UB	**Weather:**	Sunny
Measurement Point Description:	TOC	**Pump Intake:**	COS
		Screen:	70.5 - 85.5

A	B	C	D = C - B	E = B - A	G = D x F	H = Screen x F	I = (top screen – B) x F	
Depth to LNAPL (ft-bmp)	**Depth to Static Water Level** (ft-bmp)	**Well Total Depth** (ft-bmp)	**Water Column Height** (ft)	**LNAPL Thickness** (ft)	**One Casing Volume** (gallons)	**Screen Volume** (gallons)	**Above Screen Volume** (gal.)	**Total Purge Volume** (gal.)
/	60.61	/	/	/	N/A	N/A	N/A	N/A

	Gallons/Foot			
Well Diameter (inches) = 2	0.75	2	4	6
F - **Gallons per foot of casing**	0.02	0.16	0.65	1.47

Field Equipment: QED, Dedicated Low-flow
Purge Method: Micropurge
Well Condition: OK

Time	Flow Controller Settings	Volume Purged (Liters)	Flow Rate (mL/min)	Water Level (ft-bmp)	Temperature (°C) [+/- 10%]	Conductivity (mS/cm) [+/- 10%]	Dissolved Oxygen (mg/L) [+/- 10%]	pH [+/- 0.1 pH]	ORP (mV) [+/- 10%]	Turbidity (NTU) [+/- 10%]	Observations
Previous Stabilized Parameters: 03-11-09					19.95	3.37	0.630	6.54	-157.00	10.20	
0700	CPm-4	0	200	60.61	23.02	3.02	0.83	6.74	-285.0	9.7	clear
0703	↓	600	↓	60.86	22.82	3.05	0.42	8.73	-280.2	6.2	clear
0706		1200		60.91	22.72	3.06	0.29	6.78	-215.2	5.9	clear
0709		1800		60.90	22.74	3.06	0.23	6.80	-200.1	4.3	clear
0712		2400		60.91	22.73	3.05	0.26	6.81	-199.2	3.9	clear
0715		3000	✓	60.91	22.74	3.03	0.25	6.80	-199.8	4.0	clear
~~TMC~~											

Purge Start Time	Purge End Time	Average Flow (mL/min)	Total Volume Purged (Liters)	Total Casing Volumes Purged	80% Recovery Water Level Depth (Dx0.20) + B	Water Level at Sampling Time (ft bmp)	Sample Collection Time	Sample Identification
0700	0715	200	3.0	N/A	NA	60.91	0725	AW0077UB_WG200909 / / _01

Notes: (units) [stabilization criteria]
Purging will continue until three consecutive measurements are within stabilization criterion.

Field Parameters

Ferrous Iron (mg/L)	PID (ppm):	D.O.
1.09	0.1	0.39

DUP:
DRUM NO:

AVOCET ENVIRONMENTAL, INC.

GROUNDWATER SAMPLING DATA SHEET

Project Name:	Boeing C-6 Facility, WDR Sampling, Sep-09	**Date:**	9/1 /2009
Project No.:	1155.010	**Prepared by:**	Tmc
Well Identification:	AW0076UB	**Weather:**	Sunny
Measurement Point Description:	TOC	**Pump Intake:**	OOK
		Screen:	69 - 89

A	*B*	*C*	*D* = *C - B*	*E* = *B - A*	*G* = *D x F*	**H** = *Screen x F*	**I** = (top screen – B) *x F*	
Depth to LNAPL (ft-bmp)	**Depth to Static Water Level** (ft-bmp)	**Well Total Depth** (ft-bmp)	**Water Column Height** (ft)	**LNAPL Thickness** (ft)	**One Casing Volume** (gallons)	**Screen Volume** (gallons)	**Above Screen Volume** (gal.)	**Total Purge Volume** (gal.)
—	60.37	—	—	—	N/A	N/A	N/A	N/A

	Gallons/Foot			
Well Diameter (inches) = 2	0.75	2	4	6
F - **Gallons per foot of casing**	0.02	0.16	0.65	1.47

Field Equipment: QED, Dedicated Low-flow
Purge Method: Micropurge
Well Condition: o/c

Time	**Flow Controller Settings**	**Volume Purged** (Liters)	**Flow Rate** (mL/min)	**Water Level** (ft-bmp)	**Temperature** (°C) [+/- 10%]	**Conductivity** (mS/cm) [+/- 10%]	**Dissolved Oxygen** (mg/L) [+/- 10%]	**pH** [+/- 0.1 pH]	**ORP** (mV) [+/- 10%]	**Turbidity** (NTU) [+/- 10%]	**Observations**
Previous Stabilized Parameters: 03-11-09					20.50	3.44	0.500	6.63	-139.00	5.80	
0730	CPM-4	0	200	60.37	23.26	2.96	1.70	6.93	-251.0	7.2	clear
0733		600		60.70	22.82	2.87	6.46	6.81	-150.6	8.1	
0736		1200		60.71	22.63	2.83	0.23	8.75	-156.1	4.9	
0739		1800		60.72	22.61	2.86	0.20	6.74	-159.1	7.1	
0742		2400		60.71	22.60	2.79	0.21	6.73	-159.7	7.3	
0745		3000		60.71	22.61	2.78	0.22	6.70	-166.0	7.5	
~~Time~~											

Purge Start Time	**Purge End Time**	**Average Flow** (mL/min)	**Total Volume Purged** (Liters)	**Total Casing Volumes Purged**	**80% Recovery Water Level Depth** (Dx0.20) + B	**Water Level at Sampling Time** (ft bmp)	**Sample Collection Time**	**Sample Identification**
0730	0745	200	3.6	N/A	NA	60.71	0753	AW0076UB_WG200909 // _01

Notes: (units) [stabilization criteria]
Purging will continue until three consecutive measurements are within stabilization criterion.

Field Parameters	
Ferrous Iron (mg/L)	PID (ppm):
1.76	1.8

DUP:
DRUM NO:

AVOCET ENVIRONMENTAL, INC.

GROUNDWATER SAMPLING DATA SHEET

Project Name:	Boeing C-6 Facility, WDR Sampling, Sep-09	**Date:**	9/ 11 /2009
Project No.:	1155.010	**Prepared by:**	MC
Well Identification:	AW0073C	**Weather:**	Sunny
Measurement Point Description:	TOC	**Pump Intake:**	108
		Screen:	96 - 116

A	B	C	D = C - B	E = B - A	G = D x F	H = Screen x F	I = (top screen – B) x F	
Depth to LNAPL (ft-bmp)	**Depth to Static Water Level** (ft-bmp)	**Well Total Depth** (ft-bmp)	**Water Column Height** (ft)	**LNAPL Thickness** (ft)	**One Casing Volume** (gallons)	**Screen Volume** (gallons)	**Above Screen Volume** (gal.)	**Total Purge Volume** (gal.)
	60.17				N/A	N/A	N/A	N/A

	Gallons/Foot			
Well Diameter (inches) = 2	0.75	2	4	6
F - **Gallons per foot of casing**	0.02	0.16	0.65	1.47

Field Equipment: QED, Dedicated Low-flow
Purge Method: Micropurge
Well Condition: O/K

Time	Flow Controller Settings	Volume Purged (Liters)	Flow Rate (mL/min)	Water Level (ft-bmp)	Temperature (°C) [+/- 10%]	Conductivity (mS/cm) [+/- 10%]	Dissolved Oxygen (mg/L) [+/- 10%]	pH [+/- 0.1 pH]	ORP (mV) [+/- 10%]	Turbidity (NTU) [+/- 10%]	Observations
Previous Stabilized Parameters: 03-11-09					19.43	0.91	1.250	6.97	-136.00	139.00	
0800	CPM-4	0	200	60.17	24.46	0.784	7.40	9.39	-184.00	64	Cloudy
0803		600		60.39	22.17	0.753	1.36	7.45	-124	16	clearing
0806		1200		60.40	22.20	0.750	1.38	7.40	-30	10	
0809		1800		60.41	22.21	0.749	1.46	7.41	-32	9	
0812		2400		60.42	22.22	0.780	1.41	7.40	-26	2	

Purge Start Time	Purge End Time	Average Flow (mL/min)	Total Volume Purged (Liters)	Total Casing Volumes Purged	80% Recovery Water Level Depth (Dx0.20) + B	Water Level at Sampling Time (ft bmp)	Sample Collection Time	Sample Identification
0800	0812	200	2.4	N/A	NA	60.42	0820	AW0073C_WG200909 11 _01

Notes: (units) [stabilization criteria]
Purging will continue until three consecutive measurements are within stabilization criterion.

Field Parameters

Ferrous Iron (mg/L)	PID (ppm):
1.66	0.0

DUP: AW0073C_WG200909 11 _02
DRUM NO:

AVOCET ENVIRONMENTAL, INC.

GROUNDWATER SAMPLING DATA SHEET

Project Name:	Boeing C-6 Facility, WDR Sampling, Sep-09	**Date:**	9/11/2009
Project No.:	1155.010	**Prepared by:**	Eme
Well Identification:	AW0075UB	**Weather:**	Sunny
Measurement Point Description:	TOC	**Pump Intake:**	COS0
		Screen:	69 - 89

A	*B*	*C*	*D* = *C* - *B*	*E* = *B* - *A*	*G* = *D* x *F*	**H** = *Screen* x *F*	**I** = (top screen – B) x *F*	
Depth to LNAPL (ft-bmp)	**Depth to Static Water Level** (ft-bmp)	**Well Total Depth** (ft-bmp)	**Water Column Height** (ft)	**LNAPL Thickness** (ft)	**One Casing Volume** (gallons)	**Screen Volume** (gallons)	**Above Screen Volume** (gal.)	**Total Purge Volume** (gal.)
	59.90				N/A	N/A	N/A	N/A

	Gallons/Foot				
Well Diameter (inches) = 2	0.75	2	4	6	
F - **Gallons per foot of casing**	0.02	~~0.16~~	0.65	1.47	

Field Equipment: QED, Dedicated Low-flow
Purge Method: Micropurge
Well Condition: O/K

Time	Flow Controller Settings	Volume Purged (Liters)	Flow Rate (mL/min)	Water Level (ft-bmp)	Temperature (°C) [+/- 10%]	Conductivity (mS/cm) [+/- 10%]	Dissolved Oxygen (mg/L) [+/- 10%]	pH [+/- 0.1 pH]	ORP (mV) [+/- 10%]	Turbidity (NTU) [+/- 10%]	Observations
Previous Stabilized Parameters: 03-11-09					22.22	2.44	0.380	6.65	-132.00	10.30	
0835	CPM-4	0	200	59.90	23.15	2.31	3.13	6.75	-176.2	9.7	clear
0838		600		60.12	22.83	2.34	2.50	7.42	-146.1	6.2	
0841		1200		60.18	22.80	2.33	0.94	7.62	-149.1	5.4	
0844		1800		60.19	22.76	2.33	0.42	7.62	-156.2	3.9	
0847		2400		60.20	22.75	2.33	0.47	7.62	-156.3	4.0	
0850		3000		60.19	22.76	2.32	0.50	7.62	-156.9	4.2	

Purge Start Time	Purge End Time	Average Flow (mL/min)	Total Volume Purged (Liters)	Total Casing Volumes Purged	80% Recovery Water Level Depth (Dx0.20) + B	Water Level at Sampling Time (ft bmp)	Sample Collection Time	Sample Identification
				N/A	NA	60.19	0900	AW0075UB_WG200909 11 _01

Notes: (units) [stabilization criteria]
Purging will continue until three consecutive measurements are within stabilization criterion.

Field Parameters

Ferrous Iron (mg/L)	PID (ppm):
0.76	0.0

DUP:
DRUM NO:

AVOCET ENVIRONMENTAL, INC.

GROUNDWATER SAMPLING DATA SHEET

Project Name:	Boeing C-6 Facility, WDR Sampling, Sep-09	**Date:**	9/ 11 /2009
Project No.:	1155.010	**Prepared by:**	EMC
Well Identification:	AW0074UB	**Weather:**	Sunny
Measurement Point Description:	TOC	**Pump Intake:**	CDS
		Screen:	70 - 90

A	*B*	*C*	*D* = *C - B*	*E* = *B - A*	*G* = *D x F*	**H** = *Screen x F*	**I** = (top screen – B) *x F*	
Depth to LNAPL (ft-bmp)	**Depth to Static Water Level** (ft-bmp)	**Well Total Depth** (ft-bmp)	**Water Column Height** (ft)	**LNAPL Thickness** (ft)	**One Casing Volume** (gallons)	**Screen Volume** (gallons)	**Above Screen Volume** (gal.)	**Total Purge Volume** (gal.)
	59.35				N/A	N/A	N/A	N/A

	Gallons/Foot			
Well Diameter (inches) = 2	0.75	2	4	6
F - **Gallons per foot of casing**	0.02	0.16	0.65	1.47

Field Equipment: QED, Dedicated Low-flow
Purge Method: Micropurge
Well Condition: OK

Time	Flow Controller Settings	Volume Purged (Liters)	Flow Rate (mL/min)	Water Level (ft-bmp)	Temperature (°C) [+/- 10%]	Conductivity (mS/cm) [+/- 10%]	Dissolved Oxygen (mg/L) [+/- 10%]	pH [+/- 0.1 pH]	ORP (mV) [+/- 10%]	Turbidity (NTU) [+/- 10%]	Observations
Previous Stabilized Parameters: 03-11-09					21.42	2.92	0.480	6.52	-119.00	3.60	
0910	CPM-4	0	200	59.35	24.17	2.04	3.80	7.95	-75	4.9	Clear
0913		600		59.62	23.76	2.41	0.92	6.96	-114	3.9	
0916		1200		59.65	23.59	2.51	0.52	6.60	-147	6.2	
0919		1800		59.66	23.05	2.50	0.56	6.60	-152	4.8	
0922		2400		59.67	23.03	2.55	0.52	6.60	-156	5.3	
0925		3000		59.67	23.02	2.53	0.53	6.60	-158	6.2	

Purge Start Time	Purge End Time	Average Flow (mL/min)	Total Volume Purged (Liters)	Total Casing Volumes Purged	80% Recovery Water Level Depth (Dx0.20) + B	Water Level at Sampling Time (ft bmp)	Sample Collection Time	Sample Identification
0910	0925	200	3.0	N/A	NA	59.68	0935	AW0074UB_WG200909 11 _01

Notes: (units) [stabilization criteria]
Purging will continue until three consecutive measurements are within stabilization criterion.

Field Parameters

Ferrous Iron (mg/L)	PID (ppm):
0.26	4.3

DUP:
DRUM NO:

AVOCET ENVIRONMENTAL, INC.

GROUNDWATER SAMPLING DATA SHEET

Project Name:	Boeing C-6 Facility, WDR Sampling, Sep-09	**Date:**	9/ 11 /2009
Project No.:	1155.010	**Prepared by:**	Tim C
Well Identification:	AW0055UB	**Weather:**	Sunny
Measurement Point Description:	TOC	**Pump Intake:**	Cas 0
		Screen:	69 - 89

A	*B*	*C*	*D* = *C* - *B*	*E* = *B* - *A*	*G* = *D* x *F*	*H* = *Screen* x *F*	*I* = (top screen – B) x *F*	
Depth to LNAPL (ft-bmp)	**Depth to Static Water Level** (ft-bmp)	**Well Total Depth** (ft-bmp)	**Water Column Height** (ft)	**LNAPL Thickness** (ft)	**One Casing Volume** (gallons)	**Screen Volume** (gallons)	**Above Screen Volume** (gal.)	**Total Purge Volume** (gal.)
—	60.09	—	—	—	N/A	N/A	N/A	N/A

	Gallons/Foot			
Well Diameter (inches) = 2	0.75	2.5	4	6
F - **Gallons per foot of casing**	0.02	0.16	0.65	1.47

Field Equipment: QED, Dedicated Low-flow
Purge Method: Micropurge
Well Condition: O/C

Time	Flow Controller Settings	Volume Purged (Liters)	Flow Rate (mL/min)	Water Level (ft-bmp)	Temperature (°C) [+/- 10%]	Conductivity (mS/cm) [+/- 10%]	Dissolved Oxygen (mg/L) [+/- 10%]	pH [+/- 0.1 pH]	ORP (mV) [+/- 10%]	Turbidity (NTU) [+/- 10%]	Observations
Previous Stabilized Parameters: 03-11-09					20.96	3.16	0.310	6.60	-215.00	5.30	
0948	0ppm-4	0	200	60.09	23.97	3.42	3.41	6.52	-176.	6.7	clear
0952		600		60.27	23.01	3.21	1.02	6.72	-204	7.2	
0954		1200		60.34	22.45	3.20	0.72	6.69	-230	6.4	
0957		1800		60.35	22.94	3.21	0.44	6.49	-231	5.3	
1000		2400		60.35	22.93	3.22	0.39	6.49	-232	5.9	
1003		3000		60.34	22.92	3.22	0.40	6.70	-234	6.2	

Purge Start Time	Purge End Time	Average Flow (mL/min)	Total Volume Purged (Liters)	Total Casing Volumes Purged	80% Recovery Water Level Depth (Dx0.20) + B	Water Level at Sampling Time (ft bmp)	Sample Collection Time	Sample Identification
0948	1003	200	3.0	N/A	NA	60.34	1010	AW0055UB_WG200909 11 _01

Notes: (units) [stabilization criteria]
Purging will continue until three consecutive measurements are within stabilization criterion.

Field Parameters	
Ferrous Iron (mg/L)	PID (ppm):
0.97	32.2

DUP:
DRUM NO:

EQUIPCO RENTALS

QED MP-20D RENTAL
CALIBRATION CERTIFICATE

SERVICE TECHNICIAN: TH

DATE: 9/8/09

INSTRUMENT INFORMATION

RENTAL I.D. NUMBER: MP-20D. 12
SERIAL#:

CALIBRATION INFORMATION

PARAMETERS:	STANDARDS:	PASS ( )	LOT#
1. CONDUCTIVITY	1000 µMhos	✓	6431
2. pH ZERO	pH 7	✓	1808577
3. pH SLOPE	pH 4	✓	2807413
pH SLOPE	pH 10	✓	1807077
4. DISSOLVED OXYGEN	Air Calibration Barometric pressure = 760mmHg	✓	N/A
5. REDOX (ORP)	237.5 mV (YSI Zobell solution)	✓	05107

17935 Sky Park Circle, Suite H, Irvine, CA 92614 Phone (949)263-0236 Fax (949)263-1306

Certificate of Calibration

EQUIPMENT/MODEL	DESCRIPTION	SERIAL NUMBER
MULTIRAE PLUS-PID	GAS DETECTOR	095-522493

This instrument has been calibrated using calibration solution and procedures which are traceable to N.I.S.T.. Test and calibration data is on file with the manufacturer.

Calibration Date	Calibration Gas	Technical Rep.
9/4/09	ISOBUTYLENE 100PPM H2S 25PPM CO 50PPM CH4 50% 02 20.9%	FRED B.

EnviroSupply & Service, Inc.
(800) 201-8150
Ext.109

Certificate of Calibration

EQUIPMENT/MODEL	DESCRIPTION	SERIAL NUMBER
QRAE	GAS DETECTOR	270-422703

This instrument has been calibrated using calibration solution and procedures which are traceable to N.I.S.T.. Test and calibration data is on file with the manufacturer.

Calibration Date	Calibration Gas	Technical Rep.
9/4/2009	H2S 25PPM CO 50PPM CH4 50% LEL, 02 20.9%	JAMIE

EnviroSupply & Service, Inc.
(800) 201-8150
Ext.109

Certificate of Calibration

EQUIPMENT/MODEL	DESCRIPTION	SERIAL NUMBER
MULTIRAE PLUS-PID	GAS DETECTOR	095-520554

This instrument has been calibrated using calibration solution and procedures which are traceable to N.I.S.T.. Test and calibration data is on file with the manufacturer.

Calibration Date	Calibration Gas	Technical Rep.
9/4/09	ISOBUTYLENE 100PPM H2S 25PPM CO 50PPM CH4 50% 02 20.9%	FRED B.

EnviroSupply & Service, Inc.
(800) 201-8150
Ext.109

AVOCET ENVIRONMENTAL, INC.

QA/QC SAMPLE IDENTIFICATION FORM

Project Name:	Boeing Former C-6 Facility, WDR Sampling, September 2009	Project No.:	1155.010

Date	Time	QA/QC Sample Type (Duplicate, Field Blank, Equipment Blank, Split)	Sample ID	Sample Location	Primary Sample Reference	Analytical Methods	Organic-Free Water Source	Field Personnel	Comments
09/09/09	12:50	Duplicate	MWC024_WG20090909_02	MWC024	MWC024_WG20090909_01	8260B	-	BCB	
09/09/09	-	Trip Blank	TB_AV20090909_01	-	-	8260B	TA-I	-	
09/10/09	7:55	Equip. Blank	EB_AV20090910_01	-	-	8260B	TA-I	EMC	
09/10/09	-	Trip Blank	TB_AV20090910_01	-	-	8260B	TA-I	-	
09/11/09	8:20	Duplicate	AW0073C_WG20090911_02	AW0073C	AW0073C_WG20090911_01	8260B	-	EMC	
09/11/09	8:50	Duplicate	MWC009_WG20090911_02	MWC009	MWC009_WG20090911_01	8260B	-	BCB	
09/11/09	9:50	Duplicate	MWB019_WG20090911_02	MWB019	MWB019_WG20090911_01	8260B	-	BCB	
09/11/09	11:20	Duplicate	WCC_04S_WG20090911_02	WCC_04S	WCC_04S_WG20090911_01	8260B	-	EMC	
09/11/09	-	Trip Blank	TB_AV20090911_01	-	-	8260B	TA-I	-	

S:\Projects\1155 Boeing Former C-6 Facility\Groundwater Monitoring\September 2009\[Master COC_AV200909.xlsx]QAQC

AVOCET ENVIRONMENTAL, INC.
16 Technology Drive, Suite 154
Irvine, California 92618-2327
TEL (949) 296-0977
FAX (949) 296-0978

Boeing CoC No. AV20090909A

CHAIN OF CUSTODY RECORD

Project Information:

Site Name	Boeing Former C-6 Facility, WDR Sampling, September 2009
Site Address	Los Angeles, CA
Project No.	1155.010
Project Manager	Michael Rendina
Sampled By	BCB
Turn-Around-Time	Standard TAT

Analyses

Sample Identification	Sample Date	Sample Time	Matrix	No. of Cntnrs.	Lab I.D. Number	VOCs EPA 8260B	TOC EPA 9060 Modified	Volatile Fatty Acids 24 Hr HT IC Method 8M23G (Microseeps)	Dissolved Hydrocarbon Gases (DHGs) Methane, Ethane, Ethene - RSK 175	Alkalinity SM2320B	Anions (NO3, NO2, SO4) EPA 300.0	Anions (Chlorides) EPA 300.0	Total Dissolved Solids (TDS) SM2540C	DHC 16S by qPCR analysis (North Wind) 24Hr HT						Comments
CMW002_WG20090909_01	09/09/09	7:56	WATER	12		X	X	X	X	X	X	X	X	X						
CMW026_WG20090909_01	09/09/09	9:12	WATER	12		X	X	X	X	X	X	X		X						
IRZCMW001_WG20090909_01	09/09/09	10:04	WATER	12		X	X	X	X	X	X	X	X	X						
IRZCMW002_WG20090909_01	09/09/09	11:23	WATER	12		X	X	X	X	X	X	X		X						
MWC024_WG20090909_01	09/09/09	12:50	WATER	12		X	X	X	X	X	X	X		X						
MWC024_WG20090909_02	09/09/09	12:50	WATER	3		X														
IRZCMW003_WG20090909_01	09/09/09	13:39	WATER	12		X	X	X	X	X	X	X		X						
TB_AV20090909_01	09/09/09	-	WATER	3		X														

48HR HT for NO_3

Please forward VFA & qPCR analyses to identified laboratories ASAP.

Relinquished by		Company	Received by		Company
Printed Name: D. Lieberman	Date: 9-9-9	Avocet Environmental, Inc.	Printed Name: G. Schlegel	Date: 9-9-09	
Signature:	Time: 14:10		Signature:	Time: 1400	
Printed Name:	Date:		Printed Name:	Date:	
Signature:	Time:		Signature:	Time:	
Printed Name:	Date:		Printed Name:	Date:	
Signature:	Time:		Signature:	Time:	

Sample Receipt	Billing Information	
Total Containers	Bill To: Michael Rendina, P.G. AVOCET ENVIRONMENTAL, INC. 16 Technology Dive, Suite 154 Irvine, CA 92618-2327	DHC PCR Analyses require **overnight** delivery to NorthWind in Pittsburgh, PA Primary DHG analyses will continue to be analyzed by ATL. Please bill to Avocet. Please report electronically in accordance with Boeing standards. If any questions, please call Mike Rendina @ (949) 296 0977 Ext.103
Temperature °C ____ °F ____		
COC Seal (Y/N/NA)		

C:\Documents and Settings\David\Desktop\1155\September 2009\Master COC_AV200909

AVOCET ENVIRONMENTAL, INC.
16 Technology Drive, Suite 154
Irvine, California 92618-2327
TEL (949) 296-0977
FAX (949) 296-0978

Boeing CoC No. AV20090909B

CHAIN OF CUSTODY RECORD

Project Information:

Site Name	Boeing Former C-6 Facility, Sitewide Annual Sampling, September 2009
Site Address	Los Angeles, CA
Project No.	1155.010
Project Manager	Michael Rendina
Sampled By	
Turn-Around-Time	Standard TAT

Analyses

Sample Identification	Sample Date	Sample Time	Matrix	No. of Cntnrs.	Lab I.D. Number	VOCs EPA 8260B	Comments
MWC007_WG20090909_01	09/09/09	9:22	WATER	3		X	
WCC_05S_WG20090909_01	09/09/09	10:03	WATER	3		X	
MWB013_WG20090909_01	09/09/09	8:02	WATER	3		X	
TMW_11_WG20090909_01	09/09/09	11:00	WATER	3		X	
CMW001_WG20090909_01	09/09/09	11:37	WATER	3		X	
TMW_10_WG20090909_01	09/09/09	12:20	WATER	3		X	

Relinquished by		Company	Received by		Company
Printed Name: D. Lieberman	Date: 9-9-9	Avocet Environmental, Inc.	Printed Name: Gary Sellers	Date: 9-9-09	
Signature:	Time: 14:10		Signature:	Time: 1400	
Printed Name:	Date:		Printed Name:	Date:	
Signature:	Time:		Signature:	Time:	
Printed Name:	Date:		Printed Name:	Date:	
Signature:	Time:		Signature:	Time:	

Sample Receipt	Billing Information	
Total Containers	Bill To: Michael Rendina, P.G. AVOCET ENVIRONMENTAL, INC. 16 Technology Dive, Suite 154 Irvine, CA 92618-2327	Please bill to Avocet. Please report electronically in accordance with Boeing standards. If any questions, please call Mike Rendina @ (949) 296 0977 Ext.103
Temperature °C / °F		
COC Seal (Y/N/NA)		

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AVOCET ENVIRONMENTAL, INC.
16 Technology Drive, Suite 154
Irvine, California 92618-2327
TEL (949) 296-0977
FAX (949) 296-0978

Boeing CoC No. AV20090910A

CHAIN OF CUSTODY RECORD

Project Information:

Site Name	**Boeing Former C-6 Facility, WDR Sampling, September 2009**
Site Address	**Los Angeles, CA**
Project No.	**1155.010**
Project Manager	**Michael Rendina**
Sampled By	**EMC**
Turn-Around-Time	**Standard TAT**

Analyses

Sample Identification	Sample Date	Sample Time	Matrix	No. of Cntnrs.	Lab I.D. Number	VOCs EPA 8260B	TOC EPA 9060 Modified	Volatile Fatty Acids 24 Hr HT IC Method 8M23G (Microseeps)	Dissolved Hydrocarbon Gases (DHGs) Methane, Ethane, Ethene - RSK 175	Alkalinity SM2320B	Anions (NO3, NO2, SO4) EPA 300.0	Anions (Chlorides) EPA 300.0	Total Dissolved Solids (TDS) SM2540C	DHC 16S by qPCR analysis (North Wind) 24Hr HT						Comments
MWB006_WG20090910_01	09/10/09	7:50	WATER	12		X	X	X	X			X	X	X						
WCC_12S_WG20090910_01	09/10/09	8:30	WATER	12		X	X	X	X			X	X	X						
TMW_07_WG20090910_01	09/10/09	9:05	WATER	12		X	X	X	X			X	X	X						
AW0066UB_WG20090910_01	09/10/09	9:40	WATER	8		X	X		X		X									
AW0067UB_WG20090910_01	09/10/09	10:35	WATER	8		X	X		X		X									
WCC_06S_WG20090910_01	09/10/09	11:46	WATER	8		X	X		X		X									
AW0065UB_WG20090910_01	09/10/09	11:15	WATER	8		X	X		X		X									
AW0064UB_WG20090910_01	09/10/09	13:03	WATER	8		X	X		X		X									
EWB002_WG20090910_01	09/10/09	13:36	WATER	8		X	X		X		X									
TB_AV20090910_01	09/10/09	-	WATER	3		X														
EB_AV20090910_01	09/10/09	7:55	WATER	3		X														

48HR HT for NO_3

Please forward VFA & qPCR analyses to identified laboratories ASAP.

Relinquished by		Company	Received by		Company
Printed Name: D. Lieberman	Date: 9-10-09	Avocet Environmental, Inc.	Printed Name: Gary Schug	Date: 9-10-09	
Signature:	Time: 14:42		Signature:	Time: 1442	
Printed Name:	Date:		Printed Name:	Date:	
Signature:	Time:		Signature:	Time:	
Printed Name:	Date:		Printed Name:	Date:	
Signature:	Time:		Signature:	Time:	

Sample Receipt	Billing Information	
Total Containers	Bill To: Michael Rendina, P.G. AVOCET ENVIRONMENTAL, INC. 16 Technology Dive, Suite 154 Irvine, CA 92618-2327	DHC PCR Analyses require **overnight** delivery to NorthWind in Pittsburgh, PA Primary DHG analyses will continue to be analyzed by ATL Please bill to Avocet. Please report electronically in accordance with Boeing standards. If any questions, please call Mike Rendina @ (949) 296 0977 Ext.103
Temperature °C ____ °F ____		
COC Seal (Y/N/NA)		

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AVOCET ENVIRONMENTAL, INC.
16 Technology Drive, Suite 154
Irvine, California 92618-2327
TEL (949) 296-0977
FAX (949) 296-0978

Boeing CoC No. AV20090910B

CHAIN OF CUSTODY RECORD

Project Information:

Site Name	**Boeing Former C-6 Facility, Sitewide Annual Sampling, September 2009**
Site Address	**Los Angeles, CA**
Project No.	**1155.010**
Project Manager	**Michael Rendina**
Sampled By	**DML**
Turn-Around-Time	**Standard TAT**

Analyses

Sample Identification	Sample Date	Sample Time	Matrix	No. of Cntnrs.	Lab I.D. Number	VOCs EPA 8260B	Comments
TMW_14_WG20090910_01	09/10/09	7:38	WATER	3		X	
MWC004_WG20090910_01	09/10/09	9:56	WATER	3		X	
MWC021_WG20090910_01	09/10/09	8:29	WATER	3		X	
TMW_15_WG20090910_01	09/10/09	9:08	WATER	3		X	
MWG001_WG20090910_01	09/10/09	10:48	WATER	3		X	
MWG003_WG20090910_01	09/10/09	11:49	WATER	3		X	
MWG004_WG20090910_01	09/10/09	13:14	WATER	3		X	
MWC022_WG20090910_01	09/10/09	14:01	WATER	3		X	

Relinquished by		Company	Received by		Company
Printed Name: David Lieberman	Date: 9-10-09	Avocet Environmental, Inc.	Printed Name: DAN SCHLEPER	Date: 9-10-09	
Signature:	Time: 14:42		Signature:	Time: 1442	
Printed Name:	Date:		Printed Name:	Date:	
Signature:	Time:		Signature:	Time:	
Printed Name:	Date:		Printed Name:	Date:	
Signature:	Time:		Signature:	Time:	

Sample Receipt	Billing Information	
Total Containers	Bill To: Michael Rendina, P.G. AVOCET ENVIRONMENTAL, INC. 16 Technology Dive, Suite 154 Irvine, CA 92618-2327	Please bill to Avocet. Please report electronically in accordance with Boeing standards. If any questions, please call Mike Rendina @ (949) 296 0977 Ext.103
Temperature °C ____ °F ____		
COC Seal (Y/N/NA)		

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AVOCET ENVIRONMENTAL, INC.
16 Technology Drive, Suite 154
Irvine, California 92618-2327
TEL (949) 296-0977
FAX (949) 296-0978

Boeing CoC No. AV20090911A

CHAIN OF CUSTODY RECORD

Project Information:

Site Name	Boeing Former C-6 Facility, WDR Sampling, September 2009
Site Address	Los Angeles, CA
Project No.	1155.010
Project Manager	Michael Rendina
Sampled By	
Turn-Around-Time	Standard TAT

Analyses

Sample Identification	Sample Date	Sample Time	Matrix	No. of Cntnrs.	Lab I.D. Number	VOCs EPA 8260B	TOC EPA 9060 Modified	Volatile Fatty Acids 24 Hr HT IC Method 8M23G (Microseeps)	Dissolved Hydrocarbon Gases (DHGs) Methane, Ethane, Ethene - RSK 175	Alkalinity SM2320B	Anions (NO3, NO2, SO4) EPA 300.0	Anions (Chlorides) EPA 300.0	Total Dissolved Solids (TDS) SM2540C	DHC 16S by qPCR analysis (North Wind) 24Hr HT						Comments
AW0077UB_WG20090911_01	09/11/09	0725	WATER	8		X	X		X		X									
AW0076UB_WG20090911_01	09/11/09	0753	WATER	8		X	X		X		X									
AW0073C_WG20090911_01	09/11/09	0820	WATER	8		X	X		X		X									
AW0073C_WG20090911_02	09/11/09	0820	WATER	3		X														
AW0075UB_WG20090911_01	09/11/09	0900	WATER	8		X	X		X		X									
AW0074UB_WG20090911_01	09/11/09	0935	WATER	8		X	X		X		X									
AW0055UB_WG20090911_01	09/11/09	1010	WATER	8		X	X		X		X									
TB_AV20090911_01	09/11/09	-	WATER	3		X														

48HR HT for NO_3

Please forward VFA & qPCR analyses to identified laboratories ASAP.

Relinquished by		Company	Received by		Company
Printed Name: Brian Bergman	Date: 9/11/09	Avocet Environmental, Inc.	Printed Name:	Date: 9/11/09	
Signature:	Time: 1425		Signature:	Time: 1425	
Printed Name:	Date:		Printed Name:	Date:	
Signature:	Time:		Signature:	Time:	
Printed Name:	Date:		Printed Name:	Date:	
Signature:	Time:		Signature:	Time:	

Sample Receipt	Billing Information	
Total Containers	Bill To: Michael Rendina, P.G. AVOCET ENVIRONMENTAL, INC. 16 Technology Dive, Suite 154 Irvine, CA 92618-2327	DHC PCR Analyses require **overnight** delivery to NorthWind in Pittsburgh, PA Primary DHG analyses will continue to be analyzed by ATL. Please bill to Avocet. Please report electronically in accordance with Boeing standards. If any questions, please call Mike Rendina @ (949) 296 0977 Ext.103
Temperature °C 4.3° °F		
COC Seal (Y/N/NA)		

C:\Documents and Settings\David\My Documents\My Dropbox\Avocet-FieldDocs\1155\September 2009\Master COC_AV200909-Frozen for Field Crew

AVOCET ENVIRONMENTAL, INC.
16 Technology Drive, Suite 154
Irvine, California 92618-2327
TEL (949) 296-0977
FAX (949) 296-0978

Boeing CoC No. AV20090911B

CHAIN OF CUSTODY RECORD

Project Information:

Site Name	**Boeing Former C-6 Facility, Sitewide Annual Sampling, September 2009**
Site Address	**Los Angeles, CA**
Project No.	**1155.010**
Project Manager	**Michael Rendina**
Sampled By	
Turn-Around-Time	**Standard TAT**

Analyses

Sample Identification	Sample Date	Sample Time	Matrix	No. of Cntnrs.	Lab I.D. Number	VOCs EPA 8260B	Comments
MWB020_WG20090911_01	09/11/09	0732	WATER	3		X	
WCC_09S_WG20090911_01	09/11/09	0805	WATER	3		X	
MWC009_WG20090911_01	09/11/09	0850	WATER	3		X	
WCC_07S_WG20090911_01	09/11/09	1053	WATER	3		X	Tier I Data Validation
MWB019_WG20090911_01	09/11/09	0950	WATER	3		X	
MWB019_WG20090911_02	09/11/09	0950	WATER	3		X	
MWC017_WG20090911_01	09/11/09	1025	WATER	3		X	
MWG002_WG20090911_01	09/11/09	1126	WATER	3		X	
MWB027_WG20090911_01	09/11/09	1202	WATER	3		X	*Target this sample for Tier II Data Validation*
MWC023_WG20090911_01	09/11/09	1220	WATER	3		X	*Target this sample for Tier I Data Validation*
WCC_04S_WG20090911_01	09/11/09	1120	WATER	3		X	*Target this sample for Tier III Data Validation*
WCC_04S_WG20090911_02	09/11/09	1120	WATER	3		X	
MWB007_WG20090911_01	09/11/09	1155	WATER	3		X	*Target this sample for Tier I Data Validation*
WCC_03S_WG20090911_01	09/11/09	1029	WATER	3		X	
MWC009_WG20090911_02	9/11/09	0850	"	3		X	

Relinquished by		Company	Received by		Company
Printed Name: Brian Barsumian	Date: 9/11/09	Avocet Environmental, Inc.	Printed Name:	Date: 9/11/09	
Signature:	Time: 1425		Signature:	Time: 1425	
Printed Name:	Date:		Printed Name:	Date:	
Signature:	Time:		Signature:	Time:	
Printed Name:	Date:		Printed Name:	Date:	
Signature:	Time:		Signature:	Time:	

Sample Receipt	Billing Information	
Total Containers	Bill To: Michael Rendina, P.G. AVOCET ENVIRONMENTAL, INC. 16 Technology Dive, Suite 154 Irvine, CA 92618-2327	Please bill to Avocet. Please report electronically in accordance with Boeing standards. If any questions, please call Mike Rendina @ (949) 296 0977 Ext.103
Temperature °C 4.1 °F		
COC Seal (Y/N/NA)		

C:\Documents and Settings\David\My Documents\My Dropbox\Avocet-Field\Docs\1155\September 2009\Master COC_AV200909-Frozen for Field Crew