
3.0 INVESTIGATION METHODS AND PROCEDURES

This section briefly describes the methods and procedures used to install monitoring wells; advance soil borings; and collect soil, groundwater, surface water, and air samples for chemical analysis during RI fieldwork. Soil boring logs are presented in Appendix B. Monitoring well logs are presented in Appendix C. Detailed field procedures are included in the Site Sampling and Analysis Plan (SAP; LAI 2016f) presented in Appendix D. Project quality assurance (QA) objectives including laboratory analytical methods, quality assurance/quality control requirements, and data management procedures are included in the Site Quality Assurance Project Plan (QAPP; LAI 2016e) presented in Appendix E.

3.1 Borings

Since the beginning of the RI field activities in 2003, 143⁴ soil borings were advanced. Soil borings were advanced to collect soil, groundwater, and/or soil gas samples. Soil borings also provided depth to groundwater and soil lithology data. Detailed field procedures for the advancement of soil borings and a description of soil boring sample IDs are included in the SAP Sections 2.1.3 and 10.1.7, respectively (Appendix D). Geographic coordinates of borings were collected in the field using a handheld GPS⁵. RI boring locations are shown on Figure 3-1. A summary of RI boring details are presented in Table 3-1. RI boring logs are presented in Appendix B.

Many Column IA SWMUs and AOCs were investigated with borings advanced in one or more initial locations, followed by one or more stepout borings, as described in the RI work plan (Geomatrix 2003b). Stepout borings were completed if field screening of samples from the initial borings indicated contamination. In some cases, refusal was met and borings were re-drilled or replacement borings were advanced for re-sampling. Re-drilled borings were designated with an “R” after the boring ID.

3.2 Well Installation

Groundwater monitoring wells have been installed throughout the Site to investigate individual SWMUs and AOCs along with Site-wide groundwater. The monitoring well network currently consists of 355 monitoring points (i.e., well screens) at 250 locations⁶. Current monitoring well locations are shown on Figure 3-2. Decommissioned wells are shown on Figure 3-3. Monitoring well details are included in Table 3-2. Monitoring well logs are presented in Appendix C. Detailed field procedures for the drilling and installation of groundwater monitoring wells are included in the SAP Sections 2.1 and 2.4, respectively (Appendix D).

⁴ Soil borings ASB0119 through ASB0263; two soil borings (ASB0153 and ASB0173) were never advanced.

⁵ There were seven soil boring locations surveyed by a licensed land surveying subcontractor (ASB0121 through ASB0123 and ASB0131 through ASB0134).

⁶ Some well locations are multi-level wells with well screens (up to 7 screens) at different depth intervals. Not all of these locations or monitoring points are currently sampled, but they are all maintained for possible use.

Wells were installed using HSA, air-rotary, or rotosonic drilling methods. Wells were constructed as either conventional PVC wells screened at one depth or continuous multi-channel tubing (CMT) wells screened at multiple depths. A licensed land-surveying subcontractor surveyed all wells. Once completed, wells were developed according to procedures presented in the SAP Section 2.5 (Appendix D).

In addition to monitoring wells, injection wells and observation wells were installed. These wells vary from monitoring wells based on their intended use and data objectives. Detailed well installation procedures are included in the SAP (Appendix D) and any pertinent work plans.

3.3 Sample Collection

Samples were collected for laboratory analysis from a variety of media including soil, groundwater, surface water, and air. Sample collection methods, analyses, and objectives have varied by location. General sample collection methods are described below.

3.3.1 Soil Sample Collection

Soil samples were collected for field screening and chemical analysis. Samples collected for VOC analysis after July 2004 were collected using EPA Method 5035A in accordance with Ecology's Implementation Memo #5 (Ecology 2004b). Chemical analysis samples were submitted under appropriate chain-of-custody procedures to Boeing's contracted laboratory. Detailed field procedures for the collection of soil samples are included in the SAP Section 4.0 (Appendix D).

At locations selected for soil analysis, field screening was used to determine the appropriate interval for sample collection. Field screening was conducted in accordance with the RI work plan (Geomatrix 2003b). At borings where field screening indicated the presence of contaminants, the worst-case sample and a sample from just above the water table were collected and submitted for analysis. At borings where evidence of soil contamination was not observed, samples from 5 feet (ft) below ground surface (bgs) and just above the water table were collected and submitted for analysis, unless the water table was present at less than 9 ft bgs, in which case, a single sample was collected from near the water table.

3.3.2 Groundwater Sample Collection

Groundwater samples were collected throughout the RI from soil borings and monitoring wells. Low-flow sampling, dedicated bladder, or Waterra methods have been used to purge water from the boring or well prior to sample collection. Since 2009, low-flow sampling has been used exclusively; sample collection procedures are presented in the SAP Section 3.0 (Appendix D). The procedures include the collection of water level measurements, low-flow purging procedures including field

parameter stabilization⁷, and sample collection and analyses. Groundwater samples are collected at conventional wells from approximately 2 to 3 ft above the bottom of the well screen, at conventional water table wells from approximately 1 ft below the top of the water column, and at CMT wells from the approximate mid-point of the wetted portion of the screen. Samples requiring filtration (e.g., dissolved metals) were collected using an inline, high-volume, 0.45 micron, nitrocellulose filter.

Groundwater samples were also collected from temporary borings. Upon reaching the target depth, a screen was placed or exposed to the aquifer and samples were collected using dedicated polyethylene tubing set at the midpoint of the screen and low-flow sampling procedures.

3.3.3 Surface Water and Sediment Pore Water Sample Collection

Surface water sampling was conducted using a peristaltic pump with dedicated tubing (low-flow method), a dedicated composite liquid waste sampler, or a decontaminated ladle (dipper method). A sampling method was selected at each location based on factors including sampling location access and depth of the water column. All samples were collected from no more than 4 inches above the substrate and at least 2 inches below the water surface or from the approximate mid-point of the water column where the water depth was less than 4 inches. Surface water samples were not filtered. Detailed sampling protocols are included in the SAP Section 7.0 (Appendix D).

Surface water samples were collected during the summer/fall (dry season) and winter/spring (wet season). Regardless of the season, samples were collected after a period of no measureable precipitation (48 hours or more). These criteria minimize stormwater runoff contribution at sampling locations. Surface water samples were collected from streams, wetlands, stormwater ponds, roadside ditches, ponded residential yard water, and stream sediments (pore water samples).

Sediment pore water samples were collected from surface water bodies using a sediment diffusion sampler placed directly into the sediment below the water column. A passive diffusion bag (PDB) was inserted into the sampler before installation; after an equilibration period (minimum of 2 weeks) the canister was removed and water samples were collected from the PDB. PDB sampling and sediment pore water sampling protocols are included in the SAP Sections 3.2 and 8.0, respectively (Appendix D).

3.3.4 Air Sample Collection

Air and soil gas samples were collected according to the procedures outlined in the SAP Sections 5.0 and 6.0, respectively (Appendix D). Samples were collected using stainless steel Summa canisters of varying volumes or Radiello® passive sampling devices. Air samples were collected from the subsurface (including soil gas borings and sub-slab soil gas points), from above ground (including

⁷ Field parameters include turbidity, conductivity, pH, specific conductance, oxygen reduction potential (ORP), and dissolved oxygen (DO).

ambient air, indoor air, crawlspace air, and over-water air), and from other spaces such as sewer utilities.

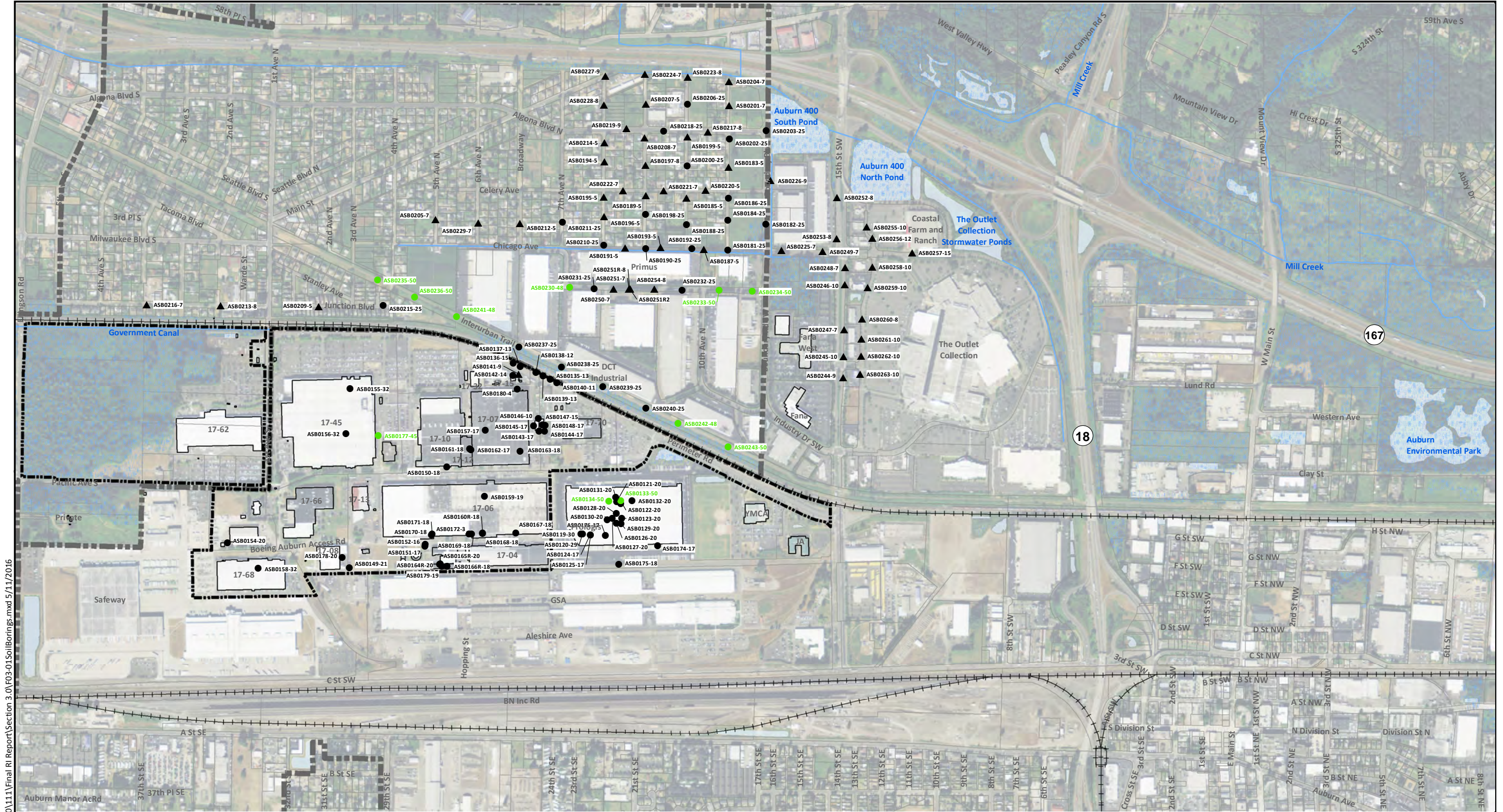
Air samples were collected during different seasons of the year to account for fluctuations in the water table as well as differences in temperature, barometric pressure, and other weather-related factors that may affect air sampling results.

3.4 Data Evaluation

Data presented in this RI report consist of data compiled and evaluated from the Boeing Auburn database, which is currently maintained by Landau Associates, Inc. (LAI). The database includes soil, groundwater, surface water, and air data collected from 2004 through December 2015 by LAI. Additionally, as part of the RI effort, LAI reviewed available historical (pre-RI) reports with the goal of updating the database to include pre-RI soil and groundwater data at Column 1A and 1B SWMUs and AOCs for investigations conducted in 1995⁸ and later. Several investigations that included particularly relevant information for individual SWMUs and AOCs were conducted prior to 1995. Consequently, some data prior to 1995 was added to the database and reflected in tables where practical. In most instances, data collected prior to 1995 were not added to the database and are not reflected in data tables or figures, but are noted in the text if the results are particularly relevant. Pre-RI soil and groundwater samples were analyzed for constituents that were associated with a specific SWMU or AOC. Sample analyses for pre-RI data are discussed in the evaluation of individual SWMUs and AOCs (Section 6.0).

RI soil, groundwater, surface water, and air samples were analyzed for constituents specified in the RI work plans. An RI soil sample matrix is presented in Table 3-3; soil samples were collected during the RI for Column IA SWMUs and AOCs. A sample matrix for RI groundwater samples collected to investigate Column IA and IB SWMUS and AOCs is presented in Table 3-4. The interim Site-wide groundwater monitoring plan was frequently modified as new wells were installed and sampling frequency and constituents sampled at each well were adjusted as approved by Ecology. The current interim Site-wide groundwater sampling matrix is presented in Table 3-5. Surface water and air samples have been collected throughout the Site. Sampling matrices showing the most recent sample data and analyses completed at each sample location are presented for surface water in Table 3-6 and for air in Table 3-7. All database analytical data are presented on a DVD in Appendix F. Data validation, data QA, and criteria to determine data usability is discussed in Appendix G.

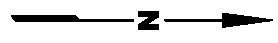
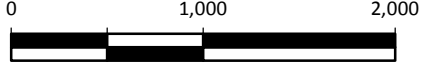
⁸ The timeline agreed upon by Ecology and Boeing was 1995 and later for inclusion of historical data.



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- Notes**
1. Borings installed for the remedial investigation have designations beginning with ASB. The depth of the boring identified is the deepest sample that was collected, additional shallower samples may also have been collected.
 2. Borings designated as water table are locations off Boeing property that had groundwater samples collected from screens across the water table.
 3. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

- Legend**
- ▲ Water Table Boring Location
 - Shallow Zone Boring Location
 - Intermediate Zone Boring Location
 - ▨ Wetland Areas
 - Water Bodies
 - Waterways
 - ▭ Boeing Property
 - ▭ City Limits

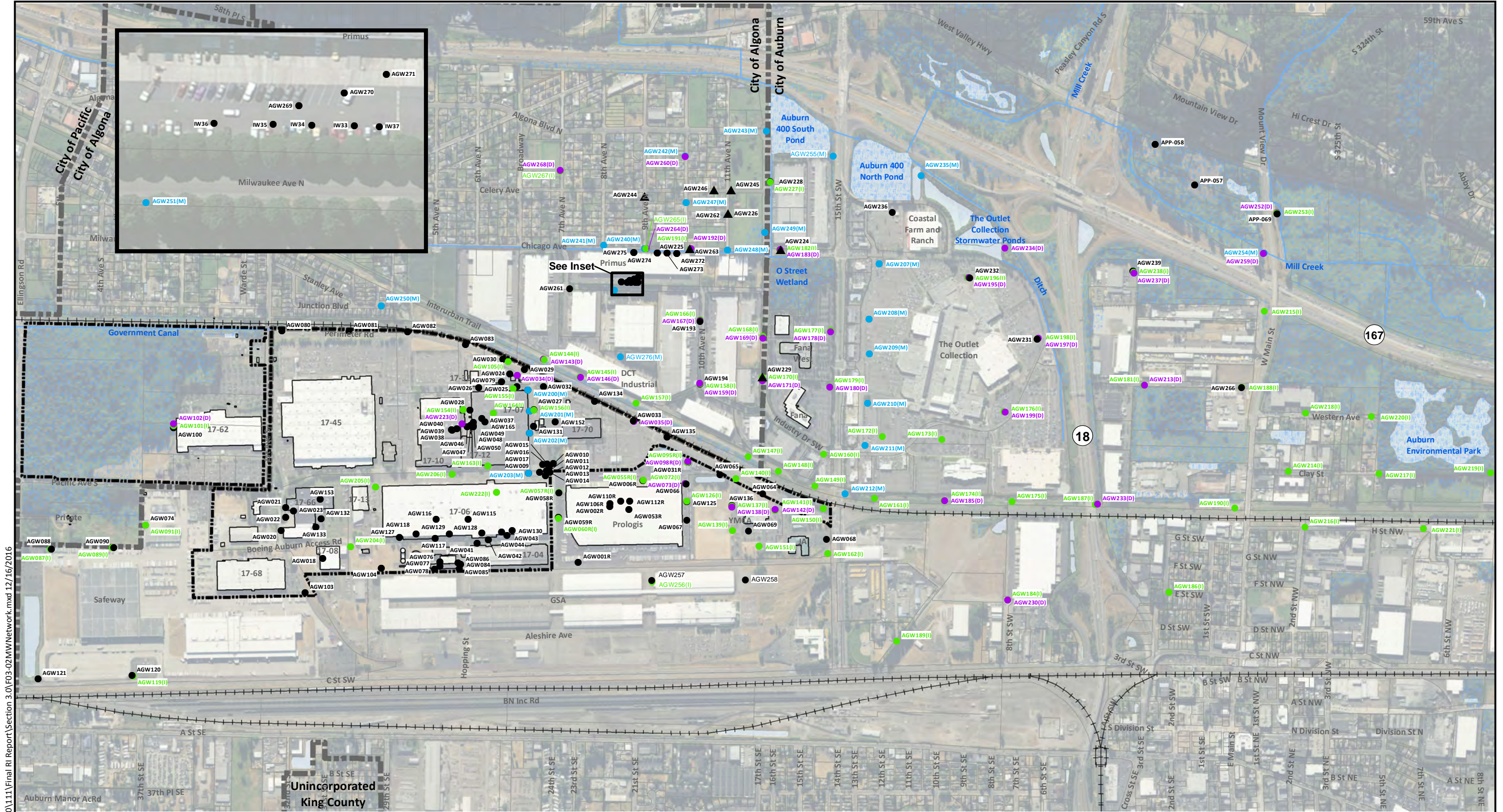



Scale in Feet

Base Map Source: Geometrix 2003; Parcel Data Source: King County 2015; Aerial Photo Source: Esri World Imagery.



Boeing Auburn Remedial Investigation Auburn, Washington	Remedial Investigation Soil Boring Locations	Figure 3-1
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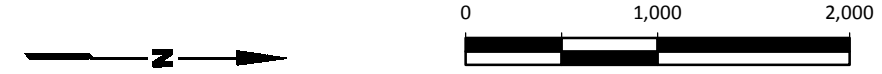
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Notes

1. Wells installed for the remedial investigation have designations beginning with AGW. Well designations beginning with APP are installed and owned by WSDOT. Injection wells have an IW identification.
2. Wells designated as water table wells are locations off Boeing property that were specifically installed as water table wells.
3. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

Legend

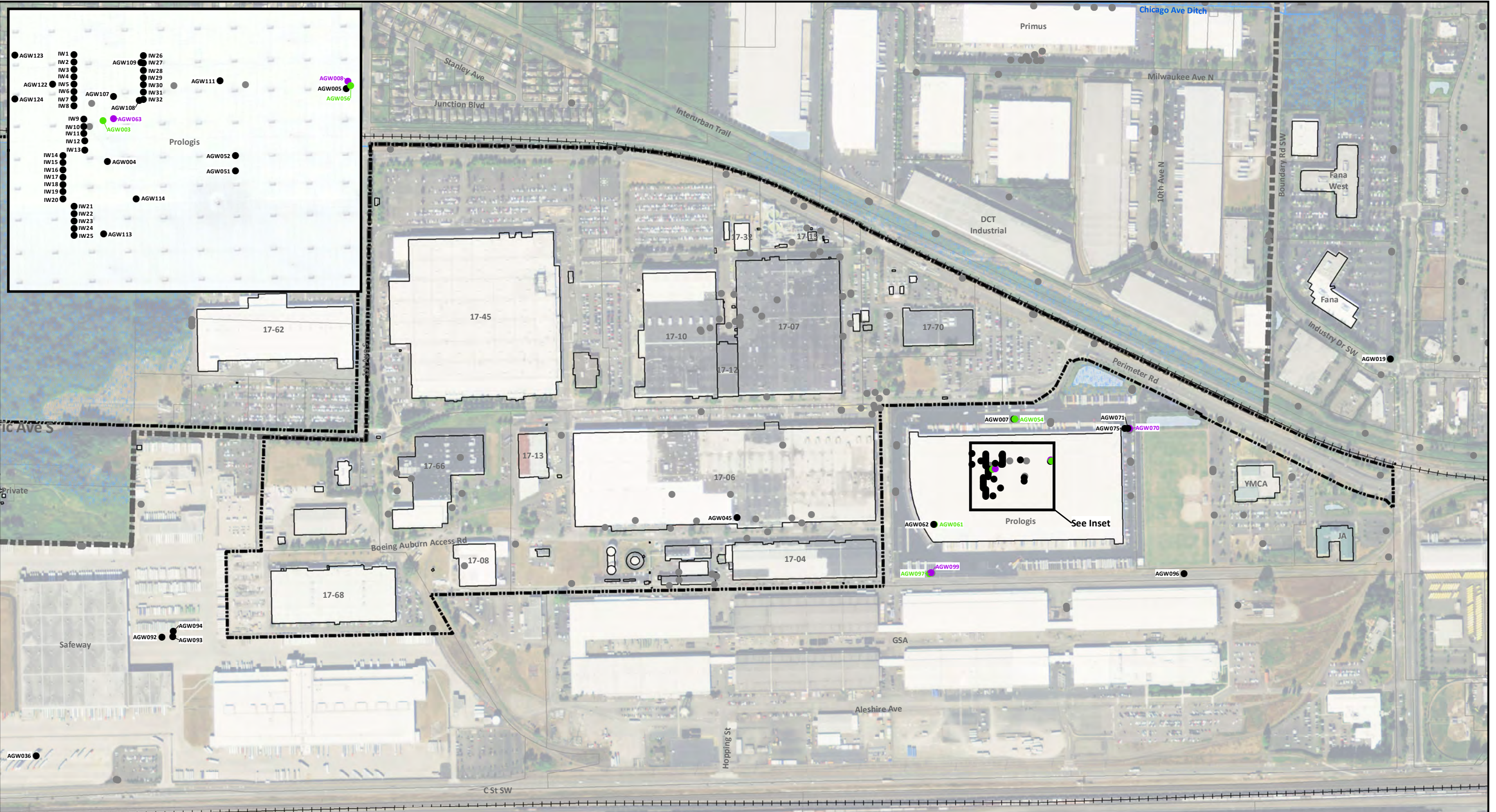
- ▲ Offsite Water Table Well
- Shallow Zone Monitoring Well
- (I) Intermediate Zone Monitoring Well
- (D) Deep Zone Monitoring Well
- (M) Multi-Level Well
- Wetland Areas
- Water Bodies
- Waterways
- Boeing Property
- City Limits



Base Map Source: Geometrix 2003; Parcel Data Source: King County 2015; Aerial Photo Source: Esri World Imagery.

Boeing Auburn Remedial Investigation Auburn, Washington	Current Monitoring Well Network	Figure 3-2
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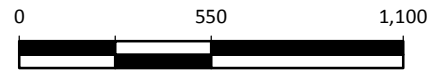
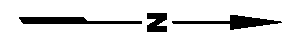


Notes

1. Wells installed for the remedial investigation have designations beginning with AGW. Injection wells have an IW identification.
2. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

Legend

- Decommissioned Shallow Zone Monitoring Well
- (I) ● Decommissioned Intermediate Zone Monitoring Well
- (D) ● Decommissioned Deep Zone Monitoring Well
- ▲ Active Water Table Well
- Active Monitoring Well
- Wetland Areas
- Water Bodies
- Waterways
- Boeing Property
- City Limits



Scale in Feet

Base Map Source: Geometrix 2003; Parcel Data Source: King County 2015; Aerial Photo Source: Esri World Imagery.

Boeing Auburn
Remedial Investigation
Auburn, Washington

Decommissioned Monitoring Wells

Figure
3-3

**Table 3-1
Soil Boring List
Boeing Auburn Remedial Investigation
Auburn, Washington**

Boring	Groundwater Zone	WCS North Zone 83(91)		Date Installed	Ground Elevation (ft) (b)	Depth of Boring (ft bgs) (c)	Groundwater Sample Depths (ft bgs)	Soil Sample Depths (ft bgs)	Soil Gas Sample
		Northing (a)	Easting (a)						
ASB0119	S	108348.8	1291881.8	12/3/2003	91.1	30.5	20, 30	--	--
ASB0120	S	108365.0	1291881.8	12/4/2003	90.5	31.5	20, 29	--	--
ASB0121	S	108729.25	1291537.15	12/4/2003	90.1	21	20	--	--
ASB0122	S	108774.48	1291561.35	12/4/2003	90.1	21.5	20	--	--
ASB0123	S	108783.74	1291715.91	12/4/2003	90.4	21.5	20	--	--
ASB0124	S	108450.0	1291891.0	12/5/2003	91.3	17	--	16	--
ASB0125	S	108450.0	1291891.0	12/5/2003	91.3	17	--	16	--
ASB0126	S	108728.0	1291771.8	12/16/2003	90.4	20	15	--	--
ASB0127	S	108682.7	1291715.9	12/17/2003	90.4	20	20	--	--
ASB0128	S	108725.2	1291663.3	12/18/2003	90.2	20	20	--	--
ASB0129	S	108776.7	1291773.8	2/19/2004	90.4	20	20	--	--
ASB0130	S	108630.1	1291732.0	2/19/2004	88.9	20.5	20	--	--
ASB0131	S	108721.10	1291495.30	2/19/2004	90.0	20.5	20	--	--
ASB0132	S	108893.35	1291528.51	2/18/2004	90.3	20.5	20	--	--
ASB0133	I	108774.76	1291531.56	2/17/2004	90.0	50	20, 30, 40, 50	--	--
ASB0134	I	108646.72	1291533.69	2/17/2004	90.1	50	20, 30, 40, 50	--	--
ASB0135	S	108022.5	1290239.3	3/22/2004	87.9	15	13	--	--
ASB0136	S	107629.2	1290066.6	3/22/2004	88.0	17	15	--	--
ASB0137	S	107703.0	1290101.4	3/22/2004	87.6	16	13	--	--
ASB0138	S	107868.0	1290163.9	3/22/2004	87.7	16	12	--	--
ASB0139	S	107947.7	1290201.7	3/22/2004	89.6	16	13	--	--
ASB0140	S	108093.9	1290275.0	3/22/2004	87.3	12	11	--	--
ASB0141	S	107685.8	1290179.7	5/4/2004	89.3	9	9	6, 9	--
ASB0142	S	107627.6	1290198.0	5/4/2004	89.9	15	14	12, 15	--
ASB0143	S	107904.5	1290791.7	5/4/2004	89.2	18	17	12, 15	--
ASB0144	S	107962.4	1290787.3	5/4/2004	91.2	18	17	6, 18	--
ASB0145	S	107847.0	1290736.2	5/4/2004	89.7	17	17	6, 17	--
ASB0146	S	107897.4	1290655.4	5/5/2004	89.5	12	10	15	--
ASB0147	S	107938.4	1290721.5	5/5/2004	89.7	15	15	6, 15	--
ASB0148	S	107969.2	1290724.9	5/5/2004	90.4	17	17	6, 17	--
ASB0149	S	105885.7	1292246.1	5/5/2004	90.5	21	18	15, 21	--
ASB0150	S	106922.5	1291167.3	5/6/2004	90.8	21	18	21	--
ASB0151	S	106689.6	1292011.0	5/6/2004	90.9	17	16	15	--
ASB0152	S	106691.2	1291991.8	5/6/2004	90.4	16	17	15	--
ASB0154	S	104588.2	1291979.2	8/23/2004	90.3	20	20	--	--
ASB0155	S	105893.3	1290338.7	8/23/2004	91.7	32.5	32	--	--
ASB0156	S	105849.7	1290815.1	8/24/2004	91.1	32	32	--	--
ASB0157	S	107334.2	1290780.0	8/24/2004	91.3	20	17	--	--
ASB0158	S	104915.5	1292249.9	8/25/2004	92.0	33	33	--	--
ASB0159	S	107323.3	1291484.9	8/30/2004	90.3	20	19	16, 18	--
ASB0160R	S	107301.2	1291870.2	9/7/2004	90.0	22	18	5, 17.5	--
ASB0161	S	107167.4	1290976.1	8/31/2004	91.1	19	18	6, 14, 16	--
ASB0162	S	107180.0	1290988.1	8/31/2004	90.8	20	17	6, 15	--
ASB0163	S	107703.3	1291000.8	8/31/2004	89.4	24	24	14, 17	--
ASB0164R	S	106846.3	1292209.9	9/2/2004	91.8	20.2	20	5, 20	--

**Table 3-1
Soil Boring List
Boeing Auburn Remedial Investigation
Auburn, Washington**

Boring	Groundwater Zone	WCS North Zone 83(91)		Date Installed	Ground Elevation (ft) (b)	Depth of Boring (ft bgs) (c)	Groundwater Sample Depths (ft bgs)	Soil Sample Depths (ft bgs)	Soil Gas Sample
		Northing (a)	Easting (a)						
ASB0165R	S	106853.0	1292202.6	9/2/2004	91.5	23	20	2, 22	--
ASB0166R	S	106924.4	1292227.3	9/2/2004	91.3	22.5	18	5	--
ASB0167	S	107657.4	1291871.9	9/7/2004	90.3	22	18	5, 15, 20	--
ASB0168	S	107301.4	1291879.2	9/7/2004	90.0	22	18	15, 17.5	--
ASB0169	S	107184.5	1291884.0	9/8/2004	91.2	22	18	15, 17.5	--
ASB0170	S	106760.5	1291890.2	9/9/2004	91.5	22	18	15, 17.5	--
ASB0171	S	106765.4	1291885.1	9/9/2004	91.5	22	18	15, 17.5	--
ASB0172	S	107159.6	1291884.6	9/9/2004	91.6	3.4	--	--	--
ASB0174	S	109168.3	1292007.3	8/10/2005	91.0	17	19	7, 17	--
ASB0175	S	108753.7	1292203.8	8/10/2005	90.6	18.5	19	7	--
ASB0176	S	108609.5	1291902.9	8/10/2005	90.4	17.5	19	1, 17	--
ASB0177	I	106192.7	1290834.6	8/4/2008	89.6	45.8	25, 35, 45	--	--
ASB0178	S	105808.0	1292136.0	8/4/2008	91.1	20.5	16	13, 16	--
ASB0179	S	106868.3	1292228.2	10/1/2009	91.7	19	19	6, 17	--
ASB0180	S	107672.5	1290341.2	9/30/2009	90.1	4	--	4	--
ASB0181	S	109912.3	1288859.3	4/3/2013	75.3	25	5, 15, 25	--	--
ASB0182	S	110315.9	1288585.8	4/4/2013	76.0	25	9, 15, 25	--	--
ASB0183	S(WT)	109919.5	1287976.4	4/4/2013	73.0	5	5	--	--
ASB0184	S	109913.4	1288544.7	4/5/2013	73.5	25	5, 15, 25	--	--
ASB0185	S(WT)	109474.9	1288308.7	4/5/2013	75.6	5	5	--	--
ASB0186	S	109919.7	1288308.0	4/8/2013	74.3	25	5, 15, 25	--	--
ASB0187	S(WT)	109658.3	1288849.7	4/8/2013	75.7	5	5	--	--
ASB0188	S	109473.4	1288590.0	4/9/2013	75.5	25	5, 15, 25	--	--
ASB0189	S(WT)	109040.5	1288281.9	4/9/2013	75.3	5	5	--	--
ASB0190	S	109039.2	1288846.4	4/10/2013	76.2	25	10, 15, 25	--	--
ASB0191	S(WT)	108819.0	1288838.8	4/10/2013	76.4	5	5	--	--
ASB0192	S	109528.4	1288844.8	4/11/2013	75.8	25	5, 15, 25	--	--
ASB0193	S(WT)	109196.4	1288834.8	4/11/2013	74.2	5	5	--	--
ASB0194	S(WT)	108600.1	1287920.4	4/12/2013	75.5	5	5	--	--
ASB0195	S(WT)	108593.6	1288298.4	4/13/2013	76.6	5	5	--	--
ASB0196	S(WT)	108595.5	1288505.4	4/12/2013	77.3	5	5	--	--
ASB0197	S(WT)	109037.1	1287956.6	4/15/2013	73.7	10	8	--	--
ASB0198	S	109037.3	1288482.8	4/15/2013	75.7	25	5, 15, 25	--	--
ASB0199	S(WT)	109481.9	1287658.2	4/16/2013	74.4	5	5	--	--
ASB0200	S	109480.3	1287968.8	4/16/2013	74.9	25	5, 15, 25	--	--
ASB0201	S(WT)	109925.5	1287318.8	4/17/2013	72.2	10	7	--	--
ASB0202	S	109928.9	1287678.7	4/17/2013	73.7	25	8, 15, 25	--	--
ASB0203	S	110320.7	1287590.1	4/18/2013	74.2	25	7, 15, 25	--	--
ASB0204	S(WT)	109923.2	1287062.4	4/18/2013	72.2	10	7	--	--
ASB0205	S(WT)	106804.1	1288532.8	4/18/2013	80.0	10	7	--	--
ASB0206	S	109483.8	1287310.4	4/19/2013	73.2	25	7, 15, 25	--	--
ASB0207	S(WT)	109038.8	1287303.0	4/19/2013	72.4	5	5	--	--
ASB0208	S(WT)	109027.9	1287668.8	4/22/2013	73.6	10	7	--	--
ASB0209	S(WT)	105560.3	1289461.1	4/22/2013	80.5	5	5	--	--
ASB0210	S	108592.3	1288810.1	4/22/2013	76.8	25	8, 15, 25	--	--

**Table 3-1
Soil Boring List
Boeing Auburn Remedial Investigation
Auburn, Washington**

Boring	Groundwater Zone	WCS North Zone 83(91)		Date Installed	Ground Elevation (ft) (b)	Depth of Boring (ft bgs) (c)	Groundwater Sample Depths (ft bgs)	Soil Sample Depths (ft bgs)	Soil Gas Sample
		Northing (a)	Easting (a)						
ASB0211	S	108153.6	1288562.9	4/23/2013	77.4	25	5, 15, 25	--	--
ASB0212	S(WT)	107700.9	1288578.5	4/23/2013	76.6	5	5	--	--
ASB0213	S(WT)	104515.0	1289452.7	4/23/2013	79.9	10	8	--	--
ASB0214	S(WT)	108601.4	1287717.2	4/24/2013	75.0	5	5	--	--
ASB0215	S	106245.6	1289450.7	4/24/2013	83.0	25	7, 15, 25	--	--
ASB0216	S(WT)	103727.3	1289440.9	4/24/2013	79.3	10	7	--	--
ASB0217	S(WT)	109699.0	1287603.6	4/25/2013	75.7	10	8	--	--
ASB0218	S	109230.8	1287594.6	4/24/2013	76.2	25	10, 15, 25	--	--
ASB0219	S(WT)	108833.4	1287565.9	4/25/2013	75.1	10	9	--	--
ASB0220	S(WT)	109678.1	1288223.8	4/26/2013	72.9	5	5	--	--
ASB0221	S(WT)	109229.8	1288230.7	4/26/2013	75.8	10	7	--	--
ASB0222	S(WT)	108796.6	1288228.9	4/26/2013	75.9	10	7	--	--
ASB0223	S(WT)	109487.2	1287016.0	4/29/2013	74.7	10	8	--	--
ASB0224	S(WT)	109030.8	1286989.7	4/29/2013	73.9	10	7	--	--
ASB0225	S(WT)	110484.5	1288864.4	4/29/2013	76.1	10	7	--	--
ASB0226	S(WT)	110368.3	1288119.1	4/29/2013	75.8	10	9	--	--
ASB0227	S(WT)	108611.0	1287007.1	4/30/2013	75.6	10	9	--	--
ASB0228	S(WT)	108594.8	1287316.2	4/30/2013	74.7	10	8	--	--
ASB0229	S(WT)	107256.3	1288574.3	4/30/2013	78.8	10	7	--	--
ASB0230	I	108230.6	1289258.1	6/23/2014	79.9	50	7, 15, 25, 48	--	--
ASB0231	S	108489.6	1289270.8	6/24/2014	79.0	25	6, 15, 25	--	--
ASB0232	S	109426.0	1289288.5	6/24/2014	78.0	25	7, 15, 25	--	--
ASB0233	I	109819.3	1289290.9	6/25/2014	80.0	50	9, 15, 25, 50	--	--
ASB0234	I	110175.1	1289302.3	6/26/2014	79.0	50	8, 15, 25, 50	--	--
ASB0235	I	106184.3	1289179.3	7/7/2014	83.4	50	8, 15, 25, 50	--	--
ASB0236	I	106579.8	1289363.3	7/8/2014	83.6	50	9, 15, 25, 50	--	--
ASB0237	S	107690.4	1289894.9	7/9/2014	83.2	25	8, 15, 25	--	--
ASB0238	S	108141.4	1290108.4	7/9/2014	82.4	25	8, 15, 25	--	--
ASB0239	S	108581.9	1290318.5	7/10/2014	82.5	25	9, 15, 25	--	--
ASB0240	S	109039.5	1290543.6	7/10/2014	84.7	25	10, 15, 25	--	--
ASB0241	I	107027.7	1289571.8	7/11/2014	85.0	48	9, 15, 25, 48	--	--
ASB0242	I	109383.6	1290703.5	7/14/2014	86.7	48	12, 25, 48	--	--
ASB0243	I	109916.0	1290957.0	7/15/2014	87.9	50	14, 25, 50	--	--
ASB0244	S	111140.8	1290217.5	3/16/2015	82.4	10	9	--	Collected
ASB0245	S(WT)	111143.6	1289993.1	3/16/2015	82.1	10	10	--	Collected
ASB0246	S(WT)	111156.5	1289232.2	3/16/2015	78.8	10	10	--	Collected
ASB0247	S(WT)	111149.3	1289706.6	3/17/2015	80.9	10	10	--	Collected
ASB0248	S(WT)	111161.8	1289047.4	3/17/2015	78.5	10	7	--	Collected
ASB0249	S(WT)	110919.3	1288875.5	3/17/2015	76.9	10	7	--	Collected
ASB0250	S(WT)	108695.2	1289277.7	3/17/2015	79.4	10	7	--	Collected
ASB0251	S(WT)	108860.5	1289275.2	3/18/2015	79.5	10	7	--	Collected
ASB0251R	S(WT)	108872.5	1289274.8	4/26/2015	79.9	10	10	--	Collected
ASB0251R2	S(WT)	108872.5	1289274.8	6/25/2015	79.9	10	8	--	Collected
ASB0252	S(WT)	111075.4	1288299.2	3/18/2015	75.8	10	8	--	Collected
ASB0253	S(WT)	111070.8	1288741.3	3/18/2015	76.8	10	8	--	Collected

**Table 3-1
Soil Boring List
Boeing Auburn Remedial Investigation
Auburn, Washington**

Boring	Groundwater Zone	WCS North Zone 83(91)		Date Installed	Ground Elevation (ft) (b)	Depth of Boring (ft bgs) (c)	Groundwater Sample Depths (ft bgs)	Soil Sample Depths (ft bgs)	Soil Gas Sample
		Northing (a)	Easting (a)						
ASB0254	S(WT)	109130.8	1289276.3	3/18/2015	79.3	10	8	--	Collected
ASB0255	S(WT)	111391.1	1288614.4	4/26/2015	80.1	15	10	--	Collected
ASB0256	S(WT)	111450.8	1288735.4	4/27/2015	80.2	15	12	--	Collected
ASB0256R	S(WT)	111450.8	1288735.4	6/25/2015	80.2	15	15	--	Collected
ASB0257	S(WT)	111872.6	1288887.1	4/27/2015	78.8	15	15	--	Collected
ASB0258	S(WT)	111449.8	1289041.0	4/27/2015	80.8	15	10	--	Collected
ASB0259	S(WT)	111399.0	1289257.1	4/28/2015	78.4	15	10	--	Collected
ASB0260	S(WT)	111339.9	1289595.6	4/28/2015	79.3	15	8	--	Collected
ASB0261	S(WT)	111333.1	1289808.9	4/28/2015	80.5	15	10	--	Collected
ASB0261R	S(WT)	111333.1	1289808.9	6/26/2015	80.5	15	15	--	Collected
ASB0262	S(WT)	111331.2	1289987.2	4/29/2015	81.5	15	10	--	Collected
ASB0263	S(WT)	111320.7	1290181.1	4/29/2015	81.6	15	10	--	Collected

Notes:

- (a) Horizontal Datum: WCS North Zone 83(91) US ft (+/- 0.05 ft for survey, +/- 0.33 ft for GPS).
- (b) Vertical Datum: National Geodetic Vertical Datum of 1929, US ft (+/-0.01 ft), mean sea level.
- (c) Depth of boring defined as bottom of screened interval.

1. Borings have designations beginning with ASB.
2. Boring ASB0153 was skipped in the sequence of remedial investigation borings; this boring does not exist.
3. The location name for boring ASB0173 changed to ASB0177, ASB0173 does not exist.
4. Geographic coordinates of borings were collected in the field using a handheld GPS, except for ASB0121 - ASB0123 and ASB0131 - ASB0134, which were surveyed.

Abbreviations/Acronyms:

- = not applicable
- bgs = below ground surface
- ft = feet
- GPS = global positioning system
- I = intermediate zone
- S = shallow zone
- WT = water table

**Table 3-2
Monitoring Well List
Boeing Auburn Remedial Investigation
Auburn, Washington**

Monitoring Well (a)	Well Type	Groundwater Zone	WCS North Zone 83(91)		Date Installed	Well Status (c)	Ground Elevation (ft) (d)	Top of Casing Elevation (ft) (d)	Depth of Well (ft bgs) (e)	Screened Interval (ft bgs)	Borehole Grab Sample (ft bgs)
			Northing (b)	Easting (b)							
AGW001/R	CV	S	108321.75	1292187.09	6/16/1994 R - 4/9/2007	C	87.50	87.15	25	15 - 25	--
AGW002/R	CV	S	108658.18	1291592.08	6/20/1994 R - 9/28/2006	C	90.00	90.95	34	24 - 34	--
AGW003	CV	I	108677.00	39702.00	6/21/1994	DC, 2006	90.30	86.61	48	43 - 48	--
AGW004	CV	S	108683.00	39702.00	6/21/1994	DC, 2006	90.35	86.48	29	19 - 29	--
AGW005	CV	S	109012.00	1291540.00	6/21/1994	DC, 2006	86.79	86.38	24	9 - 24	--
AGW006/R	CV	S	109011.93	1291314.95	6/22/1994 R - 3/19/2007	C	86.79	86.46	26	16 - 26	--
AGW007	CV	S	108799.00	1291292.00	6/22/1994	DC, 2006	90.50	86.35	27	12 - 27	--
AGW008	CV	D	109014.00	1291530.00	1/16/1995	DC, 2006	85.93	86.29	110	100 - 110	--
AGW009	CV	S	107910.10	1291228.50	8/22/1990	C	90.12	86.37	19	9 - 19	--
AGW010	CV	S	107985.00	1291211.00	8/23/1990	C	89.80	86.25	22	12 - 22	--
AGW011	CV	S	107990.00	1291230.00	8/23/1990	C	90.26	86.28	19	9 - 19	--
AGW012	CV	S	107974.00	1291263.00	8/23/1990	C	89.56	86.25	19	9 - 19	--
AGW013	CV	S	108059.00	1291135.00	7/31/1991	C	90.26	85.85	21	6 - 21	--
AGW014	CV	S	108021.00	1291228.00	7/31/1991	C	90.17	85.91	21	6 - 21	--
AGW015	CV	S	107992.00	1291138.00	8/2/1991	C	89.64	85.71	21	6 - 21	--
AGW016	CV	S	108016.00	1291170.00	8/2/1991	C	90.02	85.76	21	6 - 21	--
AGW017	CV	S	107944.00	1291142.00	8/5/1991	C	89.56	86.10	20	10 - 20	--
AGW018	CV	S	105603.40	1292146.20	9/24/1993	C	91.97	87.66	25	10 - 25	--
AGW019	CV	S	110990.90	1290941.00	12/15/1994	DC, unknown	86.75	84.61	24	9 - 24	--
AGW020	CV	S	105159.40	1291843.90	12/29/1992	C	88.00	89.79	26	11 - 26	--
AGW021	CV	S	105210.10	1291604.50	12/30/1992	C	92.05	89.71	29	14 - 29	--
AGW022	CV	S	105211.90	1291707.60	12/31/1992	C	91.97	89.94	25	10 - 25	--
AGW023	CV	S	105292.80	1291639.10	12/30/1992	C	92.19	88.40	29	14 - 29	--
AGW024	CV	S	107595.00	1290180.00	10/15/1992	C	85.20	84.56	23	13 - 23	--
AGW025	CV	S	107672.00	1290316.00	10/15/1992	C	86.31	85.89	25	15 - 25	--
AGW026	CV	S	107264.00	1290325.00	10/14/1992	C	86.26	85.87	25	15 - 25	--
AGW027	CV	S	107852.00	1290559.00	11/9/1992	C	86.10	88.01	25	15 - 25	--
AGW028	CV	S	107171.00	1290566.00	11/10/1992	C	89.52	88.18	25	15 - 25	--
AGW029	CV	S	107753.00	1290133.00	11/9/1992	C	85.00	87.02	25	15 - 25	--
AGW030	CV	S	107520.00	1290021.00	11/11/1992	C	84.70	86.69	25	15 - 25	--
AGW031/R	CV	S	109488.60	1291125.28	9/8/1994 R - 3/20/2007	C	86.22	85.96	28	18 - 28	--
AGW032	CV	S	107955.00	1290313.00	9/8/1994	C	86.80	88.20	38	13 - 38	--
AGW033	CV	S	108907.00	1290680.00	12/15/1994	C	87.86	87.42	28	13 - 28	--
AGW034	CV	D	107676.20	1290195.10	1/18/1995	C	85.30	84.94	85	75 - 85	--
AGW035	CV	D	108916.00	1290684.00	1/19/1995	C	85.20	87.29	105	95 - 105	--
AGW036	CV	S	103112.00	1293251.00	10/7/1986	DC, 2004	90.48	89.08	19	4 - 19	--
AGW037	CV	S	107298.00	1290655.00	1/8/1996	C	86.80	86.53	23	8 - 23	--
AGW038	CV	S	107033.00	1290770.00	4/29/1996	C	86.80	86.40	21	6 - 21	--
AGW039	CV	S	106981.00	1290780.00	4/29/1996	C	86.80	86.43	21	6 - 21	--
AGW040	CV	S	107032.00	1290762.00	4/30/1996	C	86.80	86.45	21	6 - 21	--
AGW041	CV	S	107247.00	1291983.00	5/30/1996	C	91.04	86.45	20	5 - 20	--
AGW042	CV	S	107368.00	1291947.00	5/30/1996	C	89.95	85.90	20	5 - 20	--
AGW043	CV	S	107566.00	1291897.00	5/30/1996	C	90.68	86.44	20	5 - 20	--
AGW044	CV	S	107509.00	1291866.00	5/30/1996	C	90.08	86.52	20	5 - 20	--
AGW045	CV	S	107189.00	1291866.00	5/30/1996	DC - unknown	91.10	86.66	20	5 - 20	--
AGW046	CV	S	107141.00	1290746.00	9/12/1996	C	90.43	85.93	20	5 - 20	--
AGW047	CV	S	107178.00	1290724.00	9/12/1996	C	90.84	86.19	20	5 - 20	--
AGW048	CV	S	107207.00	1290746.00	9/12/1996	C	90.60	86.27	20	5 - 20	--
AGW049	CV	S	107208.00	1290731.00	9/12/1996	C	90.49	86.39	20	5 - 20	--

**Table 3-2
Monitoring Well List
Boeing Auburn Remedial Investigation
Auburn, Washington**

Monitoring Well (a)	Well Type	Groundwater Zone	WCS North Zone 83(91)		Date Installed	Well Status (c)	Ground Elevation (ft) (d)	Top of Casing Elevation (ft) (d)	Depth of Well (ft bgs) (e)	Screened Interval (ft bgs)	Borehole Grab Sample (ft bgs)
			Northing (b)	Easting (b)							
AGW050	CV	S	107207.00	1290697.00	9/12/1996	C	90.74	86.20	20	5 - 20	--
AGW051	CV	S	108859.00	1291653.00	9/17/1996	DC, 2006	90.39	86.34	20	5 - 20	--
AGW052	CV	S	108859.00	1291632.00	9/17/1996	DC, 2006	90.36	86.46	25	10 - 25	--
AGW053/R	CV	S	108862.77	1291622.99	9/18/1996 R - 9/25/2006	C	91.42	90.98	27	22 - 27	--
AGW054	CV	I	108805.00	1291292.00	10/1/1996	DC, 2006	90.44	86.30	50	40 - 50	--
AGW055/R	CV	I	109013.51	1291306.63	10/3/1996 R - 3/19/2007	C	86.67	86.31	45	35 - 45	--
AGW056	CV	I	109018.00	1291536.00	10/1/1996	DC, 2006	86.00	86.46	50	40 - 50	--
AGW057/R	CV	I	108116.67	1291439.63	10/1/1996 R - 4/10/2007	C	90.04	89.64	50	40 - 50	--
AGW058/R	CV	S	108116.86	1291446.93	10/2/1996 R - 4/10/2007	C	90.24	89.92	25	15 - 25	--
AGW059/R	CV	S	108111.78	1291709.71	10/2/1996 R - 4/10/2007	C	89.58	89.23	25	15 - 25	--
AGW060/R	CV	I	108112.62	1291717.64	10/3/1996 R - 4/9/2007	C	89.42	89.11	50	40 - 50	--
AGW061	CV	I	108338.00	1291904.00	10/2/1996	DC, 2006	90.64	86.35	49	39 - 49	--
AGW062	CV	S	108333.00	1291904.00	10/2/1996	DC	90.48	86.31	25	10 - 25	--
AGW063	CV	D	108691.00	1291581.00	11/9/1996	DC	90.25	86.27	110	100 - 110	--
AGW064	CV	S	110286.00	1291459.00	12/2/1996	C	88.72	88.39	27	12 - 27	--
AGW065	CV	S	109831.00	1291255.00	12/2/1996	C	86.38	86.03	27	12 - 27	--
AGW066	CV	S	109473.00	1291356.00	12/2/1996	C	89.96	89.58	29	14 - 29	--
AGW067	CV	S	109480.00	1291739.00	12/3/1996	C	89.89	89.51	29	14 - 29	--
AGW068	CV	S	110964.00	1291940.00	12/3/1996	C	87.33	87.04	27	12 - 27	--
AGW069	CV	S	110135.00	1291850.00	12/3/1996	C	87.72	87.49	27	12 - 27	--
AGW070	CV	D	109473.00	1291346.00	12/13/1996	DC, 2006	89.28	85.82	29	14 - 29	--
AGW071	CV	S	109463.00	1291345.00	12/13/1996	DC, 2006	89.51	85.93	30	20 - 30	--
AGW072	CV	I	109463.00	1291345.00	3/20/2007	C	90.20	89.63	74	64 - 74	--
AGW073	CV	D	109463.00	1291345.00	3/20/2007	C	90.20	89.56	110	100 - 110	--
AGW074	CV	S	103722.00	1291780.00	12/14/1996	C	87.84	87.63	25	5 - 25	--
AGW075	CV	S	109444.00	1291346.00	12/4/1996	DC, 2006	89.18	85.95	30	20 - 30	--
AGW076	CV	S	106849.48	1292181.10	3/24/1997	C	86.76	86.26	19	4 - 19	--
AGW077	CV	S	106851.69	1292228.48	3/24/1997	C	90.80	86.73	19	4 - 19	--
AGW078	CV	S	106795.10	1292258.90	3/24/1997	C	87.50	87.28	19	4 - 19	--
AGW079	CV	S	107508.00	1290261.00	5/15/1997	C	87.81	84.69	19	4 - 19	--
AGW080	CV	S	105172.00	1289720.00	6/12/1997	C	82.62	82.21	21	6 - 21	--
AGW081	CV	S	105885.00	1289723.00	6/12/1997	C	83.30	82.37	20	5 - 20	--
AGW082	CV	S	106507.00	1289732.00	6/12/1997	C	84.22	83.83	21	6 - 21	--
AGW083	CV	S	107125.00	1289867.00	6/12/1997	C	86.86	86.44	21	6 - 21	--
AGW084	CV	S	107070.00	1292205.60	4/14/1999	C	90.95	86.20	20	10 - 20	--
AGW085	CV	S	107057.10	1292253.70	4/14/1999	C	86.95	86.42	20	10 - 20	--
AGW086	CV	S	107043.40	1292193.20	4/14/1999	C	87.01	86.74	20	10 - 20	--
AGW087	CV	I	102707.00	1292045.00	10/21/2001	C	86.32	85.79	50	40 - 50	--
AGW088	CV	S	102718.00	1292045.00	10/22/2001	C	86.27	85.85	25	15 - 25	--
AGW089	CV	I	103368.00	1292029.00	10/23/2001	C	87.29	86.80	50	40 - 50	--
AGW090	CV	S	103381.00	1292030.00	10/23/2001	C	87.29	86.50	25	15 - 25	--
AGW091	CV	I	103722.00	1291787.00	10/26/2001	C	87.79	87.32	50	40 - 50	--
AGW092	CV	S	103842.50	1292559.90	7/25/2002	DC, 2004	87.70	86.99	20	10 - 20	--
AGW093	CV	S	103905.20	1292559.20	7/25/2002	DC, 2004	87.81	87.33	20	10 - 20	--
AGW094	CV	S	103910.10	1292525.30	7/25/2002	DC, 2004	87.11	86.86	20	10 - 20	--
AGW095/R	CV	I	109485.68	1291121.17	12/2/2003 R - 3/20/2007	C	85.94	85.53	55	45 - 55	--
AGW096	CV	S	109790.03	1292189.91	12/2/2003	DC, 2006	86.93	86.69	30	20 - 30	--

**Table 3-2
Monitoring Well List
Boeing Auburn Remedial Investigation
Auburn, Washington**

Monitoring Well (a)	Well Type	Groundwater Zone	WCS North Zone 83(91)		Date Installed	Well Status (c)	Ground Elevation (ft) (d)	Top of Casing Elevation (ft) (d)	Depth of Well (ft bgs) (e)	Screened Interval (ft bgs)	Borehole Grab Sample (ft bgs)
			Northing (b)	Easting (b)							
AGW097	CV	I	108308.40	1292189.48	12/3/2003	DC, 2006	86.65	86.22	55	45 - 55	--
AGW098/R	CV	D	109488.52	1291112.70	12/9/2003 R - 3/19/2007	C	86.06	85.64	90	80 - 90	--
AGW099	CV	D	108316.62	1292184.83	12/10/2003	DC, 2006	86.65	86.22	89	79 - 89	--
AGW100	CV	S	104018.05	1290751.73	3/29/2004	C	85.72	85.40	30	10 - 30	--
AGW101	CV	I	104018.17	1290729.69	3/29/2004	C	85.80	85.50	55	45 - 55	--
AGW102	CV	D	104018.20	1290712.50	4/2/2004	C	85.89	85.47	88	78 - 88	--
AGW103	CV	S	105418.88	1292509.17	3/30/2004	C	89.79	89.38	30	20 - 30	--
AGW104	CV	S	106226.92	1292247.69	3/29/2004	C	89.30	88.98	30	20 - 30	--
AGW105	CV	I	107578.83	1290052.36	3/31/2004	C	85.20	87.33	55	45 - 55	--
AGW106/R	CV	S	108661.33	1291560.30	6/1/2004 R - 9/28/2006	C	91.41	90.97	34	34 - 24	--
AGW107	CV	S	108691.33	1291550.51	6/1/2004	DC, 2006	90.21	86.45	31	20 - 30	--
AGW108	CV	S	108726.60	1291556.04	6/3/2004	DC, 2006	90.10	86.55	31	20 - 30	--
AGW109	CV	S	108728.92	1291503.83	6/3/2004	DC, 2006	90.01	86.37	31	20 - 30	--
AGW110/R	CV	S	108774.69	1291535.71	6/2/2004 R - 9/25/2006	C	91.45	91.06	34	24 - 34	--
AGW111	CV	S	108838.07	1291528.74	6/2/2004	DC, 2006	90.15	86.55	31	21 - 31	--
AGW112/R	CV	S	108873.01	1291534.45	6/2/2004 R - 9/25/2006	C	91.45	90.96	35	25 - 35	--
AGW113	CV	S	108677.58	1291739.64	6/4/2004	DC, 2006	90.15	86.19	31	21 - 31	--
AGW114	CV	S	108722.58	1291691.64	6/4/2004	DC, 2006	90.29	86.45	31	21 - 31	--
AGW115	CV	S	107151.48	1291728.78	10/6/2004	C	86.88	86.53	24	9 - 24	--
AGW116	CV	S	106810.12	1291727.90	10/6/2004	C	86.95	86.69	24	9 - 24	--
AGW117	CV	S	106801.95	1291928.22	10/7/2004	C	86.81	86.49	24	9 - 24	--
AGW118	CV	S	106596.80	1291880.10	10/7/2004	C	87.06	86.78	24	9 - 24	--
AGW119	CV	I	103587.42	1293390.72	12/2/2004	C	91.90	94.26	54	44 - 54	--
AGW120	CV	S	103578.36	1293389.67	12/2/2004	C	91.80	94.24	30	20 - 30	--
AGW121	CV	S	102575.56	1293424.53	12/2/2004	C	88.50	91.27	30	20 - 30	--
AGW122	CV	S	108607.47	1291533.51	12/14/2004	DC, 2006	89.36	86.61	30	20 - 30	--
AGW123	CV	S	108555.47	1291493.51	12/14/2004	DC, 2006	89.37	86.54	30	20 - 30	--
AGW124	CV	S	108555.47	1291553.51	12/14/2004	DC, 2006	89.57	86.45	30	20 - 30	--
AGW125	CV	S	109478.67	1291542.80	3/20/2007	C	89.10	88.85	30	20 - 30	--
AGW126	CV	I	109477.48	1291536.49	3/19/2007	C	89.19	88.88	44	34 - 44	--
AGW127	CV	S	106421.00	1291922.94	9/8/2008	C	86.86	86.54	24	9 - 24	--
AGW128	CV	S	107298.21	1291873.85	9/12/2008	C	86.89	86.64	24	8 - 24	--
AGW129	CV	S	106952.15	1291883.93	9/11/2008	C	86.92	86.66	24	8 - 24	--
AGW130	CV	S	107621.95	1291845.24	9/11/2008	C	86.87	86.64	24	8 - 24	35, 45
AGW131	CV	S	107849.01	1290734.47	9/12/2008	C	86.29	85.98	25	15 - 25	--
AGW132	CV	S	105588.96	1291722.30	9/10/2008	C	87.26	86.96	27	17 - 27	--
AGW133	CV	S	105532.11	1291806.93	9/9/2008	C	88.42	88.11	27	17 - 27	35, 45
AGW134	CV	S	108499.79	1290472.95	9/10/2008	C	84.09	83.65	27	17 - 27	--
AGW135	CV	S	109267.74	1290851.56	9/10/2008	C	84.91	84.54	27	17 - 27	--
AGW136	CV	S	109957.69	1291582.62	9/9/2008	C	86.84	86.60	28	18 - 28	35, 45
AGW137	CV	I	109957.69	1291588.92	10/30/2008	C	86.89	86.44	44	34 - 44	55, 65
AGW138	CV	D	109958.25	1291595.58	2/12/2009	C	86.95	86.64	89	79 - 89	--
AGW139	CV	I	109965.20	1291848.89	2/9/2009	C	87.12	86.68	44	34 - 44	--
AGW140	CV	I	110001.71	1291294.00	2/11/2009	C	86.33	85.92	45	35 - 45	--
AGW141	CV	I	110417.03	1291633.10	2/11/2009	C	86.84	86.37	44	34 - 44	--
AGW142	CV	D	110418.73	1291626.19	2/10/2009	C	86.85	86.51	90	80 - 90	--
AGW143	CV	D	107952.59	1290023.17	10/6/2009	C	79.38	78.98	89	79 - 89	--
AGW144	CV	I	107961.75	1290027.12	10/8/2009	C	79.49	79.05	55	45 - 50	--
AGW145	CV	I	108340.70	1290210.19	10/12/2009	C	78.84	78.14	55	45 - 50	--

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Monitoring Well List
Boeing Auburn Remedial Investigation
Auburn, Washington**

Monitoring Well (a)	Well Type	Groundwater Zone	WCS North Zone 83(91)		Date Installed	Well Status (c)	Ground Elevation (ft) (d)	Top of Casing Elevation (ft) (d)	Depth of Well (ft bgs) (e)	Screened Interval (ft bgs)	Borehole Grab Sample (ft bgs)
			Northing (b)	Easting (b)							
AGW146	CV	D	108349.03	1290213.74	10/7/2009	C	78.94	78.69	90	80 - 90	--
AGW147	CV	I	110130.50	1291059.28	10/13/2009	C	84.92	84.49	55	45 - 55	--
AGW148	CV	I	110453.19	1291216.44	10/12/2009	C	84.48	83.80	54	44 - 54	--
AGW149	CV	I	110843.51	1291374.34	10/14/2009	C	84.99	84.73	55	45 - 55	--
AGW150	CV	I	110931.82	1291616.21	10/5/2009	C	83.96	83.54	57	47 - 57	90
AGW151	CV	I	110247.59	1292016.55	10/14/2009	C	86.62	86.26	56	46 - 56	--
AGW152	CV	S	108077.71	1290689.57	9/30/2009	C	84.64	84.39	29	19 - 29	--
AGW153	CV	S	105579.30	1291513.87	10/2/2009	C	89.02	88.52	30	20 - 30	--
AGW154	CV	I	107098.00	1290560.00	2/23/2010	C	86.30	86.06	60	50 - 60	--
AGW155	CV	I	107633.00	1290337.00	2/23/2010	C	86.39	86.12	50	40 - 50	--
AGW156	CV	I	107852.00	1290566.00	2/22/2010	C	89.01	88.45	60	50 - 60	--
AGW157	CV	I	108939.90	1290493.00	3/1/2010	C	81.55	81.20	54	44 - 54	30
AGW158	CV	I	109617.40	1290284.00	2/24/2010	C	82.55	82.15	50	40 - 50	30
AGW159	CV	D	109616.60	1290278.30	3/23/2010	C	82.64	82.03	90	80 - 90	--
AGW160	CV	I	110934.70	1291033.10	2/25/2010	C	85.04	84.60	60	50 - 60	30
AGW161	CV	I	111474.30	1291505.10	3/2/2010	C	82.06	81.68	57	47 - 57	30
AGW162	CV	I	110978.80	1292093.10	2/24/2010	C	85.88	85.31	60	50 - 60	30
AGW163	CV	I	107361.24	1291162.59	8/26/2010	C	86.63	86.40	57	47 - 57	28
AGW164	CV	I	107422.31	1290598.59	8/25/2010	C	86.73	86.52	60	50 - 60	29
AGW165	CV	S	107332.14	1290692.42	8/25/2010	C	86.72	86.50	28	18 - 28	55
AGW166	CV	I	109620.68	1289600.39	10/26/2010	C	78.00	77.61	60	50 - 60	30
AGW167	CV	D	109619.91	1289612.43	10/27/2010	C	78.34	78.11	95	85 - 95	--
AGW168	CV	I	110289.46	1289780.50	10/28/2010	C	78.27	77.95	60	50 - 60	29
AGW169	CV	D	110289.65	1289797.14	10/29/2010	C	78.40	78.12	94	84 - 94	--
AGW170	CV	I	110281.93	1290219.02	11/1/2010	C	80.53	80.21	60	50 - 60	28.5
AGW171	CV	D	110281.40	1290255.90	11/2/2010	C	80.72	80.20	83	73 - 83	--
AGW172	CV	I	111557.34	1290848.40	9/2/2010	C	84.55	84.25	59	49 - 59	--
AGW173	CV	I	112192.07	1290877.21	9/1/2010	C	86.33	85.68	51	41 - 51	50
AGW174	CV	I	112216.81	1291526.68	8/23/2010	C	78.18	77.97	59	49 - 59	59
AGW175	CV	I	112939.21	1291540.49	8/27/2010	C	75.64	75.16	58	48 - 58	--
AGW176	CV	I	112850.90	1290581.44	9/3/2010	C	80.75	80.48	59	49 - 59	--
AGW177	CV	I	111009.55	1289719.25	9/21/2010	C	78.05	77.76	58	48 - 58	29
AGW178	CV	D	111009.51	1289729.66	9/22/2010	C	78.04	77.74	95	85 - 95	--
AGW179	CV	I	110997.70	1290314.18	9/23/2010	C	79.47	79.22	51	41 - 51	30
AGW180	CV	D	110997.42	1290320.61	9/23/2010	C	79.30	79.00	81	71 - 81	--
AGW181	CV	I	114342.40	1290301.20	4/25/2011	C	70.34	70.14	59	49 - 59	--
AGW182	CV	I	110464.10	1288855.90	4/29/2011	C	73.40	73.08	58	48 - 58	29
AGW183	CV	D	110470.50	1288856.30	5/2/2011	C	73.34	73.01	94	84 - 94	--
AGW184	CV	I	112891.50	1292585.00	4/26/2011	C	77.53	77.26	59	49 - 59	--
AGW185	CV	D	112221.10	1291527.00	4/27/2011	C	77.83	77.39	92	82 - 92	--
AGW186	CV	I	114609.70	1292503.00	4/28/2011	C	73.37	73.00	54	44 - 54	--
AGW187	CV	I	113825.70	1291571.30	5/3/2011	C	72.46	72.21	59	49 - 59	--
AGW188	CV	I	115384.18	1290322.33	5/4/2011	C	65.00	64.68	59	49 - 59	--
AGW189	CV	I	111711.80	1293024.80	5/5/2011	C	85.24	84.87	59	49 - 59	--
AGW190	CV	I	115310.70	1291605.00	5/6/2011	C	69.94	69.68	59	49 - 59	--
AGW191	CV	I	109513.70	1288847.90	8/29/2011	C	72.72	72.30	60	50 - 60	--
AGW192	CV	D	109520.80	1288848.40	8/30/2011	C	72.71	72.39	95	85 - 95	25
AGW193	CV	S	109619.80	1289619.50	8/31/2011	C	78.58	78.33	30	20 - 30	--
AGW194	CV	S	109617.00	1290288.10	9/1/2011	C	82.52	82.29	30	20 - 30	--
AGW195	CV	D	112478.17	1289154.96	10/3/2011	C	78.18	77.88	90	80 - 90	30
AGW196	CV	I	112469.70	1289153.89	10/4/2011	C	78.09	77.79	55	45 - 55	--
AGW197	CV	D	113219.38	1289798.10	10/5/2011	C	73.25	72.94	85	75 - 85	29

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Boeing Auburn Remedial Investigation
Auburn, Washington**

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			Northing (b)	Easting (b)							
AGW198	CV	I	113211.65	1289802.68	10/5/2011	C	73.39	73.10	58	48 - 58	--
AGW199	CV	D	112866.83	1290589.29	10/6/2011	C	80.52	80.20	95	85 - 95	28
AGW200-1 AGW200-2 AGW200-3 AGW200-4 AGW200-5 AGW200-6 AGW200-7	CMT	S, I, D	107787.09	1290349.87	10/18/2011	C	86.72	NS 86.27 86.26 NS NS 86.24 NS	99.2	19.25 - 19.75 29.25 - 29.75 39.25 - 39.75 49.25 - 49.75 59.25 - 59.75 79.25 - 79.75 98.3 - 98.7	--
AGW201-1 AGW201-2 AGW201-3 AGW201-4 AGW201-5 AGW201-6 AGW201-7	CMT	S, I, D	107804.13	1290577.53	10/20/2011	C	86.65	NS 86.36 NS NS 86.30 86.31 NS	97.1	19.25 - 19.75 29.25 - 29.75 39.25 - 39.75 49.25 - 49.75 59.25 - 59.75 79.25 - 79.75 96.3 - 96.7	--
AGW202-1 AGW202-2 AGW202-3 AGW202-4 AGW202-5 AGW202-6 AGW202-7	CMT	S, I, D	107806.38	1290809.29	10/24/2011	C	86.72	NS 86.26 NS 86.26 NS 86.29 NS	98.1	20.25 - 20.75 30.25 - 30.75 40.25 - 40.75 50.25 - 50.75 60.25 - 60.75 80.25 - 80.75 97.3 - 97.7	--
AGW203-1 AGW203-2 AGW203-3 AGW203-4 AGW203-5 AGW203-6	CMT	S, I, D	107796.15	1291238.36	10/26/2011	C	86.85	NS 86.53 NS 86.49 NS 86.51	101.1	19.25 - 19.75 29.25 - 29.75 39.25 - 39.75 48.25 - 48.75 59.25 - 59.75 79.25 - 79.75	--
AGW204	CV	I	105900.00	1292018.33	10/27/2011	C	87.71	87.34	58	48 - 58	30
AGW205	CV	I	106167.04	1291385.39	10/27/2011	C	86.33	86.02	58	48 - 58	30
AGW206	CV	I	106979.63	1291246.98	10/28/2011	C	86.53	86.22	58	48 - 58	29
AGW207-1 AGW207-2 AGW207-3 AGW207-4 AGW207-5 AGW207-7	CMT	S, I, D	111524.93	1289007.62	11/1/2011	C	76.87	76.22 76.22 76.21 76.22 76.22 76.22	80.6	19.5 - 20 29.5 - 30 39.5 - 40 49.5 - 50 59.5 - 60 79.8 - 80.2	--
AGW208-1 AGW208-2 AGW208-3 AGW208-4 AGW208-5 AGW208-6 AGW208-7	CMT	S, I, D	111417.86	1289593.51	11/2/2011	C	75.80	75.43 75.41 75.43 75.42 75.43 75.42 75.43	95.1	21.05 - 21.55 29.05 - 29.55 39.05 - 39.55 49.05 - 49.55 67.05 - 67.55 79.05 - 79.55 94.3 - 94.7	--
AGW209-1 AGW209-2 AGW209-3 AGW209-4 AGW209-5 AGW209-6 AGW209-7	CMT	S, I, D	111423.10	1289965.11	11/3/2011	C	78.73	NS 78.48 NS NS 78.48 78.48 NS	93.2	19.25 - 19.75 29.25 - 29.75 39.25 - 39.75 49.25 - 49.75 59.25 - 59.75 79.25 - 79.75 92.4 - 92.8	--
AGW210-1 AGW210-2 AGW210-3 AGW210-4 AGW210-5 AGW210-6 AGW210-7	CMT	S, I, D	111402.14	1290493.07	11/7/2011	C	80.63	NS 80.21 NS NS 80.22 80.21 NS	92.4	21.25 - 21.75 29.75 - 30.25 37.75 - 38.25 49.75 - 50.25 59.75 - 60.25 79.75 - 80.25 91.75 - 92.25	--

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Monitoring Well List
Boeing Auburn Remedial Investigation
Auburn, Washington**

Monitoring Well (a)	Well Type	Groundwater Zone	WCS North Zone 83(91)		Date Installed	Well Status (c)	Ground Elevation (ft) (d)	Top of Casing Elevation (ft) (d)	Depth of Well (ft bgs) (e)	Screened Interval (ft bgs)	Borehole Grab Sample (ft bgs)
			Northing (b)	Easting (b)							
AGW211-1	CMT	S, I, D	111375.49	1290939.95	11/9/2011	C	82.58	NS	90	19.5 - 20	--
AGW211-2								80.06		29.5 - 30	
AGW211-3								NS		37.5 - 38	
AGW211-4								NS		49.5 - 50	
AGW211-5								80.06		59.5 - 60	
AGW211-6								80.05		79.5 - 80	
AGW211-7								NS		89.6 - 89.9	
AGW212-1	CMT	S, I, D	111161.74	1291458.78	11/11/2011	C	83.32	NS	100.1	20.5 - 21	--
AGW212-2								82.94		29.5 - 30	
AGW212-3								NS		39.5 - 40	
AGW212-5								82.94		59.5 - 60	
AGW212-6								NS		80.5 - 81	
AGW212-7								82.91		99.5 - 99.8	
AGW213								CV		D	
AGW214	CV	I	115878.57	1291218.94	11/15/2011	C	64.32	64.01	52	42 - 52	27
AGW215	CV	I	115623.02	1289515.56	11/16/2011	C	63.44	63.05	58	48 - 58	29
AGW216	CV	I	116054.67	1291810.63	11/17/2011	C	65.94	65.65	60	50 - 60	30
AGW217	CV	I	116843.73	1291243.70	11/18/2011	C	62.68	62.19	57	47 - 57	29
AGW218	CV	I	116061.35	1290594.27	11/21/2011	C	63.73	63.33	59	49 - 59	28
AGW219	CV	I	118029.63	1291230.44	11/22/2011	C	62.07	61.73	52	42 - 52	30
AGW220	CV	I	116762.10	1290633.22	11/28/2011	C	61.54	61.08	60	50 - 60	28
AGW221	CV	I	117317.90	1291826.95	11/29/2011	C	63.23	62.83	59	49 - 59	--
AGW222	CV	I	107331.30	1291536.80	12/2/2012	C	86.85	86.39	59	49 - 59	27
AGW223	CV	D	107086.50	1290710.50	12/4/2012	C	86.55	86.15	91	81 - 91	30, 60, 90
AGW224	CV	S	110475.90	1288858.20	12/5/2012	C	73.25	72.70	17	2 - 17	--
AGW225	CV	S	109507.70	1288848.10	12/5/2012	C	72.71	71.90	17	2 - 17	--
AGW226	CV	S	109916.30	1288473.20	12/5/2012	C	70.37	69.75	17	2 - 17	--
AGW227	CV	I	110364.70	1288137.00	12/6/2012	C	72.00	71.52	50	40 - 50	--
AGW228	CV	S	110364.60	1288129.30	12/6/2012	C	72.10	71.79	28	18 - 28	--
AGW229	CV	S	110281.70	1290211.50	12/7/2012	C	80.45	79.94	17	2 - 17	--
AGW230	CV	D	112891.90	1292589.80	12/10/2012	C	77.75	77.45	84	74 - 84	--
AGW231	CV	S	113205.17	1289807.50	5/19/2013	C	73.50	73.10	30	20 - 30	9
AGW232	CV	S	112487.98	1289159.75	5/20/2013	C	78.26	77.96	30	20 - 30	14
AGW233	CV	D	113849.10	1291566.90	5/21/2013	C	72.09	71.56	83	73 - 83	30
AGW234	CV	D	112863.67	1288839.98	5/22/2013	C	70.37	69.78	84	74 - 84	21, 57
AGW235-1	CMT	S, I, D	111970.80	1288070.60	5/24/2013	C	70.23	69.94	73	8.5 - 9	--
AGW235-2								69.94		18.5 - 19	
AGW235-3								69.94		28.5 - 29	
AGW235-4								69.95		38.5 - 39	
AGW235-5								69.95		48.5 - 49	
AGW235-6								69.95		58.5 - 59	
AGW235-7								69.95		70.9 - 71.1	
AGW236	CV	S	111665.90	1288460.40	5/28/2013	C	75.23	74.85	30	20 - 30	14
AGW237	CV	D	114236.60	1289103.20	9/23/2013	C	70.82	70.49	80	70 - 80	--
AGW238	CV	I	114232.10	1289095.30	9/24/2013	C	71.00	70.26	61	51 - 61	--
AGW239	CV	S	114227.10	1289089.00	9/25/2013	C	71.16	70.78	30	20 - 30	8.5
AGW240-1	CMT	WT, S	109028.68	1288847.28	6/10/2014	C	72.77	72.49	30	5 - 7.5	--
AGW240-3								72.48		17.5 - 18	
AGW240-5								72.50		28 - 28.5	
AGW241-1	CMT	WT, S	108594.71	1288810.81	6/11/2014	C	73.49	73.28	30	4 - 6.5	--
AGW241-3								73.28		16.5 - 17	
AGW241-5								73.27		27 - 27.5	

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Boeing Auburn Remedial Investigation
Auburn, Washington**

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			Northing (b)	Easting (b)							
AGW242-1 AGW242-2 AGW242-3 AGW242-4 AGW242-5 AGW242-6	CMT	WT, S, I	109460.66	1287860.95	6/13/2014	C	70.09	69.84 69.84 69.84 69.84 69.84 69.84	82.3	3.5 - 6 16 - 16.5 26.5 - 27 40 - 40.5 50 - 50.5 60 - 60.5	--
AGW243-1 AGW243-3 AGW243-5	CMT	WT, S, I	110324.30	1287595.81	6/17/2014	C	70.67	70.44 70.43 70.43	51.4	4 - 6.5 25 - 25.5 50 - 50.5	--
AGW244	CV	WT	109028.79	1288287.97	6/16/2014	C	72.36	72.04	7.5	2.5 - 7.5	--
AGW245	CV	WT	109949.16	1288223.19	6/16/2014	C	70.46	70.21	7.5	2.5 - 7.5	--
AGW246	CV	WT	109764.37	1288220.41	6/16/2014	C	70.90	70.41	7.5	2.5 - 7.5	--
AGW247-1 AGW247-3 AGW247-5	CMT	WT, S	109472.84	1288356.70	6/18/2014	C	71.82	71.55 71.54 71.54	30	3.5 - 6 16 - 16.5 26.5 - 27	--
AGW248-1 AGW248-3 AGW248-5	CMT	WT, S	109911.46	1288865.73	6/19/2014	C	72.02	71.83 71.83 71.82	30	3 - 5.5 15.5 - 16 26 - 26.5	--
AGW249-1 AGW249-3 AGW249-5	CMT	WT, S	110307.76	1288674.84	6/20/2014	C	73.72	73.41 73.40 73.39	30	6 - 8.5 18.5 - 19 29 - 29.5	--
AGW250-1 AGW250-2 AGW250-3 AGW250-4 AGW250-5 AGW250-6 AGW250-7	CMT	WT, S, I, D	106226.47	1289452.96	6/24/2014	C	78.79	78.45 78.44 78.44 78.45 78.45 78.46 78.45	90	6.5 - 9 26 - 26.5 41 - 41.5 51 - 51.5 61 - 61.5 81 - 81.5 89.5 - 89.7	--
AGW251-1 AGW251-2 AGW251-3 AGW251-4 AGW251-5 AGW251-6 AGW251-7	CMT	WT, S, I, D	108708.65	1289286.73	6/27/2015	C	76.46	76.09 76.08 76.07 76.07 76.08 76.08 76.07	87	6 - 8.5 25 - 25.5 40 - 40.5 52 - 52.5 62.5 - 63 76 - 76.5 86.55 - 86.75	--
AGW252	CV	D	115756.04	1288459.70	11/10/2014	C	65.91	68.19	67	57 - 67	--
AGW253	CV	I	115757.54	1288469.14	11/11/2014	C	65.90	68.02	48	38 - 48	--
AGW254-1 AGW254-2 AGW254-3 AGW254-4 AGW254-5 AGW254-6	CMT	WT, S, I	115618.56	1288892.41	11/13/2014	C	66.46	70.47 70.47 70.47 70.46 70.46 70.46	78.8	4.9 - 7.4 21 - 21.5 31 - 31.5 41 - 41.5 50.5 - 51 61 - 61.5	--
AGW255-1 AGW255-3 AGW255-5	CMT	WT, S, I	111034.17	1287862.58	11/14/2014	C	72.40	74.81 74.78 74.78	55	10.75 - 13.25 29.5 - 30 54.7 - 55.2	--
AGW256	CV	I	109107.14	1292393.84	11/17/2014	C	88.36	88.08	59	49 - 59	--
AGW257	CV	S	109106.24	1292379.55	11/17/2014	C	88.27	87.86	29	19 - 29	--
AGW258	CV	S	110102.77	1292375.91	11/18/2014	C	90.37	90.25	29	19 - 29	--
AGW259	CV	D	115611.86	1288899.35	2/23/2015	C	66.45	65.99	74	69 - 74	--
AGW260	CV	D	109460.24	1287868.22	3/23/2015	C	70.07	69.47	83	78 - 83	--
AGW261	CV	S	108233.03	1289275.13	3/24/2015	C	76.49	76.04	29	19 - 29	--
AGW262	CV	WT	109917.66	1288486.00	3/24/2015	C	70.42	69.93	7.5	2.5 - 7.5	--
AGW263	CV	WT	109527.86	1288849.20	3/24/2015	C	72.49	72.10	7.5	2.5 - 7.5	--
AGW264	CV	D	109047.31	1288848.27	3/25/2015	C	72.44	71.89	78	68 - 78	--
AGW265	CV	I	109041.09	1288848.18	3/26/2015	C	72.51	71.97	59	49 - 59	--
AGW266	CV	S	115377.92	1290323.07	3/26/2015	C	65.07	64.69	29	19 - 29	--

**Table 3-2
Monitoring Well List
Boeing Auburn Remedial Investigation
Auburn, Washington**

Monitoring Well (a)	Well Type	Groundwater Zone	WCS North Zone 83(91)		Date Installed	Well Status (c)	Ground Elevation (ft) (d)	Top of Casing Elevation (ft) (d)	Depth of Well (ft bgs) (e)	Screened Interval (ft bgs)	Borehole Grab Sample (ft bgs)
			Northing (b)	Easting (b)							
AGW267	CV	I	108132.57	1288020.54	3/27/2015	C	72.67	72.17	59	49 - 59	--
AGW268	CV	D	108133.02	1288015.08	3/30/2015	C	72.77	72.22	71	66 - 71	--
AGW269	CV	S	108871.45	1289183.72	7/30/2015	C	77.89	77.54	30	20 - 30	--
AGW270	CV	S	108920.12	1289170.15	7/30/2015	C	77.62	77.18	30	20 - 30	--
AGW271	CV	S	108964.83	1289150.29	7/31/2015	C	76.97	76.59	30	20 - 30	--
AGW272	CV	S	109372.16	1288898.14	8/3/2015	C	76.75	76.32	30	20 - 30	--
AGW273	CV	S	109266.78	1288894.51	8/3/2015	C	76.33	76.10	30	20 - 30	--
AGW274	CV	S	109165.61	1288892.85	8/3/2015	C	76.56	76.32	30	20 - 30	--
AGW275	CV	S	108915.00	1288887.18	8/4/2015	C	76.85	76.49	30	20 - 30	--
AGW276-1 AGW276-2 AGW276-3 AGW276-4 AGW276-5 AGW276-6 AGW276-7	CMT	WT, S, I, D	108770.95	1289999.54	10/7/2015	C	79.11	78.74 78.74 78.74 78.73 78.73 78.74 78.74	100	10 - 15 25 - 25.5 35 - 35.5 47.5 - 48 60 - 60.5 80 - 80.5 100 - 100.2	--
APP-057	CV	S	114881.35	1288170.90	4/11/2007	C	66.41	68.57	29	19 - 29	--
APP-058	CV	S	114461.45	1287736.18	4/11/2007	C	66.25	68.34	28	18 - 28	--
APP-069	CV	S	115759.82	1288478.37	5/1/2007	C	65.88	68.09	20	10 - 20	--
IW1	INJ	S, I	108636.77	1291493.51	6/9/2004	DC, 2006	89.95	86.6	41	20 - 27.5 33.5 - 41	--
IW2	INJ	S, I	108636.77	1291503.51	6/10/2004	DC, 2006	89.95	86.55	42	20 - 27.5 33.5 - 42	--
IW3	INJ	S, I	108636.77	1291513.51	6/16/2004	DC, 2006	89.94	86.49	42	20 - 27.5 33.5 - 42	--
IW4	INJ	S, I	108636.77	1291523.51	6/10/2004	DC, 2006	89.87	86.49	42	19.5 - 27 33 - 42	--
IW5	INJ	S, I	108636.77	1291533.51	6/10/2004	DC, 2006	89.68	86.63	44	19.5 - 27 33.5 - 44	--
IW6	INJ	S, I	108636.77	1291543.51	6/29/2004	DC, 2006	89.58	86.52	40	19 - 26.5 32 - 40	--
IW7	INJ	S, I	108636.77	1291553.51	6/28/2004	DC, 2006	89.49	86.44	38	19 - 24 30 - 38	--
IW8	INJ	S, I	108636.77	1291563.51	6/18/2004	DC, 2006	89.45	86.46	36	17 - 22 27.5 - 36	--
IW9	INJ	S, I	108650.38	1291581.87	6/24/2004	DC, 2006	90.15	86.89	38.5	17.5 - 25 30 - 38.5	--
IW10	INJ	S, I	108650.38	1291591.87	6/17/2004	DC, 2006	90.17	86.5	44	20 - 27.5 33.5 - 44	--
IW11	INJ	S, I	108650.38	1291601.87	6/24/2004	DC, 2006	90.16	86.4	38.5	17.5 - 25 30.5 - 38.5	--
IW12	INJ	S, I	108651.58	1291611.87	6/23/2004	DC, 2006	90.16	86.44	38.5	17 - 24.5 30.5 - 38.5	--
IW13	INJ	S, I	108651.58	1291624.60	6/22/2004	DC, 2006	90.14	86.44	38.5	17.5 - 25 31.5 - 38.5	--
IW14	INJ	S, I	108621.77	1291631.87	6/28/2004	DC, 2006	89.19	86.38	33	15 - 20 25 - 33	--
IW15	INJ	S, I	108621.77	1291641.87	6/15/2004	DC, 2006	89.17	86.43	45	15 - 20 25 - 45	--
IW16	INJ	S, I	108621.77	1291651.87	6/28/2004	DC, 2006	89.11	86.39	35	16.5 - 20.5 27 - 35	--
IW17	INJ	S, I	108621.77	1291661.87	6/25/2004	DC, 2006	89.06	86.41	38.5	16.5 - 25 31.5 - 38.5	--
IW18	INJ	S, I	108621.77	1291671.87	6/24/2004	DC, 2006	89.03	86.39	36.5	16.5 - 21.5 27 - 36.5	--
IW19	INJ	S, I	108621.77	1291681.87	6/25/2004	DC, 2006	88.98	86.32	38.5	17.5 - 25 31.5 - 38.5	--

**Table 3-2
Monitoring Well List
Boeing Auburn Remedial Investigation
Auburn, Washington**

Monitoring Well (a)	Well Type	Groundwater Zone	WCS North Zone 83(91)		Date Installed	Well Status (c)	Ground Elevation (ft) (d)	Top of Casing Elevation (ft) (d)	Depth of Well (ft bgs) (e)	Screened Interval (ft bgs)	Borehole Grab Sample (ft bgs)
			Northing (b)	Easting (b)							
IW20	INJ	S, I	108621.77	1291691.87	6/16/2004	DC, 2006	88.93	86.55	45	17 - 24.5 32 - 45	--
IW21	INJ	S, I	108636.77	1291701.87	6/22/2004	DC, 2006	89.09	86.42	40	17.5 - 25 31.5 - 40	--
IW22	INJ	S, I	108636.77	1291711.87	6/25/2004	DC, 2006	89.04	86.39	40	18 - 25.5 32 - 40	--
IW23	INJ	S, I	108636.77	1291721.87	6/21/2004	DC, 2006	88.98	86.29	41	19 - 26.5 32.5 - 41	--
IW24	INJ	S, I	108636.77	1291731.87	6/22/2004	DC, 2006	88.96	86.42	42	20 - 27.5 34 - 42	--
IW25	INJ	S, I	108636.77	1291741.87	6/14/2004	DC, 2006	88.90	86.51	44	19.5 - 26 36 - 44	--
IW26	INJ	S, I	108732.38	1291494.63	6/29/2004	DC, 2006	90.00	86.41	43	21.5 - 29 35.5 - 43	--
IW27	INJ	S, I	108732.38	1291504.63	6/7/2004	DC, 2006	90.02	86.55	43	20.5 - 28 35 - 43	--
IW28	INJ	S, I	108732.38	1291514.63	6/29/2004	DC, 2006	90.03	86.41	43	20.5 - 28 34.5 - 43	--
IW29	INJ	S, I	108732.38	1291524.63	6/30/2004	DC, 2006	90.04	86.56	43	20.5 - 28 33 - 43	--
IW30	INJ	S, I	108732.38	1291534.63	6/30/2004	DC, 2006	90.06	86.5	43	20.5 - 28 34 - 43	--
IW31	INJ	S, I	108732.38	1291544.63	6/8/2004	DC, 2006	90.07	86.62	43.5	21 - 28.5 35.5 - 43.5	--
IW32	INJ	S, I	108732.38	1291554.63	7/1/2004	DC, 2006	90.08	86.45	43	20.5 - 28 34.5 - 43	--
IW33	INJ	S	108930.68	1289205.46	7/28/2015	C	78.10	77.793	40	20 - 40	--
IW34	INJ	S	108885.22	1289204.54	7/28/2015	C	78.17	77.825	40	20 - 40	--
IW35	INJ	S	108844.07	1289203.82	7/29/2015	C	78.09	77.772	40	20 - 40	--
IW36	INJ	S	108781.14	1289202.54	7/29/2015	C	78.17	77.954	40	20 - 40	--
IW37	INJ	S	108957.44	1289205.97	7/27/2015	C	78.14	77.929	40	20 - 40	--

Abbreviations/Acronyms:

- = not applicable
- bgs = below ground surface
- CMT = continuous multi-channel tubing
- CV = conventional
- D = deep zone
- ft = feet
- I = intermediate zone
- INJ = injection
- NS = not surveyed
- R = Replacement Well
- S = shallow zone
- WT = water table

Notes:

- (a) Data for replacement (designated with R) wells reflect the most recent survey and well screen data.
- (b) Horizontal Datum: WCS North Zone 83(91) US ft (+/- 0.05 ft).
- (c) Status indicates whether well is decommissioned (DC) and the year it was decommissioned or current (C).
- (d) Vertical Datum: National Geodetic Vertical Datum of 1929, US ft (+/-0.01 ft), mean sea level.
- (e) Depth of well defined as bottom of screened interval.

1. Boeing monitoring wells have designations beginning with AGW. Injection well have designations beginning with IW. Wells beginning with APP are owned by Washington State Department of Transportation

**Table 3-3
Column IA Soil Sampling Matrix
Boeing Auburn Remedial Investigation
Auburn, Washington**

Table 3-3
Page 1 of 2

SWMU/AOC	Building	Well/ Boring ID	Sample Depth (ft)	Sample Date	VOC	SVOC	DRO/ ORO	GRO	PCB	EPH	Metals, Total	TOC
S-06	17-15	ASB0141	6	5/4/2004	X	X	X					X
S-06	17-15	ASB0141	9	5/4/2004	X	X	X			X		X
S-06	17-15	ASB0142	12	5/4/2004	X	X	X					X
S-06	17-15	ASB0142	15	5/4/2004	X	X	X					X
S-06	17-15	ASB0180	4	9/30/2009							X (a)	
S-12d	17-12	ASB0161	6	8/31/2004	X							
S-12d	17-12	ASB0161	14	8/31/2004								X
S-12d	17-12	ASB0161	16	8/31/2004	X							X
S-12d	17-12	ASB0162	6	8/31/2004	X							
S-12d	17-12	ASB0162	14	8/31/2004								X
S-12d	17-12	ASB0162	15	8/31/2004	X							X
S-15a/S-16	17-06	AGW127	17	9/8/2008	X		X		X			
S-15a/S-16	17-06	AGW128	17	9/12/2008	X		X		X			
S-15a/S-16	17-06	AGW129	17	9/11/2008	X		X		X			
S-15a/S-16	17-06	AGW130	17	9/11/2008	X		X		X			
S-15a/S-16	17-06	ASB0159	16	8/30/2004	X		X			X		
S-15a/S-16	17-06	ASB0159	18	8/30/2004								X
S-15a/S-16	17-06	ASB0160R	17.5	9/7/2004	X	X	X			X		X
S-15a/S-16	17-06	ASB0167	5	9/7/2004	X							
S-15a/S-16	17-06	ASB0167	15	9/7/2004								X
S-15a/S-16	17-06	ASB0167	20	9/7/2004	X		X					X
S-15a/S-16	17-06	ASB0168	15	9/8/2004	X	X	X					X
S-15a/S-16	17-06	ASB0168	17.5	9/8/2004	X	X	X					X
S-15a/S-16	17-06	ASB0169	15, 17.5	9/8/2004	X		X					X
S-15a/S-16	17-06	ASB0170	15, 17.5	9/9/2004	X		X					X
S-15a/S-16	17-06	ASB0171	15	9/10/2004	X		X					X
S-15a/S-16	17-06	ASB0171	17.5	9/11/2004	X		X			X		X
S-15b	17-07	ASB0163	14	8/31/2004								X
S-15b	17-07	ASB0163	17	8/31/2004		X	X			X		X
S-15c	17-34	ASB0166R	5	9/2/2004	X							
S-15c	17-34	ASB0179	6	10/1/2009	X		X	X				
S-15c	17-34	ASB0179	17	10/1/2009	X		X	X				
S-17	17-29	ASB0164R	5	9/2/2004	X							
S-17	17-29	ASB0164R	20	9/2/2004	X	X	X			X		X
S-17	17-29	ASB0165R	5	9/2/2004	X							
S-17	17-29	ASB0165R	22	9/2/2004	X	X	X					X
S-18	17-35	ASB0143	12	5/4/2004	X	X	X					X
S-18	17-35	ASB0143	15	5/4/2004	X	X	X					X
S-18	17-35	ASB0144	6	5/4/2004	X							
S-18	17-35	ASB0144	15	5/4/2004								X
S-18	17-35	ASB0144	18	5/4/2004	X	X	X					X
S-18	17-35	ASB0145	6	5/4/2004	X							
S-18	17-35	ASB0145	12	5/4/2004								X
S-18	17-35	ASB0145	15	5/4/2004	X	X	X					X
S-18	17-35	ASB0146	12	5/5/2004	X	X	X					X
S-18	17-35	ASB0147	6	5/5/2004	X							
S-18	17-35	ASB0147	15	5/5/2004	X	X	X			X		X
S-18	17-35	ASB0148	6	5/5/2004	X							
S-18	17-35	ASB0148	12	5/5/2004								X
S-18	17-35	ASB0148	15	5/5/2004		X	X					X

Table 3-3
Column IA Soil Sampling Matrix
Boeing Auburn Remedial Investigation
Auburn, Washington

SWMU/AOC	Building	Well/ Boring ID	Sample Depth (ft)	Sample Date	VOC	SVOC	DRO/ ORO	GRO	PCB	EPH	Metals, Total	TOC
A-02c	17-08	ASB0149	15	5/5/2004						X		X
A-02c	17-08	ASB0149	21	5/5/2004		X	X					X
A-02c	17-08	ASB0178	13, 16	8/4/2008		X	X					
A-02d	17-10	ASB0150	18	5/6/2004								X
A-02d	17-10	ASB0150	21	5/6/2004		X	X			X		X
A-03	17-35	ASB0143	12	5/4/2004	X	X	X					X
A-03	17-35	ASB0143	15	5/4/2004	X	X	X					X
A-03	17-35	ASB0144	6	5/4/2004	X							
A-03	17-35	ASB0144	15	5/4/2004								X
A-03	17-35	ASB0144	18	5/4/2004	X	X	X					X
A-03	17-35	ASB0145	6	5/4/2004	X							
A-03	17-35	ASB0145	12	5/4/2004								X
A-03	17-35	ASB0145	15	5/4/2004	X	X	X					X
A-03	17-35	ASB0146	12	5/5/2004	X	X	X					X
A-03	17-35	ASB0147	6	5/5/2004	X							
A-03	17-35	ASB0147	15	5/5/2004	X	X	X			X		X
A-03	17-35	ASB0148	6	5/5/2004	X							
A-03	17-35	ASB0148	12	5/5/2004								X
A-03	17-35	ASB0148	15	5/5/2004		X	X					X
A-12	17-09	ASB0151	12	5/6/2004								X
A-12	17-09	ASB0151	15	5/6/2004		X	X					X
A-12	17-09	ASB0152	12	5/6/2004								X
A-12	17-09	ASB0152	15	5/6/2004		X	X			X		X

Note:

(a) Tested only for antimony.

Abbreviations/Acronyms:

AOC = area of concern
DRO = diesel-range organics
EPH = extractable petroleum hydrocarbon
ft = feet
GRO = gasoline-range organics
ID = identification
ORO = oil-range organics
PCB = polychlorinated biphenyl
SVOC = semi-volatile organic compound
SWMU = solid waste management unit
TOC = total organic carbon
VOC = volatile organic compound

Table 3-4
Column IA and IB SWMU and AOC Groundwater Sampling Matrix
Boeing Auburn Remedial Investigation
Auburn, Washington

SWMU/ AOC	Building	Column	Well/ Boring ID	Groundwater Zone	Sample Depth or Screened Interval (ft) (a)	VOC	SVOC	BTEX	DRO/ ORO	GRO	PCB	EPH	VPH	Metals, Dissolved	Con.
S-06	17-15	IA	AGW024	S	13 - 23	X	X		X					X	X
S-06	17-15	IA	AGW025	S	15 - 25	X	X		X					X	X
S-06	17-15	IA	AGW027	S	15 - 25	X									X
S-06	17-15	IA	AGW029	S	15 - 25	X	X		X					X	X
S-06	17-15	IA	AGW030	S	15 - 25	X	X		X					X	X
S-06	17-15	IA	AGW032	S	13 - 28	X	X		X					X	X
S-06	17-15	IA	AGW034	D	75 - 85	X	X		X					X	X
S-06	17-15	IA	AGW079	S	15 - 20	X									
S-06	17-15	IA	AGW105	I	45 - 55	X	X		X					X	X
S-06	17-15	IA	ASB0135	S	13	X									
S-06	17-15	IA	ASB0136	S	15	X									
S-06	17-15	IA	ASB0137	S	13	X									
S-06	17-15	IA	ASB0138	S	12	X									
S-06	17-15	IA	ASB0139	S	13	X									
S-06	17-15	IA	ASB0140	S	11	X									
S-06	17-15	IA	ASB0141	S	9	X									
S-06	17-15	IA	ASB0142	S	14	X									
S-11	17-45	IB	ASB0155	S	32	X									
S-11	17-45	IB	ASB0156	S	32	X									
S-11	17-45	IB	ASB0177	S, I	25, 35, 45	X									
S-12a	17-03	IB	AGW001	S	9 - 24	X	X								X
S-12b	17-05	IB	AGW002	S	19 - 29	X									X
S-12b	17-05	IB	AGW003	I	43 - 48	X									X
S-12b	17-05	IB	AGW006	S	11 - 26	X									X
S-12b	17-05	IB	AGW007	S	12 - 27	X									X
S-12b	17-05	IB	AGW057	I	40 - 50	X									X
S-12b	17-05	IB	AGW058	S	10 - 25	X									X
S-12b	17-05	IB	AGW063	D	100 - 110	X									X
S-12b	17-05	IB	ASB0121	S	20	X								X	
S-12b	17-05	IB	ASB0122	S	20	X	X		X					X	
S-12b	17-05	IB	ASB0131	S	20	X									X
S-12b	17-05	IB	ASB0132	S	20	X									X
S-12b	17-05	IB	ASB0133	S	20	X									X
S-12b	17-05	IB	ASB0133	I	40	X									
S-12b	17-05	IB	ASB0133	I	50	X									X
S-12b	17-05	IB	ASB0134	S	20	X									X
S-12b	17-05	IB	ASB0134	I	40	X									
S-12b	17-05	IB	ASB0134	I	50	X									X
S-12c	17-05	IB	AGW002	S	19 - 29	X									X
S-12c	17-05	IB	AGW003	I	43 - 48	X									X
S-12c	17-05	IB	AGW006	S	11 - 26	X									X
S-12c	17-05	IB	AGW007	S	12 - 27	X									X
S-12c	17-05	IB	AGW057	I	40 - 50	X									X
S-12c	17-05	IB	AGW058	S	10 - 25	X									X
S-12d	17-12	IA	ASB0161	S	18	X									
S-12d	17-12	IA	ASB0162	S	17	X									
S-12f	17-68	IB	ASB0158	S	32	X			X			X	X		
S-13	17-07	IB	AGW037	S	8 - 23								X	X	
S-13	17-07	IB	AGW164	I	50 - 60	X									
S-13	17-07	IB	AGW164-29	S	29	X									

Table 3-4
Column IA and IB SWMU and AOC Groundwater Sampling Matrix
Boeing Auburn Remedial Investigation
Auburn, Washington

SWMU/ AOC	Building	Column	Well/ Boring ID	Groundwater Zone	Sample Depth or Screened Interval (ft) (a)	VOC	SVOC	BTEX	DRO/ ORO	GRO	PCB	EPH	VPH	Metals, Dissolved	Con.
S-13	17-07	IB	AGW165	S	18-28	X									
S-13	17-07	IB	AGW165-55	I	55	X									
S-13	17-07	IB	ASB0157	S	17	X									
S-15a/S-16	17-06	IA	AGW041	S	5 - 20	X			X						
S-15a/S-16	17-06	IA	AGW042	S	5 - 20	X			X					X	
S-15a/S-16	17-06	IA	AGW043	S	5 - 20	X			X					X	X
S-15a/S-16	17-06	IA	AGW044	S	5 - 20	X			X						
S-15a/S-16	17-06	IA	AGW045	S	5 - 20	X			X					X	
S-15a/S-16	17-06	IA	AGW115	S	9 - 24	X			X						
S-15a/S-16	17-06	IA	AGW116	S	9 - 24	X			X						
S-15a/S-16	17-06	IA	AGW117	S	9 - 24	X			X						
S-15a/S-16	17-06	IA	AGW118	S	9 - 24	X			X						
S-15a/S-16	17-06	IA	AGW127	S	9 - 24	X			X						
S-15a/S-16	17-06	IA	AGW128	S	9 - 24	X			X						
S-15a/S-16	17-06	IA	AGW129	S	9 - 24	X			X						
S-15a/S-16	17-06	IA	AGW130	S	9 - 24	X			X						
S-15a/S-16	17-06	IA	AGW130-35	S	35	X									
S-15a/S-16	17-06	IA	AGW130-45	I	45	X									
S-15a/S-16	17-06	IA	ASB0159	S	19	X	X		X						
S-15a/S-16	17-06	IA	ASB0160R	S	18	X	X		X						
S-15a/S-16	17-06	IA	ASB0167	S	18	X	X		X						
S-15a/S-16	17-06	IA	ASB0168	S	18	X	X		X						
S-15a/S-16	17-06	IA	ASB0169	S	18	X	X		X						
S-15a/S-16	17-06	IA	ASB0170	S	18	X	X		X						
S-15a/S-16	17-06	IA	ASB0171	S	18	X	X		X						
S-15b	17-07	IA	ASB0163	S	18		X		X						
S-15c	17-34	IA	AGW084	S	10 - 20	X	X		X		X			X	X
S-15c	17-34	IA	AGW085	S	10 - 20	X	X		X		X			X	X
S-15c	17-34	IA	AGW086	S	10 - 20	X	X		X		X			X	X
S-15c	17-34	IA	ASB0166R	S	18	X	X		X						
S-15c	17-34	IA	ASB0179	S	19				X						
S-17	17-29	IA	AGW076	S	4 - 19	X			X					X	
S-17	17-29	IB	AGW077	S	4 - 19	X			X					X	
S-17	17-29	IB	AGW078	S	4 - 19	X	X		X		X			X	
S-17	17-29	IA	ASB0164R	S	20	X	X		X						
S-17	17-29	IA	ASB0165R	S	20	X	X		X						
S-18	17-35	IA	AGW027	S	15 - 25	X									X
S-18	17-35	IA	AGW131	S	15 - 25	X									
S-18	17-35	IA	AGW152	S	20 - 30	X									
S-18	17-35	IA	ASB0143	S	17	X	X		X						
S-18	17-35	IA	ASB0144	S	17	X	X		X						
S-18	17-35	IA	ASB0145	S	17	X	X		X						
S-18	17-35	IA	ASB0146	S	10	X	X		X						
S-18	17-35	IA	ASB0147	S	15	X	X		X						
S-18	17-35	IA	ASB0148	S	17	X	X		X						
S-19	17-05	IB	ASB0119	S	30	X			X						
S-19	17-05	IB	ASB0120	S	20	X			X						

Table 3-4
Column IA and IB SWMU and AOC Groundwater Sampling Matrix
Boeing Auburn Remedial Investigation
Auburn, Washington

SWMU/ AOC	Building	Column	Well/ Boring ID	Groundwater Zone	Sample Depth or Screened Interval (ft) (a)	VOC	SVOC	BTEX	DRO/ ORO	GRO	PCB	EPH	VPH	Metals, Dissolved	Con.
S-30	17-07	IB	AGW026	S	15 - 25	X								X	
S-30	17-07	IB	AGW028	S	15 - 25	X								X	
A-01	17-06	IA	AGW009	S	9 - 19			X	X	X					X
A-01	17-06	IA	AGW010	S	12 - 22			X	X	X					X
A-01	17-06	IA	AGW011	S	9 - 19			X	X	X					X
A-01	17-06	IA	AGW012	S	9 - 19			X	X	X					X
A-01	17-06	IA	AGW013	S	6 - 21			X	X	X					X
A-01	17-06	IA	AGW014	S	6 - 21	X		X	X	X					X
A-01	17-06	IA	AGW015	S	6 - 21			X	X	X					X
A-01	17-06	IA	AGW016	S	6 - 21			X	X	X					X
A-01	17-06	IA	AGW017	S	10 - 20			X	X	X					X
A-02a	17-03	IB	AGW001	S	9 - 24	X	X								X
A-02b	17-06	IB	AGW041	S	5 - 20	X			X					X	
A-02b	17-06	IB	AGW117	S	9 - 24	X			X						
A-02c	17-08	IA	AGW104	S	20 - 30	X	X		X	X				X	X
A-02c	17-08	IA	ASB0149	S	18		X		X						
A-02c	17-08	IA	ASB0178	S	16		X		X						
A-02d	17-10	IA	ASB0150	S	18		X		X						
A-03	17-35	IA	ASB0143	S	17	X	X		X						
A-03	17-35	IA	ASB0144	S	17	X	X		X						
A-03	17-35	IA	ASB0145	S	17	X	X		X						
A-03	17-35	IA	ASB0146	S	10	X	X		X						
A-03	17-35	IA	ASB0147	S	15	X	X		X						
A-03	17-35	IA	ASB0148	S	17	X	X		X						
A-04	17-29	IB	AGW076	S	4 - 19	X			X					X	
A-04	17-29	IB	AGW077	S	4 - 19	X			X					X	
A-04	17-29	IB	AGW078	S	4 - 19	X	X		X					X	
A-05	17-64	IB	ASB0154	S	16				X	X		X	X		
A-06	17-66	IA	AGW020	S	11 - 26	X	X		X	X	X			X	X
A-06	17-66	IA	AGW021	S	14 - 29	X								X	
A-06	17-66	IA	AGW022	S	10 - 25	X								X	
A-06	17-66	IA	AGW023	S	14 - 29	X			X	X				X	X
A-06	17-66	IA	AGW132	S	18 - 28	X									
A-06	17-66	IA	AGW133	S	17 - 27	X									
A-06	17-66	IA	AGW133-35	S	35	X									
A-06	17-66	IA	AGW133-45	I	45	X									
A-06	17-66	IA	AGW153	S	20 - 30	X									
A-07	17-08	IB	AGW018	S	10-25	X									
A-08	17-05	IB	AGW002	S	24 - 34	X									X
A-08	17-05	IB	AGW003	I	43 - 48	X									X
A-08	17-05	IB	AGW006	S	11 - 26	X									X
A-08	17-05	IB	AGW007	S	12 - 27	X									X
A-08	17-05	IB	AGW057	I	40 - 50	X									X
A-08	17-05	IB	AGW058	S	10 - 25	X									X
A-08	17-05	IB	ASB0123	S	20	X								X	
A-08	17-05	IB	ASB0126	S	20	X								X	
A-08	17-05	IB	ASB0127	S	20	X								X	
A-08	17-05	IB	ASB0128	S	20	X								X	
A-08	17-05	IB	ASB0129	S	20	X								X	X
A-08	17-05	IB	ASB0130	S	20	X									X

Table 3-4
Column IA and IB SWMU and AOC Groundwater Sampling Matrix
Boeing Auburn Remedial Investigation
Auburn, Washington

SWMU/ AOC	Building	Column	Well/ Boring ID	Groundwater Zone	Sample Depth or Screened Interval (ft) (a)	VOC	SVOC	BTEX	DRO/ ORO	GRO	PCB	EPH	VPH	Metals, Dissolved	Con.
A-09	17-07	IA	AGW037	S	8 - 23									X	
A-09	17-07	IA	AGW046	S	5 - 22									X	
A-09	17-07	IA	AGW047	S	5 - 22									X	
A-09	17-07	IA	AGW048	S	5 - 20									X	
A-09	17-07	IA	AGW049	S	5 - 20									X	
A-09	17-07	IA	AGW050	S	5 - 20									X	
A-10	17-10	IB	AGW038	S	5 - 20	X	X		X						
A-10	17-10	IB	AGW039	S	5 - 20	X	X		X						
A-10	17-10	IB	AGW040	S	5 - 20	X	X		X						
A-12	17-09	IA	ASB0151	S	17		X		X						
A-12	17-09	IA	ASB0152	S	16		X		X						

Abbreviations/Acronyms:

AOC= area of concern
BTEX = benzene, toluene, ethylbenzene, xylenes
Con. = conventionals
D = deep zone
DRO = diesel-range organics
EPH = extractable petroleum hydrocarbon
ft = feet
GRO = gasoline-range organics
ID = identification
I = intermediate zone
ORO = oil-range organics
PCB = polychlorinated biphenyl
S = shallow zone
SVOC = semi-volatile organic compound
SWMU = solid waste management unit
VOC = volatile organic compound
VPH = volatile petroleum hydrocarbon

**Table 3-5
Phase VII Groundwater Monitoring Plan
Boeing Auburn Remedial Investigation
Auburn, Washington**

Well	Well Type	Groundwater Zone	Phase VII Frequency	VOCs 8260 (a)	VOCs VC 8260 SIM (b)	NA Parameters (c)	Metals, Dissolved 6010	DRO/ORO NWTPH-Dx	GRO NWTPH-Gx
AGW001R	CV	S	SA	X	A				
AGW002R	CV	S	SA	X	X	A			
AGW006R	CV	S	SA	X	X				
AGW009	CV	S	A	X	X				
AGW010	CV	S	SA	X	X			X	X
AGW024	CV	S	SA	X					
AGW025	CV	S	SA	X					
AGW026	CV	S	SA	X	X				
AGW027	CV	S	SA	X	X				
AGW029	CV	S	A	X	X				
AGW030	CV	S	A	X	X				
AGW031R	CV	S	SA	X	X				
AGW032	CV	S	SA	X	X				
AGW033	CV	S	SA	X	X				
AGW034	CV	D	A	X	X				
AGW035	CV	D	A	X	X				
AGW037	CV	S	SA	X	X				
AGW039	CV	S	A	X	X		As		
AGW040	CV	S	A	X	X				
AGW041	CV	S	A	X	X				
AGW044	CV	S	A	X	X			X	
AGW048	CV	S	A				Cd, Ni		
AGW049	CV	S	SA				Cd, Ni		
AGW050	CV	S	SA				Cd, Ni		
AGW053R	CV	S	SA	X	X				
AGW055R	CV	I	SA	X	X				
AGW057R	CV	I	SA	X	A				
AGW058R	CV	S	A	X	X				
AGW059R	CV	S	A	X	X				
AGW060R	CV	I	SA	X	X				
AGW064	CV	S	SA	X	A				
AGW065	CV	S	A	X	A				
AGW066	CV	S	SA	X	A				
AGW067	CV	S	SA	X	A				
AGW068	CV	S	A	X	A				
AGW069	CV	S	SA	X	A				
AGW072	CV	I	SA	X	A				
AGW073	CV	D	SA	X	A				
AGW074	CV	S	SA	X	X				
AGW078	CV	S	A	X	A				
AGW079	CV	S	SA	X					
AGW081	CV	S	A	X	X				
AGW085	CV	S	SA	X	A				
AGW087	CV	I	SA	X	X				
AGW088	CV	S	SA	X	X				
AGW089	CV	I	SA	X	X				
AGW090	CV	S	SA	X	X				

Table 3-5
Phase VII Groundwater Monitoring Plan
Boeing Auburn Remedial Investigation
Auburn, Washington

Well	Well Type	Groundwater Zone	Phase VII Frequency	VOCs 8260 (a)	VOCs VC 8260 SIM (b)	NA Parameters (c)	Metals, Dissolved 6010	DRO/ORO NWTPH-Dx	GRO NWTPH-Gx
AGW091	CV	I	SA	X	X				
AGW095R	CV	I	SA	X	X				
AGW098R	CV	D	SA	X	A				
AGW104	CV	S	A	X	A				
AGW105	CV	I	SA	X	X				
AGW106R	CV	S	SA	X	A	A			
AGW110R	CV	S	SA	X	X	A			
AGW112R	CV	S	SA	X	X				
AGW115	CV	S	SA	X					
AGW116	CV	S	SA	X	A				
AGW117	CV	S	SA	X	A				
AGW118	CV	S	SA	X	A				
AGW119	CV	I	SA	X	X				
AGW120	CV	S	SA	X	X				
AGW125	CV	S	SA	X	X				
AGW126	CV	I	SA	X	X				
AGW127	CV	S	A	X	A				
AGW128	CV	S	SA	X	X			X	
AGW129	CV	S	SA	X	A				
AGW130	CV	S	SA	X	A			X	
AGW131	CV	S	SA	X					
AGW133	CV	S	A	X	X				
AGW134	CV	S	SA	X	X				
AGW135	CV	S	SA	X	X				
AGW136	CV	S	SA	X	X				
AGW137	CV	I	SA	X	X				
AGW138	CV	D	SA	X	A				
AGW139	CV	I	SA	X	A				
AGW140	CV	I	SA	X	X				
AGW141	CV	I	SA	X	A				
AGW142	CV	D	SA	X	A				
AGW143	CV	D	SA	X	A				
AGW144	CV	I	SA	X	X				
AGW145	CV	I	SA	X					
AGW146	CV	D	SA	X	X				
AGW147	CV	I	SA	X	X				
AGW148	CV	I	SA	X	X				
AGW149	CV	I	SA	X	A				
AGW150	CV	I	SA	X	A				
AGW151	CV	I	SA	X	A				
AGW152	CV	S	SA	X					
AGW153	CV	S	A	X	X				
AGW154	CV	I	SA	X	X				
AGW155	CV	I	SA	X					
AGW156	CV	I	SA	X					
AGW157	CV	I	SA	X	X				
AGW158	CV	I	SA	X	X				

**Table 3-5
Phase VII Groundwater Monitoring Plan
Boeing Auburn Remedial Investigation
Auburn, Washington**

Well	Well Type	Groundwater Zone	Phase VII Frequency	VOCs 8260 (a)	VOCs VC 8260 SIM (b)	NA Parameters (c)	Metals, Dissolved 6010	DRO/ORO NWTPH-Dx	GRO NWTPH-Gx
AGW159	CV	D	SA	X	X				
AGW160	CV	I	SA	X	A				
AGW161	CV	I	SA	X	A				
AGW162	CV	I	SA	X	A				
AGW163	CV	I	SA	X	X				
AGW164	CV	I	SA	X	X				
AGW165	CV	S	SA	X	X				
AGW166	CV	I	SA	X	X				
AGW167	CV	D	SA	X	X				
AGW168	CV	I	SA	X	X				
AGW169	CV	D	SA	X	X				
AGW170	CV	I	SA	X	X				
AGW171	CV	D	SA	X	A				
AGW172	CV	I	SA	X	A				
AGW173	CV	I	SA	X	X				
AGW174	CV	I	SA	X	A				
AGW175	CV	I	SA	X	A				
AGW176	CV	I	SA	X	X				
AGW177	CV	I	SA	X	X				
AGW178	CV	D	SA	X	X				
AGW179	CV	I	SA	X	X				
AGW180	CV	D	SA	X	A				
AGW181	CV	I	SA	X	X				
AGW182	CV	I	SA	X	X				
AGW183	CV	D	SA	X	X				
AGW184	CV	I	SA	X	A				
AGW185	CV	D	SA	X	A				
AGW186	CV	I	SA	X	A				
AGW187	CV	I	SA	X	A				
AGW188	CV	I	SA	X	X				
AGW189	CV	I	SA	X	A				
AGW190	CV	I	SA	X	A				
AGW191	CV	I	Q	X	X				
AGW192	CV	D	Q	X	X				
AGW193	CV	S	SA	X	X				
AGW194	CV	S	SA	X	X				
AGW195	CV	D	SA	X	X				
AGW196	CV	I	SA	X					
AGW197	CV	D	SA	X	A				
AGW198	CV	I	SA	X	X				
AGW199	CV	D	SA	X	X				
AGW200-2	CMT	S	SA	X					
AGW200-5	CMT	I	SA	X					
AGW200-6	CMT	D	SA	X					
AGW201-2	CMT	S	SA	X					
AGW201-5	CMT	I	SA	X					
AGW201-6	CMT	D	SA	X	X				

**Table 3-5
Phase VII Groundwater Monitoring Plan
Boeing Auburn Remedial Investigation
Auburn, Washington**

Well	Well Type	Groundwater Zone	Phase VII Frequency	VOCs 8260 (a)	VOCs VC 8260 SIM (b)	NA Parameters (c)	Metals, Dissolved 6010	DRO/ORO NWTPH-Dx	GRO NWTPH-Gx
AGW202-2	CMT	S	SA	X	X				
AGW202-4	CMT	I	SA	X					
AGW202-6	CMT	D	SA	X	A				
AGW203-2	CMT	S	SA	X	A				
AGW203-4	CMT	I	SA	X	A				
AGW203-6	CMT	D	SA	X	A				
AGW204	CV	I	A	X	A				
AGW205	CV	I	A	X	A				
AGW206	CV	I	SA	X	A				
AGW207-2	CMT	S	SA	X	X				
AGW207-4	CMT	I	SA	X	X				
AGW207-7	CMT	D	SA	X	X				
AGW208-2	CMT	S	SA	X					
AGW208-4	CMT	I	SA	X	X				
AGW208-6	CMT	D	SA	X	A				
AGW209-2	CMT	S	SA	X					
AGW209-5	CMT	I	SA	X	X				
AGW209-6	CMT	D	SA	X	X				
AGW210-2	CMT	S	A	X	A				
AGW210-5	CMT	I	SA	X	X				
AGW210-6	CMT	D	SA	X	A				
AGW211-2	CMT	S	A	X	A				
AGW211-5	CMT	I	SA	X	X				
AGW211-6	CMT	D	SA	X	A				
AGW212-2	CMT	S	A	X	A				
AGW212-5	CMT	I	SA	X	A				
AGW212-7	CMT	D	SA	X	A				
AGW213	CV	D	SA	X	X				
AGW214	CV	I	SA	X	X				
AGW215	CV	I	SA	X	X				
AGW216	CV	I	SA	X	A				
AGW217	CV	I	SA	X	X				
AGW218	CV	I	SA	X	X				
AGW219	CV	I	SA	X	X				
AGW220	CV	I	SA	X	X				
AGW221	CV	I	SA	X	X				
AGW222	CV	I	SA	X	A				
AGW223	CV	D	A	X	A				
AGW224	CV	S (WT)	A	X	A				
AGW225	CV	S (WT)	Q	X	X	X			
AGW226	CV	S (WT)	Q	X	X	X			
AGW227	CV	I	SA	X	X				
AGW228	CV	S	SA	X	X				
AGW229	CV	S (WT)	SA	X	X				
AGW230	CV	D	SA	X	A				
AGW231	CV	S	SA	X					
AGW232	CV	S	SA	X					

**Table 3-5
Phase VII Groundwater Monitoring Plan
Boeing Auburn Remedial Investigation
Auburn, Washington**

Well	Well Type	Groundwater Zone	Phase VII Frequency	VOCs 8260 (a)	VOCs VC 8260 SIM (b)	NA Parameters (c)	Metals, Dissolved 6010	DRO/ORO NWTPH-Dx	GRO NWTPH-Gx
AGW233	CV	D	SA	X	A				
AGW234	CV	D	SA	X	X				
AGW235-2	CMT	S	SA	X	X				
AGW235-4	CMT	I	SA	X	X				
AGW235-7	CMT	D	SA	X	A				
AGW236	CV	S	SA	X	X				
AGW237	CV	D	SA	X	X				
AGW238	CV	I	SA	X	X				
AGW239	CV	S	SA	X	X				
AGW240-1	CMT	S (WT)	Q	X	X	X			
AGW240-5	CMT	S	Q	X	X	X			
AGW241-1	CMT	S (WT)	SA	X	X				
AGW241-5	CMT	S	SA	X	X				
AGW242-1	CMT	S (WT)	SA	X	X				
AGW242-2	CMT	S	SA	X	A				
AGW242-5	CMT	I	SA	X	A				
AGW243-1	CMT	S (WT)	SA	X	X				
AGW243-3	CMT	S	SA	X	A				
AGW243-5	CMT	I	SA	X	A				
AGW244	CV	S (WT)	SA	X	X				
AGW245	CV	S (WT)	SA	X	X				
AGW246	CV	S (WT)	SA	X	X				
AGW247-1	CMT	S (WT)	Q	X	X	X			
AGW247-5	CMT	S	Q	X	X	X			
AGW248-1	CMT	S (WT)	SA	X	X				
AGW248-5	CMT	S	SA	X	X				
AGW249-1	CMT	S (WT)	SA	X	X				
AGW249-5	CMT	S	SA	X	X				
AGW250-1	CMT	S (WT)	SA	X	X				
AGW250-2	CMT	S	SA	X	X				
AGW250-3	CMT	I	SA	X	X				
AGW250-6	CMT	D	SA	X	X				
AGW251-1	CMT	S (WT)	Q	X	X	X			
AGW251-2	CMT	S	Q	X	X	X			
AGW251-3	CMT	I	Q	X	X	X			
AGW251-6	CMT	D	SA	X	X				
AGW252	CV	D	SA	X	X				
AGW253	CV	I	A	X	X				
AGW254-1	CMT	S (WT)	SA	X	X				
AGW254-2	CMT	S	SA	X	X				
AGW254-5	CMT	I	SA	X	X				
AGW255-1	CMT	S (WT)	SA	X	X				
AGW255-3	CMT	S	SA	X	X				
AGW255-5	CMT	I	SA	X	X				
AGW256	CV	I	SA	X	A				
AGW257	CV	S	SA	X	A				
AGW258	CV	S	SA	X	A				

**Table 3-5
Phase VII Groundwater Monitoring Plan
Boeing Auburn Remedial Investigation
Auburn, Washington**

Well	Well Type	Groundwater Zone	Phase VII Frequency	VOCs 8260 (a)	VOCs VC 8260 SIM (b)	NA Parameters (c)	Metals, Dissolved 6010	DRO/ORO NWTPH-Dx	GRO NWTPH-Gx
AGW259	CV	D	SA	X	X				
AGW260	CV	D	SA	X	X				
AGW261	CV	S	SA	X	X				
AGW262	CV	S(WT)	Q	X	SA				
AGW263	CV	S(WT)	Q	X	SA				
AGW264	CV	D	SA	X	X				
AGW265	CV	I	SA	X	X				
AGW266	CV	S	SA	X	X				
AGW267	CV	I	SA	X	X				
AGW268	CV	D	SA	X	X				
AGW269	CV	S	Q	X	X	X			
AGW270	CV	S	Q	X	X	X			
AGW271	CV	S	Q	X	X	X			
AGW272	CV	S	Q	X	X	X			
AGW273	CV	S	Q	X	X	X			
AGW274	CV	S	Q	X	X	X			
AGW275	CV	S	Q	X	X	X			
AGW276-2	CMT	S	Q	X	X				
AGW276-5	CMT	I	Q	X	X				
AGW276-7	CMT	D	Q	X	X				
IW34	INJ	I	Q	X	X	X			
IW36	INJ	I	Q	X	X	X			
IW37	INJ	I	Q	X	X	X			
APP-057	CV	S	SA	X	X				

Notes:

- (a) VOCs by U.S. Environmental Protection Agency (EPA) Method 8260.
- (b) VC by EPA Method 8260 (SIM).
- (c) NA parameters may include acetylene, methane, ethene, and ethane by Method RSKSOP-175 Modified, sulfide by Method S 4500-S2, D-2000, sulfate by IC Method #300, total organic carbon by Method 415.1, and dissolved oxygen/oxygen reduction potential/Iron II field measurements.

1. Boeing monitoring wells have designations beginning with AGW. Injection well have designations beginning with IW. Wells beginning with APP are owned by Washington State Department of Transportation

Abbreviations/Acronyms:

- | | |
|---------------------------------------|---|
| A = annually (June) | Q = quarterly (March, June, September, December) |
| As = arsenic | S = shallow zone |
| Cd = cadmium | SA = semi-annually (June and December) |
| CMT = continuous multi-channel tubing | SIM = selected ion monitoring |
| CV = conventional | S(WT) = water table |
| D = deep zone | DRO = diesel-range organics |
| I = intermediate zone | NWTPH-Dx = Method Northwest diesel-range total petroleum hydrocarbon extended |
| INJ = injection | GRO = gasoline-range organics |
| NA = natural attenuation | NWTPH-Gx = Method Northwest gasoline-range total petroleum hydrocarbon extended |
| Ni = nickel | VC = vinyl chloride |
| ORO = oil-range organics | VOC = volatile organic compound |

Table 3-6
Site-Wide Surface Water Sampling Matrix
Boeing Auburn Remedial Investigation
Auburn, Washington

Surface Water ID	Water Body	Most Recent Sample Date	VOCs 8260 (a)	VOCs 8260 SIM (b)	NA Parameters (c)
Surface Water					
SW-1	Auburn Environmental Park	6/19/2012	X	X	
SW-2	Mill Creek	6/19/2012	X	X	
SW-3	The Outlet Collection Stormwater Ponds	6/20/2012	X	X	
SW-3	The Outlet Collection Stormwater Ponds	3/24/2014	X	X	
SW-4	Chicago Avenue Ditch	6/20/2012	X	X	
SW-5	Auburn 400 South Pond	6/20/2012	X	X	
SW-6	Government Canal	6/20/2012	X	X	
SW-7	Auburn Environmental Park	6/19/2012	X	X	
SW-8	Auburn Environmental Park	6/19/2012	X	X	
SW-9	Wetland west of SR 167	6/19/2012	X	X	
SW-10	The Outlet Collection Stormwater Ponds	3/24/2014	X	X	
SW-11	Auburn 400 North Pond	6/19/2012	X	X	
SW-12	O Street Wetland	4/2/2014	X	X	
SW-14	Auburn 400 South Pond	9/23/2015	X	X	
SW-15	Auburn 400 South Pond	9/5/2014	X	X	
SW-16	Auburn 400 North Pond	9/23/2015	X	X	
SW-17	Wetland west of SR 167	9/23/2015	X	X	
SW-18	Mill Creek	9/23/2015	X	X	
SW-19	Auburn 400 North Pond	9/5/2014	X	X	
SW-20	Wetland west of SR 167	9/23/2015	X	X	
SW-21	Mill Creek	9/5/2014	X	X	
SW-22	Auburn Environmental Park	3/24/2014	X	X	
SW-23	Mill Creek	9/24/2015	X	X	
SW-24	Mill Creek	9/24/2015	X	X	
SW-25	Wetland west of SR 167	9/24/2015	X	X	
SW-26	Wetland west of SR 167	9/24/2015	X	X	
SW-CD1	Chicago Avenue Ditch	9/17/2012	X	X	
SW-CD2	Chicago Avenue Ditch	9/5/2014	X	X	
SW-CD3	Chicago Avenue Ditch	9/17/2012	X	X	
SW-CD4	Chicago Avenue Ditch	9/23/2015	X	X	
SW-CD13	Chicago Avenue Ditch	12/2/2014	X	X	X
Yard Water					
SWYP-01	RES011	1/16/2014	X	X	
SWYP-02	RES011	1/16/2014	X	X	
SWYP-03	RES010	1/16/2014	X	X	
SWYP-04	RES010	1/16/2014	X	X	
SWYP-05	RES010	1/16/2014	X	X	
SWYP-06	RES010	1/16/2014	X	X	
SWYP-07	RES025	1/16/2014	X	X	
SWYP-08	RES025	1/16/2014	X	X	
SWYP-09	RES025	1/16/2014	X	X	
SWYP-10	RES025	1/16/2014	X	X	
SWYP-11	RES026	1/16/2014	X	X	
SWYP-12	RES027	3/13/2014	X	X	

Table 3-6
Site-Wide Surface Water Sampling Matrix
Boeing Auburn Remedial Investigation
Auburn, Washington

Surface Water ID	Water Body	Most Recent Sample Date	VOCs 8260 (a)	VOCs 8260 SIM (b)	NA Parameters (c)
Roadside Ditch Water					
SWRD-01	SW of Boundary Blvd and Chicago Ave	11/25/2013	X	X	
SWRD-02	SE of Boundary Blvd and Algona Blvd	11/25/2013	X	X	
SWRD-03	NW of 11th Ave and Algona Blvd, over culvert	11/25/2013	X	X	
SWRD-04	SE of Boundary Blvd and Celery Ave	11/26/2013	X	X	
SWRD-05	SW of 11th Ave and Chicago Ave	11/25/2013	X	X	
SWRD-06	SE of Celery Ave and 11th Ave, on 11th Ave	11/25/2013	X	X	
SWRD-07	SW of 11th Ave and Algona Blvd	11/25/2013	X	X	
SWRD-08	SE of 11th Ave and Algona Blvd	11/25/2013	X	X	
SWRD-09	SE of 11th Ave and Celery Ave, on Celery Ave	11/25/2013	X	X	
SWRD-11	Along 10th Ave, between Celery Ave and Chicago Ave	11/25/2013	X	X	
SWRD-12	SE of Algona Blvd and 10th Ave	11/25/2013	X	X	
SWRD-13	SW of Algona Blvd and 10th Ave	11/25/2013	X	X	
SWRD-14	NE of 9th Ave and Celery Ave	11/25/2013	X	X	
SWRD-15	SE of 9th Ave and Celery Ave	11/25/2013	X	X	
SWRD-16	9th Ave, between Celery Ave and Algona Ave	11/25/2013	X	X	
SWRD-17	SW of 9th Ave and Algona Blvd	11/25/2013	X	X	
SWRD-18	East of Algona Blvd, between 8th Ave and 9th Ave	11/26/2013	X	X	
SWRD-21	SW of Celery Ave and 8th Ave	11/26/2013	X	X	
SWRD-22	NE of Algona Blvd and 8th Ave	11/26/2013	X	X	

Notes:

- (a) VOCs by U.S. Environmental Protection Agency (EPA) Method 8260.
- (b) EPA Method 8260 SIM.
- (c) NA parameters may include acetylene, methane, ethene, ethane by Method RSKSOP-175 Modified, sulfide by Method S-4500-S2, D-2000, sulfate by IC Method #300, total organic carbon by Method 415.1, and dissolved oxygen/oxygen reduction potential/Iron II field measurements.

1. The constituents analyzed for each surface water ID were not all necessarily analyzed at the most recent sample date.

Abbreviations/Acronyms:

- ID = identification
- NA = natural attenuation
- SIM = selected ion monitoring
- SR = State Route
- VOC = volatile organic compound

**Table 3-7
Site-Wide Air Sampling Locations
Boeing Auburn Remedial Investigation
Auburn, Washington**

Sample ID	Type of Sample	Location	Date (a)	VOCs TO-15	VOCs TO-15 SIM	VOCs TCE Radiello®
Commerical						
AA01	Ambient Air	Fana	2/28/2012		X	
AA03	Ambient Air	Prologis	2/29/2012		X	
AA04	Ambient Air	Prologis	2/29/2012		X	
AA05	Ambient Air	Fana	8/23/2012		X	
AA07	Ambient Air	YMCA/JA	7/2/2013	X		
AA025	Ambient Air	YMCA	12/17/2013	X		
AA033	Ambient Air	Building 17-70	4/20/2015	X		
AA034	Ambient Air	The Outlet Collection	4/27/2015	X		
AA035	Ambient Air	The Outlet Collection	6/4/2015	X		
AA036	Ambient Air	Los Cabos	6/8/2016	X		
IA01	Indoor Air	Fana	2/28/2012		X	
IA02	Indoor Air	Fana	2/28/2012		X	
IA08	Indoor Air	Prologis	2/29/2012		X	
IA09	Indoor Air	Prologis	2/29/2012		X	
IA10	Indoor Air	Fana	8/23/2012		X	
IA13	Indoor Air	JA	7/2/2013	X		
IA14	Indoor Air	JA	7/2/2013	X		
IA15	Indoor Air	YMCA	7/2/2013	X		
IA16	Indoor Air	YMCA	7/2/2013	X		
IA060	Indoor Air	YMCA	12/17/2013	X		
IA061	Indoor Air	YMCA	12/17/2013	X		
IA075	Indoor Air	Building 17-70	4/20/2015	X		
IA076	Indoor Air	Building 17-70	4/20/2015	X		
IA077	Indoor Air	The Outlet Collection	4/27/2015	X		
IA078	Indoor Air	The Outlet Collection	4/27/2015	X		
IA079	Indoor Air	The Outlet Collection	4/27/2015	X		
IA080	Indoor Air	The Outlet Collection	4/27/2015	X		
IA081	Indoor Air	The Outlet Collection	4/27/2015	X		
IA082	Indoor Air	The Outlet Collection	6/4/2015	X		
IA083	Indoor Air	The Outlet Collection	6/4/2015	X		
IA084	Indoor Air	The Outlet Collection	6/4/2015	X		
IA085	Indoor Air	Los Cabos	6/8/2016	X		
IA086	Indoor Air	Los Cabos	6/8/2016	X		
ASG0244	Soil Gas	Auburn ROW	3/16/2015	X		
ASG0245	Soil Gas	Auburn ROW	3/16/2015	X		
ASG0246	Soil Gas	Auburn ROW	3/16/2015	X		
ASG0247	Soil Gas	Auburn ROW	3/17/2015	X		
ASG0248	Soil Gas	Auburn ROW	3/17/2015	X		

**Table 3-7
Site-Wide Air Sampling Locations
Boeing Auburn Remedial Investigation
Auburn, Washington**

Sample ID	Type of Sample	Location	Date (a)	VOCs TO-15	VOCs TO-15 SIM	VOCs TCE Radiello®
ASG0249	Soil Gas	Auburn ROW	3/17/2015	X		
ASG0250	Soil Gas	Milwaukee Ave	3/17/2015	X		
ASG0251	Soil Gas	Milwaukee Ave	3/18/2015	X		
ASG0251R	Soil Gas	Milwaukee Ave	4/26/2015	X		
ASG0251R2	Soil Gas	Milwaukee Ave	6/25/2015	X		
ASG0252	Soil Gas	Auburn ROW	3/18/2015	X		
ASG0253	Soil Gas	Auburn ROW	3/18/2015	X		
ASG0254	Soil Gas	Milwaukee Ave	3/18/2015	X		
ASG0255	Soil Gas	Auburn ROW	4/26/2015	X		
ASG0256	Soil Gas	Auburn ROW	4/27/2015	X		
ASG0256R	Soil Gas	Auburn ROW	6/25/2015	X		
ASG0257	Soil Gas	Auburn ROW	4/27/2015	X		
ASG0258	Soil Gas	Auburn ROW	4/27/2015	X		
ASG0259	Soil Gas	Auburn ROW	4/28/2015	X		
ASG0260	Soil Gas	Auburn ROW	4/28/2015	X		
ASG0261	Soil Gas	Auburn ROW	4/28/2015	X		
ASG0261R	Soil Gas	Auburn ROW	6/26/2015	X		
ASG0262	Soil Gas	Auburn ROW	4/29/2015	X		
ASG0263	Soil Gas	Auburn ROW	4/29/2015	X		
SSV45	Soil Gas	JA	2/29/2012	X		
SSV46	Soil Gas	YMCA	2/29/2012	X		
SSV47	Soil Gas	YMCA	2/29/2012	X		
SSV48	Soil Gas	YMCA	2/29/2012	X		
SSV49	Soil Gas	Fana	8/23/2012	X		
SSV062	Soil Gas	YMCA	12/18/2013	X		
SSV069	Soil Gas	Building 17-70	4/21/2015	X		
SSV070	Soil Gas	Building 17-70	4/21/2015	X		
SSV071	Soil Gas	The Outlet Collection	4/28/2015	X		
SSV072	Soil Gas	The Outlet Collection	4/28/2015	X		
SSV073	Soil Gas	The Outlet Collection	4/28/2015	X		
SSV074	Soil Gas	Los Cabos	6/9/2016	X		
SSV075	Soil Gas	Los Cabos	6/9/2016	X		
Industrial						
AA02	Ambient Air	Building 17-07	2/29/2012		X	
AA06	Ambient Air	Building 17-07	4/8/2013	X		
IA03	Indoor Air	Building 17-07	2/29/2012		X	
IA04	Indoor Air	Building 17-07	2/29/2012		X	
IA05	Indoor Air	Building 17-07	2/29/2012		X	
IA06	Indoor Air	Building 17-07	2/29/2012		X	

**Table 3-7
Site-Wide Air Sampling Locations
Boeing Auburn Remedial Investigation
Auburn, Washington**

Sample ID	Type of Sample	Location	Date (a)	VOCs TO-15	VOCs TO-15 SIM	VOCs TCE Radiello®
IA07	Indoor Air	Building 17-07	2/29/2012		X	
IA11	Indoor Air	Building 17-07	4/8/2013	X		
IA12	Indoor Air	Building 17-07	4/8/2013	X		
SSV01	Soil Gas	Building 17-07	4/22/2011	X		
SSV02	Soil Gas	Building 17-07	4/22/2011	X		
SSV03	Soil Gas	Building 17-07	4/22/2011	X		
SSV04	Soil Gas	Building 17-07	10/6/2011	X		
SSV05	Soil Gas	Building 17-07	8/16/2011		X	
SSV07	Soil Gas	Building 17-07	10/6/2011	X		
SSV08	Soil Gas	Building 17-07	4/22/2011	X		
SSV09	Soil Gas	Building 17-07	4/22/2011	X		
SSV10	Soil Gas	Building 17-07	4/22/2011	X		
SSV11	Soil Gas	Building 17-07	4/22/2011	X		
SSV12	Soil Gas	Building 17-07	4/22/2011	X		
SSV14	Soil Gas	Building 17-07	4/22/2011	X		
SSV15	Soil Gas	Building 17-07	4/22/2011	X		
SSV17	Soil Gas	Building 17-07	10/6/2011	X		
SSV18	Soil Gas	Building 17-07	4/22/2011	X		
SSV20	Soil Gas	Building 17-07	4/22/2011	X		
SSV21	Soil Gas	Building 17-07	4/22/2011	X		
SSV22	Soil Gas	Building 17-07	10/6/2011	X		
SSV23	Soil Gas	Building 17-07	10/6/2011	X		
SSV24	Soil Gas	Building 17-07	4/22/2011	X		
SSV26	Soil Gas	Building 17-07	4/22/2011	X		
SSV27	Soil Gas	Building 17-07	10/6/2011	X		
SSV28	Soil Gas	Building 17-07	10/6/2011	X		
SSV29	Soil Gas	Building 17-07	4/22/2011	X		
SSV30	Soil Gas	Building 17-07	4/22/2011	X		
SSV31	Soil Gas	Building 17-07	4/22/2011	X		
SSV32	Soil Gas	Building 17-07	4/22/2011	X		
SSV33	Soil Gas	Building 17-07	4/22/2011	X		
SSV34	Soil Gas	Building 17-07	4/22/2011	X		
SSV35	Soil Gas	Building 17-07	4/22/2011	X		
SSV36	Soil Gas	Building 17-07	4/22/2011	X		
SSV37	Soil Gas	Building 17-07	4/22/2011	X		
SSV38	Soil Gas	Building 17-07	4/22/2011	X		
SSV39	Soil Gas	Building 17-07	4/22/2011	X		
SSV40	Soil Gas	Building 17-07	4/22/2011	X		
SSV41	Soil Gas	Building 17-07	8/16/2011		X	

**Table 3-7
Site-Wide Air Sampling Locations
Boeing Auburn Remedial Investigation
Auburn, Washington**

Sample ID	Type of Sample	Location	Date (a)	VOCs TO-15	VOCs TO-15 SIM	VOCs TCE Radiello®
SSV42	Soil Gas	Building 17-07	8/16/2011		X	
SSV43	Soil Gas	Building 17-07	8/16/2011	X		
SSV44	Soil Gas	Building 17-07	8/16/2011		X	
Residential						
AA008	Ambient Air	RES011	7/29/2013		X	
AA009	Ambient Air	RES019	8/1/2013		X	
AA010	Ambient Air	RES011	8/1/2013		X	
AA011	Ambient Air	RES005	8/6/2013	X		
AA012	Ambient Air	RES003	8/15/2013	X		
AA013	Ambient Air	RES004	8/16/2013	X		
AA014	Ambient Air	RES023	8/20/2013	X		
AA015	Ambient Air	RES016	8/23/2013	X		
AA016	Ambient Air	RES018	8/29/2013	X		
AA017	Ambient Air	RES015	9/12/2013	X		
AA018	Ambient Air	RES006	9/15/2013	X		
AA019	Ambient Air	RES012	9/26/2013	X		
AA020	Ambient Air	RES004	10/16/2013	X		
AA021	Ambient Air	RES009	9/26/2013	X		
AA022	Ambient Air	RES023	9/26/2013	X		
AA023	Ambient Air	RES010	10/1/2013	X		
AA024	Ambient Air	RES010	10/30/2013	X		
AA026	Ambient Air	RES014	1/28/2014	X		
AA027	Ambient Air	RES011	2/4/2014	X		
AA028	Ambient Air	RES019	2/21/2014	X		
AA029	Ambient Air	RES012	2/27/2014	X		
AA030	Ambient Air	RES016	3/26/2014	X		
AA031	Ambient Air	RES004	4/3/2014	X		
AA032	Ambient Air	RES004	4/11/2014	X		
AA-CD4	Ambient Air	Chicago Ave Ditch	8/11/2014	X		
AA-CD4	Ambient Air	Chicago Ave Ditch	8/26/2014	X		
AA-CD4	Ambient Air	Chicago Ave Ditch	8/27/2014	X		
OWA-CD4	Ambient Air	Chicago Ave Ditch	8/11/2014	X		
OWA-CD4	Ambient Air	Chicago Ave Ditch	8/26/2014	X		
OWA-CD4	Ambient Air	Chicago Ave Ditch	8/27/2014	X		
CSA0002-R	Indoor Air	RES005	8/26/2013			X
CSA001	Indoor Air	RES011	7/29/2013		X	
CSA002	Indoor Air	RES005	8/6/2013	X		
CSA003	Indoor Air	RES004	8/16/2013	X		X
CSA004	Indoor Air	RES016	8/23/2013	X		

**Table 3-7
Site-Wide Air Sampling Locations
Boeing Auburn Remedial Investigation
Auburn, Washington**

Sample ID	Type of Sample	Location	Date (a)	VOCs TO-15	VOCs TO-15 SIM	VOCs TCE Radiello®
CSA005	Indoor Air	RES018	8/29/2013	X		
CSA006	Indoor Air	RES015	9/12/2013	X		
CSA007	Indoor Air	RES012	9/26/2013	X		X
CSA008	Indoor Air	RES009	9/26/2013	X		X
CSA009	Indoor Air	RES004	10/16/2013	X		
CSA010	Indoor Air	RES011	2/4/2014	X		
CSA011	Indoor Air	RES012	2/27/2014	X		X
CSA011-R	Indoor Air	RES012	3/19/2014			X
CSA012	Indoor Air	RES016	3/26/2014	X		
CSA013-R	Indoor Air	RES004	4/23/2014			X
CSA014	Indoor Air	RES004	4/11/2014	X		
IA017	Indoor Air	RES011	7/29/2013		X	
IA018	Indoor Air	RES011	8/1/2013		X	
IA019	Indoor Air	RES011	8/1/2013		X	
IA020	Indoor Air	RES019	8/1/2013		X	
IA021	Indoor Air	RES019	8/1/2013		X	
IA022	Indoor Air	RES019	8/1/2013		X	
IA023	Indoor Air	RES005	8/6/2013	X		X
IA024	Indoor Air	RES005	8/6/2013	X		X
IA025	Indoor Air	RES005	8/6/2013	X		X
IA026	Indoor Air	RES003	8/15/2013	X		X
IA027	Indoor Air	RES003	8/15/2013	X		X
IA028	Indoor Air	RES003	8/15/2013	X		X
IA029	Indoor Air	RES004	8/16/2013	X		X
IA030	Indoor Air	RES004	8/16/2013	X		X
IA031	Indoor Air	RES004	8/16/2013	X		X
IA032	Indoor Air	RES023	8/20/2013	X		
IA033	Indoor Air	RES023	8/20/2013	X		
IA034	Indoor Air	RES016	8/23/2013	X		
IA035	Indoor Air	RES016	8/23/2013	X		
IA036	Indoor Air	RES018	8/29/2013	X		
IA037	Indoor Air	RES018	8/29/2013	X		
IA038	Indoor Air	RES018	8/29/2013	X		
IA039	Indoor Air	RES015	9/12/2013	X		
IA040	Indoor Air	RES015	9/12/2013	X		
IA041	Indoor Air	RES015	9/12/2013	X		
IA042	Indoor Air	RES015	9/12/2013	X		
IA043	Indoor Air	RES006	9/15/2013	X		
IA044	Indoor Air	RES006	9/15/2013	X		

**Table 3-7
Site-Wide Air Sampling Locations
Boeing Auburn Remedial Investigation
Auburn, Washington**

Sample ID	Type of Sample	Location	Date (a)	VOCs TO-15	VOCs TO-15 SIM	VOCs TCE Radiello®
IA046	Indoor Air	RES012	9/26/2013	X		X
IA047	Indoor Air	RES004	10/16/2013	X		
IA048	Indoor Air	RES004	10/16/2013	X		
IA049	Indoor Air	RES009	9/26/2013	X		X
IA050	Indoor Air	RES009	9/26/2013	X		X
IA051	Indoor Air	RES009	9/26/2013	X		X
IA052	Indoor Air	RES010	10/1/2013	X		
IA053	Indoor Air	RES010	10/1/2013	X		
IA054	Indoor Air	RES054	10/1/2013	X		
IA055	Indoor Air	RES004	10/16/2013	X		
IA056	Indoor Air	RES010	10/30/2013	X		
IA057	Indoor Air	RES010	10/30/2013	X		
IA058	Indoor Air	RES010	10/30/2013	X		
IA059	Indoor Air	RES001	10/30/2013	X		
IA062	Indoor Air	RES014	1/28/2014	X		
IA063	Indoor Air	RES011	2/4/2014	X		
IA064	Indoor Air	RES011	2/4/2014	X		
IA065	Indoor Air	RES011	2/4/2014	X		
IA066	Indoor Air	RES019	2/21/2014	X		
IA067	Indoor Air	RES019	2/21/2014	X		
IA068	Indoor Air	RES019	2/21/2014	X		
IA069	Indoor Air	RES012	2/27/2014	X		X
IA070	Indoor Air	RES016	3/26/2014	X		
IA071	Indoor Air	RES016	3/26/2014	X		
IA072	Indoor Air	RES004	4/3/2014	X		X
IA073	Indoor Air	RES004	4/3/2014	X		X
IA074	Indoor Air	RES004	4/3/2014	X		X
SSV050	Soil Gas	RES003	8/13/2013	X		
SSV051	Soil Gas	RES003	8/13/2013	X		
SSV052	Soil Gas	RES004	8/13/2013	X		
SSV053	Soil Gas	RES023	8/21/2013	X		
SSV054	Soil Gas	RES021	8/27/2013	X		
SSV055	Soil Gas	RES021	8/27/2013	X		
SSV056	Soil Gas	RES018	8/30/2013	X		
SSV057	Soil Gas	RES006	9/15/2013	X		
SSV058	Soil Gas	RES012	9/24/2013	X		
SSV059	Soil Gas	RES004	10/16/2013	X		
SSV060	Soil Gas	RES010	10/17/2013	X		
SSV061	Soil Gas	RES010	10/30/2013	X		

Table 3-7
Site-Wide Air Sampling Locations
Boeing Auburn Remedial Investigation
Auburn, Washington

Sample ID	Type of Sample	Location	Date (a)	VOCs TO-15	VOCs TO-15 SIM	VOCs TCE Radiello®
SSV063	Soil Gas	RES014	1/29/2014	X		
SSV064	Soil Gas	RES014	1/29/2014	X		
SSV065	Soil Gas	RES012	2/25/2014	X		
SSV065	Soil Gas	RES012	2/28/2014			
SSV066	Soil Gas	RES021	3/7/2014	X		
SSV067	Soil Gas	RES021	3/7/2014	X		
SSV068	Soil Gas	RES004	4/1/2014	X		

Note:

(a) Date indicates when the sampler was installed.

Abbreviations/Acronyms:

Ave = avenue
ID = identification
JA = Junior Achievement
ROW = right-of-way
SIM = selected ion monitoring
TCE = trichloroethene
VOC = volatile organic compound
YMCA = Young Men's Christian Association